



LAKE TIDES

A newsletter for people interested in Wisconsin lakes

Volume 16 No. 3

Summer 1991

Pale Water\Quality Water

by Robert Korth

Waupaca County takes its name from a river, whose translation from the native tongue is said to mean white sand bottom or pale water. A true child of the glaciers, this central Wisconsin county boasts a landscape as varied as its economy. Maple forests, beech ridges, and stone fences border dairy farms that dot the countryside. Wild rivers like the Little Wolf and clear lakes like the popular Waupaca Chain of Lakes bless the land.

The people here are proud of their county and of the quality of life offered to residents and visitors alike. Maintaining and protecting the quality of the environment requires future vision. That future vision calls for thinking smart now. In that spirit, Waupaca County has taken a leadership role in protecting the health and welfare of its citizens, its lakes, and the environment.

Waupaca County has established the Waupaca County Water Quality Management Grant Program. This program, which may be the first of its kind in the nation, has set aside \$75,000 in county tax dollars for each of the next five years in an effort to improve and protect the quality of surface water and groundwater.

As part of the program, the county has employed Greg Peterson as a full-time engineering technician to work on individual water quality activities including the county's lakes. The objectives of the program are well planned and wide ranging. They include raising the county residents' and visitors' level of

understanding of the importance of stewardship of the land and waters. Special well water testing programs independent of state studies will continue. The county also intends to develop baseline health data and to track water quality problems to see if there are linkages. Waupaca will develop an "Adopt a Waterway" program similar to the state's "Adopt a Highway" program. Direct ties with the Waupaca County School System's Agricultural and Environmental Departments will include local research efforts to help implement these concepts and programs.

The county is backing up its programs by making funds available. Besides providing dollars to carry out the aforementioned projects, it will cost-share up to \$5000 for any lake organization or local unit of government to help implement watershed improvements. The county will also provide up to \$1500 to any unit of government or organization that applies for an Inland Lakes Planning Grant through the Wisconsin Department of Natural Resources.

In conjunction with this comprehensive water quality program, Waupaca has formed a county-wide lake association to help protect and preserve the area's 240 lakes. Only Polk County in northwestern Wisconsin has such an organization.

Much of what is valued today in the landscape and history of this country can be traced back to the wisdom and determination of a few individuals. The people of Waupaca

County have shown that they have that wisdom. They are taking their county down the path of long-term environmental responsibility.

Greg Peterson received his degree in Soil Science from UW-River Falls. He has served as Watershed Technician on the Little River Priority Watershed Project, Oconto County, and most recently was the Soil and Water Conservation Technician on the Seven Mile-Silver Creek Priority Watershed Project, Manitowoc County. Greg can be reached at 715/258-6248.

Hearing Set on Nuke Waste Board

Appleton Post-Crescent

Madison--The possibility of renewed federal interest in storing nuclear waste in Wisconsin bedrock has prompted a legislative committee to seek public reaction in Waupaca, a center of past opposition to similar plans.

The Assembly Natural Resources Committee, chaired by Rep. Spencer Black (D-Madison), invited residents to testify on his bill to keep the state Radioactive Waste Review Board alive. "The board's primary purpose is to fight the siting of a high-level radioactive waste dump in Wisconsin," said Black. The board would expire June 30 under a provision in Gov. Tommy Thompson's proposed 1991-93 state budget proposal.

Black said he scheduled the hearing in Waupaca because of previous federal consideration of the area for a disposal site. "I want to make it easy for the citizens who would be most affected to speak directly to their representatives on this important issue."

A site chosen in Nevada appeared to have settled the disposal issue, but development of the facility is stalled, raising the prospect of a search for another site and reconsideration of Wisconsin, according to Black.

Flushing Your Lake's Future?

Get In Tune...With Your Lake

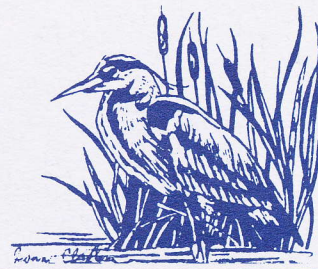
Every flush of a toilet or a rush down the gutter dumps something into our lakes. Storm sewers are not safe disposal sites--water running into the sewers flushes oil and grease, garbage, animal and yard waste, chemicals, pesticides, toxic metals, salts, and sediments directly into the lake. Even overburdened septic systems leak nutrient-rich pollutants into lakes. Take notice of your wastes--what they are, where they're going, and how to safely dispose of them.

- Treat household cleaners, solvents, and pesticides as hazardous waste. Don't dump these toxins in the storm sewer or septic system--keep abreast of changing disposal practices and learn to discard contaminants properly!
- Recycle motor oil and other acceptable automotive wastes.
- Encourage local street sweeping.
- Reduce or eliminate pesticide use on your lawn and garden.
- Pick up animal waste and bag for pick-up and proper disposal.
- Compost yard waste for your garden.
- Maintain septic systems (pump regularly); make sure all gray water drains to your septic system, and never dump wastewater directly into the lake.
- Be Water Wise: conserve water, and less wastewater will reach the lake.

New Organization: Lake of the Falls Assn., LOFA Inc.; Iron County; Mercer, Wisconsin.



Eco-Notes



The Underwater Milfoil Wars

by Dave Marshall

This is the story of a very old war. Accounts of the battles have graced the pages of Lake Tides many times in the past. Skirmishes with an old nemesis--Myriophyllum spicatum. Yes, Eurasian water milfoil.

The attempts to eradicate this pesky plant have almost created their own cottage industry. Research reports have been written, careers created, posters printed, programs prescribed, harvesters hired, and chemical campaigns waged.

The spread of Eurasian water milfoil causes serious concerns in dozens of southern and eastern Wisconsin lakes. Herbicide treatments and large-scale harvesting have been used for over 20 years on lakes large enough and organized enough to afford them.

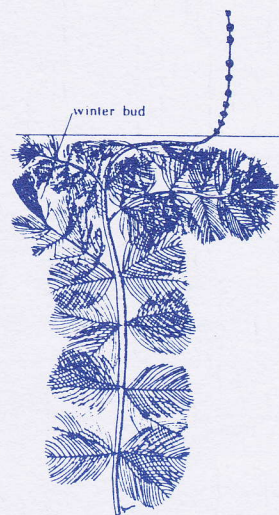
Regrettably, the nuisance level of the plant is often more acute in shallower lakes of less than 1000 acres. Control of Eurasian water milfoil is especially burdensome for these small lake communities. Many smaller lakes communities simply lack the money or means to conduct large scale harvesting operations. There is also a lack of understanding of the possible effects of chemicals, making many people feel uncomfortable with using them to treat unwanted aquatic plants.

An inexpensive small-scale harvesting technique was needed to fill the aquatic plant management void. In the summer of 1989, the Wisconsin Department of Natural Resources (DNR), in cooperation with the Dane County Watershed Commission and the Hoofers SCUBA Club, performed a small-scale aquatic plant harvesting demonstration in Fish Lake, Dane County. The method of plant removal is as "old as the hoe," but with a "HI-TECH" twist. The goal of the project was to improve fish habitat and boat access chan-

nels in dense stands of water milfoil. SCUBA was chosen in part because local dive clubs expressed an interest in becoming involved with lake management activities.

Eight divers working in teams attempted to create four channels in milfoil beds six to twelve feet deep. The plan called for divers to follow transect lines and uproot milfoil within arms reach of the lines. Dane County supplied a youth crew and barge to rake up and haul away the uprooted plants. Unfortunately, the milfoil had plans of its own. The efforts to uproot the plants made the going slow. The plants often would not float to the surface unless the divers used considerable effort to shake mud from the roots. Turbidity caused by the uprooting turned the dive into a blizzard and divers lost sight of each other. By the end of the one-hour dives, only two channels were recognizable and neither were wide enough to provide easy boat access.

A week later, with a new strategy in hand, a second "attack" was implemented. Three divers, following compass headings and armed with hand sickles and scissor-type hedge trimmers, cut rather than uprooted the plants. The plan worked. Cutting milfoil was much more efficient than uprooting. Divers more than doubled the removal rate of up-rooting. Cutting plants caused less turbidity and the buoyancy of cut stalks caused them to rocket to the surface, speeding progress. One diver was able to clear about one-third acre each hour.



Pamela Burns

The best news was yet to come. The "cut" channels persisted even after the following growing season. During early summer 1990, low concentrations of coontail and curly-leaf pond weed invaded the cut channels. By August, the curly-leaf pond weed had died back and was replaced by milfoil. Compared to the surrounding uncut foliage, the late recovery of milfoil was very sparse and the channels clearly persisted.

Although Dane County mechanically harvested Fish Lake to a uniform depth of 4.5 feet in August 1989, by June 1990, only the deep channels manually cut by the divers were clearly visible.

SCUBA harvesting to improve boating and fish habitat may have potential under the right circumstances. Deep harvesting (below 6 feet) could be the primary Eurasian milfoil management technique or an element dovetailed into a total plan. Deep channels could be combined with large-scale harvesting operations. This could maximize fish habitat and channels could interconnect to form offshore reefs. Deep cutting also offers a method for stressing milfoil without disturbing nutrient-rich mud.

There are certain considerations for a lake community to keep in mind: Is the problem Eurasian milfoil? (Deep stress cutting of valuable native plants can be harmful to the lake). Is there a willing source of both experienced, certified divers and surface operations for plant removal? Is this part of a long-range, holistic stewardship plan for your lake and watershed? If this technique seems to fit your needs, it may be worth a try. If divers are not available, deep water harvesting still offers promise through the use of harvesters that cut below five feet.

Trained SCUBA divers working with the lake community to control water milfoil may seem unorthodox. However, deep water removal of Eurasian water milfoil may prove to be another weapon in our arsenal as we continue our war on exotic plants.

For more information contact Dave Marshall, Area Water Resources Mgt. Biologist, Southern District DNR, 3070 Fish Hatchery Rd., Fitchburg WI 53713 (608/273-5968).

People Protest Peculiar Piscatoring Procedures

by Robert Korth

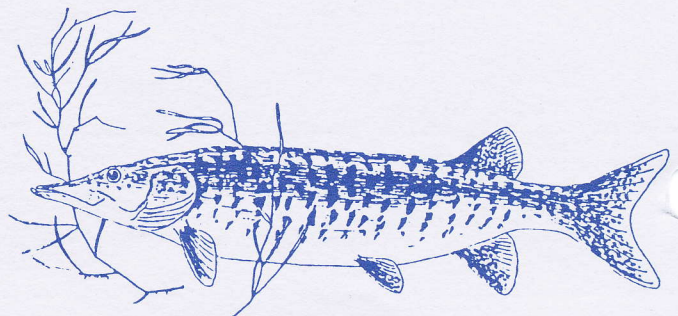
Many years ago, a fish was so highly prized that the Wisconsin Legislature proclaimed it the official State Fish. That fish was the muskellunge. Piscators* of this pugnacious pike say it is the creature from which legends are made. Now some folks feel the muskie may be threatened by a less-than-honorable method of capture.

Residents and law enforcement officers in northern Wisconsin would like to see laws changed to make remote fishing illegal. The technique, sometimes called "jugfishing," is not new, but John Rinehart from Janesville has invented a new twist--a floating "tip-up" for catching muskie. The fishers set the devices in areas they want to fish and wait for a strike (much like a ice fishing tip-up).

Gary Scovel, warden supervisor in the Woodruff areas, says, "technically speaking, they're not illegal. In Wisconsin you can have up to three attended lines, but the term 'attended' is not clearly defined." Scovel sees a potential problem if anglers use the tip-ups: "they could tie up large areas of a water body and conflict with boat traffic." Wisconsin's lakes already suffer from congestion as more and more of us enjoy the lakes each year.

The muskie is considered by most anglers in these parts to be the ultimate rod-reel fight. Some people believe jugfishing muskie is morally and ethical wrong. They see the many hours spent in the pursuit of the elusive muskie and the thrill of follow-ups and strikes as sport fishing in one of its purest forms. (Ed. note: According to Rep. Jim Holperin, jug fishing will be banned by DNR administrative rule as of January 1, 1992.)

**pis-ca-tor (pis' ka ter): fisherman*



1991 Lakes Convention

LT 1989: A record crowd of over 400 people attended...

LT 1990: Five hundred participants set a new attendance landmark...

And 1991, would you believe 600 lake community leaders gathered at the Holiday Inn in Stevens Point on April 5-6.

In an informal poll, respondents said they kept coming back because "there is always something new to learn," "we're never bored," and "we are dedicated to this cause." To recognize this dedication, Certificates of Appreciation signed by the Governor were presented to seven individuals and five groups. Black Otter Lake District (Outagamie County) received the group Lake Stewardship Award, and Lloyd Christenson (Apple River Flowage District) was named the individual Steward of the Year. Richard Wedepohl (DNR) was surprised with a Distinguished Service Award for his years of involvement and tenacity in keeping the Wisconsin Lakes Program going. In addition, Volunteer Self-Help Monitors who had taken more than 100 readings were recognized with a patch and a certificate.



L-R: Elmer Goetsch (WFL), Al Habeck, Lloyd Christenson, Lisa Conley (WALD), Lowell Klessig (UWEX).

Following the second year of pre-conference seminars, Sen. Herb Kohl gave the attendees a pat on the back and Garth Redfield presented a keynote address on Basic and Applied Science in Lake Management. Panel discussions on Impacts of Agriculture and on Surface Use Conflicts were well received.

Participants thronged to the 18 Saturday workshops. Betsy Schulte and John Avery deserve credit for their work on the Poster Session and Exhibit coordination.



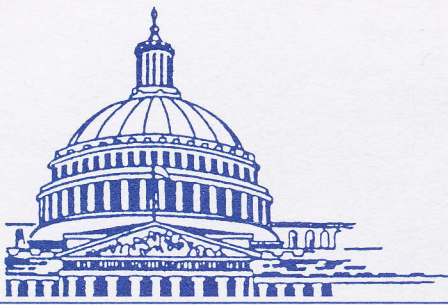
Participants were engrossed by the planning workshop.

Concluding the awards luncheon, Prof. Avian Guano delighted the group with a learning experience that was truly fun, yet poignant.

Be sure to put March 13-14, 1992 on your calendar and call the Holiday Inn in Stevens Point (715/341-1340) to make your room reservation.



Denny Olson as Professor Avian Guano.



Capitol Report



Those of you who have been associated with a particular lake over the years have probably noticed some subtle changes. The quality of the lake environment, both aquatic and cultural, may have diminished. These changes may well be the result of water pollution or conflicts over the use of the lake. In response to these problems, several pieces of legislation have been proposed to address your concerns.

Water Quality Protection

AB 74 - SB 29: Clean The Green (Rep. Al Baldus, Sen. William Berndt). The purpose of this bill is to reduce the levels of phosphorus entering the states inland waters. The DNR would be required to restrict sewage treatment plants and industrial discharges of phosphorus.

AB 288: Sanitary Districts (Rep. Rebecca Young). This bill is designed to facilitate the formation of new sanitary districts by repealing a provision of current law that allows individual properties to be withdrawn from sanitary districts.

AB 81: Mining (Rep. Harvey Stower). Prohibits the issuance of a mining permit on sites that include shorelands or wetlands. The DNR would also be required to develop a state-wide, comprehensive analysis of mining impact.

Potential Lake Project Funding

AB 3: Alum Treatment (Rep. Charles Coleman). Would make state non-point pollution funding available for alum treatment of lakes associated with the Priority Watershed program.

AB 328: Waterway Commission Eligibility (Rep. Harvey Stower). Provides for expansion of the Wisconsin Waterways Commission cost-sharing program to include funding for incorporated lake associations to support the

protection, improvement, or recreational development of one or more inland lakes. Eligible projects for any lake management unit would be broadened to include: dredging to accommodate recreational watercraft, acquisition of capital equipment to control aquatic plants, and acquisition of navigation and regulation markers.

Lake Usage Regulations

AB 263 - SB 122: Jet Skis (Rep. James Holperin). These companion bills define personal watercraft and regulate their usage. Operators would be required to be at least 16 years old, would need to wear a PFD, and would be prohibited from operating the device in a reckless manner (i.e. jumping wakes within 100 feet of another watercraft). Operation of jet skis at night and using them to tow any objects (boats, waterskiers, etc.) would be prohibited.

AB 298: Lake Access (Rep. Peter Bock). DNR would be required to establish standards for access site development, which shall consider boat traffic and lake characteristics such as size, shape, and ecological sensitivity. The bill would also establish a mechanism to review municipal ordinances affecting public access and would require the DNR to furnish model ordinances to assist municipalities in the development of new boating regulations.

Legislative Council Bill: Safe Boating (Rep. Spencer Black). Provides several measures to increase boat safety on Wisconsin waters. Boat registration fees would be increased to provide more state funding for local boat patrols, safety markers, and signs. It would establish a phased in requirement for all operators of a motorboat 10 horsepower or larger to complete a boat safety course and would raise the minimum operator age to 12 years (with an adult). The bill also would provide for the hiring of six additional boating wardens and upgrading of their present equipment. Those found guilty of operating a

LAKES IN THE '90S - II REGIONAL CONFERENCES

July 19 - Tomahawk

July 20 - Spooner

Sponsors:

*University of Wisconsin-Extension
University of Wisconsin-Stevens Point
Wisconsin Association of Lake Districts
Wisconsin Department of Natural Resources
Wisconsin Federation of Lakes*

Wisconsin's lakes are a great place to live. Our lakes are liquid windows to a whole realm of possibilities. Today, Wisconsin's lakes are being threatened on numerous fronts and many need help.

The Wisconsin Regional Conference provides an opportunity for people around the region to share their knowledge and discuss the health of Wisconsin's lakes.

Lake property owners, professionals, and government officials from around the region will be coming together to answer questions concerning Wisconsin's lakes. Life around a lake or river comes with distinctive responsibilities, both politically and environmentally. The focus of this conference will be on developing ways to deal with the increasing pressures on Wisconsin lakes.

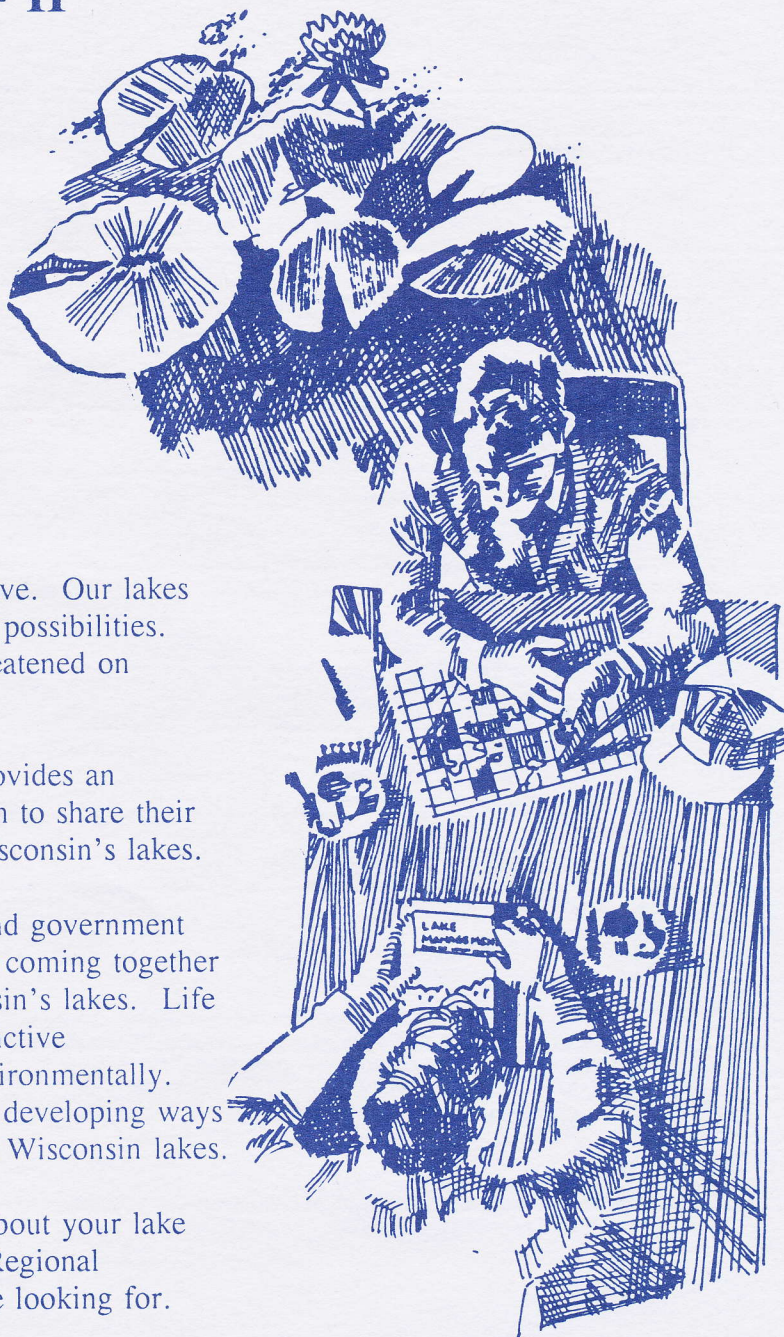
If you are interested in learning more about your lake and how to keep it healthy, attend the Regional Conference. It may be just what you're looking for.



Robert Korth, Conference Coordinator Northeast
715/346-2192



Jeff Thornton, Conference Coordinator Northwest
715/346-2278

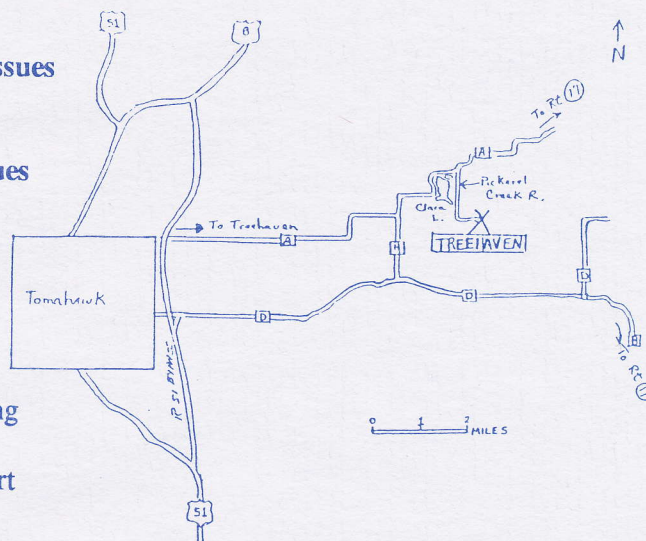


--over--

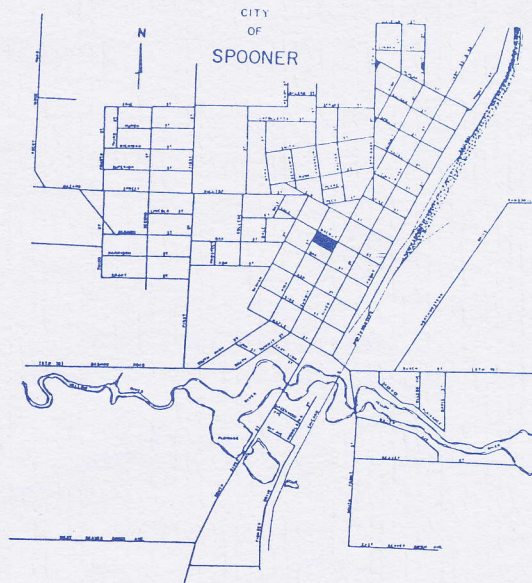
AGENDA - BOTH CONFERENCES

- 8:30 **Registration and Coffee**
- 9:00 **People and Property: Shoreland Zoning Issues**
Mike Dresen and Company (DNR)
- 10:15 **The People Pinch: Boating Safety and Issues**
Bob Tucker, DNR (Tomahawk)
Bart Halverson, DNR (Spooner)
- 12:00 **Lunch**
- 1:00 **Concurrent Sessions**
- A. The Foundation: Organizing and Operating Your Lake Organization
Lowell Klessig, Jeff Thornton, Robert Korth (UWEX/UWSP)
- B. Advanced Planning: Long-range Lake Planning
Buzz Sorge, Dave Marshall (DNR)
- C. Mercury and Muskies
Mercury Contamination in Fish - Carl Watras, Steve Claas (DNR)
Fish Management - Bill Swenson (UWEX/UWS)
- D. Basic Limnology Field Trip (optional, weather permitting)
Jeff Thornton
- 3:00 **Adjourn**

July 19 - Treehaven; 2540 Pickerel Crk Rd; Tomahawk, 715/453-4106



July 20 - Spooner Civic Center
301 Walnut St, 715/635-6000



-----clip and mail -----

USE THIS FORM TO REGISTER

Name _____
Address _____
Lake _____
County _____

July 19 - Tomahawk _____
July 20 - Spooner _____ (please check one)

Registration for either conference is \$13. Fee includes coffee and lunch. Make check payable to UW-Extension, send to Diane Lueck, College of Natural Resources, Univ. of Wisconsin, Stevens Point WI 54481.

boat while intoxicated would face increased fines and penalties as well. To assist in local regulation of lakes, the DNR would be required to promulgate three model lake ordinances for local municipal adoption.

Wetland protection legislation is also expected from the Legislative Council. If you have concerns or comments on these proposals, you should contact those sponsoring the bill and/or your own local senator or representative.

Planning Grants

The new planning grants program has been well received. Last year, 74 organizations around Wisconsin received the entire \$650,000 from the state to study the problems facing their lakes and to develop plans to correct the situation. An unexpected benefit of the program was the large amount of matching dollars that some communities obtained from federal or other sources.

Interest in the Planning Grants Program is high. The DNR expects to distribute most of this year's money during the first application period, August 1 deadline. So don't delay! If your group wants to apply or if you have questions about the program, contact your DNR district lakes coordinator, your county UWEX agent, or call Robert Korth/Jeff Thornton 715/346-2192.

Toxic Air Emissions Inventory

Thanks to a grant from the Great Lakes Protection Fund, The Great Lakes Commission (Ann Arbor, Michigan) and its eight member states will begin to develop a regional air toxics emission inventory. The atmosphere has proven to be a significant pathway for certain toxic pollutants entering the region's lakes. The inventory will address 25 priority pollutants including mercury, PCBs, and lead. Additional information on types and quantities is needed to improve pollution control strategies. *For more information: Contact Carol Ratza, Great Lakes Commission 313/665-9135.*

Funds for Environmental Projects

The Natural Resource Foundation of Wisconsin Inc. has a small matching grants program available. The program will help support environmental projects that are significant in impact and promote cooperation between public and private conservation organizations in Wisconsin. Grants range from \$100-\$1000. To qualify, the applicant must:

- Be a public or private non-profit organization or an individual.
- Propose a project that entails management, research, education, or development that benefits natural resources or nature-related recreational opportunities in Wisconsin.
- Document project budget and funds that will match the NRF grant.

Application deadline is September 6th. Contact Barb Barzen at 608/266-1430.

Regional Lake Conferences

The popular regional lake conferences will return this summer. They will be held on Friday, July 19 at Treehaven near Tomahawk and on Saturday, July 20 at the Civic Center in Spooner. ***Note the center page of Lake Tides, as no other flyer will be mailed out for this conference.*** If that page is missing, contact your local DNR or UWEX office or call Robert Korth/Jeff Thornton 715/346-2192.

Publications

The April 1991 *Health Guide for People Who Eat Sport Fish from Wisconsin Waters* lists 24 waterbodies and many stretches of rivers that are contaminated by PCBs and pesticides. Over 200 lakes and flowages in 45 counties have levels of contamination that could cause problems. For more information, ask for a copy of Publ-IE-019Rev from your local DNR office.



Exotic Thoughts

by Robert Korth

Wherever humans have journeyed they have brought with them remembrance of their home lands. Along with their way of life have come plants and animals--some intentionally, others by accident. Starlings, Hungarian partridge, dandelions, potatoes, German Browns, lamprey--the list is long.

Today we live in a world whose linkages are truly global in scope. Our rapid and efficient transportation can move us and our products around the nation or the planet overnight. Orange roughly from New Zealand or fresh bananas from Central America have become a right, not a privilege. Humans are not the only species that can take advantage of this era of easy transportation. Creatures ranging from aquatic plants to zebra mussels find it works quite well. We spend millions of dollars and huge blocks of time trying to eradicate a "bad exotic". Our record of success in these campaigns is dismal at best. Maybe in this ever-shrinking world we need to put more effort into well-thought-out preventions over cures. If some exotics prove to be too tenacious to dislodge from their adopted homes, possibly we could envision finding commercial uses to aid removal.



printed on recycled paper

Lake Tides
College of Natural Resources
University of Wisconsin
Stevens Point WI 54481
715/346-3783



Senior Editor: Lowell Klessig
Editor: Robert Korth
Assistant Editor:
Sterling Strathe
Production Editor:
Diane Lueck
DNR Coordinator:
Jana Suchy
Published quarterly by season.

WEX COOPERATIVE EXTENSION SERVICE • UNIVERSITY OF WISCONSIN-EXTENSION



Cooperative Extension Service...
Putting Knowledge to Work for You

Community, Natural Resource, and Economic Development Programs

Non-Profit Organization
U.S. Postage
PAID
Permit No. 19
Stevens Point, WI



*Lake
Management
Program*

*Wisconsin Department
of Natural Resources*