



Carp for Cash

Commercial Rough Fishing Keeps Population Down and Revenues Up

What do you picture when you think of carp? A splendid dinner? A great fighting fish at the end of your line? Or do you think of carp as a scaly, trash-sucking fish unfit to eat and the scourge of our nation's waterways? Actually, there is quite a history on this finny vegetarian with many people on both sides of the debate regarding its "value" to humans.

The World's Fish?

By the middle of the 1800s European immigrants migrating to America were bringing carp with them. Carp were a big part of their fish diet and were not native to the waters of the United States. Carp had been raised as an important food source, garden element, and symbol of strength and courage in Asia for over 4,000 years, and similarly valued in Europe for nearly 2,000 years! Entrepreneurs seeing the potential for a lucrative business started bringing carp to the US and built rearing ponds to raise the fish for sale as a cheap, good source of food.

Public pressure grew on the young government to make carp more widely available. The U.S. Commission of Fish and Fisheries began an intensive carp cultivation effort in 1877. In 1880

the US Fish Commission shipped 75 carp from ponds in Washington DC to the Nine Springs (Nevin) Fish Hatchery in Madison, Wisconsin. By 1894 as many as 35,000 rough fish were being stocked in Wisconsin waters each year. This particular fish, which has the ability to live and reproduce in most every water condition, quickly spread in many of the nation's waters.

The tide of public opinion in this country started turning against carp in the late 1800s. By the end of the century, the introduction of the carp was such a "success" that both public agencies and sportsmen came to regard the fish as a nuisance. The intense exploitation of the nation's fishery caused a noticeable decline of native fish stocks. Some of the decline was blamed on carp, which seemed to be able to out-compete native fishes. Huge quantities of carp were being harvested from our waters, but they were not considered anywhere near as tasty as the pool bred carp of Europe. Americans also began to favor the taste of native game fish, and over time carp was no longer considered a food source.

The rapid spread of carp appeared to threaten both water quality and native species. Fish commissioners nationwide noted a deterioration of formerly clear and fertile lakes and waterways upon the arrival of carp (although some of the deterioration may have been caused by poor land use practices by humans). Today in this country, some think of carp as a "poor man's fish." This loss of image and popularity for carp is somewhat unique to North America. To this day carp remain a popular fish to catch and eat in Europe and Asia.

Carp, an Exit Strategy

A carp seems well suited for the declining quality of the nation's waters. It is both a remarkable reproducer and very tolerant of pollution. This allows carp to survive in waters in which most

(Continued on page 2)

photo provided by Gary Knipper



A commercial fishing crew pulls in a seine net on Lake Sinissippi.

(Commercial Rough Fishing, cont. from pg. 1)

Many state officials believe that the greatest promise for carp control is focusing on why they were brought here in the first place and promoting them as a great renewable food source.

native species cannot. Carp are bottom-feeders and forage along the floor of a body of water, frequently uprooting vegetation. This can increase the turbidity of water, which in turn reduces the ability of predator fish (such as pike or walleye) to see their prey. The amount of sunlight received by plants also decreases, reducing their growth. The disappearance of plants can affect the waterfowl that depend on them for food. Carp can quickly crowd out other fish with sheer numbers. Females lay up to 2 million eggs when spawning, and fry can grow as large as 8 inches in the first year. However, the fish's impact upon larger bodies of water remains minimal when compared to that of human activity.

Over the past 80+ years there have been concentrated state efforts to eliminate the fish by trapping, seining and poisoning. These management techniques have had limited success, as the carp has been adept at reproducing and surviving in all types of waters. In the 1950s, carp removal programs began to focus on the control of carp populations and their migration into new waters.

Carp Harvesting Revisited

Many state officials believe that the greatest promise for carp control is focusing on why they were brought here in the first place and promoting them as a great renewable food source. They believe a steady and hopefully increasing market for carp and carp products can help control the carp population – something the state removal programs have been unable to accomplish due to limited resources. Most state agencies, in fact, have favored state-regulated commercial fishing over removal programs.

When we think of commercial fishing in Wisconsin we typically think of the Great Lakes, but there is also an active program to net and sell carp and buffalo fish (genus

Ictiobus, which is not a carp) on our inland lakes. Commercial harvesting happens mostly in southern Wisconsin, but carp are found in 64 of Wisconsin's 72 counties. As early as 1915 the state awarded a number of contracts to area commercial anglers. Crews from the Wisconsin Department of Natural Resources (WDNR) did carp harvesting from 1934 until around 1974. After that, except for a nominal effort, all seining was turned over to the private contract anglers. There are about 10 companies that bid on "Rough Fish Contract Fishing" in Wisconsin today. The highest bidder is typically awarded the right to harvest a given lake and they pay the state for a permit. Some lake organizations and conservation clubs see this as a good tool and are willing to subsidize the work. Gary Knipper, president of the Lake Sinissippi Association, says, "working with contractors and selling the fish is a win-win situation. Secchi disk readings on our lake have gone from one inch to one foot." Don't laugh...that is progress. Almost all the contract fishing is done in 15 to 25 lakes in southern Wisconsin (such as Koshkonong, Puckaway and Sinissippi).

After the fish are caught, some of them are shipped to Spirit Lake, Iowa for processing; others head east and are shipped live to Toronto and New York fish markets. Since 1934, nearly 100 million pounds of carp have been taken from the Koshkonong system alone! In the last 15 years the price of carp has risen from 8 cents per pound to 25 cents, and buffalo fish from 20 cents per pound to as much as \$1.00.

A Big Deal

Harvesting carp is a big deal. When a commercial harvesting crew comes to the lake it may include 5-10 workers, several 30-foot commercial john boats, as much as 8500 feet of seine nets with four-inch mesh, remote operated vehicles and semi-trucks with water tanks for live-shipping. The crew is able to haul nets on as much as 130 acres of a lake at a time. The large commercial boats can hold 3200 pounds of fish, which are hoisted out of the water with a wrecker or tractor. Game fish are sorted out and the rough fish are loaded on the semi-trucks. This work is done year-round – even under the ice.

photo provided by Gary Knipper



Seine-netting is done even under the ice.



Shoreland Zoning Standards

You Can Help Shape Your Local Ordinance

While many Wisconsinites are enjoying this winter season, counties are planning ahead for spring, summer and fall when most will undergo the public process of updating their shoreland zoning ordinance to reflect the revised standards in Chapter NR 115 Wisconsin Administrative Code. Some standards in NR 115, such as the standard for minimum lot size, have not changed. Other standards are new or have changed in an effort to reflect how waterfront owners are utilizing their property and to balance those uses with the need for healthy lake and river ecosystems.

Opportunities for Adaptation

Though some standards in the revised NR 115 are objective and leave little room for flexibility, a number of the new standards are purposely broad to reflect the wide variety of conditions and ecosystems in Wisconsin lakes, streams and rivers, and to give each county more flexibility in adapting the ordinance to their specific conditions and needs. The impervious surface and mitigation standards are examples of two new standards in NR 115 that are wide-ranging and will require resolution within a county ordinance. Although these are new concepts to NR 115, it is important to note that these concepts are not new to shoreland zoning. Seventeen Wisconsin counties already regulate impervious surfaces and thirteen require mitigation for various activities within their shoreland zoning ordinance. All counties with the exception of Milwaukee and Menominee will need to incorporate the new rule standards no later than February 2012. Grants are available from the Department of Natural Resources (WDNR) to assist counties with ordinance adoption.

Impervious Surfaces

The impervious surface standards are one of the new standards in NR 115 that allows some flexibility for counties to adapt their ordinance to the conditions and ecosystems of their shoreland zones. An impervious surface



Photo by R. Korih

is defined in NR 115 as “an area that releases as runoff all or a majority of the precipitation that falls on it.” In other words, a majority of rain and snow runs off the surface rather than being absorbed into the soil beneath. The definition provides some examples of impervious surfaces as including rooftops, sidewalks, driveways, parking lots and streets, unless these areas are “designed, constructed, and maintained to be pervious.” Each county has the flexibility to identify those structures it believes are impervious, based upon the definition in NR 115, and to include standards for practices such as pervious pavers or pervious pavement systems. While some counties may choose to specify exactly what constitutes an impervious surface in their ordinance, others may choose to leave it more broad and decide on a case-by-case basis whether or not a structure meets the definition of an impervious surface.

In NR 115, properties within 300 feet of the ordinary high water mark may have up to 15% of their lot as an impervious surface. If a property currently exceeds 15% impervious surface coverage within 300 feet of the ordinary high water mark, there are no actions necessary in order to meet the standard. It is only when a property undergoes new development such as an addition, that the standard must be met. A property may exceed

How can building one garden shed or paving my driveway affect the health of my lake?

“A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise.”

- Aldo Leopold





The intent of mitigation is to offset the impacts to water quality, near-shore aquatic habitat, upland habitat and natural scenic beauty from proposed construction projects within the shoreland zone.

Water lovers like you can influence how counties implement these impervious surface and mitigation standards of the new NR 115 by getting involved at the local level via public hearings or in local planning and zoning committees.

15% with the new development, but not more than 30% impervious coverage within 30 feet of the ordinary high water mark. However, a plan must be developed and approved by the county that will serve to mitigate the environmental effects of the impervious surface.

Mitigation

Shoreland mitigation, which is a new requirement in NR 115, also provides some flexibility for counties to adapt their ordinance to the conditions and ecosystems of their shoreland zones. Mitigation is defined in NR 115.03 as “balancing measures that are designed, implemented and function to restore natural functions and values that are otherwise lost through development and human activities.” While NR 115 does not describe what the balancing measures should be, the intent of mitigation is to offset the impacts to water quality, near-shore aquatic habitat, upland habitat and natural scenic beauty from proposed construction projects within the shoreland zone. Further, NR 115 requires that the mitigation measures be proportional to the amount and degree of impacts from the proposed project.

Therefore, to meet the requirements under NR 115, each county will have to identify in their ordinance when mitigation is required, what mitigation measures are acceptable, the standards for each mitigation measure and how the county will determine whether the mitigation is proportional to the impacts of the proposed project. Thirteen counties already require mitigation. Here are some examples of

typical mitigation measures:

1. Restoration of the vegetative buffer zone,
2. Removal of existing nonconforming accessory structures, and
3. Implementation of stormwater management practices.

Although a county may adopt only one mitigation measure in its ordinance, the WDNR recommends that counties adopt a number of practices to create flexibility for unique situations or homeowner preferences, and to ensure that the mitigation measures are proportional to the impacts.

You Can Make A Difference!

While the WDNR will provide assistance to counties in interpreting rules and developing public outreach materials, it is important that you, as a lake and river enthusiast, get involved with your county’s ordinance amendment process. Thousands of you commented on and participated in the seven year rulemaking process for NR 115 and although finalization of the rule was a major step in protection of our natural resources, the work is not finished. Water lovers like you can influence how counties implement these impervious surface and mitigation standards of the new NR 115 by getting involved at the local level via public hearings or in local planning and zoning committees. To find out more about shoreland zoning go to <http://dnr.wi.gov/org/water/wm/dsfm/shore>. You may also want to check out the *Lake List*, a directory of Wisconsin lake organizations that can help you connect with a countywide lake organization in your area (go to <http://www.uwsp.edu/cnr/uwexlakes/lakelist/> and click on “County-wide/Regional” in the dropdown menu at the bottom of the page). Another excellent resource including ways to get involved in your county is on the Wisconsin Lakes web site at http://www.wisconsinlakes.org/local_shorelandzoning.html. Keep in mind that counties can exceed the state standards for protecting shorelands, as many currently do, to address local water resource needs. Examples of some of these innovative county codes and revision processes that effectively ensure long-term lake protection will be highlighted in the Spring 2011 edition of *Lake Tides*. 💧

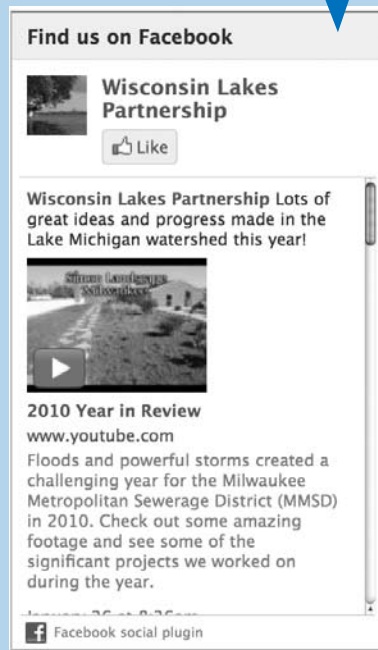
By Heidi Kennedy, Shoreland Policy Coordinator, WI Dept. of Natural Resources



Wisconsin Lakes Partnership on Facebook!

You can find this box in the bottom left corner of our web site.
www.uwsp.edu/cnr/uwexlakes

Do you  Like us?



If you're interested in current lake events, fun lake photos, and lake project updates (and you just can't wait for your quarterly *Lake Tides*), then check out the Wisconsin Lakes Partnership's Facebook page! There you can find the latest information about the Lakes Convention and other 2011 events and read new articles on popular lake topics, like the challenges posed by Asian carp. Learn more about the projects our lake staff are currently tackling and other interesting water information by reading our "wall" and visiting our links.

Add Comments & Share

Using Facebook allows us to share information quickly and efficiently with all of our fellow lake-lovers, and we're excited to hear what you think! If you're already a Facebook member, you can "LIKE" us, comment on our posts and share our profile with other lake enthusiasts.

Never used Facebook?

No problem! **You don't even need to sign up to see our information.** Look for the "Find us on Facebook" box in the bottom left corner of every UWEX-Lakes web page. Click on "Wisconsin Lakes Partnership," and enjoy catching up on all the latest happenings with lakes!



(Commercial Rough Fishing, cont. from pg. 2)

The Future of Carp in Wisconsin

Like all management of our natural resources, there are some unplanned consequences. Don Bush, the WDNR Fisheries Team Supervisor based at the Newville Fish Management Station, says, "The Department's main job is to ensure a healthy, functional lake ecosystem. The shortage of staff and their limited time is making it difficult to issue contracts and supervise operations." Joe Hennessy, the WDNR Treaty Fisheries Specialist based in Madison, added, "The WDNR is also concerned with the handling of by-catch (fish unintentionally caught, like game fish) during harvesting with seine nets." There have been reports of unattended nets resulting in fish kills.

Steve Kallenbach of La Crosse has been making his living as a commercial fisherman for over 40 years. Steve has seen a steady decline in the numbers of rough fish and young of the year that they are catching. Steve also remarks, "Less people are willing to fish for them and less are being caught." Steve's concern is that the waters are becoming so polluted that even the rough fish can't handle it. He believes agricultural run-off may be playing a role. It is just a guess on what the future holds for the relationship between carp and the people of this country, but you can be sure these tough and worldly fish will be around for a long time to come. 🐟

By Robert Korth, Lake Specialist and
Don Bush, WI Dept. of Natural Resources

photo by Amy Kowalski



A carp is both a remarkable reproducer and very tolerant of pollution.



Measuring Water Clarity

Volunteers Clearly Make a Difference

What is water clarity?

Water clarity or transparency is probably the most common way to “measure” lakes today.

The 8-inch black and white

Secchi 'se-kē

Secchi disk is an inexpensive and efficient tool for measuring water clarity. The Secchi disk depth is influenced by all the particulate and dissolved material (algae, soil, and dissolved organic matter) that either absorbs or scatters light in the water column, although it's generally associated with algae concentrations.

Because this measurement is an integration of a number of constituents, we view Secchi disk depth as a significant indicator of lake health. Think of it as the doctor taking your body temperature or blood pressure. These measurements might tell you there's a problem, but don't necessarily tell you the source of the problem. Even though this simple tool has its drawbacks such as user bias and weather conditions, there is a scientific foundation for its use. Secchi readings have also been used to assess a number of metrics such as trophic status, chlorophyll concentrations, plankton density and biomass. The State of Maine has constructed a fun web tool called the Secchi reading simulator (<http://www.mainevolunteerlakemonitors.org/recertify/disk.php>).

Check it out to get a better sense for how the Secchi disk works. Further information on

procedures followed by our Wisconsin citizen monitors and professional staff can be found in the Wisconsin Citizen Lake Monitoring Training Manual (Secchi Disc Procedures) at <http://dnr.wi.gov/lakes/CLMN/manuals/>. Here in Wisconsin, one of the lakes with the greatest clarity is the aptly named Clear Lake in Oneida

County, which has an average Secchi depth of over 25 ft!

Other notable lakes include Lake Owen (Bayfield),

Lake Lucerne (Forest) and Whitefish Lake (Douglas). On the other end of the spectrum, Sinissippi Lake water clarity is consistently less than one foot.

Measuring Clarity via Satellites

In recent years, the Wisconsin Department of Natural Resources (WDNR) has implemented a satellite water clarity program. This program originated as a UW-Madison research project that has now transitioned into a WDNR operational program that estimates water clarity on approximately 8000 lakes annually across Wisconsin. The WDNR depends on citizens for field measurements needed in satellite calibration. This is a powerful management tool that helps the agency monitor a large number of lakes in a cost-effective manner (less than \$1 a lake). The large database supplied by this effort can assist managers in looking at the “big picture” with respect to Wisconsin's changing lake conditions (i.e. How are lakes changing in different regions of the state? ...different lake classes? ...different size lakes?) In the near future, we hope to start examining how lakes are responding to past and future climatic conditions and land use changes.

Are volunteers still important?

Definitely! In order to understand why we continue to need a strong Citizen Lake Monitoring Network to support satellite monitoring, it is important to become familiar with how the satellite-based monitoring works. Basically, we use volunteer field data



Wisconsin Lakes Convention

Speaking for Lakes

April 12-14, 2011 ~ Green Bay, WI



Breaking news from 93.3 W...A...T...R with special reports from correspondents Bob, Erin, Sandy and Laura. The 2011 Wisconsin Lakes Convention - Speaking for Lakes - will be held on Tuesday April 12th through Thursday April 14th at the KI Convention Center in

Green Bay. See and hear how the collaboration of the arts and science can speak for Wisconsin's Lakes. Bob D. Bullfrog and his colleagues G.B. Heron and Tommy Turtle will be broadcasting the "State of Wisconsin Lakes." Methods to control and even eradicate aquatic invasive species from our treasured lakes will be discussed, according to Erin W. Milfoil. In addition, Sandy Secchi reports impressive numbers of statewide volunteers that provide valuable water quality data and amazing stewardship efforts and success stories from around the state. All this, according to Laura Lake Leader, will be just a few of the sessions to help lake lovers creatively gather the tools and "water words" to help speak for Wisconsin lakes.



Speaking of "water words," **Eric Eckl**, founder of *Water Words that Work*, will be the guest speaker at our opening plenary session on Tuesday afternoon as well as present an in-depth workshop earlier that morning. Eric has more than 15 years experience planning and carrying out issue advocacy, fundraising, and behavior change campaigns. He'll share with us ideas and methods to professionalize and modernize our communications on water conservation.

Tuesday evening will offer one of the premiere showings of the recent Aldo Leopold documentary, *Green Fire*, which will help us reconnect with the land (and water). This evening will also offer an opportunity to visit with old friends and colleagues as well as meet new ones at the Wisconsin Lakes Partnership Welcome Reception.



(More Convention info. on page 10-11)

Highlights
Tuesday

www.uwsp.edu/cnr/uwexlakes/conventions

Speaking for Lakes through a Lens

Do you have a special photograph that really is worth 1000 words? Maybe you even have an underwater shot that rivals Eric Engbretson's (famous Wisconsin photographer - see pg. 10). Let your images "speak for our lakes" and share them by entering the 9th 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

Cash prizes for top three in each category!

Deadline: March 14, 2011

For official rules and entry form click on "Photo Contest" at www.uwsp.edu/cnr/uwexlakes/conventions



Denise Dupras

Mystical Morning Fishing took 3rd place in the "People Enjoying Lakes" category in 2010.



Incredible, Edible Muskrat

When one thinks of a hot meal at the end of the day, muskrat usually isn't in the picture. The history of the muskrat is colorful, to say the

least, especially when the terms "muskrat pie" and "muskrat dinners" are used in daily conversation. This creature has dynamic qualities that make it unique and distinctive to the environment and to human use.



Photo from <http://reference.findtarget.com/>

This muskrat lodge is constructed of vegetation and mud. These lodges can be up to three feet high with a six to eight inch underwater entrance.

These skilled swimmers can even spend up to 20 minutes underwater searching for their food and lodge material!

The muskrat is a robust rodent, with qualities similar to a beaver, and lives in and around water. Its water-repellent fur, webbed back feet, valved lips (which allow it to gnaw underwater), and rudder of a tail, allow it to easily accommodate to a wet environment. Drawn toward marshes, this spunky animal benefits from being near aquatic vegetation in order to build its lodge and find dinner. Muskrat lodges contain dry and underwater tunnels with ventilation holes, usually hidden by thick vegetation. In addition to plants like cattails and bulrushes, muskrats love to eat crayfish, frogs, rough fish and dead animals when they are available. These skilled swimmers can even spend up to 20 minutes underwater searching for their food and lodge material!

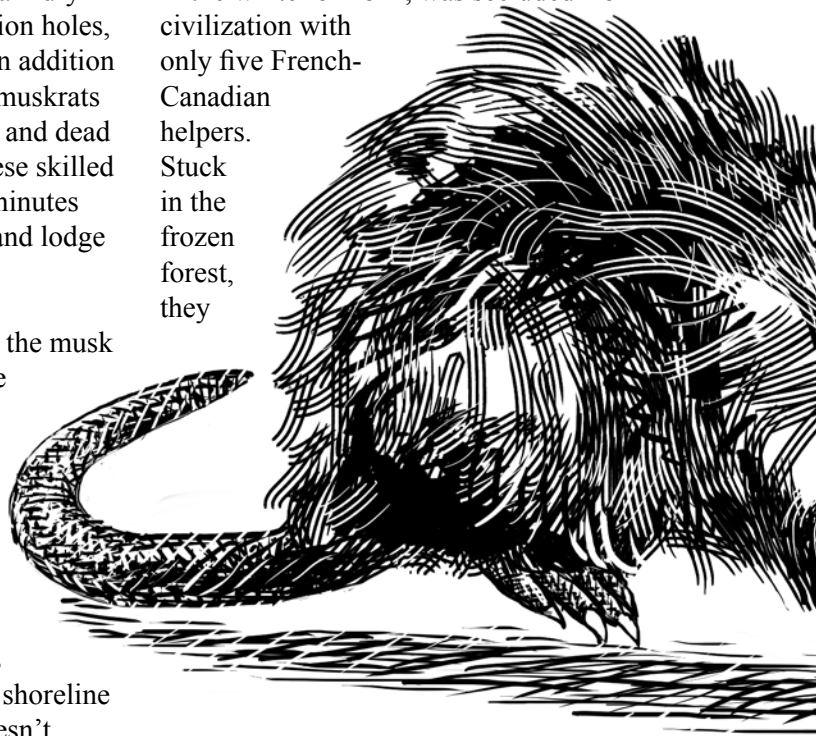
The name "muskrat" is derived from the musk this animal produces to communicate and warn others of intruders. These animals are native to North America and have been known to cause havoc to shorelines. "Lakeshore owners frequently rock armor their shorelines to eliminate muskrat problems. I've seen an incredible amount of habitat loss on some lakes due to this effort. Allowing a natural shoreline buffer along most of the property doesn't

eliminate the muskrat, but does eliminate some of the frustration of lawnmowers falling through muskrat burrows," states John Haack, the St. Croix Basin Natural Resources Educator with UW-Extension.

Muskrats are mainly nocturnal creatures, although some are seen in the day – more often in warmer weather because of their susceptibility to the cold. Several may live together in the same lodge during the winter, but many are very aggressive and territorial. This creates some space issues in the lodge, especially since they are highly reproductive critters. In some cases, the female might even kill newborns in order to make room for the upcoming litter.

The muskrat is important to the fur industry, as its pelt can be made into products like coats and hats. It has even been said that two muskrats of similar size can make a perfect pair of no-sew mittens when they are turned inside out. The history of the muskrat shows that humans were drawn toward this animal for not only its fur, but also to receive nourishment.

Thomas G. Anderson, a fur trader of Wisconsin in the winter of 1811, was secluded from civilization with only five French-Canadian helpers. Stuck in the frozen forest, they



were desperate for some type of sustenance. "We had for some time been feasting on dried and smoked muskrats," Anderson later recalled, "a bale of which savory meat had been secured from the Indians' autumnal hunting season." The muskrat was their saving grace. Anderson had the biggest and fattest muskrats prepared in order for their feast to begin. Though all were awaiting the savory taste of muskrat, their expectations were destroyed. "But pepper and salt did not save it, nor savory crust convert muskrat into relishable food. On opening the pie, so sickening was the effluvia emanating from it that all were glad to rush to the door for fresh air; nor have I ever since voted in favor of smoked muskrat pies," stated Anderson.

This downfall of muskrat flavor did not stop humanity from trying to find the taste of greatness in this animal. In Monroe, Michigan, the legend of Catholics consuming muskrat on Fridays is one that endures. In the 1930s, they petitioned the Pope to pronounce muskrat as a fish. The Monroe Exchange Club met in 1938 to discuss the situation and declared that their argument was powerful enough to gain a special exemption from the church to consume muskrat on Fridays. No official papal documents have established this reasoning yet, but many do not need the documentation to believe it to be true.

In Lansing, Michigan, Bishop Kenneth Povish believed the muskrat matter to be settled officially in 1956, agreeing that the eating of muskrat contained such history that it had become an "immemorial custom"



Recipe: Muskrat Pie

Serves: 4

One muskrat cleaned and quartered

One ½ tsp. of salt and pepper

¼ tsp. of paprika

½ cup of flour

3 large onions

3 tbsp. bacon fat

1 cup sour cream

Soak muskrat overnight in buttermilk to soften meat and remove gamey flavor. Season with 1 tsp. salt, pepper and paprika, roll in flour, and sauté in bacon fat until browned. Cover muskrat with onions, sprinkle onions with ½ tsp. salt. Pour in the cream. Cover skillet tightly and simmer for 1 hour. Pour into a pie crust and bake until golden.

and therefore accepted by canon law. He stated, "Anyone who could eat muskrat was doing penance worthy of the greatest saints." Several Catholic and Protestant churches in Michigan still follow the tradition by holding annual muskrat and game dinners.

The story of the muskrat lives on. Their distinct characteristics are fascinating, but they are also devious creatures that can cause lakeshore problems. But never think of them as a nuisance as they are integral members of our lakeshore ecosystem, and can provide a warm meal to some Catholics and Michiganders on Fridays. Let's just hope they taste like chicken! 💧

Kim Shankland
Student, UWEX Lakes

The name "muskrat" is derived from the musk this animal produces to communicate and warn others of intruders.



Wisconsin Lakes Convention

Speaking for Lakes

(Convention, cont. from pg. 7)

Wednesday-Thursday Highlights



John Bates
Poet
Naturalist
Writer



Terry Daulton
Painter
Biologist



Eric Engbretson
Freelance Underwater
Photographer

Wednesday will kick-off with another intriguing way to speak for lakes by blending the arts and science. **Terry Daulton**, an artist, educator and biologist, will be joined by poet and naturalist/writer **John Bates**, and scientists

John Magnuson and/or **Emily Stanley** who will bring us their traveling exhibit "Drawing Water: Artists and Scientists Explore Northern Lakes." These individuals will share with us their work to explore and illustrate future scenarios for research lakes in northern Wisconsin during the Wednesday morning plenary. They will explain why lake associations might consider creating their own art/

science collaborations to speak for their lakes. You can delve deeper by attending their interactive workshop on Thursday afternoon that will help you think on the "right side of your brain" as you consider ways to use the arts to educate lakeshore residents and visitors about the critical issues facing your lake.

The Wednesday plenary will end with an underwater perspective and a new appreciation of lake life in Wisconsin from one of our

premiere photographers, **Eric Engbretson**. Known in the business for his exceptional underwater fish photography, Eric's photos have been widely published in dozens of fishing and outdoor magazines, calendars, books, posters, interpretive displays, and advertising.

Don't miss the Banquet and Awards Ceremony Wednesday evening that celebrates Wisconsin's Lake Stewards. Join us in recognizing the extraordinary volunteer and professional efforts of these individuals and groups that are nominated by their peers.

Thursday will offer even more learning and sharing opportunities through concurrent sessions and interactive workshops. Get all the details and register online at www.uwsp.edu/cnr/uwexplakes/conventions.

Whether we lead by instruction, example or expression, we all have an opportunity to speak for the lakes of Wisconsin. How will you "Speak for Lakes?"

(More on pages 11-12)

More info. at www.uwsp.edu/cnr/uwexplakes/conventions

Got T-shirts?

We certainly do! T-shirts are back again with this year's awesome "Speaking for Lakes" logo. You can easily order yours while registering for the 2011 Wisconsin Lakes Convention! Made from 100% organic cotton, these natural-colored shirts are only \$10 each if you order by the early bird deadline (March 14). 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, there is an option to do that as well.



Convenient online ordering!

Only \$10 if you order by March 14 (\$15 each after that)

A limited number will be available at convention.



(Convention, cont.)

Agenda

...at a glance

Tuesday, April 12

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)
1:00-3:15pm	Plenary Session - Speaking for Lakes
3:15-3:45pm	Refreshment Break in Exhibit Hall
4:00-5:00pm	Special Sessions
5:00-7:00pm	Networking time - Dinner on your own
7:00-8:00pm	Green Fire (Aldo Leopold documentary)
8:00-11:00pm	WI Lakes Convention Reception

Wednesday, April 13

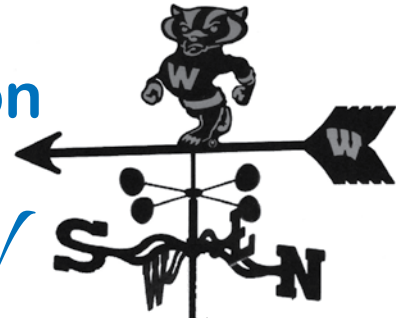
7:30am	Registration Opens
8:00am	Exhibit Hall Opens (until 6:00pm)
8:00-8:50am	Wisconsin Lakes Annual Meeting
9:00-10:30am	Plenary Session - Blending Arts and Science
10:30-11:00am	Refreshment Break in Exhibit Hall
11:10-11:50am	Concurrent Sessions I
12:00-1:30pm	Lunch & Poster Presentation Session
1:45-2:25pm	Concurrent Sessions II
2:35-3:15pm	Concurrent Sessions III
3:15-3:45pm	Refreshment Break in Exhibit Hall
4:00-5:00pm	Concurrent Sessions IV
5:00-6:00pm	Networking time
6:00pm	WI Lake Stewardship Awards Banquet

Thursday, April 14

8:00am	Registration and Exhibit Hall Open
9:00-9:40am	Concurrent Sessions V
9:50-10:20am	Refreshment Break in Exhibit Hall
10:30-11:30am	Concurrent Sessions VI
9:00-11:30am	County Lakes Roundtable
9:00am-5:00pm	Lake District Commissioner Training
11:45am-12:45pm	Lunch and Speaker
1:00-4:00pm	Workshops
2:30-3:00pm	Refreshment Break in Exhibit Hall
4:00pm	Convention concludes

Agenda subject to change.

Online Registration is a Breeze!



from photo by Karen Stiles

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 a registration form that you can complete and send to us via mail with your credit card information, a check or money order.

The web site includes important information about the 2011 Wisconsin Lakes Convention:

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

Join us for this year's convention and help speak for your lake!



Speak for lakes by carpooling 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



Wisconsin Lakes Convention

Speaking for Lakes

Workshops

(Convention, cont.)

Three-hour workshops will bookend the convention this year to give participants an opportunity to delve deeper into the subjects that interest them. These interactive sessions are designed to help attendees speak for their lakes! Register early to guarantee your spot - space is limited.

The interactive workshops add a fun and in-depth twist to the convention.

- 2010 Wisconsin Lakes Convention Participant

Tuesday, April 12 (9:00am-Noon)

Working with the Media: Put Your Best Foot Forward...Not in Your Mouth

Mary Farmiloe, Wisconsin Department of Natural Resources

Aquatic Plant ID

Susan Knight, UW-Madison Center for Limnology

Clean Boats, Clean Waters

Erin McFarlane, UW-Extension Lakes

Adding Lake Levels to the Citizen Lake Monitoring Network

Paul Juckem, United States Geological Survey

Erosion Control/Shoreland Techniques

Carolyn Scholl, Vilas County Conservationist

Wetlands and Local Land Use Decisions

Erin O'Brien, Wisconsin Wetlands Assoc.

Water Words that Work

Eric Eckl, Founder, Water Words that Work

Citizen Lake Monitoring Network

Laura Herman, UW-Extension Lakes

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)

County Lakes Roundtable (9:00am-Noon)

Earl Cook, Pres., WI Association of Lakes

Thursday, April 14 (1:00-4:00pm)

Getting Involved in Local Government: Running for Office in Wisconsin Counties and Towns

Mark O'Connell, WI Counties Assoc., Richard Stadelman, WI Towns Assoc., Dan Hill, UW-Extension Local Government Center

Lake Assessment Planning and Management

Buzz Sorge, Pam Toshner and Carroll Schaal, Wisconsin Department of Natural Resources

Solving Lakeshore Problems Through Whole Property Management: The Sustainable Landscape Perspective

Tom Girolamo, Landscapes for Life

Networking Tools for Lake Groups: Facebook, Wikis and Blogs

Eric Olson, UW-Extension Lakes, Jackie Askins, UWEX Public Info. Specialist

Using Civic Reflection Techniques to Engage People in Humanities and the Leopold Land Ethic

Aldo Leopold Foundation and Wisconsin Humanities Council Staff

Social Marketing Campaigns for AIS

Bret Shaw and Kajsia E. Dairymple, UW-Madison

Educating for Stewardship

Mary Jo Gingras, Iron Co. LWCD, Zach Wilson, North Lakeland Discovery Center, Nikki Nelson, Hunt Hill Audubon Sanctuary



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. See descriptions of over 30 sessions online at www.uwsp.edu/cnr/uwexlakes/conventions.

*Leadership/Communications
Native Plants/Animals
AIS Updates
Water Quality
Success Stories
Film Festival*



Expanded AIS Efforts in the Great Lakes Basin!

Preventing the introduction of aquatic invasive species (AIS) has been a major goal for Wisconsin's AIS team over the years. Equally as important, however, is the containment of these aquatic invasives in the waterbodies where they are already found. By concentrating on stopping the spread of these unpopular aquatic invasives once they're in the state, we're better able to protect those waters that are pristine or not yet home to a variety of AIS.

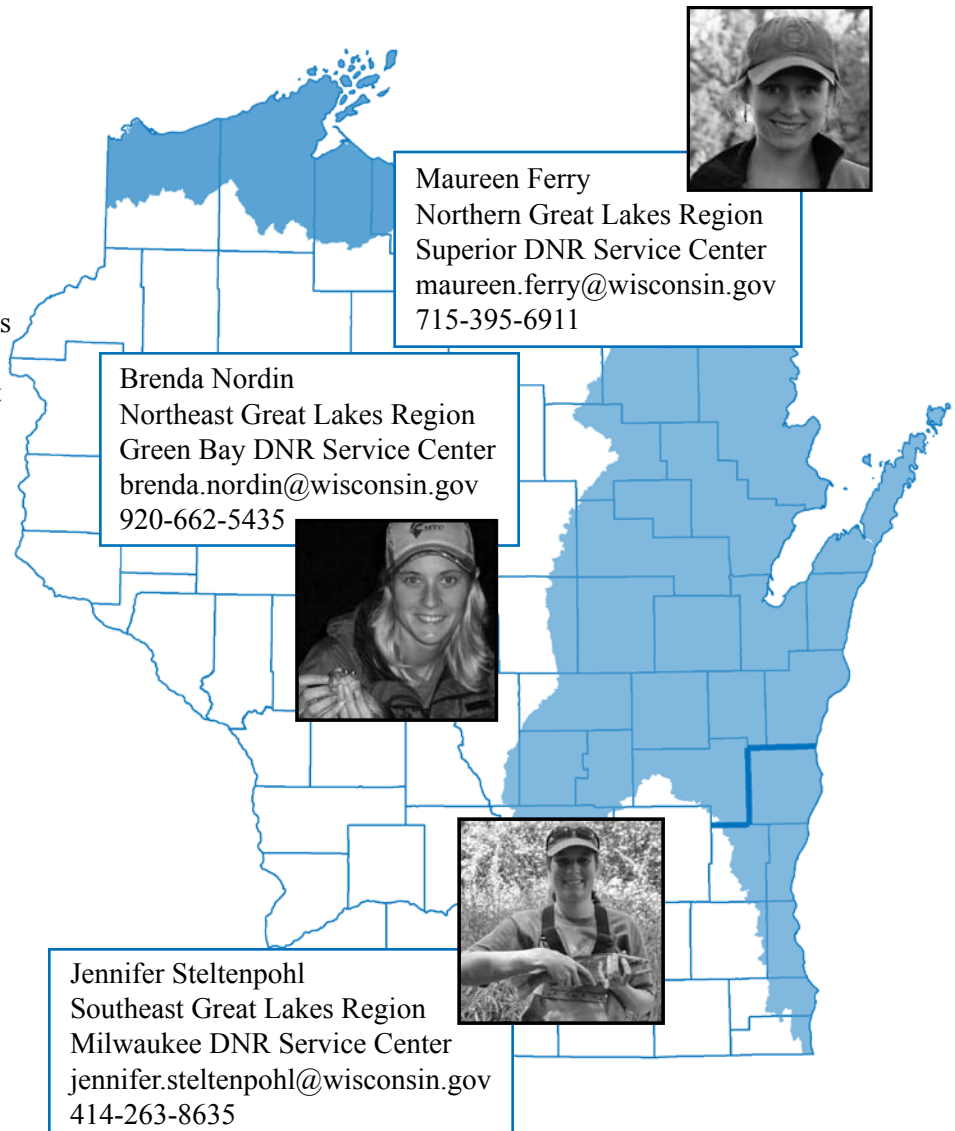
The Great Lakes have long been known as entry points for many of the aquatic invasives we now have in Wisconsin, such as zebra mussels. While our partners with counties, tribes, lake groups and agencies bordering Lake Michigan and Lake Superior have worked diligently to share prevention information and engage local citizens, expanding our AIS outreach and monitoring efforts has traditionally been a challenge. To combat this challenge, four new AIS staff have joined our team! Thanks to the funding awarded to our AIS partnership in 2010 as part of the federal Great Lakes Restoration Initiative, these new specialists are working to increase AIS outreach and monitoring efforts in their area.

Regional AIS Specialists

Three of the new staff are AIS Monitoring and Outreach Specialists, each located in a different region of the Great Lakes Basin, who are working to collaborate with existing partners and building new relationships, as well as aiding the development of AIS monitoring priorities. Through programs such as the Citizen Lake Monitoring Network, Project Riverine Early Detectors (RED), Purple Loosestrife Bio-control, and Clean Boats, Clean Waters, these specialists will also promote citizen engagement and action in AIS prevention.

Statewide AIS Monitoring Coord.

A statewide coordinator was also hired to develop AIS monitoring plans for the early



detection of invasives. In cooperation with our AIS partners, Scott Van Egeren is coordinating monitoring techniques, data management, and hands-on trainings for staff. He also works to prioritize waterbodies for monitoring using Smart Prevention analysis and creates tools to facilitate data reporting within Wisconsin and to federal agencies.

Meet the Staff!

Brenda, Maureen, Jennifer, and Scott have a daunting list of duties, but they are dedicated Wisconsin Department of Natural Resources employees ready to get to work! Read about their goals and hopes for the positions.



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

Brenda: I am most excited about reaching out to the organizations or governmental units that have not had a lot of experience or education regarding aquatic invasive species. From my experience, when these entities know they have a resource they utilize it.

Maureen: I am looking forward to working with the AIS stakeholders in the Lake Superior Basin (i.e. counties, lake associations, Michigan and Minnesota partners, etc.) to develop an effective regional AIS program.

What challenges do you see in your part of the Great Lakes basin, and how will you work to overcome those challenges?

Brenda: One of the challenges I see is the lack of understanding about the negative consequences that invasives have on the environment, whether it be on an individual basis or at the regional level. Many people think “it’s just a weed or fish no big deal.” My job is to show them what negative impacts invasives have on the environment and work with them on prevention instead of reaction. To overcome this, I will offer my services to any organization that requests them, and I’m not too shy about picking up a phone or shooting out an email asking groups if they need assistance with AIS.

Maureen: Containment of aquatic invasives may be one of the greatest challenges to preventing the spread of AIS. We will work to contain AIS by focusing watercraft inspections at source waters and expanding educational outreach. In addition, we will work to determine the actual distribution of AIS through monitoring both inland lakes and the Lake Superior shoreline.

Jennifer: I see a need for expanding our partnerships with various organizations and citizens, and creating a strong network to increase AIS activities such as education, awareness, monitoring, prevention, and control. I will work to build new relationships with groups that aren’t currently involved with our partnerships, but share an equal investment in the health of our water resources. I will also work to build county contacts, such as AIS coordinators or similar positions, providing a common connection for organizations and citizens within those counties to pool resources and knowledge in ways not currently available.

Scott: The biggest challenge I see in my new position is also our greatest asset, the great number of lakes, miles of streams and acres of wetlands in the state. I look forward to the challenge of developing statistically valid monitoring plans to represent Wisconsin as a whole and will work with my citizen, county and university friends to monitor many waterbodies each year. 💧

What is the Great Lakes Restoration Initiative (GLRI)?

In 2010, President Obama announced funding for the Great Lakes Restoration Initiative (GLRI) – an effort led by the U.S. Environmental Protection Agency (EPA) to target the most significant problems in the region, including invasive aquatic species, non-point source pollution, and contaminated sediment. The EPA solicited proposals from Great Lakes states and eligible entities, and, in May 2010, over \$160 million in GLRI grants were awarded. Wisconsin received funding for over 50 projects aimed at protecting and restoring our valuable Great Lakes, including the one focused on partnerships for AIS prevention that you’re reading about here!

Wisconsin Department of Natural Resources GLRI website: <http://dnr.wi.gov/org/water/greatlakes/glri/>

Multiple Agency GLRI website: <http://greatlakesrestoration.us/>

Jennifer: I am excited about minimizing the impacts aquatic invasive species (AIS) have on our water resources. We have an opportunity to control AIS that are already present in our state and to protect our waters from being invaded by new AIS.

Scott: I am most excited about developing and testing new monitoring protocols for aquatic invasive species and am really looking forward to getting out onto or into many waterbodies with colleagues across the state. My background is strongly rooted in lakes, but I am eager to learn more about rivers, streams and wetlands as part of my new position.



(Measuring Water Clarity, cont. from pg. 6)

to calibrate the satellite images. We compare the Secchi disk measurement at the point measured on the lake to the digital number reading from the satellite at the same point. We do this for all the CLMN lakes in the satellite image. Once we establish this relationship (model) for the satellite image, we extrapolate to estimate Secchi disk readings for all the lakes in the image. Because the relationship constantly changes due to atmospheric and light conditions, we have to recalibrate the

model for every image and every date. Hence, it's critical to have volunteers collect field measurements so the satellite models can be continually updated. The important message is that satellites will never replace field measurements. The satellites are useful in looking at general trends of Wisconsin lakes and can act as an efficient screening tool to identify lakes with rapidly changing conditions, but they will probably never be relied upon for making management decisions on a particular lake. 💧



CALL FOR AWARDS

February 16-17, 2011 – Wisconsin Wetlands Association Conference

“Wetlands in the Landscape” will be the WWA’s 16th annual conference to be held at the Ho-Chunk Convention Center in Baraboo, WI

For more information: www.wisconsinwetlands.org/2011conference.htm

February 25-26, 2011 – 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 3-4, 2011 – American Water Resources Association (AWRA) 2011 Wisconsin Section Meeting

“Wisconsin’s Role in Great Lakes Restoration” held at the Radison Paper Valley Hotel in Appleton. For more information: www.awra.org/state/wisconsin/2011meeting.html

March 11, 2011 – Wisconsin River Water Quality Improvement Symposium

Held at the UW-Stevens Point campus, 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

March 14, 2011 – Early Bird Deadline for Wisconsin Lakes Convention

For more information, see pages 7 and 10-12 of this issue.

March 16, 2011 – Conservation Lobby Day, Madison

Share your lake conservation values with Legislators! For more information: www.conservationvoters.org

April 12-14, 2011 – Wisconsin Lakes Convention, Green Bay

For more information, see pages 7 and 10-12 of this issue or go to www.uwsp.edu/cnr/uwexplakes/conventions.

May 1, 2011 – Grants Deadlines

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

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

River Protection Management Grants

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

May 12-13, 2011 – 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 1st annual conference.

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

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Wisconsin Lakes Partnership



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Reflections

***B**e glad of water, but don't forget
The lurking frost in the earth beneath
That will steal forth after the sun is set
And show on the water its crystal teeth.*

~ Robert Frost
(from *Two Tramps in Mud Time*)

