



Hey, Can I Eat This? Fish Consumption Advisories in WI

Chris Miller

By Sonya Rowe and Candy Schrank,
Fisheries Management
Wisconsin Department of Natural Resources
sonya.rowe@wisconsin.gov

Nearly all fish contain traces of contaminants from either human caused activities or the natural environment. This may have you wondering... 'Is it safe for me and my family to eat fish?' The answer is a definite yes, but with caution. Pollutants make their way into many of the foods we eat and fish are no exception. It is important to know where your food comes from, including where your fish was caught, and follow Wisconsin's fish consumption advisories to minimize your exposure to contaminants in fish and related health risks.



Health experts like Dr. Henry Anderson of the Wisconsin Department of Health Services (DHS) have concluded that the benefits of eating fish far outweigh the risks if you follow the fish consumption advisory. Eating 1-2 meals of fish every week can contribute to a healthy and balanced diet. Fish are high in protein, low in fat, and contain a number of vitamins and minerals that are important for good health. Some fish are a good source of healthy fats that are important for regulating blood cholesterol and normal brain function.

The two most common contaminants found in fish caught in Wisconsin are mercury and polychlorinated biphenyls or PCBs. PCBs are man-made chemicals used from the late 1930s to the late 1970s in electrical equipment, industrial processes, paints, dyes, and the manufacturing and recycling of carbonless copy paper. These chemicals can survive for decades in the environment and tend to attach to soils and sediments. When ingested they can accumulate in fish as well as in people and wildlife that eat fish. Long-lived, fatty, and bottom-dwelling fish like catfish, carp, white bass, and lake trout from the Great Lakes and tributaries tend to have the highest concentrations of PCBs.

Unlike PCBs, mercury is an element that occurs naturally but is also released through man-made activities. Coal burning is one of the primary contributors of mercury to the atmosphere in the United States. Part of these emissions are deposited on land and water and the rest cycles through the atmosphere where mercury circulates globally before being deposited back to earth in rain, snow, or dust. This means mercury in any given area could have come from local as well as distant sources depending on weather systems.

(Continued on page 2)

Volume 37, No. 1 Winter 2012

Wisconsin Lakes Partnership

Safe-eating guidelines – for most of Wisconsin's inland (non-great lakes) waters

Women of childbearing years, nursing mothers and all children under 15 may eat:

1 meal per week – Bluegill, crappies, yellow perch, sunfish, bullheads and inland trout;

and

1 meal per month – Walleye, pike, bass, catfish and all other species.

Do not eat – Muskies.



Black Crappie



Muskellunge

Women beyond their childbearing years and men may eat:

Unrestricted* – Bluegill, crappies, yellow perch, sunfish, bullheads and inland trout;



Bluegill

1 meal per week – Walleye, pike, bass, catfish and all other species;

and

1 meal per month – Muskies.



Channel Catfish

The DNR has tested fish for contaminants since the 1970s.

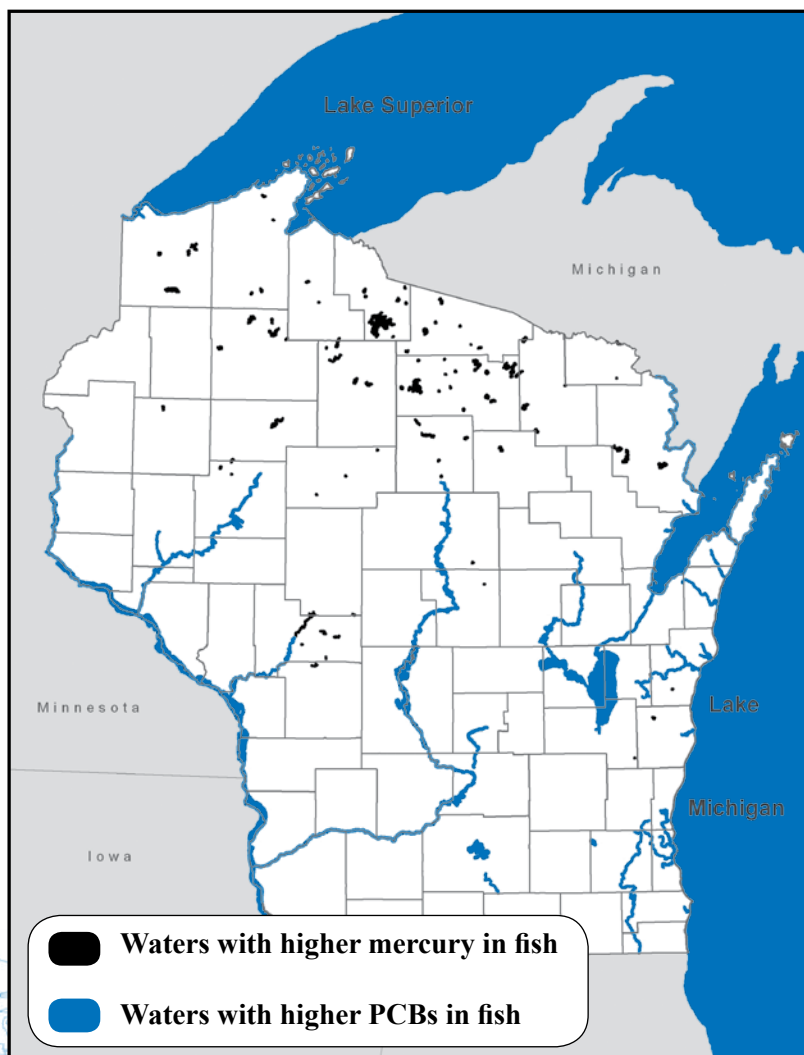
Fish from most waters contain at least low levels of mercury; therefore, the Wisconsin DNR has a statewide general consumption advisory for fish from inland waters. However, fish caught from locations where higher concentrations of mercury and PCBs have been found should be consumed less frequently (see map below). Please see the *Choose Wisely* booklet available at your local DNR office or from the DNR website <http://dnr.wi.gov/fish/consumption/> for these exceptions.

For Wisconsin inland lakes, mercury is the primary reason for fish consumption advice. Before aquatic organisms can take up mercury, it must first be converted to methylmercury by anaerobic bacteria. Methylation rates are usually greater in inland lakes and impoundments where oxygen levels are low and acidity is high (low pH). Lakes in northern forests and wetlands also tend to have fish with higher mercury concentrations.

While mercury concentrations in fish vary between lakes, studies suggest that fish from smaller lakes typically have higher mercury concentrations. As a result of bioaccumulation, predatory fish typically have higher mercury concentrations, and mercury levels increase as a fish ages (see species graph on page 3). Panfish and other species that feed on insects, plankton, and other prey low on the food chain tend to be low in mercury.

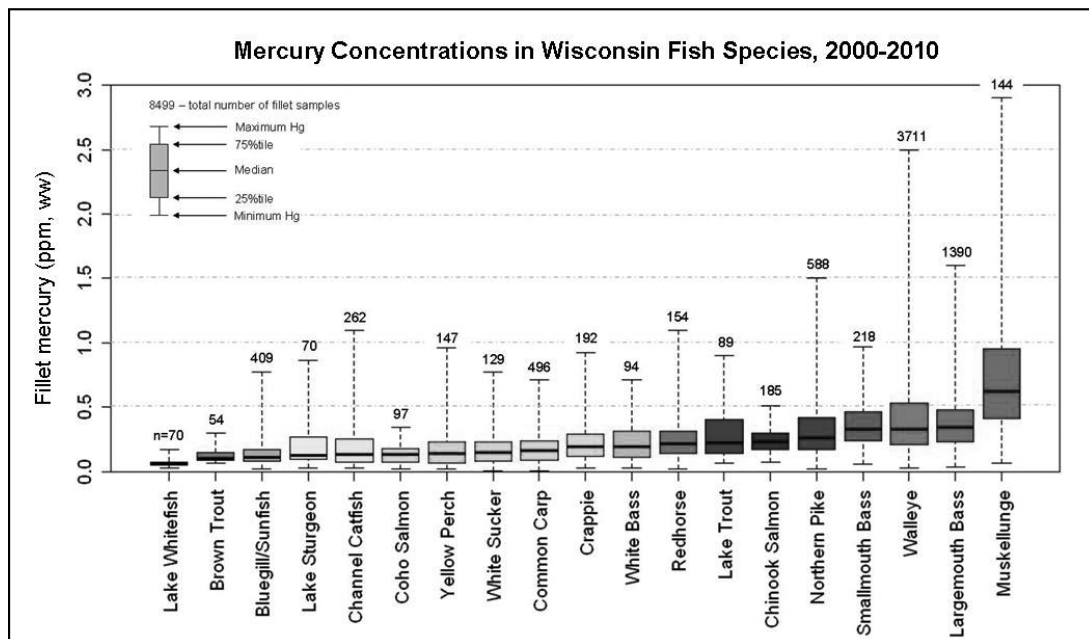
The DNR has tested fish for contaminants since the 1970s. Lakes containing fish with higher levels of mercury are retested every 10 to 15 years. New lakes are sampled every year. Approximately 23,500 sites have been sampled for mercury since 1977.

Recent studies have found that mercury concentrations decreased in some predator fish. One study found that walleye mercury concentrations decreased by 0.5% per year in the northern Wisconsin lakes and increased 0.8% per year in the southern Wisconsin lakes from 1982 to 2005 (P. Rasmussen, et. al.). Another study of the inland waters of the Great Lakes region found a decline in mercury in largemouth bass and walleye from 1970 to 2009 (B. Monson, et. al.). Spatially, mercury concentrations in these fish tend to be higher in



the northern and eastern areas of the Great Lakes region.

Though these studies suggest promising trends, it is important to continue to monitor mercury concentrations in fish over time to determine whether these changes are sustained. Tracking mercury concentrations in fish appears to be a good way to evaluate efforts that have been made to reduce mercury emissions into the atmosphere. 🌊



Monson, B.A., Staples, D.F., Bhavsar, S.P., Holsen, T.M., Schrank, C.S., Moses, S.K., McGoldrick, D.J., Backus, S.M., & Williams, K.A. (2011). Spatiotemporal trends of mercury in walleye and largemouth bass from the Laurentian Great Lakes Region. *Ecotoxicology*, Volume 20, Number 7, Pages 1555-1567. Retrieved from www.springerlink.com/content/d3h37m8pg56p2q26/

Rasmussen, P.W., Schrank, C.S., & Campfield P.A. (2007). Temporal trends of mercury concentrations in Wisconsin walleye (*Snader vitreus*), 1982-2005. *Ecotoxicology*, Volume 16, Pages 541-550. Retrieved from www.springerlink.com/content/w67723u094000164/fulltext.pdf

Reference link for "Walleye and Largemouth Bass Fillet Mercury" - www.brioloon.org/mercuryconnections/greatlakes/graphics

Submit your favorite Wisconsin fish recipe!

Do you have a great recipe for a healthy fish meal or appetizer using Wisconsin fish? Share your recipe and it just might be included in an online DNR cookbook or featured in the *Wisconsin Natural Resources* magazine!

For further information about submitting your recipe please go to <http://dnr.wi.gov/fish/>

Deadline: April 1, 2012



Streamlining the DNR Permit Process

It's easier than ever to submit an application for aquatic plant management (APM) permits! Starting in March, permit applications will be available online as fill-able forms that can be submitted electronically to the DNR for processing. Permit fees will be accepted electronically as either an e-check or a credit card payment.

Application processing will be streamlined, too. Centralized intake staff are trained to remit fees, issue simple pond permits, and route most other applications to field staff for review. What does this mean for applicants? Pond permit decisions will be issued faster, and permit processing can be tracked online. In addition, applicants will now be able to apply for Wisconsin Pollution Discharge Elimination System permit coverage (also known as WPDES permit) on the same application, if WPDES coverage is needed. The new process will give DNR staff more time to work with lake groups on planning and site visits.

While transitioning to the new electronic permit processing system, the DNR is consulting with professional applicators to make the system work. Chemical control permits will be processed online, but harvesting permits will still be processed as they have been in the past. Manual and mechanical aquatic plant management permits will be incorporated into the electronic process in the next phase of the transition.

Please visit <http://dnr.wi.gov/lakes/plants/forms/> for more details, including how to submit online and where to send your paper permit application. Updated herbicide fact sheets are also available online as a good source of information for lake users. See the new fact sheets at dnr.wi.gov/lakes/plants/factsheets/.

<http://www.dnr.state.wi.us/lakes/plants/forms/>



Frozen Lakes

Swimming with Life

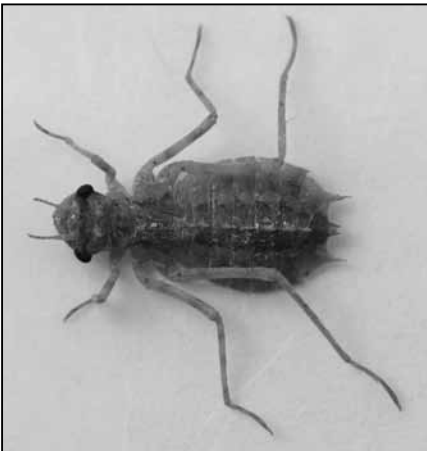
By Paul Skawinski, Regional Aquatic Invasive Species Education Specialist,
Golden Sands RC&D, and author of Aquatic Plants of the Upper Midwest.

Through the winter season, our lakes look quiet and dormant, but underneath that ice and snow, many plants and animals are busy doing what they do best.

“Winterkill” is when the level of dissolved oxygen in the water is so low that most oxygen-breathing animals cannot survive.

Water is most dense around 39°F, allowing ice to float and form a barrier between the lake and the frigid winter above. In most lakes, this insulation from the bitter cold allows much of the lake volume to be preserved as liquid water. The ice barrier has a negative side too though, as it reflects or absorbs much of the incoming sunlight before it can be used by aquatic plants for photosynthesis – an essential process that adds dissolved oxygen to the lake water. Plants like coontail, Elodea, and algae can remain active under the ice, producing that critical oxygen supply. When a lake is deprived of sunlight for too long, especially shallow or nutrient-rich lakes, a situation called “winterkill” results. This is when the level of dissolved oxygen in the water is so low that most oxygen-breathing animals cannot survive.

Paul Skawinski



Juvenile dragonflies (nymphs) spend the winter under the ice.

In lakes where the oxygen level is sufficient, living organisms continue as normal. Cold-water fish like cisco or lake trout that may have been restricted to deep water in the summer can explore the entire lake now. Warm-water fish like bluegills or largemouth bass may prefer being near the bottom where the water is slightly warmer, if they have enough oxygen.

The abundant aquatic insects that are seen swimming or flying around lakes in summer tend to survive as aquatic larvae in the winter to avoid exposure to harsh temperatures. Adult whirligig beetles – the ones you see

zigzagging across the lake surface at lightning speed – survive the winter as tiny, predatory larvae on the lake bottom. Similarly, the aerial powerhouses, known as dragonflies, that zip through the air in summer also spend the winter on the lake bottom as predators of smaller insects. These insects and others provide an important food source for fish and other creatures during the winter season, as they wait for the bright sunshine of spring to rejuvenate the food web of the lake.

Most aquatic plants spend the winter in a dormant state, reserving their energy until the next growing season. Seeds and turions are often programmed to resist germination until a certain day length or water temperature is reached. This ensures that the plants will be growing when conditions are favorable for their survival. A few hardy species like coontail, Elodea, and curly-leaf pondweed can grow year-round because of their ability to survive in cold water and low-light conditions. Indeed, these species can be found in nearly every aquatic habitat in Wisconsin.

Some near-shore plants like cattails and water lilies send their energy down to the root systems below the sediment for storage over the winter season. The remaining leaves simply decay and are replaced in spring. While the lake bottom may seem like a safe location to store this energy, muskrats commonly dive down to snack on these tasty stores. In order to enter and exit the frozen lake, muskrats build large mounds of vegetation on top of the ice or along the banks in cattail marshes, which conceal an opening in the ice and serve as entryways to this aquatic supermarket.

From above the ice-covered water, we see a lifeless, barren land. The howling winds blow cold. The ice reaches deep into the lake. Nevertheless, just a few feet below the harsh winter, our lakes are swimming with life! 💧



Wisconsin's AIS Staff Has A Fresh Face

I am the Aquatic Invasive Species (AIS) Communication Specialist with the UW-Extension's Environmental Resources Center in Madison. Most days you can find me at the Wisconsin DNR's downtown Madison office, where I work with state and local staff on marketing our AIS prevention messages.

Deborah Seiler,
Statewide AIS Communication Specialist
UW-Extension
608-267-3531
deborah.seiler@wisconsin.gov

Provided by Deborah Seiler



What's new for Wisconsin's AIS outreach plans?

2012 marks the start of implementing a state-wide outreach campaign geared towards bait shop owners who have been identified as "opinion leaders" in the angling community. AIS County Coordinators will focus on building (or continuing) a strong relationship with Wisconsin's bait shops and request their partnership in sharing AIS prevention messages to their customers. Outreach help from bait dealers is particularly important because the rules about moving bait, fish, and water are the most complicated to understand.

The Lakes Partnership is also updating the Clean Boats, Clean Waters reporting form to help watercraft inspectors collect the necessary data that will help us determine if and how often folks are complying with NR40 (Wisconsin's Invasive Species Identification, Classification and Control Rule) and why or why not.

In your opinion, what is currently the most prominent AIS communications issue in the state?

We know from past surveys that most people on the water are aware that invasive species are a problem and that there are prevention steps required by law. However, we also know that knowledge doesn't always mean compliance. I think our challenge is to identify and understand what the leading barriers are against cleaning boats and draining livewells and focus on communicating the need for these prevention steps. We also need to understand which groups of water users might still be missing knowledge and who is at "high risk" for spreading AIS so that we can make sure to reach these folks.

Why is AIS prevention important to you?

For me, it's about responsibility and respect. I want to keep native species healthy and plentiful for as long as possible until (hopefully) we can find solutions for the problems we started. Coming from the arid west, I believe Wisconsin's abundant aquatic ecosystems are a state treasure.

What are you most excited about in starting this new position?

I spent my first day of work in La Crosse at the statewide Fall AIS Coordinators meeting, and right off the bat I was impressed with the knowledge and friendliness of all the state, local and non-profit partners involved in AIS prevention. I can tell it's going to be a lot of fun to learn from this group.

I'm also looking forward to summer! I can't wait to throw on my wetsuit and get under the waves to explore the communities we're protecting. 🌊

I think our challenge is to identify and understand what the leading barriers are against cleaning boats and draining livewells and focus on communicating the need for these prevention steps.

Good Luck Jay!

Jay Schiefelbein worked as a limited term Water Resources Management Specialist in the DNR's northeast region managing the Citizen Lake Monitoring Network and assisting lake groups and individuals with lake grants, aquatic plant questions, and water quality issues.

Jay is now the DNR Agriculture Runoff Specialist in Green Bay. The volunteers and other coordinators will miss his optimism, enthusiasm, and passion for the environment. Jay said "I loved working with all the volunteers... and I do mean all of them. I will miss working with each of those folks, even if I could not 'fix their lake!'"

We will miss you Jay!



Is Your Lake Well-endowed?

By Charles Luthin, Executive Director and Camille Zaroni, Director of Member Relations
Natural Resources Foundation of Wisconsin

Churches do it. So do universities... and hospitals. Why can't lake organizations? These groups build endowments to provide a permanent source of funding in support of their mission.

The Foundation holds, invests, and manages endowments on an organization's behalf.

You love your lake! Wouldn't you like to ensure that there will be perpetual revenue to adequately care for and manage your lake into the future? An endowment can help.

Many lake organizations work hard year after year to raise funds in order to meet the pressing needs of their lake, like the removal of invasive species or restoration of shorelands and fish habitat. Lake grants are competitive, and there's always concern that these grants may not be as readily available in the future. An endowment provides permanent, predictable funding that lake organizations can rely on to meet these needs into the future.

Provided by Chris Jeffords



Chris and Patti Jeffords enjoy a pontoon ride on the Chippewa Flowage, Wisconsin's largest wilderness lake.

Some lake organization members have established endowments in support of their organization or lake, and many more are considering "endowing their lake" to provide a secure and guaranteed source of funding.

In 2005, the Natural Resources Foundation created the Wisconsin Conservation Endowment to provide individuals and organizations the opportunity to create endowed funds for the conservation issue of their choosing, such as a lake, river, waterway or lake organization, as well as parks, wildlife species and scholarships. The Foundation serves as a "community foundation" for conservation needs throughout Wisconsin. The Foundation currently manages 54 separate endowed funds, including several for lakes, flowages, and riverways: the Chippewa Flowage, Turtle Flambeau Flowage, Lower

Wisconsin State Riverway, Lower Chippewa River, and Upper Sugar River, among others.

Chris and Patricia Jeffords of Couderay are members of the Chippewa Flowage Area Property Owners Organization. Once they learned of the opportunity to establish an endowment, they created the Hughes Jeffords Chippewa Flowage Fund to provide a permanent source of funding for the preservation, protection, and enhancement of the Flowage's natural resources.

"Over the past 30 years, our families have experienced and appreciated Wisconsin's largest wilderness lake, the Chippewa Flowage" explain Chris and Patti. "It is our intent to perpetuate this legacy, not only for our family, but for the many visitors that come here so they can continue to enjoy the character of what we feel is one of the last unique jewels of the north."

An anonymous donor created an endowment to support the Turtle Flambeau Flowage, which supports a wide variety of activities including educational activities and the construction of fish cribs for the Flowage. Other donors have made additional contributions to this growing endowed fund.

Through the Natural Resources Foundation, numerous conservation organizations have created what is known as an "agency fund" endowment to support the mission of their organization with perpetual annual support. These agency funds are popular amongst the all-volunteer organizations that lack the financial expertise to manage their own endowment. The Foundation holds, invests, and manages endowments on an organization's behalf.

Endowment can also attract major gifts to lake organizations from individual property owners and through estate gifts. Donors like the assurance that their gift will be managed wisely, and they find it appealing



that an endowment will provide support in perpetuity. In one instance, Paul Brandt, a conservation donor made a 1,000-fold increase in his annual membership contribution to create an endowment. What had been a regular \$25 annual donor gave a \$25,000 contribution to build an endowment for the Lower Wisconsin Riverway once he became aware of the opportunity. When Paul passed away, he left a \$600,000 gift to the Foundation through his estate to be put into the Lower Wisconsin State Riverway Fund that he had created several years earlier. Wow, what one individual can do! Paul has left a lasting legacy for the waterway he loved.

The Natural Resources Foundation is a statewide organization dedicated to helping find sustainable solutions for conservation. The Foundation can help your lake organization create and build an endowment. Its staff can give a presentation about endowment to your board of directors and/or membership, provide fundraising advice and guidance for building an endowment, and guarantee professional financial investment and management of your endowment funds.



This spectacular view is from Miller Bluff along the Lower Wisconsin Riverway.

If the prospect of building an endowed fund for your lake organization and/or the lake or waterway you love appeals to you, attend my session on April 10th at the Wisconsin Lakes Partnership Convention (see page 13). Contact the Natural Resources Foundation at (866) 264-4096 or info@wisconservation.org or find out more at www.wisconservation.org.

Find out more about an endowed fund for your lake organization by attending the special session, “Taking the Long (Fiscal) View – Endowments for Lakes and Lake Organizations” at the Wisconsin Lakes Partnership Convention in Green Bay (April 10-12). - Read more about the convention on pages 10-13.

Q & A Lake Districts

We often get phone calls and emails from Lake Tides readers with a variety of questions about lake districts. Do you have a question about lake districts that you would like to see answered in Lake Tides? Send it to uwexlakes@uwsp.edu so we can include it in a future issue.

Q: Can money in a lake district's non-lapsible accounts be used for other purposes?

A. Yes, but only through a vote of the electors and property owners. This is a follow-up to the Summer 2011 Lake District Q & A related to setting aside “reserve accounts.” An astute reader noted that the information we provided was in error and that our article gave the impression that non-lapsible capital funds could never be used for anything but their original intent. The term “non-lapsible” as used in statutes refers to accounts that do not lapse (automatically transfer) to the general fund at the end of the fiscal year. Lake districts actually can repurpose those funds at the annual meeting or through a special meeting. There are a range of occasions that might warrant repurposing a capital fund: the purpose for which the fund was set up may no longer exist, the cost of the capital project being saved for was lower than expected, or it could be that the district no longer wishes to pursue a particular project. The online versions of the summer 2011 *Lake Tides* have been edited to provide a more accurate explanation. Thank you to William O'Connor for noting our error.

For more information on lake districts, see *People of the Lakes: A Guide for Wisconsin Lake Organizations*, www.uwsp.edu/cnr/uwexlakes/districts.





'Clean Boats, Clean Waters' 2011 Watercraft Inspection Data Report

By Erin McFarlane, AIS Volunteer Coordinator, UWEX Lakes

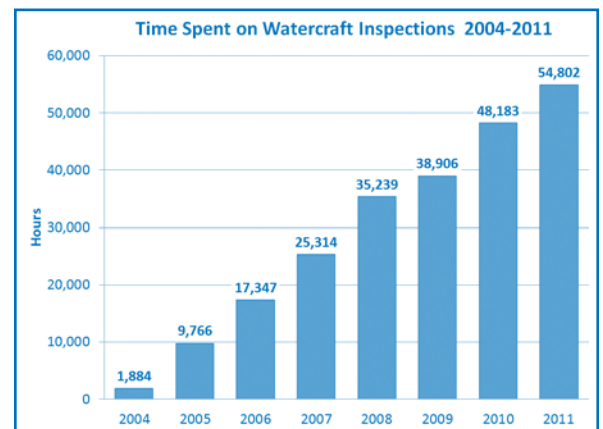
The online database reveals record numbers for 2011!

We may be having a mild winter so far here in Wisconsin, but our efforts to share AIS prevention steps at the boat landings this past year were anything but mild. The data that has been entered into the online database so far reveals record numbers for 2011! These increased numbers combined with a targeted containment approach make Wisconsin's AIS prevention efforts greater than ever.

Our watercraft inspection efforts continue to be concentrated on lakes that have aquatic invasive species present. The Great Lakes and inland AIS-affected lakes are considered to be high priority for boat inspections, as inspections serve to contain the AIS within the waterbody and prevent the spread to other nearby unaffected waters. Funding received via the federal Great Lakes Restoration Initiative allowed more watercraft inspectors to be hired to work in these key areas in 2011. In addition, enthusiastic volunteers from lake groups and other organizations around the state spend numerous hours inspecting boats and educating boaters and anglers in their local area.

Thanks to these committed staff and passionate volunteers, we have some impressive numbers and graphs to share!

As more inspection data is entered into the online database, the numbers in the blue box below will continue to grow! If you haven't entered your data from 2011 into the SWIMS database, it's not too late. Data from 2011 (or earlier) can still be entered and is very valuable in shaping management decisions and reporting Wisconsin's prevention efforts. Thanks to all the inspectors who have entered their data over the years - some interesting trends have been revealed!



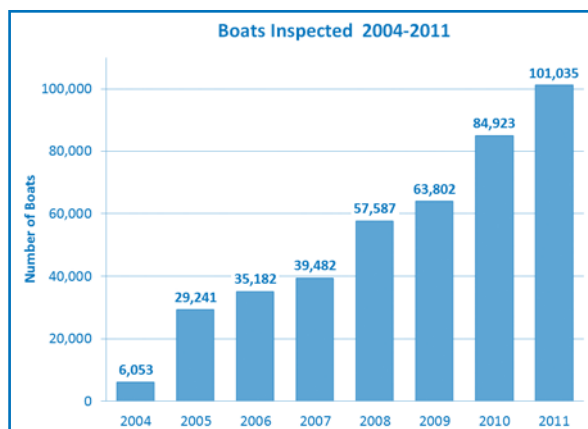
Watercraft inspectors across the state spent over 6,600 more hours talking with boaters and anglers at landings than in 2010!

You can always view inspection data live online at <http://dnr.wi.gov/lakes/invasives>. Just click "Watercraft Inspection Data" under the heading "Local and Statewide Efforts." Data results for specific counties, landings, or the entire state are available!

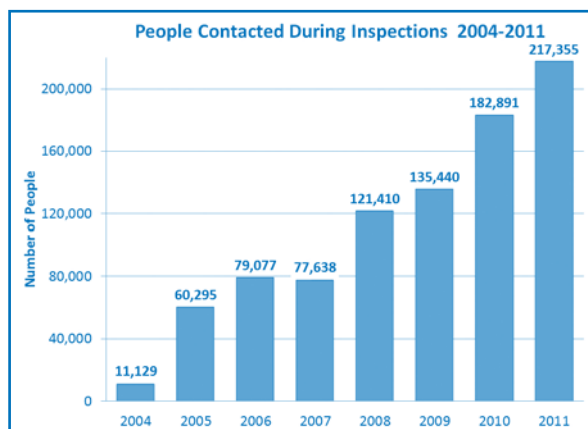


In 2011:

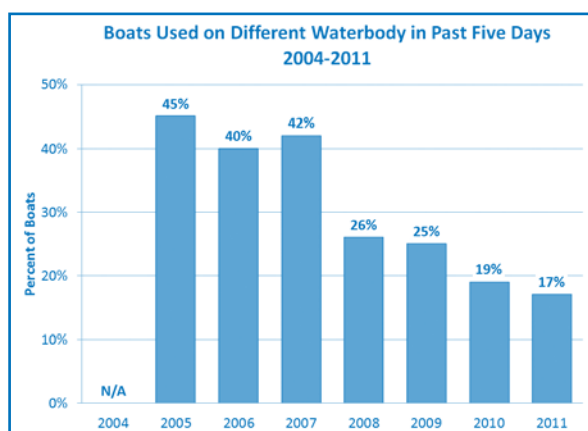
- ◆ 101,035 boats were inspected by volunteers and paid inspectors
- ◆ 217,355 people were contacted about the 'Clean Boats, Clean Waters' message
- ◆ Over 54,802 hours were spent conducting watercraft inspections
 - ~ 70% hours by paid inspectors
 - ~ 30% hours by volunteers
- ◆ 17% of boats had been in another waterbody in the last five days.
- ◆ Boaters and other landing users were asked about whether they took each prevention step after they last used their boat and equipment.
 - 95% said they inspected their boat and equipment for plants and removed any found
 - 96% said they drained all water from their boat and equipment
 - 93% said they drained all water from their fish and livewell
 - 86% said they disposed of their unused bait
- ◆ 96% of boaters stated that they were aware of WI's AIS laws
- ◆ 79% of boaters said they would be willing to use a boat wash station at the boat landing if one was available. (Data as of 1/10/12)



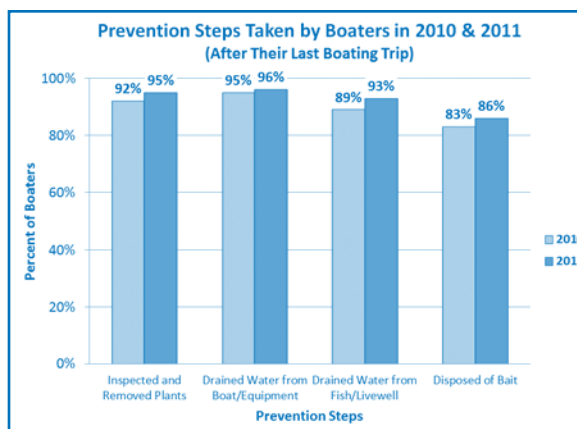
The number of boats inspected across the state has continued to increase. Around 16,000 more inspections were conducted in 2011.



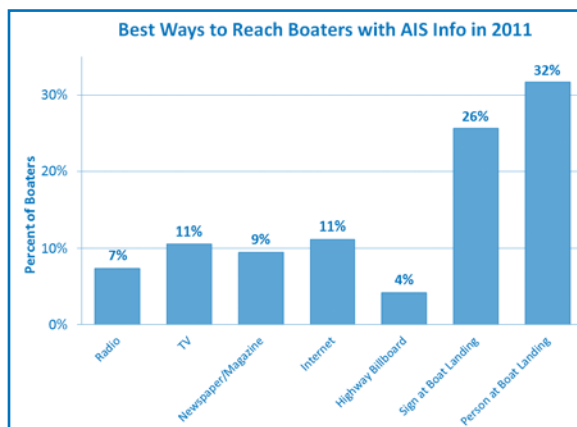
According to the reported data, more contacts were made at the boat landing by inspectors than in previous years. Boaters and anglers who are inspected more than once may partially contribute to this higher number. Some inspectors report seeing the same boaters day after day, while other inspectors encounter new folks daily. The frequency of repeat boaters seems to really depend on the waterbody and the location of the boat landing.



The number of boaters and anglers visiting multiple waterbodies within five days has also decreased slightly. People seem to be getting the message that lake-hopping is detrimental to preventing the spread of AIS.



In 2010, inspectors began asking boaters about the specific AIS prevention steps that were taken on their last boating trip. Results showed that draining water from fish and livewells and disposing of bait were steps that were less commonly taken, possibly because more boaters were contacted than anglers. 2011 data allows us to compare responses from both years, and see that self-reported compliance with each prevention step is up.



Boaters and anglers still report that face-to-face communication is their preferred way of receiving AIS information.

In an effort to keep our watercraft inspection program up-to-date with AIS prevention awareness among boaters and anglers and achieve our data needs, the CBCW Watercraft Inspection Report form is updated every couple years or so. 2012 marks the time for a new and improved inspection datasheet. The revision team will be working this winter and spring to get the updated report form ready and in the hands of all watercraft inspectors. As usual, the form and new instructions on how to use it and enter data will be available on the CBCW website come inspection season.

Thank you to everyone who spent time conducting watercraft inspections in 2011! Your hard work and dedication to AIS prevention is very much appreciated. 💧

The Great Lakes and inland AIS-affected lakes are considered to be high priority for boat inspections, as inspections serve to contain the AIS within the waterbody and prevent the spread to other nearby unaffected waters.



Partnering for Lakes

WI Lakes Partnership Convention

April 10-12, 2012

April 10-12, 2012 ~ Green Bay, WI



Partnering for Lakes

Protecting Wisconsin's Waters

A partnership is an arrangement where parties agree to cooperate to advance their mutual interests. What is our mutual interest?

Wisconsin's lakes. Who are we? We are property owners, farmers, swimmers, scientists, builders, business owners, anglers, realtors, lake groups, government officials, boaters, foresters, teachers, you and me. We are all the Wisconsin Lakes Partnership!

How can you help strengthen this partnership? One way is to attend the 34th Annual Wisconsin Lakes Partnership Convention. Come experience this educational opportunity first-hand and join other lake lovers in this strong cooperative movement to protect and preserve Wisconsin's lakes. Another way is to invite a friend, neighbor, or acquaintance - they will thank you later!

"I am the Wisconsin Lakes Partnership!" is a statement we should all be able to speak with confidence. Participating and inviting others to participate in this year's convention is a great way to build that confidence.

(More on pages 11-13)

Early bird Savings

Register by **Monday, March 19** and save:

- \$10 on registration each day
- \$25 on a 3-day registration (additional!)
- \$5 on each t-shirt order

Day	Date	Early Bird \$	After March 19
Tues	10 Apr	\$60	\$70
Wed	11 Apr	\$75	\$85
Thurs	12 Apr	\$60	\$70
All 3 days	10-12 Apr	\$170	\$200

Save \$25!

Convenient and safe online registration at www.uwsp.edu/uwexlakes/conventions

Convenient online ordering!

Only \$10 if you order by March 19

(\$15 each after that)

A limited number will be available at convention.



Show Your Partnership Colors

Check out the logo/t-shirt design online to see what we mean when we say "Partnership colors." You can easily order yours while registering for the 2012 Wisconsin Lakes Partnership Convention! Made from 100% organic cotton, these natural-colored shirts are only \$10 each if you order by the early bird deadline (March 19). The price will increase to \$15 each after that date. If you need to use a separate payment method to purchase your shirt, or you would like to order additional shirts, just give us a call (after you register) at 715-346-2116.



Agenda

...at a glance

Tuesday, April 10

8:00am	Registration Opens
9:00am	Exhibit Hall Opens (until 6:30pm)
9:00am-Noon	Workshops
10:15-10:45am	Refreshment Break in Exhibit Hall
Noon-1:00pm	Lunch (Welcome)
1:00-3:30pm	Plenary Session - Partnering for Lakes
3:30-4:00pm	Refreshment Break in Exhibit Hall
4:00-5:30pm	Special Sessions
5:30-8:00pm	Networking time - Dinner on your own
8:00-11:00pm	Wisconsin Lakes Partnership Convention Welcome Reception

Wednesday, April 11

6:45-7:45am	Sunrise Yoga
7:30am	Registration Opens
8:00am	Exhibit Hall Opens (until 6:00pm)
8:00-8:50am	Sunrise Concurrent Sessions 1
9:00-10:30am	Plenary Session - Asset Based Partnership Development
10:30-11:00am	Refreshment Break in Exhibit Hall
10:30am-Noon	Poster Presentations - Networking Visit Exhibitors & Educational Displays
12:00-1:30pm	Lunch
1:45-2:25pm	Concurrent Sessions 2
2:35-3:15pm	Concurrent Sessions 3
3:15-3:45pm	Refreshment Break in Exhibit Hall
4:00-5:00pm	Concurrent Sessions 4
5:00-6:00pm	Regional Leadership Teams Meeting
5:00-6:00pm	Networking time
6:00pm	WI Lake Stewardship Awards Banquet
8:00pm	Lakes Partnership After Hours

Thursday, April 12

6:45-7:45am	Sunrise Yoga
8:00am	Registration and Exhibit Hall Open
8:00-8:50am	Wisconsin Lakes Annual Meeting
9:00-9:40am	Concurrent Sessions 5
9:50-10:20am	Refreshment Break in Exhibit Hall
10:30-11:30am	Concurrent Sessions 6
9am-Noon	Countywide Lakes/Rivers Roundtable
9am-3pm	CBCW/CLMN Training
9am-4pm	Lake District Commissioner Training
11:45am-1pm	Lunch/Closing
4:00pm	Convention concludes

*Agenda subject
to change.*

Get All the Details Online!

To read more in-depth descriptions of speakers, workshops, and concurrent sessions, check out the convention web site at www.uwsp.edu/cnr/uwexlakes/conventions.

You can use our convenient **online registration** and pay with a credit card over our secure site. We also have an option to print your registration form and send it to us via mail with your credit card information, a check, or money order.

The web site includes important information about the 2012 Wisconsin Lakes Partnership Convention:

- [Agenda](#)
- [Accommodations](#)
- [Registration \(online and printable\)](#)
- [Photo Contest](#)
- [Ride Share](#)
- [Exhibitor Information](#)

If you do not have access to our web site, please give us a call and we would be happy to help you (715-346-2116).

Save Some Gash

Gash - noun \ˈgash\
Money used to pay for vehicle fuel.

Partner up, and carpool to the convention! Check out the "Ride Share" on our web site to connect with others who may be from your neighborhood.



www.uwsp.edu/cnr/uwexlakes/conventions

(Convention, cont.)

Partnering for Lakes

WI Lakes Partnership Convention

Workshops

This year's convention will begin with 3-hour, hands-on workshops that will give participants an opportunity to delve deeper into the subjects that interest them. Focused trainings will cap off the 2012 convention. Register early to secure your spot - space is limited!

Join us!



I was impressed at the scope of information available from research to lake resource, and status updates to the art and joys of lake living. Great Job!
- First-time Wisconsin Lakes Partnership Convention Participant

Tuesday, April 10 (9:00am-Noon)

Lake Planning/Assessment

Tim Asplund & Carroll Schaal, Wisconsin Dept. of Natural Resources

Aquatic Plant ID (Name That Plant!)

Susan Knight, UW-Madison Center for Limnology Trout Lake Station

Nuts and Bolts of Lake Associations

Eric Olson, UW-Extension Lakes & Mike Engleson, Wisconsin Lakes

Shoreland Erosion Control

Carolyn Scholl, Vilas Co. Land & Water Conservation Dept. & Stacy Dehne, Dept. of Agriculture, Trade & Consumer Protection

Lake Data on the Web

Jennifer Filbert, Wisconsin Dept. of Natural Resources & Maud LaMarche, UWEX Lakes

Educating for Stewardship

Aleisha Miller, St. Croix County Land & Water Conservation Dept., Bill Thwaites, Northwest Passage, & Lynn Markham, UWEX Center for Land Use

Manual Removal of Eurasian Watermilfoil

Chris Hamerla, Lumberjack Resource Conservation & Development, & Paul Skawinski, Golden Sands Resource Conservation & Development

Thursday, April 14

Lake District Commissioner Training (Thurs. all day - 9:00am-4:00pm)

Jeff Thornton, SE WI Regional Planning Commission & Judy Jooss, Powers Lake District Commissioner (county)

Clean Boats, Clean Waters and Citizen Lake Monitoring Network Training (9:00am-3:00pm)

Erin McFarlane & Laura Herman, & Sandy Wickman, UW-Extension Lakes

County Lakes & Rivers Organization Roundtable (9:00am-Noon)

Earl Cook, Pres., Wisconsin Lakes



Streams

This year there are six blocks of concurrent sessions arranged throughout the 3-day convention. Follow one of these topics, which we call "streams," or chart your own course. Read descriptions of over 30 sessions online at www.uwsp.edu/cnr/uwexlakes/conventions.

*All Things Invasive
Native Plants/Animals
AIS Research
Advocating for Lakes
County Land and Water Resources
Adventures in Lake Management*

Worth 1000 words and \$100?

Do you have a special Wisconsin lake photograph that is worth 1000 words? Well, it may also be worth \$100! That's the top prize for each category in the 10th annual Wisconsin Lakes Partnership Photography Contest. You can enter up to four photographs - two in each of these categories:

- People enjoying lakes
- Natural features in and around lakes and underwater

Deadline: March 12, 2012

For official rules and entry forms click on "Photo Contest" at

www.uwsp.edu/cnr/uwexlakes/conventions or contact Amy Kowalski at 715-346-4744.



Dan McFarlane

"Cool Symmetry" won honorable mention at the 2011 Wisconsin Lakes Partnership Photo Contest in the category "Natural Features in and Around Lakes and Underwater."

Plenary Speakers & Special Sessions

Plenary Speakers

For Love of Lakes

Dr. Darby Nelson
Aquatic ecologist
Nature writer



msupress.msu.edu

Partnering Today

George Meyer
Executive Director
Wisconsin Wildlife Federation



www.facebook.com

Asset-based Partnership Development

John McKnight
Social Behavior Researcher



www.northwestern.edu

Special Sessions

How Wisconsin Funds Aquatic Invasive Species Prevention and Control

Carroll Schaal, WI Dept. of Natural Resources

Taking the Long (Fiscal) View: Endowments for Lakes and Lake Organizations

Charles Luthin, Natural Resources Foundation of Wisconsin

Becoming Wetland Savvy: Opportunities to Improve Wetland Conservation

Kyle Magyera, WI Wetlands Association

Celebrating Partnerships

Lakes Partnership Welcome Reception

Meet Lake Leaders Institute graduates, members of the Wisconsin Lakes Board of Directors, and other convention-goers at this informal networking opportunity. Free beer, soda and snacks for all (and a cash bar).

Lake Stewardship Award Banquet

Help us recognize and celebrate the extraordinary volunteer and professional efforts of individuals and groups to protect and improve our lakes, while enjoying a great meal with great folks.

Lakes Partnership After Hours

This song swap/poetry slam/quote quest is a fun way to unwind after a full day of convention sessions. Share your talent or just hang out. Your only requirement - relax and enjoy yourself! Bring an instrument if you play.

*Informal networking
is the way great
partnerships get
their start!*



Partnering for Lakes
Protecting Wisconsin's Waters



Great Lakes Restoration Initiative AIS Partnership Update

By Scott Van Egeren, Water Resources Management Specialist, WDNR

The Great Lakes Restoration Initiative (GLRI) has allowed our statewide AIS partnership to increase efforts to prevent and detect invasive species in Wisconsin waters, and 2011 was an exciting year for this large collaboration (see the Winter 2011 issue of *Lake Tides* 36(1) for background on this initiative).

Changes in the Regions

Two of our Great Lakes AIS Monitoring and Outreach Specialists, Brenda Nordin and Maureen Ferry, have moved on to bigger and better things. Brenda accepted a position as a Water Regulations and Zoning Specialist for the DNR in Oshkosh, and Maureen started a graduate degree program at UW-Stevens Point studying the “smart prevention” of zebra mussel spread. Jennifer Steltenpohl, formerly our AIS specialist for the southern Lake Michigan basin, moved to the northern Lake Michigan basin position previously covered by Brenda and is now available at the Green Bay DNR Office. Interviews have been held for the southern Lake Michigan and Lake Superior basin AIS specialist positions, and the DNR should have these essential staff hired by the time you read this. Contact information for the new AIS specialists and

any current DNR or County AIS coordinators can be found at <http://dnr.wi.gov/lakes/invasives/topics.aspx#topics>

More Volunteers!

Wisconsin Sea Grant is responsible for the coordination of an increased Clean Boats, Clean Waters presence within the Great Lakes Basin which has greatly increased the number of boats inspected and boaters educated about AIS prevention (see article on pgs. 8-9). In addition to watercraft inspection, the GLRI funds have allowed DNR and County staff to train more volunteers in the Great Lakes Basin to be on the lookout for problematic aquatic invasive species as part of the Citizen Lake Monitoring Network (CLMN) and Project RED (Riverine Early Detection). For instance, 113 new citizens were trained in 2011 and began actively participating in the CLMN to monitor for invasives in local lakes.

Tracking AIS Across WI

Finally, GLRI funding has allowed DNR biologists to begin a new statewide AIS lake monitoring program to collect baseline data on the distribution of invasive aquatic plant, mussel, snail, and plankton species and to track the rate of spread. Teams, including DNR, University, and County staff and volunteers surveyed 184 randomly selected lakes this summer and will continue to do so for at least the next four years. This data will allow us to evaluate our AIS prevention efforts by

113 new citizens were trained in 2011 and began actively participating in the CLMN to monitor for invasives in local lakes.

Vacant
Northern Great Lakes Region
Superior DNR Service Center
715-395-6911

Jennifer Steltenpohl
Northeast Great Lakes Region
Green Bay DNR Service Center
jennifer.steltenpohl@wisconsin.gov
920-662-5435

Vacant
Southeast Great Lakes Region
Milwaukee DNR Service Center
414-263-8635



Scott Van Egeren, Statewide
DNR Central Office in Madison
scott.vanegeren@wisconsin.gov
608-264-8895



Tim Campbell, Statewide
Great Lakes AIS Outreach Specialist
Wisconsin Sea Grant
timothy.campbell@uwc.edu
920-683-4697



answering the question, “Are we slowing the spread of AIS?”

The GLRI expanded programs will continue in the summer of 2012. We are all excited to continue the implementation of these prevention and early detection strategies which will better protect Wisconsin’s natural resources. 🌊

Current AIS Research Available Online

There is now a new tool available to see what is currently being researched in the world of AIS! We’ve created a catalogue where anyone can learn about research that is going on right now. You can search by location, agency, individual or species. Or you can browse through all the current research.

Find this new tool at http://cfllibrary.uwcfll.org/ais_projects

If you have any projects you would like added to the list or you need to update an existing project, contact AIS specialist Carol Warden of UW-Trout Lake at warden@wisc.edu or (715) 356-9494.

CALL FOR

February 29-March 2, 2012 – 2012 Annual Professional Improvement Conference of the Wisconsin Association of Land Conservation Employees

The WALCE Professional Improvement Committee invites you to attend this conference at the Plaza Hotel & Suites Conference Center in Eau Claire, WI.

For more information: www.walce.org/conference.asp

TBA, 2012 – Clean River, Clear Falls Stormwater Expo

Free and open to the public. Learn more about what we can do to improve the water quality of the Menomonee and Fox rivers. For more information: www.menomonee-falls.org/Expo

March 1-2, 2012 – American Water Resources Association 36th Annual Wisconsin Section Meeting “Science-Based Policy for Wisconsin’s Water Resources” held at the Chula Vista Resort in Wisconsin Dells. For more information: state.awra.org/wisconsin/2012meeting.html

March 19, 2012 – Early Bird Deadline for Wisconsin Lakes Partnership Convention

For more information, see pages 10-13 of this issue.

March 22, 2012 – The Red Cedar: Land, Water & People Coming Together

For more information: www.uwstout.edu/profed/redcedar/index.cfm

March 27-30, 2012 – Wisconsin Rural Water Association (WRWA) Technical Conference

“The Future is Now” will be held at the KI Convention Center in Green Bay, WI. For more information: www.wrwa.org

March 29, 2012 – Wisconsin River Water Quality Improvement Symposium

This symposium will be an opportunity to share what is being done to improve water quality in the Wisconsin River basin.

For more information: www.uwsp.edu/cnr/watersheds/programs_outreach/wi_river.htm

April 10-12, 2012 – Wisconsin Lakes Partnership Convention, Green Bay

For more information, see pages 10-13 of this issue or go to

www.uwsp.edu/cnr/uwexlakes/conventions.

April 17-18, 2012 – Fox-Wolf Watershed Alliance Watershed Conference, Kimberly

For more information: www.fwwa.org/Stormwater-Conference.html

May 1, 2012 – Grants Deadlines

Lake and Aquatic Invasives Grants www.dnr.state.wi.us/lakes/grants/

River Protection Planning www.dnr.state.wi.us/org/caer/cfa/Grants/Rivers/riverplanning.html

River Protection Management www.dnr.state.wi.us/org/caer/cfa/Grants/Rivers/riverprotection.html

May 16-17, 2012 – Wisconsin Wolf River Tourism Conference

In an effort to promote sustainable and environmentally friendly tourism in the northeast region of our state, groups and individuals are collaborating for this 2nd annual conference.

For more information: www.nijii.org/events.html



Lake Tides -- 905032

College of Natural Resources
University of Wisconsin-Stevens Point
800 Reserve Street
Stevens Point, WI 54481

NON-PROFIT ORG
U.S. POSTAGE
PAID
PERMIT NO. 19
STEVENS POINT, WI

**Volume 37, No. 1
Winter 2012**



IN THIS ISSUE

Safe Fish Consumption in WI.....	1-3
APM Permits Streamlined.....	3
Frozen Lakes Swimming with Life...	4
Fresh Face for Wisconsin AIS....	5
Endowing Your Lake.....	6-7
Lake District Q&A.....	7
CBCW Data Report.....	8-9
Wisconsin Lakes Partnership Convention.....	10-13
GLRI AIS Update.....	14-15
Current AIS Research online...	15
Calendar.....	15

Wisconsin Lakes Partnership



Published Quarterly

Web site: www.uwsp.edu/cnr/uwexlakes
E-mail: uwexlakes@uwsp.edu
Phone: 715-346-2116
Editor: Amy Kowalski
Design & Layout: Amy Kowalski
Regular Contributors: Patrick Goggin, UWEX
& Carroll Schaal, WDNR
Contributing Editors: Erin McFarlane & Eric
Olson, UWEX
Illustrations by: Carol Watkins & Chris
Whalen

The contents of *Lake Tides* do not necessarily reflect the views and policies of UW-Extension, UWSP-CNR, the Wisconsin DNR or the Wisconsin Association of Lakes. Mention of trade names, commercial products, private businesses or publicly financed programs does not constitute endorsement. *Lake Tides* welcomes articles, letters or other news items for publication. Articles in *Lake Tides* may be reprinted or reproduced for further distribution with acknowledgment to the Wisconsin Lakes Partnership. If you need this material in an alternate format, please contact our office.

Printed on recycled paper with vegetable-based ink.

Reflections

Black are my steps on silver sod;
Thick blows my frosty breath abroad;
And tree and house, and hill and lake,
Are frosted like a wedding-cake.

~ Robert Louis Stevenson
(from *A Child's Garden of Verses*, 1885)

