LAKE TIDES
A newsletter for people interested in Wisconsin Lakes
Volume 19 No. 2 Summer 1994

STATE OF THE LAKES

Third in a series on Wisconsin's lakes

Only 40% of U.S. water good for all uses...

WASHINGTON--Barely half the nation's rivers, lakes and wetlands contain water suitable for all uses by humans and nature, the Environmental Protection Agency reported. Taking 1992 data from the states, the EPA measured how many bodies of water supported fish that were safe to eat, provided clean drinking water, were safe for swimming and recreation, supported aquatic wildlife and contained shellfish free of toxic substances.

The report indicated that only ocean waters along the nation's coasts were relatively good, with 80% able to support all possible uses. In contrast, only 2% of the Great Lakes—which contain 1/5th of the world's fresh surface water—made the "fully supporting" category. In fact 97% of Great Lakes waters were rated fair or poor, largely because of pollution from chemicals such as PCBs and DDT from nearby cities.

Only about 18% of the nation's rivers and streams, or about 642,900 miles of water, were assessed. That survey found that 56% were able to support all uses, with 28% rated fair or poor in water quality and 6% threatened.

EPA blamed silt, largely from agricultural runoff, for almost half the problem. Another problem was nutrients such as phosphorous—contained in many farm fertilizers—that promote growth of algae and choke out other life. Agriculture accounted for 72% of the pollution in the rivers and streams, and urban stormwater runoff made up 15%. Similarly, agriculture was the leading polluter of the lakes, ponds and reservoirs assessed by the EPA. In all, about 46% of those bodies of water were examined, or 40 million total acres.

EPA found that just 43% of the lakes could support all uses; 13% were threatened; and 44% were rated fair or poor. Metals, such as mercury and lead, and nutrients such as phosphorous, were the leading pollutants; 56% of the time the source was agriculture.

Estuaries, where rivers meet the ocean, were in about the same shape as the rivers that feed them. Some 56% were capable of supporting all uses, with 31% listed as fair or poor. About 75% of the nation's estuaries were checked in the EPA study. Municipal sewage treatment plants, storm runoff and agriculture were the leading pollution sources, with nutrients making up 55% of the problem.

EPA found the wetlands continued to be lost at a rate of 290,000 acres a year from the mid-1970s to mid-1980s, mostly for agriculture, residential development, highways and mining. Of the 277 million acres that remain—including 177 million in Alaska—only about 10.5 million acres were assessed. Of that amount, 50% can support all uses by nature and man. Sediment was the greatest problem faced by wetlands, with agriculture and development the 2 biggest sources.

A bright spot in the report was the nation's ground water, which is a source of drinking water for 53% of the population. EPA reported that "overall, the nation's ground water quality is good to excellent" but cautioned that some local problems remain.

More than 400,000 of the 6 million existing underground storage tanks are probably leaking, many of them with petroleum or hazardous materials. Other possible pollutants are 33,000 abandoned hazardous waste sites, 23 million septic tanks, landfills and agricultural activities.

(From Associated Press)

LAW CHANGES FOR LAKE DISTRICTS

Governor Tommy Thompson recently signed into law a number of changes which affect lake management districts. As those of you who attended know, the 1994 annual lakes conference in Oshkosh was the occasion for the governor's signature. Here in a nutshell are the most important changes. District commissioners should obtain updated versions of Ch. 33 when they become available in a few months.

Transfer of riparian rights
Waterfront property owners will no longer be able to convey riparian rights (to place piers, apply for structural permits, divert water, etc.) to non-riparian owners. The new law does not affect owners of piers on easements grandfathered by another statute (S. 30.131, stats.).

Conversion to sanitary district
A lake district may now vote itself the powers of a sanitary district at its annual meeting. These powers include providing sewer and water, garbage collection and drainage projects, among others.

Finance of capital costs
Districts may now create funds which continue from year to year in order to save for special capital costs (equipment and capital assets) which are identified at the annual meeting.

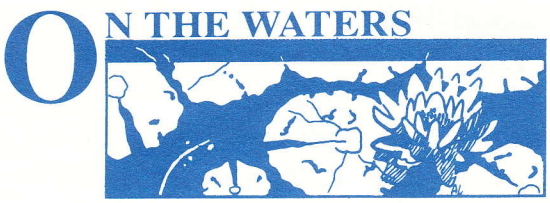
Boating ordinance citations
Previous legislation allowed a lake district to adopt a boating ordinance if all municipalities on the water body had delegated that authority to the district. This enactment provides district boat patrols the authority and procedures to issue citations to enforce the ordinances.

Voting at district meetings
All U.S. citizens who are 18 years of age or older and residents of a district have been able to vote at district meetings. Property owners of the district have had the same privilege (if U.S. citizens and 18 or older). Now owner's names need not be listed on the property tax role if they can establish ownership. The official representative of an organization that owns property in the district may also vote at district meetings.

Withdrawal from petition to form district
To avoid confusion about the validity of landowner signatures on a petition to form a district, a landowner wishing to withdraw from such a petition must now file a written notice of withdrawal with the municipal clerk at least 10 days prior to the hearing on the petition.

Approval of budget items
The district budget acted on at annual meetings must separately identify capital costs, costs of operation, and items costing over $10,000.

Mining impact fees
The provision which would have allowed lake districts to utilize mining impact fees was vetoed by the governor.



1994 WISCONSIN LAKES CONVENTION: UPDATE

The 1994 Wisconsin Lakes Convention was another success, with nearly 600 participants attending the event at the Oshkosh Convention Center. Highlights of the Convention were Kathleen Falk's keynote address "At the Crossroads: What Land Use Path for Wisconsin?," a panel discussion on Land Use and Water Quality with state agency personnel, and Governor Tommy Thompson signing two bills relating to lakes and rivers into law on Saturday, March 26.

1994 Lake Stewardship Nominees

Nominees for the individual award were: Dolly Burr (Tilleda Pond), Phyllis Grimm (Wapogasset/ Bear Trap Lakes), Jennifer Heitz (Northwoods Conservation Alliance), Judy Jooss (Twin Lakes), Mary King (Lake Geneva), Howard Lang (Little Green Lake), Marge Phillips (Little Bearskin Lake), Chuck Rolfsmeyer (Madison Area Lakes), Bob Schmitz (Rose Lake), Howard Schneider (Little Muskego Lake), Earl Schroeder (Pickerel/ Crane Lakes), John Seibel (Alma-Moon Lake), Mike Spellman (Lake Ripley), Carol Wilson (Waukesha Lakes), John and Lorraine Zinnen (Eagle Lake). Nominees for the group award were: Balsam Lake P&R District and Balsam Lake Homeowners Assn., Deer Lake Improvement Assn., Lake Holcombe Improvement Assn., Lake Ripley Management District, and Lake Wapogasset/Bear Trap Improvement Assn. Public Service nominees included: Ted Peters (Lake Geneva Environmental Agency), Representative Harvey Stower, and Doug Wikum (UW-Stout).

Lake stewardship awards were presented to **John Avery** of the Post Lakes Improvement Association, the **Balsam Lake** Protection and Rehabilitation District and the Balsam Lake Homeowners Association, and **Representative Harvey Stower** of Amery for their leadership roles in protecting Wisconsin's lakes.

The 1995 Wisconsin Lakes Convention will be held in Stevens Point on April 7-8. More details will follow in future issues of Lake Tides.

WHY DO WE ENJOY WISCONSIN'S LAKES?
Survey results

In the summer of 1993 the Lake Tides staff surveyed its readers for their opinions on a variety of questions pertaining to lakes and Lake Tides. One of the survey questions asked for the primary reason the respondent enjoyed lakes. Of 2,334 respondents, an overwhelming 78% picked peace and quiet or enjoying the natural beauty as their top choice.

We were surprised and pleased to hear how much our readers enjoy and use L.T. We received generous and positive comments on the publication's content, format, and style. A surprising statistic was that 73% of our readers share Lake Tides with an average of 3.08 other people. If we take a little liberty in extrapolating that fact, we could say that Lake Tides reaches 46,250 people in the "Polka" State.

For a complete copy of the survey results, mail a self addressed stamped envelope (with $.52 postage) to UWEX-Lake Management Program, CNR-UWSP, Stevens Point WI 54481, or contact your county Community Resource and Development Agent.

SPONGILLA MEETS GODZEBRA

Weird ways to control zebra mussels

Recent widely publicized reports of freshwater sponges potentially solving the growing zebra mussel problem in the Great Lakes and inland waterways are oversimplified and grossly overstated. Numerous Wisconsin newspapers carried stories in March and April with headlines like, "Sponges may rid lake of mussels" and "High noon for zebra mussels." Unfortunately, the stories were misleading.

For the past two years several scientists have observed abundant sponge growth on beds of zebra mussels in the Great Lakes, which is unusual because sponges had previously been scarce. But since zebra mussels are "keystone species" capable of producing major changes in lake communities, a sudden increase in sponge numbers is not, in itself, surprising.

What hasn't been reported by the newspapers is that sponges probably don't harm the zebra mussels to which they are attached. If zebra mussels were actually bothered by the sponges, they could crawl to another location as readily as a snail.

Other widely reported "solutions" to the zebra mussel problem include cayenne pepper in paint, African soapberry as a "natural" molluscicide, and black carp.

Aquaculturists in Missouri and Arkansas suggest that black carp, native to Asia, should be raised as a means of controlling zebra mussels. They claim these carp are able to eat a mollusk the size of a golf ball. In response, the American Fisheries Society passed a resolution stating that management agencies should "take immediate steps to eliminate all existing North American populations of black carp." These solutions are as full of holes as a... sponge.

How Soon Will Zebra Mussels Enter Your Lake?

The nature of the zebra mussel invasion is changing. In the past five years this invader has spread rapidly through commercial waterways of North America. Less recognized is that these sightings have occurred in a small number of connected river systems.

Settled zebra mussels have been found in only ten inland lakes in North America that were not connected to infested waters via a navigable waterway. No settled zebra mussels have been found in any inland Wisconsin lake.

European experiences suggest that the spread of zebra mussels to suitable inland lakes has occurred slowly. One European scientist recently estimated that of approximately 500 suitable inland lakes in Belarus, only 20% have been colonized by zebra mussels.

This means that the spread of zebra mussels to inland Wisconsin lakes may occur slowly and be more easily contained than is believed. Two actions will help: 1) encourage boaters to prevent the spread of zebra mussels by cleaning boats and trailers; 2) effective monitoring efforts to document the rate of spread and identify infested waters.

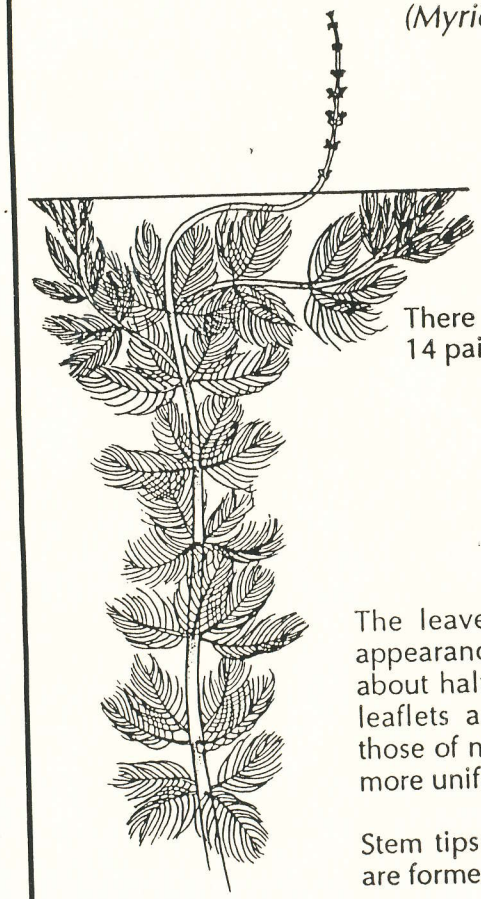
Contributed by Cliff Kraft, UW-Sea Grant, Green Bay.

Recognizing Eurasian Water Milfoil

As Wisconsin waters warm up this spring, one of the first submersed plants to start growing is Eurasian water milfoil. This is a good time to check your lake for this non-native problem plant while water clarity is still good. The best opportunity to control Eurasian water milfoil is when it first appears in a lake and the pioneer colonies can be removed. This illustrated guide should help you distinguish Eurasian water milfoil from native plants that are commonly confused with it.

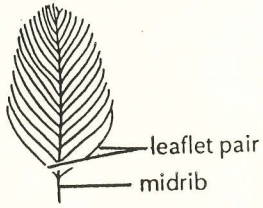
Eurasian water milfoil

(Myriophyllum spicatum)



Eurasian water milfoil is a submersed aquatic plant with feather-like leaves arranged in whorls (circles) on the stem.

There are usually more than 14 pairs of leaflets per leaf.



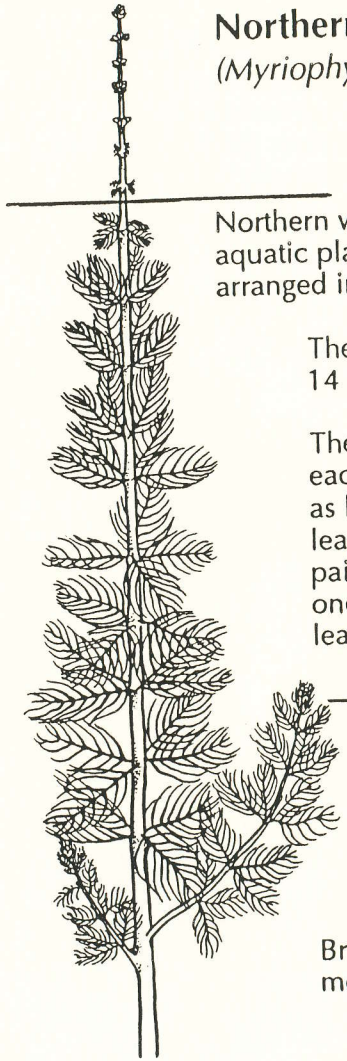
The leaves have a distinct feather-like appearance, with the lower leaflet pairs about half the length of the midrib. The leaflets are more equal in length than those of northern water milfoil, creating a more uniform leaf margin.

Stem tips are tassel-like. No winter buds are formed.

Branching is abundant in water 3-10 ft. deep.

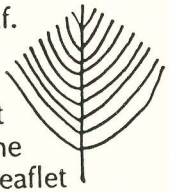
Northern water milfoil

(Myriophyllum sibericum)



Northern water milfoil is a submersed aquatic plant with feather-like leaves arranged in whorls on the stem.

There are usually less than 14 pairs of leaflets per leaf.



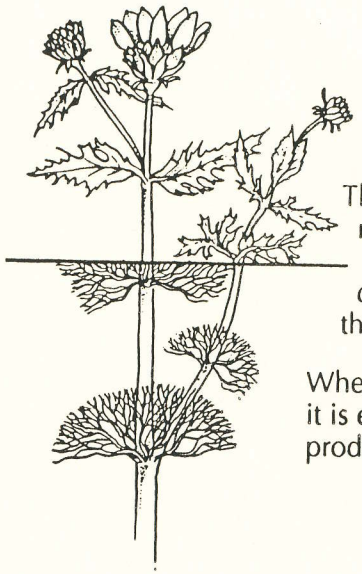
The lower leaflet pairs of each leaf are often almost as long as the midrib of the leaf. Because the lower leaflet pairs are longer than the upper ones, the overall shape of the leaf is "tree-like".

Stem tips may have a knob-like appearance.

Winter buds are formed that taper to a point.

Branching is sparse in water more than 3 ft. deep.

Native Aquatic Plants Sometimes Confused with Eurasian Water Milfoil



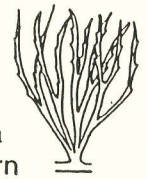
Water marigold
(Megalodonta beckii)

The submersed leaves of water marigold are arranged in whorls and cut into many thread-like divisions. Leaves that grow above the water surface are not divided.

When water marigold is in bloom it is easy to recognize because it produces yellow, daisy-like flowers.

Coontail
(*Ceratophyllum demersum*)

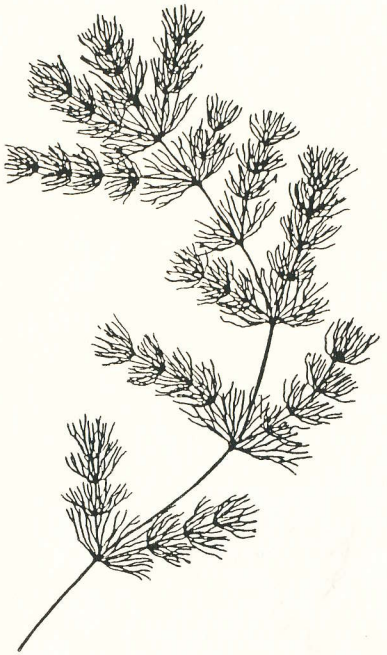
Coontail is a free-floating aquatic plant without roots. It may be completely submersed or partially floating on the surface.



The leaves are stiff and arranged in whorls.

Each leaf is divided in a repeatedly forked pattern and the leaf divisions have teeth along one margin.

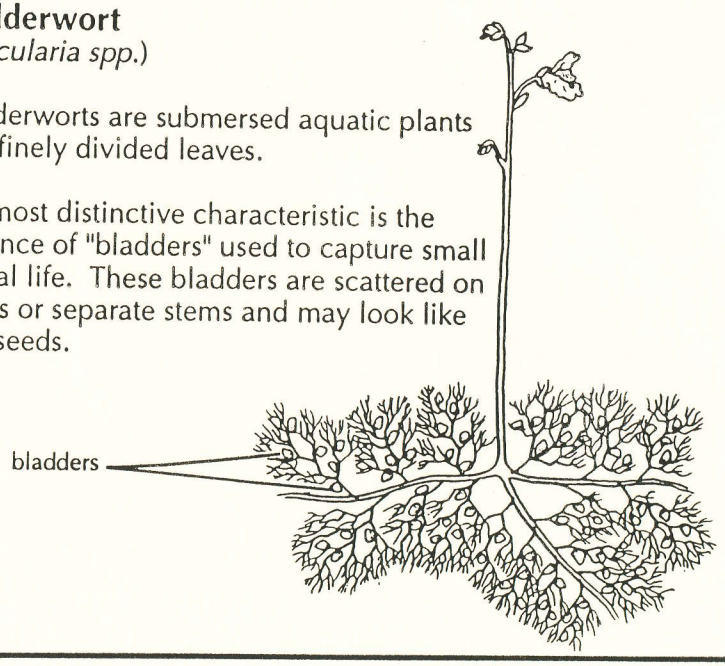
Leaves are more crowded toward the tip of the stem creating the "coontail" appearance.

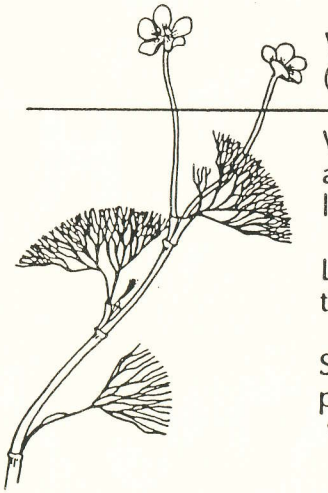


Bladderwort
(Utricularia spp.)

Bladderworts are submersed aquatic plants with finely divided leaves.

The most distinctive characteristic is the presence of "bladders" used to capture small animal life. These bladders are scattered on leaves or separate stems and may look like dark seeds.





Water Crowfoot
(*Ranunculus spp.*)

Water crowfoots are submersed aquatic plants with finely divided leaves.

Leaves occur alternately along the stem, not in whorls.

Small buttercup-like flowers are produced that stick up out of the water.

NEW KIDS ON THE BLOCK

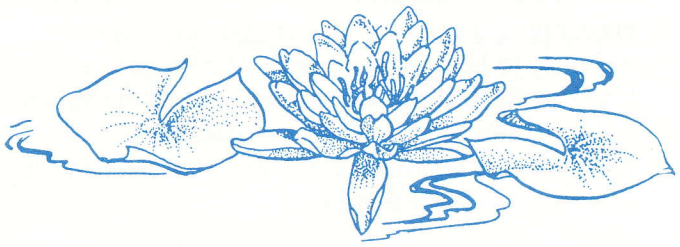
Going eutrophic may be a little tougher for our lakes with the hiring of four new lake professionals:

• **John Panuska** recently replaced Richard Wedepohl as engineer and computer modeling specialist with DNR's central office in Madison. John did his graduate work in engineering at the University of Minnesota and brings with him an extensive background of work in the public and private sector. *"My interest in lakes began in high school. I took an ecology class that turned out to be more limnology than ecology and found myself hooked on lakes. My journey began at the University of Minnesota at Morris—I didn't learn much about engineering but the liberal arts program there gave me the tools I need to do people-friendly engineering. I'm pleased to be the new engineer in the lake management program."*

• **Wil Burns** is the Wisconsin Association of Lake's new Program Coordinator. His duties consist of maintaining the WAL database, organizing meetings and conventions, and coordination of fundraising efforts. Wil received his B.S. in Political Science from Bradley University and has worked as Director for the Pacific Center for International Studies, Berkeley and Madison, and Environmental/Public Affairs Director for Earth Care Paper of Madison. *"For the past decade I have focused on marine conservation issues as Director of a think-tank in Berkeley, CA and Madison. During my travels throughout Wisconsin in recent years I discovered that many of the lakes in the state that I have come to love were being ravaged by some of the same factors which have devastated the world's oceans. As Program Coordinator I hope to help WAL grow, as well as meet the needs of the lake organizations on the front-lines in preserving one of our state's most precious resources."*

• **Libby McCann** fuses her diverse talents with the Lakes Program through UW-Extension as the coordinator for the brand new Adopt-A-Lake Program; she operates out of UW-Stevens Point's College of Natural Resources. Libby graduated with a biology degree from Rhodes College in Tennessee and received a MS in Resource Policy from the University of Michigan. Libby has worked with a variety of environmental outreach programs across the nation. Most recently she worked with the New Jersey School of Conservation teaching students and their teachers environmentally-based interdisciplinary courses. *"I'm excited about working with teachers and other adult youth group leaders interested in promoting the value of lakes among youth through hands-on lake protection activities. I'm still in the midst of investigating my new home in Wisconsin, so if you have any suggestions on places to visit, I'd love to hear from you!"*

• **Carroll Schaal** is a lake planner for the DNR's central office in Madison. His duties include providing support to the districts for the lake management grant program, aquatic plant management and the federal Clean Lakes program. Carroll comes to DNR with degrees in biology and planning. After graduating, Carroll spent six years doing environmental and stormwater management planning for Lake County, IL. Regarding his unique educational background, *"I realized early that effective natural resource management has to address social, political and economic influences and took a risk that the combination would be marketable career-wise. I'm looking forward to working with the Wisconsin Lakes Program."*



Bierman Appointed to Land and Water Conservation Board

Mary Bierman, a resident of Forest County, Butternut Lake, has been nominated by Governor Tommy Thompson and confirmed by the senate, for a position on the Wisconsin Land and Water Conservation Board. Her appointment is for a two-year term.

The Land and Water Conservation Board was previously known as the Land Conservation Board. The name was changed and the number of Board members expanded as Legislation was passed in the fall of 1993 which expanded the duties of the Board to include supervision of the Nonpoint Source Pollution legislation and other water related activities.

In the past the Board's duties were mainly advisory except for its farmland preservation duties of certifying county agricultural preservation land and zoning ordinances.

The Board's mission has been expanded and now it states the Board will determine the Nonpoint Source Program's spending, new selection, evaluation and oversight of ongoing and new projects, in addition to its previous duties.

Mary Bierman is a member of the Wisconsin Association of Lakes Inc. Board of Directors, the President of the Forest County Association of Lakes, Inc. and the Butternut-Franklin Lakes Foundation Inc. She has been actively involved in lake issues in Wisconsin for over 20 years.

Clean Lakes Cut

This year as in the past the Clean Lakes Program funding has been cut from the EPA's proposed budget. Concerned citizens and professionals from across the nation have launch a FAX, phone and letter writing campaign to encourage their legislators to support a $10 million appropriation for Clean Lakes (section 314) funding.

Wetland Protection Month

The U.S. Environmental Protection Agency is coordinting a national effort to commemorate an American Wetlands Month in May. Governor Thompson supports this effort and has declared May1994 to be **Wetland Protection Month** in Wisconsin. In his proclamation, the Governor is encouraging public and private groups to sponsor activities to help all Wisconsin citizens gain a better understnading and appreciation of the values and functions of Wisconsin's wetlands and to recognize the importance of wetland protection for Wisconsin's future generations.

Eurasian Water What?

Milfoil survey results...

Those of you who attended the 1994 Lakes Convention in Oshkosh may remember filling out a questionnaire on Eurasian water milfoil. The Lakes Section of the Wisconsin DNR was interested in finding out how much knowledge lake users have about the plant. For the most part people were aware of the plant and its destructive habits. One hundred twenty five peopled filled out the 10-question survey and 97% had at least heard of Eurasian water milfoil.

Most of those who knew about the exotic plant had seen DNR or Extension publications and/or presentations. Forty-two precent knew that milfoil would not colonize every lake it was introduced into. Concerning management of the plant, 54% preferred to use control methods like mechanical harvesting and raking rather than chemicals. For a complete copy of the survey results contact Brad Johnson, WDNR-LM District, 1125 Military Ave. PO Box 10448, Green Bay WI 54307.

ON SILENCE...
Quiet Talk about a Precious Commodity

Silence is music of the self. When I was a kid I wondered how it was that old people could sit in a chair doing nothing the least bit interesting. Not even listening to the radio. Just sit there. Rocking.

Silence is how great emotions work. Silence is why we can go to a funeral home and just sit there. The place so quiet you hear the tick of a wristwatch, and somebody's sob catches on something down inside us.

All the awful feelings a person can have are silent: sadness, melancholy, sorrow, hate, disillusion, despair, pity. Silence is not the only way to carry hurt, but it's the most common.

Silence also is the core of wilderness. Silent is the night, the stars, the crossing planets, the fiery meteor, the patient moon. Why then is humankind so noiseful, when to our witness all that is eternal and powerful, is so...so... quiet?

Silence can not be alloyed or welded to other ideas; painted perhaps, tinted with bird song, wind, rain. Pure, uncut silence is too raw to bear. Nature is silent because stealth must be. Noise is for the victims and the prayerful.

Silent are the trees. Of all creation, trees do silence best. They grow and suffer, live, go crippled and die without a single proclamation. For this we find trees admirable and, indeed, we think trees are heroic.

Of silences, the sea is good. Why else would Melville speak of it and know it so well?

The best silence of all is snow. None else so expert, so complete, so entire as snow. Snow can hush the countryside when nothing else can, this is why snow has so many admirers.

Sunset silence is uncertain. A catbird will pollute it, also the whip-poor-will, the starling, the mourning dove. Quality silence is not available here, though it is well-attended all the same.

A window can do silence. Combine smoking a pipe by a window and the silence is broad and fine-grained.

Other silences? A chair on a porch can do it, a treehouse, trout rod, a drifting fishing boat, a deer rifle (save one brief moment) and surely the bow season. A hunter knows silence and must.

Silence has no commercial value. Silence has no ambition but for more. Unless you are a mime, you can not earn a living doing silence. Silence can not be built, only unbuilt.

Wisdom is silent too. In fact, silence is how wisdom is measured. The wise are silent more often than they are opinionated. We learn this sooner or later, usually later. Learn what silence means when we wish to be wise.

Silence has its tools and its untools. The automobile is an untool, a walk is a tool. The Walkman is an untool. So too is cordless anything. CB, CD, VCR, HDTV, coaxial, stereo, Bose and booze. A motorcycle is an untool although a motorcycle garage reduced to its elements can be a tool of silence, the same as a church pew.

The pen is a tool of silence. And the diary. Add the canoe, coffee pot, cemetery, injury and old age. Poems require silence as does bankruptcy, mourning, beauty, anger, worship, invention, love, loneliness, and maybe a couple others.

So why isn't there some public right to silence and some public agency responsible for preventing its contamination by the eager and quick? Healthy citizens require clean silence as much as they need clean air. As with all natural resources, silence is harder to fix than it is to spoil.

Essayist Justin Isherwood writes about nature and our nature from his Plover, Wisconsin farm.

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CALENDAR -- May is National Wetland Protection and Water Awareness Month!!

May 28-June 24
Northern Waters Exhibit - LRC Gallery, Nicolet College, Rhinelander (contact Joan Slack-Debrock, 715-277-2773) and Northern Waters Festival (June 4) at Nicolet College.

LAKE FAIRS

June 4: **Dunn County/Tainter & Disabled Fishing Event**, Lakeside Park, Menomonie.
Marty Havlovic UWEX-Dunn County (715-232-1636)

June 18: **Northwestern Wisconsin (Burnett County)**, Forts Folles Avoine, Webster.
John Preissing UWEX-Burnett County (715-349-2151)

June 18: **Lake Ripley**, Ripley Park, Cambridge.
Ron Kroner, Lake Ripley Priority Watershed Project Director (608-423-4537)

June 25: **Shawano/Menominee**, Shawano Lake County Park, Shawano.
Jim Resick UWEX-Shawano County (715-526-6136)

July 9: **Dodge County**, Waterworks Park, Beaver Dam.
Dave Neuendorf UWEX-Dodge County (414-386-3790)

July 16: **Central Wisconsin (Waupaca/Tomorrow River Watershed)**, Weyauwega-Fremont High School.
Tom Wilson UWEX-Waupaca County (715-258-6230) or Tom Blewett UWEX-Portage County (715-346-1319)

July 23: **Polk County**, Paradise Supper Club, Balsam Lake.
Tim Hergenson UWEX-Polk County (715-485-3136)

July 28: **Northwoods (Vilas, Iron, Oneida & Forest Counties)**, Riverview Park, Eagle River.
Bryan Pierce UWEX-Oneida Co. (715-369-6160), Sheila Landsverk UWEX-Forest Co. (715-478-2212), Cathy Techtmann UWEX-Iron Co. (715-561-2695) or John Seibel, WAL (715-479-4714)

August 20: **4-Corners (Washburn, Sawyer, Barron & Rusk Co.)**, Hunt Hill Audubon Sanctuary, Washburn.
Beverly Stencel, UWEX-Washburn County (715-635-3192)