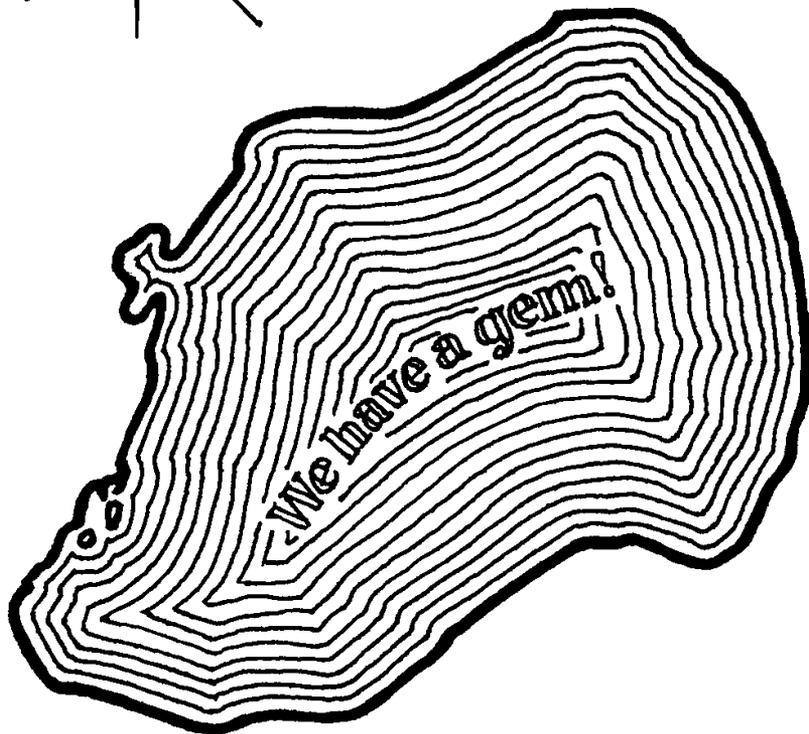


# The Grindstone Trumpeter

April 2001



The Grindstone Lake Association  
is a community of neighbors  
dedicated to promoting the  
preservation and enjoyment  
of our precious lake !

**Grindstone Lake Association  
Board of Directors  
2000-2001**

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Eric Nilsson ..... 715-634-7145  
651-646-8850

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Ray Moeller ..... 715-634-4911

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Roger Rickard ..... 715-634-5042

Emily Haddad ..... 612-667-3891

**Newsletter**

Camille Venners ..... 715-634-8614  
507-289-2885

# Mission Statement

The Grindstone Lake Association was organized:

- To Inform
- To Enhance the Community
- To Protect the Environment around Grindstone Lake

## President's Message

### Thinking “ROOFTOPS” and “SHORE PLANTS”

Years ago when we held the organizational meeting for the Grindstone Lake Association, several dozen people squeezed into the Bass Lake Town Hall to talk about the main concerns regarding the lake. Water quality was one of the hot topics, and a number of people claimed emphatically that the cranberry bog and non-compliant septic systems were principally to blame for water degradation over recent years. The cranberry people worried that soon a group of pitchfork-wielding environmentalist vigilantes would descend on their bogs and older residents on fixed incomes and old septic systems figured it was only a matter of time before Association activists would start a petition drive to have the county test everyone's system — and

require expensive upgrades.

Thanks to the recently completed comprehensive water study that was funded by the LCO Tribe and supervised by Dan Tyrolt of the LCO conservation office, we have far better information than the purely anecdotal observations and speculation that fueled the discussion a decade ago. Granted, many variables exist, and when a host of environmental factors converge, it is difficult to achieve absolute scientific certainty about cause and effect, but I dare say that we are substantially better informed today than we were on that day back at the Bass Lake Town Hall.

Elsewhere in this newsletter, you will find a summary of the findings that Dan Tyrolt presented to the GLA board of directors last August. The bar graph depicting sources of phosphorous captures the essence of those findings. Simply stated, here's what we learned: (1) the main cause of water degradation is excess phosphorous; (2) a certain amount of phosphorous occurs naturally; (3) of the “unnatural” phosphorous in Grindstone Lake, the main sources are (a) agricultural lands many miles from the lake but within our “gerrymandered”

watershed; (b) “thin” vegetation along our shoreline; and (c) runoff from impervious surfaces, namely, our roads and roofs. Sure, the cranberry bog contributes some phosphorous, but in the overall scheme of things, it’s a smidgeon, thanks to sound management practices and the open (as opposed to confined cove, bay, etc.) shoreline on which the bog sits. Likewise, if we assume that, consistent with findings on other lakes, as many as 20% of the septic systems around the lake are failing, these non-compliant systems are also a relatively minor source of degradation.

Don’t misinterpret me. It behooves us to ensure that the cranberry bog owners do not abandon “best practices,” and we must assume individual responsibility for proper maintenance of our septic systems. However, we can achieve the biggest bang for our buck if we focus on runoff and shoreline vegetation. Who at that organizational meeting a decade ago, was thinking “rooftops” and “shore plants” when we were blaming the cranberry bog and failing septic systems for the present and future threat to our water quality?

So, now that we know where to focus our efforts, what can we do? For starters, enhance our shoreline vegetation buffers. Let the trees be, and allow natural grasses and vegetation to flourish along the shore. Attach rain gutters to our roofs and connect the gutters to easily installed dry-wells. Keep an eye on indiscriminate development, not only on the lakeshore itself but anywhere within our 10,000 acre watershed. Oppose attempts by developers to obtain variances that would allow greater building density. Hope that a drop in the price of cranberries doesn’t force the cranberry bog owners to sell out 3,000 feet of lakeshore on which

innumerable square feet of impervious surfaces – rooftops and driveways of new lake homes — would inevitably replace the bogs. Hope that engineering firms out for a big profit don’t lobby local officials to create a water and sewer district that would install a multi-million dollar sewer system, which, in turn, would allow many more rooftops and driveways to be developed within our watershed.

The water quality study doesn’t tell us everything, but it establishes a benchmark and it tells us what are priorities should be to preserve our liquid gem, Grindstone Lake.

by Eric Nilsson



Cover: The graphic on the newsletter cover was designed for the Grindstone Lake Association by artist, Herb Keiffer. Herb is a resident of Grindstone Lake and graciously agreed to work with GLA to create a unique image to serve as a logo. Final renderings are not yet completed but watch for his finished work on the cover of the next newsletter.

*The following article, written by Terrell Boettcher, appeared in the July 12, 2000, Sawyer County RECORD. It is reprinted with his permission.*

*The Grindstone Lake Association would like to note that Mr. Burgess is not a lobbyist. More accurately, the Wisconsin Association of Lakes, with which he is associated, is an organization that employs lobbyists.*

# State lakes group lobbyist updates Grindstone Owners Association

by Terrell Boettcher

At their July annual meeting, Grindstone Lake Shore Owners Association members heard a report from the Wisconsin Association of Lakes (WAL) legislative chairman about state-wide issues which WAL has been dealing with.

James Burgess, who has a home on nearby Lac Courte Oreilles, outlined a "short laundry list of issues".

1) Eurasian water milfoil, a weed that's finding its way into northern lakes. "It is very threatening and dangerous," Burgess said. "It is transmitted in a variety of ways — by birds, animals, and boats that move from lake to lake. For way

too long, the DNR has not paid adequate attention to information systems, to notices, penalties, and enforcement to try to control it."

Round Lake, Burgess added, "now has a big milfoil island, and it will be a problem for years ahead. We need to focus more attention and enforcement on controlling and fighting milfoil."

2) Personal water craft (PWCs, also called Jet Skis) "has been an issue through out state, and the legislature is hearing more about it and is interested in it," Burgess said.

"Everybody likes to kick around the jet ski people," he added. "The people who don't like PWC

activity greatly outnumber the people who do like it. There has been some legislation and court cases that now for the first time allow statutes to separate motor boats from jet skis. Previously, they had to be lumped into the same rules.

"There are and will be legislative proposals to continually restrict the use of personal water craft, partly by distances from other boats, docks, and shores (now there is a 200-foot no-wake zone), partly to limit the number of hours they may be on lakes, depending on the size of the lakes and the interest of the lake-shore owners; and to restrict their use to certain days of the week, Burgess said.

“3) Dockominiums have not been an issue up here — but they will be,” Burgess said. “We need to be informed about it.”

A dockominium is a dock with individual boat slips which are sold to the users. On Lake Geneva, for example, there’s a 350-boat dockominium,” Burgess said.

“Constitutionally, the people of Wisconsin own all the water everywhere in the state,” Burgess added. “So who has the right to sell a dock slip? It’s a contentious issue.” “If you allow Grindstone Lake to have 2,000-3,000 more boats because of these slips, what happens to the environment of the lake? As land becomes more dear, more difficult and expensive to acquire, people will more often live off the lake and buy a dock slip.

WAL has been in court for six years on this Lake Geneva issue,” Burgess indicated. “We’re determined to guard against uncontrolled growth of docks beyond what is reasonable for the use of shoreland owners,” as defined by the Department of Natural Resources.

4) Lake classification: “We’re helping counties come to grips with selective management of lakes based on their level of risk;

Burgess said. “Sawyer County is a leader” in this, with a lake classification system incorporated into its zoning ordinance.

5) Shoreland restoration: “WAL offers materials “on how to manage your shoreland.” Burgess said. “We’re trying to convince people who come from the city to leave the city behind when they come here to experience the Northwoods lakes, and to leave the lawn mower at home.

“It’s a difficult sell,” Burgess added, “because people who come and put up beautiful new homes on these lakes tend to want to landscape them, to have gorgeous yards. There are all sorts of fertilizer and run-off risk. So we’re trying to encourage people to voluntarily put in a 30-foot wild strip on the edge of the lake.”

6) Cranberry issues: “This is very contentious, because we have good neighbors who are cranberry growers,” Burgess said.

WAL and many lake associations are in the legislature attempting to either repeal or modify the 133-year-old law “which exempts cranberries from all oversight of the water that flows from their bogs into the lake,” Burgess said.

“The effort was unsuccess-

ful in the past legislative session, as were almost all legislative bills on anything,” he added. “The two parties (Republicans and Democrats) spent so much time fighting each other that very little was accomplished.

“We think we have some work to do to put cranberry bogs on the same agricultural and residential footing as everybody else.” Burgess said. “Sawyer County has a lot of cranberry operations. And even though these are not good years for cranberry market prices, the acreage of cranberry bogs statewide has grown significantly.”

According to the Wisconsin Cranberry Growers Association, they and all farmers are not exempt from state environmental regulations that pertain to surface water quality, wetlands, pesticide use, fuel storage, groundwater quality and common-law restrictions on water use.

The “Cranberry Law allows growers to access water for their operations. With this right comes the responsibility of returning it in accordance with applicable state and federal water quality standards,” the association said. “Any agency can and does monitor this water for

quality. The DNR has never been denied access to a cranberry marsh to investigate environmental problems.”

They add that “The Wisconsin DNR and Department of Agriculture are in the process of adopting stricter rules regulating nonpoint pollution — changes supported by the cranberry growers.

7) Burgess said that a percent of each dollar of state gasoline tax at the pump goes into boating, and that WAL is “very busy trying to change the formula, because there are more and bigger boats out there, so the percent of tax going to boating should be greater.”

The money goes into a fund for projects related to lakes — boat ramps, shoreland restoration pilot projects. “There are millions of dollars in this fund,

to repair damages from past use and from new development on lakes,” Burgess said.

8) Mercury pollution, which comes into lakes from the air, and is carried from emissions from coal-burning factories and power-generating plants. Some comes from Wisconsin and some is blown over from other states.

The effect of this, Burgess said, is that “There are now fish-eating warnings on hundreds of lakes in Wisconsin. That’s a sad commentary. When it rains, mercury washes into lakes. It builds a permanent mercury level in lakes, and goes through the food chain into the fish.”

In the past legislative session, a compromise between industries and environmentalists to reduce and put a cap on emissions “died because legislators

got tired and went home,” Burgess said. But, “It will be back.”

9) Boating laws. Since the DNR can’t be everywhere to enforce boating laws, Burgess said, “Its up to you (the lakeshore owners) to educate in a thoughtful, constructive way the fact that people are interfering with the pleasures of other people, and say, ‘Please stop.’ This organization can be instrumental in that.”

Lake associations can organize a boating committee, as has been done on Lac Courte Oreilles, to do this education, placement of ‘Danger’ and ‘No Wake’ buoys etc., Burgess said. They wear bright-orange shirts. But “Don’t try to be amateur cops,” he added. “Make yourself very visible, but no guns, no pitchforks.”





# Fish Crib Project

The cribs were then transported by DNR boats and placed in 14 to 22 feet of water.

The Fish Crib project has spanned four years, beginning in 1997. This last effort has increased the total number of cribs to 236. Cribs placed in 1997 numbered 26, 150 in 1998, and 25 in 1999.

Volunteers have made this project a success over the years and more willing hands are always welcome. This activity is a great way to be involved with your neighbors and meet new lake friends.

Since we coordinate our efforts with the DNR, we are not always able to drop

the cribs on the projected day but we plan on the first Wednesday in August, whenever possible.

Frank Pratt will have information regarding a Grindstone Lake creel report in the spring.

Funds to sustain the project have come from the Grind-

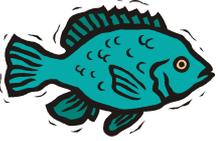
stone Lake Association, the DNR, Wall-eyes of Northern Wisconsin Association and some privately offered donations.

Plans are again in place for the year 2001. Thanks to all our volunteers for their time and commitment. It is very much appreciated.

Bruce Johnson



On August 23, 2000, an additional thirty-five fish cribs were placed on the southeast shore of Grindstone Lake. Twenty volunteers arrived at the Waterfront Restaurant to assist the DNR with the assembly and installation of the 4x4x6 foot plastic cribs. After the assembly, and before being dropped into the lake, brush collected by GLA members was placed inside the cribs.



# GLA Membership Report

It is rather shocking to find that only about 25% of our Lake residents are members of the GLA. How can we carry out the goals and aims of the Grindstone Lake Association, that represents all of us, if we don't have a much greater membership participation? In other words, it is up to all of us to encourage membership and participation by word of mouth and through our own participation. There's that word again . . . participation.

Rick has generously allowed us to use Waterfront Restaurant for our annual summer meetings for many years and we are very appreciative. However, as we have grown our group has spilled out the door in recent years. Due to additional space considerations, our annual summer meeting in 2001 will be held at the Bass Lake Town Hall so we can better serve our growing membership.

Join us! We will explain our findings on lake clarity, fish cribs, and milfoil concerns. Coffee is served and members have an opportunity for fellowship before and after the meeting.

My goal as membership chairperson is to see all of you at the annual picnic, the July 4th fireworks (weren't they great last summer!) and the fish crib installation day. Remember, participation can be fun as well as work!

Please let me know if you have new neighbors so we can welcome to the Hayward Grindstone Lake area and include them in our mailings.

Mary McJoynt

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## Eurasian Water Milfoil



*This information is reprinted from Wisconsin DNR publication WR-463-96-REV. In Sawyer County, the waters of Big Round Lake and the Chippewa Flowage have already been invaded by Eurasian Water Milfoil. The Grindstone Lake Association hopes that continued education regarding Eurasian Water Milfoil will help preserve our lake from this threat.*

### THE DILEMMA:

Exotic species disrupt the stability of natural ecosystems and threaten biodiversity. An exotic species of special concern for lake users is Eurasian water milfoil. Eurasian water milfoil was introduced into North America and has spread to lakes across the nation. This exotic plant has invaded lakes in 35 states and in 3 Canadian provinces. In Wisconsin, the plant can be found in at least 235

sites in 43 of the state's 72 counties.

Eurasian water milfoil replaces native aquatic plant communities and forms thick underwater beds of tangled stems and vast mats of vegetation at the water's surface. These dense beds cause loss of plant diversity, degrade water quality, and may reduce habitat for fish, invertebrates and wildlife. They also hinder boating, swimming and fishing. Many lake organizations and local governments devote much of their lake management budgets to control this exotic plant. Eurasian water milfoil is an affliction that costs the citizens of Wisconsin millions of dollars in plant control and lost tourism revenue annually.

### **HOW DOES IT SPREAD:**

This prolific plant doesn't spread well by seeds. It spreads by shoots and runners that creep along the bed of lakes and rivers. New plants also grow from small fragments transported from lake to lake. Commonly it's transported by boats and trailers but could also be transported on SCUBA gear, water skis or waterfowl. Eurasian water milfoil has become a successful invader primarily by means of its stem fragments. A single fragment can take root and form a new colony.

Eurasian water milfoil is most successful in waters disturbed by cultural developments such as shoreline construction, watershed runoff, aquatic nuisance control activities or heavy boat traffic. Eurasian water milfoil also has a competitive advantage in lakes that are stressed by pollution. It has difficulty becoming established in lakes with healthy populations of native plants. A healthy lake ecosystem and preservation of native plants is protection against a Eurasian water milfoil invasion.

### **RECOGNIZING EURASIAN WATER MILFOIL** (*Myriophyllum spicatum*):

Eurasian water milfoil is one of eight water milfoil species found in Wisconsin and the only one that is not native. The most common native water milfoil in Wisconsin lakes is northern water milfoil (*Myriophyllum sibiricum*). It bears a strong resemblance to Eurasian water milfoil but it is not prone to the rapid growth and canopy formation that make Eurasian water milfoil a nuisance.

It is important to be able to distinguish Eurasian water milfoil from other similar aquatic plants. The native plants provide valuable habitat for fish and invertebrates without obstructing recreational uses of lakes. Healthy beds of native plants also reduce the risk of Eurasian water milfoil successfully invading our state's waters.

### **THE SOLUTION:**

*There are three key elements to the control of exotic plants:*

#### **I. REMOVING THE PLANT:**

Early detection of Eurasian water milfoil growth is critical in stopping the plant from becoming a widespread problem in a lake. The best chance to halt these non-native invaders is when they first appear on the scene. Eurasian water milfoil often appears near boat landings and at disturbed sites.

New colonies are best removed before they expand. Hand pulling and removal from the water is a simple and effective control method for small areas. Harvesting, raking or screening the bottom also works well. Milfoil can be effectively treated with selective chemicals early in the summer before plants flower. A permit is required from the DNR for chemical treatment or bottom screening. Whole-

lake herbicide treatment is not generally permitted because of the potential to disrupt lake ecosystems by eliminating both exotic and beneficial native plants.

For lakes dominated with beds of milfoil, control efforts must be focused on reducing its spread. Mechanical harvesting can open areas for boating and swimming and cut fish cruising lanes. Harvesting can encourage growth of native plants while removing milfoil canopies that limit native plant growth.

New research is underway to explore biological control of Eurasian water milfoil. A small aquatic insect (*Euhrychiopsis lecontei*), a weevil native to Wisconsin, shows particular promise. It has demonstrated a preference for Eurasian water milfoil over native plants. It was first associated with milfoil decline in Vermont. More recently scientists have found it in lakes in Wisconsin, Minnesota and Illinois where milfoil decline has occurred. The distribution and natural history of this weevil is being studied and tests are being conducted to determine the role it could play in milfoil control.

## **II. STOPPING THE TRANSPORT:**

Studies suggest that Eurasian water milfoil is moved from lake to lake by small fragments transported on objects used in a lake. Commonly it is transported by boats and trailers but it could be transported by fishing equipment, live wells or water toys.

- Remove all aquatic plant fragments when leaving the water and before launching in another lake or river. Plants should be disposed of on high, dry ground where there is no danger of them establishing a new colony.
- Help establish a plant disposal station at boat landings for plant fragments that are removed from watercraft.

- Carefully inspect any equipment that enters the lake: boats, motors, anchors, bait buckets and trailers.

## **III. BUILDING AWARENESS OF THE PROBLEM**

Citizens and lake communities are the cornerstones of the struggle against the spread of non-native plants and animals. State aquatic biologists can monitor only a small number of Wisconsin's lakes each year. Citizen watches must play a role in finding and responding to new infestations with appropriate actions. Lake management organizations, the DNR and UWEX can work to educate citizens about Eurasian water milfoil.

- Pamphlets and bumper stickers explaining how to identify and remove milfoil from boats, trailers and motor propellers can be handed out at bait shops, boat landings, highway rest areas and marinas.
- Learn to recognize Eurasian water milfoil. Regularly monitor boat landings, marinas and inlets for the first sign of invasion. Report new invasions to your local DNR office.
- Be sure all boat landings are posted with Eurasian water milfoil signs that describe the plant and instruct boaters to remove all plant fragments from their boats and trailers.
- Work with your local lake association to develop an aquatic plant management and protection plan for your lake, including contingency plans in case Eurasian water milfoil is found in the lake. Help others understand the benefits of native plants and use discretion in their control.
- Organize a volunteer program to meet boaters at your lake's access areas, pass out milfoil literature, explain the

threat this plant poses to Wisconsin's lakes, and help boaters remove and dispose of plants.

- As your local lake organization about their milfoil volunteer alert program or start a lake organization if one doesn't exist.
- Share this pamphlet and your knowledge with others.

### **WHY SHOULD I HELP?**

Because of the vast number of lakes, ponds, rivers and streams in Wisconsin, citizen involvement in plant monitoring and removal of exotics is crucial in preventing the spread of Eurasian water milfoil. Our waterways are the pride of Wisconsin and belong to all of us. Your participation in Eurasian water milfoil control and prevention is essential to the successful control of this nuisance plant.

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# **Annual Grindstone Lake Association Meeting**



*Minutes ó July 1, 2000*

Under threat of rain, 82 persons crowded inside Rick Kramer's Waterfront Restaurant, and the annual meeting of the GLA was called to order by Eric Nilsson at 9:42 a.m.

Prior to the election of new members, President Eric introduced the Board of Directors. Cyndy MacIntosh, a former accountant, had offered to replace departing treasurer, Gerry Donovan. In addition to Eric Nilsson, Ray Moeller, Jo Rovelstad, Bruce Johnson, Jim Rigotti, Skip McGowan, Mary McJoynt, Ralph McGraw and Cyndy MacIntosh, the Board also nominated Jim Garvey, Roger Rickard and Emily Haddad to serve this year. The Board of 12 was approved unanimously.

Expressing the gratitude of all for

Marilyn Buman's professional editing of the Grindstone Trumpeter, in view of her resignation, Eric was pleased to announce that Camille Venners had volunteered to take on the task of getting out our newsletter!

Treasurer Cyndy reported that the GLA bank balance on June 1, 2000, was \$4,537.25. Briefly addressing the recent increase in property tax levy, President Eric said that with such a complex issue it behooves all property owners to become well informed, show up at public town meetings when possible, and express opinions fully.

Ray Moeller announced another picnic was being planned for July 22nd at the public boat landing, in view of the fact that the first, in 1999, was deemed a

great success!

Bruce Johnson reported that with 201 fish cribs (artificial spawning beds valued at \$20,000) already having been placed, volunteers were getting ready to place at least 20 more in August.

Then Jim Rigotti introduced Dan Tyrolt, LCO water biologist who has organized water quality studies the past two years for our lake association and the Lac Courte Oreilles Tribal Conservation Department. Tyrolt showed a bar chart based on collected data that revealed percentages of major sources of phosphorus loading on Grindstone Lake in 1998 from agriculture, households, wetlands, aerial and Grindstone Creek. The watershed area involves 12,000 acres of agricultural land, 6,000 acres of forest, 1,000 acres of wetlands, and extends north beyond HWY 77 and west to Highland Road. The completed study, to be presented to the GLA Board in September, includes the management plan for ways to reduce man-made sources of nutrients/pollutants coming into the lakes.

The featured speaker, Jim Burgess, retired publisher of the *Wisconsin State Journal*, chairman of the Board of Directors of the Wisconsin Association

of Lakes (WAL) and vice-president of COLA — the Lac Courte Oreilles Lake Association. His talk, written up by Terrell Boettcher for the *Sawyer County RECORD* was an inspiration to all in attendance.

President Eric Nilsson thanked Jim Burgess for his efforts in our behalf. He also thanked Rick Kramer for his hospitality, and invited all who enjoy his 4th of July fireworks display to leave a contribution on their way out.

The meeting adjourned at 11 a.m.

Jo Rovelstad, Secretary



# Mark Your Calendars !

JUNE 30, 2001

ANNUAL GLA MEETING  
BASS LAKE TOWN HALL 9:30 A.M.

JULY 7, 2001

ANNUAL GLA PICNIC  
PUBLIC BOAT LANDING  
(LUNCH SERVED 11A.M. - 3 P.M.)

1st WED, AUGUST 2001 (TENTATIVE)

FISH CRIB PROJECT DAY

# Grindstone Lake Water Quality Study Summary

The purpose of these studies is to help lakeshore property owners and public agencies identify trouble spots in order to preserve the water quality of the lake.

The water quality data collected over the last two years by Dan Tryolt, with the help of volunteers and a Wisconsin Lake Planning Grant, shows that Grindstone Lake has good water quality. However, increased conversion of forested land and natural wetlands to agricultural and residential land use, may result in increased phosphorus concentrations in the lake and produce very noticeable water quality change. Thus a baseline has been established against which future changes may be measured.

As a result of these studies a management plan to prevent further degradation of the water quality has been developed for Grindstone Lake. The plans, as proposed, includes:

1. The development of a long-term water quality goal for the lake;
2. An evaluation of different watershed development scenarios to determine acceptable (i.e., the water quality of the lake is within the established goal) and unacceptable (i.e., the water quality of the lake fails to meet its goal) development options;
3. Recommendations for ultimate watershed development relative to achieving the lake's water quality goal (i.e., minimum lot size, maximum area of impervious surface, etc.);
4. Recommendations for watershed best management practices under future

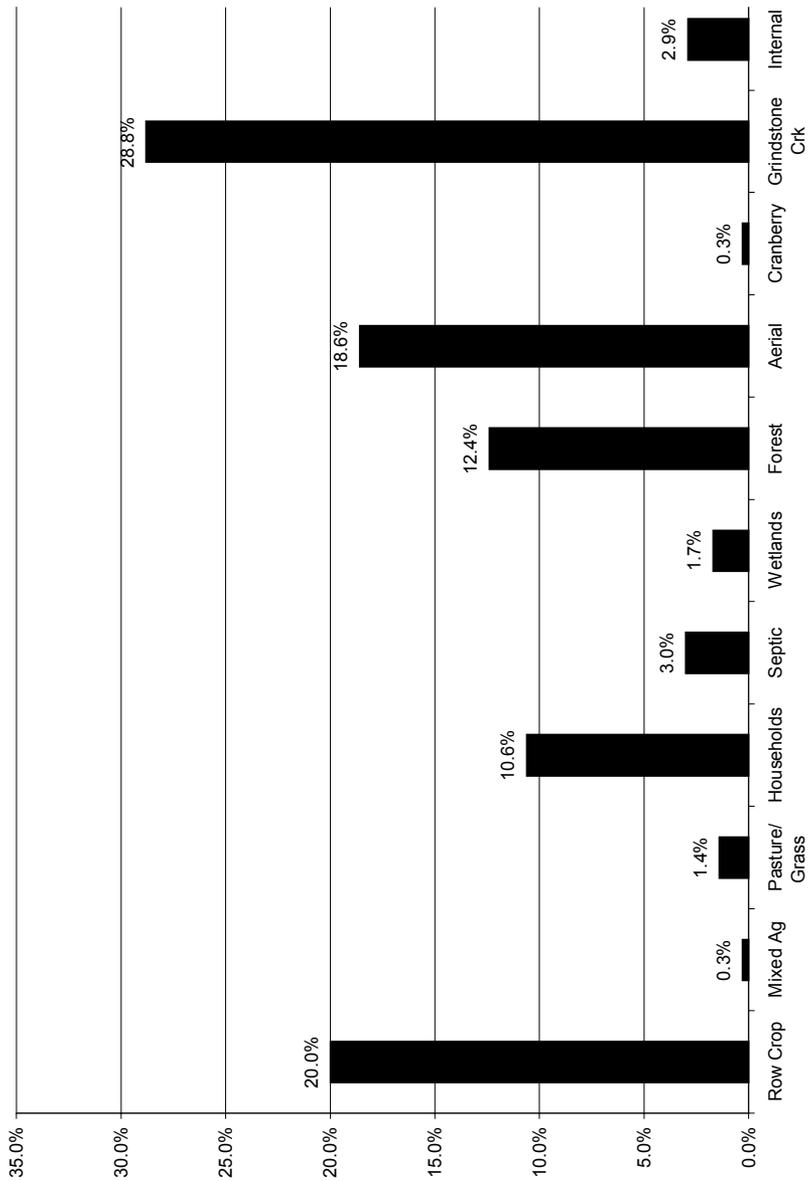
development conditions;

5. Recommendations for ordinances to control watershed development;
6. Recommendations for riparian owner management practices;
7. Recommendations for best management plans to protect sensitive lands including wetlands, steep slopes, undeveloped land, shoreline, etc.;
8. Algal study to determine species abundance and distribution;
9. A macrophyte study to determine the spatial coverage, density, and species composition of the macrophyte community. A special area of concern would be identification of Eurasian Water Milfoil;
10. Volunteer monitoring program to record long-term water quality database.

*(See chart on page 16 for model details)*



# Grindstone Lake 1998 Phosphorus Loading



# Eutrophication — What Is It?

## DOES GRINDSTONE LAKE HAVE IT? YES — CULTURAL AND NATURAL

Eutrophication or lake degradation is the accumulation of sediments and nutrients in a lake. As a lake naturally ages and becomes more fertile, algae and weed growth increases. Inflow of these sediments and nutrients from the lake's watershed will eventually fill in the lake's basin. However, cultural eutrophication is caused by human activities and is an acceleration of the natural process. Nutrient and sediment inputs from construction, houses, septic tanks, lawn fertilizers and storm water runoff can far exceed the natural inputs to the lake, causing profuse and unsightly growths of

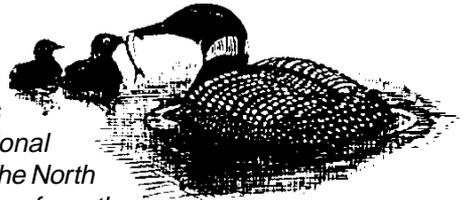
algae and/or the proliferation of rooted aquatic plants.

Creating and implementing a lake management plan prior to the development of the lake's watershed is the best way to prevent and minimize the impacts from cultural eutrophication.

The trophic status of a lake can be calculated on the basis of total phosphorus, chlorophyll-a concentrations and Secchi disk transparencies (to measure water clarity). Impairment of a lake's recreational use is most severe in more shallow water where algae grow in abundance.

# Loon Appreciation

*Loon information provided on pages 17-21 was found on the back of the 1999 Sigurd Olson Environmental Institute loon poster. The text was credited to: Top 40 Questions and Answers About Loons - A Conversational Guide to Learning About Loons by Jeff Fair (The North American Loon Fund); and Threats to Loons from the North American Loon Fund web page (<http://facstaff.uww.edu/wentzl/halo>).*



The hauntingly beautiful call of the Common Loon evokes the spirit of the North. Yet it is more than a spiritual link between humans and wild lakes. The loon is a sentinel that reflects the health of lake ecosystems. Common Loons once nested throughout the Upper Midwest, but today, loons are absent from much of their former range.

In our increasingly crowded world, loons and people must share the same lakes. Often, human activities and behaviors threaten loon survival. These threats come in many forms — from careless disposal of fishing line to depletion of food resources due to acid rain. Any effort to reduce the impact of human activity on loons, however great or small, is rewarded by the sight and sound of loons that return each year to their lake homes.

# *Loons Need People — Loons Need You!*

Imagine a northern lake without the eerie, mournful calls and stately presence of the Common Loon. Human activities are largely responsible for the disappearance of loons from many lakes, but with the help of concerned people like you, we can protect our loons and build a sustainable future for northern lakes.

## **PROBLEM: SHORELINE DEVELOPMENT**

Loons need undisturbed shoreline areas and islands for nesting, feeding and raising their chicks. As lakes become surrounded by homes, campgrounds, resorts, marinas and beaches, loon habitat becomes scarce. Buildings and other development near a traditional loon nest site can cause loons to abandon the site, often forcing them to utilize marginal nesting locations, without protective cover or shelter from weather and waves.

## **WHAT YOU CAN DO:**

Keep a portion of your favorite lake wild and free of development (the area surrounding loon nesting sites and chick-raising areas, if you know where they are). Developers and town planners often recognize the economic value (as well as the spiritual one) in having loons and other wildlife living in the area. Stay off loon nesting islands and away from shoreline nest sites. Participate in local land use planning meetings to control shoreline development on loon lakes.

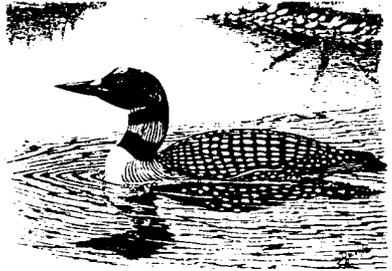
## **PROBLEM: DISTURBANCE**

Loons can coexist with some human recreational activities. However, direct harassment and heavy recreational use, especially near nests and chick-rearing areas, make the habitat less attractive to loons.

Nesting birds are easily disturbed by boat traffic, jet skis and even canoes. Because loons nest on the water's edge,

wakes from boats can wash eggs out of nests. Additionally, prolonged disturbance of slow-moving fishing boats or canoes that approach a nest and remain nearby for a long time may force an incubating loon off its nest. As a result, the developing loon chicks inside the eggs may die from exposure. Heavy boat traffic can cause some loons to abandon a nest permanently.

Thoughtless boaters have been known to chase and harass loons. Sometimes, loons are struck by boats and killed or injured. More often, loons will be disturbed while feeding, reducing their ability to meet their nutritional needs. Or, chicks may be separated from their parents, a situation which places the chicks at risk for predation or exposure.



## **WHAT YOU CAN DO:**

- Report intentional harassment of loons to your local conservation warden. Carefully document the actions
- involved including date, time, location and boat registration number.
- Educate your neighbors and visiting boaters and anglers about loons. Help-

ing others understand may be the most important thing you can do for loons.

- Help post “Loon Alert” signs at boat landings and other appropriate places on your lake. Contact your local Department of Natural Resources office or LoonWatch for more information.
- Do not approach loons while they feed in open water or are with their chicks! Watch them from a distance with binoculars or a spotting scope.
- Slow down when passing nests, but don’t linger.
- If a loon is seen “dancing” upright or giving the tremolo call, stay away. These are signals of distress.

### **PROBLEM: FISHING LINE, HOOKS AND SINKERS**

Loons have been injured and killed from becoming tangled in fishing line or ingesting fish hooks. And, they are known to ingest lead sinkers and shotgun pellets, mistaking them for the pebbles they use to help grind food in their gizzards. This can result in lead poisoning which is a significant cause of loon mortality.

#### **WHAT YOU CAN DO:**

- Don’t litter. Retrieve all fishing line, hooks and sinkers you use or find.
- Attend fishing lines and stop fishing if loons are feeding in the area. This will reduce the chance of accidentally “catching” a loon on a lure or entangling them in fishing line.
- Educate others about the problem and encourage them to properly dispose of line, hooks and sinkers.
- Purchase lead-free fishing sinkers and lead-free shot for hunting.

### **PROBLEM: PREDATORS**

Predators are a natural part of any healthy ecosystem, but some loon

predators may benefit from their adaptability to human activities. Raccoons, gulls, crows and ravens are the major predators of loon eggs and chicks. These animals are also scavengers on human refuse, and their numbers have increased as a result of the abundance of garbage near human dwellings. And, since humans and loons often share the same habitats during the loons’ breeding season, this increased predation puts pressure on vulnerable nests and eggs.

#### **WHAT YOU CAN DO:**

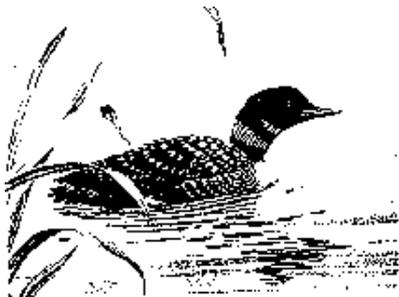
Limit food sources for scavengers. Clean up all litter, secure garbage cans and keep pet food stored securely.

### **PROBLEM: WATER POLLUTION**

Lake water quality is affected by shoreline development, agricultural runoff, logging activities, sewage and atmospheric pollution. Loons must be able to see underwater to catch fish. If lakes become cloudy or choked with vegetation as a result of excessive nutrient runoff, loons may no longer be able to fish. Acidified lakes are unable to support fish. In some of these lakes, loons attempt to raise their young but cannot find enough food for them.

#### **WHAT YOU CAN DO:**

- Become involved in maintaining good water quality in your lake through your local lake association.
- Build responsibly — if you’re thinking of building near a loon lake, plan septic service carefully and avoid clearing the lake front.
- Support legislation to protect wetlands, control acid rain-producing pollution and regulate the use of agricultural chemicals.



## LOONWATCH

Established in 1978 as Wisconsin Project LoonWatch, the program merged in 1988 with its sister organization, Minnesota Loon Preservation Project, to form what is known today as LoonWatch. As an outreach program of the Sigurd Olson Environmental Institute (SOEI) of Northland College in Ashland, Wisconsin, LoonWatch works to protect the Common Loon and its aquatic habitat through education, population monitoring and research. LoonWatch focuses its activities in Wisconsin and Minnesota, but its broader regional scope includes activities in Michigan and Ontario. LoonWatch provides public education by serving as a clearinghouse for loon and lake information, giving educational talks to lake associations and other citizen and school groups, and working with state, county and local agencies and organizations on issues related to lakeshore protection. Our annual lake monitoring program involves the commitment of more than 200 Loon Rangers who live or vacation on northern lakes and can observe and record the activities of nesting loons there. Some Loon Rangers also conduct frog and toad surveys and collect water quality information. Research and management is also an important part of our work. LoonWatch promotes and assists sound

research and management efforts on lake environments and loon populations through the Sigurd T. Olson Common Loon Research Award and through original research conducted in cooperation with the Wisconsin Department of Natural Resources and other agencies. As an affiliate member of the North American Loon Fund, LoonWatch is also involved in loon protection and education at the national level. LoonWatch helps people help loons. In today's increasingly crowded world, loons and people must coexist on the same lakes. Loons need clean, clear lakes and people who care about the quality of their environment.

Loon Appreciation Week is a festival for the Great Lakes region to celebrate and recognize the loon as a symbol of northern lakes and a beloved bird of many who live and vacation there. It is intended to be an annual event, with a unique commemorative poster being produced each year. If you have ideas for LAW activities in your area, please contact us!

*You can help keep loon music on north woods lakes by supporting LoonWatch with a tax-deductible financial contribution.*

*To obtain more information about LoonWatch and the Sigurd Olson Environmental Institute:*

- *Visit the Web*  
*[www.northland.edu/soei/](http://www.northland.edu/soei/)*
- *E-mail*  
*[LoonWatch@northland.edu](mailto:LoonWatch@northland.edu)*
- *Phone (715) 682-1223*
- *Write*  
*SOEI*  
*Northland College*  
*Ashland, WI 54806*

## **MONTHLY GUIDE FOR LOON OBSERVERS**

### **MAY**

The male loon usually returns first, after ice out, with the female following shortly after. Courtship displays consist of subtle postures, bill dipping and shallow water diving. A nest is built near the water's edge where good cover is found. The parents alternate incubating the eggs for one month. While one parent tends the nest, the other fishes.

### **JUNE**

Parents will not leave the nest for long unless disturbed. Many loons may not have a partner or have a partner but do not nest. They may be seen fishing, socializing and wandering. The hatching date of the chicks is approaching. People must resist the temptation to get close to the nest. A boat wake can wash the eggs off the nest. Chicks hatch one or two days apart and are escorted by parents to the nursery in a shallow, calm, secluded cove 24 hours after hatching. Peace and quiet are essential. Fuzzy, black chicks often ride on their parent's back to stay warm, conserve energy, and stay away from predator fish.

### **JULY**

Parents fish constantly to feed themselves and their chicks. Any disturbance of this activity hinders the loon's ability to provide for its young. Chicks are now born to parents who re-nested if the first nest failed. Three-week-old chicks turn chocolate brown. Parents encourage chicks to catch their own food by dropping fish in shallow water for the young to capture. Chicks reach one-third of adult size. Chicks become adolescent, and gray contour feathers emerge around seven weeks of age. They are left alone for short periods while their parents fish and socialize.

### **AUGUST**

Chicks are two-thirds adult size and beginning to dive and fish for themselves, although they still beg for food. August is the best time for cautious loon watching from a distance. Some chicks mistake fishing bait for an easy meal and are injured by hook and line. Parents leave their chicks for extended periods. It's almost time for the youngsters to strike out on their own. Adults teach chicks to fly by practicing take-offs. To build up flight muscles chicks row with their wings and paddle with their feet back and forth across the lake.

### **SEPTEMBER**

Parents leave their young and gather in social groups of three to 200 or more loons. They feed intensively and rest in preparation for migration. Young loons remain on the nest lake or fly to nearby lakes to find other juveniles. Loon chicks born early reach adult size. Chicks born late (mid-July through August) may not yet be strong enough to fly south before the lakes begin to ice up and will perish. Adults from the Great Lakes region begin to migrate south, flying at speeds of 60 to 100 m.p.h. Most will spend the winter in the south Atlantic Ocean off the east coast of the United States and in the Gulf of Mexico. Juveniles follow later and remain on the wintering grounds for three years before obtaining the black and white plumage of adults.

# SECOND ANNUAL





# GLA PICNIC



# **Grindstone Trumpeter**

Grindstone Lake Association

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