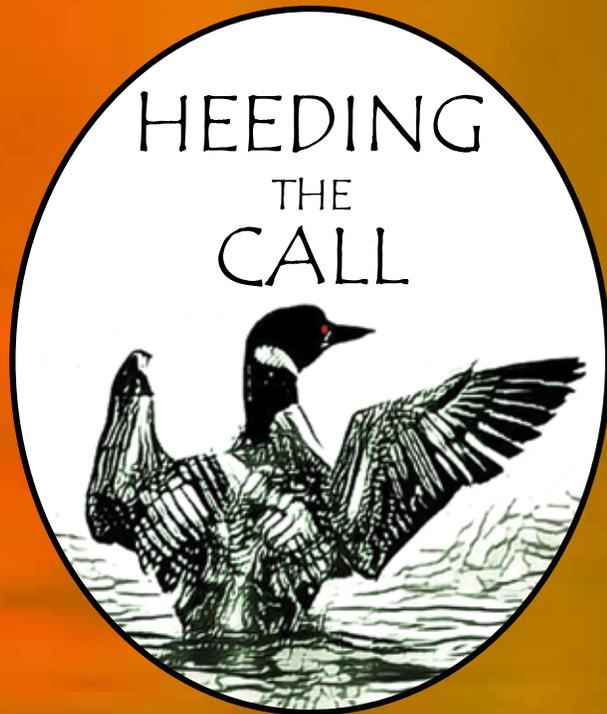


# 2018 Agenda

*Water Action Volunteers Symposium and  
40th Annual Wisconsin Lakes Partnership Convention*

**April 18-20  
Stevens Point**



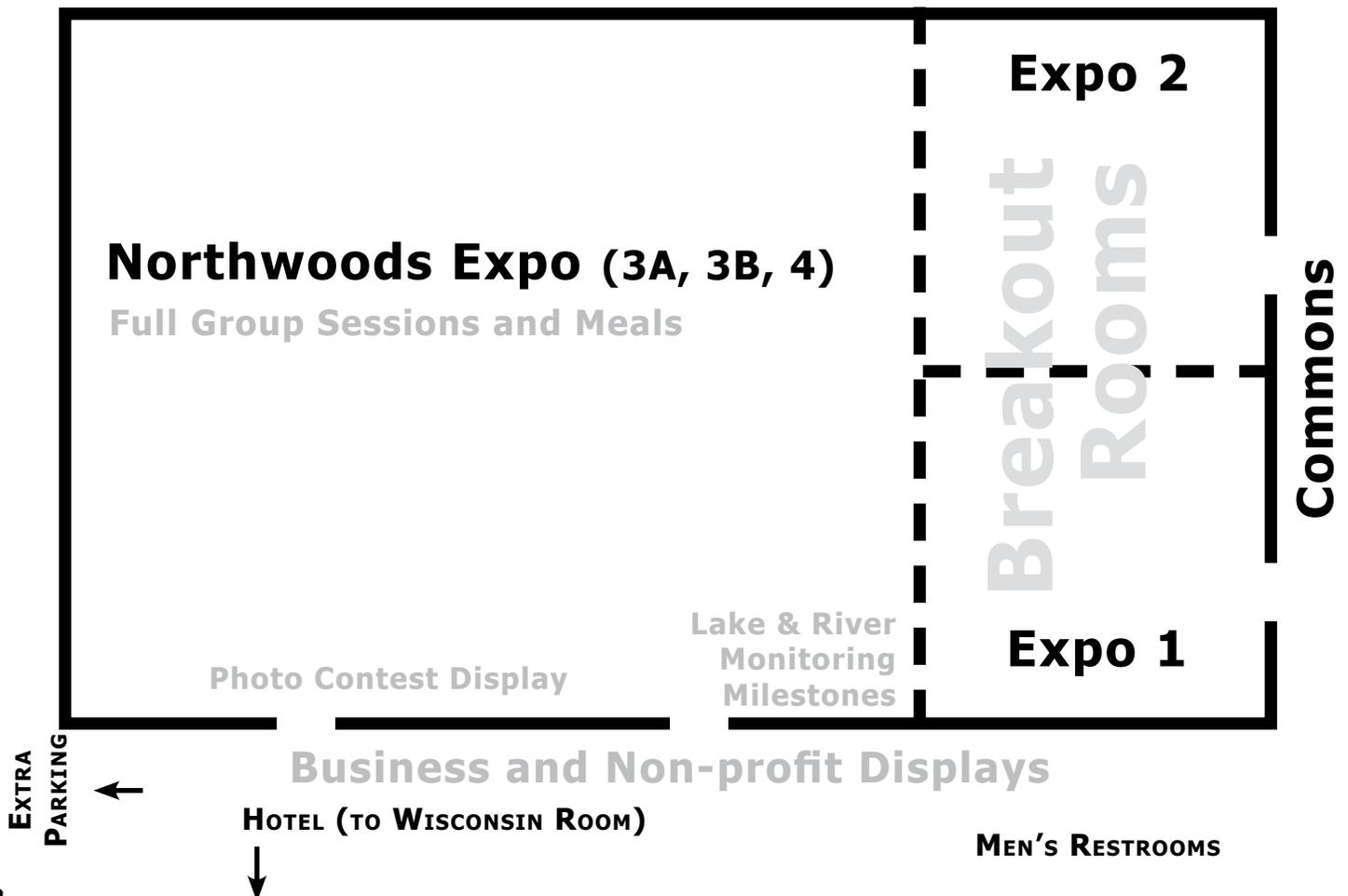
Wisconsin  
Lakes  
Partnership

# Welcome



## to the Water Action Volunteers Symposium and 40<sup>th</sup> Annual Wisconsin Lakes Partnership Convention

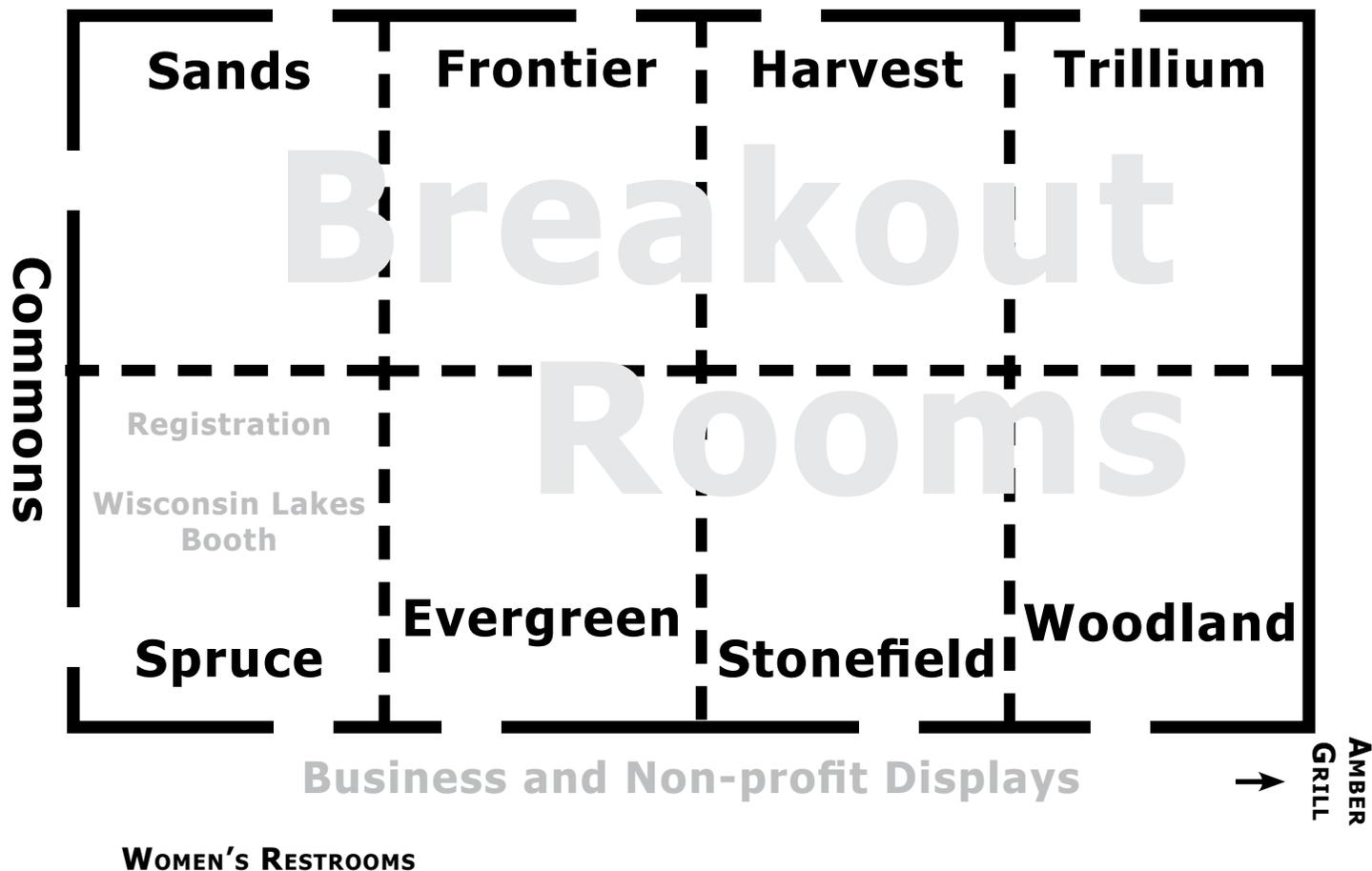
There is a strange, almost primeval sense of reassurance that accompanies the sound of loons on a Wisconsin lake. Like the call of cranes, this annual migrant reminds us that the lakes and rivers have been here a very, very long time. Our waterways may not have looked exactly as they do today, and the landscape around them has shifted many times, but the ancient loon wail is so intertwined with the presence of water that it's impossible to imagine one without the other. We hope you get a similar feeling when you join us each year at this gathering. This convention has been happening for some time now, but it doesn't exist without you, and you belong. You are the chorus that makes this worthwhile. We can identify your sounds: the tremolo calls around the coffee dispensers, the hooting as people scramble to find their meeting room, the passionate yodeling of an educator, and finally the howling wails at the end of the night brought forth by just enough beverages and the presence of friends. We are excited that we've found each other again. We hope you will continue to develop your relationship with and understanding of lakes, rivers, wetlands, and watersheds. We know that you'll find something new and useful to take back to your nesting lake. We ask for your questions, your engagement, and your contributions to the water conversation. We are again presenting this convention in conjunction with our stream monitoring friends, the Water Action Volunteers, and we are uniquely offering a chance to learn more about ecological restoration by co-planning our event with the Midwest-Great Lakes Chapter of the Society for Ecological Restoration (SER). We will all be coming together for a great joint luncheon on Friday, and you will have opportunities to drop in on the SER sessions Friday afternoon. Thank you all for making this such a remarkable event!





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# Wednesday Agenda

April 18, 2018

Registration Open  
8:00 AM-5:00 PM  
Spruce

## Morning Workshops - Pre-registration Required

Room →	Expo 2	Sands	Harvest	Wisconsin
9:00 AM-12:00 PM	<b>Lake District Commissioner Training - Beginner</b> <i>Patrick Nehring</i> <i>William O'Connor</i> <i>Mary Beth Peranteau</i>	<b>Citizen Lake Monitoring Network Refresher</b> <i>Steve Greb</i> <i>Katie Hein</i> <i>Rachel Sabre</i> <i>Kris Larsen</i> <i>Sandy Wickman</i>	<b>Aquatic Plant Ecology &amp; Identification</b> <i>Susan Knight</i> <i>Michelle Nault</i> <i>Paul Skavinski</i>	<b>Building Websites for Lake Organizations</b> <i>Ken Justiniano</i> <i>Current Network Members</i>
10:15-10:45 AM	<b>Refreshment Break in Commons</b>			
12:00-1:30 PM	Lunch on your own (or pre-registered lunch in Northwoods Expo)			

## Afternoon Workshops - Pre-registration Required

Room →	Off-site	Expo 2	Sands	Harvest
1:30-4:30 PM	<b>Wild Rose State Fish Hatchery Tour</b> <i>Joan Voigt</i>	<b>Lake District Advanced Topic - Dams</b> <i>William O'Connor</i> <i>Mary Beth Peranteau</i>	<b>Blue-green Algae in WI: Identification, Potential Health Effects, &amp; Determination of Safe Levels for Recreation</b> <i>Gina LaLiberte</i>	<b>Water Action Volunteers (WAV) Macroinvertebrate Identification: A Deeper Dive</b> <i>Tom Wilda</i> <i>Jeremy Williamson</i>
3:00-3:30 PM	<b>Refreshment Break in Commons</b>			

## All Day Workshops

Room →	Expo 1	Off-site	Off-site
9:00 AM-12:00 PM	<b>Capacity Building for Lake Organizations</b> <i>Eric Olson</i> <i>Aaron Thompson</i> <i>Buzz Sorge</i> <i>Mike Engleson</i>	<b>Focusing on Healthy Lakes: Breakouts &amp; Fieldwork</b> <i>Patrick Goggin</i> <i>Pamela Toshner</i>	<b>Water Action Volunteers (WAV) Basic Training</b> <i>Peggy Compton</i>
12:00-1:30 PM	Lunch on your own (or pre-registered lunch in Northwoods Expo)		
1:30-4:30 PM			

# Thurs/Fri Mornings

6:30-7:15 AM

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  
Commons

April 18, 2018

## Morning Workshops - Pre-registration Required

Room →	Evergreen	Stonefield	Woodland
9:00 AM-12:00 PM	<b>The Art &amp; Science of Volunteer Coordination</b> <i>Michelle Miller</i>	<b>SWIMS &amp; Lakes/AIS Viewer</b> <i>Dennis Wiese</i> <i>Jacob Dickmann</i>	<b>Shoreland &amp; Floodplain Management and Community Action</b> <i>Lynn Markham</i> <i>Kay Lutze</i> <i>Dale Rezapbek</i> <i>Michelle Staff</i>
10:15-10:45 AM	<b>Refreshment Break in Commons</b>		
12:00-1:30 PM	Lunch on your own (or pre-registered lunch in Northwoods Expo)		

## Afternoon Workshops - Pre-registration Required

Room →	Evergreen	Stonefield	Frontier
1:30-4:30 PM	<b>Lake District Treasurer Training</b> <i>Bo DeDeker</i>	<b>An Introduction to Lake Eutrophication Modeling</b> <i>Paul McGinley</i>	<b>Loon Ranger</b> <i>Erica LeMoine</i>
3:00-3:30 PM	<b>Refreshment Break in Commons</b>		

## Special Technical Sessions

Room →	Expo 1	Expo 2
4:45-5:45 PM	<b>Updates to Wisconsin's Waterway &amp; Wetland Regulations</b> <i>Amanda Minks</i>	<b>When "Stop Aquatic Hitchhikers" Isn't Enough: Wisconsin's DNR Boat, Gear and Equipment Decontamination &amp; Disinfection Manual Code</b> <i>Maureen Ferry</i>
5:45-7:30 PM	<b>Networking Time</b> (dinner on your own)	
7:30-11:00 PM	<b>Wisconsin Lakes Partnership &amp; WAV Symposium Welcome Reception</b> Woodland Room and Amber Grill	

### Heed Your Own Call & Navigate the Convention Streams

*Your convention includes blocks of concurrent sessions arranged by the following topics, which we call "Streams." Heed the call and follow one Stream as it flows through the convention or "Stream jump" to catch a little of everything.*

#### Thursday and Friday Streams

- Research
- Ecology
- Watershed Connections/Water Quality
- People, Policy & Politics
- Aquatic Invasive Species
- Restoration





# Thursday Agenda

Morning Yoga  
6:30-7:15 AM  
Wisconsin Room



April 19, 2018

Registration Open  
7:30 AM-5:00 PM  
Spruce

## Concurrent Sessions

Room Stream →	Expo 1 Research	Expo 2 Ecology	Evergreen Watersheds & Water Quality
8:00-8:50 AM	<b>Wisconsin's Acid-sensitive Lakes 30 Years After Acid Rain Legislation</b> <i>Steven Greb</i>  <b>A Snapshot of Lake Health Across Wisconsin</b> <i>Katie Hein</i> <i>Ali Mikulyuk</i>  page 12	<b>Reconnecting Rivers Through Culvert Replacement or Removal</b> <i>Laura MacFarland</i>  page 12	<b>What is the Water Telling Us about the Land?</b> <i>Paul McGinley</i>  page 12
9:00-10:45 AM	<b>Kickoff Plenary Session - Northwoods Expo ~ LoonWatch Panel</b> Panel Speakers ~ <i>Erica LeMoine, Mike Meyer, Terry Daulton and Gary Zimmer</i> page 14		
11:00 AM-12:00 PM	<b>Blue-green Algae Toxins</b> <i>Gina LaLiberte</i> <i>Amanda Koch</i>  page 15	<b>Modeling Cisco Stress Across Midwest Lakes</b> <i>Madeline Magee</i>  <b>Upper Mississippi River Restoration</b> <i>Jeff Janvrin</i>  page 15	<b>Making a More Functional Landscape</b> <i>Carolyn Scholl</i>  page 15
12:15-1:30 PM	<b>Lunch in Northwoods Expo ~ Carroll Schaal, Wisconsin DNR</b> page 17		
1:45-2:25 PM	<b>Long-term Changes in Water Quality Across the Upper Midwest and NE U.S.: How Does Wisconsin Stack Up?</b> <i>Samantha Oliver</i>  page 18	<b>WDNR Fish Stocking Program Review: Practices, Procedures &amp; Policies</b> <i>Benjamin Heussner</i>  page 18	<b>Can Improving Soil Health Improve Your Lake?</b> <i>Kevin Erb</i> <i>Justin Morris</i>  page 18
2:35-3:15 PM	<b>Ten Years of Lakeshore Restoration in the Northern Highlands: Lessons Learned</b> <i>Mike Meyer</i>  page 20	<b>Improving Panfish Fishing in Wisconsin: A 10-year Strategic Plan for Managing Wisconsin's Panfish</b> <i>John Kubisiak</i> <i>Max Wolter</i>  <b>Lac du Flambeau Tribal Natural Resource Dept.</b> <i>Larry Wawronowicz</i>  page 20	<b>Elkhart Lake Phosphorus-reducing Water Quality Project</b> <i>Emily Stewart</i> <i>Eric Feblhaber</i>  <b>Watershed Approach to Wetland Restoration</b> <i>Nicholas Miller</i> <i>Joanne Kline</i> <i>Thomas Bernthal</i>  page 21
3:30-4:30 PM	<b>County-wide Roundtable Discussion (Stonefield/Woodland Room)</b> page 24		
3:30-5:00 PM	<b>Poster Session in Commons</b> <i>Stretch/Chair Yoga (3:30-3:45 in Northwoods Expo) ~ Refreshment Break (3:15-3:45 in Commons)</i> page 23		
5:00-6:00 PM	<b>Networking Time/Water Action Volunteers Overview &amp; Refresher (Evergreen Rm)</b> page 24		
5:30-8:00 PM	<b>Wisconsin Lake Stewardship Banquet &amp; Awards Ceremony - Northwoods Expo</b> <b>5:30 PM Socializing/Networking ~ 6:00 PM Banquet Dinner ~ awards to follow</b> page 25		
8:00-10:00 PM	<b>Making Waves: Battle for the Great Lakes ~ Movie Premiere - Northwoods Expo</b> page 25		

# Thursday Agenda



Exhibits Open  
8:00 AM-6:00 PM  
Commons

April 19, 2018

## Concurrent Sessions

Room Stream →	Stonefield/Woodland People, Policy & Politics	Sands/Frontier Aquatic Invasive Species	Harvest/Trillium Restoration
8:00-8:50 AM	<b>Coming of Age: Transitioning from Lake Organization Formation to Building Capacity in Existing Organizations</b> <i>Mike Engleson Eric Olson</i> page 13	<b>Finding &amp; Stopping the Next Invaders</b> <i>Maureen Ferry</i> <b>Waterfowl Hunter AIS Outreach Campaign 2017</b> <i>Jeanne Scherer Chris Hamerla Samantha Olsen</i> page 13	<b>Improving Lake Water Quality with Alum: The Wisconsin Experience</b> <i>Paul Garrison Tim Hoyman</i> page 13
9:00-10:45 AM	<b>Kickoff Plenary Session - Northwoods Expo ~ LoonWatch Panel</b> Panel Speakers ~ <i>Erica LeMoine, Mike Meyer, Terry Daulton and Gary Zimmer</i> page 14		
11:00 AM- 12:00 PM	<b>Developing Science- based Knowledge, Communication, &amp; Action on a Countywide Scale</b> <i>Nancy Turyk Dale Mohr Brenda Nordin</i> page 16	<b>Tracing the Movement of Starry Stonewort &amp; Update on Bulbil Viability Studies</b> <i>Robin Sleith Kenneth Karol</i> <b>Starry Stonewort Management in Wisconsin</b> <i>Bradley Steckart Heidi Bunk</i> page 16	<b>Restoration of Shallow Lakes: A Primer, Learning from Several Case Histories</b> <i>Paul Cunningham</i> page 16
12:15-1:30 PM	<b>Lunch in Northwoods Expo ~ Carroll Schaal, Wisconsin DNR</b> page 17		
1:45-2:25 PM	<b>Open Networks in Environmental Initiatives</b> <i>Dale Mohr</i> page 19	<b>Eurasian Watermilfoil: The Plant We Love to Hate</b> <i>Carroll Schaal</i> page 19	<b>Working Together, Working with Many &amp; Making a Difference</b> <i>Tom Koepf</i> page 19
2:35-3:15 PM	<b>Building Relational Capacity: Ideas from Lake Leaders</b> <i>Eric Olson</i> page 21	<b>An Update on Aquatic Plant Management Policy Development in Wisconsin</b> <i>Carroll Schaal Chelsey Blanke</i> <b>AIS Statewide Strategic Plan</b> <i>Tim Campbell</i> page 22	<b>The Central Area Restoration Effort for Sustainability</b> <i>Thomas Lager</i> <b>Fishery Woes? Try Increasing Woody Habitat</b> <i>Eric Edwards</i> page 22
3:30-4:30 PM	<b>County-wide Roundtable Discussion (Stonefield/Woodland Room)</b> page 24		
3:30-5:00 PM	<b>Poster Session in Commons</b> <i>Stretch/ Chair Yoga (3:30-3:45 in Northwoods Expo) ~ Refreshment Break (3:15-3:45 in Commons)</i> page 23		
5:00-6:00 PM	<b>Networking Time/Water Action Volunteers Overview &amp; Refresher (Evergreen Rm)</b> page 24		
5:30-8:00 PM	<b>Wisconsin Lake Stewardship Banquet &amp; Awards Ceremony - Northwoods Expo</b> <b>5:30 PM Socializing/Networking ~ 6:00 PM Banquet Dinner ~ awards to follow</b> page 25		
8:00-10:00 PM	<b>Making Waves: Battle for the Great Lakes ~ Movie Premiere - Northwoods Expo</b> page 25		



# Friday Morning Agenda

Morning Yoga  
6:30-7:15 AM  
Wisconsin Room 

April 20, 2018

Registration Open  
7:30 AM-1:30 PM  
Spruce

## Concurrent Sessions

Room Stream →	Expo 1 Research	Expo 2 Ecology	Evergreen Watersheds & Water Quality
8:00-9:00 AM	<p><b>Citizen-based Monitoring: Studying Wildlife On &amp; Around Our Lakes</b> <i>Eva Levandowski</i></p> <p><b>Trout Unlimited &amp; the Central Sand Hills Ecoregion Habitat Success</b> <i>Thomas Lager</i></p> <p style="text-align: right;">page 26</p>	<p><b>A Frog Was in My Boot This Morning</b> <i>Gary Casper</i></p> <p><b>Bobcat Ecology in Northern Wisconsin</b> <i>Catherine Dennison</i></p> <p style="text-align: right;">page 26</p>	<p><b>Strengthening Partnerships for Watershed Health</b> <i>Ken Genskow</i></p> <p><b>Fox Demo Farms: Executing a Comprehensive Outreach Plan</b> <i>Whitney Passint</i></p> <p style="text-align: right;">page 27</p>
9:15-10:15 AM	<p><b>Citizen Scientists Turning Data into Decisions</b> <i>Nancy Sheehan</i></p> <p><b>Volunteer Monitoring of Emerging Contaminants in the Milwaukee River Basin</b> <i>Zac Driscoll</i></p> <p style="text-align: right;">page 29</p>	<p><b>Bats of Wisconsin</b> <i>Paul White</i></p> <p style="text-align: right;">page 29</p>	<p><b>Development of Dodge County Farmers for Healthy Soils &amp; Healthy Water</b> <i>Robert Bird</i> <i>John Bobonek</i></p> <p><b>Superior River Watershed Association</b> <i>Mariana Brewster-Brown</i></p> <p><b>Leveraging Green Lake Partnerships</b> <i>Charlie Marks</i></p> <p style="text-align: right;">page 30</p>
10:15-10:35 AM	<b>Refreshment Break in Commons</b>		
10:45-11:35 AM	<p><b>Waters at Risk: Citizen Action, Public Health, &amp; Science Combine to Confront the Glacial Pace of Meaningful Changes in a Central Sands County</b> <i>Pete Arntsen</i> <i>Ray Reyer</i> <i>Anne Abbott</i></p> <p><b>Sources and Fates of Nitrate, Phosphorus, E. Coli &amp; Chloride that Impair the Kewaunee, Ahnapee &amp; E. Twin River Watersheds</b> <i>Gerald Pellett</i></p> <p style="text-align: right;">page 32</p>	<p><b>Recovery of Bald Eagles &amp; Osprey in Wisconsin</b> <i>Jim Woodford</i></p> <p><b>Trumpeter Swan Population Recovery</b> <i>Summer Matteson</i></p> <p style="text-align: right;">page 33</p>	<p><b>Round Table Talks:</b></p> <p><b>Developing Outreach Strategies</b> <i>Whitney Passint</i></p> <p><b>Bringing Partners Together: Finding Common Ground</b> <i>Robert Bird</i> <i>John Bobonek</i></p> <p><b>Using Citizen Data for Management &amp; Decision Making</b> <i>Tony Janisch</i></p> <p><b>Green Lake Association: Finding &amp; Leveraging Funds to Meet Your Project Goals</b> <i>Charlie Marks</i></p> <p style="text-align: right;">page 33</p>
11:45 AM - 1:15 PM	<p><b>Luncheon Plenary Session - Northwoods Expo</b> <b>Past and Future Change in the Yahara Watershed:</b> <b>An Ecological Experiment Using Scenarios</b></p> <p>Water Action Volunteers (WAV) Awards ~ Luncheon Keynote Speaker ~ <i>Steve Carpenter</i></p> <p style="text-align: right;">page 35</p>		

# Friday Morning Agenda



Exhibits Open  
8:00 AM-Noon  
Commons

April 20, 2018

## Concurrent Sessions

Room Stream →	Stonefield/Woodland People, Policy & Politics	Sands/Frontier Aquatic Invasive Species	Harvest/Trillium Restoration
8:00-9:00 AM	<b>Annual Lake Policy Update</b> <i>Mike Engleson</i>  page 27	<b>When Zebra Mussels Came to the NW Counties</b> <i>Cathie Erickson</i> <i>Lisa Burns</i> <i>Pamela Toshner</i>  <b>Response Actions Following the Discovery of Non-native Round Gobies in Little Lake Butte des Morts</b> <i>Michelle Nault</i>  page 28	<b>A Changing Climate in the Lake Superior Basin</b> <i>Tony Janisch</i>  page 28
9:15-10:15 AM	<b>Panel Discussion: Use &amp; Effectiveness of Countywide or Watershed Level Economic Studies</b> <i>Moderator: Mike Engleson</i>  page 30	<b>AIS Prevention &amp; Clean Boats, Clean Waters in Vilas County</b> <i>Cathy Higley</i> <i>Emily Harrington</i>  <b>Detecting Invasive Species Through a Two-state Coordinated AIS Snapshot Day</b> <i>Maureen Ferry</i> <i>Paul Skawinski</i>  page 31	<b>Great Lakes Restoration Blitz: Snapshots of Success</b> <i>Amy Kretlow</i>  page 31
10:15-10:35 AM	<b>Refreshment Break in Commons</b>		
10:45-11:35 AM	<b>Shoreland Management</b> <i>Lynn Markham</i> <i>Kay Lutz</i>  page 33	<b>Removal of Phragmites &amp; Restoration with Native Plants at UW-Stevens Point</b> <i>Paul Skawinski</i>  <b>Restoring the Ecological Landscapes of “High Profile” AIS Sites in Oneida County</b> <i>Stephanie Boismenu</i> <i>Thomas Boisvert</i>  page 34	<b>Healthy Lakes with an Emphasis on Native Plantings</b> <i>Pamela Toshner</i> <i>Patrick Goggin</i> <i>Nick Homan</i>  page 34
11:45 AM - 1:15 PM	<b>Luncheon Plenary Session - Northwoods Expo</b> <b>Past and Future Change in the Yahara Watershed:</b> <b>An Ecological Experiment Using Scenarios</b>  Water Action Volunteers (WAV) Awards ~ Luncheon Keynote Speaker ~ <i>Steve Carpenter</i>		
			page 35



# Friday Afternoon Agenda

April 20, 2018

11:45 AM - 1:15 PM	<b>Luncheon Plenary Session - Northwoods Expo</b> <b>Past and Future Change in the Yahara Watershed:</b> <b>An Ecological Experiment Using Scenarios</b> Water Action Volunteers (WAV) Awards ~ Luncheon Keynote Speaker ~ <i>Steve Carpenter</i> <span style="float: right;">page 35</span>	
<b>Afternoon Concurrent Sessions</b>		
<b>Room</b> Stream →	<b>Evergreen</b> Watersheds & Water Quality	<b>Harvest/Trillium</b> Restoration
1:30-2:30 PM	<b>Silver Creek Pilot Watershed Project at NEW Water</b> <i>Jeff Smudde</i> <span style="float: right;">page 36</span>	<b>Rough Fish Management &amp; Wild Rice Restoration</b> <i>Tony Harranek</i> <i>Cody Mattison</i> <span style="float: right;">page 36</span>
2:30-3:00 PM	<b>Refreshment Break in Commons</b>	
3:00-4:00 PM	<b>Stormwater Infrastructure Mapping for the Lake Nagawicka Watershed</b> <i>Alan Barrows</i> <span style="float: right;">page 37</span>	<b>How You Can Help Pollinators</b> <i>Jay Watson</i> <b>Managing Pollinators on an Organic Cranberry Marsh</b> <i>John Stauner</i> <span style="float: right;">page 37</span>

*The Wisconsin Lakes Partnership Convention and WAV Symposium conclude at 4:00 PM on Friday, April 20, 2018.*

## Restoration Through Collaboration

The Wisconsin Lakes Partnership is all about collaboration. To be most effective we need to be aware of additional organizations that we can and should be working with. The Midwest-Great Lakes Chapter of the Society for Ecological Restoration (SER) is a terrific example of a group that lake lovers should know more about. Their mission is to promote the science and practice of ecological restoration to assist with the recovery and management of degraded ecosystems throughout the Midwestern and Great Lakes region of the United States. The Chapter was formed in 2008 and covers Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio and Wisconsin. Their membership is largely made up of scientists and practitioners who carry out the complicated and evolving work of improving landscape health.



The art and science of ecological restoration has deep Wisconsin roots. Aldo Leopold is often cited as the forefather of restoration. His efforts to systematically bring back prairie and savanna conditions at the UW-Madison Arboretum, as well as his famous toilings at “The Shack,” represent some of the best documented early attempts at healing an ecosystem. The spirit of Leopold is evident in Wisconsin every spring as professionals carry out prescribed burns of prairies and savannas. It is also evident when a lakeshore owner carefully nurtures a native garden as part of a restoration effort, or volunteers with neighbors to remove invasive species.

We are excited to be joined by the Midwest-Great Lakes Chapter of the Society for Ecological Restoration on the Friday of our 2018 Convention. Their presenters will give us all new perspectives on caring for lakes and watersheds. If you are passionate about restoration, you should consider sticking around for the weekend, as the chapter meeting will provide additional workshops and sessions, as well as tours and hands-on restoration projects on Sunday. The chapter is making it more cost effective for you to participate over the weekend by giving Lakes Convention attendees “member” registration rates without requiring membership dues. Ask at the convention registration area for more information.



# Wed. Technical Sessions

4:45-5:45 PM

## 4:45-5:45 PM – Expo 1 Room

### Updates to Wisconsin’s Waterway and Wetland Regulations

This session will provide an update on state waterway and wetland regulations. Topics that will be discussed include dredging, shoreline erosion control, and improvements to Wisconsin’s wetland indicator layer, among other things. This session will also provide an opportunity to ask questions related to state waterway and wetland permitting.

*Presenter: Amanda Minks, Water Regulations and Zoning Specialist, Wisconsin DNR*

## 4:45-5:45 PM – Expo 2 Room

### When “Stop Aquatic Hitchhikers” Isn’t Enough: Wisconsin DNR’s Boat, Gear and Equipment Decontamination and Disinfection Manual Code

Clean Boats, Clean Waters watercraft inspection survey results indicate that 77% of boaters clean equipment using these standard steps: Inspect, Remove, Drain, and Never Move. While these methods may be sufficient for the general public, water programs in the Wisconsin Department of Natural Resources follow a more rigorous protocol: the Boat, Gear, and Equipment Decontamination and Disinfection Manual Code. These procedures were recently revised to be more effective for all aquatic invasive species and also to apply to Department agents, which could include grant sponsors, contractors, and some permittees. This presentation will describe the Code’s requirements and applicability with time for questions.

*Presenter: Maureen Ferry, Statewide Aquatic Invasive Species Monitoring Coordinator, Wisconsin DNR*

# Wednesday Evening

7:30-11:00 PM

## Wednesday, 7:30-11:00 PM - Woodland Room

### Lakes Partnership and WAV Symposium Welcome Reception

You are invited to the 2018 Wisconsin Lakes Partnership Convention and Water Action Volunteers Symposium 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 water 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 Leaders Institute - and trust us, you will want to know what they’ve been up to! So stop down and join the conversation.

*(Included as part of your Thursday registration.)*

*Sponsored by:*



*You’re invited!*



# Thursday Sessions

8:00-8:50 AM

## 8:00-8:50 AM — Expo 1 Room - Research

### **Decades of Findings** (Two 25-minute presentations)

#### **Wisconsin's Acid-sensitive Lakes 30 Years After Acid Rain Legislation**

Acid rain is caused primarily by emissions of sulfur dioxide and nitrogen oxides, mostly from coal-fired power plants and pulp and paper mills. In 1986, Wisconsin passed Act 296, limiting emissions of nitrogen oxides and sulfur dioxide. During this same time, a number of Wisconsin lakes were sampled to examine the extent of acid-sensitive lakes and evaluate their response to emission reductions over time. Much of this work ended in the 1990s. In the fall of 2016, 18 of these original lakes were re-sampled to examine how they have changed over the past 30 years. The recent sampling has shown that these lakes have responded favorably with decreases in sulfate concentrations and increased buffering capacity. Additional unforeseen water chemistry changes have also occurred, particularly increases in dissolved organic carbon.

*Presenter: Steven Greb, Research Scientist, Wisconsin DNR*

#### **A Snapshot of Lake Health Across Wisconsin**

In 2017, Wisconsin DNR participated in the National Lakes Assessment, a survey of lake health across the entire United States. Fifty-two lakes in Wisconsin were randomly selected. From water chemistry to aquatic plants to shoreline habitat, everything was surveyed. The selected lakes provide an opportunity to inventory our state's smallest and most remote lakes in addition to large lakes, which are more heavily influenced by humans. Get a sneak peek on the survey results and a flavor of the variety of Wisconsin's lakes.

*Presenters: Katie Hein, Lake Monitoring Leader, Wisconsin DNR and Ali Mikulyuk, Lakes and Rivers Team Lead, Wisconsin DNR*

## 8:00-8:50 AM — Expo 2 Room - Ecology

### **Reconnecting Rivers Through Culvert Replacement or Removal**

A majority of Wisconsin's 115 fish species, including trout, need to move throughout a watershed seasonally or at varying stages in their lifecycle to feed, find cooler water, avoid predators, and reach spawning habitat. Rivers, long and linear in nature, are vulnerable to habitat fragmentation thanks, in part, to our immense network of roads. All too common, where black lines and blue lines meet on a map, aquatic habitat is severed or fragmented which prevents fish and other aquatic organisms to move freely. Trout Unlimited staff and volunteers are working to restore connectivity within our trout streams through the replacement or removal of inadequate or damaged culverts. While improving the fishing, our efforts will also prevent road failures, a catastrophic scenario which poses great risk to human life and the health of our rivers.

*Presenter: Laura MacFarland, Great Lakes Stream Restoration Manager, Trout Unlimited*

## 8:00-8:50 AM — Evergreen Room - Watershed Connections and Water Quality

### **Understanding Watersheds: What is the Water Telling Us About the Land?**

This session will explore what the water in our lakes and our streams tells us about our land. In Wisconsin, the land "makes" water as the precipitation that falls on the land becomes the flow in our streams and the water in our lakes. Our streams "integrate" the water that falls on different parts of our land at different times. Finally, our lakes "store" water, sometimes for years, when the rate of water entering is small compared to the size of the lake. And that's just the beginning. Because the composition of the water changes dramatically as precipitation works its way through our land, the land will also control the quality of the water moving into our streams and lakes. The result is a fascinating story but a complex task as we try to figure out what our water is telling us about the land.

*Presenter: Paul McGinley, Water Quality Specialist, UW-Extension*

# Thursday Sessions, cont.



8:00-8:50 AM

8:00-8:50 AM — Stonefield/Woodland Room - People, Policy and Politics

## **Coming of Age: Transitioning from Lake Organization Formation to Building Capacity in Existing Organizations**

Lake organizations have long been the linchpin of the Wisconsin Lakes Partnership. They often serve as the primary local institution that brings together dozens, even hundreds of individual lakeshore property owners and other lake lovers to collaborate on lake management challenges. Over several decades, certain characteristics and practices have emerged that enable lake organizations to carry out their work more effectively and efficiently. UW Extension Lakes and Wisconsin Lakes are now engaging with all lake organizations across the state to share these practices and spur local leaders to review how their groups operate and consider what they might do in order to increase their capacity. This session will review the “mental model” that informs our lake organization capacity strategy and share examples of best practices that have come from Wisconsin lake leaders.

*Presenters: Mike Engleson, Director, Wisconsin Lakes and Eric Olson, Director, UW-Extension Lakes*

8:00-8:50 AM — Sands/Frontier Room - Aquatic Invasive Species

## **General Aquatic Invasive Species (AIS)** (Two 25 minute presentations)

### **Finding and Stopping the Next Invaders**

For more than a decade, Wisconsin’s aquatic invasive species (AIS) monitoring program has been building a strong network of staff, volunteers and partners. Our 5-year AIS monitoring effort found that the rate of spread has not changed and that many AIS are established. While we are refining management techniques for some established species, like Eurasian watermilfoil, preventing the spread of AIS and early detection remains important. Chapter NR 40 is just one tool to help stop the introduction of species that are not established in Wisconsin. We are also developing ways to monitor the various pathways AIS might take into Wisconsin. After these pathways are identified, targeted monitoring of the most vulnerable locations is vital.

*Presenter: Maureen Ferry, Statewide Aquatic Invasive Species Monitoring Coordinator, Wisconsin DNR*

### **Waterfowl Hunter AIS Outreach Campaign 2017**

The Clean Boats, Clean Waters (CBCW) program, Wisconsin DNR Water Guards, UW-Extension, and members of Wisconsin’s Aquatic Invasive Species (AIS) Partnership are slowing the spread of AIS in Wisconsin. September 2017 marked the second season of the Waterfowl Hunter AIS Campaign. Approximately 800 waterfowl hunters were contacted directly and thousands were reached through media. Many hunters realize the importance of stopping AIS but are still learning how they can play a role. Communication tools are now available to anyone who would like to expand their outreach in 2018.

*Presenters: Jeanne Scherer, AIS Outreach and Monitoring Specialist, UW-Extension/Wisconsin DNR, Chris Hamerla, Regional Aquatic Invasive Species Coordinator, Golden Sands Resource Conservation & Development Council, Inc. and Samantha Olsen, Natural Resource Specialist, Wisconsin DNR*

8:00-8:50 AM — Harvest/Trillium Room - Restoration

## **Improving Lake Water Quality with Alum: The Wisconsin Experience**

Internal cycling of phosphorus occurs in all lakes; however, in some, the amount of phosphorus being released from bottom sediments can fuel algae blooms even when external nutrient sources have been minimized. This phenomenon can occur in shallow and deep lakes. In deep lakes this is apparent by a buildup of phosphorus in the hypolimnion which fuels algal blooms the following summer. In shallow lakes it results in increased phosphorus concentrations in the surface waters as the summer progresses. In some cases, an effective technique to reduce internal loading is the use of aluminum sulfate (alum) which binds phosphorus in the sediments and prevents it from entering the overlaying water. Over 20 lakes in Wisconsin have been treated with alum since 1970. We will discuss treatments that were successful and those that failed. We will also describe how we determine if an alum treatment is appropriate for a lake and if so, how much alum should be used and the expected longevity of a treatment.

*Presenters: Paul Garrison, Research Scientist, Onterra, LLC. and Tim Hoyman, Aquatic Ecologist, Onterra, LLC.*



# Thursday Keynote

9:00-10:45 AM

## Thursday Welcome and Kick-off Keynote Panel - Northwoods Expo - 9:00-10:45 AM

In the winter 1978 issue of UW-Extension Lakes' quarterly newsletter, *Lake Tides*, Tom Sinclair and Stan Temple from UW-Madison discussed the myriad of threats facing Wisconsin's iconic loons. That summer, Gary Chowlek posted an item in the subsequent *Lake Tides* to solicit volunteers to participate in "Project Loon Watch" at Northland College. Thus began four decades (and counting!) of formally organized citizen science around loons and their habits on Wisconsin lakes. This panel will review the history of the LoonWatch program and highlight scientific discoveries about loons made possible with citizen data. We will also look forward to the future of this beautiful water bird as its population expands and new challenges emerge. Brian Sloss, Associate Dean for Outreach and Extension and Fisheries and Wildlife Professor, UW-Stevens Point will welcome attendees to this year's WAV Symposium and 40th annual Lakes Partnership Convention. Eric Olson, Director, UW-Extension Lakes will introduce the digital production we have prepared to kick off this celebration, as well as moderate the following panel discussion.



Panel:

**Erica LeMoine** is the LoonWatch and Citizen Science Coordinator at Northland College in Ashland, Wisconsin. She conducts Loon Ranger trainings across the state and plans and implements the Annual Lakes Monitoring Program and a statewide five-year census of loons. She also implements the Loon Appreciation Week poster, Speakers' Bureau program, Get the Lead Out program, and the Sigurd T. Olson Loon Research Award.



**Michael Meyer** is a retired wildlife toxicologist with the Wisconsin DNR. His work focused on wildlife contaminants, inland lakeshore management, and climate change. While studying the effects of mercury on loons in Wisconsin, Mike and colleagues banded and sampled over 3000 loons in northern Wisconsin, as well as coordinating a citizen science research project focused on loon reproduction in the Northern Highlands. In retirement, Mike is continuing to conduct research and outreach through his firm, NOVA Ecological Services.



**Terry Daulton** is an environmental educator, consulting biologist and artist who served as the LoonWatch coordinator at Northland College from 1989- to 1997. She studied loons as a field biologist from 1998 - 2004 for the Wisconsin DNR and the US Geological Survey. She developed the Drawing Water program at UW Trout Lake Research Station, a collaboration between artists and scientists and currently coordinates that program as a volunteer. She also serves as Board President for Wisconsin's Green Fire, a non-profit organization of Wisconsin conservation scientists. During graduate school, Terry studied under Lowell Klessig and edited the *Lake Tides* newsletter, so the Wisconsin Lakes Convention is always like a homecoming for her.



**Gary Zimmer** is the Assistant Executive Director of the Wisconsin County Forests Association and currently serves on the Wisconsin Natural Resources Board. Gary was a graduate student of Dr. Ray Anderson at UW Stevens Point and conducted the first statewide assessment of loons in Wisconsin in 1977 and 1978. After completing his thesis in 1979, Gary became a member of the Project LoonWatch advisory committee. In his career Gary worked for the Wisconsin DNR conducting waterfowl research on the Horicon and Grand River Marsh Wildlife Areas, was a District wildlife biologist on the Lakewood/Laona District of the Chequamegon/Nicolet National Forest and was the Coordinating Biologist for the Ruffed Grouse Society covering the Western Great Lakes Region. He has lived in Northern Wisconsin's loon country for over 50 years.

*Moderator: Eric Olson, Director, UW-Extension Lakes*



# Thursday Sessions

11:00 AM-12:00 PM

## 11:00 AM-12:00 PM — Expo 1 Room - Research

### Decades of Findings

#### **Blue-green Algae Toxins**

Blue-green algae are lake-dwelling neighbors you may wish you didn't have. They grow in all lakes, but only develop to nuisance levels, called algae blooms, in certain conditions. Blooms can indicate the need for better management of nutrients within the watershed. Learn how you can coexist with blue-green algae while being mindful of their potential impacts on lake health and your health. Learn how to identify blue-green algae and other kinds of lake algae, and learn what conditions cause blue-green algae to grow to problematic levels. We will discuss the health impacts of the toxins made by some blue-green algae on animals and people who ingest, inhale, or have skin contact with blue-green algae. We will review health guidelines for blue-green algal toxins, and show you how to determine safe recreational levels of blue-green algae in Wisconsin's lakes.

*Presenters: Gina LaLiberte, Statewide Blue-green Algae Coordinator, Wisconsin DNR and Amanda Koch, CDC/CSTE Applied Epidemiology Fellow, WI Department of Health Services*

## 11:00 AM-12:00 PM — Expo 2 Room - Ecology

### Fisheries (Two 30 minute presentations)

#### **Modeling Cisco Stress Across Midwest Lakes to Aid Management of Cold-water Fish Habitat**

Climate changes have caused significant loss of biodiversity and changes in species distribution in lakes. In the Midwest, habitat of cold- and cool-water fish within a lake is constrained by both water temperature and dissolved oxygen, typically forcing these fish into deep waters during summer. Warming has further squeezed the available habitat within many lakes, and fostered prolonged periods of low oxygen in the bottom waters. At times, suitable habitat is lost entirely from a lake. Here we describe a new lake modeling effort aimed at understanding how ongoing warming will further reduce habitat of cold-water cisco (*Coregonus artedii*) across Midwestern lakes. We forecast changes in oxygen availability and thermal habitat under future climate conditions, and identify lakes where management of nutrient loads and forest cover may offset warming to protect suitable habitat for cold-water species into the future.

*Presenter: Madeline Magee, Postdoctoral Research Associate, Center for Limnology, UW-Madison*

#### **Upper Mississippi River Restoration: Managing a Dual-purpose River for Fish and Wildlife Habitat**

While many water resources provide a multitude of uses, few have been officially recognized by Congress as both a nationally significant navigation system and nationally significant ecosystem. The Upper Mississippi River (UMR) received this designation with authorization of the Environmental Management Program (EMP) in the 1986 Water Resource Development Act. EMP, now referred to as UMR Restoration (UMRR), is a partnership program where multiple river management agencies are involved in river restoration and monitoring. The most visible results of the UMRR are the 55 large scale Habitat Rehabilitation and Enhancement Projects affecting over 100,000 acres of floodplain habitat on the Mississippi and Illinois Rivers. These Projects use a variety of techniques (islands, dredging, bank protection, moist soil units, etc.) to address physical drivers to achieve project objectives. The lessons learned through planning, design and construction of these projects can provide examples of how to successfully implement projects elsewhere.

*Presenter: Jeff Janvrin, Mississippi River Habitat Specialist, Wisconsin DNR*

*(Continued on pages 16-17)*

### **Thursday Digital Production "Heed the Call" - Northwoods Expo - 9:00 AM**

*A UW-Stevens Point collaboration of UWEX Lakes in the College of Natural Resources and the Noel Fine Arts Center.*

Close your eyes and imagine the call of a loon. Does it take you to a special lake? Does it make you slow your breath and smile? We hope this digital production will do just that. With soothing music composed by UW-Stevens Point student Peter Zillmer, amazing video from Linda Grenzer and John Rockwood, and several beautiful loon images, we hope to help you fall in love with loons.



# Thurs. Sessions, cont.

11:00 AM-12:00 PM

11:00 AM-12:00 PM — Evergreen Room - Watershed Connections/Water Quality

## **Understanding Watersheds: Making a More Functional Landscape**

Watersheds are composed of different land uses such as forested, residential, agricultural fields, and many more. This session will explore how to make watershed land uses functional, in order to improve water quality. Dialogue will include discussing mechanisms for managing watersheds and various Best Management Practices (BMP's) that we can implement on the land that protect water quality.

*Presenter: Carolyn Scholl, County Conservationist, Vilas County, WI*

11:00 AM-12:00 PM — Stonefield/Woodland Room - People, Policy and Politics

## **Capacity Building**

### **Developing Science Based Knowledge, Communication, and Action on a Countywide Scale**

Learn how Oconto County's countywide lake study and planning processes are unfolding from the perspectives of a county extension educator, project coordinator/scientist, and a state lake specialist. Emphasis will be placed on the development of a countywide strategy for lake management, which identifies the steps needed to ensure that lakes and their watersheds are healthy into the future. This process involved conversations among county departments and key external partners. The strategy covers a variety of topics which includes the management of public roads, buildings, and lands, support for lake stewardship efforts, and distribution of information.

*Presenters: Nancy Turyk, Water Resource Scientist and Sr. Outreach Specialist, Dale Mohr, Community and Natural Resources Agent, UW-Extension Oconto County, and Brenda Nordin, Lake Biologist, Wisconsin DNR*

11:00 AM-12:00 PM — Sands/Frontier Room - Aquatic Invasive Species

## **Starry Stonewort** (Two 30 minute presentations)

### **Tracing the Movement of the Invasive Alga *Nitellopsis obtusa* (Starry Stonewort) and an Update on Bulbil Viability Studies**

*Nitellopsis obtusa* (starry stonewort) was first collected in the New World in the St. Lawrence River, near Montreal, Canada in the early 1970s. Since that time, *N. obtusa* has been reported in inland lakes from Vermont to Minnesota. *Nitellopsis obtusa* is a threat to native ecosystems and recreational activities and has been listed as an aggressive invasive species by the US Geological Survey. We used DNA sequence data to analyze the origin and movement of *N. obtusa* across the landscape. Initial genetic analysis has revealed variation between populations in Europe, Asia and North America, with European origin likely. We will also present results of experiments examining the viability of bulbils, and treatments used to kill them in an effort to stop the spread of this invasive species. The results of this research inform invasive species management and treatment efforts and provide a better understanding of how aquatic invasive species are dispersed.

*Presenters: Robin Sleith, Research Technician, New York Botanical Garden and Kenneth Karol, Curator, Cullman Program for Molecular Systematics, New York Botanical Garden*

### **Starry Stonewort Management in Wisconsin: Outcomes and Forthcoming Efforts**

Starry stonewort (*Nitellopsis obtusa*) was first discovered in Wisconsin in 2014. Since then, the Wisconsin DNR and partners have been using an integrated pest management approach to adaptively manage the invasive algae in seven infested lakes within the state. On each lake, unique rapid response management techniques have been carefully chosen, yielding results of varying success. Infestation size, lake type, and surrounding vegetation were considered to determine treatment methods. Attempted methods to control the invasive algae thus far include: chemical treatment, hand pulling, diver-assisted suction harvesting (DASH), and a lake drawdown. This presentation will elaborate on the outcomes of the attempted management approaches on Wisconsin lakes, and discuss the integrated management methods that are forthcoming.

*Presenters: Bradley Steckart, Aquatic Invasive Species Coordinator, Washington and Waukesha Counties and Heidi Bunk, Water Resource Management Specialist, Wisconsin DNR*



# Thurs. Sessions, cont.

11:00 AM-12:00 PM

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

### **Restoration of Shallow Lakes: A Primer, Learning from Several Case Histories**

Human perturbations, primarily, non-point and point source nutrient loading, introduction of exotic species, and water-level changes have caused changes in the ecosystem function of shallow lakes. Nature is usually assumed to respond to gradual change in a smooth way. However, studies on shallow lakes and other ecosystems have shown that smooth change can be interrupted by sudden drastic switches to a contrasting state. Many formerly clear shallow lakes in North America have shifted to an alternative stable state characterized by turbid water, algae, loss of submersed plants, low waterfowl use, and altered fish communities (benthivores/planktivores dominate). Water levels, nutrient loading, biotic interactions, and severe weather events are often cited as the cause for this drastic shift in ecological condition. I will examine the current state of our knowledge of clear and turbid shallow lakes in Wisconsin and draw upon site-specific case studies to illustrate current research and management efforts.

*Presenter: Paul Cunningham, Fisheries Ecologist, Wisconsin DNR*

## Thursday Lunch

12:15-1:30 PM



### Thursday Lunch Speaker - Northwoods Expo - 12:45 PM

*Carroll Schaal, Lakes and Rivers Section Chief, Wisconsin DNR*

2017-2018 has seen a number of retirements, promotions, and new positions among the Wisconsin Department of Natural Resources staff who work on lake, river, stream and watershed issues. Carroll Schaal will walk us through the developments, describing the new roles that familiar people are taking on and introducing some new faces to the Partnership. Carroll will also help explain how staff will be working with the Lakes Partnership and others to implement the Department's alignment around priorities and core work areas.

## 2018 Convention T-shirts



**2 for \$25**



**Available at the Wisconsin Lakes booth - Spruce Room**



# Thursday Sessions

1:45-2:25 PM

1:45-2:25 PM — Expo 1 Room - Research

## **Decades of Findings**

### **Long-term Changes in Water Quality Across the Upper Midwest and Northeast United States: How Does Wisconsin Stack Up?**

Despite past reductions in point source pollution, many threats to water quality still exist, including diffuse anthropogenic nutrient loading and climate change. It is unclear if and how lake nutrient concentrations are changing in response to modern stresses. We used total nitrogen (TN), total phosphorus (TP), and chlorophyll (Chl) data from 2,913 Midwest and Northeastern U.S. lakes that had observations in both halves of our time frame (1990-2000, 2001-2011) to assess how lake water quality has changed. Our analysis revealed that on average across all lakes, TN declined -1.1% per year, while TP and Chl did not change significantly. For the small number of lakes that had water quality trends in Wisconsin, TP trends were variable and Chl was primarily increasing, which reflected the larger scale patterns in water quality trends. Our results suggest that water quality in this region has not overwhelmingly degraded or improved in recent decades.

*Presenter: Samantha Oliver, Data Scientist, United States Geological Survey*

1:45-2:25 PM — Expo 2 Room - Ecology

## **Fisheries**

### **WDNR Fish Stocking Program Overview: Practices, Procedures and Policies**

Increased anthropogenic changes have had a profound influence on fisheries habitat, water quality and fish population dynamics. Most notably, significant changes to some Wisconsin waters include increased nutrient loading, increased eutrophication and aquatic invasive species introductions. These changes to fisheries habitat and water quality have resulted in the increased need for supplemental stocking of desirable gamefish populations to maintain species diversity and abundance. The Wisconsin DNR Bureau of Fisheries Management takes into consideration a broad array of factors when making stocking decisions including genetic conservation, natural reproductive success, interspecies competition, forage availability and cost effectiveness. The purpose of this presentation is to inform the audience of the Wisconsin DNR's current practices, procedures and policies and how they help guide sound fisheries management decisions.

*Presenter: Benjamin Heussner, Fisheries Biologist, Wisconsin DNR*

1:45-2:25 PM — Evergreen Room - Watershed Connections/Water Quality

## **Understanding Watersheds**

### **Can Improving Soil Health Improve Your Lake?**

Soil Health is a big buzzword these days, and means different things to different people. This presentation will focus on how small and moderate changes to land management can increase rainfall infiltration, which reduces runoff, increasing recharge and possibly increasing stream base flow. Land management also impacts sediment and nutrient losses. Bring your jacket! We will be stepping outside to see the impacts firsthand with a rainfall simulator in the parking lot.

*Presenters: Kevin Erb, Director, Conservation Professional Training Program, UW-Extension and Justin Morris, Soil Health Specialist, USDA's Natural Resources Conservation Service*



# Thursday Sessions, cont.

**1:45-2:25 PM**

1:45-2:25 PM — Stonefield/Woodland Room - People, Policy and Politics

## **Capacity Building**

### **Open Networks in Environmental Initiatives**

When faced with uncertainties and challenges or unforeseen opportunities and growth many businesses turn to the tried and true method of designing a strategic response using strategic planning. But for many organizations, groups or people wishing to tackle environmental challenges say they find little value in that model. Strategic planning should not be the only tool in your organization’s toolbox. In a regional setting addressing concerns such as “everything water related,” there simply is no one controlling entity to work with. Instead of using a strategy design process (strategic planning) that relies on a hierarchical structure or “top down” structure for success, consider adding two additional tools to your box that rely almost entirely on open networks of people working together as equals. As a practitioner, I have not yet perfected the two models of “strategic doing” nor “collective impact,” but with their guidance, I have had some success in addressing environmental concerns within Oconto County.

*Presenter: Dale Mohr, Community and Natural Resources Agent, UW-Extension Oconto County*

1:45-2:25 PM — Sands/Frontier Room - Aquatic Invasive Species

## **General Aquatic Invasive Species**

### **Eurasian Watermilfoil: The Plant We Love to Hate**

Eurasian watermilfoil thrives in areas subjected to both natural and manmade disturbances. This presentation and discussion will cover various management options and strategies for lake organizations to consider when controlling new and established populations of Wisconsin’s favorite invasive aquatic plant.

*Presenter: Carroll Schaal, Lakes & Rivers Section Chief, Wisconsin DNR*

1:45-2:25 PM — Harvest/Trillium Room - Restoration

## **Whole Lake Habitat Restoration Activities**

### **Success Story: Working Together, Working with Many and Making a Difference**

This presentation will outline the success of collaborating with multiple organizations in order to improve Pewaukee Lake, the lake’s inlet and outlet rivers and the watershed as a whole. People are able to help in a variety of ways, some financially and some physically. Often times these people are unsure of how or where to start. Here sample projects will be provided as well as how each organization plays a role in the end goal. With positive attitudes, it’s contagious and things get done. The main point is to understand that no project is too big to tackle. Team up with other non-profits to get the word out. Usually people are more than willing to help, and that makes all the difference.

**Reusable Water Bottles**

Pick up a water bottle for only \$5 at the Wisconsin Lakes booth to show your connection with the Wisconsin Lakes Partnership! Proclaiming “All water is lake water,” these bottles help remind us why we work so hard to protect in partnership our legacy of lakes!

*Single-wall aluminum, holds 17 oz.*



*Presenter: Tom Koepf, Manager, Lake Pewaukee Sanitary District*



# Thursday Sessions

2:35-3:15PM

2:35-3:15 PM — Expo 1 Room - Research

## Decades of Findings

### **Ten Years of Lakeshore Restoration in the Northern Highlands: Lessons Learned**

Lakeshore habitat loss has been identified as a primary factor associated with reduced lake health. To remedy this problem, many private property owners, municipalities, and landscapers have undertaken lakeshore restoration projects designed to restore habitat as well as prevent surface water run-off. As lakeshore restoration is a relatively new management practice, Michigan Technical University, Vilas County Land and Water Conservation Department, and Wisconsin DNR Science Services conducted a research project to develop best management practices for the Northern Highlands, a lake-rich landscape in Northern Wisconsin. In this presentation we will share lakeshore habitat restoration practices proven to be successful and cost-effective during this research project.

*Presenter: Mike Meyer, Consultant, NOVA Ecological Services*

2:35-3:15 PM — Expo 2 Room - Ecology

## Fisheries (Two 20-minute presentations)

### **Improving Panfish Fishing in Wisconsin: A 10-year Strategic Plan for Managing WI's Panfish**

Every year, anglers target panfish like bluegill, yellow perch and crappies more than any other group of fish in Wisconsin. However, panfish have often received less management attention than other sportfish like walleye and bass. In August, 2017 the Panfish Management Team, consisting of DNR biologists and Conservation Congress members, adopted a 10-year Strategic Plan for Managing Wisconsin's Panfish. We discuss some of the current biology related to panfish management. We also explore Panfish Plan strategies to improving fishing success for panfish including habitat improvements, angling regulations and manipulating predator-prey dynamics.

*Presenters: John Kubisiak, DNR Treaty Fisheries Work Unit Supervisor and Max Wolter, Fisheries Biologist, Wisconsin DNR*

### **Lac du Flambeau Tribal Natural Resource Department**

This presentation will describe the Lac du Flambeau Tribal Natural Resource Programs designed to protect, conserve and enhance the resources located within the 144 square mile reservation. The audience will be introduced to the reservation location, natural resource base and the programs the Tribe has developed to assure tribal members can hunt, fish and gather.

*Presenter: Larry Wawronowicz, Natural Resource Director, Lac du Flambeau Band of Chippewa Indians*



### **Thursday Stretch/Chair Yoga**

**Northwoods Expo - 3:30-3:45 PM**

Need a brain break and time to stretch after all of the great sessions this morning? Use the first 15 minutes of your refreshment break to do just that, REFRESH! Stop over to the Northwoods Expo for a quick 15-minute stretch/chair yoga session with Quita Sheehan. Just bring yourself and leave rejuvenated!



# Thursday Sessions, cont.

2:35-3:15PM

2:35-3:15 PM — Evergreen Room - Watershed Connections/Water Quality

**Understanding Watersheds** (Two 20-minute presentations)

## **Elkhart Lake Phosphorus-reducing Water Quality Project**

The driving force of this project was neighborhood concern of the steady algae growth at Elkhart Lake. This is a popular inland lake for boating, fishing, and recreation. To address the problem, land use in the surrounding area was observed. We noticed a local farm that had agricultural drain tile implementation. This runoff was a unique starting point. First, a local farmer was given cost-share dollars to spare a half-acre area of his field. His drain tile was then diverted into a filter bed filled with a proprietary iron slag mixture. The filter would then capture dissolved phosphorus, and cleaner runoff would pass back to the existing drain tile, ultimately leading into Elkhart Lake. Learn more about the story of Elkhart Lake and our efforts to reduce phosphorus.

*Presenters: Emily Stewart, Associate Planner and Eric Fehlhaber, Conservation Manager, Sheboygan County Planning & Conservation Department*

## **Wetlands by Design: A Watershed Approach to Wetland Restoration that Maximizes Benefits for People, Wildlife, Lakes, and Watersheds**

Wetlands provide habitat and ecosystem services that support fish and wildlife, people and communities. Wisconsin DNR and The Nature Conservancy created an online mapping decision support tool (the Wetlands and Watersheds Explorer) that ranks wetland preservation and restoration opportunities for all of Wisconsin's watersheds, based on the potential to abate floods, improve water quality, protect shorelines, supply surface water, store carbon, and provide habitat. The Explorer was developed to support decisions of a broad range of users with different goals, including lake management districts aiming to restore water quality, regulatory programs targeting wetland mitigation funds, outdoor enthusiasts interested in fish and wildlife, and municipalities working to abate floods. The Explorer is a product of GIS analysis and was field validated in the Milwaukee River Basin. In combination with field assessments, the Explorer identifies top-tier opportunities to provide services that benefit people, wildlife, lakes, and watersheds.

*Presenters: Nicholas Miller, Science Director, The Nature Conservancy, Joanne Kline, Ecologist, Conservation Strategies Group, and Thomas Bernthal, Water Resource Management Specialist, Wisconsin DNR*

2:35-3:15 PM — Stonefield/Woodland Room - People, Policy and Politics

## **Capacity Building**

### **Building Relational Capacity: Ideas from Lake Leaders**

A lake organization can dramatically increase its ability to reach its goals by networking and collaborating with other stakeholder groups outside of their own. Through a coalition approach to lake and watershed issues, your lake organization can muster additional resources and learn important skills from others in your community. The collaborative strategy is available to anyone, but it relies on some key practices and a mindset that looks for win-win opportunities wherever they might occur. We will take a closer look at five different dimensions of collaborative capacity and share ideas that your group can use to start networking for good.

*Presenter: Eric Olson, Director, UW-Extension Lakes*



# Thursday Sessions, cont.

2:35-3:15 PM

## 2:35-3:15 PM — Sands/Frontier Room - Aquatic Invasive Species

(Two 20-minute presentations)

### **An Update on Aquatic Plant Management Policy Development in Wisconsin**

Aquatic plants are vital for a healthy water body's ecosystem. They provide shelter for young fish and insects in the shallows. Predatory fish hide in their cover until an unfortunate prey swims by. Aquatic plant management is an important component that affects ecosystem health, industry, tourism, and recreation in Wisconsin. In this presentation, Department of Natural Resources staff will provide an update on aquatic plant management (APM) policy development in the state. The policy includes the APM strategic analysis and current efforts to engage interested stakeholders.

*Presenters: Carroll Schaal, Lakes and Rivers Section Chief, Wisconsin DNR and Chelsey Blanke, Aquatic Invasive Species Response Coordinator, Wisconsin DNR*

### **AIS Statewide Strategic Plan**

Wisconsin's first AIS management plan was drafted in 2002 and approved for implementation in 2003. Since then, the invasion landscape in Wisconsin has changed dramatically – new species are of concern, new prevention efforts have existed, and new monitoring and control methods have been developed. In order to be responsive to these changes, UW-Extension and the Wisconsin DNR brought together a team of internal and external stakeholders to revise the plan so that it meets the needs of Wisconsin. While the main goals of “Prevent, Contain, Control” still exist, a new focus on addressing invasion pathways into and within Wisconsin now frames much of the proposed work. A draft version of the plan is currently undergoing DNR and public reviews before officially being approved for guiding Wisconsin's AIS work into the future.

*Presenter: Tim Campbell, AIS Outreach Specialist, UW-Extension*

## 2:35-3:15 PM — Harvest/Trillium Room - Restoration

(Two 20-minute presentations)

### **A River Runs Through It: The Central Area Restoration Effort for Sustainability**

Learn how Wisconsin Trout Unlimited – Central Area Restoration Effort for Sustainability (TU CARES) and the Wisconsin DNR are taking an innovative approach to protecting and restoring habitat and reducing the decline in habitat quality for fish, both game and non-game species. These stream restoration projects have been completed over the last 40-50 years within Wisconsin's Central Sand Hills (CSH) ecoregion and its connected watersheds.

The focal points of this presentation will be: project background, risks to the CSH ecoregion, project goals, stakeholders, watershed selections, habitat workdays, water monitoring, macroinvertebrate survey, fish survey, funding sources, advertising and communication, educational opportunities, measuring success, and progress to date. TU CARES is calling upon like-minded conservation groups and stakeholders to partner with us in this important initiative. A united effort is crucial because we are all challenged with limited resources and are all wrestling with commonly shared environmental risks to our precious water resources.

*Presenter: Thomas Lager, Retired Technology Leader, Trout Unlimited*

### **Fishery Woes? Try Increasing the Woody Habitat**

Many fish species utilize woody habitat in several ways. Woody habitat offers protection to nesting sites, spawning surfaces, and a refuge for small fishes. In many of our lakes, shoreland owners have greatly reduced tree densities and removed woody habitat from the shallows, or littoral zone. Parker Lake is a seepage lake just outside of Oxford, Wisconsin. This lake has increased its woody habitat by adding Fish Sticks and fish cribs. Learn how these mid-winter projects were planned, executed and funded.

*Presenter: Eric Edwards, Chairman, Parker Lake Association and Adams County Lake Alliance*

# Thursday Lakes Posters



**Commons**

**3:30-5:00PM**

*Listed by topic, then alphabetically*

## TOPIC: Aquatic Invasive Species

### **Oneida County's Ice Angler AIS Outreach Project, 2012-2018**

*Stephanie Boismenu, Oneida County Land & Water Conservation  
Department [sboismenu@co.oneida.wi.us](mailto:sboismenu@co.oneida.wi.us)*

### **Predicting Lake Temperature Suitability for Invasive Spiny Water Flea in Wisconsin Reveals Few Suitable Lakes and Fewer with Climate Warming**

*Jake R. Walsh, Center for Limnology, University of Wisconsin-Madison [jransom.walsh@gmail.com](mailto:jransom.walsh@gmail.com)*

## TOPIC: Native Plants and Animals

### **Flexing Mussels: Connecting Citizen Scientists to the Changing Shape of Freshwater Mussels**

*Zac Driscoll, Milwaukee Riverkeeper [zac@milwaukeekeeper.org](mailto:zac@milwaukeekeeper.org)*

### **How to Identify Common Macroscopic Algae in Wisconsin's Lakes**

*Gina LaLiberte, Wisconsin DNR [Gina.LaLiberte@wisconsin.gov](mailto:Gina.LaLiberte@wisconsin.gov)*

## TOPIC: People, Policies and Politics

### **How to Drive Traffic to an Outreach Website**

*Tim Campbell, UW-Sea Grant, University of Wisconsin-Extension [tim.campbell@wisc.edu](mailto:tim.campbell@wisc.edu)*

### **The Lake Memories Project**

*Chelsey Blanke, Wisconsin DNR [chelseym.blanke@wisconsin.gov](mailto:chelseym.blanke@wisconsin.gov)  
Helen J. Bullard, Research Based Storyteller, Educator, UW-Madison [hbullard@wisc.edu](mailto:hbullard@wisc.edu)*

### **Road Salt: How Does it Affect Lakes in Wisconsin?**

*Lynn Markham, Center for Land Use Education, University of Wisconsin-Stevens Point [lynn.markham@unsp.edu](mailto:lynn.markham@unsp.edu)*

### **WDNR Aquatic Plant Management Strategic Analysis: Perspectives, Approaches, and the Future of Aquatic Plant Management in Wisconsin**

*Chelsey Blanke, Wisconsin DNR [chelseym.blanke@wisconsin.gov](mailto:chelseym.blanke@wisconsin.gov)*

### **WICCI Climate Change & Inland Lakes Workshop**

*Madeline R. Magee, Center for Limnology, UW-Madison [magee.madeliner@gmail.com](mailto:magee.madeliner@gmail.com)*

## TOPIC: Restoration

### **Multiple Site Water Monitoring of a Watershed**

*Michael San Dretto, TU CARES [msandretto@aol.com](mailto:msandretto@aol.com)*

### **Restoring Remnant Sedge Meadow along Sucker Creek**

*Matthew Parsons, Eco-Resource Consulting, Inc. [mparsons@eco-resource.net](mailto:mparsons@eco-resource.net)*

### **Wisconsin Shoreline Habitat**

*Ben Kort, Wisconsin DNR [benjamin.kort@wisconsin.gov](mailto:benjamin.kort@wisconsin.gov)*

## TOPIC: Watershed Connections

### **The End-to-End Value Chain of Wisconsin's Statewide Landsat 7 ETM+ and Landsat 8 OLI-TIRS Water Clarity Products**

*Daniela Gurlin, Wisconsin DNR [Daniela.Gurlin@wisconsin.gov](mailto:Daniela.Gurlin@wisconsin.gov)*

### **Hydrologic, Vegetative and Isotopic Change in Response to Climate Forcing in Island Lakes within Lake Superior**

*Krista Slemmons, UW-Stevens Point [kslemmon@unsp.edu](mailto:kslemmon@unsp.edu)*

### **Land Use Effects**

*Laken Wait, Environmental Research and Innovation Center, UW-Oshkosh [wail50@uwosh.edu](mailto:wail50@uwosh.edu)*

### **Targeted Watershed Assessments & Water Quality Planning**

*Amanda Perdzock, Wisconsin DNR [amanda.perdzock@wisconsin.gov](mailto:amanda.perdzock@wisconsin.gov)  
Lisa Helmuth, Wisconsin DNR [lisa.helmuth@wisconsin.gov](mailto:lisa.helmuth@wisconsin.gov)*

### **Unique Design Solutions**

*Kirsten James, Hey and Associates, Inc. [knjames22@yahoo.com](mailto:knjames22@yahoo.com)*

### **Youth Engagement and Awareness of Natural Resources Careers Using Mobile Digital Tools**

*Marc Nutter, UW-Extension [marc.nutter@ces.uwex.edu](mailto:marc.nutter@ces.uwex.edu)  
Justin Hougham, UW-Extension [justin.hougham@ces.uwex.edu](mailto:justin.hougham@ces.uwex.edu)  
Caitlin Graham, Research Naturalist, UW-Extension [caitlin.graham@ces.uwex.edu](mailto:caitlin.graham@ces.uwex.edu)*



# Thursday Extra Sessions

3:30-4:30 PM — Stonefield/Woodland Room

## Countywide Roundtable Discussion

Join us for a round table exchange with representatives of county lakes and rivers associations. This is an opportunity to network with your peers in an informal setting and bring forward topics that you would like to discuss. We'll share successes and failures, innovations, and thoughts on current issues and challenges to your county's lakes and rivers. Plus, we'll continue to explore opportunities to share information and work collaboratively during the year.

*Facilitated by Wisconsin Lakes*

5:00-6:00 PM — Evergreen Room

## Water Action Volunteers (WAV) Overview and Refresher

Whether you are a seasoned WAV volunteer or new to the program, a local coordinator/trainer, or just want to learn more about volunteer stream monitoring, you will find this session informative and interesting. We will cover tips and techniques for the six WAV basic parameters (temperature, transparency, dissolved oxygen, habitat, flow and biotic index), aquatic invasive species monitoring protocols, total phosphorus and thermistor updates, data entry, and a tour of the WAV website (where to find pertinent materials and information). Immediately following this session there will be distribution of equipment and supplies that have been pre-ordered from the WAV statewide coordinators.

*Presenter: Peggy Compton, Natural Resources Educator and Water Action Volunteers Program Director*

# Northwoods Expo Displays

## Snapshots of How and Why we Heed the Call

Check out the west wall in the Northwoods Expo and admire the beautiful, striking and fun images that were submitted to our 16th 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.



Water Action Volunteers



## 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.



# Thursday Evening

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

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 2018 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 a meaningful way to say, "Thank you!" to the people in your community who work so hard to care for our lakes.

## **Congratulations 2018 Wisconsin Lake Stewardship Award Winners!**

**Citizen:** Waldo Peterson

**Group:** Lake Association of White Lake and Manitowoc County Lakes Association

**Business:** Lakescape Solutions LLC.

**Public Service:** Derek Kavanaugh

**Youth/Educator:** Harold Resch

**Lowell Klessig Memorial Prize:** Dr. Stephen Carpenter

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 come.

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.

Thursday, 8:00-9:00 PM - Northwoods Expo

**Making Waves: Battle for the Great Lakes**

A one-hour version of this documentary was specifically edited for a premiere showing at your Lakes Convention and WAV Symposium. It takes viewers below the surface of the world's largest freshwater ecosystem and into the middle of a complex war for survival. For more than a century, non-native species of plants, fish, invertebrates and microscopic organisms have been silently invading the Great Lakes, leaving devastation in their wake. These invasive species are transforming the ecosystem from top to bottom, pushing some native species to the brink of extinction, and costing the region hundreds of millions of dollars

in control costs and lost revenue each year. With more than 180 invasive species in the Great Lakes watershed, and new invasives on the radar, the future of the Great Lakes is at stake. Narrated by Bill Kurtis, Making Waves traces the path of the invasion and joins researchers on the front lines as they combat invasives and work to restore native species, in an effort to prevent a biological takeover of the Great Lakes.

This is an abbreviated version of *Making Waves: Battle for the Great Lakes*. If they would like to see the full 113-minute version, it is available both on DVD or online on Vimeo OnDemand. Links to both options are at [www.makingwavesdocumentary.com](http://www.makingwavesdocumentary.com).





# Friday Sessions

8:00-9:00 AM

## 8:00-9:00 AM — Expo 1 Room - Research

(Two 30-minute presentations)

### **Citizen-based Monitoring: Studying Wildlife On and Around Our Lakes**

Wisconsin's lakes and lakeshores our home to countless species of wildlife, include many species of birds, bats, frogs, dragonflies, and more. Unfortunately, many of these species are becoming increasingly rare. Long term citizen-based monitoring efforts for animals that live in or around lakes provide much needed data on the population status of these species. This information ultimately helps to inform management and conservation efforts. This presentation will discuss citizen-based monitoring projects active on the state's lakes and lakeshores, how the projects contribute to scientific research, and how they are used to manage and protect rare species.

*Presenter: Eva Lewandowski, Citizen-based Monitoring Coordinator, Wisconsin DNR*

### **Trout Unlimited and the Central Sand Hills Ecoregion Habitat Success**

Learn how TU CARES (WI Trout Unlimited – Central Area Restoration Effort for Sustainability) and the Wisconsin DNR are taking an innovative approach to protecting, restoring and reducing the decline in habitat quality for fish, game and non-game species in those stream restoration projects that were completed over the last 40-50 years within Wisconsin's Central Sand Hills (CSH) ecoregion and its connected watersheds. The focal points of this presentation will be: project background; risks to the CSH ecoregion; project goals; stakeholders; watershed selections; habitat workdays; water monitoring data trends; macroinvertebrate survey; fish survey data results; educational opportunities; measuring success; and future plans based on the 2017 field season.

*Presenter: Thomas Lager, Trout Unlimited*

## 8:00-9:00 AM — Expo 2 Room - Ecology (Two 30-minute presentations)

### **Restorative Ecology** (Two 30-minute presentations)

#### **A Frog Was in My Boot This Morning**

Frogs are familiar to everyone, but did you know some can freeze solid and then come back to life? Frogs engage people in many ways, and not just for their funny looks, they eat a tremendous amount of bugs. Yet, frogs are in decline worldwide, and face many challenges in a warming world where lakes and wetlands are under increasing pressure. Some Wisconsin species are declining, others expanding. I will discuss the natural history of these fascinating creatures in Wisconsin, the monitoring programs underway, results of urban frog studies, and measures landowners can take to maintain and enhance local frog populations.

*Presenter: Gary Casper, Associate Scientist, UW-Milwaukee Field Station*

#### **Bobcat Ecology in Northern Wisconsin**

Bobcats are an important carnivore in Wisconsin, providing ecological benefits as well as sustainable consumptive use opportunities. Since 2014, the Wisconsin DNR, with cooperation from citizen trappers and landowners, has fitted over 50 bobcats in Northern Wisconsin with GPS monitoring collars to gain a better understanding of the status and ecology of bobcats in this region. Data collected from 32 collared animals revealed an average home range size of 17 square miles, and the home ranges of 22 of those bobcats overlapped with the range of at least one other monitored bobcat. Within their home ranges, bobcats chose wetland habitat and areas within 500 feet of water (lakes, streams, or rivers), while avoiding upland deciduous forests, grasslands, and agricultural areas. Bobcats are an integral part of Northern Wisconsin wetland ecosystems and a better understanding of bobcat space and habitat use will aid managers in continuing to sustainably manage bobcats.

*Presenter: Catherine Dennison, Carnivore and Furbearer Research Assistant, Wisconsin DNR*



# Friday Sessions, cont.

8:00-9:00 AM

8:00-9:00 AM — Evergreen Room - Watershed Connections/Water Quality

**Watershed Management and Use of Best Management Practices in Various Land Use Settings**

(Two 30-minute presentations)

**Strengthening Partnerships for Watershed Health**

As an introduction to the morning sessions for watersheds and water quality, this presentation will set the stage for four project presentations and the table topic dialogue. Drawing from research and experience with watershed partnerships, planning, and policy, the presentation will highlight insights for watershed partnerships seeking to build long-term and sustainable approaches to watershed health.

*Presenter: Ken Genskon, Professor, UW-Extension*

**Fox Demo Farms: Executing a Comprehensive Outreach Plan**

The Fox Demo Farms project is a collaborative effort designed to identify and implement conservation practices that reduce phosphorus and sediment loading into the Fox River and bay of Green Bay. The comprehensive outreach plan was designed to target producers, both middle and late adopters, as well as the non-agricultural community. The multi-pronged approach utilizes a wide range of media outlets, including traditional news outlets (i.e., radio and television), as well as modern technology (i.e., website, social media, mass text messaging services). Additionally, the Fox Demo Farms has initiated a watershed-wide effort to distribute field signs that promote cover crops and no-till practices, while linking these practices to clean water. The signs serve as social norming tool to encourage neighboring farms to implement conservation practices on their land, as well as to educate and support a positive message throughout the non-agricultural community.

*Presenter: Whitney Passint, Natural Resource Educator, UW-Extension*

8:00-9:00 AM — Stonefield/Woodland Room - People, Policy and Politics

**Economics/Water Law**

**Annual Lake Policy Update**

From groundwater to the definition of “navigable waters,” from dredging in lakes to wetland fills, 2017-18 was once again an active year as lawmakers enacted numerous pieces of legislation that impact our lakes. In addition, a state budget was enacted, too! We will take a post-mortem look back at the legislature’s activities, try to take a peek into the future, and assess what it all might mean for the waters of Wisconsin.

*Presenter: Mike Engleson, Director, Wisconsin Lakes*



# Friday Sessions, cont.

8:00-9:00 AM

8:00-9:00 AM — Sands/Frontier Room - Aquatic Invasive Species

**General Aquatic Invasive Species (AIS)** (Two 30-minute presentations)

**When Zebra Mussels Came to the NW Counties: Lessons Learned Using WI's Invasive Species Framework**

In 2016, zebra mussels appeared in Big McKenzie Lake, Burnett and Washburn Counties – the first inland population in a 12-county area. This discovery ignited alarm and calls for action, but what exactly could people do? State and county staff and a volunteer will share the straight scoop on responding to high-profile AIS, including lessons learned using the state's response framework. We will touch on monitoring, risk assessment, community capacity building, and control. Learn about local tools and strategies, including lake service provider outreach and decontamination legislation, and how you can initiate or expand similar efforts in your community.

*Presenters: Cathie Erickson, Board of Directors, Washburn County Lakes and Rivers Association, Lisa Burns, Conservation Coordinator, Washburn County Land and Water Conservation Department and Pamela Toshner, Water Resources Management Specialist, Wisconsin DNR*

**Response Actions Following the Discovery of Non-native Round Gobies in Little Lake Butte des Morts**

In August 2015, a non-native round goby (*Neogobius melanostomus*) was caught and reported to the Wisconsin DNR by an angler directly below the Neenah Dam in Little Lake Butte des Morts, which is one of two dams located at the outlet of Lake Winnebago. This confirmed report was the furthest upstream this invasive fish has been recorded in the Fox River, and was upriver of Rapide Croche which serves as a physical barrier to prevent AIS species established in the Great Lakes from spreading upstream into the Winnebago system. This presentation will highlight the response actions taken in lieu of this unfortunate finding, and the steps which have occurred to prevent further spread of this species into the Lake Winnebago system and beyond. We will summarize outreach and monitoring efforts which occurred after the initial discovery, and discuss future monitoring, management, and outreach efforts planned for 2018 and beyond.

*Presenter: Michelle Nault, Water Resources Management Specialist, Wisconsin DNR*

8:00-9:00 AM — Harvest/Trillium Room - Restoration

**A Changing Climate in the Lake Superior Basin**

In mid-July of 2016, a series of storms hit Northern Wisconsin causing massive flooding that washed out dozens of roadways, closed five highways, caused millions of dollars in damage and unfortunately took the life of three area folks. Most of this damage occurred in the Lake Superior basin, drastically changing the landscape and river conditions. In the aftermath of the flood, Superior Rivers Watershed Association (formerly the Bad River Watershed Association) reprioritized its restoration efforts and attempted to work with FEMA and local town governments to assure damaged roadways (culverts) were restored to handle the next flooding event and maintain fish habitat connectivity. Superior Rivers then initiated a Culvert Survivability Study, taking a closer look at why some roadways withstood the flooding while others washed out. Insights of this study will be shared as well as how these results and the impacts of climate change have refocused our work.

*Presenter: Tony Janisch, Executive Director, Superior Rivers Watershed Association*



# Friday Sessions

9:15-10:15 AM

## 9:15-10:15 AM — Expo 1 Room - Research

### **Citizen Data** (Two 30-minute presentations)

#### **Citizen Scientists Turning Data into Decisions**

Since 2013, with funding from the Yahara Watershed Improvement Network (WINS), the Rock River Coalition (RRC) has run a vibrant citizen-based stream monitoring project in the Yahara River watershed. More than 150 volunteers have monitored stream health at 65 stream stations, tracking changes in water quality as various phosphorus reduction practices are put into place across the watershed. While the immediate output of this project is water quality data, the RRC program coordinator and volunteers hope this effort will lead to science-based decision-making. To enable such an outcome, RRC is using data visualization software, helping to turn data into useful information, and ultimately, information into effective decisions. At this session, the RRC will share its experience in developing visualizations using Tableau® software.

*Presenter: Nancy Sheehan, Volunteer Stream Monitoring Program Coordinator, Rock River Coalition*

#### **Volunteer Monitoring of Emerging Contaminants in the Milwaukee River Basin**

Emerging contaminants are anything in our rivers and lakes that we do not typically monitor but could adversely impact the health of our water and the human and aquatic life that depends on it. Common classes of emerging contaminants include prescription drugs, antibiotics, herbicides, personal care products, and even cooking ingredients like vanilla. Unfortunately, little is known about the presence of these compounds in our waterways, and even less is known about their effects on aquatic ecosystems. To learn more about emerging contaminants, in 2016, Milwaukee Riverkeeper, along with several project partners, launched a citizen science based emerging contaminants monitoring program. Since then, we have been mobilizing volunteers to collect water samples from river stations throughout the Milwaukee River Basin. Water samples for this program are analyzed for over 60 compounds. Preliminary results from our study indicate high levels of several compounds including caffeine, Ibuprofen, nicotine, and many others.

*Presenter: Zac Driscoll, Water Quality Specialist, Milwaukee Riverkeeper*

## 9:15-10:15 AM — Expo 2 Room - Ecology

### **Restorative Ecology: Bats of Wisconsin**

Learn about the ecology and natural history of Wisconsin's eight bat species. We'll discuss the many threats that face Wisconsin's bats including the deadly fungal disease - white-nose syndrome, wind energy development and poorly-timed evictions. You will understand how citizen-based monitoring efforts have shaped the Wisconsin Department of Natural Resources knowledge of where bat populations exist and the overall health of these populations. And since bats are closely linked to water resources in addition to commonly using artificial structures like attics, barns and bat houses; you'll learn how to protect and support bats while localizing their insect-eating appetites.

*Presenter: Paul White, Bat Ecologist, Bureau of Natural Heritage Conservation, Wisconsin DNR*

*(Continued on pages 30-31)*



# Friday Sessions, cont.

9:15-10:15 AM

9:15-10:15 AM — Evergreen Room - Watershed Connections/Water Quality

## **Watershed Management and Use of Best Management Practices in Various Land Use Settings**

(Three 20-minute presentations)

### **Development of Dodge County Farmers for Healthy Soils and Healthy Water**

John and Robert will share the efforts Dodge County has undertaken to engage producers and residents in working together to address water quality concerns. Beginning with a Non-Point Source Task Force, established to find common ground between stakeholders, and moving towards a Soil Health Theme and the establishment of the Dodge County Farmers for Healthy Soil and Healthy Water, and the Dodge County Alliance for Healthy Soil and Healthy Water.

*Presenters: Robert Bird, Conservation Agronomist, and John Bobonek, County Conservationist, Dodge Co. Land and Water Conservation Department*

### **Superior River Watershed Association**

Community involvement and mutually beneficial partnerships are keys to the success of the Superior Rivers Watershed Association. For 15 years, Superior Rivers (formerly the Bad River Watershed Association) has coordinated citizen water quality monitoring and connected with area governmental agencies to effect change in the watershed. We will discuss how citizen collected data has been used by the community and environmental agencies, and how this collaboration is being applied to watershed planning and restoration work. The Marengo River Watershed Action Plan, an EPA-approved nine-element plan for restoration in the Marengo River basin, will be highlighted as a flagship example of partnerships and citizen action working together to achieve positive, tangible results.

*Presenter: Mariana Brewster-Brown, Citizen Involvement Coordinator, Superior Rivers Watershed Association*

### **Leveraging Green Lake Partnerships: Implementation of the Big Green Lake Management Plan**

Effective lake management requires the cooperation of many partners and the formulation and implementation of the Big Green Lake Management Plan is no exception. In this session, you will hear how the Green Lake Association and the Green Lake Sanitary District have partnered on the Lake Management Plan and other Big Green Lake activities, and how the partnerships, working relationships, and funding mechanisms have contributed to their success.

*Presenter: Charlie Marks, Administrator, Green Lake Sanitary District, Crew 1 Wisconsin Lake Leaders Graduate*

9:15-10:15 AM — Stonefield/Woodland Room - People, Policy and Politics

## **Economics/Water Law**

### **Panel Discussion: Use and Effectiveness of Countywide or Watershed Level Economic Studies**

“It’s the economy, stupid!” is an apt cliché when it comes to advocating for a particular policy, and too often we overlook its importance in discussing the need for clean, healthy lakes. Several county lakes and rivers groups in Wisconsin, however, not only got the message, they got smart and took a deep look at the impact of local waters on their counties’ economies. We will talk to the folks who did the work to see how they did it, what they found out, and how they’ve used that information to tell the important economic story of their county’s rivers and lakes.

*Moderator: Mike Engleson, Director, Wisconsin Lakes*



# Friday Sessions, cont.

9:15-10:15 AM

## 9:15-10:15 AM — Sands/Frontier Room - Aquatic Invasive Species

**General Aquatic Invasive Species (AIS)** (Two 30-minute presentations)

### **Aquatic Invasive Species Prevention and Clean Boats, Clean Waters in Vilas County**

Vilas County is home to over 1,300 gorgeous Northern Wisconsin lakes with over 200 public access points. In order to keep the lakes in pristine condition, these access points need to be staffed with volunteers who are trained to help prevent the spread of invasive species. Although local lake organizations volunteer their time, it is a challenge to staff these access points. Vilas County Land & Water Conservation entered into a partnership with many local lake organizations, along with UW-Oshkosh, to help address these challenges. This partnership was able to develop an Internship program for the University, resulting in more than 7,400 hours of Clean Boats, Clean Waters monitoring hours in 2017 alone.

*Presenters: Cathy Higley, Lakes Conservation Specialist, Vilas County Land & Water Conservation and Emily Harrington, Research Scientist & Clean Boats, Clean Waters Internship Coordinator, UW-Oshkosh*

### **Detecting Invasive Species Through a Two-state, Coordinated AIS Snapshot Day**

Early detection of any invasive species can result in more effective and less expensive management. Through a two-state AIS Snapshot Day, UW-Extension Lakes, the River Alliance of Wisconsin, and the University of Minnesota Extension coordinated over 350 volunteers and searched hundreds of sites for invasive species. Results of the day's efforts and feedback from participants will be shared, as well as updates for the 2018 AIS Snapshot Day to be held on August 18.

*Presenters: Maureen Ferry, Statewide Aquatic Invasive Species Monitoring Coordinator, Wisconsin DNR and Paul Skawinski, Citizen Lake Monitoring Network Statewide Coordinator, UW-Extension Lakes*

## 9:15-10:15 AM — Harvest/Trillium Room - Restoration

### **Citizen Data**

#### **Great Lakes Restoration Blitz: Snapshots of Success**

In 1987, the lower 14 miles of the Sheboygan River were designated as an Area of Concern (AOC) by the International Joint Commission in accordance with the US-Canada, Great Lakes Water Quality Agreement. Areas of Concern are defined as, "up to 14 beneficial use impairments tied to contamination from industrial sources, habitat loss and eutrophication." The Sheboygan River AOC was identified by US Environmental Protection Agency as a priority AOC and targeted for significant funding to drive the removal of listed AOC impairments. Approximately \$5.7 million in funds from the Great Lakes Restoration Initiative were approved for habitat restoration in the Sheboygan AOC in 2012. The habitat restoration included five project sites with a total of 41 acres and 18,300 feet of shoreline. Goals of the habitat restoration were to restore native plant communities, improve existing wetlands, and provide shoreline naturalization (invasive species removal, bank stabilization, and habitat connectivity). The project had a short time-line for completion. Working on behalf of the City of Sheboygan, Sheboygan County and DNR, a group of consultants with a wide variety of expertise were hired to design and oversee project construction. Details of the projects including aspects of project design and problems encountered will be discussed. Information about habitat project establishment, monitoring, maintenance and long-term care will be provided.

*Presenter: Amy Kretlow, Aquatic Invasive Species Monitoring and Rapid Response Specialist, Wisconsin DNR*



# Friday Sessions

10:45-11:35 AM

## 10:45-11:35 AM — Expo 1 Room - Research

### **Citizen Data** (Two 25-minute presentations)

#### **Waters at Risk: Citizen Action, Public Health, and Science Combine to Confront the Glacial Pace of Meaningful Changes in a Central Sands County**

The Central Sands Region, including Portage County, represents a suite of soils susceptible to groundwater contamination, now experiencing unprecedented agribusiness land use changes heavily dependent on the use and discharge of groundwater and nutrient sources. Regulation of both unchecked extraction rates and the influx of a myriad of ag-related compounds to local aquifers is inadequate or non-existent. Recognition of the negative public health impacts, decreased land values, and change in rural land uses and character has recently galvanized citizen action groups across the state. Our presentation outlines the efforts of one county's residents to examine the broad issues associated with contaminated groundwater and implement local enforcement standards designed to benefit all stakeholders within the county, equitably sharing the costs and responsibilities for maintaining this shared and vital resource. Citizen groundwater monitoring data, combined with data from publicly accessible water sources have been the primary sources of information used to understand the magnitude and long-term groundwater quality trends in the county.

*Presenters all speaking as citizen volunteers (not on the basis of their professional organizations): Pete Arntsen, Senior Hydrologist, Sand Creek Consultants, Ray Reser, Geoscientist, UW-Stevens Point Museum of Natural History and Anne Abbott, Professor Emeritus Health Promotion and Wellness, UW-Stevens Point*

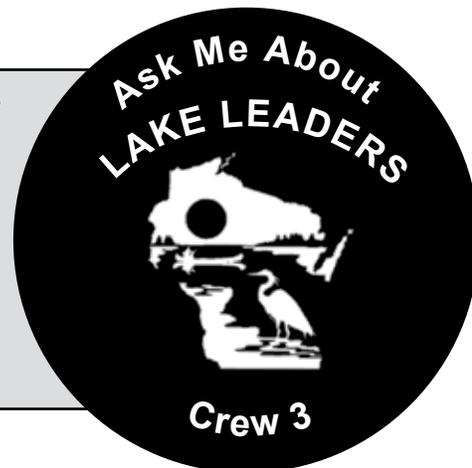
#### **Sources and Fates of Nitrate, Phosphorus, E. Coli and Chloride that Impair the Kewaunee, Ahnapee and E. Twin River Watersheds**

The proposed citizen-science study will examine the sources and fates of nitrate, phosphorus, E. Coli and chloride that impair the Kewaunee, Ahnapee and E. Twin River watersheds in Kewaunee County, Wisconsin. Results obtained over the past five years by Kewaunee CARES/WAV volunteers will be combined with recent data obtained by other researchers, along with historic data, to improve understanding of pollution impairments of the major rivers/watersheds that dominate Kewaunee County. Finally, the presentation will address the importance of applied citizen-science studies of key water (and air) pollution problems that otherwise would not be monitored, quantified, understood, or reported for public consideration.

*Presenter: Gerald Pellett, Research Associate, Kewaunee CARES/WAV*

### **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!





# Friday Sessions, cont.

10:45-11:35 AM

## 10:45-11:35 AM — Expo 2 Room - Ecology

### **Restorative Ecology** (Two 25-minute presentations)

#### **Recovery of Bald Eagles and Ospreys in Wisconsin**

The recovery of Bald Eagles and Ospreys has been a 50+ year effort by many people, agencies, and organizations in Wisconsin. Both species were placed on the endangered species list in 1972, with bald eagles coming off in 2007 and ospreys in 2009. Statewide surveys to monitor abundance and distribution of nesting bald eagles found 1,590 active nests in 2017. Similar surveys for ospreys completed in 2016 found 558 active nests. Much of the work to recover both species occurred when they were receiving extra protections while listed, but now that they have been delisted and recovered, we wonder if the work is done. This presentation will explore the timelines, work completed, and on-going conservation efforts occurring to keep these majestic species abundant and successful inhabitants of our lake and river habitats across the state.

*Presenter: Jim Woodford, Program Manager, Bureau of Natural Heritage Conservation, Wisconsin DNR*

#### **Trumpeter Swan Population Recovery**

Learn about the history and development of Wisconsin's Trumpeter Swan Recovery Program, and lessons we have learned from the program along the way. Walk away with three action steps: 1) Visualize a goal and develop strategies to achieve it; 2) Be patient and persistent; and 3) Develop a dependable network of collaborators to support and engage the project.

*Presenter: Sumner Matteson, Biologist and Avian Ecologist, Wisconsin DNR*

## 10:45-11:35 AM — Evergreen Room - Watershed Connections/Water Quality

### **Round Table Talks**

Whether you were intrigued by something you heard in this Watershed Connections/Water Quality “stream” earlier today, or if you missed those sessions and want to find out more about these incredibly successful partnerships and projects, this session will be of interest to you! Join a small-group, “round-table” discussion of two topics (from the four listed below), as well as participate in full-group sharing and conversation around all four of these featured partnerships and topics. Bring your questions and your desire for interaction.

*Moderated by Ken Genskow and Peggy Compton, UW-Extension*

#### **Fox Demo Farms: Developing Outreach Strategies**

*Presenter: Whitney Passint, Outreach Coordinator*

#### **Bringing Partners Together: Finding Common Ground**

*Presenters: Robert Bird and John Bohonek, Dodge County Land and Water Conservation Department*

#### **Using Citizen-collected Data for Management and Decision Making**

*Tony Janisch, Executive Director, Superior Rivers Watershed Association*

#### **Green Lake Association: Finding and Leveraging Funds to Meet Your Project Goals**

*Charlie Marks, Administrator, Green Lake Sanitary District*

## 10:45-11:35 AM — Stonefield/Woodland Room - People, Policy and Politics

### **Economic/Water Law**

#### **Shoreland Management**

How do we manage shorelands and floodplains to protect lakes at the local level? How can people get involved in local government to protect our lakes over the long term and our waterfront property values? In this session we will share stories about how zoning developed, and the value that it brings to our lakes today. We will talk about ways “lake people” can spread the word about the benefits of keeping our lakeshores healthy.

*Presenters: Lynn Markham, Center for Land Use Education, UW-Stevens Point and Kay Lutze, Water Regulations and Zoning Specialist, Wisconsin DNR*

*(Continued on pages 34)*



# Friday Sessions, cont.

10:45-11:35 AM

10:45-11:35 AM — Sands/Frontier Room - Aquatic Invasive Species

**Aquatic Invasive Species (AIS) Restoration** (Two 25-minute presentations)

**Removal of Phragmites and Restoration with Native Plants at UW-Stevens Point**

A half-acre area of dense Phragmites in Schmeckle Reserve on the UW-Stevens Point campus was treated twice with Imazapyr, and remaining live plants were removed by hand. Three small ponds/depressions within the site were given separate treatment strategies. Seedbank analysis showed very few desirable species within the Phragmites stand, so native species were introduced via plugs and seeds in 2016. Native plant introduction was crucial to the success of this project. A July 2017 floristic inventory showed 85 species growing in the area formerly dominated by Phragmites.

*Presenter: Paul Skawinski, Statewide Citizen Lake Monitoring Network Coordinator, UW-Extension Lakes*

**Restoring the Ecological Landscapes of “High Profile” AIS Sites in Oneida County**

Join the Oneida County AIS Team as they share their integrated management approach to control and eradicate two “high profile” AIS sites: Yellow Iris along the shoreline at Rhinelander’s Boom Lake boat landing and a 0.05-acre Phragmites site located at the bottom of a highway drainage ditch. But wait, there’s more! The AIS Team rehabilitated and restored both of the AIS-degraded sites using local native seeds they collected and germinated. The Team will explain why observing both sites’ ecological health and complexities served as an indicator for developing a successful management and restoration plan, engaging school groups and volunteers in restoration efforts, and their plan to provide long-term management.

*Presenters: Stephanie Boismenu, Aquatic Invasive Species Coordinator, and Thomas Boisvert, Aquatic Invasive Species Project Assistant, Oneida County, Wisconsin*

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

**Healthy Lakes with an Emphasis on Native Plantings**

Wisconsin’s Healthy Lakes initiative launched in 2013 and continues to engage lakeshore property owners with simple projects like fish sticks, 350 ft<sup>2</sup> native plantings, diversion and rock infiltration projects, and rain gardens. Native Plantings are the most popular choice amongst participants so we’ve made it easier for folks to understand how to mesh their property conditions with personal interests and choose from six native planting options. We will share a Healthy Lakes overview, and then dive into the new 350 ft<sup>2</sup> Native Planting guidance, including site assessment, plant selection, and maintenance. Finally, a landscaping contractor will share his tips and tools when working with landowners on these projects. Please visit [www.healthylakeswi.com](http://www.healthylakeswi.com) to learn more about the statewide initiative.

*Presenters: Pamela Toshner, Water Resource Management Specialist, Wisconsin DNR, Patrick Goggin, Lake Specialist, UW-Extension Lakes and Nick Homan, Owner, Lakescape Solutions, LLC.*



# Friday Luncheon

11:45 AM-1:15 PM

11:45 AM – Northwoods Expo

## 2018 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 2018 Wisconsin Volunteer Stream Monitoring Awards. Please join us as we recognize these individuals and organizations 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 2018 Wisconsin Volunteer Stream Monitoring Award Winners!**

John Delaney  
Bill and Debbi Hiller  
Jaime Weigel  
Central Wisconsin Trout Unlimited Riverkeepers  
Southern Brown Conservation Club  
Jean Abreu\*

*\*2017 recipient; being presented this year*

*Water Action Volunteers*

# Friday Keynote

11:45 AM-1:15 PM



## Friday Luncheon Keynote – Northwoods Expo – 11:45 AM-1:15 PM

### **Past and Future Change in the Yahara Watershed:**

#### **An Ecological Experiment Using Scenarios**

*Steve Carpenter*

*Free-range Scientist and S. A. Forbes Professor of Zoology at the UW Madison Center for Limnology*

Winner of the 2011 Stockholm Water Prize, Dr. Stephen Carpenter is a leader of whole-ecosystem experiments focused on questions about lake ecosystems. He is a member of the U.S. National Academy of Sciences, a Fellow of the American Academy of Arts and Sciences, and a foreign member of the Royal Swedish Academy of Sciences. Other notable awards include a Pew Fellowship in Conservation and Environment, the G. Evelyn Hutchinson Medal of the American Society of Limnology and Oceanography, the Robert H. MacArthur

Award from the Ecological Society of America, the Excellence in Ecology Prize from the Ecology Institute, and the Naumann-Thienemann medal of the International Society for Limnology. Carpenter is a former President of the Ecological Society of America and has published 5 books and more than 450 scientific papers, book chapters, reviewed reports and commentaries. After ten years teaching and conducting research at Notre Dame, Carpenter joined the UW-Madison faculty in 1989 and mentored dozens of graduate students addressing lake and ecological issues over nearly three decades of theoretical and applied research. This talk will draw on Carpenter's research concerning the dynamic challenges facing the Madison area lakes and the Yahara watershed. Most recently, Carpenter and a team of researchers designed intricate scenarios that explore alternate futures for the lakes by combining sociological, climatological, landscape and lake variables. The findings suggest numerous practices that people and communities should adopt to better protect lakes and their watersheds in a turbulent future.



# Friday Sessions

1:30-2:30 PM

1:30-2:30 PM — Evergreen Room - Watershed Connections/Water Quality

## Watershed Management and Use of BMP's in Various Land Use Settings

### **Silver Creek Pilot Watershed Project at NEW Water**

NEW water, the brand of the Green Bay Metropolitan Sewerage District, is leading a project in Silver Creek to evaluate if it is more cost effective to spend over \$100 million on wastewater treatment plant phosphorus improvements or to work with agriculture to reduce phosphorus delivery to Green Bay. NEW Water is partnering with the local community to effectively execute an agricultural based adaptive management pilot project in the Green Bay area. The pilot study is utilizing innovative tools to execute field-level assessments, gather soil and water data, work closely with landowners and growers, and leverage local agronomist experience to target the most effective practices. The pilot will review potential frameworks for implementing a future full-scale adaptive management program to achieve continued permit compliance for NEW Water.

1. Partnerships are essential for successful watershed efforts.
2. Landowner and grower trust is critical to success.
3. Cover crops are very effective.

*Presenter: Jeff Smudde, Watershed Programs Manager, New Water Green Bay, WI*

1:30-2:30 PM — Harvest/Trillium Room - Restoration

## **Rough Fish Management and Wild Rice Restoration**

Upper Clam Lake (Burnett Co., WI) has a documented history of supporting large, dense stands of northern wild rice (*Zizania palustris*). However, in 2006, wild rice declined dramatically throughout the lake. Unlike the periodic, temporary rice declines that occasionally occur in regional lakes, the decline of rice in Upper Clam Lake was particularly severe and it persisted for 8 years (2006 to 2013). Previous studies have clearly identified carp as the primary cause of the observed decline of rice stands in Upper Clam Lake. In 2010, the most substantial remnant stands of wild rice were found in a large shallow bay on the southern end of the lake (~80-acre bay, mean depth <1 m). Rice stands in this bay were very sparse and generally isolated to extremely shallow areas immediately along shore. As a part of the ongoing wild rice monitoring and management activities in the lake, staff from St. Croix Tribal Environmental Services installed nets across the opening to this southern bay to exclude carp during the open water period in 2011, 2012, and 2013. These nets were left in place from May through September of each year. Assessments were completed to record late-summer distribution and density of rice growth in the bay each year from 2010 through 2013. Additionally, carp removal efforts over several years have removed an estimated 800,000 pounds of carp from the Clam Lakes since the process started in October of 2010. This talk reviews the monitoring methodology and findings from these surveys and gives an update on how the rice beds have responded to management.

*Presenters: Tony Havranek, Senior Environmental Scientist, WSB & Associates, Inc. and Cody Mattison, Conservation Technician, Environmental Services and Natural Resources, St. Croix Chippewa Indians of Wisconsin*

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

*Water Action Volunteers*

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.



# Friday Sessions

**3:00-4:00 PM**

## 3:00-4:00 PM — Evergreen Room - Watershed Connections/Water Quality

### **Stormwater Infrastructure Mapping for the Lake Nagawicka Watershed**

Using GIS, a watershed-wide stormwater infrastructure map was created using the MS4 datasets combined for nine municipalities showing swales, ponds, storm inlets and outfalls. This presentation will cover the mapping process, the resulting map, and how this infrastructure mapping can be used for other watersheds around the state.

*Presenter: Alan Barrows, Sr. Conservation Specialist, Waukesha County Department of Parks and Land Use*

## 3:00-4:00 PM — Harvest/Trillium Room - Restoration

(Two 30-minute presentations)

### **How You Can Help Pollinators**

Pollinator conservation is an important priority for agencies, land managers, gardeners, citizen scientists, researchers, and the public. This presentation will cover the state of pollinators currently in WI / Midwest, the state plan and how it helps address this situation, and what different user groups (i.e., home gardeners, lakeshore property owners, conservation groups, lake managers, etc.) can be doing to champion support for pollinator habitat protection, restoration and citizen-based monitoring around the state.

*Presenter: Jay Watson, Ecologist, Wisconsin DNR*

### **Managing Pollinators on an Organic Cranberry Marsh**

Cranberry marshes offer a wide range of habitat types in addition to the land used to produce the tart red fruit. Pollination is required to grow the crop. The management and conservation of native pollinators is vital to producing berries at our organic cranberry marsh. We will discuss our efforts and strategies to conserving native pollinators.

*Presenter: John Stauner, Farm Owner, James Lake Farms, Inc.*

# Thank YOU!



- |                  |                |                |                 |                  |
|------------------|----------------|----------------|-----------------|------------------|
| Robby Abrahamian | Mike Engleson  | Nick Homan     | Amanda Perdzock | Brad Steckart    |
| Chris Arnold     | Reesa Evans    | Amy Kowalski   | Scott Provost   | Pamela Toshner   |
| Kim Becken       | Michala Feigal | Maud LaMarche  | Keenan Pulz     | Nancy Turyk      |
| Mitchel Block    | Maureen Ferry  | Lynn Markham   | Carroll Schaal  | Scott Van Egeren |
| Peggy Compton    | Patrick Goggin | Erin McFarlane | Carolyn Scholl  | Bob Wakeman      |
| Anne Marie Croy  | Ilana Haimes   | Eric Olson     | Paul Skawinski  | Sandy Wickman    |
|                  |                |                |                 | Victoria Ziegler |

## 2018

**Wisconsin Lakes Partnership  
Convention Planning Team**

*Photo by Lorna Kane-Rohloff*



# Notes



# 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.

	 <p>University of Wisconsin-Extension</p>  <p>College of Natural Resources University of Wisconsin - Stevens Point</p>	
<p>101 S. Webster Street PO Box 7921 Madison, WI 53707-7921 <a href="http://dnr.wi.gov">dnr.wi.gov</a> 608-267-7694 <a href="mailto:dnrlakeb@wisconsin.gov">dnrlakeb@wisconsin.gov</a></p>	<p>College of Natural Resources University of Wisconsin-Stevens Point 800 Reserve Street Stevens Point, WI 54481 <a href="http://uwsp.edu/uwexlakes">uwsp.edu/uwexlakes</a> 715-346-2116 <a href="mailto:uwexlakes@uwsp.edu">uwexlakes@uwsp.edu</a></p>	<p>147 S. Butler St., Suite 2 Madison, WI 53703 <a href="http://wisconsinlakes.org">wisconsinlakes.org</a> 608-661-4313 <a href="mailto:info@wisconsinlakes.org">info@wisconsinlakes.org</a></p>

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*

# 2018 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:

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



Check out the 2018 Wisconsin  
Lakes Partnership Convention Archives

**[uwsp.edu/uwexplakes](http://uwsp.edu/uwexplakes)**

then click *Convention 2018* under *Events* in the left navigation column.

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## 2019 Lakes Convention



**SAVE THE DATE**

for next year's

Wisconsin Lakes Partnership Convention and Water Action Volunteers (WAV) Symposium.

**Wednesday through Friday, April 10-12, 2019**  
**Holiday Inn and Convention Center, Stevens Point, WI**



*Wisconsin  
Lakes  
Partnership*



*Water Action Volunteers*

**UW  
Extension**  
University of Wisconsin-Extension



**College of Natural Resources  
University of Wisconsin-Stevens Point**

**[uwsp.edu/uwexplakes](http://uwsp.edu/uwexplakes)**