

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, 2006____ to Jan. 1, 2007____) 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 and Car Window Decals at \$1.00 each.

HELP US MAKE A BEAUTIFUL LAKE EVEN BETTER!



NON-PROFIT ORGANIZATION
AUTOCR
U.S. POSTAGE PAID
COOK, MINN.
Permit No. 25

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”*

Vol. 32, No. 2 1800 MEMBERS COOK & TOWER, MN MAY 2006

PRESIDENT’S MESSAGE

Are you ready for some FISHING? It’s hard to believe that the fishing opener is just a matter of a few weeks away! In the North Country we’ve been enjoying bright sunny days and cool nights while south of us they’ve been battling heavy weather. This probably means we’ll have a cold spring, but in any case I’m looking forward to chasing the wily walleye once again.

I am saddened that one of our longtime board members will be leaving the board for personal reasons. Cathy Raps has tendered her resignation from the board, citing family pressures. She will continue to be an active member of the Sportsmen’s Club. I want to thank her more than words can express for her support and work for the club. I was extremely fortunate to be associated with Cathy for the past several years. Thanks again, Cathy.

The Sportsmen’s Club is now a member of the “Minnesota Waters” Association. I remarked last month that many of our SCLV members are probably already members of this organization. We will be getting more information on water quality problems facing other areas of the state and reporting on them in future newsletters.

U. S. Steel Minntac gave a presentation to the SCLV board on March 7, 2006, that described the latest plans for the proposed tailings water discharge. They informed the board that they would be applying for the permit to discharge the tailings water into the West Two Rivers/St. Louis River watershed. This still needs to be approved by the MPCA, but I think it was a win situation for the Sportsmen’s Club of Lake Vermilion. See Mel Hintz’s article detailing U. S. Steel’s proposal in this issue of the newsletter.

The County Planning Commission held a public input meeting for the U. S. Steel proposed development called the “3 Bays on Vermilion.” The draft EIS is ready for review and should be up on the St. Louis County website by the first part of April. We urge that

all members become familiar with this project and submit their comments to the County Planning Commission.

Their website is: www.co.st-louis.mn.us/slcportal/
Their US mail is: Suite 100
227 West First Street
Duluth, MN 55802

The Lake Vermilion Management Plan should be presented to the County Commissioners soon.

There have been several complaints to me and to others of snowmobilers and ATV riders not cleaning up after themselves on the ice. The guilty parties tend to litter areas where they gather for activities such as open water skipping on snowmobiles. We have no

(Continued on Page 2)

SPORTSMEN’S CLUB OF LAKE VERMILION, INC. 38th ANNUAL MEETING and DINNER

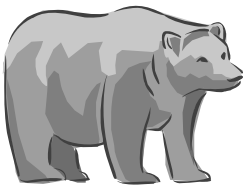
**Saturday, August 12
Fortune Bay Resort**

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

***Dr. Lynn L. Rogers, renowned
wildlife biologist, educator and
black bear researcher will be the
featured speaker.***

***Watch for more information in the
July issue of the newsletter.”***

Lynn Rogers, “The Man Who Walks With Bears,” will be featured at this year’s annual meeting



Lynn Rogers, principal biologist at Ely’s Wildlife Research Institute, will be the featured speaker at the Sportsmen’s Club 38th annual dinner meeting, set for Saturday, August 12 at Fortune Bay Resort.

Dr. Rogers, who has a doctorate in Ecology and Behavioral Biology from the University of Minnesota, has spent more than 35 years learning about wildlife and sharing his information with the public.

His ongoing study of bears has led him throughout the forests of northeast Minnesota, where he has radio-tracked over 100 bears -- studying some for as long as 22 years. This work is the source of much of the scientific information available today on the behavior of black bears, and is knowledge Rogers generously shares through his lectures, workshops, museum exhibits and consulting. The most recent documentary about his work, “The Man Who Walks With Bears,” is a frequently-aired film on the Animal Planet channel.

In Minnesota, where Rogers has consulted with the legislature and the DNR on improved bear management, bear numbers have more than quadrupled. And he is currently working with the Wildlife Research Institute in Ely to establish the North American Bear Center as an extension of his efforts to provide the general public with information on how we can better coexist with bears.

— Paula Bloczynski

• President’s Message

(Continued from front page)

objection to these activities as long as they clean up their garbage afterwards. The litter left on the ice does not go away but stays to pollute and foul the lake bottom. It has also been reported that they have been tearing up private property with their hill climbing and other shoreland activities. If anyone sees such littering or damage to private property happen, please report it to the DNR and the County Sheriff. The SCLV has no jurisdiction in these matters other than to ask for your help in keeping Vermilion clean!

To better Fishing and Vermilion! Good luck on opening!

Walt Moe, President

MINNTAC’S DISCHARGE... A change in direction

By: Mel Hintz
SCLV Board Member

In an unexpected move, the U.S. Steel Mining has revised their proposal to discharge up to 7.2 million gallons per day from their Minntac tailings basin northward into the Dark River, a State designated trout stream, and the Sandy River, a tributary to Lake Vermilion. Under the revised plan, this water would now be pumped into the West Two Rivers Reservoir and subsequently released to flow south toward Lake Superior via the St. Louis River. This was the message presented to SCLV Board members by U.S. Steel officials at a special meeting held at Minntac Company headquarters on March, 7, 2006. The new plan was developed based on several meetings over the past two months between the Company and the Minnesota Pollution Control Agency (MPCA).

Quite obviously, this is very good news for property owners and others concerned with the water quality of Lake Vermilion. The major concern with the discharge into Lake Vermilion is that the high sulfate content in the tailings basin water could trigger increased mercury methylation leading to mercury accumulation in fish and further fish consumption advisories for the Lake. U.S. Steel officials stated that under this revised plan, within five years there will be a 50% reduction in the sulphate concentration in the estimated 3.2 million gallons of water that seeps from the tailings basin each day. U.S. Steel officials stated that approximately 65% of this seepage water enters the Sandy River with the balance flowing into the Dark River.

Under the revised proposal, the company will increase the volume of water treated by its submerged packed bed bioreactor to over one million gallons per day. The bioreactors are designed to reduce sulphate concentrations in the water. They will also test on a trial basis a reverse osmosis process to determine its potential for removing chlorides from the tailings basin water.

U.S. Steel will host a public meeting at the Mesabi Community College on April 20 to present the details of their revised plan. The company plans to submit their formal permit application to the MPCA this summer. The plan faces several public hearings and must be approved by the MPCA staff and the MPCA Citizen Board before the discharge can begin. U.S. Steel hopes to have their permit application before the Citizen Board in January 2007. The SCLV Board will continue to monitor this situation closely as the permit application process continues.

LET’S NOT CELEBRATE THE 4TH OF JULY ALL SUMMER LONG

A growing number of Club members and Lake Vermilion residents are voicing concern about a disturbing trend which threatens their enjoyment of treasured, quiet summer evenings on Lake Vermilion. Some years ago, about the time that the State of Minnesota legalized the sale of certain types of non-explosive and non-aerial “fireworks” such as sparklers, smoke devices, snakes and such, the custom of shooting off fireworks on the 4th of July began to get distorted. At first, there was just a noticeable increase in the number of residents who were putting on fairly sizable displays of aerial and loud explosive fireworks on the holiday itself. After all, this is a time-honored patriotic custom which most of us enjoy.

Over the years, however, the displays have not only gotten larger, louder and more numerous, they now seem to begin about a week prior to the actual holiday and continue at some sporadic level all summer long, ending only after the Labor Day holiday when many vacation homes are closed up for the season. Other than the objectionable noise and bright flashes at inappropriate times, the considerations surrounding this

mostly illegal practice include the danger of starting brush or forest fires, potential damage to neighboring homes, boats and boat-lift covers and the negative impact on wildlife, such as loons. Yes, most types of fireworks are still illegal. Many people may not realize this because of their conspicuous use, but according to Minnesota Statute 624.21, the sale, possession and use of fireworks are prohibited.

This situation will probably continue to get worse unless those who are affected by it are finally motivated to take some action. The best and possibly most effective approach is to visit with the offending neighbor and diplomatically ask him to limit the fireworks activities to the 4th of July weekend. If that does not work, a 911 call to report illegal activity will. While celebrating our nation’s independence on the 4th is certainly acceptable, ignoring the rights of others who choose to come to Lake Vermilion to enjoy the peace, quiet and wildlife is not. Let’s all be good and considerate members of the Lake Vermilion community and encourage our neighbors to do the same. Have a great summer!

Dale Lundblad — Board member

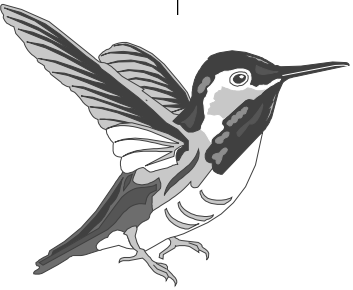
Hummingbirds — Even more amazing than we thought

One of the surest and most pleasant signs of spring around Lake Vermilion is the return of the Ruby-throated Hummingbirds to our flowers and feeders. While it is amazing to think that these tiny creatures travel here from as far away as Mexico each spring, some recently-reported research also indicates that they are much more intelligent than we ever imagined. The research, reported in the journal “Current Biology,” suggests they not only remember their food sources, but can plan with a certain amount of precision.

Although they only weigh about 20 grams (0.7 ounces) and have brains about the size of a grain of rice, hummingbirds have superb memories when it comes to food.

“To our knowledge, this is the first demonstration that animals in the wild can remember both the locations of food sources and when they visited them,” said Susan Healy, of the University of Edinburgh.

Healy and scientists in Britain and Canada studied rufous hummingbirds in the Canadian Rockies. They found that the birds remembered where specific flowers were located and when they



were last there, two aspects of episodic memory which was thought to be exclusive to humans.

“Hummingbirds that defend territories of many flowers remember which flowers they have recently emptied of nectar,” Healy said in a statement.

The scientists tracked how often hummingbirds visited eight artificial flowers filled with a sucrose solution in the birds’ feeding grounds. The humans refilled half the flowers at 10-minute intervals and the other half 20 minutes after they had been emptied. The birds’ return to the artificial flowers matched the

refill schedules; flowers refilled at 10-minute intervals were visited sooner.

“We were surprised that their timing abilities were so good and that they managed to cope so efficiently with as many as eight different flowers,” said Healy.

Scientists suspect that the brains of hummingbirds became so highly developed because of their long travel schedules and so they do not waste time and energy searching for food. This survival strategy seems to have served our tiny feathered friends very well indeed.

Dale Lundblad — Board Member

New Walleye Regulation for Lake Vermilion this Spring

In an effort to maintain fishing quality, the DNR Section of Fisheries is implementing a special walleye regulation on Lake Vermilion this spring. The new walleye regulation has two components:

- A 17-26 inch protected slot limit, with one fish allowed over 26 inches.
- A 4-fish daily and possession bag limit.

Anglers must immediately return to the lake all walleye 17-26 inches long, inclusive. One walleye over 26 inches long is allowed in the daily and possession bag limit. Anglers fishing Lake Vermilion may only have 4 walleye in their daily and possession bag limit.

A more restrictive walleye regulation was adopted because fishing pressure and walleye harvest have increased in recent years. Creel surveys in 2002 and 2003 documented the highest walleye harvest ever observed on Lake Vermilion, well above the safe harvest level established for the lake. Consistent harvest above the safe harvest level could have negative consequences for the walleye population. The new slot limit will help keep harvest at a safe level, while allowing anglers to keep eating sized fish. Adding the 4-fish bag limit will also help keep harvest at a safe level and will be consistent with regulations recently adopted on other large walleye lakes in Minnesota. Support for the new walleye regulation was very high, based on comments received during the public input process.

It is important to note that the walleye population on Lake Vermilion is still in good condition. Annual assessment netting indicates the walleye population has been average to above average in recent years. However, fishing pressure and walleye harvest have now reached a level where it might not be possible to maintain the quality of the fishery in the future. Enacting a more restrictive regulation at this time, before the walleye population becomes degraded, is far preferable than trying to recover a population that has been degraded by over-harvest.

Because of the new slot limit for walleye, statewide regulations regarding transporting fish on lakes with size restrictions will now apply to Lake Vermilion. When transporting fish on the lake, they must have their head, tails, fins, and skin intact and must be measureable. See pages 10-11 in the 2006 Minnesota Fishing Regulations booklet for the specific regulations relating to transporting fish on lakes with slot limits. Contact your local Conservation Officer if you have any enforcement questions on the walleye regulation.

With the new slot limit in place, accurately measuring fish becomes very important. The legal measurement is from the tip of the nose to the tip of tail, while the tail is compressed to its longest length. Anglers should have a way to accurately measure fish in their boat. It is much easier to measure fish when there is a flat surface at the end of the ruler to place the head against. There are sev-

eral commercial products available that work well for measuring fish. Another less expensive option is to make your own measuring board. One commonly used method is to use a piece of plastic rain gutter, put a cap on one end, and a ruler on the bottom (see picture on Page 5). The sides of the rain gutter help keep the fish in place while measuring it. However the fish is measured, it is the responsibility of the angler to be sure only legal sized fish are kept.

The new walleye regulation is a big step forward in maintaining the quality of the walleye fishery on Lake Vermilion. It was gratifying to see many SCLV members, resort owners, fishing guides, and average anglers step up and support the new regulation during the public review process. If anyone has questions about the new regulation or other aspects of fish management on Lake Vermilion, please feel free to contact me at the DNR Fisheries office in Tower.

Duane Williams, Large Lake Specialist
218-749-1504 ext. 224
duane.williams@dnr.state.mn.us

• “Woodland Echoes”

(Continued from Page 3)

practice of stirring eggs in silt still is being practiced by the conservation department in artificial fish propagation programs throughout the state.

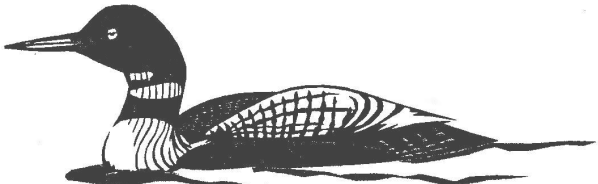
Before he died, old Matt Lehtinen left much of his wisdom and observations with his daughter Siiri and son-in-law Roy Peterson. Adding to this store of knowledge through his 30 years in the fishing resort business on Vermilion has given Peterson an extremely knowledgeable bank of fishing lore from which to figure out the problems that arise from time to time.

But even Peterson couldn't figure this one: How to get the big ones. He frankly stated, “That's one thing I have not yet been able to figure out. Sometimes doing this you get big ones too. Sometimes just the big ones seem to hit. Other times just the smaller ones hit. And still in between they all hit, big, little and middle-sized ones.” And he trailed off the soliloquy with a deep frown and a quietly annoyed, “I just can't figure that one out.”

But we did get our limits of steakin' size walleyes, just like he said we would, and where he said they would be. “That Rapala,” said Peterson as I left in the gathering dusk, “is a work beater. But you have to hook it up right, in that loose loop, so its action can work right.”

It hadn't occurred to me until then. I had taken my big tackle box with me into the boat for nothing. Peterson had nothing but those two rods with the two plugs attached in their loose loops. Oh, yes. He'd had a landing net in the boat, too. That's confidence.

BE LOON AWARE!



Boaters and Loons

A Minnesota treasure is the loon with its beautiful plumage and haunting calls. Loons make many of Minnesota's lakes their summer home and nesting area.

Loon chicks hatch in late June, which coincides with the start of the busy boating season.

Loon awareness and responsible watercraft use will help reduce the conflicts that can occur between boaters and loons.

Nesting Loons

Loons start to nest from the middle to the end of May. They generally lay two eggs which will hatch 27 to 29 days later (late June). Since loons only have one or two chicks per year, every chick counts. The survival of loons depends on these chicks staying healthy until they are strong enough to fly south (late October-November).

Disturbance by other wildlife or humans can interrupt incubation and cause a nest to fail or be abandoned.

Boat traffic can cause loss of eggs

Loon parents will **leave the nest** if watercraft comes within 500 feet of the nest. This leaves the eggs without warmth or protection from predators.

Loon parents may **abandon the nest** if disturbed too often. If they try to re-nest later in the season, the likelihood of chicks hatching and surviving is very low.

Loon Count Volunteers Needed

The Sportsmen's Club of Lake Vermilion is looking for more volunteers to participate in the annual loon count. This year volunteers will go out on Monday, July 10, to count the number of singles, pairs and chicks on the lake. In case of inclement weather, the count will be held on Wednesday, July 12.

If you would like to volunteer, please call board member Mardy Jackson at 218-753-3549.

What Everyone Can Do

- View loons from a distance;
- Enjoy their lovely haunting calls; and
- Give loons their space — they need solitude to breed and raise their young. Approaching too closely can inadvertently cause adult loons to leave their nests, potentially for long periods of time, causing chilling of the eggs and failure of the nest.

Report Harassment

Harassment of wildlife is against the law. If you see loons being harassed, report it to your local DNR office. Videotaping the event and/or recording the vessel's registration number is helpful.

Factors Affecting Loons

Loons are capable of adapting to a variety of conditions. However, particularly during the breeding season, thresholds can be crossed that will cause a nest to fail or result in the death of chick or adult loons.

During the summer months when people are enjoying their favorite lakes, they should remember that they share the water with a variety of wildlife. Time spent to learn their behaviors and habits from a respectable distance will benefit both humans and wildlife.

Personal watercraft and motorboat operators can help significantly by staying away from the shoreline, and also keeping a sharp eye out for loons and other wildlife, while on the water, giving them a wide distance to feed and care for their young.

SPORTSMEN'S CLUB WEB SITE

<http://www.LakeVermilion.com/SCLV>

Summary of 2005 Fish Population Assessment for Lake Vermilion

Introduction

Lake Vermilion is part of the statewide Large Lake Program, an intensive fisheries management program on the 10 largest lakes in Minnesota. The Large Lake Program was started in 1984, when it became apparent that more detailed biological information was needed to properly manage these important lakes. A Large Lake Specialist was assigned to each lake to manage the program at the area level. The Large Lake Program includes annual population assessments, annual water quality monitoring, and regularly scheduled creel surveys. Creel surveys are scheduled on Lake Vermilion for two consecutive years out of every six years. Creel surveys were done in 2002 and 2003. The next cycle of creel surveys will be in 2008 and 2009.

A variety of sampling gear is used during population assessments to collect the various fish species and life stages. Gill nets are used to sample cisco, northern pike, yellow perch, and walleye. Trap nets are used to sample muskie, bluegill and black crappie. Beach seines are used to sample young-of-the-year walleye and perch. An electrofishing boat is used to sample smallmouth bass and young-of-the-year walleye. 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 results of the 2005 fish population assessment are presented in the balance of this report. We encourage anyone with questions or comments to contact the Tower Fisheries office or stop by our office for a visit. We are located just west of Tower on Highway 169.

Duane Williams, Large Lake Specialist
Phone: 218-753-2580, ext. 224
duane.williams@dnr.state.mn.us
Joe Geis, Area Fisheries Supervisor
Phone: 218-753-2580, ext. 222
joe.geis@dnr.state.mn.us

Walleye

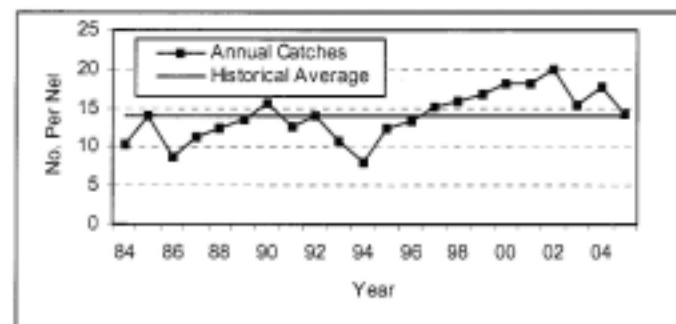
The walleye gill net catch in the fall of 2005 was 14.2 fish/net, which is near the historical average for Lake Vermilion (Figure 1). It was the lowest walleye gill net catch on the lake since 1996. The walleye population on Lake Vermilion was unusually high during the period 1997-2002, due to strong year classes produced in 1995, 1997, and 1998. Poor reproduction in 2000 and 2004 has contributed to a slight decline in the walleye population in recent years.

There are often differences in fish populations between the two major lake basins, East Vermilion and West Vermilion. The 2005 walleye gill net catch on East Vermilion was slightly higher than the West Vermilion walleye catch. Historically, walleye gill net catches are usually higher on East Vermilion, although the average size is larger on West Vermilion.

Walleye populations in large natural walleye lakes often fluctuate in response to strong and weak year classes. Generally, strong year classes of walleye are produced about every three years, which is usually enough to maintain a good population. Because fish production is limited by lake productivity, it would be impossible for lakes to sustain strong year classes every year. Lakes with excessive walleye harvest tend to have highly variable reproduction and walleye abundance. Lakes with low walleye harvest tend to have more stable populations.

Walleye sampled by gill nets had an average length of 13.4 inches, slightly above the historical average. When the gill net catch of walleye is examined by size class, the catch of 10-inch walleye was about double the historical average (Figure 2). These fish are from a moderately strong year class produced in 2003. The

Figure 1. Walleye Gill Net Catches, 1984-2005.



Shore Lunch



SUPERIOR NATIONAL FOREST

LaCROIX RANGER DISTRICT

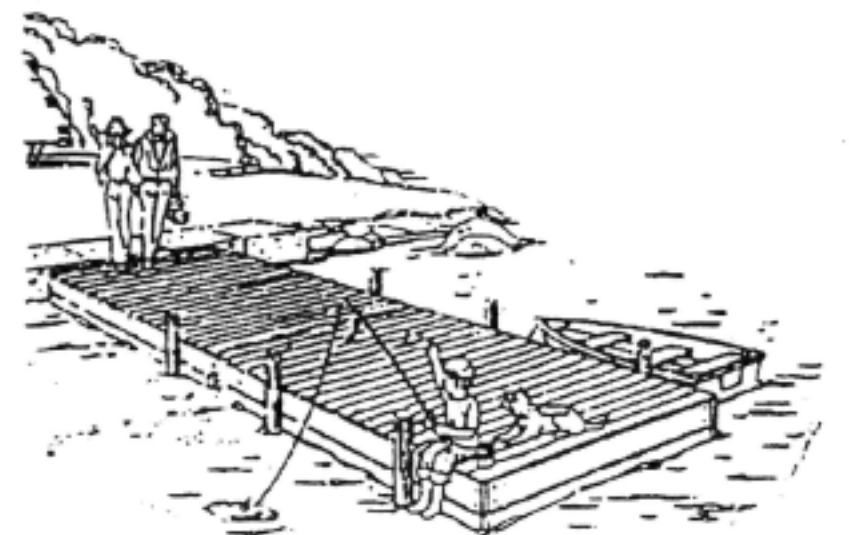
COOK, MINNESOTA

Features

Day Use Only

Six Sites

- dock
- picnic table
- firegrate
- wilderness-style latrine



Lake Vermilion

Shore Lunch Site Locations

On the Cook (west) end...

- North of Norwegian Point on the east shore before entering Norwegian Bay
GPS coordinates ... N 47 Degrees 55' 49.8" (or 55.809'), W 92 Degrees 34' 43.4" (or 34.824')
- North side of Norwegian Bay
GPS coordinates ... N 47 Degrees 56' 45" (or 56.750'), W 92 Degrees 35' 14" (or 35.233')

Two centrally located sites...

- Northeast side of Bystrom Bay
GPS coordinates... N 47 Degrees 54.526', W 92 Degrees 23.127'
- East shore at the entrance to Wolf Bay
GPS coordinates ... N 47 Degrees 55' 40.5" (or 55.675'), W 92 Degrees 27' 59.5" (or 27.991')

On the Tower (east) end...

- East of Bear Creek and north of Pine Island
GPS coordinates ... N 47 Degrees 53' 51.8" (or 53.861'), W 92 Degrees 15' 32.3" (or 15.539')
- East side of Swedetown Bay on Minnesota State Park land
GPS coordinates... N 47 Degrees 49' 91.3" (or 49.913'), W 92 Degrees 15' 67.9" (or 15.679')

Please keep the Shore Lunch sites clean for other visitors. Leave no trace of your visit by packing out all trash and extinguishing your campfire. Thank you.

These facilities are provided by the Sportsmen's Club of Lake Vermilion in cooperation with the U.S. Forest Service.

Summary of 2005 Fish Population Assessment for Lake Vermilion

(Continued from Page 7)

ing weak year classes. It is believed large young-of-the-year walleye have better over-winter survival than small fish. The mean length of young-of-the-year walleye can be used with the total number caught in a predictive model that will give a good indication of how strong a year class will be. The mean length and total catch indicate the 2005 year class will probably be slightly weaker than average. Cool spring weather probably had a negative impact on growth and eventual year class success.

Angling prospects for walleye in 2006 are about average for Lake Vermilion. Strong year classes produced in 2001 and 2002 will provide good angling opportunities for walleye 13-16 inches long. Fishing will be hurt by poor reproduction in 2000. Those fish would now be 14-17 inches long. Anglers can also expect to catch high numbers of small walleye from the 2003 year class, particularly on East Vermilion. Most walleye from the 2003 year class will be 10-11 inches long at the start of the season. As these fish grow during the summer, some may become acceptable to anglers by the end of the summer. Walleye fishing on West Vermilion may be slightly better than average in 2006, due to a very strong 2002 year class in that lake basin. Most walleye from the 2002 year class in West Vermilion will be 13-14 inches long at the start of the fishing season.

In an effort to maintain fishing quality, the DNR is implementing a special regulation for walleye on Lake Vermilion, beginning on March 1, 2006. The new regulation has two components:

- A 17-26 inch protected slot with one fish allowed over 26 inches.
- A 4-fish daily and possession bag limit.

Anglers must immediately return to the lake all walleye 17-26 inches long, inclusive. One walleye over 26

inches long is allowed in the daily and possession bag limit. Anglers fishing Lake Vermilion may only have 4 walleye in their daily and possession limit.

A more restrictive walleye regulation was adopted because fishing pressure and walleye harvest have increased in recent years. Creel surveys in 2002 and 2003 documented the highest walleye harvest ever observed on Lake Vermilion, well above the safe harvest level established for the lake. Consistent harvest above the safe harvest level could have negative consequences for the walleye population. The new slot limit will help keep harvest at a safe level, while allowing anglers to keep eating-sized fish. Adding the 4-fish bag limit will also help keep harvest at a safe level and will be consistent with regulations recently adopted on other large walleye lakes in Minnesota. Support for the regulation change was very high, based on comments received during the public input process.

Northern pike

The 2005 gill net catch of northern pike was 1.3 fish/net, slightly above the historical average (Figure 5). Gill



net catches of northern pike have historically been fairly stable at a relatively low level. West Vermilion usually has higher gill net catches of northern pike than East Vermilion.

The average length of northern pike sampled by gill nets was 25.7 inches, slightly above the historical average. A wide size range of northern pike was sampled, although the total sample size was only 26 fish. Reproduction of northern pike is usually fairly consistent from year to year, although a stronger than average

ciala are hoping the slot will protect some of the older, larger breeding females,

“Hopefully it keeps the harvest down at a level where we won’t have a negative effect on the walleye population,” he said.

While the walleye has been king on Vermilion for decades, there is a new contender to the crown that is bringing in anglers from all parts.

That fish is the muskie.

Muskie have been in Vermilion for years, Williams said, but since a muskie stocking program was initiated several years ago, the lake has become a hot spot for anglers chasing the big one.

The lake’s popularity has grown from word of mouth, Williams said.

“It seems like muskie anglers are really connected. They communicate real well with each other,” Williams said.

And a lot of those anglers are saying the next state record will come from Vermilion.

“Lake Vermilion is ideal (for muskies). It has a high number of tulibeas, which is good forage for them, and a good white sucker population,” Williams said.

What helps, Williams added, is there is a lot of catch and release with muskie anglers.

“Those fish are allowed to grow through their life-span,” he said.

In fact, catch and release is gaining more popularity with anglers chasing all sorts of species.

“That’s encouraging. There’s a lot of interest (in the lake by anglers) which is also good because they care about what’s going on,” Williams said.

Besides fishing pressure, the DNR also has to be concerned about the growing development in and around the lake and its effect on the fish population.

Williams said only 15 percent of Lake Vermilion is publicly owned and it’s important that it stays that way.

He said development is a tough issue and there are going to be some big management issues on the lake in the future.

“Near shore habitat is very important for fish species for spawning. They are impacted by shoreline development,” he said. “Any style house, on its own, (the impact) is probably minimal but you see the cumulative effect of multiple,” structures being built.

There are laws on what people can and can’t do in the water, Williams said, and the DNR has an aquatic plant educational program.

However, development has sort of reached a fevered pitch and the DNR is monitoring that.

“We’re kind of at the point where the lakes in the Brainerd area are at,” he added.

BOARD OF DIRECTORS and OFFICERS 2005-2006

(All Area Codes 218)

<u>COOK (55723)</u>		<u>TOWER (55790)</u>
Ray Harris	7341 Oak Narrows Rd. 666-2300	Bob Wilson, Treas. 1501 Echo Pt. 753-5544
Dale Lundblad	9082 Little Sweden Rd. .. 666-2316 (B.I.C. 666-5352)	Paula Bloczynski, Sec. 4443 Big Rock Rd. 753-2107
John Zwieg, Vice Pres.	2621 Timberlore Trail	Mel Hintz
Joe Panichi	2754 Niles Bay Forest Rd., Buyck 55771 .. 666-5204	6119 Pike Bay Drive
Rick Borken	2810 Niles Bay Forest Rd., Buyck 55771 .. 666-0579	753-2401
		Mardy Jackson, Mem. Rec. 2065 County Road 77
		753-3549
		Miller Friesen
		2144 Birch Pt. Rd. 753-2500
		Walt Moe, Pres. 3331 Nisen Dr. 753-3816

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.

Figure 5. Northern Pike Gill Net Catches, 1984-2005.

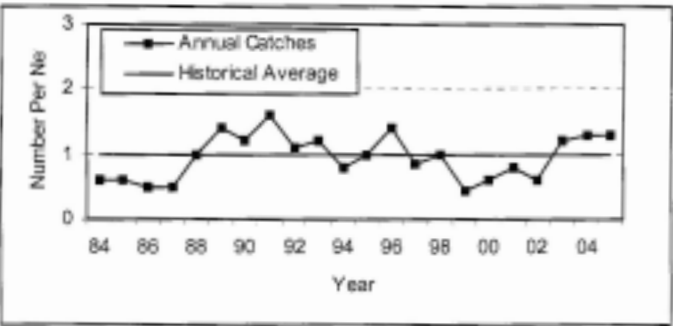
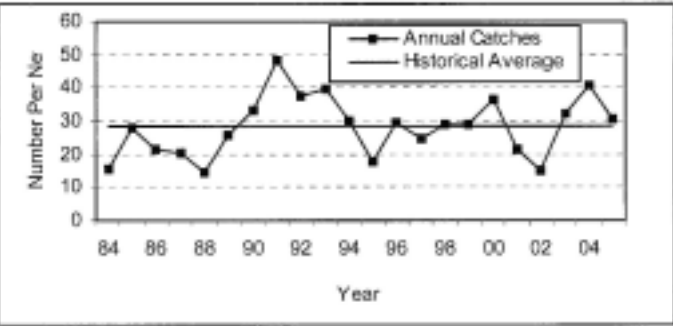


Figure 6. Yellow Perch Gill Net Catches, 1984-2005.



Summary of 2005 Fish Population Assessment for Lake Vermilion

(Continued from Page 9)

numbers of fish. Crappie trap net catches are usually higher on West Vermilion than East Vermilion.

The mean length of black crappie sampled by trap nets was 8.6 inches, slightly above the historical average. High numbers of 10-inch crappie were sampled from a strong year class produced in 2001. Good numbers of 5-6 inch crappie were sampled as well, from what appears to be a fairly strong 2003 year class. A poor year class of crappie was produced in 2000.

Angling prospects for crappie in 2006 are better than average. Crappie from the strong 2001 year class will be about 10 inches long this spring. There are also fair numbers of larger fish available from strong year classes produced in 1997 and 1998.

Smallmouth bass

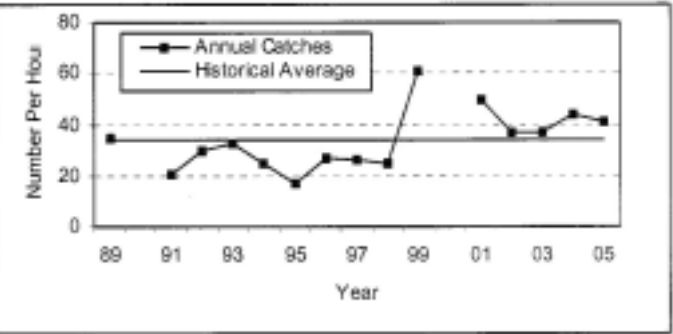
An electrofishing boat is used as the standard sampling gear for smallmouth bass because they are not often caught in standard assessment nets. The 2005 smallmouth bass catch was 41.0 fish/hour of electrofishing, slightly above the historical average (Figure 9). Electrofishing catches of smallmouth bass have been relatively stable in recent years, after unusually high catches in 1999 and 2001.



Sampling was not done in 2000 due to poor weather. The smallmouth bass catch was higher on East Vermilion than West Vermilion, although bass catches are usually higher on West Vermilion.

Smallmouth bass sampled by electrofishing had a mean length of 10.3 inches, well above the historical average. The catch of 15-inch bass was well above average, due to a strong year class produced in 1997.

Figure 9. Smallmouth Bass Electrofishing Catches, 1989-2005.



Above average numbers of 8-9 inch bass were also sampled, primarily from moderately strong year classes produced in 2001 and 2002. A poor year class of smallmouth bass was produced in 2000.

Angling prospects for smallmouth bass are very good in 2006. Fish from a very strong 1997 year class are now 14-16 inches long. Lesser numbers of larger fish will be available to anglers from the older age classes in the population. Fishing for large fish should improve in the next several years as fish from the strong 1997 and 1998 year classes continue to grow.

Muskie

An intensive muskie stocking program was started on Lake Vermilion in 1987, although there were a number of minor stockings dating back to 1968.



Muskie population assessments are done every four years, with East Vermilion and West Vermilion being done in different years due to the large size of the lake. A spring trap net assessment was done on East Vermilion in 2005 and an assessment will be done on West Vermilion in 2006.

The trap net catch of muskie in 2005 was 2.0 fish/net, the highest trap net catch to date. Trap net catches of muskie have been gradually increasing since the first assessment was done in 1993. The average length of muskie sampled by trap nets was 44.6 inches. Male muskie had an average length of 41.5 inches, while female muskie averaged 47.8 inches; 14.9 percent of the muskie sampled were over 50 inches long. The largest muskie caught was 54.3 inches long.

Stocked muskie have been fin-clipped since 1993 to help evaluate natural reproduction. Only 33.3 percent of the muskie caught under 40 inches long had been fin-clipped, suggesting substantial natural reproduction is taking place. The current stocking rate of 5,000 fingerlings every other year will be evaluated and possibly reduced after the 2006 assessment on West Vermilion.

Exotic Species

Several exotic species have become established in Lake Vermilion in the last 20 years. Rusty crayfish were first observed in 1986 and have since become extremely abundant in the eastern part of the lake. Purple

LOOKING FOR PEBBLES

Several studies have shown that loons ingest lead, apparently mistaking it for the grit they use to digest food or by eating small fish that have tackle inside them. The biggest threat is from small jigs and weights — those under a half-ounce.

Research from six New England states from 1987 to 2002 showed 26 percent of dead adult loons recovered died from lead fishing tackle. On some popular fishing lakes, the death rate from lead tackle exceeded 50 percent.

In Michigan, a 15-year study found lead tackle killed nearly one in four loons.

Other studies show that lead poisoning is the second largest cause of death for loons, trailing only traumatic injury, which occurs mostly from being struck by boats.

The Minnesota study found a lower rate of tackle lost per hour fished than the only other major study on the issue. But the Minnesota study looked mostly at anglers fishing from boats, while the other study looked at mostly shore anglers who are more likely to get snags.

New York, New Hampshire, Vermont, England and Canada's national parks have banned small lead tackle. Michigan lawmakers are considering a bill this year.

Minnesota lawmakers in 2003 considered banning small lead tackle, but those efforts were thwarted by fishing tackle manufacturers that said the cost of converting was too high and that the impact on loons was uncertain.

Instead of legislation, the state has promoted alternatives to lead such as tungsten, tin, glass, bismuth and polymers. The Minnesota Pollution Control Agency will continue to host tackle exchanges offering anglers to turn in lead for free samples of non-lead tackle.

Kevin McDonald, lead tackle program coordinator for the state agency, said anglers will see even more alternatives in 2006. The price has been about double lead jigs and sinkers, but that gap could narrow as more products are made.

"Our first goal was to educate anglers on the problem, and I think we've done a lot of that. The second was to get manufacturers to start making this stuff, and we now have at least five in Minnesota," McDonald said. "Our next big step is to get the product on retail shelves, and our big push this summer will be to get non-lead tackle into mom and pop bait and tackle stores."

CRITICS QUESTION NEED

That lead is toxic isn't in question. Federal regulators have ordered lead removed from gasoline and paint because of its devastating effects on child development.

Lead has been banned in shotgun shell pellets for waterfowl hunting for more than two decades because tiny lead bits poisoned waterfowl, upland birds and birds of prey. Some states have eyed a move away from lead bullets as well.

Minnesota and Wisconsin loon populations are stable and strong, and critics say lead's impact is small. They say loons face a greater threat from cabin development, fluctuating water levels from dams, disease and boat traffic.

But supporters of getting small lead jigs and sinkers out of tackle boxes say that any loons killed by lead are an unnecessary loss with an easy fix, and that anglers have the ethical duty to not harm wildlife if alternatives to lead are available.

State Sen. Yvonne Prettner Solon, DFL-Duluth, unsuccessfully sponsored legislation in 2003 to ban small lead tackle in Minnesota. She said the new study may spur a renewed effort to phase out the most harmful tackle.

"The issue is still out there and we still need to take action," Solon said. "We need a grass-roots effort by people in Minnesota to convince the Legislature to do the right thing, protect the environment and ban lead tackle."

JOHN MYERS can be reached at (218) 723-5344 or by e-mail at jmyers@duluthnewstribune.com.

"Invasive Species!!"

by Bob Wilson

In this issue of the Vermilion Sportsman, I am going to focus on that invasive invertebrate called the zebra mussel. If you should happen to be trailering your boat to Lake Vermilion this summer from another lake, be aware that zebra mussels already exist in the following Minnesota lakes and rivers: Lake Ossawinnamakee, Pelican Brook, Lake Zumbro, Lake Superior, Lake Mille Lacs, the St. Croix River downstream of the St. Croix Boomsite Recreation Area, the Mississippi River downstream of St. Anthony Falls, the St. Louis River downstream of the Fond du Lac dam and the Zumbro River downstream of Lake Zumbro.

If your boat, trailer and equipment have been exposed to the aforementioned waters, they may need a special cleaning. The longer the boat remains in these waters, the more apt it is to be fouled by zebra mussels. Therefore, boats that are docked or moored for a couple of days and beyond are more likely to be fouled by these mussels than boats that are launched and retrieved in a single day.

Here is the short version of what you need to do to clean your boat and trailer if they have been in zebra mussel infected waters.

1. Remove any and all visible vegetation from items that were in the water.
2. Flush the engine cooling system, live wells and bilge area with hot water. Water hotter than 110 degrees will kill veligers (mussel larvae) and 140 degrees will kill adults. The most expensive type of destruction your boat can encounter is probably motor damage. Veligers can cause this harm when they are taken into the cooling system where they can attach, grow and block intake screens, internal passages, hoses and strainers.
3. Air dry the boat and other equipment for five days or longer before using it in uninfested waters.
4. Mussels scraped off the boat should be bagged and discarded in the trash.
5. Do not re-use bait. Empty your bait bucket on land, never in the lake water.

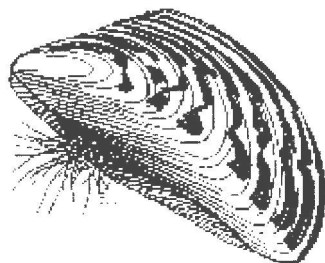
If you should ever spot a zebra mussel in Lake Vermilion IMMEDIATELY CALL the Minnesota Department of Natural Resources Invasive Species Program in St. Paul at 1-800-766-6000 or 1-651-296-2835. Or the Minnesota Sea Grant in Duluth, MN 1-218-726-8712 or the Tower, MN local DNR fishery office 753-2580. Note the date and location where the mussel was found. Take the mussel(s) and store it in rubbing alcohol if possible. Do not throw it back in the lake.

Following is an interesting article on zebra mussels that puts the problem in perspective.

Zebra Mussels (*Dreissena polymorpha*)

DESCRIPTION: The zebra mussel (*Dreissena polymorpha*) is a tiny (1/8-inch to 2-inch) bottom-dwelling clam native to Europe and Asia. Zebra mussels were introduced into the Great Lakes in 1985 or 1986, and have been spreading throughout them since that time. They were most likely brought to North America as larvae in ballast water of ships that traveled from fresh-water Eurasian ports to the Great Lakes. Zebra mussels look like small clams with a yellowish or brownish D-shaped shell, usually with alternating dark- and light-colored stripes. They can be up to two inches long, but most are under an inch. Zebra mussels usually grow in clusters containing numerous individuals.

DISTRIBUTION AND HABITAT: Zebra mussels were first found in Wisconsin waters of Lake Michigan in 1990. They are now found in a number of inland waters. By 1991, the mussels had made their way into Pool 8 of the Mississippi River, most likely originating in the Illinois River (currents may have carried them to the confluence with the Mississippi, from which barges could carry them upriver). Populations of zebra mussels are steadily increasing.



Zebra mussels are the only freshwater mollusks that can firmly attach themselves to solid objects. They are generally found in shallow (6-30 feet deep), algae-rich water.

LIFE HISTORY AND EFFECTS OF INVASION: Zebra mussels usually reach reproductive maturity by the end of their first year. Reproduction occurs through spawning when sperm and eggs are released into the water. Spawning peaks at water temperatures of about 68 degrees F. A fertilized egg results in a free-swimming, planktonic larva called a 'veliger.' This veliger remains suspended in the water column for one to five weeks, and then begins to sink, eventually attaching to a stable surface (e.g., rocks, dock pilings, aquatic weeds, water intakes, boat hulls) on which to live, grow and reproduce. They attach to these surfaces using adhesive structures called byssal threads.

Zebra mussels feed by drawing water into their bodies and filtering out most of the suspended microscopic plants, animals and debris for food. This process can lead to increased water clarity and a depleted food supply for other aquatic organisms, including fish. The higher light penetration fosters growth of rooted aquatic plants which, although creating more habitat for small fish, may inhibit the larger, predatory fish from finding their food. This thicker plant growth can also interfere with boaters, anglers and swimmers. Zebra mussel infestations may also promote the growth of blue-green algae, since they avoid consuming this type of algae but not others.

Zebra mussels attach to the shells of native mussels in great masses, effectively smothering them. A survey by the Corps in the East Channel of the Mississippi River at Prairie du Chien revealed a substantial reduction in the diversity and density of native mussels due to Zebra Mussel infestations. The East Channel provides habitat for one of the best mussel beds in the Upper Mississippi River. Future efforts are being considered to relocate such native mussel beds to waters that are less likely to be impacted by zebra mussels.

Financial impacts have been significant to Wisconsin's water utilities and to power plants, where these animals congregate on and clog intake

and distribution pipes. In 2001, for example, Wisconsin Electric Power Company reported that they were spending \$1.2 million per year in the control of zebra mussels on their Lake Michigan power plants. Lock and dam operators on the Mississippi River and raw water users have also incurred costs. The estimated annual cost of controlling zebra mussels in the Great Lakes now range from \$100 to \$400 million, according to NOAA Great Lakes Environmental Research Laboratory Director Dr. Stephen Brandt.

CONTROLLING ZEBRA MUSSELS: Once zebra mussels are established in a water body, very little can be done to control them. It is therefore crucial to take all possible measures to prevent their introduction in the first place.

Infestation of raw water intake pipes and structures can seriously limit water flow into hatcheries, drinking water treatment plants, industrial facilities, and cooling systems of power plants. Virtually all control initiatives have stemmed from such utility or industrial infestations, thus cost-effectiveness and mechanical functioning are the primary goals. Control measures can include physical removal, industrial vacuums, backflushing, chemical applications (chlorine, bromine, potassium permanganate), and even oxygen deprivation. An ozonation process is under investigation (patented by Bollyky Associates Inc.) which involves the pumping of high concentrations of dissolved ozone into the intake of raw water pipes. This method only works in controlling veligers, and supposedly has little negative impacts on the ecosystem. Further research on effective industrial control measures that minimize negative impacts on ecosystem health is needed.

No selective method has been developed that succeeds in controlling zebra mussels in the wild without also harming other aquatic organisms. To a certain extent, ducks and fish will eat small zebra mussels, but not to the point of effectively controlling their populations. Water draw-downs may yield positive results in some situations, as the mussels are killed by deep freezing during winter. They are also susceptible to the scouring and freezing of winter ice along the shores of the Great Lakes. As of yet, no practical and effective controls are known, again emphasizing the need for research and prevention.

Study: Even slow trickle of lost tackle has weighty impact

A study shows lead fishing tackle is piling up in Minnesota lakes and may threaten loons

By John Myers
Duluth NewsTribune Staff Writer

March 1 — Minnesota anglers don't lose much tackle on a given fishing trip. But collectively, tons of lead sinkers and jigs are ending up on lake bottoms.

That's the finding of a new study the Minnesota Department of Natural Resources unveiled this week at a meeting of 400 natural resource managers and scientists in Brainerd.

It's the first scientific study on how much lead tackle is lost in Minnesota lakes. And it could bolster efforts to ban small lead fishing tackle that can kill loons and other water birds that eat it.

The study looked at five popular walleye fishing lakes — Rainy, Namakan, Leech, Mille Lacs and Lake of The Woods — using survey interviews to find out how much fishing tackle anglers lost.

On each trip, each angler lost remarkably little tackle, the study found. For example, one leadhead jig was lost every 40 hours.

But when multiplied by millions of anglers over millions of hours fished, year after year, the lead is piling up.

During the summer of 2004, anglers in the five lakes surveyed lost 215,000 pieces of tackle to snags and broken line. Of that, about 100,000 pieces were made of lead, totaling more than one ton of lead lost in the lakes.

And that was just five lakes over one summer.

From 1983 to 2004, using DNR survey data, the study estimates anglers left more than 1 million pieces of lead in Lake Mille Lacs alone. That adds up to more than nine tons of lead over 20 years.

Scientists say a single lead jig weighing just 1/8-ounce can kill a loon. The toxic metal can damage nervous and reproductive systems of all mammals and birds. The birds can die within a few days of ingesting the lead.

"In critical wildlife areas with high angling effort or high tackle loss rates... prohibiting the use of lead tackle may be necessary," the report concludes.

LEAD BITS CONCENTRATED

Paul Radomski, a DNR fish biologist, was lead author of the study which will be published in the next issue of the North American Journal of Fisheries Management.

Radomski and others expected to find anglers losing much more tackle, which would mean even more lead on lake bottoms. Still, the researchers assume those anglers surveyed were accurate.

"I was amazed at how little tackle anglers are losing out there. It was much lower than I anticipated," Radomski said, noting anglers were losing any piece of lead tackle only once every 31 hours of fishing. "Yet, even at the very low loss rates we found, the amount of lead ending up in the lakes is incredible."

The lost tackle likely is concentrated on reefs, rocky points and other areas where fish, fishermen and loons congregate, the study notes.

Radomski estimates more than eight tons of lead are lost each year in Minnesota's 300 most popular walleye lakes, mostly in the northeast and north-central regions of the state, where loons also are most common.

"It really opened my eyes on the volume of lead involved. And if you go back for all the decades we've been fishing these lakes, it's not hard to figure how much lead is down there," Radomski said. "It's caused me to re-evaluate what's in my tackle box."

The study conducted 8,068 angler interviews and made contact with nearly 6,500 groups of anglers on the five lakes. Because the surveys were done as part of the DNR's usual assessment of fish harvest and angling pressure, called a creel survey, gaining the lead tackle data essentially was free, Radomski said.

"The science is the same as we use for determining harvest levels, so it's been out there for years," he said.

loosestrife, a flowering plant that grows in wetlands and along shorelines, has been found at a number of locations on Lake Vermilion. Heterosporis, a microsporidean fish parasite, has been identified in two walleye and one perch in recent years. Heterosporis has been identified in several other Minnesota lakes and research is currently under way on the distribution and life history of this parasite. Curly leaf pondweed has been found in Everett Bay and Niles Bay in recent years. Curly leaf pondweed is an aquatic plant native to Europe, although it has been present in areas of the United States and southern Minnesota for many years.

There is potential for other exotic species to become established in Lake Vermilion, which attracts anglers and boaters from all across Minnesota and the Midwest. The DNR has taken several steps to prevent the spread of exotic species. It is now illegal to transport exotic species, infested water, and aquatic vegetation from lake to lake. The DNR has also established a program to educate the public about exotic species and inspect boats at some public accesses. The DNR held a training seminar on boat inspections for members of the Sportsmen's Club of Lake Vermilion and the Lake Vermilion Resort Association in 2004. Sportsmen's Club members conducted boat inspections several times in 2004 and 2005.

Fishing Tournaments

There has been an increase in fishing tournaments on Lake Vermilion in recent years, generating some concerns among other lake users. The DNR considers fishing tournaments to be a legitimate activity on Minnesota lakes, as long as prescribed regulations and guidelines are followed. The Minnesota Legislature passed a bill in 2000 that established regulations to manage fishing tournaments. These regulations were developed by the DNR with input from the public, tournament organizers, and DNR staff. Area and Regional Fisheries staff will work within the framework of state regulations to manage tournaments on Lake Vermilion in a manner that will protect fish populations and minimize conflict with other lake users. Permits from the DNR are needed for most fishing tournaments. Permits have been issued or applications received for the following tournaments on Lake Vermilion in 2006.

- May 20: City Auto Glass Walleye Classic, 100 boats.
- July 21-22: Minnesota Muskie Tournament, 100 boats.
- August 11-12: Lake Vermilion Muskie Challenge, 50 boats.
- Sept. 2-3: Vermilion Walleye Classic, 20 boats.

- Sept. 16-17: Professional Musky Challenge, 100 boats.
- Sept. 30: Reel Em In On Lake Vermilion Walleye Tournament, 80 boats.

Fish Stocking

The Minnesota DNR operates a major walleye egg-take operation and hatchery at the mouth of the Pike River on Lake Vermilion. Walleye produced at the hatchery are used for stocking programs in north-eastern Minnesota and other areas of the state. Because it is DNR policy to return at least 10 percent of the walleye fry produced at hatcheries back into the parent lake, Lake Vermilion is stocked with 10-20 million walleye fry each year. It is not known how much the stocked fry actually contribute to the walleye population. Large natural walleye lakes usually have sufficient natural reproduction to maintain the population and seldom benefit from additional stocking.

An intensive muskie stocking program was started on Lake Vermilion in 1987. The current stocking quota is 5,000 muskie fingerlings every other year. Stocking rates may be reduced in the future if significant natural reproduction is documented.

The DNR and the Sportsmen's Club of Lake Vermilion cooperatively operate a controlled northern pike spawning area at Sunset Creek on the west end of the lake. The spawning area is stocked with brood fish and the water level is maintained at an optimal level for spawning and the production of fingerlings.

Habitat and Water Quality

Preserving fish habitat and water quality continues to be a management priority on Lake Vermilion. Increased shoreline development in recent years could result in the loss of aquatic habitat and degradation of water quality. The DNR has several programs that protect fish habitat and water quality, primarily by regulating shoreline alterations and the removal of aquatic plants. Aquatic vegetation and shallow near-shore areas both provide critical habitat for a number of fish species.

Counties and other local units of government also have regulations that protect habitat and water quality. In addition, individual property owners can take a number of steps to manage their shoreline in an environmentally sound manner. For more information on properly managing lakeshore, as well as other DNR programs, go to the DNR website at www.dnr.state.mn.us.

Lake Vermilion: The ‘Dead Sea’ no more

By Jesse White
Mesabi Daily News Staff Writer

LAKE VERMILION — Some people used to call Lake Vermilion “The Dead Sea.”

Not anymore.

These days it’s not uncommon to limit out on walleyes on any given day or for muskie-mad anglers to yank 40 and 50-inch toothy monsters out of the depths on a regular basis.

And Lake Vermilion is quickly becoming one of Northern Minnesota’s most popular fishing destinations.

According to Lake Vermilion Resort Association lodging tax numbers, receipts have steadily risen each year for the past six years.

The total has gone from \$119,809 in 1999 to \$184,724 in 2005.

Those numbers go hand-in-hand with the rise in fishing pressure on the lake.

According to the 2002-2003 Department of Natural Resources Creel Survey — a survey of anglers done every two out of six years — angler hours on the lake have risen from 488,887 in 1997 to 627,615 in 2003.

During that time frame the walleye harvest has risen 26,382 pounds — from 69,466 in 1997 to 95,848 in 2003.

It’s numbers like those that prove Lake Vermilion is hot.

But those numbers also prompted DNR officials to look into special regulations for the lake to protect the future of the fishery and this year they will be implemented.

There will be a protective slot limit on walleyes of 17 to 26-inches, with one keeper over 26-inches, and a four fish possession limit.

The slot limit is being put into effect to keep the quality of fishing high on the lake for years to come and according to Duane Williams, large lake specialist for the DNR’s Tower office, the future looks bright.

“I’m very upbeat about the future. With the new regulations we’ll hold the harvest to a satisfactory level,” Williams said. “Our muskie program is doing well and the bass population is doing well.”

Williams said the strong walleye population in Lake Vermilion since the mid-1990s can be contributed to two things — strong year classes and favorable weather.

“I think part of it is the high walleye numbers since about 1995. We had a run of very strong year classes. Through a period, from 1994 to 2000, we had real good reproduction,” he said. “Part of it is weather. We found out when you have a cool early summer, sometimes walleyes don’t grow real well.”

Williams said the amount of fishing pressure the last few years combined with a couple of poor year classes in 2000 and 2004 has meant the walleye population is a little down from where it was in the mid and late 1990s.

Still, the harvest is well above what Williams would like to see.

The average harvest pounds since 1984 is 71,513 and DNR officials would prefer that number closer to 65,000 pounds.

That’s where the 17 to 26-inch protective slot comes in and the lower daily bag limit. DNR offi-

year class was produced in 2001. Angling prospects for northern pike in 2006 should be similar to recent years.

A 24-36 inch protected slot limit for northern pike went into effect on Lake Vermilion in 2003. All fish 24-36 inches long must immediately be returned to the lake. The bag limit remains at three fish, which could include up to three fish under 24 inches or one fish over 36 inches. The new regulation is part of a statewide initiative to improve the size structure of pike populations in a number of lakes across the state. An examination of historical fishing records indicated the number of medium and large pike had declined dramatically in Minnesota lakes over the past 50 years.

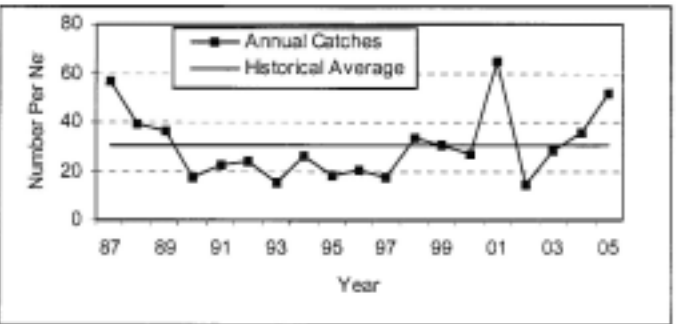
Yellow perch

The 2005 gill net catch of yellow perch was 30.8 fish/net, slightly above the historical average (Figure 6). Perch gill net catches have been above average since 2002. Gill net catches of perch are usually similar between East Vermilion and West Vermilion, although the West Vermilion catch was higher in 2005.

The average length of perch sampled by gill nets was 7.2 inches, slightly below the historical average. The perch population has been dominated by high numbers of small fish in recent years, particularly in West Vermilion. Strong year classes of perch were produced in 2001 and 2002, while poor year classes were produced in 1999 and 2000.

Perch fishing is relatively insignificant on Lake Vermilion, with most of the harvest coming from anglers fishing for other species. There are more large perch in East Vermilion and most of the harvest comes from that lake basin. Perch in East Vermilion grow faster than West Vermilion perch, probably because they feed extensively on juvenile rusty crayfish that are abundant in that area of the lake. Perch are also an important food item for several species of gamefish, including walleye and northern pike.

Figure 7. Bluegill Trap Net Catches, 1987-2005.



Bluegill

The 2005 trap net catch of bluegill was 51.9 fish/net, well above the historical average (Figure 7). Bluegill trap net catches have been increasing in recent years, after an unusually low catch in 2002. Bluegill are much more abundant in West Vermilion and trap net catches there are always much higher than catches on East Vermilion.

The mean length of bluegill sampled by trap nets was 5.8 inches, slightly below the historical average. Above average numbers of 4-7 inch bluegill were sampled from strong year classes produced in 1997, 1998, 2001, and 2002. A very weak year class of bluegill was produced in 2000.

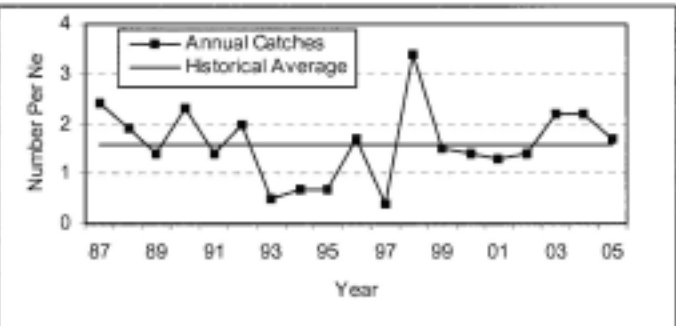
Anglers can expect good bluegill fishing in 2006, particularly on West Vermilion. Good numbers of 6-8 inch fish will be available to anglers from strong year classes produced in 1997 and 1998. The number of bluegill in the population larger than 8 inches is about average, so there is some opportunity to catch larger fish as well. Bluegill fishing for larger fish should improve in the next several years as fish from the strong 1997 and 1998 year classes grow and attain a size more desirable by anglers.

Black crappie

The 2005 black crappie trap net catch was 1.7 fish/net, slightly above the historical average (Figure 8). Trap net catches of crappie have been relatively stable in recent years. Crappie numbers have historically been relatively low on Lake Vermilion, although a few areas of West Vermilion seem to have higher

(Continued on Page 10)

Figure 8. Black Crappie Trap Net Catches, 1987-2005.



Twelve things that citizens can do to help promote conservation in Minnesota — Spring 2006

by Pam Perry, DNR Nongame Specialist

1. Donate to the Nongame Wildlife Checkoff on your state income or property tax forms. This is a tax-deductible donation that helps wildlife in Minnesota and you can get an osprey poster.
2. Clean out the lead sinkers from your fishing tackle box and go to sporting goods stores to get non-toxic alternative split shot, sinkers, and jig heads. Contact Kevin McDonald at the Office of Environmental Assistance about lead tackle exchange sites and dates at kevin.mcdonald@moea.state.mn.us.
3. Look for some fruiting shrubs or perennial flowers for planting this spring that will attract songbirds or hummingbirds to your yard: See the DNR book [Landscaping for Wildlife](#) for what plants to use in your yard.
4. Buy a conservation license plate. (I really like the loon plates!)
5. Set up a bird feeding station in your yard. See the DNR book [Wild About Birds](#) for information about types of feeders and different foods that you can use to attract birds.
6. Go to local MN bird festivals or join your local bird club. By participating in the field trips, you'll meet some great people and learn a lot about the birds in your area.
7. Build a birdhouse with a child or grandchild. Go out and put it up with them. Check it regularly afterwards to see what happens. See the DNR book [Woodworking for Wildlife](#) for nest box specifications.
8. Go to the spring bluebird conference. (This spring it was held on April 22 in Owatonna at the Medford Public School.) For more information contact the Bluebird Recovery Program at BBRP@att.net (put "bluebird" in the subject line) or go to their web site at www.BBRP.org.
9. Volunteer to help with the 2006 Minnesota Frog and Toad Calling Survey. Contact Yvette Monstad at Yvette.monstadt@dnr.state.mn.us or go to the website at www.dnr.state.mn.us/volunteering/frogtoad/survey/index.html.
10. If you live on a lake or regularly visit one, become a Loon Watcher for the DNR. Contact Pam Perry at pam.perry@dnr.state.mn.us.
11. Join action-oriented, habitat-based conservation groups that save habitat for wildlife — like The Nature Conservancy or Ducks Unlimited.
12. Keep your cats indoors. For more information about the Cats Indoors! Minnesota Project go to www.dnr.state.mn.us/contests/catposter.html.

C: 12ThingsAcitizenCanDo2006.doc

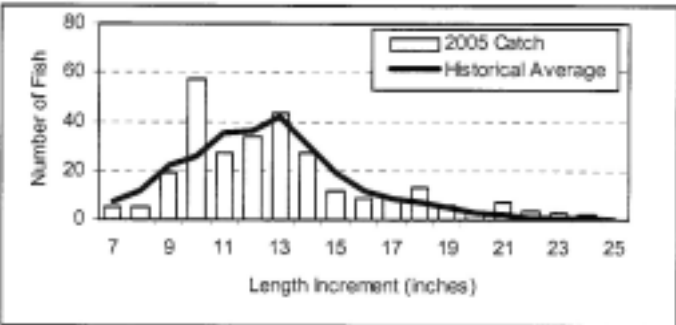
gill net catch of 8-inch walleye was well below the historical average, reflecting poor reproduction in 2004. The gill net catch of 15- and 16-inch walleye was also slightly below average, due to poor reproduction in 2000.

Small walleye are nearly always more abundant than medium and large fish, although this is not reflected in the gill net catch. The experimental gill nets used for population assessments do not sample small fish very well and they are under-represented in the gill net catch. Walleye are not sampled at maximum efficiency until they are about 13 inches long. The decline in the gill net catch of fish larger than 13 inches represents the effects of mortality and declining abundance. Healthy walleye populations will have good numbers of fish across a wide range of size classes. Heavily exploited walleye populations tend to have high numbers of small fish and much lower numbers of large fish.

Walleye year class strength can be represented by indices that are calculated from gill net catches of each year class for each year of netting (Figure 3). An index of 100 would be considered average. The strongest year classes produced in recent years were the 2001 and 2002 year classes. It appears the 2002 year class may be the strongest produced on Lake Vermilion in a number of years. The 2002 year class is especially strong in West Vermilion.

The weakest year class of walleye produced in recent years was the 2000 year class. Poor reproduction in 2000 was probably related to unusually cool spring weather that year. Weak year classes of walleye on Lake Vermilion are often related to cool spring and summer weather, which can negatively affect egg survival and first-year growth. Nearly all of the major fish species in Lake Vermilion had poor reproduction in 2000, probably because of the cool weather that spring and summer.

Figure 2. Walleye Length Frequency From Gill Nets, 2005.



At least two years of netting are needed to calculate a year class strength index, therefore indices cannot yet be calculated for the 2004 and 2005 year classes. One year of netting indicates the 2004 year class will probably be much weaker than average. Poor reproduction in 2004 was probably related to cool spring weather.

Fall electrofishing is used to sample young-of-the-year walleye and help determine reproductive success for the year. The 2005 fall electrofishing catch of young-of-the-year walleye was 108 fish/hour, slightly below the historical average (Figure 4). Electrofishing catches have varied widely on Lake Vermilion, due in part to variation in year class strength. East Vermilion usually has higher electrofishing catches of young-of-the-year walleye than West Vermilion.

The average length of young-of-the-year walleye sampled by electrofishing was 4.9 inches, well below the historical average. Data from our sampling program indicates growth of young-of-the-year walleye is an important factor in eventual year class strength, with fast growing young-of-the-year walleye producing strong year classes and slow growing fish produc-

(Continued on Page 8)

Figure 3. Walleye Year Class Strength Indices, 1984-2003.

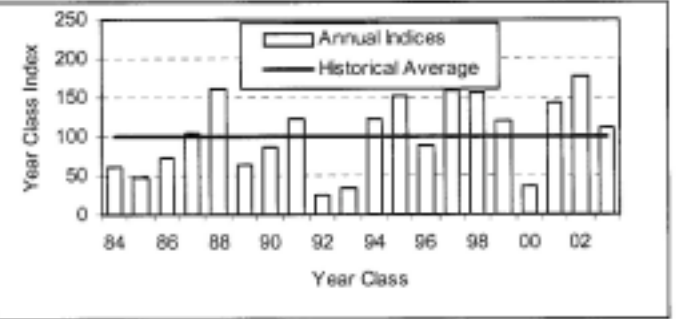
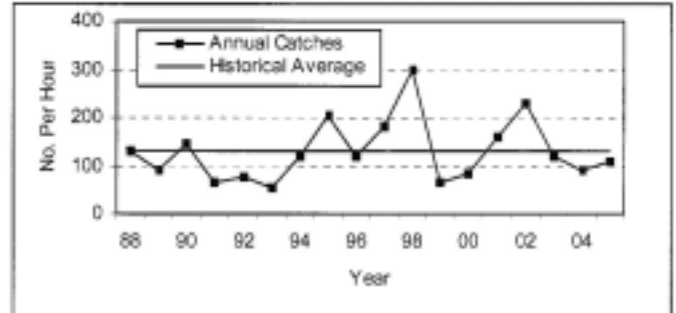
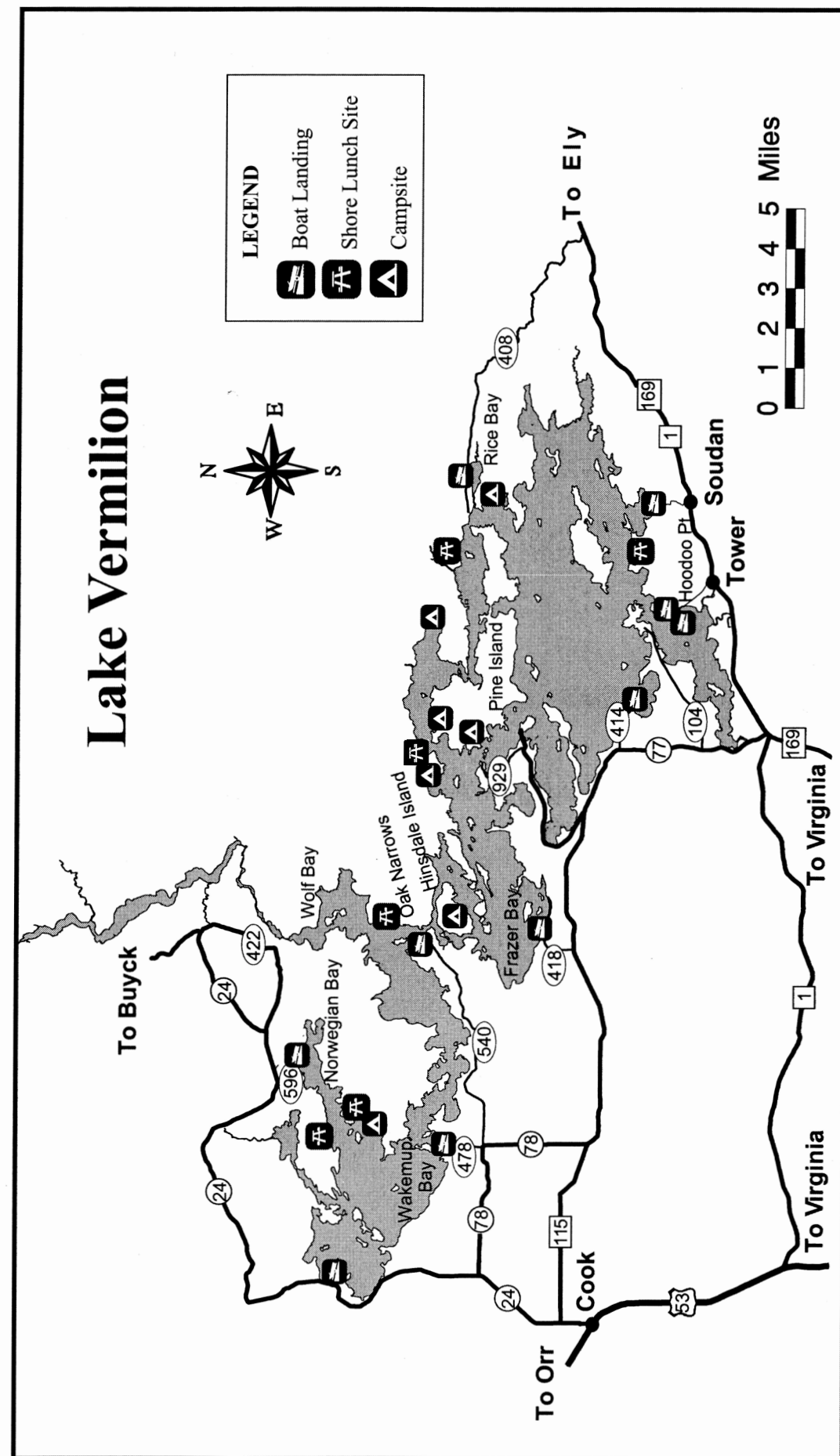


Figure 4. Historical Electrofishing Catches of Young-Of-The-Year Walleye, 1988-2005.



Superior National Forest - Shore Lunch Sites



The United States Department of Agriculture
is an equal opportunity provider and employer.



Printed on Recycled Paper

Pub. 03/04

For More Information Contact:

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

TIPS FOR RELEASING FISH

The new walleye regulation going into effect on Lake Vermilion will require anglers to release some of the fish they catch (all walleye 17-26 inches long). Research has shown that most released walleye will survive, if properly handled. A research project on hooking mortality of released walleye was recently completed on Lake Mille Lacs. Based on those results, we can expect about 4 percent of the walleye released on Lake Vermilion to die. Although it is unfortunate that some of the released fish will die, 4 percent is a biologically acceptable level, especially when considering that most of the fish released under the slot limit would have been kept if no slot limit was in place. Hooking mortality in the Mille Lacs study was lowest in cool water, while using artificial lures, and for medium sized fish. Most of the walleye released on Lake Vermilion will be during cool water periods in the spring and fall, when hooking mortality is at its lowest. Also, most of the walleye released under the slot limit will be medium sized fish, the size range that had the lowest hooking mortality rate. Hooking mortality is caused primarily by damage to internal organs and stress that occurs during the process of being hooked, played, landed, handled, and released. Anglers can take a number of steps to increase survival of fish they release by following these guidelines.

- Play and land the fish as quickly as possible.
- Wet hands before handling fish to prevent removal of protective slime coating.
- Handle the fish gently and keep it in the water as much as possible.
- Cut the line when a fish is hooked in the throat or stomach.
- Needle nosed pliers can often speed up hook removal. Keep them handy.
- Release the fish immediately. Don't put it on a stringer or in a livewell for later release. (Note: all walleye 17-26 inches must be immediately released).
- Always keep your camera handy so pictures can be taken quickly.



Finally, use common sense. If you are catching and releasing fish and have doubts about their survival, do something else. Use techniques, baits, or methods where released fish are more likely to survive. Anglers have an ethical responsibility to fish in a manner that does not contribute to excessive fish mortality, even if technically legal.



A handy measuring board can be made from a piece of plastic rain gutter with a ruler on the bottom.



STOP AQUATIC HITCHHIKERS!™

**Prevent the transport of nuisance species.
Clean all recreational equipment.**

When you leave a body of water:

- Remove any visible mud, plants, fish or animals before transporting equipment.
- Eliminate water from equipment before transporting.
- Clean and dry anything that comes into contact with water (boats, trailers, equipment, clothing, dogs, etc.).
- Never release plants, fish or animals into a body of water unless they came out of that body of water.



STOP AQUATIC HITCHHIKERS!™

Prevent the transport of nuisance species.
Clean all recreational equipment.
www.ProtectOurWaters.net



**“Watch your local
Lake Vermilion
area newspapers
for this
Sportsmen’s Club
public service
announcement!”**

*“In the end, we will only
conserve what we love.*

*“We will only love what we
understand.*

*“We will only understand
what we are taught.”*

Baba Dioum,
Senegalese poet

*“There is no life without
water and no quality of life
without good quality water.”*

Jacques-Yves Cousteau

*“There is certainly
something in angling that
tends to produce a serenity
of the mind.”*

Washington Irving,
American author, 1783-1859

In the Good Ol’ Days... “Woodland Echoes”... The Rapala Story

- **Fishing Systems Change**
- **The ‘Rapala’ Got ‘Em Fast**

ANOTHER CYCLE OF FISHING SYSTEMS seems to be on the way for successful angling results. Many fishermen are reporting only fair or poor results on erstwhile great producing lakes like Vermilion, Pelican, Kabetogama and others. The last two weekends of the regular fishing season found many anglers expressing concern over the alleged shortage of fish being caught this spring. I thought so myself, as three of us on the first outing I squeezed in on the opener Saturday evening on Pike Bay in Vermilion averaged one-half a walleye every hour for the three of us! We used the erstwhile successful systems of still-fishing, jigging and hair-minnow dragging the bottom slowly, all with live chub minnow baits.

But common sense would dictate that Lake Vermilion must still be plentifully populated with walleyes. The old systems must be passe now and new systems must be found. Just as the old-time Prescott and June Bug were kings in their day, sure-fire walleye catchers in the “good ol’ days,” walleyes in recent years would pay no attention to them anymore.

ROY PETERSON, genial veteran proprietor of Pike Bay Resort for the past 30 years on Vermilion, called me one day and asked if I’d care to take in a late afternoon and evening fishing jaunt with him on the bay. He’d not yet had a chance to do any fishing this year, and was frankly disturbed by the reports his guests and others around the bay were giving.

Now, Roy has a theory similar to the one I’ve stated above, that fishing systems do go in cycles, and what was a good system or lure in years past may be no good this year. This is what he wanted to prove out — and he was confident he had the answer, virtually “guaranteeing” limit catches for both of us.

He told me to ditch my stuff and equipment and just step into the boat. He had hookups all ready on the rods. I asked about minnows, but he said we wouldn’t need any. “Just get in — let’s go! There’s walleyes out there waitin’ for us,” he commanded.

He wound up the 5-horse and after a bit of warmup settled it to a fast idle, saying that in early spring walleyes hit better at a bit faster speed than later in summer.

We let out our lines, each hooked up on loose loops at the end of long monofilament leaders with medium sized white bellied “Rapala” floating plugs, the famed lures imported from Finland. About 4 feet up was attached a bell sinker.

Bang, bang! We were not out 500 yards when we both

got strikes, within seconds of each other. Two nice eatin’ size walleyes were put on the stringer. We plied the north shore of the bay, along the Indian Reservation, where a southerly breeze was blowing into it broadside. Trolling at the fast idle fairly close in to shorelines, we hit walleyes at a fast clip. They went to all sizes from brave little four-inchers to about 3 pounds, the largest we got. We had our limits of steakin’ size walleyes within an hour and a half.

All along the shoreline docks, people still-fishing with poles and live baits reported no luck. Those in anchored boats still-fishing, jigging and dragging the bottom in favorite erstwhile accepted styles and lures, also reported poor luck. It seemed we were the only ones getting any fish. And at the rate they attacked those loose-looped Rapala plugs of ours, the lake seemed virtually boiling with walleyes under the surface.

I wondered why we weren’t getting any action from northerns, with all that hitting going on. Surely a wayward northern should have stuck his nose into the business. But Roy said, “No, we won’t hit any northerns here at this time of year. We’d have to go elsewhere. Besides, they don’t seem to want to take baits yet here in Vermilion. Later on in July and August, those are good months for lunker northerns here.”

Bang, something small hit his lure about then. He reeled in saying it was one of those six-inch “monsters.” Lo, when he lifted his leader out, there was a six-inch northern hanging onto his bell sinker! The little fellow spit it out, but was still dangling for a moment or two with the leader strung through a gill. He flopped off that and dove away. That was the only northern we saw that evening.

Between moments of working the business we managed to get in some talk about fishing, conservation and politics. Peterson not only comes by his knowledge of fishing Vermilion waters through 30 years of practical experience, but through his wife’s family as well. Siiri Peterson’s father, Matt Lehtinen, was a pioneer trapper, hunter, fisherman and conservationist in the area. In the early 1900s he was employed by the state conservation department at times, to catch live beavers and fish for early-day spawning studies.

His was the finding which solved the problem of fish eggs sticking together and ruining the chances to hatch out in early artificial fish propagating practices. It was his theory of mixing the eggs in silt scooped up from the bottom of spawning ground which kept the eggs from sticking to each other. That is what happens naturally, as the eggs are laid in moving currents at the bottom of streams or in mouths of rivers emptying into walleye lakes. The

(Continued on Page 4)