Local Efforts, Big News Deer Lake Conservancy Wins National Recognition for Successful Watershed Efforts

By Cheryl Clemens, Harmony Environmental and Eric Olson, UW-Extension Lakes

Two decades of planning and on-the-ground conservation has led to notable improvements in water quality for this 812-acre lake in Polk County. Deer Lake Conservancy received the 2015 "Lake Management Success Story" award at the 2015 North American Lake Management Society (NALMS) Symposium in Saratoga Springs, NY.

Most lake organizations, at one time or another, are confronted with the big existential question: Is this really worth it? Are citizen volunteers capable of making a difference in lake health? Will our lake get better during our lifetime? The success story at Deer Lake provides inspiration, as well as a model path, that some lake organizations would be wise to explore themselves. The story goes back nearly 80 years to the founding of the Deer Lake Association in 1939. Their initial bylaws state: "The object of this association shall be to further and improve the beauties and attractions of Deer Lake, to prevent, if possible, its deterioration or damage from any cause whatsoever; to devise ways and means of increasing its value to the members and to the community at large."

> ver many decades, the people at Deer Lake took on numerous challenges and addressed a range of issues common to most Wisconsin lakes: algae control, unsuitable development projects, water level disputes, etc. They were not always successful in their efforts, and the organization even went dormant for a period. Through it all, their focus remained on the quality of the lake and surrounding environment. Volunteers

began measuring water clarity in 1987 through the newly created Self-help Lake Monitoring Program, now known as the Citizen Lake Monitoring Network (CLMN). Secchi disc measurements in the late 1980s suggested that the lake was becoming more nutrient rich, and in the early 1990s, the

Wisconsin lakes

people interested

tor

newslette

(Continued on page 2)



Cheryl Clemens (left) nominated the Deer Lake Conservancy for this national award. Jim Miller (middle) accepted the award from NALMS President Julie Chambers (right).

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(Deer Lake Conservancy, continued from page 1)

Association sponsored their first lake planning grant through the Wisconsin Department of Natural Resources (DNR).

That initial planning grant led to a string of DNR grants and, along the way, the formation of a complementary lake organization - the Deer Lake Conservancy - that would focus more intently on addressing watershed management and land preservation opportunities that would reduce nutrients coming into the lake. According to the Deer Lake Association's newsletter, the association emphasizes "immediate and short-term issues and threats to the lake" while the Conservancy "deals with long-range issues and planning".

Between 1992 and 2015, Deer Lake organizations successfully obtained 19 different DNR grants to fund land acquisition, best management practices, aquatic invasive species prevention, aquatic plant management, and more detailed lake and watershed monitoring and planning. Total project costs over that period were about \$1.3 million, of which \$846,000 was funded through state grants. This may sound like a lot of money, and it is, but the costs average out to less than \$60,000 per year to permanently restore and maintain watershed health.





Flagstad Farm Prairie Restoration Project

Deer Lake Conservancy acquired this 70-acre farm and converted row-cropped fields that were draining to the lake through culverts into over 100 native prairie grasses and flowers in June 2003. It is one of the largest local-ecotype prairies in the state, meaning that the seeds were grown or collected within 50 miles of the restoration site. It was for these watershed management accomplishments that the Deer Lake Conservancy received the NALMS award. The Conservancy initially focused its efforts on agricultural watersheds north of the lake to:

- 1. Promote the retention/detention of stormwater runoff within Deer Lake's watershed, and
- 2. Promote the stabilization and restoration of stream beds within Deer Lake's watershed

At about the same time, the Polk County Land Conservation Department and the Department of Natural Resources were gathering information for the development of the Balsam Branch Priority Watershed Plan. The plan established an in-lake water quality goal of 19 ug/l summer phosphorus concentration. According to lake models, achieving this goal required a total phosphorus loading reduction of 36% (equivalent to 65% reduction of watershed loading) from levels in the early 1990s. The Deer Lake Conservancy adopted these same goals and has emphasized watershed practices to achieve them.

The Conservancy has been very successful in reducing the watershed phosphorus load with the purchase of property, conversion of critical row-cropped farm fields to prairie, restoration of wetlands, and installation of sedimentation and infiltration basins. Projects have been installed on nearly all intermittent streams that drain to the lake. From 1996 to 2009, the estimated annual watershed phosphorus loading to Deer Lake decreased by 53%!

With most large agricultural watersheds managed, the Conservancy focused on the direct drainage area (including waterfront properties) beginning in 2006. Projects to reduce runoff from agricultural and residential property continue to this day. About onethird of property owners have requested and received individualized consultations regarding what they can do to prevent runoff from their properties. Many have installed projects with assistance from the Conservancy.

Outreach to lake residents is enhanced by a system of trails through Conservancyowned property. These trails not only provide opportunities for public outdoor recreation,



Lake Bottom Mysteries: Winter in the Underwater Forest

By Paul Skawinski, CLMN Statewide Coordinator, UW-Extension Lakes

Photo by Paul Skawinski

Gazing over a frozen lake, it's hard to imagine a lush forest of green plants, especially under your boots, through the snow, and under a foot or more of solid ice. But believe it – there is a thriving ecosystem down there, even though its residents may be a bit more lethargic than last time you saw them.

n an effort to understand what our aquatic plant communities look like beneath the ice, and which species are toughing it out during the long, dark winter, I have been working with a couple of fellow botanists to peer into this mysterious wintery world. Bringing along a bunch of homemade equipment, some specialized camera gear, a lot of warm clothing, and some equally crazy colleagues, I set out to find some answers.

On a few weekends per year since 2012, we have visited fourteen lakes in Central and Northern Wisconsin, marking a few of the sites so that we could repeatedly visit them and watch how they change through the winter season. As of our last adventure on March 1st, 2015, we compiled a list of 30 species that are persisting as apparently healthy, green plants under the ice. We've also been delighted to see an abundance of animal life living in these miniature forests, especially caddisflies, large zooplankton like *Daphnia* and copepods, and



Photo by Paul Skawinski

fishes such as sculpins, bluegills and bluntnose minnows. Beds of green plants appear to be serving as gathering places for animals at a time when other areas of the lakes are desolate by comparison.

Old Man Winter brings us lakes that appear lifeless and frozen in time, but rest assured they are swimming with life!

What started out as a one-day trip to a couple of lakes has turned into a Sunday tradition to explore additional lakes and seek out individual plant species. Each spring, we're always excited to see which of our leafy friends powered through to see the light – the light of springtime, that is. Can you see the sculpin hiding in this photo?

Check out winter's underwater forest in this video that takes you through ten inches of snow, eight inches of ice and down four feet to the bottom of Big Carr Lake in January. https://youtu.be/ ZV7hH08hYxs

Check out the bright color of these Gratiola, Juncus, Lobelia *and* Isoetes.





A 30-year History of Wisconsin's Citizen Lake Monitoring Network

By Paul Skawinski, Statewide CLMN Coordinator, Carolyn Rumery Betz, Former CLMN Coordinator and Sandy Wickman, Regional CLMN Coordinator, Rhinelander

Photo by Amy Kowalski



Equipment is minimal for monitoring water clarity in Wisconsin lakes and has not changed in the last 30 years. You need: 1) Open water 2) A sunny day 3) A boat/anchor/PFD 5) Secchi disc 6) Data collection form

Thirty years ago, volunteers were solicited through a publicity campaign and by word of mouth.



Most people have no idea that Wisconsin's very successful Citizen Lake Monitoring Network (CLMN) was the outgrowth of an earlier, less-than-successful statewide lakes program. The Inland Lake Renewal Program existed throughout the 1970s and focused mostly on trying to improve the water quality of many of the state's impoundments. Back before there was a clear understanding of the concept that a lake is a reflection of its watershed, state technical and financial assistance was directed to these man-made waterbodies without much success. An audit conducted by the Legislative Audit Bureau concluded that the program be dramatically scaled back, so the staff were reappointed to other duties and parts of the state.

> he "new" Lake Management Program in the 1980s was the product of much thought about ways to avoid the problems of the 1970s. The three positions that were to be allocated

to the Madison central office included a limnologist, an aquatic biologist and an engineer, plus water quality specialists around the state assigned with a multitude of duties. From this, two monitoring efforts began in the mid-1980s and are still in existence today: Long-term Trends Monitoring, which is an ongoing study of water quality in over 60 lakes distributed across the state, and Self-help Lake Monitoring (the former name of CLMN). Thirty years ago, the first year of Self-Help Lake Monitoring, volunteers were solicited through a publicity campaign and by word of mouth. Carolyn Rumery Betz, who had started working at the Wisconsin Department of Natural Resources (DNR) in 1984, was responsible for creating the program and took advantage of opportunities to network with other states whose citizen monitoring programs had been established earlier, specifically in New Hampshire, Rhode Island, Florida and Illinois. Taking the best concepts from them, the program was born, and 126 volunteers on 113 lakes were trained on how to take a Secchi disc reading through individual educational sessions at each lake by either Betz or the regional lake specialists. Many of these specialists are still working at the DNR or have had long careers there, including Bob Wakeman, Tim Rasman, Buzz Sorge, Mark Sesing, Susan Graham and others.

What is a Secchi disc?

A Secchi disc is an 8-inch diameter metal disc painted in alternating black and white quadrants used to measure water clarity. Water clarity is a quick way to estimate lake health, and it plays an important role in determining the types of plants and animals that a waterbody can support.



The Secchi discs were handmade by a man in the Milwaukee area who painted each disc

Photos by Amy Kowalski

and marked each rope in one-foot increments. The training manual consisted of hand-drawn pictures of a person leaning over the side of a boat using a clothespin to mark two readings, from which an average was calculated. Thousands of postcards were filled out and mailed in, and the data were entered into a computer database by work-study students at UW-Madison, including Becky Scott and Brad Wolbert, who have now been DNR employees for close to 30 years.

Within five years, the program expanded, and volunteers collected not just water clarity readings, but chlorophyll and phosphorus samples that were analyzed by the State Lab of Hygiene. Water samplers were handmade by a retired chemist named Paul Anderson who carefully poured concrete into Mason jars and cleverly used the shells of Bic pens to create a one-way valve system to collect and measure dissolved oxygen and temperature at different depths. We even had a rigorous quality assurance program to show that the data the volunteers collected were worthy of uses such as the reporting of Wisconsin's water quality to the U.S. Environmental Protection Agency.

Today's Efforts

Currently, the Citizen Lake Monitoring Network provides opportunities for nearly 1,000 volunteers to monitor water clarity, temperature, phosphorus and chlorophyll-A concentrations, dissolved oxygen, aquatic invasive species, native aquatic plant communities and ice cover. In addition, a few volunteers have been participating in a pilot project to monitor lake levels, as well as an advanced lake temperature study, deploying continuous-read temperature loggers to record changes in water temperature throughout the open-water season.

CLMN is funded by the DNR through a contract with UW-Extension Lakes for the positions of CLMN Statewide Coordinator (Paul Skawinski) and Northern Regional CLMN Coordinator (Sandy Wickman). DNR staff and other partners support the remaining regions, and while CLMN may be only a minor component of their overall positions, these regional coordinators host the





Then and Now

wovided by Carolyn Rumery

Compare this water sampler from the early 1990s (left) made out of a glass jar and pen shell with today's integrated water sampler (middle) made out of PVC pipe, and the Van Dorn water sampler (right), which collects water at a specific depth.

majority of trainings for new volunteers and provide local support.

Training and equipment is provided at no cost to volunteers interested in monitoring their lakes. Some volunteers conduct many types of monitoring, and some even monitor multiple lakes. Large lakes with many bays and/or inlets may have multiple volunteers collecting information at various points around the lake. Interested volunteers work closely with CLMN staff to determine which types of monitoring would yield the most important information and to determine how they could complement their lake's existing monitoring activities, if any already exist.

Training and equipment is provided at no cost to volunteers interested in monitoring their lakes.

(Continued on page 18)



Paul Skawinski, CLMN Statewide Coordinator, demonstrates how to take a Secchi reading from his canoe on Sunset Lake in Portage County.



Ghost in the Northwoods **Following Bobcats in Wisconsin with GPS**

By Nick Forman, Research Technician, Wisconsin Department of Natural Resources



ave you seen any interesting tracks around your lakeshore property or in the wetlands nearby? If they look like they may belong to a large feline, you might be looking at the

A cat in water?

Bobcats do not fear the water as much as other cat species. They commonly wade and swim, and many bobcats do not hesitate to attack a beaver in shallow water.

tracks of a bobcat. The moniker "woods ghost" is well earned by the bobcat, as any who frequent the outdoors can attest to the rarity of sighting this

elusive predator. However, a few Wisconsin Department of Natural Resources (DNR)

Photo by Michele P. Woodford, DNR

GPS collars allow us to glimpse into the lives of these elusive mammals.





researchers and trappers in northern Wisconsin have been seeing more of them lately, and this seems to follow trends of increased signs and sightings of bobcats across Wisconsin.

As of October, the DNR has been working with local trappers in a twelve-county area (Ashland, Forest, Florence, Iron, Langlade, Lincoln, Oneida, Price, Rusk, Sawyer, Taylor and Vilas counties) to deploy GPS collars on incidentally trapped bobcats. This is all part of a research effort to better understand Wisconsin's bobcat populations, specifically to develop an idea of population size, and habitat and movement patterns in the Northwoods.

Bobcat or Lynx?

These two cats can be confused, but the underside of bobcat tails are whitish with a black spot near the end of the five- to six-inch tail. The lynx tail is completely black, top and bottom, over the entire end of the tail.

Typical research trapping efforts yield only a few individuals per year, but this year's effort has allowed researchers to collar 28 bobcats. That is a staggering amount, considering the difficulty in trapping such an elusive and farranging predator, and it shows promise for future research efforts. The high numbers are also promising for the status of the population. Reports from trappers and trail camera sightings, along with the amount of collars deployed, demonstrate that Wisconsin supports a robust bobcat population.

Are we home yet?

Male bobcats can have home ranges of up to 60 square miles, whereas a typical female's territory is about six miles.

In addition to this population size information, the GPS collars also send each bobcat's location twice a day. From these data,

researchers can determine which types of habitats the bobcats frequent, if their paths cross, what might deter them from certain areas and the size and location of their home ranges throughout the year.

Bobcats in Wisconsin are typically between 20 and 40 pounds, getting as large as 50 pounds. They typically live five to six years in the wild, but can live up to a decade. Males maintain larger home ranges than females, and some overlap, but females typically avoid other females. This is the time of the year bobcats mate (February-March), having an average litter of three kittens in just over two months. The bobcat is solitary much of the year, although females and kits stay together through the summer, and siblings may remain together into the fall and winter. One pair of bobcats collared this year were assumed to be brother and sister, and their movements reflected familiarity as the two cats would often be in the same exact area at the same time, but also spent much time apart.

What's for dinner?

Rabbits make up the majority of a bobcat's diet, but they have been known to kill deer. Bobcats can travel at 30 mph for short distances, but they prefer to stalk their prey slowly until it's within striking distance. Part of the joy of this type of research is the opportunity to peek into the private lives of animals that are difficult to observe. With the proliferation of trail cameras, many of the collared bobcats have been photographed moving through their home ranges. Other interesting snapshots afforded by the GPS collars show us:

- Bobcats may change movement as a result of the deer rifle season,
- The location of either kill sites or den sites based on a bobcat frequenting a location, and
- The numerous instances where these wild cats travel right through the backyards of people who live in the Northwoods.

Chances are you will never see a bobcat at your cabin or lake home, but you may just catch one on your own trail camera. Feel free to share such finds with the DNR so that we can continue to learn about this elusive *ghost*.

Photo by Nick Forman, DNR



This bobcat, caught in a coyote trap, was one of the 28 incidentally trapped and collared bobcats in 2015. These numbers show promise for future research efforts by the Wisconsin Department of Natural Resources.

Did you hear that?

Bobcats are rarely seen in the wild because their keen eyesight and hearing are always on alert for possible danger.

Photo by Michele P. Woodford, DNR



Trail Camera Photos Wanted

Trail cameras can serve as a valuable resource in documenting rare or endangered animals' existence and location in the state. The DNR is looking for pictures of some specific animals (moose, Canada lynx, cougar, American marten, stone marten, wolverine, Franklin's ground squirrel and badger), or of animals that are not typically in your neck of the woods (e.g. bobcat, fisher, river otter, etc.) Photos can be emailed to <u>Brian.Dhuey@</u> <u>Wisconsin.gov</u> or <u>Johnf.Olson@Wisconsin.gov</u> with the approximate date, county and civil township of the photo.

To view some of the photos already sent in, go to the trail camera gallery: <u>https://wdnrtrailcameragallery.shutterfly.com/</u>

Please review Chapter NR 45 on conduct of visitors to state lands for the protection of our natural resources.

Healthy Lakes 2015 The "Founders" Speak

By Pamela Toshner, Lakes Biologist, Wisconsin Department of Natural Resources

It's winter in Wisconsin, and one of our state's claims to fame is the Greatest Show on Snow, the American Birkebeiner, the largest crosscounty ski race in North America. Did you know that back in 1973 only 35 "founders" braved the cold to ski 30 miles in the first annual event, and today, more than 10,000 follow in their tracks? Sometimes it just takes a few enthusiastic participants to transform an idea into a nationwide phenomenon.

erhaps Healthy Lakes, a new

statewide initiative promoting

relatively simple and inexpensive

best practices to improve habitat and

water quality, will be similarly remarkable

decades from now. In 2015, 11 applicants

on 15 lakes throughout the state received grant

funding to implement 100 best practices on 48

dirty runoff from entering the lake and increase

properties. These practices include planting

native gardens along shorelines to prevent

privacy and natural beauty, installing fish

sticks (bundled trees) in the lake to improve habitat, and building berms, rain gardens and

infiltration pits to help divert, clean and filter runoff. Of the 100 practices that received grant

funding, almost half of them were installed

within just six months! Several Healthy Lakes

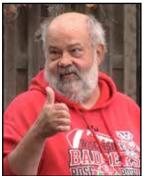
team members had the opportunity to visit the "founders" (first year participants) in October.

2015 Grant Recap

- 11 applications
- 8 counties
- 15 lakes
- 48 properties
- ♦ 100 practices

About half of the projects were completed within just six months!

Photos on pages 8-9 by Amy Kowalski





"Healthy Lakes is just what we've been looking for!"

Here's what we learned.

~ Mike R., Church, Pine, Round & Big Lake Protection & Rehabilitation District

Most lake groups participating in Healthy Lakes had existing management plans but not the tools to implement a universal recommendation – holistically restoring lakeshore properties. Some groups tapped into their previous social survey results to contact folks who indicated interest in "doing something" on their properties and introduced them to Healthy Lakes.



"We know there are bigger challenges like ag. out there, but until we do what we can on our own properties, we can't expect others to change."

~ Roland P., Apple River Protection & Rehabilitation District

Healthy Lakes is one piece of the lake management puzzle, and the founders are well aware what they can control and what remains to be done. They have chosen to be the change they would like to see around their lakes. Some are already observing neighbors following suit, independent of Healthy Lakes grant funding, by mowing less or leaving fallen trees in the water.



"I've been planting native plants along my shoreline here and there for five years, so when Healthy

Lakes came along, I was like, 'WOW!!! This is perfect!''' ~ Dave R., Cloverleaf Lakes Protective Association

Individual lakeshore property owners who are gardening enthusiasts, like Bill F. on Beaver Dam Lake and Dave R. on the Cloverleaf Lakes, put their passion for plants to work using the Healthy Lakes 350ft² native planting options. Business partners like Lisa Reas at L.J. Reas Consulting Corporation are also available to help with the design and implementation of these practices. Lisa says, "I think we're going to be able to keep the landowners happy and meet the [Healthy Lakes] standards without changing the feel of a very attractive, very colorful and functional shoreline planting."



"I got guys, and they want to work."

~ Craig F., Belle Plaine Sportsmen's Club

Community-based partnerships bring people together.

Conservation Clubs have members with skills such as logging and access to equipment like chainsaws and skid steers to help get projects like fish sticks done.

"This is a nice little program you've got here."

~ Tom H., City of Delafield

Five municipalities participated in Healthy Lakes by serving as grant applicants and/or installing projects on public property. These high-visibility sites showcase government doing the right thing. In most cases, government committees like Delafield's Nagawicka Lake Welfare Committee and the Frederic Village Park Board coordinate the projects. In other cases, lake group leaders

serve on town boards, like Dennis T. in the Town of Belle Plaine.

"It's still not simple."

~ Dan B., Squash Lake

Candid feedback will help to continually improve Healthy Lakes. We heard that opportunities remain to streamline steps and clarify information. For example, some folks didn't realize there were prescribed native planting options. In order to get the best bang for your buck, the right type and number of plants along the shore are necessary. One tool to help communicate clearly with lakeshore property owners and grant applicants is a new website launch this spring. Stay tuned for the www.healthylakeswi.org update.

"We are very pleased with the planting, and it is covered with butterflies and bees and we now have a frog living in the garden."

~ Bill B., Beaver Dam Lake District



One of the greatest measures of the founders' success is the immediate, positive fish and wildlife response they observed. These observations tell us that small steps matter, and folks take great pleasure in knowing they are making a difference.

Many founders also shared stories of neighbors driving or stopping by to learn more about their Healthy Lakes projects. While Healthy Lakes certainly isn't a race to get to the finish, it takes the same courage, endurance and commitment to participate as Wisconsin's signature ski race. Thanks to our founders for leading the effort, and let's follow these trailblazers to make Healthy Lakes together!

Dennis T., president of Cloverleaf Lakes Protective Association, also on the Belle Plaine Town Board, and his wife Jan, have been integral in organizing Healthy Lakes projects in and around Cloverleaf Lakes. Their shoreline planting has been established for a few years.



Lake Tides 41(1)

Safety on Our Frozen Lakes

By Captain Adam Walton, Owner, Pike Pole Fishing Guide Service; Firefighter; Paramedic; CPR/First Aid Instructor

As ice takes hold on Wisconsin lakes, anglers are venturing onto the hard water. Although many anglers look forward to this season, some forget about the inherent danger associated with it. Unfortunately, every year, numerous anglers fall through the ice, and all too often, some tragically perish. Before heading out, knowing a few simple precautions and understanding basic survival skills may be the difference between life and death.

et's first discuss the effects of cold water shock to the human body. When a person first falls through the ice, the body's initial reaction to abrupt cold-water immersion is to gasp. The cold water shock will literally suck the breath out of your lungs, causing many people to panic and inhale water. This factor alone causes many drowning deaths. Understand that gasping and losing your breath is a normal, short-term response. Keeping calm and treading water for the first minute after falling in should be your ONLY priority. Attempting to escape the water while unable to control your breathing is difficult and dangerous. After a short time, your body will become accustomed to the cold water and your breathing will return to normal. Once your breathing is controlled, focus on quickly getting out. First, get your bearings and try to locate the tracks you left prior to falling through. This points you in the general direction of safe ice, since it was able to hold your weight before you fell through. After you

Photo provided by Adam Walton

even if you are able to

rescue the victim.



have quickly located the direction of escape, prop your body onto the ice and kick hard while pulling yourself up. If ice breaks off, push away broken pieces and continue going until solid ice is found. Once your entire body is onto solid ice, roll safely away from the hole. Rolling away disperses your weight and helps to not fall through again.



If you carry ice picks, use them to pull yourself onto safe ice. Ice picks are inexpensive and make a huge difference when attempting to pull your body onto safe ice. Although it may seem insane, once out of the water, remove as much heavy wet clothing as possible and head towards help. Since cold wet clothing pulls away body heat much faster than cold air, removing items will keep you warmer compared to keeping them on.

Along with drowning, hypothermia is a secondary, but just as important threat. The first stage of hypothermia is body shivers. As time passes, numbness will begin to set in, eventually making it difficult or impossible to control your body movements. Continued cold exposure will lead to advanced stages of hypothermia, which include altered mental status and poor decision-making. Both the water and air temperature will affect how quickly these stages occur, but generally speaking, the human body has roughly ten minutes of purposeful movement before hypothermia begins to set in and one hour before unconsciousness occurs.

wa dea *If you see someone in* you *distress, immediately* Ke *call your emergency* min *response number,* prio

Lake Tides 41(1)



Preventative Steps

- Travel with a fishing partner.
- Let others know your location.
- Wear ice picks.
- Wear a life jacket.
- Carry a throw rope, extra gloves, stocking hat, flares, etc.

If you are able to rescue someone, be aware of the advanced stages of hypothermia. It is important to rewarm a victim, but do so slowly. Rapid rewarming, like submersion into a hot bath, can cause a victim of advanced hypothermia to go into cardiac arrest. If you see someone in distress, immediately call your emergency response number, even if you are able to rescue the victim. Advanced care is usually necessary even after the subject is pulled from the water.

Traveling with a fishing partner and letting others know your location prior to heading out is always a good idea. Other good preventive measures include wearing equipment such as ice picks or a life jacket and carrying items such as a throw rope, extra gloves/stocking hat, flares, etc., which can all help in emergency situations. Please be safe this season and plan accordingly. Ice fishing is a blast, but understanding the dangers that go with it and how to handle them may save your life!

Reprinted from an article on the Lake-Link website with permission from the author. <u>http://www.lake-link.com/</u>

What do I do if I fall through the ice? (in order)

- 1. *Keep calm.* (Tread water until your breathing is controlled.)
- 2. Get your bearings. (Locate the tracks where you left the ice.)
- 3. Get out. (Prop yourself up on the ice and kick hard with your legs while pulling yourself out of the hole with your arms.)
- 4. Roll away from the hole.
- 5. Remove as much wet clothing as possible.
- 6. Get help.

Check out the video of these steps at: http://www.lake-link.com/ articles/read/article.cfm/1018/Safety-On-The-Hard-Water/





victims who fall through the ice.



It is important to rewarm a victim, but do so <u>slowly</u>.





Wednesday, March 30

Pre-convention Workshops/Sessions

8:00 amRegistration opens9:00 am-NoonMorning WorkshopsNoon-1:30 pmLunch on your own (pre-register for onsite)1:30-4:30 pmAfternoon Workshops4:45-5:45 pmSpecial Technical Sessions5:45-7:00 pmNetworking time - Dinner on your own7:00-11:00 pmPartnership Welcome Reception

Thursday, March 31

6:45-7:45 am	Sunrise Yoga
7:30 am	Registration opens
8:00 am	Exhibits open (until 6:00pm)
8:00-8:50 am	Concurrent Sessions 1
9:00-10:45 am	Welcome and Keynote Kris Stepenuck
11:00 am-Noon	Concurrent Sessions 2
12:15-1:15 pm	Lunch
1:45-2:25 pm	Concurrent Sessions 3
2:35-3:15 pm	Concurrent Sessions 4
3:30-5:00 pm	Poster Presentations
	Visit Exhibitors and Educational Displays
5:00-6:00 pm	Networking time
6:00-8:00 pm	Lake Stewardship Awards Banquet
8:00-11:00 pm	Lakes Partnership After Hours

Friday, April 1

Registration opens
Exhibits open
Concurrent Sessions 5
Concurrent Sessions 6
Concurrent Sessions 7
Lunch and Keynote Alyssum Pohl
Afternoon Workshops
Concurrent Sessions 8 (CBM & WAV)
Concurrent Sessions 9 (CBM & WAV)
Poster Presentations (CBM & WAV)
Award Ceremony (CBM & WAV)

Saturday, April 2 (CBM & WAV)

8:00 am	Field Trainings & Presentations
8:00-9:00 am	Program Updates & Introductions
9:00-10:00 am	Concurrent Sessions 10
10:30-11:30 am	Concurrent Sessions 11
11:30 am-12:30 pm	Volunteer Discussion
12:30-2:30 pm	Lunch & Specialist Office Hours



"We have within our reach the promise of a renewed America. We can find meaning and reward by serving some higher purpose than ourselves, a shining purpose, the illumination of a thousand points of light. And it is expressed by all who know the irresistible force of a child's hand, of a friend who stands by you and stays there, a volunteer's generous gesture, an idea that is simply right."

> ~ George H.W. Bush 1991 State of the Union Address

resident Bush's statement and its now famous reference to "a thousand points of light" well captures the spirit and hope of a growing movement to engage volunteers in addressing our shared needs. It was in this same spirit that people in

Wisconsin, in the mid 1980s, began scoping out a systematic approach to leverage interested volunteers on hundreds of lakes to collect water quality information that would help identify and diagnose lake health issues. See page four to read about Wisconsin's Citizen Lake Monitoring Network (CLMN).

This year's convention will celebrate the CLMN volunteers, along with those involved in the Water Action Volunteers (WAV) program, a similar effort to engage volunteers in monitoring streams and rivers. In addition, more citizen scientists who monitor other natural resources in Wisconsin will join us from the Citizen-based Monitoring (CBM) Network. Our combined Lakes Convention/CBM & WAV Conference agenda revolves around the invaluable information these volunteers have contributed to our understanding of watersheds and lake health. We hope you will join us in learning and celebrating the great accomplishments of all our lake stewards!

www.uwsp.edu/cnr/uwexlakes

Wednesday Pre-convention Workshops



For more in-depth descriptions of workshops, tours and main convention sessions, go to our website at <u>http://www.uwsp.edu/cnr/uwexlakes</u>.

Wednesday, March 30 ~ 9:00 am - Noon

Using WordPress to Build Your Organization's Website (*Limit 12; additional fee \$50 includes web hosting*) WordPress allows organizations to customize their website without having to code. Attendees will work to adapt a site template (see <u>lakekit.net</u>) to their lake organization. Participants will need to provide their own laptop or tablet with wireless internet capability as they will be creating and editing webpages throughout this hands-on workshop. Registration in the workshop will provide website hosting for all of 2016.

Healthy Lakes 101 (Limit 35)

Join us to learn about the statewide Healthy Lakes initiative. We will share Wisconsin's 2014-2017 Healthy Lakes Implementation Plan, the five best practices described within it, and funding options. Participants will help shape this exciting new initiative's future direction. This workshop is intended for lake leaders and partners interested in doing Healthy Lakes projects and professionals positioned to promote and support them.

Beginner Lake District Commissioner Training (Limit 48)

Are you a new member of a Lake District Board of Commissioners or a recently formed lake district? This workshop is meant to walk you through the basics of Wisconsin's unique lake districts and the important roles that elected and appointed commissioners play in making them work. We'll cover the basics of Chapter 33, which governs lake districts, and other relevant rules and laws that every commissioner should know.

Volunteer Recruitment (Limit 48)

Volunteers are an integral part of our Lakes Partnership and many local agencies and organizations count on volunteers to make specific projects successful. This workshop will provide participants with best leadership practices and practical advice for recruiting, orienting, engaging, and recognizing volunteers. In viewing volunteers as assets, you will be a more effective and efficient project manager.

Digital Storytelling (Limit 48) - Please see the convention website for details.

Manual Removal of Eurasian Watermilfoil: An Effective and Efficient Management Tool (*Limit 30*) Manual removal strategies have been utilized to drastically reduce and even eliminate Eurasian watermilfoil (EWM) (*Myriophyllum spicatum*) from many central Wisconsin lakes. This workshop will cover identification of EWM and similar species, as well as mapping, removal and disposal. Video footage will be shown to illustrate the removal process under various conditions.

Keynote Speakers



Kris Stepenuck ~ Does Volunteer Monitoring Really Make a Difference? Thursday, March 31 9:00-10:45 am

This morning's keynote presentation will summarize Kris' research surveying nearly 400 citizen monitoring groups nationwide. Stepenuck is an Extension Assistant Professor with the Rubenstein School of Environment and Natural Resources at the University of Vermont, and Extension Program Leader for Lake Champlain Sea Grant. From 2001-2015, she coordinated Wisconsin's Water Action Volunteers Stream Monitoring Program.

Alyssum Pohl ~ Paddle On! Lessons Learned Down the Mississippi Friday, April 1 ~ 11:45 am-1:15 pm

In 2015, Alyssum Pohl paddled the full length of the Mississippi River in a kayak, while documenting water quality and plastic waste. This luncheon keynote will include tales from Alyssum's trip and lessons learned along the way. Pohl is a NOAA Digital Coast Fellow working with the National Association of Counties and the National States Geographic Information Council.



Wednesday Pre-convention Workshops

Wednesday, March 30 ~ 1:30pm – 4:30pm

Advanced Lake District Commissioner Training (Limit 48)

Lake Districts are special purpose units of government and several state laws beyond Chapter 33 guide how they operate. These laws are meant to make all local governments in Wisconsin more transparent, accountable, professional, and effective. We will cover open meetings law, ethics and conflicts of interest, and key methods for better meetings and using parliamentary procedure.

Healthy Lakes 102 (Advanced): The Process, Partners & Planning (Limit 35)

Join Healthy Lakes team members and project participants to learn how to get Healthy Lakes projects done. We will share an overview of the 2014-2017 Healthy Lakes Implementation Plan and best practices, but focus most of the discussion on tools, tips, and lessons learned from the lakeshore property owners and partners who are leading the initiative. This workshop is intended for folks who are familiar with the Healthy Lakes initiative and would like more direction on how to make it happen in their communities.

Lake District Treasurer Workshop (Limit 25)

This workshop is designed specifically for Lake District Treasurers. Managing a lake district budget is not the same as working with a lake association or other type of organization. This workshop will provide you with the tools and knowledge needed to create and manage your lake district's budget. We will cover specific compliance rules that lake districts need to follow.

DEADLINES

Call for Posters February 12

EARLY-BIRD REGISTRATION March 9

21st Century Communications (Limit 48)

Please see the convention website for details.

Shoreland Zoning: Protecting Lakes Through Partnerships (Limit 48)

In this workshop, we'll talk about the history of shoreland zoning, how it works today, and recent changes, such as those in the state budget bill passed in July 2015 that went into effect immediately. We will discuss the specifics of this law, shoreland science, what county zoning staff are doing, how lake organizations can get involved, and the requirements for county shoreland ordinances.

Intro. to Lake Eutrophication Modeling and Using the WI Lake Modeling Suite (WiLMS) (Limit 25)

This workshop will examine some of the principals of lake eutrophication modeling and introduce attendees to the Wisconsin Lake Modeling Suite (WiLMS) for lake water quality evaluation and planning. This workshop is geared towards individuals interested in performing simple lake eutrophication modeling or to better understand modeling results developed for their lake. Participants will need to provide their own laptop computer as this session will include hands-on applications of WiLMS.



Groundwater – Brewery Tour (*Limit 20;* off-site, shuttle included; Special Fee \$25) Wisconsin's freshwater resources have long supported a vibrant brewing industry. Beer producers are increasingly realizing the importance and value of water and are developing strategies to use water more wisely and make their operations more sustainable. Join groundwater experts on a fun and fact-filled tour of the Stevens Point Brewery. We'll highlight the connections between the beverages we enjoy and groundwater quality and quantity. We'll also explore the impact of groundwater use on lakes and rivers.

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Friday Post-convention Workshops



Friday, April $1 \sim 1:30$ pm - 4:30 pm

Aquatic Plant Ecology and Identification (Limit 24, additional fee \$25 includes materials)

In this aquatic plant workshop, we will focus on aquatic plant ecology and identification. Participants will learn to identify aquatic plants using freshly defrosted plant specimens collected last summer and a variety of plant keys and other resources. We will focus on distinguishing plants with similar growth forms and among species in the larger genera. If possible, participants should bring a hand lens although there will be some hand lenses and microscopes available.

Mapping for Citizens (Limit 20)

This workshop will explore the fundamentals of geographic information systems (GIS), including importing data points, GPS to GIS, symbolizing data, creating a map layout, and saving projects. Lake associations and consulting firms interested in producing survey maps should attend. Prior knowledge of working with GIS/ GPS is preferred. Examples of projects from Blue Lake in Vilas County and Lake Redstone in Sauk County will be discussed. Good computer skills, a laptop and special software required.

LoonWatch Loon Ranger Training (Limit 48)

For over 35 years, LoonWatch has engaged an active volunteer network of Loon Rangers as its primary tool to collect critical long-term data on loons in Northern Wisconsin. Through this workshop you'll learn how to monitor loons, hear what's new in the world of loon research, and get to meet other loon enthusiasts.

SWIMS and the Lakes and Aquatic Invasive Species Map Viewer (Limit 20)

Interested in learning more about SWIMS and the Lakes and AIS Viewer? Come and get a general walkthrough of both and stay to get more in-depth information of how to maximize the available tools. Demos provided will include how to add, find, and update information in the SWIMS database, as well as how to create a quick map, add graphics, share maps, and add your own data to the viewer.

Clean Boats Clean Waters (*Limit 25, additional fee \$15 includes materials*)

Wisconsin's watercraft inspectors play an important role in our AIS prevention efforts. Whether you're new to watercraft inspections or an experienced inspector, join us for the updated Clean Boats, Clean Waters workshop to receive the latest training and materials! You'll learn how to use a conversational approach during inspections, what prompts will assist you in using the datasheet, and how to share this data online.

Hands-on Shoreland Restoration (Limit 20)

Participants will be led through several hands-on activities that demonstrate shoreland restoration basics and other ideas for creating sound rehabilitation projects. Long-term strategies for water conservation and wildlife habitat enhancement will be considered for the site and put into a draft action plan for the future. Assorted resources for developing your own shoreland restoration plans will be shared.

2016 Wisconsin Lakes Photo Contest

Underwater Vision by Jessica Tomaszewski won first place in the *People Enjoying Lakes* category at last year's photo contest. You could win too! We have added a special category for this year only, to showcase our theme Celebrating Volunteers! Get more information on our website:

www.uwsp.edu/cnr/uwexlakes

Deadline: March 3, 2016

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Clean Boats, Clean Waters Inspection Videos Online



You can find all of the video scenarios on the CBCW homepage. Clicking the purple <u>Resources</u> button under the CBCW logo will take you directly to the video scenarios webpage, which features a title, image, and short description for each video. Click the image to watch the video. ow that the holidays have passed, it's not too early to begin dreaming of warmer weather and time spent on the open water (...right?). The first months of 2016 are a great time to begin preparing for your Clean Boats, Clean Waters (CBCW) watercraft inspection efforts for the year. As you sign up for training and refresher courses this spring, remember that there are a series of inspection scenario videos available to complement your training.

Thanks to the help and feedback from a variety of inspectors and partners, a series of eight videos were produced last spring that provide inspectors with examples of how to conduct watercraft inspections and have conversations with boaters in various situations. These videos cover a range of scenarios, including:

- How to talk with a boater who is leaving a
- landing with aquatic plants attached,
- How to approach an angler leaving a landing with live bait,
- How to talk with a boater who has been inspected multiple times, and
- How to properly clean your boat before leaving the landing.



Erin McFarlane, Statewide CBCW Educator, explains CBCW in a brief introductory video.

The videos can be especially useful resources during CBCW trainings, but are not meant to take the place of a training or refresher. Attending a CBCW training annually is an important step in being an effective inspector. You can find out what trainings are scheduled near you as the year progresses by clicking the "Find a CBCW Training" button on the CBCW homepage.

We would love to hear what you think of the videos and how/if they are helpful to you as you prepare for your 2016 inspection efforts. Thank you for all that you do to protect and preserve Wisconsin's lakes!

Watercraft Inspection Data: 2015 Fast Facts

A huge thank-you to all of our watercraft inspectors, who have again inspected more boats and contacted more people than ever before! Here are the statewide data totals as reported by our dedicated inspectors:

- 131,301 boats were inspected by volunteer and paid inspectors
- 276,777 people were contacted about AIS prevention
- 80,850 hours were spent conducting watercraft inspections
- 98% of boaters contacted were willing to talk with inspectors
- 18% of boaters reported their watercraft had been used on a different waterbody in the past five days (data as of 1/4/16)

To view inspection data by region, county, or even boat landing, go to <u>http://dnr.wi.gov/lakes/invasives</u> and click *Watercraft Inspection Data* (on the right hand side of the page) under *Data & Maps*. You can find your local data totals by selecting your choice of locations and clicking on the *Landings* tab.

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www.uwsp.edu/cnr/uwexlakes/cbcw



Wisconsin is fortunate to have many talented and knowledgeable people acting as citizen water quality scientists on their lakes. We would like to highlight some of the accomplishments of the volunteers in the Citizen Lake Monitoring Network (CLMN). Want to see a CLMN volunteer acknowledged in Lake Tides? Please send information to Amy Kowalski, Lake Tides Editor, at <u>akowalsk@uwsp.edu</u>.

148,043 Secchi Readings

That's right! Since 1986, volunteers have collected nearly 150,000 Secchi disc readings on Wisconsin lakes. We are proud to report that there are four volunteers who have been with CLMN (formerly the Selfhelp Lake Monitoring Program) for all 30 years – Dale Jalinski (Bear Lake, Oneida County), Bob Kirschner (Crystal Lake, Langlade County and Emden Lake, Oneida County), Tom Rulseh (McDonald Lake, Vilas County) and Kay Scharpf (Franklin Lake, Forest County).

Tom Rulseh

And it is with great pride that we introduce Tom Rulseh as a CLMN Superstar. Tom lives in Three Lakes but has been monitoring McDonald Lake in Vilas County since 1986. Until recently, Tom worked with his father, Roy. Together they have collected nearly 200 clarity readings and 75 water samples for chemistry analyses. McDonald Lake is a 41-acre, mesotrophic seepage lake near St. Germain. The baseline and historical data collected by Tom and Roy are the only public data available for this lake.

Tom is an avid outdoorsman and is a good friend to Wisconsin's lakes, but Tom has many other interests as well. He is



Vice President of the Three Lakes Historical Society, a partner with the U.S. Forest Service in managing the Sam Campbell Memorial Trail, and President of the Three Eagle Trail Foundation. Tom has been very involved with the planning and construction of the Three Eagle Trail, a beautiful, non-motorized trail that connects Three Lakes and Eagle River. Tom also finds time to act as Clerk of the Three Lakes District School Board.

"Tom is a great guy. He loves his community and natural resources, and works tirelessly to provide hiking and biking trails for all to enjoy. He has a great sense of humor and would never think of putting the spotlight on himself."

~ Sandy Wickman, Regional CLMN Coordinator

From all of us to Dale, Bob, Tom and Kay – Thank you for your combined 120 years of monitoring water quality in Wisconsin!!!

During the summer of 2015. Tom and his wife, Vicki, began a journey of 3400 miles on a tandem bicvcle from Astoria, Oregon to Portland, Maine. This adventure lasted 63 days (and did cut into his ability to collect clarity readings during the 2015 field season).

Lake Leaders 2016 - Crew 11

It's 2016 and nominations for Crew 11 of the nationally recognized Wisconsin Lake Leaders Institute are pouring in! However, you still have a little time, so if you've been waiting to nominate yourself or a friend, neighbor or colleague, do it NOW! Nomination deadline: February 12, 2016

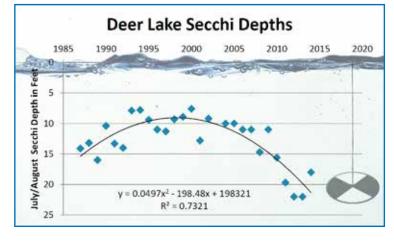
www.uwsp.edu/cnr/uwexlakes/lakeleaders



(Deer Lake Conservancy, continued from page 2)

they also display interpretive signs and brochures that explain Conservancy land-based efforts to improve Deer Lake water quality. Social events hosted by the Conservancy and the Deer Lake Improvement Association help to form connections that reinforce the importance of lake health and individual contributions and action.

Graph provided by Cheryl Clemens





Chemistry Monitoring

For most CLMN activities, new lakes and volunteers are always being encouraged to participate. Water chemistry is the exception – although these data are important to collect, water chemistry equipment and analysis of the samples are very expensive, and CLMN is limited in how many chemistry volunteers it can financially support. For this reason, only a few new chemistry lakes tend to be added each year, and these lakes are chosen because they have demonstrated needs for water chemistry data.

Data Storage and Usage

All water quality data collected by CLMN volunteers are still entered into the same database, now expanded into the Surface Water Integrated Monitoring System (SWIMS) database, which is managed by Jennifer Filbert in Madison. These data are used by DNR and University researchers, as well as by sanitary districts, fishing guides, lake organizations, consultants, and others to guide The in-lake water quality results of this work are striking. The Conservancy focuses on water clarity measurements to track progress and communicate results with lake residents. CLMN volunteers record Secchi depth measurements twice monthly during open water, and the results for July and August averages are getting clearer over time. While major projects were installed from 1997-2006, a visible trend of clearer water appeared around 2011 and continues to this day (see graph).

The experience at Deer Lake illustrates that citizen volunteers can and do make a difference for Wisconsin lakes. It can take years, even decades, to coalesce the energy and funding needed to both plan for and implement lake watershed protection. But, when done right, the changes can result in permanent landscape improvements that yield water quality gains and provide habitat, aesthetic and recreational benefits to the lake area. Congratulations to Deer Lake Conservancy for their accomplishments and this award!

from page 5)

lake management activities. Anyone can view the current and historical data collected from any lake participating in the program at http://dnr.wi.gov/lakes/clmn.

Volunteers Drive the Network

Feedback from volunteers and staff plays a major role in determining how the CLMN program evolves over time. As a result of volunteer input, the CLMN website was recently overhauled, and an interpretive guide was created to help translate data reports. Additional monitoring activities may be added as the need for more data becomes evident, and the list of aquatic invasive species monitored may change based on new research or additional species showing up in Wisconsin waterways. If you are interested in becoming a CLMN volunteer, or have questions/ comments about the program, please contact your Regional CLMN Coordinator. Find staff contact information and learn more about CLMN at our website: www.uwsp.edu/cnr/ uwexlakes/clmn.

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Water Walkers

Water is essential for life. Water is indeed a gift. Water deserves overt respect and appreciation. With these thoughts in mind, a group of volunteers in Lac du Flambeau decided to provide the community with a Water Way Walk last spring. These folks have followed the lead of others in the last decade who have exuded gratitude, respect and even reverence for the gift of water by participating in a water ceremony, and then walking along and around most of the Great Lakes. The Lac du Flambeau volunteers will again meet on May 7, 2016 to



honor our most treasured resource. If you'd like to learn more about the Water Way Walk ceremony, its recent history and the roles of volunteers, Tinker Schuman (*Migizikwe* - Eagle Woman) will be presenting at the Wisconsin Lakes Partnership Convention, Friday, April 1, 2016 at 8:00 a.m. For more information, go to <u>http://www.uwsp.edu/cnr/uwexlakes</u>.



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Reflections

Ne-be Gee Zah-gay-e-goo Gee Me-gwetch-wayn ne-me-goo Gee Zah Wayn ne-me-goo

Water, we love you, We thank you. We respect you. v-e-goo ne-me-goo -goo ~ Doreen Day