LAKE TIDES

The newsletter for people interested in Wisconsin lakes

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Fall 2002

How Effective are Lake Organizations?

A new study may have some of the answers

What shape would our lakes be in if the public did not play a major role in their stewardship? Lake organizations have existed in Wisconsin for over 100 years. Through the years, volunteer members of lake organizations have poured thousands of private hours and dollars into preserving our public lakes. But just how effective have these groups been? Professor Anthony Gabriel, now at Central Washington University, and Cynthia Lancaster, WDNR Oshkosh, were working at the University of Wisconsin at Oshkosh when they decided to investigate this very question. Using survey tools, these researchers compared the characteristics of lake associations and lake districts across the state through analysis of management objectives, issues, activities, and uses of funds and contacts. They also examined the relationships between reported management activities, the nature of the issues, and the effectiveness of different management styles. Here is part one of a report on the findings in this first of its kind study. To read the unabridged study visit our web site at www.uwsp.edu/cnr/uwexlakes.

The number of citizens engaged in Wisconsin lake stewardship through lake organizations is probably the largest in the nation. Approximately 800 local organizations involved with some level of lake management operate in the State of Wisconsin. The primary lake management organizations, dating back to 1898, are lake associations. Public inland lake and rehabilitation districts first came onto the scene in 1974 with the passage of Ch. 33 of the state statutes. Lake associations and districts differ greatly in their sources of revenue and expenditures, with lake districts reporting significantly higher amounts for both. The study found a positive correlation between the total number of lake management activities undertaken by lake management organizations and the number of homes, percentage of permanent residents, and property values found on the lake. There was also a definite linkage between total membership and annual membership fees.

Education is a priority for many lake organizations.

Lake Characteristics

The median size of a Wisconsin lake with a lake organization is relatively small, averaging 288 acres, though organizations exist on lakes ranging in size from 7 to 36,995 acres. A large number of organizations (91%) reported that their lakes have public access.

The number of homes on the lake reported by lake management organizations ranged between 4 and 2,675, with an average of 100 per lake. Compared to lake associations,

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Wisconsin Lakes Partnership

lake districts tend to have a higher number of homes per lake (median of 107 compared to 90 for lake associations). Lake districts also reported higher property values (median of $650 per liner foot compared to $450 for lake associations).

Data suggests that the better organized a group, the greater the likelihood of active lake management.

Organization Characteristics

Membership numbers tend to be fairly large, with an average membership of 70 for associations and 175 for districts. Many organizations are well established. The majority of the organizations surveyed (64%) had been organized for over 10 years. Lake districts have a greater proportion of permanent residents (averaging 45% compared to 25% for associations). Most of the lake organizations surveyed seem to be well-organized. Ninety two percent of lake associations surveyed had written by-laws, while 74% had sought incorporation.

Volunteers investigate the contents of a dip net.

Seventy-two percent of the lake organization respondents were associated with the Wisconsin Association of Lakes (WAL). Lake association and districts also tend to keep their members informed and involved and distribute information to the membership an average of three times a year. Organizations have an average of two membership meetings per year. Sixty-five percent of lake districts produce newsletters and 77% of lake associations do the same. The attendance at membership meetings tends to be fairly large, with a median of 40 members attending; an average of nine members attend board meetings.

Revenues and Expenditures

Lacking powers of taxation, lake associations tend to rely on membership dues and miscellaneous revenue generating events such as fundraisers to support lake organization activities. Lake association membership dues averaged $15 per year in 1997, with the total sum collected averaging $1,000 per association. Lake districts tend to draw on a broader range of funding sources and receive most of their revenue from property taxes, special charges, and special assessments. As a result of greater access to more formalized types of revenue, lake districts have significantly higher total revenue than associations, with a median income of $16,800 in 1997.

Additional funds are collected through WDNR Lake Planning and Lake Protection grants, which are competitively given on a cost-share basis. Lake districts reported applying for significantly more WDNR grants (81%), compared to only 27% of lake associations. However, 82 to 94% of the grant applications submitted by lake associations and lake districts received funding.

Management Goals and Objectives

The study found that organizations affiliated with WAL were engaged in a significantly higher number of activities than those that were not members. Data suggests that the better organized a group, the greater the likelihood of active lake management. A notably higher number of activities are undertaken by lake districts and incorporated organizations with written by-laws.

When asked what factors motivated the group's initial formation, lake management organizations in Wisconsin indicated that they were primarily established to maintain or enhance environmental quality (84%), as well as maintain or enhance fisheries (42%). Higher proportions of lake associations than lake districts were formed to educate lake property owners (43% compared to 29%), protect the lake from over-development (27% compared to 9%), and promote social activity (25% compared to 4%). Conversely, lake districts were more likely to be formed to improve access to funding (48% compared to

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11%) or operate a water control structure (21% compared to 8%). Less than half of the organizations were formed in response to a crisis; however, more lake districts (47%) than lake associations (34%) were formed to deal with an immediate problem.

Reviewing the intent of their original goals, the primary objectives of lake management organizations shifted slightly towards the protection of water quality (53%) and fisheries management (27%). Also mirroring the past, much higher proportions of lake associations than lake districts continue to have management objectives that include member education, water safety, zoning issues, and social activities. By comparison, lake districts' management objectives are now much more likely to include aquatic plant control (38% compared to 11% for associations).

Some lake organizations also reported having become political players in their regions. Thirteen percent have actively supported or campaigned for candidates in town or county governments, 81% of which resulted in the election of their preferred candidate. Lake districts had a success rate of 91% and lake associations were successful 77% of the time.

In the next issue of Lake Tides we will explore sources of funding and the issues lake organizations face, the steps taken to address a problem and subsequent perceptions of success. To read the study in its entirety, visit our web site at www.uwsp.edu/cnr/uwexlakes.

Based on a study done by Anthony O. Gabriel, Department of Geography and Land Studies, Central Washington University, Ellensburg, WA and Cynthia Lancaster, Wisconsin Department of Natural Resources, Oshkosh, WI.

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Cost Share Program - A Success in Vilas County!

Many waterfront property owners in Vilas County are doing their part to protect the quality of their lake and enhance fish and wildlife habitat at the same time. How? By using money available to them through a shoreland restoration cost-share program, they are re-vegetating their shorelines using plants, shrubs, and trees native to Wisconsin's northern landscape.

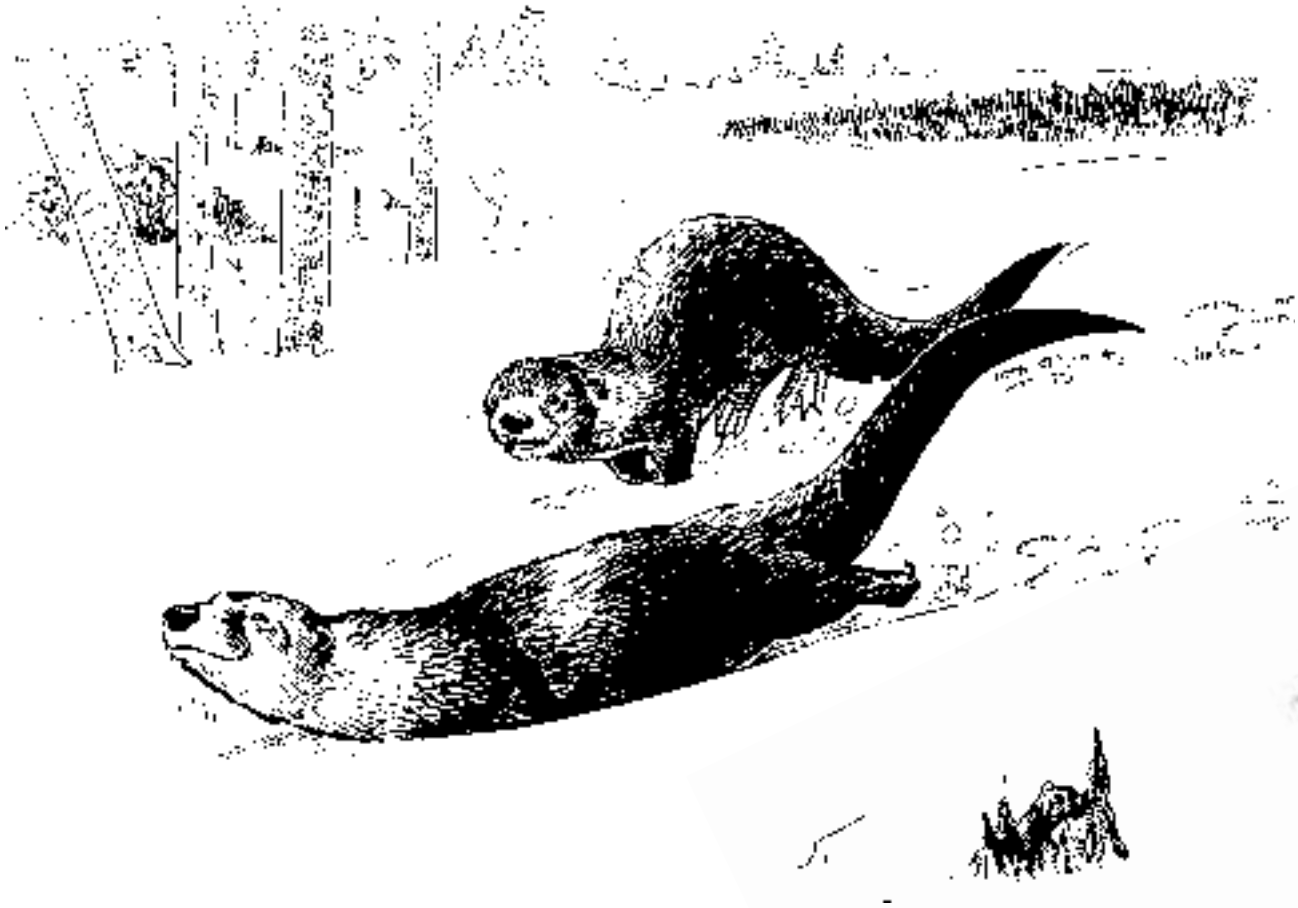
The new cost share program, administered by the Vilas County Land and Water Conservation Department, provides financial incentive to landowners to restore vegetation along their shorelines. The program can reimburse up to 70% of the landowner costs for purchasing and installing erosion control measures, native plants, and other materials directly related to their restoration project. Landowners also receive the benefit of a detailed plan and cost estimate, as well as professional guidance to help them through their projects.

Although the cost share program has only been in existence in Vilas County for two years, it has successfully funded 20 shoreland restoration projects! And - due to overwhelming interest in the program - the Land and Water Conservation Department expects to fund several more restoration projects next year.

For more information about shoreland restorations and/or the Vilas County cost share program call Carolyn Scholl at (715) 479-3648.

By Carolyn Scholl, Vilas County Lake Specialist

Clowns in Fur Coats



Hiking in the northern Wisconsin wilderness, I spied two columns of tracks along the surface of the ice. I followed the tracks down nature's winter highway, hoping to identify or maybe even sight these mystery travelers. The recent snowfall left a clean slate for these wayfarers to leave their mark – and this pair was obviously bounding along on a mission.

Bounding… Characteristic of the weasel family, or mustelids, this trail was likely left by one of its members. Mustelids include badgers, skunks, weasels, minks, otters, ferrets, martens, fishers and wolverines. We can narrow down our suspects based on what we know of their habits. While badgers can be quick, they usually swagger along. Skunks should be hibernating. Weasels, because of their curious nature, tend to leave trails straying far from straight. And ferrets and wolverines are not found in Wisconsin's wilderness.

I continued along the trail, head down and eyes on the tracks, hoping to detect a clue in the paw prints. It could be fishers, martens, minks or…swoosh! The long wide belly slide across the ice gives away the playful otter's identity.

The river otter (*Lutra canadensis*) is known as the clown among furbearers. They are curious and sociable animals, often traveling together in families. They will wrestle, chase each other, and slide down banks of mud or snow or across flat ice. The slide marks left behind are called "slips."

Otters are the largest mustelid in Wisconsin. Including its tail, an otter may be three to four feet long. It can weigh over 30 pounds by the time it reaches maturity. It has a healthy appetite and requires roughly three square miles of habitat to support it. Otters are very skilled at fishing, sometimes teaming up to herd fish into coves so they can catch them

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as they swim out. While their diet consists primarily of fish, otters will also eat crayfish, frogs, insects, birds, small mammals and vegetation. They also eat lamprey eels, the predatory parasite that has taken a toll on the Great Lakes fishery.

An otter's body is well suited for catching aquatic prey. It is sleek and long with short legs and webbed feet and its fur is dense and waterproof. While it has highly developed senses of hearing and touch, an otter's stiff whiskers and near-sightedness benefits it under water.

Otters, like other members of the weasel family, reproduce by delayed implantation. Embryos develop very slowly for the first eight to ten months but mature rapidly during the last two months prior to birth. In April or May, the mother will move to a small tributary stream to find a rock cavity, abandoned beaver lodge, or other suitable shelter, where she will give birth to two to four pups. Once weaned, after eight to ten weeks, pups are taught to swim (and some take to the water more readily than others do). An otter's first year of life is spent with its mother and then it will leave to find it own territory.

Otters are found almost exclusively near lakes and streams. Historically, with the exception of the dry southwest and frozen arctic, otters lived throughout North America. They were eliminated from many areas, however, because of overexploitation of their highly prized fur and destruction of their habitat. Unfortunately, Wisconsin, where otters have been pushed northward, is no exception. While otters are found throughout Wisconsin, they continue to be most abundant in the northern half of the state.

The future of the river otter looks good, however. Our efforts to protect shoreline, wetlands and water quality have improved their habitat. Wisconsin closely monitors its otter population and it appears to be increasing in central and southern parts of the state.

The future of the river otter looks good.. Our efforts to protect shoreline, wetlands and water quality have improved their habitat.

Watch for signs of the river otter as you hike along the water's edge or traverse the frozen lakes this winter. Columns of tracks marked with a heavy tail drag or impressions of five toes with webbing between them are clues of its presence. And, of course, keep your eyes open for slips left behind by these clowns in fur coats.

By Marilyn Leffler, University of Wisconsin-Extension, Madison

Catch a shining star
Tiff Lyden moves on….

If you are lucky, you will have a few opportunities in your life to see a shining star. For the people of Wisconsin in general and the people of Vilas county in particular, Tiffany Lyden was that star. She started her work in Vilas County in April of 1997 as a county Lake Specialist and later became the Vilas County Conservationist. She was always ready to assist with a host of water related challenges ranging from Lake Classification to shoreland restoration. Tiffany was always quick to help with educational and technical assistance and always quick to smile. She was truly dedicated to being the best she could be for the lakes and the people of the north. Tiffany's life journey has taken her and her husband to Montana. We will miss her and wish her the best…..

Wisconsin Lakes Convention
April 10-12, 2003
KI Convention Center and Regency Suites
Green Bay

Consider what we have accomplished over the years! Some lake organizations have been active since the late 1800s, others have only recently formed. Many have made significant progress in terms of engaging youth, collecting data and experimenting with various lake restoration activities. Clearly we have stories and experiences to share. What lessons have we learned over the years? How will our experiences shape where we go tomorrow? Bring your stories to the 25th annual Wisconsin Lakes Convention, April 10-12, 2003 to be held at the Regency Suites, K1 Convention Center in Green Bay, Wisconsin. This conference is a wonderful opportunity to listen, learn and discuss with others your experiences with lake management, shoreland restoration, youth and adult education and other important topics.

If you are new to the lake or a committed aficionado, this is a great opportunity for you and your lake organization to learn and gain significant information in a short period of time. It is a great time to find answers to your many questions about lake management, meet new friends and catch up with old ones. Look for a detailed agenda in the next edition of Lake Tides, the Lake Connection, and in your own lakes newsletter. Invite a fellow lake enthusiast that has not yet had the opportunity to attend.

The Thursday pre-conference workshop, entitled "Where the Waters Meet," explores the science, issues and policies behind the management of the vast water resources of Wisconsin-wetlands, groundwater, lakes and rivers. Representatives from various organizations committed to the protection of the sub-surface and surface waters of Wisconsin and the life systems they support will gather to discuss threats, challenges and future steps. Learn about land use initiatives that affect water quality, the status of Wisconsin and world water supplies, wetland, river and lake ecology and a host of other issues, including what you can do to help this important effort!

Don't forget about the Wisconsin Lakes Partnership Photography contest. We are looking for images showing people fishing, canoeing, swimming and enjoying Wisconsin lakes. Other photos should feature natural features around and in lakes and under water. Additional details can be found in the Summer issue of Lake Tides or online at www.uwsp.edu/cnr/uwexlakes/conventions.

Also remember that we are looking for stories about the history, the projects, the leadership, challenges, and triumphs of your lake community. Submit your stories and be recognized for your significant efforts! Please see the Summer issue of Lake Tides for additional details or online (see address above).

Convention details:
www.uwsp.edu/cnr/uwexlakes/conventions

REGISTRATION FORM

Be an Early Bird… Register by Feb. 10, 2003

25th Annual Wisconsin Lakes Convention
April 10-12, 2003
KI Convention Center and Regency Suites, Green Bay

Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Daytime Phone: (_____)_____ E-Mail: _____

Affiliation (Lake Org., etc.): _____ County: _____

CONFERENCE

		Early Bird! (Postmarked by February 10, 2003)	
Thursday, April 10 "Where the Waters Meet"	$50 ☐	$45 ☐	-
Friday, April 11	$65 ☐	$58 ☐	-
Saturday, April 12	$55 ☐	$48 ☐	-
Thursday, Friday and Saturday, April 10-12	$165 ☐	$145 ☐	-
Late Registration Fee (after March 20, 2003)	$10 ☐		-

No refunds issued after April 1, 2003.
Students (K-12) admitted at half price.

Look for additional information in the January issue of *Lake Tides!*

Check for vegetarian meals ☐ Subtotal $_____ Subtotal $_____

WORKSHOP

Saturday, April 12 *Aquatic Plants at the Root of a Healthy Lake Ecosystem* (Limit: 25)
A hands-on approach to aquatic plant identification. Take this unique opportunity to learn and identify Wisconsin's common aquatic plants. Workshop cost includes your aquatic plant collection kit.
Registration for this workshop closes April 1! $30 ☐

TOTAL REGISTRATION FEE ENCLOSED $_____

Lodging Information: KI Convention Center/Regency Suites, 333 Main St., Green Bay, WI 54301 (800)236-3330 or (920)432-4555. Rates: $91 double occupancy ($20 for each additional person up to a maximum of 6); $101 king double occupancy ($20 for each additional person up to a maximum of 6). Price includes full breakfast and 2 hours of complementary beverages in the evening. Please refer to the Wisconsin Lakes Convention when reserving your room.

Mail this form with your check (payable to UW-Extension Lakes) or credit card information to: UWEX-Lakes, UWSP/CNR, 1900 Franklin St., Stevens Point, WI 54481. Questions? Phone 715/346-2116 or e-mail uwexlakes@uwsp.edu.

Check one: ☐ Visa ☐ Mastercard (We will process credit cards after January 1, 2003.)
Cardholder's Name _____ Card No._____ Expires _____

You will receive confirmation and additional information upon registering.

Adopt-A-Lake

Lost and Found

Have you taken the time to check out the Adopt-A-Lake web site? If not, head to www.uwsp.edu/cnr/uwexlakes/youthprograms.

The Post Lakes Protection and Rehabilitation District had been actively searching for a youth partner for several years with no luck, but a comment on the web site put them in touch with Elcho School's junior and senior biology class. The 23 students were divided into groups to study the lake's ecology, plants, vertebrates, invertebrates, fish, natural shoreline and water quality. Their first pontoon classroom was held September 25th, 2002. After three years, a partnership has begun thanks to a link on the web site! Future plans include inviting more teachers, students and lake organizations to be included in the lake adoption process.

Jennifer Wudi, Lakes Coordinater, WDNR-Rhinelander, participates in the pontoon classroom.

If you are looking for a partner, why not consider "advertising" on the web? Currently there are 101 registered lake projects on the web: 77 school projects, 4 Boy/Girl Scout projects, 47 lake projects, and 11 4-H projects. There are also 79 interested folks looking for partners! This is a good time to start thinking about how your lake can engage youth in your community. For informational material or assistance, please call Laura Felda at the Adopt-A-Lake office at 715/346-3366.

What to do with $25,000?

Some of us may think that spending $25,000 in nine months would be an easy task, but just ask the students at Minocqua, Hazlehurst, and Lake Tomahawk middle school. Maree Stewart, Luke Voellinger and Janell Zajicek, Christopher Columbus award winners, now have the overwhelming job to develop an educational tool that reaches within the school year the goal of the "Milfoil Master Program." These students are now designing information brochures, instructions and activities that youth and lake associations can engage in to help stop the spread of Eurasian Water Milfoil in Wisconsin Lakes. It is the goal of these students to develop a tool kit and host several workshops to distribute kits and train others how to organize a boat launch monitoring program. This is an excellent opportunity for youth and lake residents to partner in an effort to protect their lake from receiving milfoil fragments or spreading them to other lakes. With the assistance of community partners, parents and the school district, these students will succeed in kicking off their project just in time for opening fishing weekend!

Back to School on the Water

As temperatures fall and leaves begin to turn color, youth around the state return to school. Typically, learning takes place in classrooms, but for some lucky students, the classroom moves to the water.

In the northeastern part of the state, Keyes Lake in Florence County hosted a "Meet the Lake Day." Barb Schieffer, Land Conservation Agent, Nick Baumgardt, teacher at Florence Public school, and Cary Anderson, Keyes Lake President, teamed up to organize a hands-on floating educational program. Despite the rainy weather, students boarded pontoon boats with the task of assessing water quality and clarity, mapping aquatic plant communities and capturing shoreline landscapes on camera. The data that was collected was compared to the summer volunteer monitoring data. Students soon realized that Keyes Lake was on the verge of fall "turn over" (the phenomenon whereby lake mixing occurs due to a decrease in heat input and loss of thermal stratification). Students were also given personal insight into the history of Keyes Lakes through stories from lake residents. Both generations exchanged their fondest memories of why Keyes Lake is an important asset to their community.

Just as the sun began to peek out of the clouds, the students boarded the school bus with buckets of aquatic plants to preserve and identify. They will return to the lake once the surface becomes covered with ice to continue their lake studies.

An "A" for Effort!

Mary Jo Bonner, Lower Turtle Lake Association/District, Barron County, deserves an "A" for persistence in getting youth involved in their community lake. Mary Jo has been actively looking for youth partners by talking to the school district, inviting teachers to lake meetings and traveling across the state to attend North and South Twin Lake Association meetings, all in the hopes of developing a youth partnership. After two years, her efforts have been rewarded. This fall, 45 Turtle Lake students in the 5th and 6th grades traveled to the lake to experience a pontoon classroom. The boats floated to several learning stations to help students understand the issues that lake residents are facing. Lower Turtle has been struggling with water quality and clarity issues for years. After a lake planning grant study in 1995, the lake residents realized it was time to act on the recommendations. Students will assist residents in creating a generous buffer strip around the lake. The students will research what type of plants are appropriate for restoration, as well as the benefits of vegetation in near shore areas. A "logo" will also be created that indicates lake residents are participating in the restoration efforts!

Congratulations, Mary Jo and all, on your dedication to making your lake a better place!

The students will research what type of plants are appropriate for restoration, as well as the benefits of vegetation in near shore areas.

A floating classroom in action.

Ladysmith Students "Make A Splash"

Memorial Park in Ladysmith was the site of the Make A Splash water festival on September 27, 2002. Over 800 kindergarten through 8th grade students from Ladysmith Hawkins School District and Our Lady of Sorrows learned a wealth of information about Wisconsin's water resources.

The park, on the bank of the Flambeau River, held 18 different educational stations staffed by more than 40 people, including local high school student volunteers. The stations focused on local water topics such as aquatic exotics, wetlands, macroinvertebrates, mine reclamation, water testing, and non-point source pollution. A Barred owl visited with students at the wildlife station. At the shoreland restoration station, kids participated in planting native plants along the shore.

Each state has at least one water festival on the same day, resulting in over 80,000 students throughout the U.S. learning about water resources.

Make A Splash was an event rich in partnership. Funding was provided through a grant from Project WET, a water education program of the Wisconsin Lakes Partnership. Matt Davis (Upper Chippewa Basin Educator) and Margaret Foss (5th grade teacher at Ladysmith Hawkins) coordinated the event, which involved representatives of the City of Ladysmith, Soil and Water Conservation District, Flambeau Mine, River Alliance of Wisconsin, UW-Extension and WDNR, among others.

Project WET, a national environmental education program, founded "Make A Splash" in 2000. Each state has at least one water festival on the same day, resulting in over 80,000 students throughout the U.S. learning about water resources.

Matt Davis summed up the day well. "A lot of kids had great questions and answers. They had a chance to see things in person that they only read about in textbooks." He added, "The number of residents in our community who pledged their support and energy to the festival is a testament to the importance of water education."

For further information on the Make a Splash initiative of Project WET, contact Mary Pardee at 715/346-4978 or mpardee@uwsp.edu.

Students examine a variety of native plants suitable for shoreland restoration.

The Mystery Boat

Question:

I live on Two Sisters Lake in Oneida County (otherwise known as Black Lake). At approximately 9:30 or 10:00 pm last night, September 24th, a large boat with monstrous bright lights shining in the water and along shore appeared with three men on board. The boat navigated slowly around the piers and shore stations and then moved very close to shore. Do you have any idea what this boat was doing there? Were these men DNR employees or can you perhaps provide some other explanation? The boat frankly scared us as it was rather noisy and did not look like your typical fishing vessel. This one had huge spotlights on it! I would appreciate if you could find out something about this mystery and let us know. I would hate to think that these guys were out there doing something illegal.

Answer:

What you observed on Two Sisters Lake was a DNR electrofishing boat, conducting a walleye reproduction survey. The boat has a generator on board (thus the loud noise) that directs a small electrical field into the water. This interferes with the fishes' ability to swim, slowing them down and allowing us to dip them. We go after dark because fish move up into the shore areas to feed. They are more vulnerable to the electrofishing gear, and we can collect a more accurate sample. Once our live well is full, we pull over and measure each fish, then release them back into the lake.

The boat has a generator on board (thus the loud noise) that directs a small electrical field into the water.

Two Sisters is a stocked walleye lake and our preliminary data showed there was good survival of hatchery fish. It will take this year-class of fish approximately 5 years to reach legal size. Thanks for your question.

This question appeared in a WDNR website information request. The answer was provided by Mike Vogelsang, Fisheries Supervisor, Woodruff, WI.

Carrying on the Legacy - Crew IV Lake Leaders

On a crisp clear November day in 2002, a group gathered at Aldo Leopold's Shack on the banks of the Wisconsin River. Darrell Bazzell, WDNR Secretary, and other dignitaries joined these accomplished individuals on that hallowed site to congratulate them and join in a celebration. This group of 27 people spent six days together over the past year and the group had evolved into a focused team, now known as Crew IV of the Wisconsin Lake Leaders Institute.

The Wisconsin Lakes Partnership (made up of the University of Wisconsin Extension, Wisconsin Department of Natural Resources and the Wisconsin Association of Lakes) long ago recognized the need for new and on-going leadership in the management of our lakes. The mission of the Institute is to assist citizen lake leaders, or "crewmembers," develop and enhance both technical and people skills, ultimately enriching their communities and the waters within them. Since its inception, 120 crewmembers have graduated from the Institute and have made significant contributions in resolving a host of diverse water management issues.

Wisconsin has a long tradition of strong leadership on natural resource issues. Join us in congratulating these special leaders of Crew IV who are willing to join in the decision-making and assist with water issues of local and statewide significance. Come to the 2003 Wisconsin Lakes Convention in Green Bay to meet Crew IV and other lake leaders.

For more information on this program, please contact the UW Extension Lakes Partnership Office at 715-346-2116, your county Extension office, the DNR Regional Inland Lake Coordinator, or a board member of the Wisconsin Association of Lakes.

Self-Help Lake Monitoring

See What the Self-Help Website Has to Offer You!

http://www.dnr.state.wi.us/org/water/fhp/lakes/shlmmain.shtml

Do you want to learn more about Wisconsin lakes? Would you like to become involved in helping Wisconsin lakes? If you said "yes" to either of these questions, check out the Self-Help Lake Monitoring website! Even if you have visited our website before, we continuously add more resources pertaining to lakes. Self Help's website offers information about limnology, lakes data, monitoring procedures, the overall state of Wisconsin lakes and much more!

The home page has an introduction to Self-Help Citizen Lake Monitoring. It features an introductory slide show and other information about Self-Help Lake monitoring. Moreover, on the bottom of the page there are links to other pages and sites pertaining to lakes. The "Limnology 101" link describes the many different characteristics of Wisconsin lakes and will help you better understand complex natural resources. The "Chemistry" section describes how temperature, phosphorus, chlorophyll, and oxygen affect lakes. The "Clarity" section describes how you can use a secchi disk as a clarity measure of a lake's turbidity. The "Lake Mixing" section describes how a lake changes throughout the year with changing seasons. The "Lake Types" section categorizes lakes according to the source of the water and the outflow of the water. The "Trophic State" section categorizes lakes based on nutrient levels and water clarity into the following categories: oligotrophic, mesotrophic, and eutrophic. Finally, the home page gives you the opportunity to explore the history of Self-Help and other monitoring links.

The "Lakes Data" tab section will provide you with a wealth of data and illustrate how the data is used. With your increased knowledge from the limnology section, you can better interpret and understand the data. The "Search For Lake Data" section contains all of our data on Wisconsin lakes, which Self-Help monitors have collected since 1986. Also, the "Remote Sensing Study" will inform you about the coordination of a satellite study with Self-Help's data. In addition, the "2001 Summary Data" section has regional statistics on all of the 2001 data collected by volunteers. Also featured is the "Overall State of Wisconsin Lakes," "Ice On/Off data," and "How Data is Used."

The "For Volunteers" tab gives volunteers information they need to monitor their lake and much more. Included is the awards section, recognizing the dedication of our volunteers; some volunteers have been monitoring for over 15 years! The "For Volunteers" tab also has a "Frequently Asked Questions," a "Secchi Manual," "More Ways to Get Involved," and. "How to Make a Viewscope."

The "Getting Involved" tab introduces the different types of monitoring that one can participate in to help specific lakes. If you are interested in joining Self-Help, this section will give you information about the different monitoring activities. Different opportunities to monitor include secchi, chemistry, aquatic plant, Eurasian Watermilfoil, Zebra Mussels, Purple Loosestrife, Island Watch, and Loon Watch monitoring.

Self-Help's Lake Monitoring website offers information about Wisconsin lakes and Wisconsin citizens who have volunteered their time in the protection of these critical natural resources. Check it out!

Nature Notes:

LIFE IN A DROP OF WATER

A drop of pond water appears clear and lifeless to the naked eye but within it are many strange creatures that can only be seen when viewed through a microscope. Dutch spectacle makers made the first simple microscopes magnifying ten times or less in the 16th century. These early microscopes aroused a great deal of wonder and many thought it particularly fascinating to watch live fleas through them. These microscopes became known as "flea glasses." By 1674, the self taught Dutch naturalist and lens-grinder, Leeuwenhoek, made microscopes producing magnifications up to 270 power and began to tell about the multitude of very small living things he saw in a drop of pond water. A whole new world of life was revealed for the first time.

Since then, thousands of species of microscopic water plants and animals have been described and given scientific names. Common names for these creatures are rare. They can multiply at an enormous rate and are the most abundant living things in either fresh or salt water. A single gallon of pond water may have more living things in it than there are people in the entire world.

One of the better known creatures, one that often swarms in puddles and ponds, is the Paramecium or Slipper Animalcule, barely visible without a microscope. Seen under a microscope, however, its body appears as a single cell enclosed in an oblong flexible envelope covered by thousands of short hair-like things called “cilia” that actively “row” the animal about. Near the front end there is a broad deep groove with a mouth opening at the bottom. Into this opening the cilia in the groove sweep and collect bacteria, algae and other small life forms upon which the organism feeds. Paramecium multiply by merely pinching itself into two parts. The front half grows a new back half and the back half grows a new front half with a groove and mouth opening. There is nothing left to be called a parent, neither are there males or females.

Another one-celled animal that I find fascinating is called an Amoeba. It looks like a bit of grayish jelly that seems to slowly melt and flow over submerged water plants, dead leaves and mud. It feeds by merely flowing around smaller organisms and consuming them. One group may be found in humid greenhouses flowing across the floor. Another, called Vorticella, forms colonies on underwater surfaces. Each animal consists of a bell shaped “head” attached to a stalk that jerks back like a coiled spring when danger threatens. It gathers food with a ring of cilia around the lip of the bell. Noctiluca, found in sea water, produce a phosphorescent glow when disturbed by a wave or a passing ship.

Microscopic water plants, like larger plants, contain a green coloring matter called chlorophyll by which they manufacture their own food in sunlight. The exquisite geometrical Diatoms, the Desmids and certain other algae are a wonder to look at through a microscope. They may number into the billions of individuals and produce the golden brown scum that cover the beds of streams and aquatic plants or the film of green bloom or slime that covers the surface of ponds and lakes. In water supply reservoirs, they may impart a fishy, bitter or cucumber taste to the water. In Spirogyra, another algae, the cells divide but remain attached, forming long threads which look and feel like slippery green hair.

There are also green creatures with long whip-like tails, “flagella,” that behave like both plants and animals. These organisms straddle the boundary between the two kingdoms.

A drop of pond water is clearly teeming with life. A microscope can reveal this world to you.

By Peter Dring, Self-Help monitor at Mamie, Big, West Bay and Helen Lakes since 1995 and Naturalist for the Cook County Forest Preserve.

The exquisite geometrical Diatoms, the Desmids and certain other algae are a wonder to look at through a microscope.

Lake Stewardship

Wisconsin Lake Stewardship Awards 2003

The Lake Stewardship Award is designed to recognize an individual or group's outstanding contribution of time and effort toward the well-being of Wisconsin's lakes and the community and natural life in and around the lake.

The Wisconsin Lakes Partnership has recognized these outstanding efforts for many years. There are five categories in which to acknowledge Wisconsin Lake Stewards:
(1) individual citizen, (2) organized group, (3) groups involved in the Adopt-A-Lake program, (4) public official or employee and (5) business.

To nominate a person or group, the following items must be included in the nomination packet and submitted by February 17, 2003 to: WAL, One Point Place, Suite 101, Madison, WI 53719, e-mail: info@wisconsinlakes.org

Helpful Information:

1. (a) Name of person or organization (school group, company), (b) title (if person), (c) address, (d) phone number, (e) lake, (f) county and (g) e-mail of person being nominated.
2. Name, address and phone number of person making the nomination. (See note below.)*
3. Nominee activities and reasons this recognition is deserved, specific contributions to lakes.
4. Number of years the nominee has been involved in lake stewardship.
5. Other awards, nominations and recognition received by the nominee.
6. List of partnerships the nominees has joined, promoted or started.
7. A letter of support from the person making the nomination.
8. Letters of support from someone other than the nominator. (The more letters included, the stronger the case for nominee.)
9. Supporting information such as news articles of the nominee's work, copies of materials developed, other awards the nominee has received for their lake work, etc.

*(*NOTE: It is acceptable for the person making the nomination to seek help from the nominee in providing this information.)*

Selecting a winner for this prestigious award is a tough process. Winners of the Lake Stewardship Award are evaluated based on the following criteria:

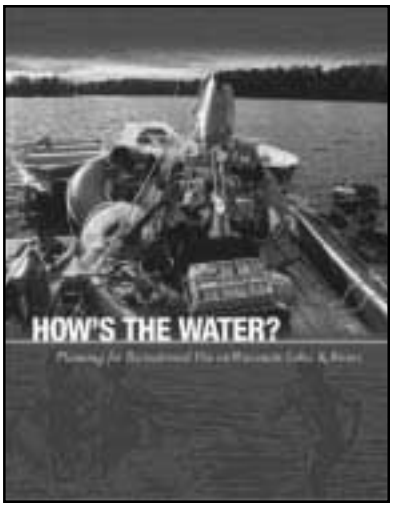
- Participation in a diverse range of activities and investment of substantial time.
- Demonstration of benefits to a lake or lakes and a willingness to share skills and information with others.
- A commitment to developing relationships and teaching others about lake stewardship.

Winners and nominees will be recognized at the Wisconsin Lake Stewardship Luncheon during the April 2003 Wisconsin Lakes Convention. Winners receive an engraved plaque. All nominees receive a certificate signed by the Governor of Wisconsin.

How's the Water? Planning for Recreational Use on Wisconsin Lakes and Rivers

The long awaited manual, How's the Water? Planning for Recreational Use on Wisconsin Lakes and Rivers, is finally here!

One of the top three lake issues in Wisconsin involves recreational use on our state's and nation's waterways. With an increase in use comes a growing concern with the quality of that watery recreational experience. Recreational use is growing not just in the number of people taking to our lakes and rivers, but also in the variety of ways in which they use them once they get there.



The underpinning philosophy of this informative 306-page manual is to give an accurate account of the facts and a fair representation of the relevant issues and research on water recreation and related activities. The manual is divided into five chapters: planning, research, law, conflict management and the history and status of water recreation in Wisconsin. These chapters lay out techniques, facts and ideas on a broad list of water recreation issues from tournament fishing and boating to seaplanes and water toys.

The text also provides practical advice, guidance and the insight you need to design a recreational use plan for your lake or river. The book will be available for $21.95 at the UWEX Lakes offices at UWSP, 1900 Franklin St., Stevens Point, WI 54481 or uwexlakes@uwsp.edu, at 715/346-2116, or from the Wisconsin Association of Lakes (WAL) at 608/662-0923 or edblume@wisconsinlakes.org,

This new manual was created to assist communities in their efforts to ensure safe and enjoyable recreational experiences on our waters. It is a tool to assist in the process of building a healthy lake and river ecosystem and a strong lake community. Call Bob Korth at 715/346-2192 or Tamara Dudiak at 715/346-4744 to find out about workshops to be offered on this topic next year.

C A L E N D A R

February 17, 2003 – Deadline – Nominations for Wisconsin Lake Stewardship Awards to recognize contributing groups, public officials, corporations and youth. Contact Wisconsin Association of Lakes at 608-662-0923.

February 15, 2003- Southeast Region Lakes Workshop. Contact Susan Tesarik at 608-662-0923.

April 10-12, 2003 - Wisconsin Lakes Convention at the Regency Suites in Green Bay.

Lake Tides -- *905026*
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Reflections

No Snow Eskimo

Winter worries me
without the snow
Dog sleds drape cobwebs
no place to go
Winter without dog tracks
without trails
winter without snow
blizzards or gales
no place I know

-Mr. R. Dennis Pearce
Mercer, Wisconsin
(On the lack of snow during Winter, 2002.)