



## The “500 lbs. Algae Adage”... Where did it come from?

*Have you heard this adage?: One pound of phosphorus can produce from 300 to 500 pounds of algae. You probably have. It is much quoted in articles and during presentations when the “greening” of lakes is discussed. It means a pound of the nutrient phosphorus entering a lake (or river) from wastewater or stormwater runoff can promote the growth of up to 500 pounds of “pea soup” algae.*

Not only have I heard this adage, I have repeated it to others - which led me to ask, *where did it come from, and is it TRUE?*

Steve Heiskary, limnologist with the Minnesota Pollution Control Agency, put me on the trail of the “algae adage” origins by directing me to *Limnology*, a standard textbook by Robert G. Wetzel. While it is not known who first coined the adage, the rationale for it is laid out in a section titled *Effects of Phosphorus Concentration on Lake Productivity* (Second Edition, page 285). A main reference for the section is J.R. Vallentyne’s book *The Algal Bowl – Lakes and Man* (Ottawa Department of the Environment, 1974).

Core to the rationale is the “law of the minimum,” that is, the nutrient that is in the shortest supply in relation to a plant’s needs will control the growth of that plant. The “law of the minimum” can be illustrated using a baking example: A pound cake takes a pound of flour, a pound of butter, a pound of sugar and four eggs. If you have ten pounds of flour, butter, and sugar, but only four eggs, you can only bake one pound cake. The eggs are the limiting factor to baking more.

The limiting factor for algae growth in most Wisconsin lakes is the nutrient phosphorus. It is not limiting because algae need so much of it, but rather because it is usually in very

short supply. The average ratio of the phosphorus needs of algae to what is available in water is 80,000 to 1.

According to J.R. Vallentyne, a 500 pound “batch” of wet algae requires:

- 1 pound phosphorus
- 7 pounds nitrogen
- 40 pounds carbon

Since there is usually more than adequate levels of nitrogen and carbon in lake and



*Too much algae?*

river water, for every pound of phosphorus added, another 500 pound batch of wet algae can be produced. Since 500 pounds is the theoretical maximum that can be produced, the range of 300 to 500 pounds is typically used when the adage is quoted. I did not find how the 300 pound lower limit was set – it is likely the best estimate of the specialist who

*Continued on Page 2*

**Blue green  
algae gets  
noticed in  
Wisconsin.**

A number of states around the country, including Wisconsin, are in various stages of developing nutrient standards, specifically a TP (total phosphorus) standard, for surface waters within the state. These states are proposing a variety of approaches. Some are developing regionally based criteria based on classes of waters; others are developing standards that are based on very site-specific characteristics. Some states such as Maine and North Carolina have already established and implemented numeric criteria for phosphorus. For example, North Carolina recently passed legislation imposing strict limits on the discharge of nitrogen and phosphorus into Nutrient Sensitive Waters (NSW). Stay tuned for new developments in this area.

*Information from 'A Sampling of the States' Nutrient Criteria Development Plans', 16<sup>th</sup> Annual Conference, North American Lake Management Society.*

*The "500 lbs. Algae Adage"*

*Continued from page 1*

first coined the adage. The 300 pound to 500 pound range is wet weight algae; in dry weight the range is 60 to 100 pounds.

All types of algae can experience periods of rapid growth known as "blooms." In Wisconsin lakes, however, blooms of blue green algae, also known as cyanobacteria, draw the most notice. They form surface scum, are smelly, and occasionally produce toxins harmful to drinking livestock and pets.

Blooms of blue green algae are a classic case of too much of a good thing. We owe lots to blue green algae for both past and present good. Similar to bacteria in structure, these simple organisms are credited for first using chlorophyll to make food from sunlight and for boosting oxygen in the Earth's early

atmosphere. In lakes today they form the base of the food web that feeds increasing larger and larger animals - including you if you were lucky enough to hook a lunker this season!

*By Ron Struss, University of Minnesota Extension Educator*



## A Year of Water

Water is increasingly becoming a source of tension in many parts of the world as countries compete to meet minimum requirements with respect to their populations' drinking water supply and sanitation needs. The United Nations declared the year 2003 as the International Year of Freshwater to draw attention to the plight of the nearly 3 million people who die every year from diseases associated with unsafe water and the 1.2 billion individuals who lack access to a safe drinking water supply. By 2025 it is predicted that nearly two thirds of the world's population will live in countries with serious water shortages.

Closer to home, the 2003 Wisconsin Year of Water continues to unfold in the face of a somewhat undecided future for the waterways of Wisconsin. Many waters still do not meet minimum water quality standards and beaches continue to close from bacterial contamination. Shorelines continue to be developed with abandon and groundwater continues to be depleted at unsustainable rates. These are only some of the issues that are under consideration this year through an effort led by the Wisconsin Academy of Sciences, Arts and Letters. The Waters of Wisconsin initiative has already generated a report consisting of recommendations for more thoughtful policies in water use, management and protection. For more information on the International Year of Water, go to [www.wateryear2003.org](http://www.wateryear2003.org). For more information on Wisconsin's year of water and to read the WOW report, go to [www.wisconsinyearofwater.org/](http://www.wisconsinyearofwater.org/).



# The Future of Wisconsin

To: Legislators, Congressmen, Senators, Elected Officials

Ladies and Gentlemen,

I am corresponding with you to hopefully deliver what I think is an important message. Please place your hands together and cup them before you. If you look closely, you will see that you hold something of the utmost importance and value. It is the future of the State of Wisconsin. It is the financial, economic, environmental and resource future. I will explain how this comes to pass in such a manner as to hopefully have a little impact on your thinking.



If you look into your hands you may see something quite small and simple. A leaf. A leaf does many things besides give off oxygen. You may also see it evolve as it does in the fall into a thing of fiery color and beauty. You might also see that it brings many people to Wisconsin in the fall to simply gaze at its beauty. I am amazed at such a simple thing, to look upon a leaf and admire its beauty. You may not have thought that this small leaf could do something so valuable for the well-being of the State of Wisconsin. Please think of it now. These same people spend their nights in hotels and motels, eat, buy souvenirs, and go home to tell other people in other areas of the beauty they just saw, which brings more people to look upon this simple, small leaf.

Ladies and Gentlemen, we are losing this small leaf to deforestation, development, agriculture, drainage and a host of other things. Look again. It's right there in your hands.

In your hands are also our water resources. These resources nourish life and health. It is literally the financial and economic lifeblood of Wisconsin. Can you even fathom our beautiful state without our good clean water resources? Let's give it a try. No water, no fish, no wildlife, no agriculture, no food, no milk, no beef, no crops, no campers, no boaters, no tourists or tourism of any kind. And just a few more...no licenses, no sales, no fishermen, no hunters, no clean glass of water to drink or even sell. Are you able to just maybe get a glimpse of the enormity of not having our water resources?

The decisions you make now and in the future will determine the fate of our good clean water resources. Are you seeing it now? It's right there in your hands. You maybe have to look just a little harder. I think it might be worth the extra effort. Let's see what else you might be holding. There is a deer, an eagle, a bear, a wolf, birds, fish, butterflies... the list goes on. This is all of our wildlife. Can you imagine Wisconsin without its rich wildlife history? All these things are now in your hands. Are you starting to get a little bit of the picture of what I am trying to say to you? Please try real hard.

It is an enormous task to weigh and decide on the many issues that will come before you in your tenure in office. However, our fate as a state is now in your hands. Please keep looking in those hands as you go about doing your job every day. We, the people of Wisconsin, are counting on you to do a soul-searching, gut-wrenching job each and every day that you are in office. We are counting on you. I, my children and my grandchildren are counting on you to give a hard, earnest, real look at these issues and make the best decision you can on our behalf.

Thank you.

Donald O'Keene, a citizen of Wisconsin



# Workshop Opportunity

## River of Words connects kids with nature through poetry and art

The Wisconsin River of Words (ROW) program is designed to foster children's appreciation and knowledge of Wisconsin's water resources through artistic expression. A series of workshops for teachers and non-formal educators will provide information about specific watersheds and creative activities and techniques to get K-12 children to turn their observations of nature into works of art. ROW is a national art and poetry program focusing on watersheds, brought to Wisconsin by the Wisconsin Lakes Partnership and the Wisconsin Center for the Book.

Attendees will participate in watershed awareness and poetry/art activities that can be replicated with students. They will also receive a binder of educational materials.

A watershed is an area of land through which water flows, both above ground and underground, on its way to a stream, river, lake or ocean. Every time it rains, water flows off the land and into the closest stream or other waterway. On its way, it picks up sediment, trash, oil, fertilizer and debris and carries it along, eventually depositing everything into the nearest body of water. The entire area of land that drains into the same body of water makes up a watershed. Any landscape, rural or urban, is made up of many interconnected watersheds. What is your watershed address? To find your watershed, visit the EPA web site at: <http://cfpub.epa.gov/surf/state.cfm?statepostal=WI>.



*ROW asks kids to educate themselves about their home watershed, then unleash their imaginations through art and poetry.*

### River of Words workshops are scheduled at the following locations:

**August 23** — Urban Ecology Center, Milwaukee

Limit of 20 participants.

Cost: \$40 includes materials. Bring a lunch or go to a nearby restaurant.

**September 20** — Treehaven Field Station, Tomahawk, 9 a.m. to 4 p.m.

Limit of 25 participants.

Cost: \$50 includes materials and lunch.

Limited availability to Friday night lodging for an extra fee of \$30 (Call Mary at 715-346-4978 to inquire.)

**September 27** — Great Blue Peace Camp, Hudson, 9 a.m. - 4 p.m.

Limit of 15 participants.

Cost: \$45 includes materials. Bring a picnic lunch.

**October 18** — Whitefish Dunes State Park, Sturgeon Bay, 9 a.m. to 4 p.m.

Cost: \$35 includes materials. Bring a picnic lunch.

Note: A state park sticker will be required for entrance to the park. A \$5 day pass can be purchased at the park.

Participants are encouraged to register at least two weeks before the workshop they wish to attend. Register online on the Wisconsin ROW web site at <http://www.uwsp.edu/cnr/uwexlakes/row/>. For more information, contact Mary Pardee via email at [mpardee@uwsp.edu](mailto:mpardee@uwsp.edu) or call 715-346-4978.



*We all live in a watershed. This workshop will give those who work with children tools to start the process of expression through poetry and art..*

# Loony Tunes

Many Wisconsin residents and visitors alike feel that they are officially in the Northwoods when they hear the calls of the Common Loon. These territorial, cautious birds have many vocalizations to communicate with each other and with us.

The HOOT is a soft, short contact call between birds. Adults hoot at each other, and parents hoot to chicks. It is their way of saying, "Hey, I'm over here."

Loons WAIL in situations when loons want to move closer to each other. It is a long, one, two, or three-note vocalization. Parents use it when they want their chicks to approach the parents for food, emerge from a hiding place, or follow them when they leave the nest.

The TREMOLO is a loud call that brings to mind a loon laughing. It is, however, an alarm call in threatening situations. A loon might use the tremolo to tell a person that his boat is too close. Loons in flight will use this call, and sometimes you can hear a pair calling the tremolo song as a duet.

Only male loons produce a YODEL. This call is used in territorial situations and aggressive encounters with other birds. A yodeling loon extends his head and neck and

flattens his body so his lower bill is just above the water.

Even chicks have various sounds for different situations. Hungry chicks will peep to their parents and peck on their bills. Getting separated from parents is a scary situation for a chick, so it will peep, yelp, and wail. The parents respond by moving closer, and may hoot to comfort the chick or wail to have the chick move closer.



*For more information on loons and their tunes, check out the following websites:*  
*Sigurd Olson Environmental Institute-Loonwatch:* <http://www.northland.edu/soei/loonwatch.html>  
*Adirondack Cooperative Loon Program:* <http://www.adkscience.org/loons/>

## Catch of the Day!

Courtesy of the State Historical Society



Have you caught any fish lately? The Department of Natural Resources is featuring pictures of fish caught in Wisconsin on their "Fishing Wisconsin" Web site. So, if you have a picture of a person with a fish and a fish story that you would like to share, send your photo to Shane Archer in an email attachment ([shane.archer@dnr.state.wi.us](mailto:shane.archer@dnr.state.wi.us)). Please include the name of the angler, the size and type of fish caught, and where the fish was caught/released. To see the "Catch of the Day" please visit: <http://www.dnr.state.wi.us/org/water/ghp/fish/>.



# So you're considering a boat washing facility...

*Boat washing facilities are not the solution to all aquatic invasives issues!*

Take heart that you are not alone. A number of inquiries have been received by DNR and UW Extension staff on the feasibility of installing boat washing stations at water access sites. The stations represent one tool to be used by lake communities interested in reducing the risk of transport of aquatic nuisance species by recreational boaters. To date, Wisconsin has not conducted any studies analyzing the feasibility of using boat wash facilities. However, other states and provinces (Minnesota and Ontario) have tested various applications of boat washing stations, both permanent and portable, under mandatory and volunteer situations. Here is what they, and we, learned:

Boat washing facilities are not the solution to all aquatic invasives issues! In other words, they should not be considered as a substitute for the steps that the aquatic invasive species program asks boaters to take when leaving the launch site. The cornerstone of Wisconsin's 'Clean Boats...Clean Waters' program is a consistent list of precautionary steps, all of which are emphasized in numerous public education brochures, pamphlets, watch cards, public service announcements and signage. Those steps include:

- Inspect and remove aquatic plants and animals from your boat, motor and trailer;
- Drain water from your motor, livewell, and bilge;
- Dispose of unwanted bait in the trash; and
- Wash your boat and equipment with high-pressure water (preferably hot), particularly if moored for more than a day, or dry your equipment for at least 5 days.

Boat washing is just one of the prevention steps, and installation of a wash station should accompany other education efforts focusing on all of the steps listed above.

Boat washing stations are a costly alternative to an effective watercraft inspection program and a well-planned education campaign.

There are several issues to consider before the installation of washing stations:

- Costs for construction and maintenance of these facilities.
- Physical constraints for installation of the stations.
- The fact that

washing cannot be made mandatory for all boaters. While the law prohibits the launching of boats if it is likely that an exotic plant or animal is attached, the law does not require that boats be washed.

- Safety of the facility and the risk of liability.
- Practical concerns about how best to capture and treat the wastewater.
- Boaters' acceptance of delays due to washing.

There are circumstances and situations under which it may be advisable to install a boat wash facility. For example, use may be well-advised if prevention and containment is a serious issue or a condition of a permit or if there is a venue where heavy use is occurring as a result of a specific activity (boating and fishing tournaments or sailing regattas) or heavy boating periods (July 4<sup>th</sup> and Labor Day). In these situations a portable washing unit could work well as an educational and awareness tool to show boaters how to properly clean their boats.

Suppose a lake association plans to install and operate a boat wash station. The following are some guidelines to consider:





- Make sure that it is part of an overall watercraft inspection and education program; it should not be used as a substitute for other prevention steps we are asking boaters to take.
- Do not require washing as a condition of launching but rather treat boat washing as a voluntary option to ensure that boaters are given every opportunity to protect the resource.
- Use common sense in designing the facility—do not drain the water back to the lake and compost or put all the waste in the trash.
- Give some serious thought as to whether the facility should be manned or unmanned, portable or permanent.
- Make sure that a reliable construction firm is in charge of the design, construction and maintenance of the facility.
- Be aware of the safety and liability issues associated with the use of a wash station and follow all OSHA regulations.
- Seek feedback on boater acceptance of the facility, if possible, to build on our understanding of what works and what doesn't.
- Consider installing a boat washing facility for boaters leaving an infested waterbody to prevent the spread of invasive aquatic species.
- Stay at least 75 feet back from the lake with the placement of any wash station to avoid conflicts with shoreland zoning regulations.

- Use the lake water as a source for the washing facility if possible.
- Restrict the use of detergents, algacides or disinfecting agents that could harm the lake or nearby residents.
- Provide clear instructions on how to use the boat washing facility properly and safely and include an educational message on why these steps are important.
- Use high-pressure hot water for the wash facility if possible (it is most effective).

Please note that specifications on the types of boat washing facilities that are most effective are not readily available, and are likely to vary based on specific needs. For this reason, they were not included in the guidelines. Lake associations can contact their local DNR staff to obtain information on vendors in their area that could help the community decide what type of washer would be most effective for their particular use.

The key message that we need to be giving to lake organizations, watershed associations or other local units of government that may be interested in installing a boat wash facility is as follows: wash stations are a poor substitute for an effective education and watercraft inspection program that emphasizes the basic 'inspection and removal message', but washing stations can be one component of an overall prevention and control strategy.

*Information compiled by Ron Martin (WDNR) and Mandy Beall (UWEX/WDNR) with comments from UW.*

***Wash stations are a poor substitute for an effective education and watercraft inspection program.***



*Education about aquatic invasives can go far in a community.*



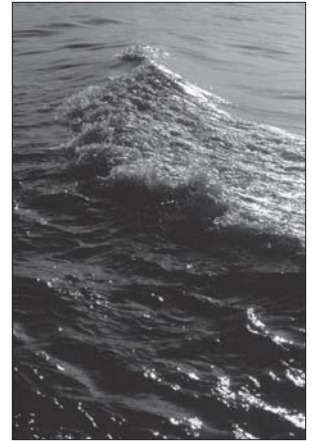


## CALL FOR PRESENTERS AND POSTERS

The Wisconsin Lakes Partnership is inviting proposals for engaging and informative presentations and posters for the 2004 Wisconsin Lakes Convention. This year's conference focuses on "The Nature of Water" and considers the role of water in the landscape and in society.

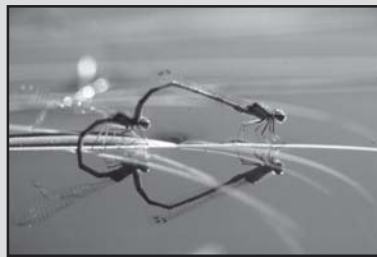
Within the context of the proposed theme, we would like to encourage presentations or posters on the following topics (some examples provided):

- (1) Civics and Law (open meetings, legislative initiatives)
- (2) Science and Technology (current research and trends, new management strategies)
- (3) Ethics (conflict management, courtesy codes)
- (4) Natural History (climatotology, plant and animal communities)
- (5) Limnology (fisheries, monitoring, exotics)
- (6) Arts and Letters (photography, journal writing)
- (7) Design/Planning (landscape architecture, outdoor aesthetics)
- (8) Organizational Development (lake districts and associations, leadership develop.)
- (9) Communication and educational programs (newsletters, youth programs)
- (10) Emerging Water Issues (water supply, water privatization)



*Guidelines for submission and an application form may be found on the UWEX-Lakes website at [www.uwsp.edu/cnr/uwexlakes](http://www.uwsp.edu/cnr/uwexlakes). Click on Events/Conventions. If you would like us to send you a paper copy, please contact the UWEX Lakes office at (715) 346-2116. The deadline for submission is September 19, 2003.*

*Please note that submission does not guarantee acceptance. Proposals will be reviewed and applicants will be notified by November 3, 2003.*



## *The Nature of Water*

**2004 Wisconsin Lakes Convention**  
**April 15-17, 2004**

## THE WISCONSIN LAKES PARTNERSHIP PHOTOGRAPHY CONTEST

To celebrate the 26<sup>th</sup> Wisconsin Lakes Convention, UWEX, WDNR and WAL are sponsoring a photo contest. Here is an opportunity to both show the state why you love your lakes as well as display your skills with a camera.

### Entry Categories

1. People enjoying lakes. Images with people fishing, canoeing, skiing, swimming (limit: three entries per individual)
2. Natural features around and in lakes and under water. Examples include: wildlife, vegetation, geology, insects, close-ups of aquatic life. (limit: three entries per individual).

*For additional information on rules, judging, and prizes, please go to the UWEX-Lakes website at [www.uwsp.edu/cnr/uwexlakes](http://www.uwsp.edu/cnr/uwexlakes) and click on Events/Conventions.*



# Clean Boats Clean Waters

On opening fishing weekend, boaters across the state were approached by teams dressed in bright blue shirts. Each team had a message to tell, "Keep our waters clean, please inspect your boat before entering our lake."

The "Milfoil Masters" program, developed by Minocqua/Hazlehurst/Lake Tomahawk School District, has proven to be an effective approach in educating boaters about invasive species. After four training workshops held across the state, 25 counties have volunteer teams of adults and youth raising awareness about the devastating impacts invasive species have on Wisconsin lakes.

Although the grant funded program has ended, Wisconsin is considering continuing the program through volunteers. The new version, "Clean Boats, Clean Waters Boat Launch Monitoring and Education Program," will train volunteers to organize and conduct a boater education program in their community. Whitefish Lake Conservation Organization has already taken advantage of this training

and launched an effective monitoring program in Douglas County. Adults and youth teams educate boaters on how and where invasive species are most likely to hitch a ride into water bodies. By performing boat and trail checks, distributing informational brochures, and collecting and reporting suspect specimens, volunteers can make a difference in helping to prevent the spread of invasive species.



Governor Doyle receives instruction from Luke Voellinger about the impact of Eurasian Water Milfoil on Wisconsin's waters.

*Training sessions  
are being  
scheduled at  
convenient  
locations across  
the state.  
For more  
information,  
contact Laura  
Felda, UW-  
Extension Lakes,  
at 715-346-3366  
or  
lfelda@uwsp.edu.*

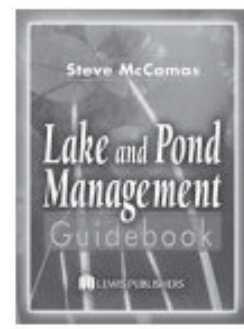
## New Lake Improvement Book Now Available

"Lake and Pond Management Guidebook" is a new book that spells out over 500 ways to improve and maintain your lake and its surroundings. Many of the projects can be undertaken by lake homeowners. In fact, many projects in the book are based on Wisconsin lake resident project examples. Everything from A to Z (algae to zebra mussels) is included. Check out fresh approaches for shoreland improvements, as well as ways to attract desirable wildlife or dissuade unwanted critters. Find a whole host of aquatic plant management options – with ways to increase desirable native plants, or ways to control nuisance exotic plants, including Eurasian watermilfoil. Plus there are fish projects galore. Included is an entire chapter on onsite wastewater treatment systems. Does your lake need a centralized sewer system? Read this chapter first before

you make that expensive decision. You have numerous options.

The book was written by Steve McComas of Blue Water Science. He has nearly 20 years of experience working on Wisconsin lakes and has authored over 250 lake management reports as well as conducted numerous small-scale contracting jobs.

One down side is the book costs \$80.00 (published by CRC Press, a technical publisher), but the upside is that this sum is still less than the cost of a gallon of herbicide. The book can be ordered online at Amazon.com or from Blue Water Science, St. Paul, Minnesota (651/690-9602), from which you will receive a 20% discount (\$64 plus shipping and handling).



# Adopt-A-Lake

## AAL signs are now available!



2003 marks the tenth anniversary of the Adopt-A-Lake program. In 1993, a nine member advisory board along with Chari Towne, graduate student, Lowell Klessig, retired UW-SP professor, and Mary Danoski, Wisconsin Association of Lakes member, all provided insight into the future of lake protection. These creative folks designed the Adopt-A-Lake program to educate youth about lake management. Prior to 1993, youth were not encouraged to participate in lake management activities. It was the goal of this board to provide youth the opportunity to gain the knowledge, skills and motivation necessary to resolve lake management issues. In addition, the program provided the opportunity for communities and lake management organizations to partner with youth to build a stronger level of commitment to the protection of lakes.

In recognition of youth and community effort and hard work, the Adopt-A-Lake program awarded a sign to each group to be posted at their boat landing. Historically, only one sign was awarded annually. The current number of signs posted across Wisconsin is a very poor indicator of the large numbers of groups that have been actively working on their projects for years. To date, there are over 110 groups registered on the Adopt-a-Lake web site at [www.uwsp.edu/cnr/uwexlakes](http://www.uwsp.edu/cnr/uwexlakes).

To celebrate the tenth anniversary, Adopt-A-Lake groups can now order a personalized Adopt-A-Lake sign. The sign shows the partners involved in the adoption and your lake's profile. Personalized orders are available for \$45.00 plus shipping and handling. Contact Laura Felda, Adopt-A-Lake Coordinator, at 715-346-3366 or [lfelda@uwsp.edu](mailto:lfelda@uwsp.edu).



Lake management education for youth has had a fun 10 years with Adopt-A-Lake!

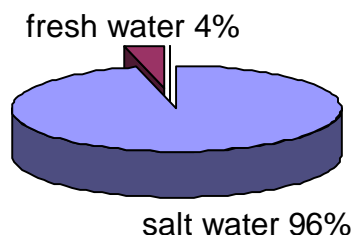


# A Drop in the Bucket

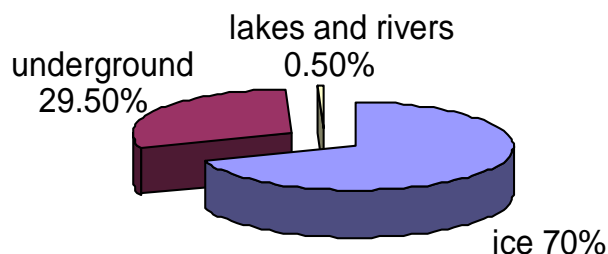
Did you know that 71% of Earth's surface is covered by water? Even so, water – fresh water – is an important issue for people worldwide. Here's why...

Although Earth is the "Blue Planet", only about 4% of its water is fresh water. The rest is salt water. Of that fresh water, 70% is frozen in glaciers and ice caps. Much of the rest is far underground, polluted, or otherwise unattainable. Life that depends on fresh water can access only 0.00003 percent of the total water on Earth!

A (salt) Water Planet



Where is the fresh water?



*Adapted from Calypso Log, June 2003*

## CALENDAR

**August 8-10, 2003 - Lake Leader Advanced Training**, Spencer Lake Christian Center, Waupaca. For more information call UW-Extension Lakes Program, 715/346-2116 or email bkorth@uwsp.edu .

**August 23, September 20, September 27 and October 18, 2003** – Wisconsin River of Words: Connecting Kids with their Watersheds through Poetry and Art-Educators Workshop. Various locations statewide. For information, see [www.uwsp.edu/uwexlakes/row](http://www.uwsp.edu/uwexlakes/row) or call Mary Pardee 715/346-4978.

**August 20, 2003 - Northeast waterfront property owners' workshop**. Nicolet Technical College's Learning Resource Center (Lake Julia campus). Contact Susan Tesarik, [stesarik@wisconsinlakes.org](mailto:stesarik@wisconsinlakes.org) or 608/662-0923 (or toll free in Wisconsin only 800-542-LAKE).

**Septemer 19, 2003** – Deadline for Call for Speakers and Papers/Posters for the 2004 Wisconsin Lakes Convention scheduled for April 15-17, 2004 at the KI Convention Center in Green Bay. For more information contact Tamara Dudiak, 715/346-4744 or [tdudiak@uwsp.edu](mailto:tdudiak@uwsp.edu) .

**September 19, 2003 - 4th Annual Aquatic Plant Harvesting Seminar** at Waukesha County Technical College in Pewaukee, Wisconsin. For more information and a registration form, please visit <http://www.aquarius-systems.com/Seminar.htm> or call 800/328-6555. Hosted by Aquarius Systems.

**September 24-27, 2003 - 30th Annual Natural Areas Conference** with the theme of "Defining a Natural Areas Land Ethic." Monona Terrace Convention Center, Madison, Wisconsin. Visit [www.naturalarea.org](http://www.naturalarea.org) for conference updates or contact Thomas Meyer at 608/266-0394, [thomas.meyer@dnr.state.wi.us](mailto:thomas.meyer@dnr.state.wi.us) for more information.





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### Wisconsin Lakes Partnership



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## Reflections

**A** man is rich in proportion to the number of things which he can afford to let alone.

*-Henry David Thoreau*

*From the Chapter, "Where I Lived and What I Lived For" in Walden*



