



## Nature's Balance Sheets

### Valuing Ecological Services to Make Smarter Water Decisions

By Eric Olson, Director & Lake Specialist, Extension Lakes

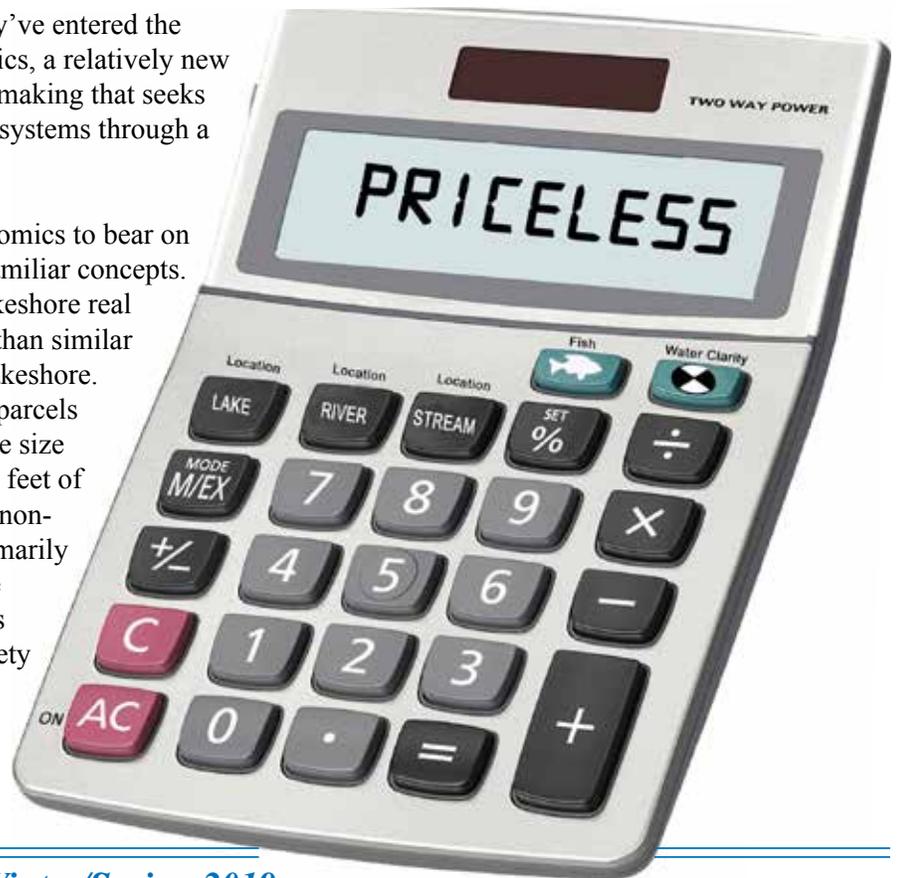
*We want to understand the value of lakes to gain support for our protection and restoration efforts. However, lakes don't lend themselves to the same easy accounting we use in daily life. The realm of ecological economics offers a promising window into how we might better appreciate all the different ways that lakes repay us for our work of caring for them.*

*Lake advocates often view the short-changing of our water resources as a missed opportunity to "grow the economic pie." Lakes, they would argue, are too valuable not to protect. These resources are magnets that attract tourists and second-home buyers. The owners of shoreland property pay property taxes, and in some communities they pay the largest share of taxes. Would it not make sense to invest more public money in lakes, to feed the goose that lays the golden egg?*

**E**lected officials facing difficult choices will want proof that lakes merit a share of scarce monetary resources, especially if it's to be at the expense of something else. In most cases, the lake advocate is put on the spot to somehow come up with dollar figures conveying both what lakes are worth and what return might be expected from investing in their care. Without even knowing it, they've entered the realm of ecological economics, a relatively new field of research and policy making that seeks to better understand natural systems through a financial lens.

One easy way to bring economics to bear on lake issues is to start with familiar concepts. It is well understood that lakeshore real estate fetches higher prices than similar property that is not on the lakeshore. Prices for vacant shoreland parcels are mostly determined by the size of the lot as well as the total feet of frontage on a lake, whereas non-shoreland vacant land is primarily priced based on size. People seeking shoreland properties agree to pay more for a variety of reasons: being on a lake grants them unique riparian rights, allowing them to

*(Continued on page 2)*



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Wisconsin Lakes Partnership



*How valuable is your lakeshore view?*

place a pier and giving them direct access to the waterway. In addition to enjoying water views, they generally know that their lakeshore view will not change for the worse in the future. There is also a scarcity effect on prices: while demand may increase, the supply of shoreland properties is relatively fixed.

The qualities of the waterbody upon which a piece of property is located will also influence the value of surrounding real estate. Generally, larger waterbodies can provide for a wider range of recreational activities, so they are in greater demand. The location of the lake in relation to nearby population centers influences prices as well. Lake Gogebic in Michigan's Upper Peninsula is similar in many ways to Lake Geneva, but prices can be ten-times higher at Geneva as it is in close proximity to Chicago, Milwaukee and Madison.

Ecological properties of the lake will also influence value. People prefer clearer lakes that are relatively free of harmful algae blooms or problematic invasive species like Eurasian watermilfoil. A recent study by Dr. Thomas Kemp and his students at UW-Eau Claire estimated that a one meter improvement in water clarity for lakes in Vilas and Oneida counties would potentially boost individual shoreland properties by \$8,000 to \$32,000, with the

greatest gains going to properties on lakes with lower water quality. Researchers from Virginia Tech published in 2010 that an infestation of Eurasian watermilfoil can reduce property values by up to 16%. Both of these studies suggest that protecting water quality and preventing aquatic invasive species infestations will have real economic benefits.

A more challenging proposition is to use the information about how lake conditions influence land values in order to prioritize among competing strategies for taking care of lakes. For example, should the balance of scarce state resources be directed towards restoring water quality on impaired lakes or preventing degradation on relatively healthy lakes? Paul Radomski and Kristin Carlson recently published a study in the journal *Lakes and Reservoir Management* to try and answer this question. Radomski and Carlson work for the Minnesota Department of Natural Resources, which allocates over \$110 million annually in state funds towards surface water quality, with roughly 80% geared towards restoration and 20% going to protection.

Radomski and Carlson are able to use computer models that estimate how sensitive thousands of waterbodies are to land use changes that impact nutrients coming into the lakes and resulting water quality. They also draw on cost estimates for implementing urban and rural best management practices (BMPs) to restore lakes by reducing nutrient inputs, and estimates of the cost of conservation easements to protect lakes by limiting future land use change that would degrade water quality. Finally, like Dr. Kemp's research in northern Wisconsin, the Minnesota investigators developed a hedonic model of land prices that included water quality in order to calculate the potential benefit of restoration efforts to real estate values (or the prevented loss to values when lakes were protected through easements).

*Hedonic pricing is a model that identifies and measures numerous price factors based on the premise that a total price is determined both by internal characteristics of the good being sold and external factors affecting it.*

**Protecting water quality and preventing aquatic invasive species infestations will have real economic benefits.**



Read a Wisconsin Public Radio news story based on Dr. Thomas Kemp's research in Vilas and Oneida County, including access to their report.  
[www.wpr.org/clearing-murky-lake-water-has-impact-nearby-property-values](http://www.wpr.org/clearing-murky-lake-water-has-impact-nearby-property-values)



Radomski and Carlson compared three different approaches to prioritizing lake protection and restoration efforts: one looking at the lakes most vulnerable to changes in nutrient loading, another looking at the cost:benefit ratio of carrying out protection or restoration, and a third focusing on “Lakes of Biological Significance,” a list of 1,449 lakes in Minnesota that have unique ecological features. The three rankings had some overlap in their top priorities, but the research developed three distinct lists for policy makers to work from.

Having the cost:benefit ratios also allowed the researchers to analyze different scenarios for allocating money and effort. For example, they found that if the state focused protection and restoration on the 100 lakes most sensitive to nutrient changes, the cumulative cost would be \$30 million (for implementing BMPs or securing conservation easements) while the benefit to riparian land values would be \$124 million. If the state focused only on 100 lakes with the best cost:benefit ratios, they would need to spend \$36 million (+20%), but they would yield a \$154 million benefit to land values (+24%). In general, they conclude that the current Minnesota spending mix (80% restoration, 20% protection) may not be the most efficient way to achieve measurable protection and restoration goals. Instead, more money should be directed towards protective measures on lakes that are healthy today but at risk from potential land use changes.



*Blue-green algae can influence the value of our lakes.*

While Wisconsin has not yet completed an analysis similar to Minnesota’s, we have many of the required information and datasets. Through a collaboration with the US EPA and the Cadmus Group, a national consultancy, every small watershed in the state has been given a health and vulnerability rating, which summarizes its present water quality and the watershed’s sensitivity to change. Wisconsin also has a robust system for archiving property values at the parcel level. These are available for anyone to view through the Wisconsin DNR Watershed Restoration Viewer and the State Cartographer’s online Statewide Parcel Viewer. Replicating the Minnesota cost:benefit study in Wisconsin could also allow for stakeholders to develop more local scenarios. For example, advocates of lake protection in Vilas County might want to identify the top ten lakes with the highest cost:benefit ratios and greatest vulnerability. People in southeast Wisconsin might instead be looking to select tributary watersheds with the best cost:benefit ratios for spending scarce restoration funds.

*Ecological properties of the lake will also influence value. People prefer clearer lakes that are relatively free of harmful algae blooms or problematic invasive species like Eurasian watermilfoil.*

### Interested in property values?

View parcel data online at the State Cartographer’s website:  
<https://maps.sco.wisc.edu/Parcels/>



The research discussed above has focused on only one dimension of the economic value of lakes: their impact on real estate prices. There are many other economic aspects that one might also consider, such as the role of lakes in tourism and outdoor recreation, the activity generated through lake home and cabin construction and remodeling, and the impact of lake health on

View the Wisconsin DNR’s Healthy Watersheds Assessment online, including interactive maps to explore watershed health and vulnerability:  
<https://dnr.wi.gov/topic/Watersheds/HWA.html>



(Nature's Balance Sheets, continued)

community health and well-being. There are also ecological dimensions to incorporate, including the food and habitat lakes provide to important and rare wildlife, or the role of lakes in moderating temperatures in the summer.

It is possible to incorporate numerous dimensions into a single mapped model.

Learn more about the modelling work of Stephen Polasky and his colleagues at the Natural Capital Project: <https://naturalcapitalproject.stanford.edu/>



Our 2019 Lakes Partnership Convention keynote speaker Dr. Stephen Polasky has been collaborating with many researchers to carry out such analyses on an ambitious scale, looking at the entire planet. This group, comprised of researchers from the Nature Conservancy and five major universities, recently published a summary of their work titled “An attainable global vision for conservation and well-being.” The report notes that if the world were to change how and where food and energy are produced, “this could help to meet projected increases in food (54%) and energy (56%) demand while achieving habitat protection...reducing atmospheric greenhouse-gas emissions consistent with the Paris Climate Agreement...ending overfishing, and reducing water stress and particulate air pollution.” It is with this hopeful goal of having your cake and eating it too that ecological economics will become increasingly important in making decisions about protecting and restoring lakes. 💧



## Let's Make Healthy Lakes Together!

The Healthy Lakes & Rivers initiative is a statewide effort providing outreach, technical assistance and funding for five simple and inexpensive best practices that are appropriate for most properties along lakes and rivers. Pitch your Healthy Lakes & Rivers feature story to Pamela Toshner ([pamela.toshner@wi.gov](mailto:pamela.toshner@wi.gov)) or Amy Kowalski ([amy.kowalski@uwsp.edu](mailto:amy.kowalski@uwsp.edu)).

### New Action Plan

Wisconsin's 2019 Healthy Lakes & Rivers Action Plan builds off the success of the 2014-2017 Healthy Lakes pilot. Healthy Lakes & Rivers remains a collaborative team effort that depends on private and public waterfront property owners, businesses and the Wisconsin Lakes Partnership to promote and install relatively simple and inexpensive best practices that benefit habitat and water quality. This goal-oriented plan also includes funding, promotion, and evaluation strategies.



### Order Your Publications Early

As spring approaches, it is a good time to order your Healthy Lakes publications that will promote or help explain these best practices. These are FREE and can be ordered online from the resources section of the website at [healthylakeswi.com](http://healthylakeswi.com).



[healthylakeswi.com](http://healthylakeswi.com)



# Did you know Wisconsin has a Sturgeon Guard?

# DYK

By Mitchel Block, UWSP Student

Wisconsin is the home of some extraordinary things: the world's largest cranberry festival, the first ice cream sundae, and let's not forget about the one and only Stevens Point Trivia contest. It is also home to one of the most extraordinary creatures on the planet: the lake sturgeon. Sturgeons are an evolutionary artifact, closely resembling their ancestors that lived as far back as 136 million years ago. Lake sturgeon are the longest living fish species in Wisconsin, living to be over one hundred years old, and they can grow to be well over six feet in length!

Robert Korth

During fall in the Lake Winnebago system, the spawning population of lake sturgeon migrates out of Lake Winnebago and into the river they spawn in, where they will overwinter. The majority of the sturgeon migrate up the Wolf River, and the rest travel into the Upper Fox River. Come spring, female sturgeons drop their eggs in shallow, rocky areas along the river's bank, while the males swim alongside them and fertilize the eggs. A single female lake sturgeon can produce up to 700,000 eggs in a single season!



The unique spawning habits of the lake sturgeon draw spectators from across the state. To prevent unintentional harassment and stop illegal harvest, hundreds of volunteers, representing Wisconsin's Sturgeon Guard, monitor lake sturgeon at their spawning sites along the Wolf River each year. Guards are typically scheduled from April 15 through April 30, but spawning is variable and highly dependent on water flow and temperature.

## Can I become a Sturgeon Guard?

The Sturgeon Guard program has been open to volunteers from the public since 1988. Anyone can volunteer, whether you're part of a school group, a conservation organization or just someone interested in witnessing these ancient giants spawn.

If you'd like to learn more about becoming a Sturgeon Guard, go to the Wisconsin DNR's webpage at [dnr.wi.gov](http://dnr.wi.gov) and type "Sturgeon Guard" in the search box, or contact the DNR Sturgeon Guard coordinator, also known as the Sturgeon General, at 920-420-1140.

## Want to view sturgeon spawning from the comfort of your own home?

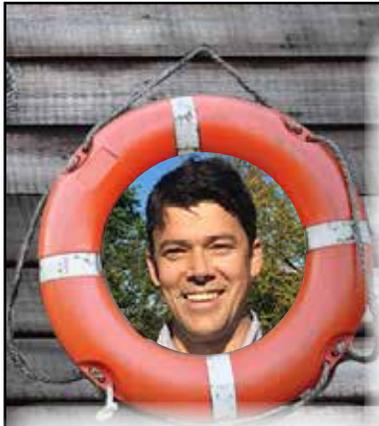
Go to the Wolf River Cam webpage: <http://wolfrivercam.com/index.html>. In April, you can check out live videos of lake sturgeon at various locations along the Wolf River!



# Preserving Water Quality in Wisconsin

*Congratulations and a hearty “welcome aboard” are due to several folks who are new in their positions within the Wisconsin Lakes Partnership. Many of these professionals will be working with the Wisconsin Department of Natural Resources’ (DNR) Water Quality Bureau and will be working closely with lake and river organizations.*

**WELCOME ABOARD!**



Adrian.Stocks@wisconsin.gov  
608-266-2666

In December, Adrian Stocks began his new role as Water Quality Program Director for the Wisconsin DNR. Adrian says, “I am thrilled and humbled to be starting in this role. Over the last five years, I have had the opportunity to work with many of you in the Water Quality program. The incredible knowledge and dedication of staff and supervisors in the program gives me great confidence that we will be able to continue the excellent work we are doing, improve the program and successfully address some of the pressing issues before us such as PFAS contamination, nitrate in groundwater and moving more impaired waters towards restoration plans. On a personal note, I live in Stoughton with my wife, our three kids and two dogs (and now a kitten!) My hobbies include fly fishing all over Southern Wisconsin and snowboarding. I also enjoy canoeing and camping and doing house projects including building a treehouse.”

Laura MacFarland is the Surface Water Grant Project Manager in Wisconsin DNR’s Northern region. After working to restore watersheds out West, Laura moved back to Wisconsin and worked for River Alliance’s AIS program for nearly a decade, and most recently as Trout Unlimited’s Great Lakes Stream Restoration Manager. Her experience collaborating with federal, state, tribal and local partners in Northern Wisconsin is certainly an asset. Laura and her husband live in Rhinelander with their two young children. Together the four of them enjoy mountain biking, canoeing, skiing, fishing, camping and gardening.



Laura.MacFarland@wisconsin.gov  
715-365-8920



Ashleigh.McCord@wisconsin.gov

Ashleigh McCord is the new Wisconsin DNR AIS Research Assistant helping coordinate AIS research and demonstration projects and using them to improve our management and outreach. After working for the Washington State DNR, she completed an MS in environmental management at Duke in 2016, where she focused on marine and coastal science and policy (and finally learned to appreciate college basketball!) She also spent several years on Cape Cod, managing coastal resources and community engagement efforts through AmeriCorps. Ashleigh loves hiking, paddling and any other excuse to get outside and enjoy our public lands, or (when Wisconsin is too cold for a native Texan), crafting and baking.



# Preserving Water Quality in Wisconsin

Kyle Mosel is the new statewide AIS Response Coordinator for Wisconsin's DNR. His graduate research at UW-Madison focused on population dynamics and management of exploited yellow perch and crappie populations in Wisconsin. Kyle worked as a fish biologist, leading multiple Asian carp projects in the Upper Mississippi River Basin. He also completed surveys for native and invasive mussels as a SCUBA diver. In his spare time, Kyle enjoys hunting, fishing and spending time with family.

Kyle.Mosel@wisconsin.gov  
608-266-0502



Cassie Taplin is the new AIS Coordinator in Washington and Waukesha Counties. Cassie graduated from UW-Superior with a degree in Biology focusing on Ecology, Aquatic Biology, and Fisheries Science along with a minor in Earth Science. She formerly worked as an Invasive Species Technician for the 1854 Treaty Authority, an intertribal organization of the Grand Portage and Bois Forte bands of the Chippewa in Minnesota.

Cassie.Taplin@co.washington.wi.us  
262-335-4806



Amanda Smith has joined the DNR's Lake Michigan Team as an AIS Specialist (formerly the AIS/Lakes Coordinator for the South Central Region). "When I'm not working on water-related issues, you can find me... on the water!" Amanda is an avid cook/baker, crafter, reader, hockey fan, classic car lover and movie fanatic.

Amanda.Smith@wisconsin.gov  
920-662-5110



katies@scramail.com



Katie Sickmann is now the Invasive Species Coordinator with the St. Croix River Association. She has experience with water quality monitoring, invasive species management, education and outreach, and maintaining BMPs and restoration sites. Katie spent many summers at her family's cabin just outside of Spooner, WI and loves to kayak the Namekagon.

Molly Bodde joined Sea Grant as the AIS coordinator for southeast Wisconsin. Molly works closely with Sea Grant AIS Outreach Specialist Tim Campbell to connect Kenosha, Racine, Milwaukee and Ozaukee Counties with DNR, Extension and Wisconsin Sea Grant AIS programs and resources. Molly will balance her new duties with pursuing a master's degree in sustainable management, which she plans to complete next December.

Molly.Bodde@aqua.wisc.edu



# WELCOME ABOARD!



# Lake Bottom Mysteries

## AIS Threaten Shipwreck

## Preservation in the Great Lakes

By Ryan Smazal, Maritime Preservation Intern at the Wisconsin Historical Society, and Sara Fox, Aquatic Invasive Species Outreach Assistant at Extension - reprinted from the "Live from the Lakes: A Wisconsin Lakes Blog" <http://lakes-l.blogs.govdelivery.com/>

***The Great Lakes contain more than 700 shipwrecks, in which live over 3,500 plant and animal species!***

As many people might know, the Great Lakes house about a fifth of the freshwater supply for the entire world. A less commonly known fact is that the Great Lakes contain more than 700 shipwrecks. Among those shipwrecks live over 3,500 plant and animal species that generally coexist with the shipwrecks in peace. However, the introduction and spread of aquatic invasive species might threaten existing ecosystems and the preservation of shipwrecks in the Great Lakes.

The Great Lakes were once a massively important trading region because of their connection to inland rivers and lakes which helped transport goods. The shipping industry took advantage of this connection, as well as the Great Lakes' many natural ports. For various reasons, including gales, scuttling and fires, some of the same ships from this era remain at the bottom of the Great Lakes today.

Fortunately, the cold water and low salinity of the Great Lakes create an ideal environment for preserving these shipwrecks. Historians have interest in uncovering new shipwrecks as a way to investigate old trade routes, discover cargo, and study differences in ship design. Additionally, fish tend to make their homes near shipwrecks, so divers enjoy the opportunity to explore freshwater ecosystems.

Although new wrecks are being discovered every year, there's concern to preserve the ones we've already found. An example historians look to is that of the Alvin Clark, a ship that began to deteriorate as soon as it was removed from its cold and wet home in Lake Michigan. Apart from the natural preservation system the lakes provide, there are intervention-related options for conservation, such as polyethylene glycol treatment or designating a wreck as a National Historic Place. Unfortunately, options like these tend to be expensive and time consuming.

Tamara Thomsen



*The La Salle has been preserved at the bottom of Lake Michigan since 1874.*

Despite efforts being undertaken to preserve the shipwrecks, they face a new potential threat: aquatic invasive species. Today, over 180 invasive species, both plant and animal, threaten the ecosystems of the Great Lakes. The vessel most likely responsible for the introduction of these invaders are cargo ships that enter through the St. Lawrence Seaway. Large cargo ships uptake water at the beginning of



their journey to provide stability on the high seas. When it's time to unload the cargo, they release the ballast water, along with aquatic animals and plants that may have hitched a ride. Some of these foreign species die immediately, but those that survive can thrive due to their reproductive capabilities or lack of native predators.

Aquatic invasive species that might pose a threat to the preservation of shipwrecks include mussel species like the zebra mussel (*Dreissena polymorpha*) and quagga mussel (*Dreissena rostriformis bugensis*). Here's why:

- Zebra and quagga mussels begin their lives as microscopic eggs, slowly taking in nutrients and growing until they become heavy enough to sink. Once they begin to sink, they use feet-like assemblages called byssal threads to stick on to the first hard substance they encounter whether it be a boat propeller, a dock or a shipwreck. Many mussels on the same structure could cause a heavy pile up, and sometimes can corrode certain metals.
- Both zebra and quagga mussels are filter feeders. Did you know a single zebra mussel can filter up to a liter of water a day? Mussel respiration also produces carbon dioxide. Both of these characteristics can affect water quality and alter waterbodies in a way that may not be favorable to shipwreck preservation.
- Zebra and quagga mussels reproduce quickly and in large quantities. A female zebra mussel can produce as many as one million eggs in a season! Once introduced to an area, invasive mussels can take over and continue to affect water quality and damage underwater structures for decades.

Even though there are over 180 kinds of invasive species on the Great Lakes, we shouldn't be discouraged. It's important to still be conscious of the cleanliness of our watercraft vehicles. Not every patch of every Great Lake has a zebra mussel presence and



Both the zebra mussel (left) and quagga mussel (right) contain byssal threads that allow them to attach to the first hard surface they encounter.

shipwrecks could exist in an acre of water not yet infested. Aquatic invasive species can be accidentally transported in boat motors, livewells and on fishing and diving gear. Individual lake users can help stop the spread of invasive species by following the WDNR recommended prevention steps:

*A female zebra mussel can produce as many as one million eggs in a season!*

<b>INSPECT</b>	boats, trailers and equipment.
<b>REMOVE</b>	all visible plants, animals and debris.
<b>DRAIN</b>	all water from boats, including motors, bilges, livewells and equipment.
<b>NEVER MOVE</b>	plants or live fish away from a waterbody.

If every boater were conscious of their ability to spread invasive species and took actions to prevent the spread, existing populations could be easily contained. If populations were contained forever, shipwrecks in uninfested areas could be preserved and studied for decades to come. 💧

For more information about aquatic invasive species, consult the NAS database:  
<https://nas.er.usgs.gov/queries/default.aspx>

For more information about shipwrecks in the Great Lakes, consult:  
<http://www.wisconsinshipwrecks.org/>

*If every boater were conscious of their ability to spread invasive species and took actions to prevent the spread, existing populations [of aquatic invasive species] could be easily contained.*



# Pay it Forward

## 2019 Lakes Convention and WAV Symposium

By Kim Becken, Outreach Specialist, Extension Lakes

### Agenda *...at a glance*

#### Wednesday, April 10

*Agenda subject to change.*

#### Pre-convention Workshops/Sessions

8:00 am	Registration opens
9:00 am-4:00 pm	All Day Workshops
9:00 am-Noon	Morning Workshops
Noon-1:00 pm	Lunch on your own (pre-register for on-site)
Noon-6:00 pm	Exhibits open
1:00-4:00 pm	Afternoon Workshops
4:45-5:45 pm	Special Technical Sessions
5:45-7:00 pm	Networking time - Dinner on your own
7:00-11:00 pm	Welcome Reception

#### Thursday, April 11

6:30-7:15 am	Sunrise Yoga
7:30 am	Registration opens
8:00 am	Exhibits open (until 6:00 pm)
8:00-8:50 am	Concurrent Sessions 1
9:00-10:30 am	Welcome & Speaker Dr. Stephen Polasky
10:40 am-Noon	Concurrent Sessions 2
12:15-1:30 pm	Lunch
1:45-2:25 pm	Concurrent Sessions 3
2:35-3:15 pm	Concurrent Sessions 4
3:30-5:00 pm	Poster Presentations
	Visit Business and Educational Displays
5:00-6:00 pm	Networking time
6:00-8:00 pm	Awards Banquet/Ceremony
8:00-11:00 pm	Lakes Partnership After Hours

#### Friday, April 12

6:30-7:15 am	Sunrise Yoga
7:30 am	Registration opens
8:00 am	Exhibits open
8:00-8:50 am	Concurrent Sessions 5
9:00-10:15 am	Friday Speaker Dr. Douglas Tallamy
10:45-11:45 am	Concurrent Sessions 6
Noon-1:15 pm	Closing Lunch
1:30-2:30 pm	Concurrent Sessions 7
2:45-3:45 pm	Concurrent Sessions 8

#### 2019 Wisconsin Lakes Partnership Convention and Water Action Volunteers Symposium



Last month, I spent a few tense days sitting in the hospital as my elderly mother underwent several delicate medical procedures. Finally, the doctors felt she was well enough to be released. We bundled up and headed home (an hour trip). It was late, we were hungry, and I knew there was nothing in her refrigerator, so I pulled through the local drive-in. As I approached the window the cashier informed me that the individual in the car in front of me had paid my bill. WOW! How did that person know I was exhausted, nervous about taking my mom home and near the last few dollars in my wallet? An action in the true sense of the statement, “Pay it forward!” In my case, the experience was an extraordinary event.

*Pay it Forward*, the theme for our Wisconsin Lakes Partnership Convention and Water Action Volunteers Symposium, is exactly the mind-set we hope everyone will be able to take home. Our presenters will focus on ways we can enrich our lives and the communities we live in by preserving and restoring natural habitats. There will be networking and learning opportunities with fellow organization leaders, volunteer monitors, resource managers, researchers, service providers and educators. These folks are often in positions of paying it forward – many without even knowing they are doing so.

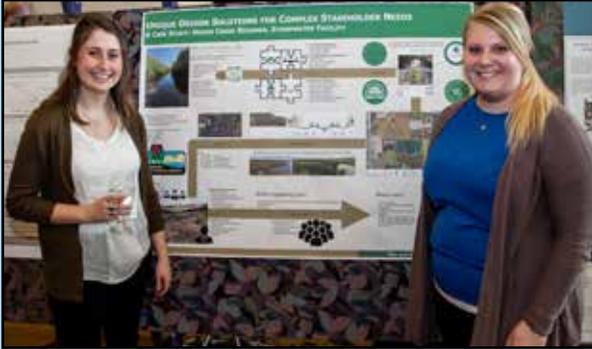
We hope the convention experience is refreshing, intriguing and well worth the dollars spent. Help us pay it forward to our youth, our communities and our planet. I think you will experience an extraordinary event. See you there!



# Call for Posters!

**Deadline: March 13, 2019**

Including your poster in the Wisconsin Lakes Partnership Convention and Water Action Volunteers Symposium is a great way to share your research, project or success story! For more information and to submit a proposal, go to [uwsp.edu/uwexlakes](http://uwsp.edu/uwexlakes).



Doug Moore

# Exhibitors

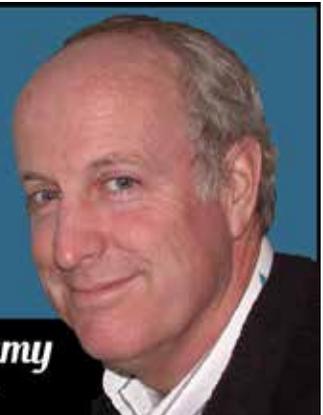
Attention businesses and nonprofit groups! Now is the time to reserve your exhibit space for the 2019 Lakes Convention and WAV Symposium! Get all the details and secure your spot at [uwsp.edu/uwexlakes](http://uwsp.edu/uwexlakes).



Doug Moore



**Thursday Keynote**  
9:00-10:30 AM  
**Valuing Ecological Services to Make Smarter Water Decisions**  
**Dr. Stephen Polasky**  
PROFESSOR OF ECOLOGICAL ECONOMICS



**Friday Keynote**  
9:00-10:15 AM  
**A Guide to Restoring the Little Things that Run the World**  
**Dr. Douglas Tallamy**  
PROFESSOR OF ENTOMOLOGY

# Pay it Forward & Pay Yourself!

Matt Frank

Sharing your favorite lake photos is a great way to pay it forward by helping us brighten your convention space! Pick your four best photos to enter into the Lakes/Streams Photo Contest - you could win \$100! Rules and entry forms found on the *Convention 2019* webpage: [uwsp.edu/uwexlakes](http://uwsp.edu/uwexlakes)

**Deadline: March 13, 2019**

*Morning Reflection won second place in one of the categories at the 2018 Wisconsin Lakes Partnership Photo contest.*



# Hands-on Workshops - Wednesday, April 10

Your 2019 Wisconsin Lakes Partnership Convention and Water Action Volunteers Symposium will include several interactive workshop opportunities. Get all the details and pre-register at [uwsp.edu/uwexlakes](http://uwsp.edu/uwexlakes) before all the spots are taken!

## Morning Workshops ~ 9:00 am-12:00 pm

**Lake District Commissioner Introduction** (Limit 50)  
*Eric Olson, Director & Lake Specialist, Extension Lakes*

**Citizen Lake Monitoring Network Refresher** (Limit 40)  
*Wisconsin DNR Water Resource Management Specialists:  
Katie Hein, Rachel Sabre, Kris Larsen, and Sandy Wickman  
(also with Extension Lakes)*

**Loon Ranger** (Limit 30)  
*Erica LeMoine, Citizen Science Coordinator, LoonWatch*

**SWIMS for Beginners** (Limit 25)  
*SWIMS Help Team, Wisconsin DNR - Jake Dickmann,  
Michala Feigal, Ben Kort, Dennis Wiese, and Jeanne  
Scherer*

**How to Start a Lake Assoc., River, Watershed or  
Friends Group** (Limit 40)  
*Speaker to be announced*

**Starting a Native Plant Growing Volunteer Program**  
(Limit 50)  
*Susan Sandford, Strategic Engagement Coordinator, Dane  
County Land & Water Resources Department and  
Theresa Nelson, Engineer, City of Madison, WI*



## Afternoon Workshops ~ 1:00-4:00 pm

**Advanced Lake District Commissioner Training:  
Major Projects** (Limit 50, Additional Fee \$40)  
*William O'Connor and Mary Beth Peranteau, Attorneys,  
Wheeler Van Sickle & Anderson, S.C.*

**Living Habitats** (Limit 50)  
*Heida Natura, Landscape Architect, Living Habitats  
Patrick Goggin, Lakes Specialist, Extension Lakes*

**Lake District Treasurer Training** (Limit 40)  
*Eric Olson, Director & Lake Specialist, Extension Lakes*

**An Introduction to Lake Eutrophication Modeling**  
(Limit 40)  
*Paul McGinley, Water Quality Specialist, Extension*

**Advanced SWIMS** (Limit 25)  
*SWIMS Help Team, Wisconsin DNR - Jake Dickmann,  
Michala Feigal, Ben Kort, and Dennis Wiese*

**Getting the Message Out: Lake & River  
Communication** (Limit 40)  
*Jeanne Scherer, AIS Outreach Specialist, Extension &  
Wisconsin DNR, Tim Campbell, AIS Communication  
Specialist, Extension & Wisconsin DNR and Mike  
Engelson, Executive Director, Wisconsin Lakes*

**Introduction to Cyanobacteria** (Limit 30)  
*Gina LaLiberte, Statewide Blue-green Algae Coordinator,  
Wisconsin DNR*

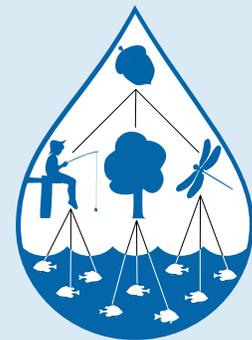
**Aquatic Plant Ecology & Identification**  
(Limit 25, Additional Fee \$25)  
*Susan Knight, Interim Director, Trout Lake Station, Paul  
Skawinski, Statewide Citizen Lake Monitoring Network  
Educator, Extension Lakes and Michelle Nault, Statewide  
Lakes & Reservoir Ecologist, Wisconsin DNR*

## All Day Workshops ~ 9:00 am-12:00 pm (break) 1:00-4:00 pm

**Beyond Free Fishing Weekend – More than Just a Weekend** (Limit 25) - off-site  
*Theresa Stabo, Natural Resource Educator, Wisconsin DNR*

**Lakekit.net Training and Website Construction** (Limit 12, Additional Fee \$50)  
*Ken Justiniano, Northern Graphics OPS, Larry Bresina, Webmaster, Polk County Association  
of Lakes and Rivers and Karen Reynolds, President, Gilbert Lake Advancement Association*

**Water Action Volunteer (WAV) Introductory Monitoring Training** (Limit 12) - off-site  
*Peggy Compton, Natural Resources Educator and WAV Program Director, Extension*



Pay it Forward



# Capacity Corner

## A Closer Look at Membership Capacity

By Eric Olson, Director and Lake Specialist, Extension Lakes

The Lakes Partnership is renewing our emphasis on assisting lake organizations to be forces of change in protecting lake health. Our model of lake organization capacity is built around four related parts: membership, organization, relationships and programs. Membership is the basis for the other three. A group needs members whose support fuels all other efforts. Organizational capacity is mostly about how a lake association or lake district conducts its internal affairs, and organizations develop relational capacity by collaborating and networking with external people and groups. Lake groups leverage these three types of capacity to boost their ability to get things done: what we're referring to as programmatic capacity.

These four dimensions of capacity serve as quarterly guideposts for our efforts to share ideas, tips and stories about capacity development in *Lake Tides*. We'll kick off each year with a closer look at membership capacity. Last fall, Mae Davenport, from the University of Minnesota, was able to come to Treehaven in northern Wisconsin to present some of her research about capacity development for lake and watershed organizations. Minnesota has been working to use a civic engagement strategy to broaden the set of stakeholders actively working on water issues and foster greater participation in water protection and restoration.

Mae emphasized during her presentation that when it comes to who actually gets involved in watershed projects, "social attachment" is equally or more important than "environmental attachment." As she summarized in a recent research article, the people "who are attached to their neighborhood through social ties are likely to be civically engaged in water resource protection...Environmental attachment, in contrast, did not have a significant direct effect on civic engagement. Individuals that are emotionally connected to their neighborhood

primarily through their ties to local natural resources may not necessarily engage in civic actions around water."

The implication is that lake, river and watershed groups seeking to boost civic engagement around water issues need to reach beyond those members who are driven primarily by their interest in the resource itself. Membership-building strategies should appeal to people who want to build social ties with their neighbors. These prospective members might want to know how the lake can help address other social issues in the community. For example, they may not be personally interested in the fishery of the lake, but they are interested in the role that the lake and its fish play in the overall quality of life in the area. They may already be involved in other social causes (through a church or a chamber of commerce) and they possess a strong sense of how to get things done. Lake groups can attract these folks by maintaining a presence in community events and ensuring that meetings and communications show that getting involved in lake protection and restoration projects is a great way to bolster the community. 💧



*When it comes to who actually gets involved in watershed projects, "social attachment" is equally or more important than "environmental attachment."*

*Find links and articles about capacity development on our Extension Lakes website.*

Amy Kowalski



Folks who are already involved in community events are the individuals that lake groups should try to recruit for water resource protection.



# Drain Campaign and Landing Blitz 2019 Dates Set

By Jeanne Scherer, AIS Outreach Specialist, Wisconsin Department of Natural Resources

The time has already come to start planning the 2019 Clean Boats, Clean Waters campaigns. Let's think summer!

The 2019 statewide Drain Campaign will be Friday, May 31-Sunday, June 2. Like last year, we're overlapping with the Free Fishing Weekend. Volunteers and staff across the state will give fishermen ice packs with the reminder to "Drain your Catch" and always dump water from buckets and livewells before leaving the lake or river.



- ✓ INSPECT
- ✓ REMOVE
- ✓ DRAIN
- ✓ NEVER MOVE

We'll jump into the 4th of July weekend Landing Blitz on Wednesday, July 3 and again give boaters the much appreciated boat towels through Sunday, July 7. Landing Blitz 2019 marks the ten-year anniversary of the campaign.



If you haven't already contacted your regional or county AIS Coordinator to participate, do it as soon as possible (you can find them at <https://dnr.wi.gov/lakes/invasives/topics.aspx>). Supplies are limited.

In addition to ice packs and towels, many of you are probably already thinking about updating your publication library for this year. Please send your orders to [DNRAISinfo@wisconsin.gov](mailto:DNRAISinfo@wisconsin.gov).

If you have questions about the campaigns or publications, please contact Jeanne or Tim. [Jeanne.Scherer@ces.uwex.edu](mailto:Jeanne.Scherer@ces.uwex.edu) or 608-266-0061 [Tim.Campbell@wisc.edu](mailto:Tim.Campbell@wisc.edu) or 608-265-3727

Brad Steckart



Sara Fox helps with the 2018 Landing Blitz in Southeast Wisconsin.

## Clean Boats, Clean Waters Watercraft Inspection Listserv

Are you involved in watercraft inspections? Then you should join the newly created CBCW email listserv! The purpose of the listserv is to provide updates to active watercraft inspectors and allow inspectors to offer feedback regarding the program.

It's easy to join! Just send a blank email to [join-cbcw@lists.wisc.edu](mailto:join-cbcw@lists.wisc.edu) to sign up. If you decide to leave the listserv, you can unsubscribe by sending a blank email to [leave-cbcw@lists.wisc.edu](mailto:leave-cbcw@lists.wisc.edu).

We hope you find this new communication tool helpful to your inspection efforts!

# Lake Group Resources

## Online Facts and Stories You Can Share

**D**o you need more stories and facts about Wisconsin's lakes between editions of *Lake Tides*? Are you charged with finding content for your lake or river group's social media page or newsletter? If you said, "Yes." to either of these, we have a couple of resources you are going to love! Check out the Wisconsin Lakes Partnership Facebook page at [www.facebook.com/wilakespartnership](http://www.facebook.com/wilakespartnership) and join the discussion about our lakes online! Oh, and if you haven't already, please "LIKE us!"



You also have access to a collection of over 1800 articles from 43 years of the *Lake Tides* newsletter! If you are looking for an article about a critter or plant, try choosing the "Creature Feature" or "Did you know..." categories. If you are part of a lake district, you might be interested in past "Lake District Q&A" entries. You can also simply type in a key word or two to find what you're looking for - all this in just a few keystrokes! Check it out by going to [uwsp.edu/uwexplakes](http://uwsp.edu/uwexplakes) and clicking on "Newsletter" in the site navigation on the left. 📄

### CALENDAR

**February 28-March 1 – AWRA Annual Meeting - Wisconsin Chapter, Delavan, WI**

For more information: <https://wisconsinawra.org/2019meeting.html>

**March 5-6 – Fox-Wolf Watershed Alliance Conference, Green Bay, WI**

For more information: <http://fwwa.org/conference/>

**March 5-6 – St. Louis River Summit, Superior, WI**

This year's theme is "River Towns: Landscapes and Livelihoods." The Summit actively fosters communication, networking and problem-solving on issues affecting the environmental health of the estuary and related community well-being. Please contact Hilarie Sorensen ([hilarie.sorensen@ces.uwex.edu](mailto:hilarie.sorensen@ces.uwex.edu)) with questions and ideas.

**March 13-15 – Wisconsin Land + Water Conference, Lake Geneva, WI**

For more information: <https://wisconsinlandwater.org/events/annual-conference>

**March 14 – Red Cedar Watershed Conference, Menomonie, WI**

For more information: <https://www.uwstout.edu/outreach-engagement/lifelong-learning/other-opportunities/red-cedar-watershed-conference>

**March 22 – Fox River Summit, Burlington, WI**

For more information: <https://www.southeastfoxriver.org/foxriversummit>

**March 25-29 – National Water Monitoring Conference, Denver, CO**

For more information: <https://acwi.gov/monitoring/conference/2019/index.html>

**March 27 – Open House - Bad River Natural Resources Department, Ashland, WI**

Stop by the Bad River Lodge & Casino between 10:00 AM and 6:00 PM to check out the informational booths, educational activities, raffle prizes and more!

**April 10-12 – WI Lakes Convention & WAV Symposium, Stevens Point, WI**

For more information: <http://www.wisconsinlakes.org/>

**April 27 – Fox-Wolf Watershed Cleanup Appleton, WI**

For more information: <http://fwwa.org/events-calendar-fwwa/watershed-cleanup/>



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## Reflections

*In the order of nature we cannot render benefits to those from whom we receive them, or only seldom. But the benefit we receive must be rendered again, line for line, deed for deed, cent for cent, to somebody.*

~ Ralph Waldo Emerson

