

# ***the vermilion sportsman***



*"Published quarterly by The Sportsmen's Club of Lake Vermilion, Inc.,  
A non-profit organization, founded in 1968 and dedicated to the improvement of Lake Vermilion"*

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**1800 MEMBERS**

**COOK & TOWER, MN**

**MAY 2008**



## **PRESIDENT'S MESSAGE...**

After one of the coldest and snowiest winters in recent history it makes one almost want to be a "snowbird," at least for a couple weeks. Spring will break out (we hope) in a few short weeks and we can start preparing for the fishing season in earnest. The annual "State of the Lake" report from the DNR is in this issue and it forecasts a good year coming up. So get all your tackle and boats ready — in other words "get the lead out" and get your boats cleaned, especially if they've been in any water other than Lake Vermilion.

Negotiations are continuing with U.S. Steel for purchasing U.S.S. property for the proposed State Park, and the necessary funding bills are working their way through the Legislature. It's a wait and see proposition right now. U.S. Steel is continuing to pursue the subdivision of that property for sale to private parties if agreement with the State can't be achieved. They did present another proposal to St. Louis County on January 25, 2008, that was a bit controversial and they were scheduled to make another presentation to the St. Louis County Planning Commission on April 10, 2008.

The Coast Guard Auxiliary's "Boating Safety Course" was scheduled for Saturday, April 12, 2008, at the Greenwood Town Hall. We had enough signed up and if all goes as expected we'll try to sponsor future courses in the summer so that more of the seasonal residents can attend. As mentioned previously, most insurance companies will give discounts on premiums for

having completed this course. We would very much appreciate hearing from our members about having a summer course — especially what time frame would be best for them. My thanks to Ed Zottola for getting this course arranged.

If you have not yet visited our new website that Jeff Lovgren has been diligently working on over the winter, please do so. I think you will find

*(Continued on Page 2)*

### **SPORTSMEN'S CLUB OF LAKE VERMILION, INC.**

#### **40th Annual Meeting and Dinner**

**Saturday, August 9  
Fortune Bay Resort**

*"Please mark your calendar  
and plan to attend."*

*Mark Holsten,  
Commissioner of the Minnesota DNR,  
will be our featured speaker.*

*Watch for reservation information in the  
July issue of the newsletter."*

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## Minnesota Waters' 2008 conference set for September 11-13 in Rochester

Minnesota Waters, the statewide coalition of lake and river dwellers and their associations, is planning its annual Lakes & Rivers Conference for September 11-13 at the Mayo Civic Center in Rochester.

Conference workshops and field trips will focus on aquatic invasive species, climate change, shoreland management, flood response and effective volunteerism. A variety of exhibitors will be showcased the first two days of the conference.

A special conference fee of \$100 has been set for volunteers. For more information, contact [info@minnesotawaters.org](mailto:info@minnesotawaters.org) or call 320-257-6630.

### • President's Message...

(Continued from front page)

it a wonderful way to keep in touch with what's happening on the lake and with the Club. I want to thank Jeff for his efforts to make our website a work of art! Our website address is: [www.sportsmensclublakevermilion.org](http://www.sportsmensclublakevermilion.org).

As I write this it's just six weeks to fishing opener. Remember to keep the snowmobile suits handy of course! Once again the SCLV will be conducting voluntary boat inspections at several of the launch ramps. If you would like to help out, please let one of the board members know or send an e-mail to the website. Thanks are due Bob Wilson, Mel Hintz, Ed Zottola and Ray Harris for shepherding this effort on both ends of the lake. Congratulations to Mel on his retirement the end of March.

We are again participating with the DNR and other agencies in sponsoring a billboard regarding "Invasive Species." This billboard is located on Highway 53 north of Virginia. Be on the lookout for it and let us know if you approve. Bob Wilson has been heading up the program to get the message out regarding invasive species and

I want to thank him for his efforts on a job well done.

Dale Lundblad is working on another item of interest that affects many of the water access only residents and late fall fishing. The Sheriff's department will let a new contract for installing/removing buoys this fall. The SCLV would like the contract to specify that the buoys not be removed until after November 1st each year. We have had many reports of boats hitting rocks, especially in the low water level years, and more late fall fishing is occurring. Again, my thanks to Dale for his efforts on this project.

Soon, we'll be selling suckers at the fish hatchery again. Harold Korpela, who has headed this project for more years than I would like to guess, will be handing over the duties to Pattie Borgstrom this year. My heartfelt thanks to Harold and Pattie for their many contributions to the SCLV.

I also want to thank Mardy Jackson for her excellent work on membership and the loon count. Paula Bloczynski, our secretary, liaison and all around organizer, has no equal. Ray Harris' effort with the navigation lights and picnic sites is outstanding. Judy Moline is really digging deep into our past and making it come alive. Dale Lundblad, Ed Tausk and Gary Lundquist all have full-time occupations that require their full attention, but still find time to contribute articles and pitch in when required. I thank them for their efforts. Also Nan Lundblad doesn't get the recognition she deserves for her work on the newsletter. Too often we overlook the contributions these members make to the SCLV and to Lake Vermilion. Each year the SCLV sponsors a dinner as a small token of our appreciation to honor our volunteer efforts. We hope that all invitees are able to attend so I can thank you in person. You are the heart of this club.

To another great year on Vermilion!  
Walt Moe, President

*My biggest worry is that my wife (when I'm dead) will sell my fishing gear for what I said I paid for it. ~ Koos Brandt*

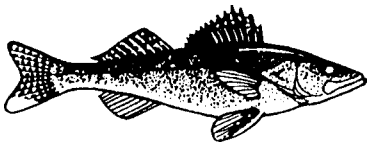
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# Summary of 2007 Fish Population Assessment on Lake Vermilion

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Lake Vermilion is part of the Minnesota DNR Large Lake Program, an intensive fisheries management program on the 10 largest lakes in Minnesota. The Large Lake Program includes annual fish population assessments, annual water quality monitoring, and regularly scheduled creel surveys. A variety of sampling gear is used during population assessments to collect the various fish species and life stages. These gear types include gill nets, trap nets, beach seines, and an electrofishing boat. Sampling for each gear type is conducted at the same time and place each year in order to determine population trends for the major species. Data is also collected on length, weight, age, and growth for each of the major species.

The walleye gill net catch in the fall of 2007 was 19.1 fish/net, well above the historical



average for Lake Vermilion. It was the second consecutive year of high walleye gill net catches. The

walleye population has been relatively high in recent years, due to strong year classes produced in 2002 and 2003. The mean length of walleye sampled by gill nets was 13.8 inches, well above the historical average. Good numbers of 14-18 inch walleye were sampled from the strong year classes produced in 2002 and 2003. The catch of 11-13 inch walleye was below average, reflecting poor reproduction in 2004 and 2005. The walleye catch was dominated by age 1 fish (2006 year class) and age 4 fish (2003 year class), which together comprised 51.1% of the catch. Strong year classes of walleye were produced in 2002 and 2003, while poor year classes were produced in 2004

and 2005. One year of netting suggests the 2006 year class may also be stronger than average. A special walleye regulation went into effect on Lake Vermilion in 2006. The regulation is a 17-26 inch protected slot with one fish allowed over 26 inches, and includes a four fish bag limit. A more restrictive regulation was adopted because of increased fishing pressure and walleye harvest in recent years. The regulation will help keep harvest at a safe level while allowing anglers to harvest eating sized walleye.

The gill net catch of northern pike was 0.6 fish/net, slightly below the historical aver-



age. Gill net catches of northern pike have historically been fairly stable at a relatively low level. The mean length of northern pike sampled by gill nets was 27.5 inches, slightly above the historical average. Reproduction of northern pike is usually fairly consistent from year to year, although a stronger than average year class was produced in 2001. It appears a relatively poor year class was produced in 2003. A special regulation for northern pike went into effect on Lake Vermilion in 2003. The regulation is a 24-36 inch protected slot, with one fish allowed over 36 inches. The regulation is part of a statewide initiative to improve the size structure of pike populations in a number of lakes across the state.

The gill net catch of yellow perch was 15.6 fish/net, well below the historical average. The low perch catch was due primarily to poor reproduction in 2004. Gillnetted perch had a mean length of 8.0 inches, well above the historical

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## Summary of 2007 Fish Population continued from Page 3...

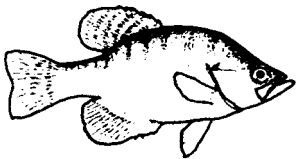
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average. The large average size reflects good numbers of perch over 10 inches in the gill net catch. The perch catch was dominated by age 2 fish (2005 year class) and age 4 fish (2003 year class), which together comprised 48.7% of the total catch. Strong year classes of perch were produced in 2001 and 2002, while poor year classes were produced in 2000 and 2004.

The trap net catch of bluegill was 27.8 fish/net, which is near the historical average. The bluegill catch was much higher on West Vermilion than East Vermilion, reflecting higher bluegill abundance in that lake basin. Trapnetted bluegill had a mean length of 5.6 inches, well below the historical average. The small average size was due to high numbers of 3-5 inch fish in the catch from a strong 2005 year class. The bluegill trap net catch was dominated by age 5 fish (2002 year class), which comprised 42.1% of the catch. Strong year classes of bluegill were produced in 2002 and 2005, while poor year classes were produced in 2000 and 2004.



The black crappie trap net catch was 2.5 fish/net, slightly above the historical average.

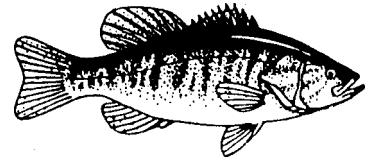


Crappie numbers have historically been relatively low on Lake Vermilion, although some areas of West Vermilion have higher

numbers of fish. Trapnetted crappie had a mean length of 8.0 inches, slightly below the historical average. Above average numbers of small crappie were sampled from strong year classes produced in 2005 and 2006. The catch of crappie over 10 inches was also above average. The crappie catch was dominated by age 2 fish (2005 year class), which comprised 35.6% of the catch. Strong year classes of

crappie were produced in 2001, 2005, and 2006, while poor year classes were produced in 2000 and 2004.

An electrofishing boat is used as the standard sampling gear for smallmouth bass because they are not often caught in standard assessment nets. The 2007 smallmouth bass catch was 59.0 fish/hour of electrofishing, well above the historical average. It was the highest electrofishing catch of smallmouth bass since 1999. Smallmouth bass sampled by electrofishing had a mean length of 8.1 inches, well below the historical average. The small average size was due to high numbers of small fish in the catch from strong year classes produced in 2005 and 2006. The bass catch was dominated by age 2 fish (2005 year class), which comprised 37.9% of the total catch. Two years of sampling suggests the 2005 year class is much stronger than average. Moderately strong year classes of bass were also produced in 2001 and 2002, while poor year classes were produced in 2000 and 2004.



An electrofishing boat is used to sample young-of-the-year walleye in the fall to monitor reproductive success for the year. The fall electrofishing catch of young-of-the-year walleye was 292.3 fish/hour, well above the historical average. Past sampling has shown high electrofishing catches usually indicate strong year classes. The mean length of young-of-the-year walleye sampled by electrofishing was 5.3 inches, which is near the historical average. Past sampling has also shown that large, fast growing young-of-the-year walleye generally produce strong year classes, while small slow growing fish produce poor year classes.

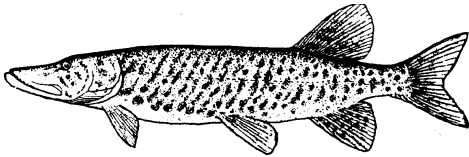
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## Summary of Fish Population continued...

Taken together, the high electrofishing catch and the average growth indicate the 2007 year class should be stronger than average.

Muskie population assessments have been done once every four years on Lake Vermilion, although future assessments will be done once every six years. East Vermilion and West Vermilion are done in different years due to the large size of the lake. Trap net catches of muskie have been gradually increasing since the first assessments were done in 1993 and 1994. The number of large fish has also been increasing. Over 15% of the muskie sampled in 2005 and 2006 were over 50 inches long. The largest muskie sampled during the 2005-2006 assessments was 54.7 inches long. The next assessments are scheduled for 2010 and 2011.



I encourage anyone who has questions about the 2007 population assessment, or other fish management questions, to contact me or stop by our office for a visit. The DNR office is located just west of Tower along highway 169.

Duane Williams, Large Lake Specialist  
MN DNR Section of Fisheries  
650 Highway 169  
Tower, MN 55790  
Phone: 218-753-2580 ext. 224  
e-mail: [duane.williams@dnr.state.mn](mailto:duane.williams@dnr.state.mn).

Between newsletters,  
stay connected with Lake Vermilion  
at our updated website

[www.sportsmensclublakevermilion.org](http://www.sportsmensclublakevermilion.org)

## **Creel Surveys Scheduled for Lake Vermilion in 2008 and 2009**

The Minnesota Dept. of Natural Resources, Section of Fisheries, will be conducting creel surveys on Lake Vermilion during the summers of 2008 and 2009. Creel survey is a scientific method of estimating fishing pressure and fish harvest from boat counts and angler interviews. The surveys are a valuable tool for managing fish populations. Creel surveys are conducted on Lake Vermilion as part of the statewide Large Lake Program, and are scheduled two consecutive years out of every six years. Previous creel surveys were done in 1984-1985, 1990-1991, 1996-1997, and 2002-2003. A DNR aircraft will be used to count boats at scheduled times throughout the summer. Two DNR creel survey clerks will be interviewing anglers by boat to gather information on the numbers and sizes of fish caught, time spent fishing, methods of fishing, and other pertinent information. They will ask a series of questions and may measure fish the angler has caught. They may also take a few scales from some of the fish for age analysis. I would like to take this opportunity to thank Lake Vermilion anglers for their cooperation during the survey. The interview process may be a little inconvenient, however the information gained is very valuable. Creel survey clerks that worked during previous surveys were very impressed with how cooperative and friendly Lake Vermilion anglers were. That cooperation is much appreciated.

I encourage anyone who has questions about the creel surveys to contact me or stop by our office for a visit. The DNR office is located just west of Tower along highway 169.

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# LOONS & LEAD POISONING

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## *A Conservation Dilemma*

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**Every year**, millions of people enjoy the beauty of Minnesota's northern lakes. That beauty is enhanced by the clean waters and ever-present loons which provide a special mystique to our northern waters with their haunting calls. Our lakes would not be the same without the loons, and that is probably why the Minnesota Legislature designated the loon as the state bird in 1961. For anglers, loons are their constant companions from dawn to dusk as they share their fishing waters and raise their chicks, often within view of their fishing boats. As darkness settles over a lake, the intriguing call of the loon continues into the night and provides a special atmosphere for people enjoying campfires and fish stories.

At the present time, it is estimated that Minnesota's loon population is about 12,000 birds, and the numbers appear stable. There are, however, some concerns that potentially threaten the long-term survival and status of loon populations. One of those concerns is the threat posed by lead fishing sinkers and jigs.

The Minnesota Pollution Control Agency did a study on loons to examine them for high mercury concentrations. The mercury study incidentally discovered that loons were dying from lead poisoning. Out of 101 dead loons that were analyzed, a total of seven had died of lead poisoning and an equal number died of fishline entanglement. The fishline problem is fairly straightforward and can be reduced by urging anglers to avoid disposing of waste fishline in our lakes. The lead poisoning problem is more complex.

Loons routinely swallow small pieces of gravel on the bottom of lakes. The gravel passes to their stomach and helps in digestion like grit in the stomach of a chicken. When fishing sinkers are lost in the course of fishing and drop to the bottom of the lake, they can be picked up by loons, or by waterfowl like ringneck ducks and trumpeter swans. Some loons also swallow fishing jigs when they mistake them for minnows. As the lead sinker or jig is exposed to

the acids of the stomach and to other pebbles, lead enters the bird's system and slowly poisons the bird.

A loon with lead poisoning behaves strangely. It may fly poorly, have crash landings or stagger onto the ground. The loon begins to gasp, tremble, and its wings droop as lead is carried through its bloodstream. As the poisoning gets worse, it may not be able to fly or walk at all. It eats very little and hides among aquatic vegetation, staying behind when other birds have migrated. Because of its weakness, it may have trouble fighting off other diseases and escaping from predators. Even when there are no clear signs of lead poisoning, a bird may still be in trouble. It may not be able to find food, mate, build a nest, lay eggs, or care for its young properly. It becomes emaciated and often dies within two to three weeks after eating the lead. It takes only one lead sinker or jig to poison a loon.



*An x-ray shows a lead jig-head in a loon's stomach. Blood tests indicated a blood lead level of 2.28 ppm. Lead poisoning occurs in birds at blood levels exceeding 0.2 ppm.*

### **Lead Poisoning of a Loon**

It started when the DNR received a report on a loon that had not migrated. It was the day after Thanksgiving, November 24, 2000, and the lake was freezing. The loon was keeping a small hole open in the ice on Big Jay Gould Lake near Cohasset in Itasca County. Members of the Cohasset Fire Department used the "ice angel" air boat and wetsuits to retrieve the loon. Early the next morning, the loon was taken to the Garrison Animal Hospital and was diagnosed with lead poisoning.

An x-ray showed that a lead jig-head was in its stomach and blood tests indicated a blood lead level of 2.28 parts per million (ppm.). By the time the lead jig was removed from its stomach, it was too late. The lead had already poisoned the bird. It died. Lead poisoning occurs in birds at blood levels greater than 0.2 ppm and birds usually die with levels greater than 1.2 ppm.

Concerns about lead fishing sinkers originally were raised in England over 20 years ago when the royal mute swans were poisoned by lead sinkers. The Queen, who technically owned the swans, directed the fishing industry to come up with nontoxic alternative sinkers. Great Britain

banned the use of lead sinkers in 1987. In Canada, it is unlawful to use lead fishing sinkers and jigs in national parks and national wildlife areas.

Similar concerns have been slower to emerge in the United States, but there is growing evidence that lead is an insidious poison no matter where it is discarded in the environment. In New England, a study reported that 57 percent of dead loons had died from lead poisoning. Subsequently New Hampshire has enacted legislation to ban the use of lead fishing sinkers. New Hampshire's law prohibits the use of sinkers and jigs less than one inch in length. In Maine, effective Jan. 1, 2002, it is unlawful to sell lead sinkers of 1/2-ounce or less. The U.S. Fish and Wildlife Service is currently discussing the restriction of lead fishing tackle on National Wildlife Refuges where loons and trumpeter swans breed.

## Nontoxic Sinkers

In response to growing awareness and concerns for the lead sinker problem, the fishing tackle industry has begun retooling to create non-toxic sinkers. The Water Gremlin Company of White Bear Lake, Minnesota, is the world's largest manufacturer of fishing sinkers. They began production of non-toxic sinkers in 1993. Their first sinkers were made with a combination of tin and iron dust. Newer models are a combination of tin and bismuth. Currently, there are 13 manufacturers in the U.S. that are producing non-toxic fishing tackle. The new, non-toxic sinkers are a small portion of their total sales because most anglers don't know they exist and, more importantly, they are not aware of the accidental poisoning of loons, trumpeter swans, and other wildlife that is being caused by the use of lead sinkers.

## The Trade-Off

There is a trade-off for creating a cleaner and healthier environment by discontinuing the use of lead fishing sinkers. The non-toxic sinkers are currently more expensive than lead sinkers, partly due to the fact that the industry is still dealing with very small volume of sales and production instead of mass production. Prices should decrease as acceptance and use of non-toxic sinkers increase.

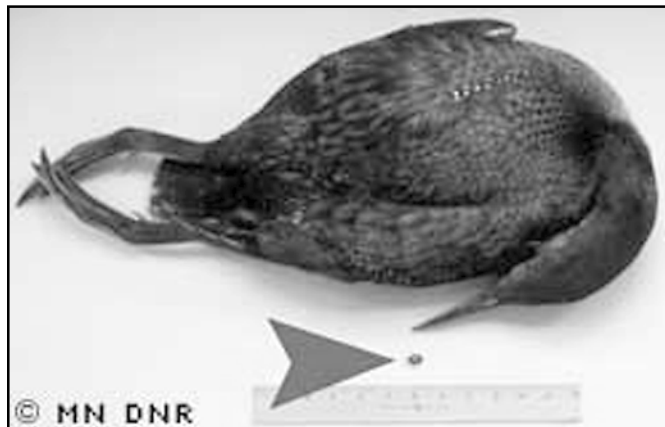
## Performance

The best performance for the new tin-based non-toxic sinkers is with split shot that is typically used for many types of still fishing. This includes family fishing for panfish, crappies and other common fish. Non-toxic split shot perfor-

mance is very good when fishing with bait and bobbers. Anglers who wish to get familiar with non-toxic shot should try the split shot first, and they will probably discover that the performance, in terms of the number of fish caught, will be the same as for the use of lead sinkers. If anglers switched to non-toxic for split shot alone in their tackle boxes, it would probably account for more than 50 percent of all fishing sinkers and create a big drop in the amount of lead going into our lakes.

When fishing river currents or trolling for bass, northerns or walleyes, the new nontoxic sinkers have different specific gravities (about 6 to 6.5 compared to 13 for lead), so the performance of the lures will be different and the techniques, or the size of the sinkers, will need to be modified. For example, the lure will not sink as deeply with the same size of sinker. A larger sinker will be needed, and

the water resistance of the larger sinker may modify the lure's depth and cause it to run more shallow. The key is to understand that the performance of the sinker moving through the water is different because the specific gravity of the non-toxic sinkers is only about half that for lead. It will be necessary to experiment with different arrangements and sinkers to see what works best and, for some types of fishing, the results may not be as effective as with lead.



*This small lead jig-head caused lead poisoning of this loon.*

## The Bottom Line

Give non-toxic sinkers a try. It is the right thing to do. The less lead we release into the environment, the better off our wildlife will be. Next time you clean out your tackle box and make a list of replacement tackle to purchase for the upcoming fishing season, be sure to include non-toxic fishing sinkers. Ask your local bait shop dealer specifically for them, because until dealers realize that there is a significant market for them, they may be hard to find. Check with your county or city office for proper disposal sites.

## Monofilament Fishing Line: Another hazard for loons.

There is another very easy way for anglers to help loons. Make every effort to avoid disposing of tangled monofilament fishing line in lakes. The line may take years to decompose and is a constant death trap for loons, swans, ducks, and other wildlife. Some bait shops will recycle used fishing line.

## Are you interested in becoming a Sportsmen's Club board member?

Have you been thinking it would be fun to be a board member of the Sportsmen's Club? Well, you're right — it is fun. And hard work from time to time — but always rewarding to be involved at the ground level in translating the club's mission statement into actual stewardship of our lake.

Selection of board members is made every year at the annual meeting, when one-third of the 12-member board is up for election. A nominating committee, composed of the secretary and three other board members, is selected by the president. The nominating committee meets in June and selects a slate to be approved by the board at their July meeting. Then the slate is presented at the annual meeting in August, augmented by any nominations from the floor.

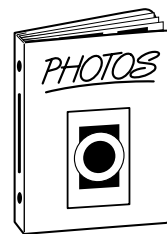
Board members are elected for three-year terms, and must be club members. It is also advisable that they are able to attend a majority of the board's monthly meetings. There are no term limits for board members. Our bylaws require that we maintain a mix of board members from east and west Vermilion, with a north/south dividing line at the Frazer Bay Road. Officers and board members of the club do not receive salaries or mileage, but may be reimbursed for expenses incurred in working on board-approved projects.

If you have questions, or would like to submit your name for consideration by the nominating committee, please contact President Walt Moe at 753-3816 or Secretary Paula Bloczynski at 753-2107 by June 1st.

— Paula Bloczynski, Secretary

## OLD NEWSLETTERS AND PHOTOS STILL NEEDED

Thanks to Rick Pearson, Jerry Nagorski, Pat Indihar, and Ted and Myrtle Anderson for supplying back issues of the Vermilion Sportsman for the club's 40th anniversary history project. We still need the following issues to fill in the complete set. We will return yours if you like, or would be glad to keep them for posterity also.



Year	Issues We Have	Issues Missing
1968	None	?
1970	None	?
1971	January & August	?
1972	May	?
1973	April	?
1974	April	?
1975	July	?
1977	May & August	?
1979	July	?
1990	May & August	?



Any SCLV or Lake Vermilion related photos you have, old or new, you are willing to share for this project would also be welcome. Please send them to Judy Moline at 8780 Raps Road, Cook, MN 55723 (or digital photos to [judymoline@hughes.net](mailto:judymoline@hughes.net)) and indicate whether or not you want items returned to you. Thanks for your help!

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*There he stands, draped in more equipment than a telephone lineman, trying to outwit an organism with a brain no bigger than a breadcrumb, and getting licked in the process. — Paul O'Neil, 1965*

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# How to restore dark skies at night

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By DEAN FOSDICK — ASSOCIATED PRESS

For environmentally concerned sky-watchers, it isn't enough that the world should go green. It should go dark green. As in, "Turn off all the unnecessary lights, please."

Light pollution may not rank up there with climate change as cause for alarm, but a vocal community of stargazers believes it to be an important lifestyle and energy issue that must and can be resolved.

"Many people think of this as a trivial pursuit, simply a matter of flipping a switch," says retired astronomer David Crawford of Tucson, Ariz., co-founder of the International Dark-Sky Association, which he describes as something like "a nighttime Sierra Club."

"But you just can't do that in most applications. You have to build awareness. Good lighting is a big help because bad lighting is the problem."

Homeowners can do their part.

By "bad lighting" Mr. Crawford means "glare bombs," or horizontal beams that spoil vision and cause discomfort. There also is "sky glow," that semicircular yellowish cast visible hundreds of miles from the nearest city. And "light trespass," when the brightness from over-illuminated stores, streetlights, parking lots, or misdirected backyard security lights spills onto and often inside others' property.

Along with wasting energy, light pollution removes contrast from the night sky, making it all but impossible to behold the wonder and vastness of the Milky Way, with its hundreds of millions of stars keeping us company in our galaxy.

And "good lighting"?

"Not necessarily turned off, but lights redirected downward so they don't intrude into secluded zones or residential areas," Crawford says. "It's more a matter of attitude than mechanics. It's finally deciding that you don't want to infringe upon another person's nighttime privacy or into quiet corners."

Two-thirds of American cities are places where people can't see the Milky Way from their backyards, says Chris Luginbuhl, an astronomer with the U.S. Naval Observatory near Flagstaff, Ariz.

"The Milky Way often is the measuring stick for dark sky watchers," Mr. Luginbuhl says. "If you go to an atlas and take it from the Midwest to the East Coast, there are few places the size of a county that have unpolluted dark skies. Here in the West, there are only a couple of good areas where you can

see and feel the darkness, but they're hard to get to."

Robert Wagner of Kansas City, Mo., organizer of Midwest Citizens for Responsible Outdoor Lighting, calls light pollution "the most visible form of energy waste." Mr. Wagner tries to set night-sky brightness levels over designated areas. Intensity readings would be unrestricted for, say, football and baseball fields, road signs, in and around swimming pools, and around stairs and ramps. Restricted areas might include suburban streetlights or misdirected driveway lighting.

"We try to manage light as any pollution emission," he says. "Twenty-seven states currently have laws or proposed laws for energy lighting or eliminating upward directed lights."

Many night-sky advocates contest the need for brilliant, dusk-to-dawn security lighting at homes and businesses.

"Two-thirds of all property crime occurs during the day, and as far as I'm concerned, the need for security lighting is a myth," Wagner says. "It gets to where the cities have to pay for their streetlights rather than hire more officers to patrol the streets."

As important as darkness is to astronomers, it's even more important for the human spirit, the Navy's Luginbuhl says.

"There's a whole generation of children growing up, a large fraction of whom have never seen the stars," he says.

"Light pollution is like having thick air pollution that would only let you see a quarter of the way across the Grand Canyon or it would be like driving to the Tetons and not being able to see the peaks. People wouldn't stand for that."

*\*The board of the Sportsmen's Club of Lake Vermilion has determined that it is vitally important to publish information on preserving dark, starry skies and fighting light pollution. It is not our intention to try to deprive lake property owners of lighting which they feel is essential for their safety and comfort. We are only trying to present concepts and energy saving solutions for using lighting more efficiently in order to have the desired effect for the property owner while limiting the negative impact of glare on neighbors, boaters and wildlife. Many of the Club's stated goals such as "promoting safe boating practices," "promoting sound conservation practices" and "protecting area wildlife" are negatively impacted by light pollution. We will, therefore, continue to actively address this growing problem.*

*Dale Lundblad - Board Member*



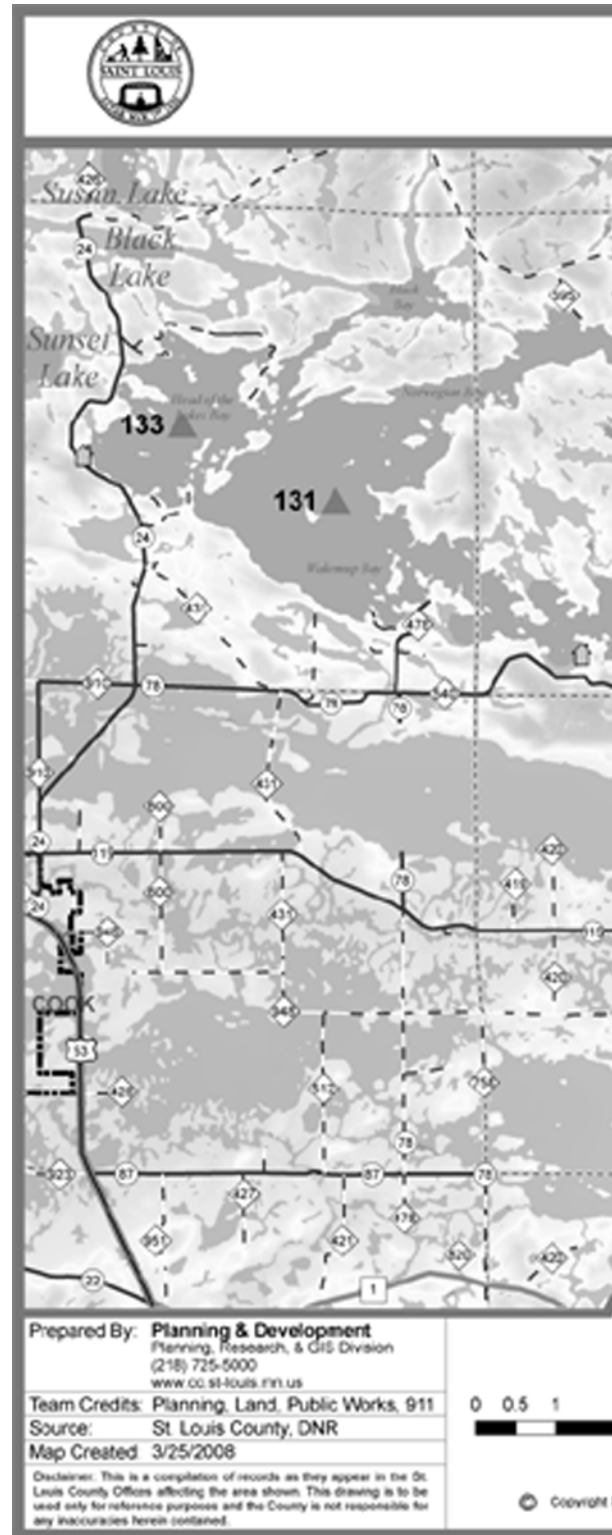
# CITIZEN LAKE MONITORING

**BY: Mel Hintz**

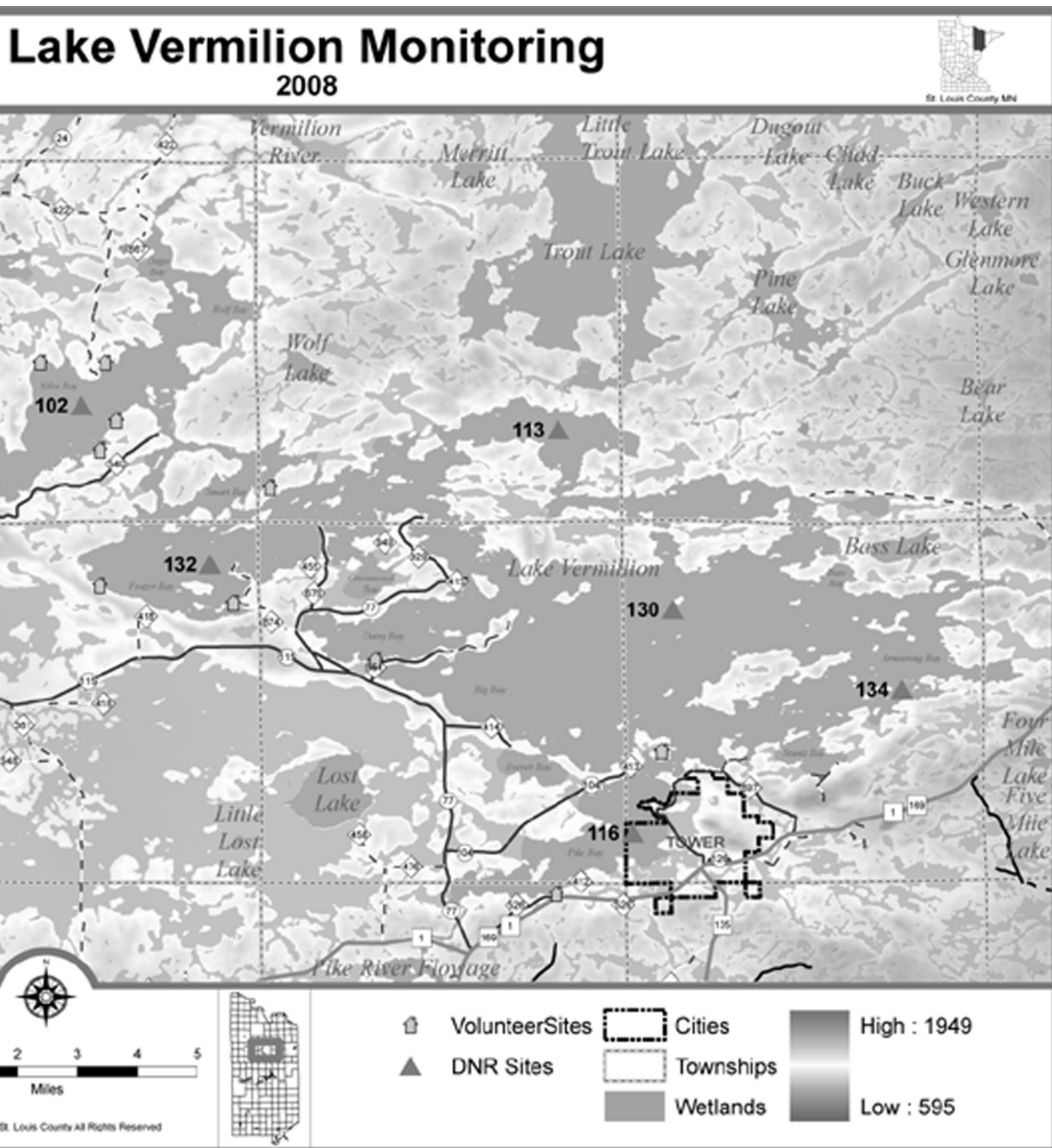
The SCLV is finalizing plans to monitor water quality on Lake Vermilion this summer as part of the CLMP+ program sponsored by the Minnesota Pollution Control Agency (MPCA). Approximately twenty volunteers will be attending training on May 6<sup>th</sup> at the Greenwood Town Hall, conducted by MPCA Research Scientist, Jesse Anderson, to learn the protocols for collecting the water samples before they are sent off for laboratory analysis. The map on the right shows the eight sites where the water samples will be collected this summer. For the most part, these are longtime stations used by the DNR and/or the MPCA.

The goals for the CLMP+ program are: 1) collect baseline water quality data for the lake, 2) examine the relationship between total phosphorus, chlorophyll-a, and secchi transparency, 3) identify the lake's trophic state index (see article next page), and 4) create better informed lake property owners on the cumulative effects of nutrients and algae on the water clarity within Lake Vermilion. It is important to understand that this summer's project is not a diagnostic study aimed at identifying the sources of phosphorus loading coming from the watershed. Instead, it is designed to satisfy the goals stated above. It will also be very interesting to see how this summer's results compare to the findings reported in the 2000 Lake Vermilion Assessment. A copy of this report is linked to our website.

In the mood to volunteer? Let us know at:  
volunteer@sportsmensclublakevermillion.org



# G PROGRAM PLUS (CLMP+)



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# ***TSI - What Does It All Mean?***

*Sandra Holm, Citizen Monitoring Coordinator*

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TSI is the acronym for the Carlson's Trophic State Index used by professionals and lay lake advocates to describe how productive (trophic) a lake is. Prior to its development, measurements of lake productivity were based on a variety of parameters, most of which were expensive and complicated to collect, calculate and interpret. In addition they often provided conflicting information. For example, one index would define a lake as oligotrophic (clear, nutrient poor) while another might define it as eutrophic (cloudy, nutrient rich).

What was needed was a consistent and clearly understandable system to describe a lake's trophic state. In the late 1970s Robert E. Carlson developed just such an index at the University of Minnesota's Limnological Research Center. He developed his TSI based on three interrelated but distinct measures of productivity: water transparency as measured by the Secchi disk (SD), chlorophyll 'a' (Chl 'a') and total phosphorus (TP).

Simply stated, the basic relationship assumption is that the more total phosphorus present, the more algae (Chl 'a'), and the lower the water clarity as measured by the Secchi disk. The indices are based on measurements of each parameter collected during the growing season (May-September). Data not collected during this time period should not be used to define TSI and draw conclusions based on them.

The Secchi disk value is the easiest and most commonly measured parameter. It is considered an indirect measure of algal populations. Chlorophyll 'a' is a pigment found in algae and is a direct measure of algal biomass (quantity). Total phosphorus is relatively stable throughout the year and usually the major factor limiting algae growth. It is the predictor of potential algal biomass.

Easily calculated mathematical equations for each of the three parameters are used to transform their numeric values into an index ranging from 1-100 trophic units. These categories are grouped into broader classifications on a continuum of oligotrophic to hypereutrophic. An increase of 10 units indicates a doubling of the algal population. Because each TSI classification represents a wide range of numeric values, it is important not just to use the classification name, but also the value used in its calculation.

Each index indicates something different about a lake's dynamic. If the three TSIs fall within a range of 5 TSI units

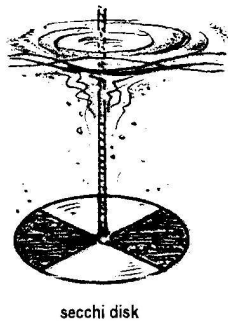
they can be averaged into one TSI value. If not, it is important to evaluate the data to determine the reason for, and relevance of, the differences and which index is the most accurate predictor of trophic state. For example, one index may be based on numerous measurements (many sampling events), while the other may be based on one sampling measurement. In this case the former would most likely be the best indicator.

TSI helps us understand where a lake is in terms of its aging or productivity, however it is not a "water quality" index, which is a subjective judgment depending on the water use and local attitudes of the people using it. What's good water quality for a largemouth bass isn't good for trout. Or, what's considered good water quality in southwestern Minnesota may not be considered good water quality in northern Minnesota. For this reason, the Minnesota Pollution Control Agency (MPCA) has established water quality standards based on water use (Chapter 7050 of Minnesota Rules) and ecoregions, which are based on relatively large expanses of land and the geographically distinct collection of plants, animals, natural communities and environmental conditions found there.

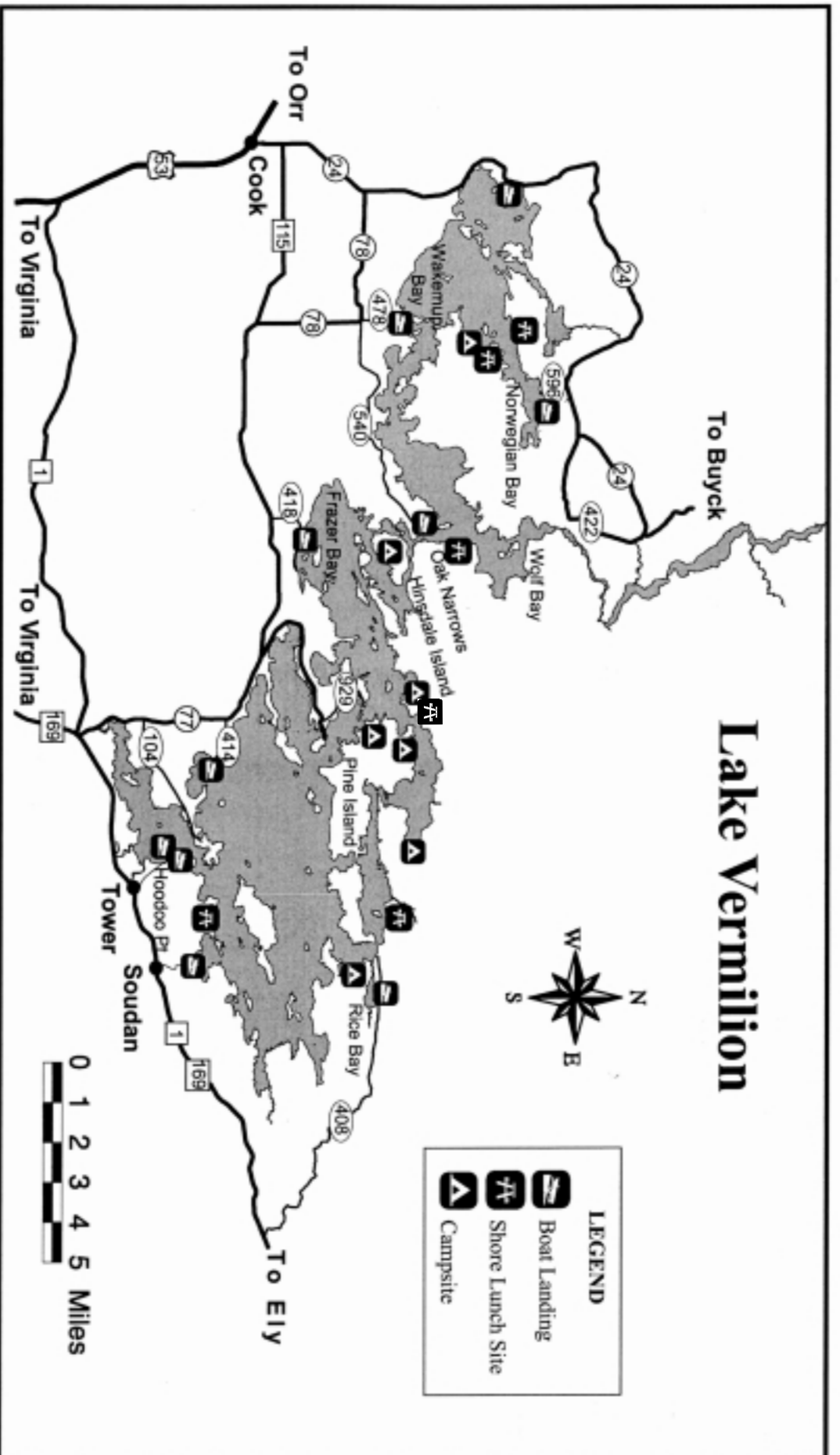
The MPCA uses the indices to assess a lake's water quality in terms of its being able to support its designated use of aquatic recreation. The Secchi disk is the commonly used tool for a preliminary assessment. To fully assess a lake, 12 paired sets of SD, TP and Chl 'a' parameters are collected consecutively during 2-3 growing seasons. A paired set means the three measurements are taken at the same time.

Only the June-September data is used in their assessment. May data is an important diagnostic tool, as it provides a sense of how the lake starts out and a basis for understanding the seasonal changes taking place within the lake. There is commonly poor agreement within the three TSI parameters in May because of factors that may keep algae concentrations lower than predicted by TP.

Carlson's TSIs have become an intricate part of the water quality vocabulary and an important tool used to assess water quality and understand a lake's dynamics. Therefore it is important to understand their significance. For additional information on TSI and ecoregions refer to: <http://www.pca.state.mn.us/water/lakeacro.html>.



# Superior National Forest - Shore Lunch Sites



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Pub. 03/04

**For More Information Contact:**  
LaCroix Ranger District  
320 North Hwy 53  
Cook, MN 55723  
lacroix@fs.fed.us  
www.fs.fed.us/r9/superior  
218-666-0020 (Voice/TTY)

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# *“Invasive Species”*

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by Bob Wilson



Hello to all you folks who love Lake Vermilion. I can't imagine any Lake Vermilion Sportsmen's Club member, cabin and homeowner that doesn't fit this category. Here it is early April again and time to think about the fishing opener, warm days, boating, swimming, picnics and home and cabin maintenance (oops, maybe that's just me). In any case, along with all of the pleasant activities comes the responsibility of helping protect the lake from "Invasive Species." To get to the point, what follows is what your Club has planned and what you can do, plus a few words on the big issues concerning "Invasives." On Vermilion we currently worry most about an introduction of Zebra and Quagga Mussels, Eurasian Milfoil and Spiny Waterfleas. However, there are many other non-native species that could find their way to Vermilion and you know we already have Rusty Crawfish and some Curly Leaf Pondweed.

## **Boat Inspection Schedule - 2008**



SPINY WATERFLEA

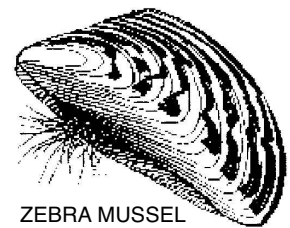
The Club inspects boats at selected public ramps during each summer season. Last year 49 volunteers in total talked with the owners and/or operators of 389 boats about Invasive Species at four different public ramps. We try to maximize the number of boaters we visit by timing our inspections to coincide with the major summer holidays and the fishing opener. Below is our 2008 summer schedule.

May 9, the Friday before the walleye opener on the 10th.

May 23, the Friday leading to Memorial Day on the 26<sup>th</sup>.

July 3, the Thursday before the start of the July 4, Friday & weekend.

August 29, the Friday before the Labor Day (Sept 1) weekend.



ZEBRA MUSSEL

Public Ramps — Hoodoo Point, Moccasin Point\*\*, Timbuktu & the Landing.

\*\*Note: There is a new public ramp located a short distance (six tenths of a mile) from Moccasin Point off highway 77. It's on Bradley Road, also called County Road 949 about 1/2-mile in from 77 and just beyond Shamrock Marina. It is spacious, blacktopped, has free parking and is safer than parking on the road. It's called the Black Duck Bay Public Water Access. The Club will check boats at this site for the opener instead of Moccasin Point.



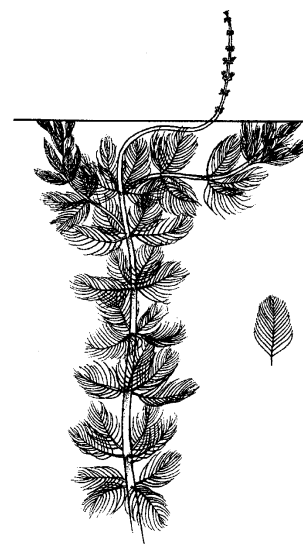
QUAGGA MUSSEL

Ramp Captains will be calling the regular volunteer inspectors as the time approaches. We are also looking for more inspectors to help. If you are interested please call me at 218-753-5544.

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## **Additional Club PR Activities Designed to Prevent “Invasives”**

- We will ask Fishing Tournament Directors to inspect their entries before launching and advise them to arrive with clean equipment to simplify the process.
- Provide laminated plastic ID cards to the public, particularly at boat checks, with pictures of Lake Vermilion’s sport fish and associated regulations on one side and the common “Invasive Species” with a description pictured on the backside.
- Work with WELY (Ely, MN) to run a Public Service Announcement (PSA) on Minnesota Twins broadcasts cautioning the public to have clean boats and trailers before transporting to and launching in a lake or river.
- Work with the Minnesota DNR and share the costs to rent an Invasive Species PSA billboard. This year’s billboard will be located just to the side of Highway 53 in Virginia, MN so traffic heading to both Cook and Tower can see it. It will be very close to where Highway 169 from Hibbing and Chisholm intersects Highway 53. May 1<sup>st</sup> is the target date to have the artwork hung. Watch for it.

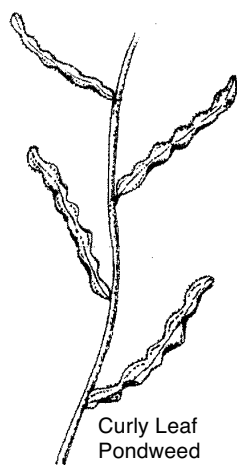


EURASIAN MILFOIL

## **Current Big Issues**

Minnesota lawmakers and pollution officials are trying to stop the dumping of untreated ballast water in Lake Superior through legislation to regulate ship owners. The “Invasive Species” the ships carry have mainly come from ports in northern Europe and the Black and Caspian seas. These spores, plants, small fish and eggs, become stowaways in the huge ballast tanks of freighters that discharge millions of gallons of water as they take on new cargo in Great Lakes ports. An MPCA coordinator was recently

quoted as saying, “more than 5 billion gallons of water from other places was dumped into the Duluth-Superior Harbor in 2005, making it the top location in the Great Lakes for ballast water discharge.” The port of Two Harbors is next in line for quantity of ballast water discharged. Minnesota is moving towards a permit system by late September that will eventually require ship owners to treat ballast water or to remove foreign bacteria and other organisms before the water is dumped. The state will also continue to track federal efforts to control ballast water dumping, but is developing the state system in case national plans continue to languish. As you can imagine there is abundant controversy over this solution to this very serious issue.



Curly Leaf  
Pondweed

Viral hemorrhagic septicemia (VHS), a fish disease, is found in all of the Great Lakes except Lake Superior (as far as is currently known). The disease causes the

*(Continued on Page 16)*



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# *“Invasive Species”... Continued from Page 15*

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fish to bleed to death internally. It is not supposed to be directly harmful to humans or other warm-blooded animals. Both private fish producers and the DNR are concerned that if VHS were to arrive in Minnesota, it could wipe out entire fish production facilities. It is essential that VHS be kept from inland lakes, rivers, ponds and private hatcheries and contained within the Great Lakes. However, as with Invasive Species, VHS could be spread by boaters after being in the Great Lakes.

**WHAT CAN YOU DO?** Don't be an unknowing “mule” for aquatic hitchhikers. Stop the spread by following these procedures. Remove any visible mud, plants, fish or animals before transporting any equipment, including boats and trailers. Wash boats and trailers right after hauling out (if possible). Drain water from your equipment immediately after removing it from the water and before transporting it. Drain the bilges, and livewells. Clean and dry anything that comes in contact with the water including clothing, fishing tackle, fenders and water toys. Never dump used bait into the water. Instead, dispose of it on land well away from the shoreline or in a suitable receptacle. Drying the trailer and boat for at least five days before the next launch in another lake will help kill the hitchhikers. If you are going to another lake the next day, wash everything with hot water or use a pressure wash or take it to a car wash. Adding these procedures to your task list will add time to your post-trip, but knowing that you are not carrying a dangerous species or a fish virus to other waters makes it well worth the effort.



**STOP AQUATIC  
HITCHHIKERS!**

Prevent the transport of nuisance species.  
Clean all recreational equipment.  
[www.ProtectYourWaters.net](http://www.ProtectYourWaters.net)

## **Invasive Species are a very serious, nationwide costly problem.**

## **HELP PROTECT LAKE VERMILION**

### **BOARD OF DIRECTORS and OFFICERS 2007-2008**

(All phone numbers are Area Code 218)

#### **COOK (55723)**

Ray Harris ..... 7341 Oak Narrows Road ..... 666-2300  
Dale Lundblad ..... 9082 Little Sweden Road ..... 666-2316 (B.I.C. 666-5352)  
Ed Zottola ..... 2866 Vermilion Drive ..... 666-5542  
Ed Tausk ..... Vermilion Dam Lodge ..... 666-5418  
Judy Moline ..... 8780 Raps Road ..... 666-5716  
Gary Lundquist ..... PO Box 236 ..... 666-2756

#### **TOWER (55790)**

Walt Moe, **Pres.** ..... 3331 Nisen Drive ..... 753-3816  
Mel Hintz, **Vice Pres.** ..... 6119 Pike Bay Drive ..... 753-2401  
Paula Bloczynski, **Sec.** ..... 4443 Big Rock Road ..... 753-2107  
Bob Wilson, **Treas.** ..... 1501 Echo Point ..... 753-5544  
Jeff Lovgren ..... 2113 Birch Point Road ..... 753-2413  
Mardy Jackson (Mem. Records) ..... 2065 County Road 77 ..... 753-3549

**SCLV Board Meetings** are held monthly on the second Wednesday, and are open to all SCLV members. Check with a board member for time and location.



*Three-fourths of the Earth's surface is water, and one-fourth is land. It is quite clear that the good Lord intended us to spend triple the amount of time fishing as taking care of the lawn.*  
~ Chuck Clark

***Your articles and photos are always welcome***



**Newsletter Committee meets to produce this issue. Articles, photos, and ideas are always welcome and may be submitted by contacting any board member.**

## ***GIVE A COMPLIMENTARY 2008 MEMBERSHIP TO A FRIEND***

If you know someone who would benefit by being a member of our Sportsmen's Club, let us know and make them feel special.



Maybe they're new to Lake Vermilion. Maybe they've just never gotten around to joining. If you'll send Mardy Jackson their name and address, we'll extend a complimentary membership to them for the remainder of 2008. They'll get this newsletter (while supplies last), plus the August and November issues. And we'll tell them you were the thoughtful person who gave us their name.

You can use the membership form on the back of this newsletter or send an email with the same info to: [gift2008@sportsmensclublakevermilion.org](mailto:gift2008@sportsmensclublakevermilion.org)

## MEMORIES OF FISHING

As I write this article, the snow and ice have not left the lake, but a few warm days have stirred the open-water fishing fever. Digging and sorting through tackle boxes, putting fresh line on some reels, sitting in the boat on dry land going "Vroom, Vroom," — soon open water, I hope. I, of course, have lots of very true fishing stories, but I think



sharing some stories from the young fishermen might be a better idea.

A few seasons ago our young grandson and his friend were using a paddleboat to fish from a small rock

island. His friend was halfway back to the dock for a resupply of snacks when our grandson yelled, "I got A BIG ONE, bring the net." His buddy turned the paddleboat around and with a froth for a wake, he headed to the island with the net. After a substantial and heroic fight, the boys were able to land a whopping 2-pound bullhead. A long discussion ensued as to whether the fish could be safely touched for hook removal.

Two of our granddaughters wanted to share a story.

Ally writes: My favorite memory fishing from my grandpa's dock is when my fishing pole felt very heavy and I reeled it in and it was a big "sunny." I yelled, "Grandpa, I caught a big sunny!" Then my grandpa came and took a picture of the big sunny and me. That day we caught lots of fish and I ate my big, beautiful sunny for supper.

Cristin writes: My favorite memory was when I was fishing from my grandparents' dock and I took my brother's pole and threw the line in the weeds. Something nibbled on the worm, then it got ahold of it. I yanked the pole and said to my brother, "I got a BIGGG FISSHH!" He came over and reeled it in and said it was a northern pike. I was so happy and proud, I told everybody!

Friends and family — the reasons we work for and share our Great Lake Vermilion!

Oh, by the way, I understand that there are NO fish whatsoever on this end of the lake.

**GOOD LUCK!**

Gary Lundquist, Board Member

## PUT YOUR CAR KEYS BESIDE YOUR BED AT NIGHT

Tell your spouse, your children, your neighbors, your parents, your doctor's office, the checkout girl at the market, everyone you run across: Put your car keys beside your bed at night. If you hear a noise outside your home or someone trying to get into your house, just press the panic button for your car. The alarm will be set off, and the horn will continue to sound until either you turn it off or the car battery dies. This tip came from a neighborhood watch coordinator.

Next time you come home for the night and you start to put your keys away, think of this: It's a security alarm system that you probably already have and requires no installation. Test it. It will go off from most everywhere inside your house and will keep honking until your battery runs down or until you reset it with the button on the key fob chain. It works if you park in your driveway or garage. If your car alarm goes off when someone is trying to break into your house, odds are the burglar/rapist won't stick around... after a few seconds all the neighbors will be looking out their windows to see who is out there and sure enough the criminal won't want that. And remember to carry your keys while walking to your car in a parking lot. The alarm can work the same way there. This is something that should really be shared with everyone. Maybe it could save a life or a sexual abuse crime.

P.S. I am sending this to everyone I know because I think it is fantastic. Would also be useful for any emergency, such as a heart attack, where you can't reach a phone. My mom has suggested to my dad that he carry his car keys with him in case he falls outside and she doesn't hear him. He can activate the car alarm and then she'll know there's a problem.

*If people concentrated on the really important things in life, there'd be a shortage of fishing poles.*

*~ Doug Larson*

## MISSION STATEMENT of The Sportsmen's Club of Lake Vermilion, Inc.

— To **promote and enhance the outdoor experience of Lake Vermilion for present and future generations** by

- a. Maintaining and improving the Lake Vermilion fishery
- b. Promoting "Catch and Release"
- c. Promoting safe boating practices
- d. Establishing and maintaining a "Night Navigational Aid System"
- e. Establishing and maintaining shore lunch/picnic sites
- f. Monitoring and protecting area wildlife

— To **protect and improve the water quality of Lake Vermilion** by

- a. Monitoring water quality in cooperation with interested government agencies
- b. Promoting shoreline preservation and re-vegetation
- c. Monitoring exotic species and preventing their spread
- d. Promoting sound conservation practices in the Lake Vermilion watershed

— To **educate club members and the public regarding issues which impact Lake Vermilion** by

- a. Publishing a periodic newsletter and distributing it to club members and the public
- b. Maintaining an internet website containing previously published newsletters and other information about the club and Lake Vermilion
- c. Publishing news releases and articles pertaining to club activities in other publications

## TO OUR MEMBERS

As you may recall in the last issue (March) of our newsletter, I submitted a list of our members who hadn't received their membership cards. The post office returned them to me because, "Unable to Forward," "Forward Time Expired," etc.

Thanks to some of our members, the mystery was solved in some cases. When the "snowbirds" return and receive our May issue, perhaps we can learn the location of the following. Thanks for your help.



The list:

Lannon and Mary Brown - 216 S. 11th St., Montevideo, MN 56265  
Bob and Mary De Angelo - 2604 Indian Tr., McHenry, IL 60051  
Timothy and Corinne Hannon - 5311 Sand Lily Dr., Naperville, IL 60564  
Mr. and Mrs. H. Kern - P.O. Box 161280, Big Sky, MT 59716  
Mrs. Ethel Nehls - 202 Mitchell Circle, Duluth, MN 55811  
Gary A. Rathbun - 414 Charter Oak Pl., Dahinda, IL 61428  
Mr. and Mrs. David Schaeffer - 5002 16th Ave. S., Apt. 205, Fargo, ND 58103  
Tom Stenklyft - 4120 N. Woodridge Dr., Appleton, WI 54913  
Mary Thorne - 117 111th St. NE, Blaine, MN 55435

Mardy Jackson, 218-753-3549  
Membership Records  
Box 696, Tower, MN 55790

*There will be days when the fishing is better than one's most optimistic forecast, others when it is far worse. Either is a gain over just staying home. ~ Roderick Haig-Brown, Fisherman's Spring, 1951*

**Join us.** Add your voice to those of your neighbors and friends around the lake who share a love for Lake Vermilion.

Complete the membership form, DETACH THE ENTIRE PAGE and mail with your check, made payable to Sportsmen's Club of Lake Vermilion.

**Thank you.**

☐ **NEW MEMBER**

(Check one, please)

☐ **RENEWAL**

**SPORTSMEN'S CLUB OF LAKE VERMILION, INC.**

**Mardy Jackson, Membership Records**

**P.O. Box 696**

**Tower, MN 55790**

Enclosed is \$10 for a single membership for one year (Jan. 1, 2008\_\_\_\_ to Jan. 1, 2009\_\_\_\_) or \$15/yr. for couple membership or \$20/yr. for the "family" membership or \$50/yr. for a business/organization in the Sportsmen's Club of Lake Vermilion.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Please send, also, Shoulder Patches at \$2.00, Car Window Decals at \$1.00, and Game Fish/Invasive Species ID Cards at \$1.00 each.

**HELP US MAKE A BEAUTIFUL LAKE EVEN BETTER!**



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