



# LAKE TIDES

A newsletter for people interested in Wisconsin lakes

Volume 15 No. 2

Summer 1990

## Community Focus: Lake Neshonoc

by Marc Schultz

In 1851, a nine-foot dam was built on the LaCrosse River in the driftless area of Southwestern Wisconsin. A 14-foot dam with electrical generating capacity replaced it in 1940, enlarging the lake behind it to its present configuration. Lake Neshonoc is this 600-acre reservoir. The lake's watershed is 255,000 acres; about 60 percent of the land is urban or farmland, the rest is wooded. In 1970, LaCrosse County purchased the dam and flowage lands, which they transferred to North American Hydro, Inc. They upgraded the generators and now produce electricity at the site.

A lack of submergent vegetation was noted by the Department of Natural Resources (DNR) during surveys done from 1950-1975. Algae growth, probably due to pollution from agriculture runoff, and turbidity from siltation and streambank erosion were degrading the reservoir.

In 1982, the Lake Neshonoc Protection and Rehabilitation District was formed to carry out a lake study. The district contracted with the UW-LaCrosse River Studies Center to conduct the study, which showed the lake had severe water quality problems. Based on photo interpretations, the lake had lost 23 percent of its original surface area (180 acres) in 29 years.

Work has begun to remedy these problems. Public education has helped to create an awareness of the lakes problems. County ownership of over half of the shoreline helps to insure sound land management. Donations

provide \$50,000 annually to support lake improvement. These funds are being used to install two silt traps on tributaries of the LaCrosse River. Rocks for spawning and 50 fish cribs were placed in the lake by the district and the West Salem Rod and Gun club. Carp previously made up 80 percent of the reservoir fishery, but control is being accomplished by commercial netting, drawdown, and planting of adult flathead catfish as predators.

Experimental planting of wild celery, placing of buoys in sensitive areas, and installation of high quality signs provided by local businesses are ways the district and county cooperate on lake programs. In the fall of 1989, the District received an Outstanding Property Project Award from the Wisconsin Chapter of the Community Development Society. This summer the district, with the assistance from UW-Extension, will undertake a study to outline the overall economic influence of Lake Neshonoc on the West Salem area.

Since fish habitat and water quality are improving and educational programs are underway, substantial water improvements are being realized. Public use of the reservoir for fishing, boating, water skiing, and other activities have resulted in increased support for lake improvements.

Cooperation between citizens and agencies is leading to a bright future for Lake Neshonoc. Lake districts can make a difference in reclaiming the quality of Wisconsin's lakes.

*Marc Schultz is UW-Extension Resource Agent for LaCrosse County.*



## Convention 1990

Five hundred participants set a new attendance landmark at the 13th Wisconsin Lakes Convention. The Governor provided a well-received keynote and signed two bills: AB 705 and AB 715 (see Capitol Report).

Several new programs were deemed instant hits: A pre-seminar was held on Friday morning on the Relationship of Cranberry Bogs to Lakes. A poster session was held Friday evening. And fish printing provided spouses and children with an exciting alternative.



*Poster boards generated an abundance of activity.*

Certificates of recognition from the Governor were presented to the following for their special efforts:

### Individual

Paul Anderson (Crystal/Indian Lakes)  
Alice Clausen (Tainter Lake)  
Mary Danoski (Fox Lake)  
Wilfred Gries (Bullhead Lake)  
Jim Holperin (State Representative)  
Kenneth Lay (Green Lake)  
John Seibel (Alma-Moon)  
Gene and Norma Tyler (Round-Trade Lake)

### Group

Bullhead Lake Advancement Assn.  
Lake Holcombe FFA  
Round-Trade Lake Improvement Assn.  
City of Tomah Lake Committee

Tiny Bullhead Lake Association won the group award for its efforts to control phosphorus levels in the 67-acre Manitowoc County lake. Rep. Jim Holperin won the individual award



*An impressive group shows off citations.*

for his long-term leadership in rebuilding the state's investment in inland lakes. On the occasion of her 10th convention, Diane Lueck, program assistant with UW-Extension at the College of Natural Resources, received a special award for her support role in serving lake communities.

**Mark your calendar for 1991: April 5-6.** We have more rooms available, but an early call to the Holiday Inn is still advised (715/341-1340).

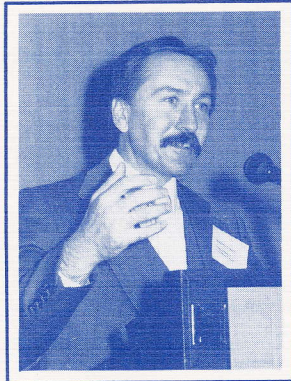


*Over 100 people of all ages participated in fish printing.*



## Lake Management Staff Hired

Robert Korth joined the Extension staff of UW-Stevens Point in March. For 12 years Korth owned a corporation involved in underwater activities ranging from research and photography to commercial diving. He returned to college and has completed an MS in Natural Resources. Korth has led numerous international educational expeditions to destinations such as China, Israel, the Galapagos, and Australia. Bob participated in the "Beebe Project," a deep submersible project studying deep sea sharks that was sponsored by the University of Maryland and National Geographic. For the past two years, he has served as assistant editor of Lake Tides.



Jeffrey Thornton will move from South Africa in June to join the Extension staff of the College of Natural Resources, UWSP. Thornton has a PhD in Tropical Resource Ecology. He has worked as the hydrobiologist for Zimbabwe, a limnologist in South Africa, and a water resource planner for Capetown, South Africa. In that position and in his latest position as head of Environmental Planning in Capetown, Jeff has served both lake and ocean front property owner groups.

*NOTE: The two Extension positions are funded by a continuing grant from DNR to Lowell Klessig. The funding source is the state tax paid by motorboaters on fuel. DNR requested and the 1989 Legislature mandated the transfer of these funds to Extension lake management educational programming.*

Jeff Bode has been named the new Section Chief of the DNR Lake Management Section. Jeff may be familiar to people in the DNR Southeast District—he was Water Resource Manager there for 15 years. He studied limnology at the Center for Great Lakes Studies at UW-Milwaukee. Bode has received exceptional performance awards for organization and management, and initiating the Milwaukee River Project. An avid walleye fisherman and sailor, Jeff lives on Lac LaBelle in Waukesha County.

### Regional Conferences

This year, regional lakes conferences will be held at Spooner on August 18 and at Eagle River on August 20. For more information on the Conferences contact your county Extension office or Bob Korth, UWEX Lake Management Specialist (715/346-2192). DNR contacts are Dan Ryan for the Northwest Conference at Spooner, at 715/635-2101; or for the Northeast Conference at Eagle River, call Bob Young, DNR, at 715/362-7616.

## We Need Your Help

The Lakes Program publishes a directory of Wisconsin's lake organizations. Please help us include your organization in the "new" directory. We need the name of your lake, county, and lake organization, and a list of the names, addresses, and phone numbers of this year's directors. Please write to Sterling Strathe, Lake Tides, CNR, University of Wisconsin, Stevens Point WI 54481 (715/346-2116). **Act now. Help us make your directory accurate!** We need to hear from you immediately after your annual meeting.





# Eco-Notes



## Through the Looking Glass: Common Lake Invertebrates

On a flat calm day, the surface of your lake is like a "looking glass." It reflects the clouds, the trees, and your face as you peer into it. If you could step through that mirror, you would find yourself in another world—just as strange as the one Alice found when she stepped through the looking glass.

Some of the creatures you would meet on the journey would be familiar to you such as the fish, frogs and an occasional turtle. If you go a little farther and look a little closer into a clear lake or a shallow bay, you will enter another world filled with creatures that are truly amazing. These ancient and unassuming animals are easily overlooked because they are very small and rarely move. You have entered the realm of the sponges, Phylum Porifera, which is Latin for "bearer of pores."

There are about 35 fresh water species of sponges, ranging in size from an inch to over a square yard. For centuries sponges were thought to be plants; not until 1765 was their animal nature recognized. Apparently, very early in their evolution sponges chanced upon a body design and activities very different from those used by any other group of multicellular animals. Their entire organization is devoted to filtering microorganisms and organic matter from the water. They do this with no definite body organs or tissue types. The sponge's body is supported by rod-like structures called "spicules," that in all fresh water species are made up of silica, a glass-like substance. Sponges are usually considered to be very quiet and sluggish, but actually they are among the most active and energetic of all animals. Sponges work day and night to create the currents of water that bring food and oxygen into their body and carry away waste material.

Brown or green (the green is caused by an algae that lives on it) sponges can be found attached to almost anything on the bottom of your lake, from vegetation to old logs. Sponges show remarkable powers of regeneration; if cells are torn loose they can quickly reform into a new, perfectly functional sponge.

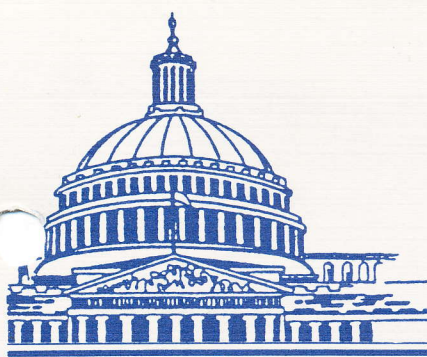
One of the most important parts of the life cycle occurs in the fall. Sponges form a small round structure called a "gemmule" that drops to the bottom when the colony dies in cold weather. These gemmules protect their precious cargo of living cells so when the warmth of spring returns the cycle can continue.

Another inconspicuous group residing in the lake is the "moss animal," phylum Bryozoa. About 21 species live in fresh water. Very temperature dependent, most bryozoans thrive in water up to about 80°F and begin to die off below 60°F. Each colony consists of up to several thousand microscopic, tentacled individuals. Colonies of these tube-like filter feeders form a large, gelatinous mass that can be found growing on stems and branches, and sometimes clog pipes and fishing nets. These opaque masses are sometimes mistaken for fish eggs or pollution. Bryozoa are farther up the evolutionary ladder than sponges, but they reproduce in much the same way. A disk-like bud called a "stoblast" holds the cell mass that lasts through the winter to carry on the species.

Even though we hardly notice them, both the Bryozoa and the Porifera play an important role in the lake ecosystem. They benefit other aquatic organisms and play a valuable role in helping scientists judge the quality of the water. This summer when you're down by the lake, take a little extra time, and step through the "looking glass."

*Robert Korth, Staff Editor, from information provided by Edward Stern, Professor of Biology, UW-Stevens Point.*





# Capitol Report



## New Legislation May Affect You

Your legislators were busy during the last general assembly. Several bills that may affect your lake organization were recently signed by the Governor .

**AB 705** allows for various changes in laws governing inland lake protection and rehabilitation districts. Local regulation concerning use and operation of boats on lakes and vehicles on icebound lakes, has been handled by your city, village, or town government. Your lake district may now adopt its own regulations, if the local government agrees to delegate the authority. District procedures have also been changed. Under the new law, dissolution of a lake district can only be considered at an annual meeting. Notices of the annual meeting must include a statement about the consideration of dissolution. Special meetings can be held by the district for conducting all business except: approving an annual budget, consideration of district dissolution, and consideration of a matter resolved during another special meeting. **AB 705** also authorizes the town sanitary district or lake district with sanitary powers to inspect private sewage systems for compliance with the state plumbing code. Violators are to be reported to the local government unit responsible for regulation. Lake districts may obtain a warrant to inspect property for compliance.

**AB 715** eliminates the requirement for lake associations to be federally recognized as tax exempt in order to be eligible for the new lake management planning grants. The bill also changes the range of the membership fees that must be charged by an eligible lake association.

**AB 660** creates an environmental education center and provides \$200,000 for grants to

non-profit corporations and public agencies for the development, dissemination, and presentation of environmental education programs. Under an amendment that was proposed by WALD, lake districts are eligible for the grants.

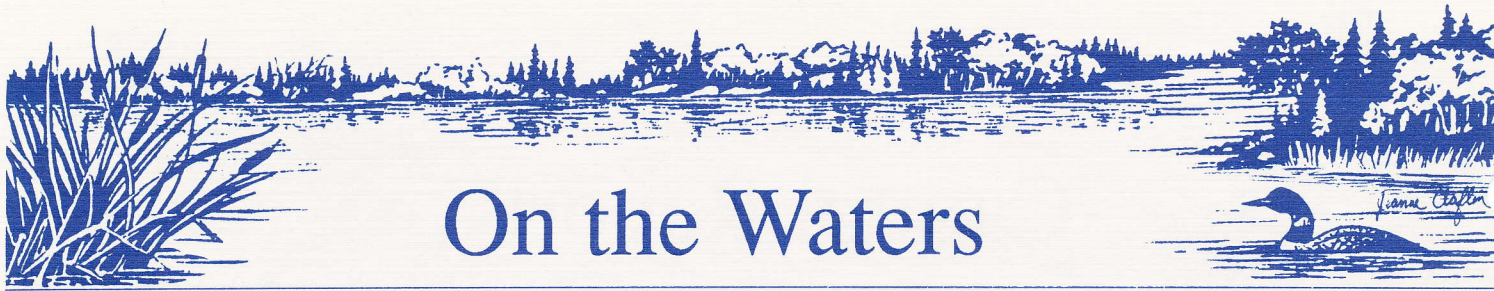
**SB 441** permits owners of lake access easements that were granted prior to December 31, 1986, to maintain piers on inland waters. Piers and wharfs can not be constructed after 1986 except by riparian land owners.

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## Lake Districts' New Guide

**AB 705** made numerous changes in Chapter 33. The provisions for special meetings, filling vacancies, and dissolution have been clarified. The implications of these changes and others explained in Capitol Reports should be positive. However, it does require you to amend your by-laws. A new edition (8th) of the Guide to Wisconsin's Lake Management Law, including a new model set of by-laws, will be available about the time you receive this newsletter. Contact your County Extension Office for a copy.





# On the Waters

## Stewardship: A Chance to Ensure the Future

by Sterling Strathe

When the first voyageurs dipped their paddles into the crystal clear water of your lake, Wisconsin was still a wilderness of unscathed beauty. During the next 250 years, much of our wild lands were hacked apart in the name of progress. These alterations have had profound effects on the quality of your lake.

Each of us has a stake in protecting the quality of our lakes. A new state program called the Stewardship Program will invest \$250 million in the future quality of Wisconsin's great outdoors over the next ten years. Included in this program are two potential sources of funding for maintaining the quality of Wisconsin's lakes.

**STREAM BANK PROTECTION.** Streams affect the health of the lakes they feed. The water quality of lakes can be improved by providing a buffer zone along the streambank. Strips of vegetation can control erosion and act as filters for fertilizers and pesticides. This program supplies a million dollars annually to purchase stream bank easements to be used as buffer strips.

**URBAN GREENSPACE PROGRAM.** Each year, \$750,000 will be awarded in grants to local municipalities, counties, inland lake protection districts, and non-profit conservation groups. The purpose of these grants is to preserve undeveloped areas that are important in protecting scenic, ecological, or natural features. Strips of greenspace along lakes can also act as buffer zones for the lake and can help maintain aesthetic qualities.

**PROGRAM REQUIREMENTS.** In order for your group to qualify, you must have a stated purpose that includes acquisition of property or

property rights, be tax exempt under section 501(c)(3) or 501(a) of the IRS code, and enter into a long term management contract with the DNR. These grants are cost-share money, and will fund up to 50% of the cost of land acquisition. The first monies will be available July 1, 1990.

**FOR MORE INFORMATION CONTACT:**  
STEWARDSHIP PROGRAM  
Department of Natural Resources  
Bureau of Property Management  
PO BOX 7921  
Madison, WI 53707

Your lake will never be like it was in the days of the voyageur, but thanks to the Stewardship Program, the quality of your lake can be improved for generations to come.

*Sterling Strathe is a graduate student in natural resources at UW-Stevens Point.*

## Challenge Cost-Share Program

U.S. Forest Service

**Rhineland WI--**Northeastern Wisconsin associations and landowners are working with Forest Service biologists to design and implement fish habitat improvement projects under a new Challenge Cost Share Program. Groups on lakes within the boundaries of the Nicolet National Forest can split the cost of projects with the Forest Service. Four Challenge projects are already scheduled this year for lakes within the national forest.

According to the fisheries biologist for the Nicolet National Forest, projects should be scheduled 2-3 years ahead so the Forest Service matching money can be built into the budget.

*(continued next page)*



The Forest is also interested in cooperating with landowners on volunteer projects to update lake survey data. The data will be entered into the Forest's fisheries and aquatic database. The Forest Service and DNR will then use the survey information to develop its lake management objectives, plan desired lake habitat improvements, and monitor the program.

If you have questions about these programs, contact Don Hair, Forest Fisheries Biologist, Nicolet National Forest, 68 S. Stevens St., Rhinelander WI 54501.

## Jet Ski Symbol of Keys' Problems

by Ben Brown, Gannett News Service

**Florida Keys**--In many places around the country, even in the throes of Earth Day celebrations, caring for the environment is still a figure of speech. Here, it's the local industry. "Environment is our business," says a member of the regional water management board. "If we don't protect it, we're not going to be in business."

The newest environmental debate grows directly out of recreational lifestyles that have top priorities here. The jet ski has made enemies of many folks who thought themselves champions of individuality. And, ironically, the environment may end up the biggest winner.

Stretching 150 miles south and west of the Everglades, the Keys are the nation's playground. The highway between Homestead and Key West is increasingly clogged with cars. Boat registrations in the three-county area that feeds into the Keys have increased by 50 percent the past decade.

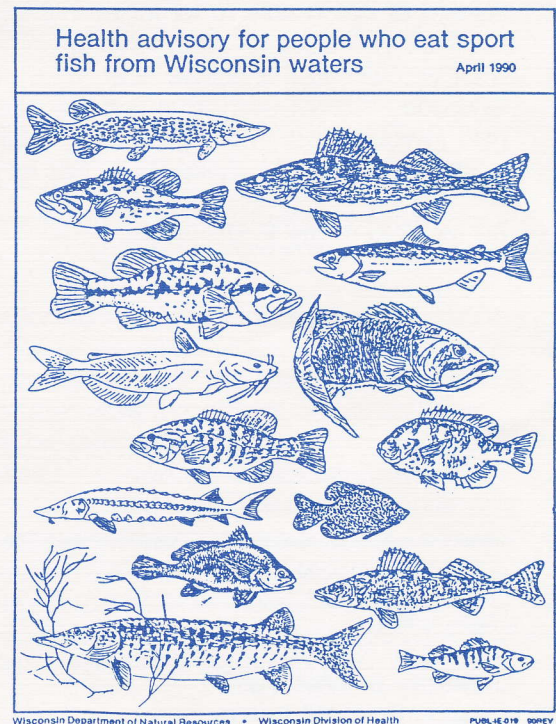
Sailboards and sailboats share territory. So do motorized fishing boats of all sizes. They have conflicting interests, but it's the new kid--personal watercraft (the Jet ski, a brand name)--that's having the biggest problem fitting in. They end up in places where they're the most fun to operate--in the shallow, wind-protected flats close to shore and to mangrove islands. That's also where they're likely

to cause the most trouble to bottom grasses, coral, and people.

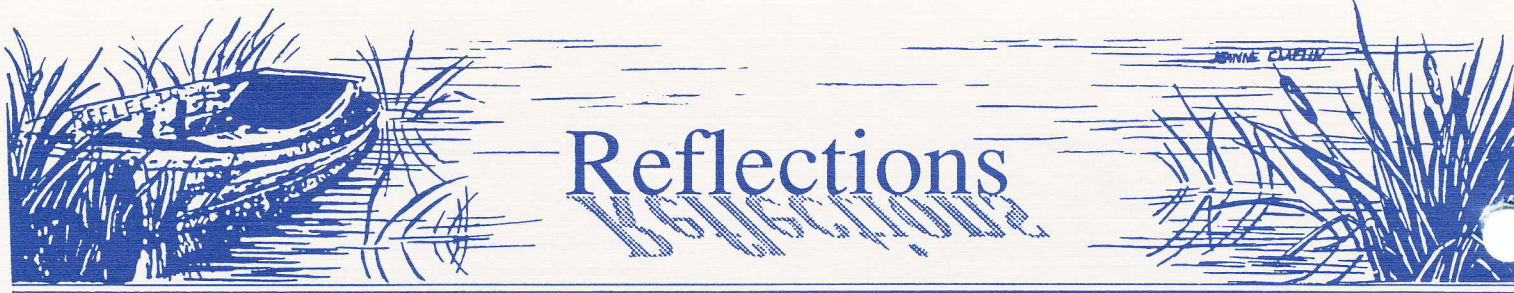
In an attempt to come up with an ordinance that addresses the personal watercraft issue, a working group of environmentalists is meeting to discuss all the related issues and potential long-range plans.

## Publications

"Health advisory for people who eat sport fish from Wisconsin waters," April 1990. Pub-IE-019, available from Wis. Dept. of Natural Resources, Box 7921, Madison WI 53707.







In the summer, my wife and I bike down to the lake nearly every afternoon for a swim. It is a dogleg Adirondack lake, with three beaver lodges, a blue heron, some otter, a family of mergansers, the occasional loon. A few summer houses cluster at one end, but mostly it is surrounded by wild state land. During the week we swim across and back, a trip of maybe forty minutes--plenty of time to forget everything but the feel of the water around your body and the rippling, muscular joy of a hard kick and the pull of your arms.

But on the weekends, more and more often, someone will bring a boat out for waterskiing, and make pass after pass up and down the lake. And then the whole experience changes, changes entirely. Instead of being able to forget everything but yourself, and even yourself except for the muscles and the skin, you must be alert, looking up every dozen strokes to see where the boat is, thinking about what you will do if it comes near. It is not so much the danger--few swimmers, I imagine, ever die by Evinrude. It's not even so much the blue smoke that hangs low over the water. It's that the motorboat gets in your mind. You're forced to think, not feel--to think of human society and of people. The lake is utterly different on these days, just as the planet is utterly different now.

Bill McKibben The End of Nature

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