



## Ice On, Ice Off

*The date that a lake freezes over and the date that it opens up have been noted occasions for centuries. That information can be gleaned from religious accounts, newspaper archives, and transportation records. In Japan, these records on Lake Suwa date back to 1445. Ancient Shinto lore tells of a temple with a male and female god, who argued. As a result, the female god built her own temple on the other side of the lake. Every winter, after the ice formed on the lake, the male god and his pet dragon visited her, and their visit was easily identified by a serpentine ice ridge left by the dragon's tail. Each winter since 1452, Shinto priests hold a religious ceremony on the lake to mark the event and record the date. The priests' annual record of freezing and other ice events provides the oldest known annual time series of ice phenology.*

Historically, ice off dates in Wisconsin were also marked by a cultural if not so elegant annual winter tradition. Some community service clubs would drag old, junker cars out on the ice in March and sponsor "guess the ice out day" contests to raise funds for good causes. Prizes were given out to the person that could guess the day and hour that the vehicle would plummet through the ice.

Today there is another more disquieting reason to track ice phenology. Long-term ice trends can be a tool in detecting global climate change. Water warms up and cools slower than the planet's air and soils. If lakes and rivers are staying clear of ice for longer periods of time each year, this may indicate that the climate is warming.

Picking the date that a lake freezes can be tougher than it sounds. In Wisconsin, scientists define that day (ice on) as the first date on which the water body is observed to be completely covered with ice, and the breakup date (ice off) is the date of the first ice thaw. The period of days between these two events in which a water body is completely covered with ice is known as the ice duration. The duration of ice cover is valuable information that many scientists and volunteers record each year.

In the Global Lake and River Ice Phenology database, kept by the National Snow and Ice Data Center (NSIDC), are records containing freeze and breakup dates and other ice cover descriptive data for 750 lakes and rivers. Of the 429 water bodies that have records longer than 19 years, 141 are in Eurasia and 287 are in North America. 170 of the lakes have ice records longer than 50 years, and 28 lakes have records dating back to 1900. A few even have data prior to the Civil War.

There are many factors that can play a role in ice on and ice off - the size of the lake, the depth, how far north or south it lays, broad scale weather patterns and the amount of snow are just a few. What do such long-term records tell us? Scientists working with the NSIDC say freeze and breakup dates of ice on lakes and rivers provide consistent evidence of later freezing and earlier breakup around the Northern Hemisphere from 1846 to 1995. A few longer time series reveal reduced ice cover beginning as early as the 16<sup>th</sup> century, with increasing rates of change after about 1850. These changes have been even more dramatic in the period from 1974 to 2004 and, in particular, in the lakes along the southern boundaries of the

*The boundary between lakes that regularly freeze and those that don't is shifting steadily northward, such that some lakes in Wisconsin may never freeze over in the future.*

(Continued on page 2)

## **Collecting Ice On and Ice Off** **Data for Wisconsin Lakes**

If you are interested in collecting ice on, ice off information, join the Citizen Lake Monitoring Network (CLMN) and contact Laura Herman at 715-365-8998, [lh Herman@uwsp.edu](mailto:lh Herman@uwsp.edu).

If you already collect this data on your lake, but are not connected to the statewide monitoring database, contact Laura Herman (see above).

Great Lakes states. The boundary between lakes that regularly freeze and those that don't is shifting steadily northward, such that some lakes in Wisconsin may never freeze over in the future.

According to the State Climatology Office, the ice duration on Madison's Lake Mendota in the winter of 2001-2002 was 21 days - the shortest

ever over the period of record beginning in the 1850s. The Lake Mendota patterns are observable around the Northern Hemisphere with some variations.

What would be the long term implications for our southern lakes if they no longer froze in the winter? What would be the consequences to fish and zooplankton? Would it decrease the number of winter fish kills?

*Our reasons for tracking the miracle of ice over the centuries have evolved. Today, some of those reasons are more ominous. From cultural to scientific and from local to global, we will continue to note and celebrate the comings and goings of gelid waters and ice.*

For links to more information about ice phenology, go to [www.uwsp.edu/cnr/uwexlakes/laketides/vol35-1/Text-only.htm](http://www.uwsp.edu/cnr/uwexlakes/laketides/vol35-1/Text-only.htm). ❄

## **2010 Session Dates**

**Session I - May 19-20**

**Session II - Sept. 14-15**

**Session III - Oct. 20-21**

## **Learn, Lead, Take Action** *Join the Lake Leaders Institute Today!*



Over a decade ago a need was identified and an idea was hatched to fill it. Lakes needed fresh leadership and seasoned leaders needed refreshing. In the spring of 1998 the Lake Leaders Institute was born to take on this task. The members are affectionately called crews and the Institute provides a fertile garden for ideas and people to grow. Over 200 graduates from the nationally recognized *Lake Leaders Institute* have taken their new skills and personal connections back to their communities and are helping to preserve and protect Wisconsin waters. In addition, the Institute has spurred these leaders to share their talents beyond the shores of their community lake and help our state's decision-makers choose wisely on issues common to all lakes. Join these fascinating folks that share your concern for the future of our water resources!

Next spring will be time to gather a new "crew" to share experiences and explore new ideas about our waters. Ask yourself these questions:

- Do you have a vision for Wisconsin waters?
- Are you interested in meeting people that care about our lakes and waters?
- Would you like to meet and get to know the people working for state agencies and institutions charged with lake management and stewardship?
- Could you benefit from more knowledge of how to be an effective leader?
- Would you enjoy hands-on education about the science of lakes and aquatic ecology?
- Do you want to make a difference in Wisconsin's legacy of lakes?

**If you answered "yes" to many of these questions, you are a great candidate for Crew VIII of the Wisconsin Lake Leaders Institute.**

You can nominate yourself or a friend by **April 12, 2010** by sending contact information and a purpose statement to [uwexlakes@uwsp.edu](mailto:uwexlakes@uwsp.edu). For more details about the *Lake Leaders Institute*, go to [www.uwsp.edu/cnr/uwexlakes/lakeleaders/](http://www.uwsp.edu/cnr/uwexlakes/lakeleaders/) or call 715-346-2116.

*The future  
of our lakes  
is in your  
hands.*



# Frozen In Time

## A Subglacial Lake in Antarctica

It is the year 2100 and there certainly aren't many unknown lakes left to discover...right? If there were, they would probably be tiny and in some remote location. Well, a previously unknown lake was found, and it is huge...nearly the size of Lake Ontario! It was discovered near a place named Vostok. Calling Vostok a remote location would be an understatement. In 1957, the Russians established a base there, which is 600 miles from the Antarctic coast and has temperatures that sometimes plunge to -128°F.

In 1996, a team of Russian scientists, drilling through nearly two miles of the ice cap, hit ice that was clear and free of any features typical to Antarctic ice. They stopped drilling to search for answers to this anomaly. Airborne radar and satellite altimetry revealed a flat area about 155 miles long by 31 miles wide. Scientists believe that a liquid lake must lie below these two miles of Antarctic ice. They think the lake is kept liquid by the tremendous pressure, the insulation of the ice, and geothermal heat.

This water, and maybe even an ecosystem, has been sealed from the rest of the planet for at least 500,000 years and perhaps as long as 25 million years. Such conclusions put this lake among the rarest of places on the planet, a place uncontaminated by human activities. In comparison, the highly-contaminated (both biologically and chemically) Great Lakes and inland lakes are mere infants with barely 10,000 years under their belts.

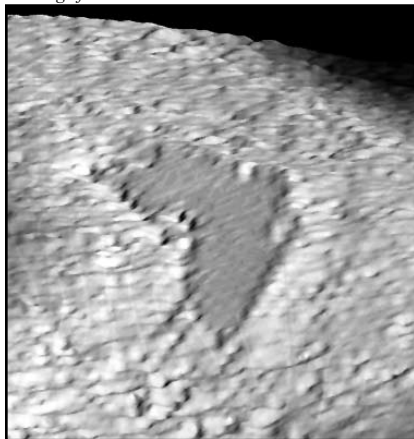
There is great interest in finding out if any life inhabits the extreme conditions of this lake. The main concern is penetrating the remaining ice to reach the lake water without contaminating the lake with bacteria or other



*Antarctica is the highest, driest and coldest continent on earth.*

foreign bodies. While drilling to the site of this remote lake, the Russians used a solution of 60 tons of kerosene and Freon™ water to keep the hole from re-freezing. The drilling was stopped about 300 feet above the liquid lake.

*Image from the National Snow and Ice Data Center*



At present, researchers are pondering methods to investigate the lake without destroying its unflawed condition. The introduction of any biological or chemical contaminants could do unalterable damage. Researchers believe there is also a chance that animals, previously unknown to humans, could be discovered.

The best idea for a tool that can reach the lake to date is called a *crybot*. This device is a heated probe that would melt through the ice to reach the lake. It could be decontaminated before it arrived at the water, and once in the lake, it would release a submersible with instruments and a camera to explore these new depths and send back information.

Entry into this uniquely pristine lake is planned to take place in the 2010-2011 drilling season. Only then will we know what, if any, creatures lurk in its ancient depths.

Take a virtual tour of Lake Vostok at [www.ideo.columbia.edu/~mstudying/slide\\_show](http://www.ideo.columbia.edu/~mstudying/slide_show). 💧

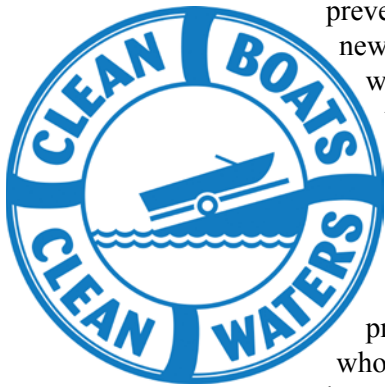
*[Scientists] think the lake is kept liquid by the tremendous pressure, the insulation of the ice, and geothermal heat.*





# Trends in Boater Behaviors

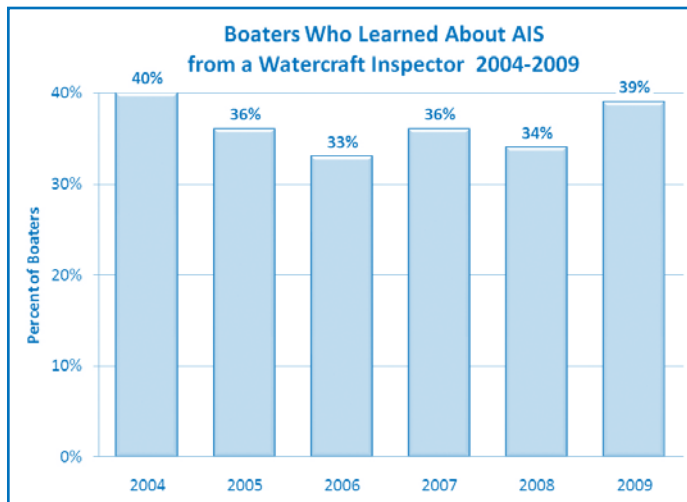
## 2004-2009 Watercraft Inspection Data



Since 2004, watercraft inspection has been a significant part of Wisconsin's aquatic invasive species (AIS) prevention efforts. Research has shown that inspections play an important role in helping contain AIS to already affected waterbodies, preventing the spread of invasive species to new waters. Our effort to concentrate on waters with an AIS presence in 2009 led to an increase in watercraft inspections on Lake Michigan, Lake Superior, Lake Winnebago, and other inland waterbodies that have been identified as sources of AIS. This summer, there were numerous landings that had inspectors present for the first time, and many people who had never heard of AIS before learned how to take the proper AIS preventative steps.



*A partnership with Workforce Development allowed young adults to support the Clean Boats, Clean Waters effort.*



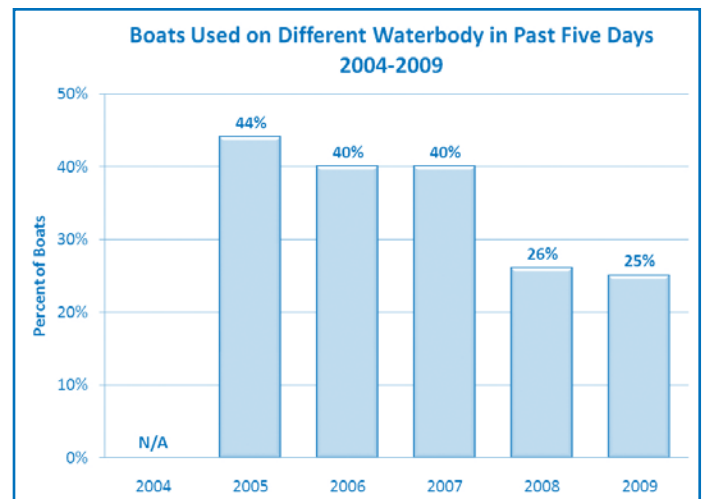
*The percentage of boaters stating "watercraft inspector" as their source of AIS information rose by 5% from 2008.*

*This summer, many people who had never heard of AIS before learned how to take the proper AIS preventative steps.*

This increase in watercraft inspectors was made possible by a new project and partnership with Workforce Development. Young adults who were unfamiliar with AIS or outreach efforts were given the opportunity to become educators and help protect Wisconsin's lakes by working as inspectors. Many of them gained valuable work experience and insight into their career interests, while lakes with an AIS presence gained some much needed boat inspections. This project helped

us gather some significant data on boater behaviors and awareness from AIS source waters. Below are some data totals for 2009 from across the state.

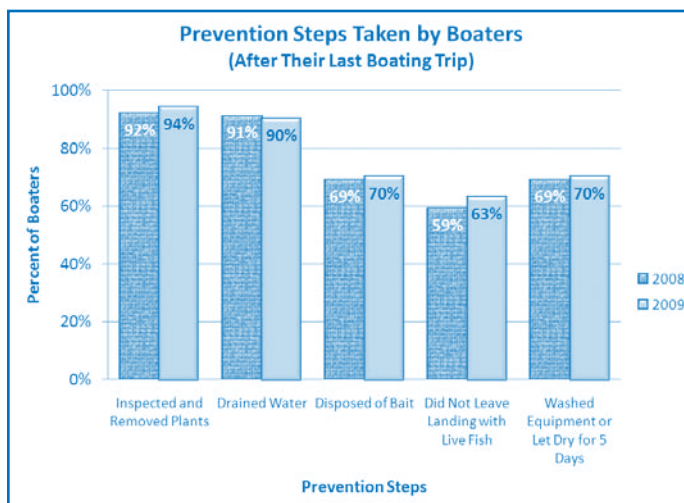
- ◆ 52,777 boats were inspected by volunteers and paid inspectors
- ◆ 114,202 people were contacted about the 'Clean Boats, Clean Waters' message
- ◆ Over 32,387.9 hours were spent conducting watercraft inspections
  - ~ 70% hours by paid inspectors
  - ~ 30% hours by volunteers
- ◆ 16% of all boats inspected had plants attached; of these, the majority of the boaters (78%) removed the plants as requested
- ◆ 25% of boats had been in another waterbody in the last five days



*Only 25% of boaters reported using their watercraft on a different waterbody within the past five days. This number is down one percent from last year, indicating the continual decline of boaters lake-hopping.*



- Boaters and other landing users were asked about whether they took each prevention step after they last used their boat and equipment
  - 94% said they inspected their boat and equipment for plants and removed any found
  - 90% said they drained all water from their boat and equipment
  - 70% said they disposed of their unused bait
  - 63% said they put their fish on ice to ensure they were not leaving the landing with any live fish
  - 70% said they either washed their boat and equipment with hot or high pressure water OR dried them for five days
- 91% of boaters stated that they were aware of the AIS launch law

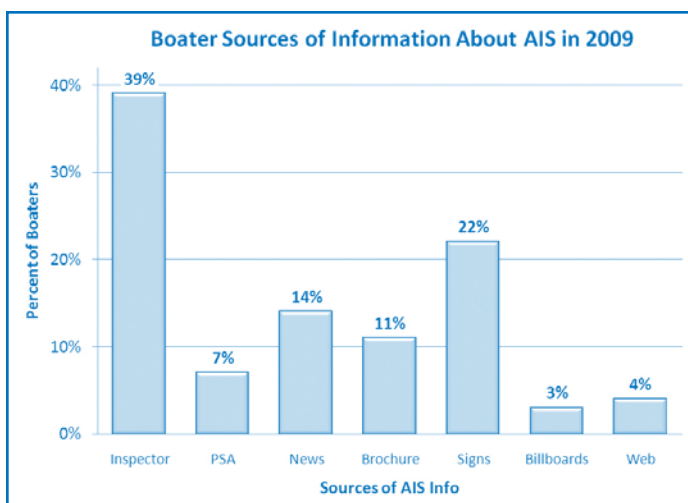


*There was an increase in the percent of boaters who reported inspecting and removing plants, disposing of their bait, and not leaving the landing with live fish.*

### Friendly Reminder

*If you haven't entered your data for this past monitoring season, it is not included in the statistics listed here. Not to worry though, you still have time to enter your 2009 data.*

*Watercraft inspectors remain the leading source of AIS information for boaters.*



## DNR Reaches Out to Online Citizens

The Wisconsin Department of Natural Resources (DNR) is making information about our state's natural gems more accessible to "online citizens." Go to <http://dnr.wi.gov/> and click on the "Subscribe to DNR Updates" under the "Features" area at the upper-right. After entering and verifying your email address, you can sign up to get email notices for everything from general DNR announcements, to fishing updates, to news related to Wisconsin lakes.



Specifically, under the "Lakes" category, is a "Lakes-L Blog" choice (see box to the right for more details).

## WI Lakes Blog

*Free-share Your Lake Views with Other Concerned Citizens*

Beginning last month, the DNR rolled out a new free service called the Lakes-L Blog (a moderated discussion forum), which replaces the previous Lakes-L listserv (no longer available).

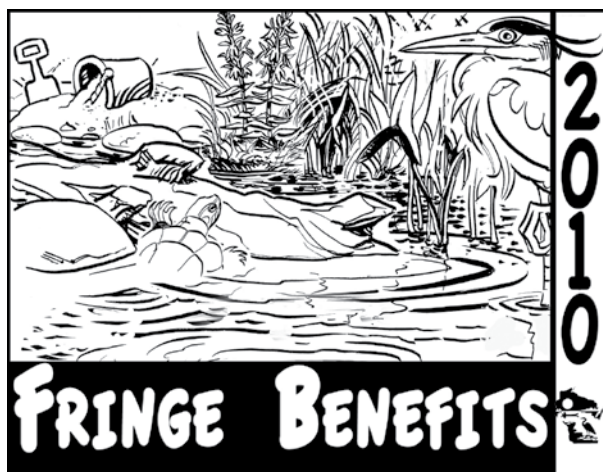
If you have a question or information about Wisconsin lakes that you would like to share with the lakes community, this is a great tool. E-mail [DNRLakeb@wisconsin.gov](mailto:DNRLakeb@wisconsin.gov) and type "Lakes-L" in the subject line to post your thoughts and questions.

To get the specifics, visit <http://dnr.wi.gov/lakes/lists/blog.html>.

To check out what's already on the blog, visit <http://blog.govdelivery.com/lakes-l/>.



# 2010 Wisconsin Lakes Convention

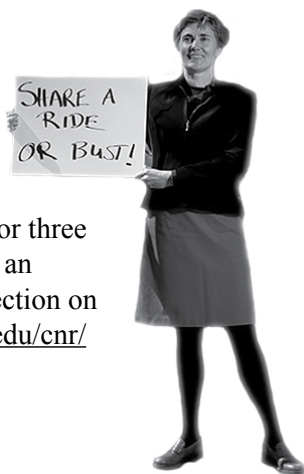


RESTORING WISCONSIN SHORELANDS & SHALLOWS

Sometimes our busy lives make it feel like we are on the fringe of everything. Take some time out of your schedule to learn, network, and relax at the 32<sup>nd</sup> annual Wisconsin Lakes Convention. With the title “Fringe Benefits: Restoring Wisconsin Shorelands and Shallows,” you can guess that we will “dip” into the areas that fringe our lakes and learn how critical these shorelands and shallows are to a healthy lake ecosystem. Hands-on workshops (pgs. 7,8,11,12), specialized speakers (pg. 9), and sessions (pg. 10) discussing our lakes’ shorelands and shallows, along with other important issues and topics, will offer an opportunity to share and grow your lake knowledge.

## Save Cash & Gas

To help during these trying economic times we have not only kept registration costs the same for three years, but have arranged for an easy-to-use ride share connection on our Web site at [www.uwsp.edu/cnr/uwexlakes/conventions](http://www.uwsp.edu/cnr/uwexlakes/conventions).



# Agenda

...at a glance

## Tuesday, March 30

8:00am	Registration Opens
9:00am	Exhibit Hall Opens (until 6:30pm)
9:00am-Noon	<b>Workshops</b> (7 offerings)
10:15-10:45am	Refreshment Break in Exhibit Hall
Noon-1:00pm	Lunch (Welcome)
1:00-3:45pm	<b>Plenary Session - Life on the Edge: Making Linkages to Public Values and Perceptions of Shorelands and Shallows</b>
3:45-4:15pm	Refreshment Break in Exhibit Hall
4:15-5:15pm	<b>WAL Membership Meeting</b>
4:15-5:45pm	<b>Concurrent Sessions I</b>
5:45-7:00pm	Networking time - Dinner on your own
7:00-8:00pm	<b>Special Sessions</b>
7:00-11:00pm	<b>WI Lakes Convention Reception</b>

## Wednesday, March 31

7:30am	Registration Opens
8:00am	Exhibit Hall Opens (until 6:00pm)
9:00am-Noon	<b>Plenary Session - Sustaining Shorelands and Shallows in Wisconsin: Are We Making a Difference in Water Quality and Wildlife Enhancement?</b>
10:15-10:45am	Refreshment Break in Exhibit Hall
Noon-1:30pm	Lunch & <b>Poster Presentation Session</b>
1:45-3:15pm	<b>Concurrent Sessions II</b>
3:15-3:45pm	Refreshment Break in Exhibit Hall
3:45-5:30pm	<b>Concurrent Sessions III</b>
5:30-6:00pm	Networking time
6:00pm	<b>Lake Stewardship Awards Banquet &amp; Multi-media Presentation</b>

## Thursday, April 1

8:00am	Registration & Exhibit Hall Open
9:00am-Noon	<b>Workshops</b> (8 offerings)
10:00-10:30am	Refreshment Break in Exhibit Hall
Noon-1:30pm	Lunch & Speaker
1:30-3:00pm	<b>Concurrent Sessions IV</b>
3:00pm	Convention concludes

*Agenda subject to change.*



# Tuesday Workshops

9:00am-12:00pm

## A. Name That Plant! Aquatic Plant ID

Learning to identify the water plants in your lake can help with a variety of lake projects, such as aquatic plant management plans, grants, or just add to the fun of learning more about water plants. This workshop will give a hands-on, up close view of aquatic plant intricacies and differences to aid you in their identification. Learn how plants survive underwater and how they contribute to the health of the lake ecosystem.

**Pre-registration required ~ Limit: 25 ~ Additional Fee: \$30**

*Presenters: Susan Knight, UW-Madison Center for Limnology Trout Lake Station and Ali Mikulyuk, WDNR*

## B. Clean Boats, Clean Waters (CBCW) Training

Volunteers have been an integral part of protecting Wisconsin lakes for over two decades. With so many water bodies and so few state resources, we rely heavily on volunteer efforts to educate boaters about aquatic invasive species (AIS) and how to prevent their spread. Come join us for the *Clean Boats, Clean Waters* workshop and become one of the 1,200 volunteers who have been trained to conduct watercraft inspections! We will discuss the latest AIS, what can be done to prevent their spread, and how you can get your community involved. Sharpen your inspection skills by role playing how to talk with people at the boat landing, and discover the subtle differences between native and non-native invasive aquatic plants through hands-on plant identification. Everyone will receive the watercraft inspection handbook, containing AIS distribution information, contacts, a kit of resources to aid inspection efforts, and more.

**Pre-registration required ~ Limit: 25 ~ Additional Fee: \$25**

*Presenters: Erin McFarlane, UWEX Lakes, Brenda Nordin WDNR, and Sandy Wickman, UWEX Lakes/WDNR*

## C. Limnology 101

This workshop will cover the basics of lake science and management. Issues such as eutrophication, the impact of near shore development and the introduction of aquatic invasive species will be covered. Join us as we share insights about the physical, chemical, and biological characteristics that make these watery gems so unique. Learn why some lakes are green while others are blue. Understand why some are shallow and others deep, some full of aquatic plants while others are less so. We'll discuss the management challenges and opportunities we face in leaving a lake legacy for future generations. Bring your lake questions and observations to share!

*Presenters: Pamela Toshner and Buzz Sorge, WDNR*

## D. Shoreland Restoration Workshop

Join us for a workshop aimed at bringing resource professionals up to speed on designing and implementing effective shoreland restoration projects. Components include ecological design principles, working with landowner concerns, permits, erosion control techniques, plant criteria and selection, and monitoring for success. Attendees will gain a foundational understanding of how to partner with county land and water conservation departments and landowners in shoreland rehabilitation work.

*Presenters: John Haack, UW-Extension, Mary Blickenderfer, U. of MN-Extension, Cheryl Clemens, Harmony Environmental, Inc., Brent Hanson, Hanson's Garden Village, and Stacy Dehne, DATCP, and others*

[www.uwsp.edu/cnr/uwexlakes/conventions](http://www.uwsp.edu/cnr/uwexlakes/conventions)

# Tuesday Workshops, cont.

9:00am-12:00pm

www.uwsp.edu/cnr/uwexplakes/conventions

## **E. Educating for Stewardship: Inspiring and Engaging Youth**

Educating the next generation of lake leaders, conservationists, environmentalists, and resource preservationists is an important responsibility of THIS generation! Teaching, mentoring and inspiring the young people who will assume the stewardship of our lakes and their surrounding natural habitats is a worthy and extremely important goal for all of us...no matter what our roles within the broader society might be. This workshop will highlight a variety of hands-on, project-based learning experiences that have actively engaged students/youth in learning about lakes, shorelands, and watersheds, while working to solve lake problems that are facing us. We'll explore a variety of ways to involve youth in protecting and managing the lakes in your community, providing specific examples of collaborative efforts that have involved K-12 teachers, lake organizations, DNR specialists, college or university teachers and researchers, county land and water conservation departments, and others. Curriculum and resource materials, funding ideas, and ways to meet state DPI academic standards will be included. A great opportunity to network with others who enjoy working with young people!

*Workshop Facilitator: Carol LeBreck, WAL & Bayfield County Lake Forum Boards*

*Presenters: Jerry Kaiser, Barnes/Eau Claire Lakes POA, Kate Reilly, UW-Extension, and others*

## **F. The Blue Thumb: Planting for Clean Water™ Program**

This program makes it easy for residents interested in doing their part to protect water quality to plan, purchase and plant native gardens, rain gardens and shorelines with native plants. It started in the Rice Creek Watershed District of Minnesota and now it reaches into the Twin Cities metro area and greater Minnesota. There are currently over 60 Blue Thumb partners. Learn how this program was built from the ground up and how they effectively engage citizens to join them in protecting shorelands and shallows.

*Presenters: Jay Riggs and Angie Hong, Washington Conservation District, MN*

## **G. Thoughtful Landscapes in a Changing World**

Climate change will stress our landscape with hotter summers and less frequent, but more intense, storm events. These, among other effects, make it clear that it is time to increase carbon sequestration (by plants) and decrease fossil fuel consumption. Learn new ways to build and manage landscapes to create a healthier, more resilient and sustainable environment from two experts in the field.

*Presenters: Fred Rozumalski, Barr Engineering and Marcus de la fleur, de la fleur LLC*

### **Save a Stamp, Register Online!**

Save yourself some time and 44 cents by taking advantage of our online convention registration. You can even conveniently pay with a credit card over our secure site. If you have any questions, call us at 715-346-2116.

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





# Speakers

[www.uwsp.edu/cnr/uwexlakes/conventions](http://www.uwsp.edu/cnr/uwexlakes/conventions)



**Fred Rozumalski**, an ecologist and landscape architect in the water resources division of Barr Engineering, will join us to discuss techniques to incorporate the aesthetic of neatness into our lakeshore restorations while preserving the native landscape.

## [More Info. Online](#)

To read more about the individuals who will be speaking at the 2010 Wisconsin Lakes Convention, go to the official convention site at [www.uwsp.edu/cnr/uwexlakes/conventions](http://www.uwsp.edu/cnr/uwexlakes/conventions).



Internationally recognized restoration ecologist **Steven I. Apfelbaum** will discuss his new book [Nature's Second Chance: Restoring the Ecology of Stone Prairie Farm](#). Steven contributes his scientific expertise and enthusiasm to over 1,500 projects throughout North America and the world.

**Marcus de la fleur** is a registered landscape architect with extensive field experience in sustainable technologies through work in Germany, Switzerland, and Great Britain. He is devoted to the integration of sustainable design, ecology, and stormwater management.



**Jay Riggs and Angie Hong**, with the Washington Conservation District in Stillwater, Minnesota, will share "The Minnesota Blue Thumb Program: Planting for Clean Water™." This highly successful program currently boasts over 65 partnerships comprised of professionals from local governmental units (watershed and conservation districts, cities, counties), non-profit and community organizations, and nursery and landscape professionals.

**Neil Kamman** of the Vermont Department of Environmental Conservation will present on the quality of the nation's lakes, based on the EPA's National Lakes Assessment. Kamman is an environmental scientist with the Lakes and Ponds Management Program.



**Bret Shaw** is a faculty member and Environmental Communication Specialist in the Department of Life Sciences Communication at the University of Wisconsin-Extension. He focuses on Extension/outreach activities related to facilitating campaign development by institutions in Wisconsin dealing with such natural resource management issues as water quality, land use and environmental conservation and assessing the impact of these social marketing campaigns.

Special guest **Tim Bedore**, has spent thousands of hours entertaining audiences, first on the radio and then as a comedian, headlining comedy clubs across the country. Tim has kept his hand in the radio business through his radio commentary feature Vague But True® and will share his take on "The Animal Conspiracy."



**Dr. Natalie Schoch** is a "corporate futurist" at the Kellogg Company in Battle Creek, Michigan, where she helps to provide insights for innovation and strategy. A nationally sought-after speaker, Natalie's expertise is innovation, knowledge management, integrating future strategies into today's corporate culture, and opportunities in new product development.

[www.uwsp.edu/cnr/uwexlakes/conventions](http://www.uwsp.edu/cnr/uwexlakes/conventions)



# Concurrent Sessions

*Tuesday-Thursday*

## Water Quality and Ecological Health

Healthy shores are important to our health too. Learn about water quality in relation to shorelands and shallows.

Sample sessions include:

- Lawns, Shorelands, and Water Quality: Why the Green Carpet Matters
- Partnering with the Green Industry
- Natural History of Shorelands
- Groundwater Monitoring Initiatives

## Research on Shorelands & Shallows

Learn more about the latest research and newest findings on shorelands and shallows. Sample sessions include:

- Shoreland Plantings: Making Yours a Success
- Research on Shorelands & Shallows
- Growing Native Plants for Shorelands
- Shoreland Success Stories

## Waterfront History, Policy and Regulation

Explore the legal aspects of shoreland protection. Sample sessions include:

- History of Shorelands/NR 115 Update
- Shoreland Management in Wisconsin
- Land Use Planning
- Water Law

## The Economics of Shoreland Management

Learn how we go about measuring the monetary value of Wisconsin shorelands. Sample sessions include:

- Aspects of Shoreland Economics
- Incentive Programs for Shorelands
- Shoreline Assessments
- Rivers and Shorelands

## The Land and Water Interface

Attend these sessions to explore how the shore is affected by what lies beyond. Sample sessions include:

- Forested Shorelines and Riparian Areas
- Wetlands and Shorelands
- Trees for Lakes: Addressing the Need for Woody Habitat
- Low Water Levels in Northern Wisconsin: Treading Lightly on Exposed Shorelands

## Human Dimensions of Shorelands and Shallows

Explore the strategies and art of engaging in cooperation with shoreland users. Sample sessions include:

- Septic Systems and Lakes
- The Art and Science of Surveys
- Protection Strategies: Lake Restoration Stories from Wisconsin
- Engaging Local Citizens in Shoreland Protection

## Lake Organization Capacity Building

Learn how to effectively build partnerships and associations. Sample sessions include:

- Partnership Building for Shorelands & Shallows
- Partnering with the Media for Success
- Developing Effective Lake Associations
- Insurance and Tax Matters for Lake Associations

## Citizen Volunteers/Leaders

- Engaging Citizen Leaders and Volunteers
- The Casual Volunteer (CLMN & CBCW)

## New AIS Policy

- NR 40 Updates
- New Transport Law (Wisconsin Act 55)
- Successful AIS Projects

## Wisconsin Lakes Photo Contest

Like to use that new camera when you're at the lake? Find some great shots of the lake when you were looking through that old picture box in the attic at the lake cabin? Share them with us at the Wisconsin Lakes Convention by entering this year's photo contest. Get official rules and an entry form on our website at [www.uwsp.edu/cnr/uwexlakes/conventions](http://www.uwsp.edu/cnr/uwexlakes/conventions), or by contacting Amy Kowalski at 715-346-4744. You may enter up to four photos (two in each category) that show "people enjoying lakes" and "the natural features in and around lakes and underwater." **Deadline: March 8, 2010**



*Sieven Lepak*

# Thursday Workshops

9:00am-12:00pm

## H. Lake Data on the Web

Interested in finding lake data on the web or producing maps for a report, newsletter or presentation? Want to report your *Clean Boats, Clean Waters, Citizen Lake Monitoring Network* or *LoonWatch* data online? Join us for this hands-on workshop and learn how to enter your lake data into the statewide database (SWIMS). Find out what's new on the WDNR and UW-Extension Lakes web sites, and discover how to create maps with the WDNR's Surface Water Data Viewer. You'll be able to produce professional looking maps using tools available online.

**Pre-registration required ~ Limit: 25**

*Presenters: Jennifer Filbert, WDNR and Maud LaMarche, UWEX Lakes*

## I. Citizen Lake Monitoring Network (CLMN) Training

Are you concerned about aquatic invasive species? Are you willing to put in the time to monitor your lake and enter the data into the statewide database? If so, this is the workshop for you. Join us at the aquatic invasive species monitoring workshop. You will learn how to identify aquatic invasive species, receive ideas on how to organize an effective monitoring team, learn where and when to look for the invasives, find out what to do if you suspect that you have found an invasive plant or animal, and learn how to input your data into a statewide aquatic invasive species database. You will take home the following: a manual covering the aspects you learned at the workshop, user-friendly identification keys (such as watch and wild cards, pamphlets, laminates, etc.), a hand lens for looking at the smaller identification characteristics, collection bags, and, most importantly, the confidence to go out and begin monitoring yourself! Your take-home items and newfound confidence will help you to share your knowledge with all your fellow lake lovers and track your data in a statewide database system. **Pre-registration required ~ Limit: 40 ~ Additional fee: \$25**

*Presenters: Laura Herman, UWEX Lakes, Jay Schiefelbein and Brenda Nordin, WDNR*

## J. County Lakes and Rivers Associations Roundtable

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

*Workshop facilitator: Earl Cook, Wisconsin Association of Lakes President*

## K. Partnering for Water Quality: Protecting Shorelands and Shallows in Burnett County

Burnett County has led the way over the last few decades in protecting shorelands and shallows with innovative programs, incentives, ideas and research. Come hear how they did it! Learn about unique ways to protect and rehabilitate shorelands through local policy, cost-share programs, partnerships with lake groups, and other strategies.

*Presenter: Dave Ferris, Burnett County Land and Water Conservation Department*

## L. Shoreline Erosion Control Techniques 101

Do you have shoreline erosion issues on your property? Are you looking for effective solutions? This presentation will focus on identifying various causes of erosion (geologic, vegetative, climatic, hydraulic, human) and the effect of these factors (runoff, waves, groundwater seeps, freeze/thaw, ice, human access, etc.) on the landscape and shoreline areas. Once the cause(s) of erosion are known, it is then possible to select techniques to help control or eliminate erosion potential. We will share engineering standards, conceptual drawings, material samples, and photographs to depict these techniques and where they are useful and applicable. Design standards, construction efforts, and lessons learned will be discussed. Successes and challenges will be mentioned with each case study.

*Presenters: Stacy Dehne, DATCP, Carolyn Scholl, Vilas County Conservationist, among others*



# Thursday Workshops, cont.

9:00am-12:00pm

## **M. Learning from the National Lakes Assessment: What's Next for Wisconsin Lakes?**

The National Lakes Assessment (NLA) is a five-year recurring assessment of lake conditions. The latest data reveals that shoreline disturbance and associated habitat alterations are a very consequential issue of national importance. How do we use this new information to renew our policies, enhance our education programs, and work on partnerships to better our lakes? Come to this event, and we will provide you with ideas and thoughts on what we should be doing to apply this latest research to our lake work statewide.

*Presenters: Tim Asplund and Paul Garrison, WDNR, Neal Kamman, Vermont Department of Environmental Conservation and Richard Mitchell, Office of Wetlands, Oceans & Watersheds, USEPA*

## **N. Propagating and Growing Native Plants for Shorelands**

Learn tips from an expert on how to successfully grow native shoreland plants. Which plants require stratification? Do seeds need light to germinate properly? Where can you find reliable native seed? Find out answers to these questions and more during this workshop.

*Presenter: Rob Bursik, Dragonfly Gardens*

9:00am-3:00pm

## **O. Lake District Commissioner Training - ALL DAY WORKSHOP (9:00am-3:00pm)**

Do you feel a little unsure about your role as a lake district commissioner? Whether you are new to your lake district or a seasoned lake district commissioner, this workshop will help you sort through the requirements of being a commissioner and operating a lake district. Topics covered include: how to comply with open meetings and open records requirements, running board meetings and annual meetings, voting requirements, and communicating with members. In addition, we will also cover lake district budget specifics, bookkeeping practices, and funding methods, including mill levies, special charges, and special assessments. Participants will receive a copy of "People of the Lakes: A Guide for Wisconsin Lake Organizations," and have a chance to examine and discuss its contents.

*Presenters: Judy Jooss, Kenosha County and Jeff Thornton, Southeast Wisconsin Regional Planning Commission*



### **Fishing for Your Thoughts...**

The Winter 2010 *Lake Tides* poll asks your views about shoreland restoration. Let us know what you think at [www.uwsp.edu/cnr/uwexlakes](http://www.uwsp.edu/cnr/uwexlakes).

To view the results from the last *Lake Tides* poll go to [www.uwsp.edu/cnr/uwexlakes/survey/2009Summer/2009SummerPollResults.asp](http://www.uwsp.edu/cnr/uwexlakes/survey/2009Summer/2009SummerPollResults.asp)



## **Have You Used the Lake List Lately?**

The *Lake List* is an online directory of Wisconsin lake organizations. You can use the *Lake List* to:

- Search by lake or organization name,
- Find officers associated with a lake organization,
- Locate contact information for many lake-related businesses,
- Compare your management activities to others (NEW),
- Connect with people from other lake organizations to learn from their experiences, and
- View and update the status of your lake organization

Visit [www.uwsp.edu/cnr/uwexlakes/lakelist](http://www.uwsp.edu/cnr/uwexlakes/lakelist) to check it out.



# Convention Registration Form

 Please fill out both sides of this registration form. 

32<sup>nd</sup> Annual Wisconsin Lakes Convention  
Fringe Benefits: Restoring Wisconsin Shorelands & Shallows  
KI Convention Center, Green Bay

March 30-April 1  
2010

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime Phone: ( ) \_\_\_\_\_ Email: \_\_\_\_\_

Affiliation (Lake Org., etc.) \_\_\_\_\_ County: \_\_\_\_\_

I am a WAL member ☐ (For more info. on the Wisconsin Association of Lakes, go to [www.wisconsinlakes.org](http://www.wisconsinlakes.org))

REGISTRATION

*Registration fee includes major meals, breaks and materials.*

Tuesday, March 30 (see back of this form)

Wednesday, March 31

Thursday, April 1 (see back of this form)

**Full convention, Tuesday-Thursday, March 30-April 1**

*(save \$25 with the 3-day package!)*

Late Registration Fee (after March 22, 2010) ☐ \$15

**Regular**

☐ \$65

☐ \$80

☐ \$65

☐ \$185

**Early Bird** (by March 8)

☐ \$60

☐ \$70

☐ \$60

☐ \$165

Check for  
vegetarian  
meals ☐

## LODGING

**Lodging Information:**

KI Convention Center/Hotel Sierra

333 Main Street

Green Bay, WI 54301

(888) 695-7608 or (920) 432-4555

Rates:

\$105 double or queen

\$115 king

\$20 for each additional person up to 6 maximum

Price includes full breakfast and 2 hours  
of complimentary beverages each evening.

***Please refer to the Wisconsin Lakes  
Convention when reserving your room.***

Nearby Holiday Inn: (920) 437-5900 (\$99/night)  
or state rate with ID

Nearby Days Inn: (920) 435-4484 (\$59 single)  
(\$69 double)

*All reservations  
must be phoned in to  
receive this rate.*

## PAYMENT

**Registration Fee:** \$ \_\_\_\_\_

**Workshop Fee:** \$ \_\_\_\_\_

*(See other side of form)*

**Late Fee** (if applicable): \$ \_\_\_\_\_

**Total Enclosed:** \$ \_\_\_\_\_

Payment method: ☐ Check ☐ Credit Card

Check one: ☐ Visa ☐ Master Card

Cardholder's Name \_\_\_\_\_

Card No. \_\_\_\_\_

Expires \_\_\_\_\_

Or register and pay online at

[www.uwsp.edu/cnr/uwexlakes/conventions](http://www.uwsp.edu/cnr/uwexlakes/conventions)

*You will receive confirmation and  
additional information upon registering.*

**No refunds issued after March 22, 2010.**

 Please fill out both sides of this registration form. 

**Mail this form with your check (payable to UW-Extension Lakes) or credit card information to:**

UWEX Lakes, UWSP/CNR, 800 Reserve Street, Stevens Point, WI 54481 (715) 346-2116 [uwexlakes@uwsp.edu](mailto:uwexlakes@uwsp.edu)

***Or register and pay online at [www.uwsp.edu/cnr/uwexlakes/conventions](http://www.uwsp.edu/cnr/uwexlakes/conventions).***

# Workshop Sign-up

**Register early to save your spot!**

Online registration available with  
secure payment options at  
[www.uwsp.edu/cnr/uwexlakes/conventions](http://www.uwsp.edu/cnr/uwexlakes/conventions).

[www.uwsp.edu/cnr/uwexlakes/conventions](http://www.uwsp.edu/cnr/uwexlakes/conventions)

*Tuesday a.m.*

9:00am-12:00pm

Please indicate your **first** and **second** choice.  
We will try to accommodate your first choice.

- ☐ **A.** Name That Plant! Aquatic Plant ID  
Limit: 25 Additional Fee: \$30
- ☐ **B.** Clean Boats, Clean Waters Training  
Limit: 25 Additional Fee: \$25
- ☐ **C.** Limnology 101
- ☐ **D.** Shoreland Restoration Workshop
- ☐ **E.** Educating for Stewardship: Inspiring and Engaging Youth
- ☐ **F.** The Blue Thumb: Planting for Clean Water™ Program
- ☐ **G.** Thoughtful Landscapes in a Changing World

*see descriptions on pages 7-8*



*Thursday a.m.*

9:00am-12:00pm

Please indicate your **first** and **second** choice.  
We will try to accommodate your first choice.

- ☐ **H.** Lake Data on the Web  
Limit: 25
- ☐ **I.** Citizen Lake Monitoring Network Training  
Limit: 40 Additional Fee: \$25
- ☐ **J.** County Lakes and Rivers Associations Rountable
- ☐ **K.** Partnering for Water Quality: Protecting Shorelands and Shallows in Burnett County
- ☐ **L.** Shoreline Erosion Control Techniques 101
- ☐ **M.** Learning from the National Lakes Assessment: What's Next for Wisconsin Lakes?
- ☐ **N.** Propagating and Growing Native Plants for Shorelands

*see descriptions on pages 11-12*

*Thursday all day*

9:00am-3:00pm

- ☐ **O.** Lake District Commissioner Training

*see description on page 12*

*If you sign up for this all-day workshop,  
please **DO NOT** sign up for any of the  
Thursday half-day workshops above.*

**Please fill out both sides of this registration form.**

**Mail this form with your check (payable to UW-Extension Lakes) or credit card information to:**  
UWEX Lakes, UWSP/CNR, 800 Reserve Street, Stevens Point, WI 54481  
(715) 346-2116 [uwexlakes@uwsp.edu](mailto:uwexlakes@uwsp.edu)

**Or register and pay online at [www.uwsp.edu/cnr/uwexlakes/conventions](http://www.uwsp.edu/cnr/uwexlakes/conventions)**





# Celebrate Wisconsin's Lake Stewards

Please join us in celebrating the 2010 Wisconsin Lake Stewardship Award winners at our banquet and awards ceremony on Wednesday evening, March 31, at the Wisconsin Lakes Convention. Winners of these awards join a select group of individuals and organizations whose unmatched dedication, vision, and commitment ensure that Wisconsin's legacy of lakes will be safe and secure for generations to come.

Don't miss this opportunity to pay tribute to all those doing extraordinary things for Wisconsin's lakes!

There's still time to nominate a deserving person or group for a Wisconsin Lake Stewardship Award. Nominations are due by January 29, 2010. To learn more visit: [www.uwsp.edu/cnr/uwexlakes/conventions](http://www.uwsp.edu/cnr/uwexlakes/conventions)

*Celebrate!*

## CALENDAR

**January 19, 2010 – Wisconsin Ground Water Association (WGWA) Lecture Series.** “Economic Opportunities in Water Technologies” at the Marcus Center for the Performing Arts, Milwaukee. For more information: [www.wgwa.org](http://www.wgwa.org)

**January 22-24, 2010 – Lake Home and Cabin Show, Madison.**  
For more information: [www.lakehomeandcabinshow.com/madison/index.aspx](http://www.lakehomeandcabinshow.com/madison/index.aspx)

**January 26, 2010 – Conservation Lobby Day, Madison.**  
Share your lake conservation values with Legislators!  
For more information: [www.conservationvoters.org](http://www.conservationvoters.org)

**February 1, 2010 – Application Deadline for AIS Control Grants** For more information: [www.dnr.state.wi.us/org/caer/cfa/Grants/Lakes/invasivespecies.html](http://www.dnr.state.wi.us/org/caer/cfa/Grants/Lakes/invasivespecies.html)

**February 11-12, 2010 – Wisconsin Wetlands Association Conference**  
“Wetlands in Service” will be the WWA's 15th annual conference to be held at the Plaza Hotel and Suites, Eau Claire, WI  
For more information: [www.wisconsinwetlands.org/2010conference.htm](http://www.wisconsinwetlands.org/2010conference.htm)

**February 13, 2010 – Waukesha County Lake Workshop - Changing Lakes, Changing Policy** - Register by February 6 for this one-day workshop in the southeast region of the state.  
For more information: [www.wisconsinlakes.org/events/09se.html](http://www.wisconsinlakes.org/events/09se.html)

**March 4-5, 2010 – American Water Resources Association (AWRA) 2009 Wisconsin Section Meeting.** “Emerging Challenges for the Waters of Wisconsin” held at the Madison Marriott West.  
For more information: [www.awra.org/state/wisconsin](http://www.awra.org/state/wisconsin)

**March 8, 2010 – Early bird Deadline for Wisconsin Lakes Convention**  
For more information, see pages 6-14 of this issue.

**March 30-April 1, 2010 – Wisconsin Lakes Convention, Green Bay**  
For more information, see pages 6-14 of this issue or go to [www.uwsp.edu/cnr/uwexlakes/conventions](http://www.uwsp.edu/cnr/uwexlakes/conventions).

**May 19-20, 2010 – Wisconsin Lake Leaders Institute - Crew VIII, Session I**  
For more information, see page 2.

*Want to share a lake event on the online Lake Events Calendar at [www.uwsp.edu/cnr/uwexlakes](http://www.uwsp.edu/cnr/uwexlakes)? Fill in the online form or send detailed information to Amy Kowalski at [amy.kowalski@uwsp.edu](mailto:amy.kowalski@uwsp.edu)*



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**Wisconsin Lakes Partnership**



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**Reflections**

*There is a privacy about it  
which no other season gives  
you.... In spring, summer and  
fall people sort of have an  
open season on each other;  
only in the winter, in the coun-  
try, can you have longer, quiet  
stretches when you can savor  
belonging to yourself.*

~Ruth Stout

