

All Aboard for Summer

SPRING 1984 NEWSLETTER

Ten Mile Lake Association
Cass County, Minnesota

At the annual meeting in 1981, members voted to retain the the services of Delman R. Hogen and his staff, Instrumental Research, Inc., to study the several types of pollution entering Ten Mile Lake and their environmental impact. The investigation got under way in 1982.

All field work now has been completed, the final exercise being the extraction of cores from the sediments to obtain a record of the lake's history throughout the past century or more.

Eight cores were obtained, during -20⁰ weather in January, one from each of the lake's five bays and three from deep places in the main lake by use of an ingenious apparatus designed by Hogen. The coring device is lowered through a hole in the ice to the lake bottom, and then an air-powered mechanism pushes a plastic tube four feet long down into the sediments and pulls it back out with the core inside.

The sediments consist of a variety of materials which settle to the bottom and constantly accumulate. They vary in composition in a fairly regular manner from season to season so that the bottom deposits are made up of layer upon layer of so-called "benthos." These yearly layers in the core can be distinguished by their chemical characteristics.

This identification is done by a complex procedure developed by Hogen by means of which small amounts of certain constituents in each layer are caused to create visible imprints on a long strip of sensitized paper. The layers then can be identified year by year in somewhat the same manner as the age of a tree is read by counting the annual rings in a cross section.

The individual layers in the core can be chemically analyzed to reconstruct the lake's history. The core that was extracted from the deepest place in the lake (209 feet), for example, was found to comprise layers dating from 1872 through 1983 and provides a yearly record of what transpired during the past 111 years. All the cores are now being analyzed, and in due course we should receive a complete report of this entire investigation together with recommendations.

..... W. GOSS

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SEPTIC TANK HONOR ROLL

Many lake residents have taken the initiative to upgrade their sewage systems. Here is an update of those who put in code septic tanks and drain fields in the last couple years:

James Kellogg; Mary E. Finley; Richard Fryer; Bill Magnussen; Herb Williams; Parke Behn; Bill Riese; Wes Randall; Opal Roby; Fritz Krueger; Paul Michel; Elmer J. Kreger; Alquinn L. Toews; and Edwin O. Bostrom.

If your name is omitted and you have put in a new code septic system in the last couple years, let Secretary, Lois Sandell know. We want all to be recognized for having a non-polluting sytem.

..... B. MACKLIN

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WINTER WONDERLAND WAS ONLY SNOW DEEP



1407 JAN'81

The snowfall before Thanksgiving provided a white Thanksgiving on Ten Mile Lake. It also covered roadside trash with an ermine blanket as much as a foot thick. It was pleasant for a few months to make the trip to Walker or Hackensack without seeing a bottle or a can along the edge of the road.

In 18 months as a permanent resident on Ten Mile, I have made precious few trips to town from mid-spring through early fall when I have failed to see at least one item of trash along the gravel roads leading to Highways 34 or 371. I often stop to pick up an aluminum can, a glass bottle or a piece of plastic. Early in November I picked up six cans on my way home from Walker on Cass 50 and Shingobee 49.

Whence cometh roadside trash? That question has been on my mind for many years. Here in the Northland it has acquired a greater urgency for me. This is one of the most beautiful regions in the world. It is not as spectacular as some places, but I do not know a single soul who has not been impressed by the natural beauty of northern Minnesota. Who is it, then, who spits on beauty?

I am firmly convinced that anyone living in the Walker-Hackensack area, permanently or seasonally, appreciates the beauty enough not to litter. Indeed, I have heard many say as much. I know I am not alone in my efforts to pick up trash - gleaners are many. My record in that regard is 103 items of trash between the lone pine in Batcheler's meadow on Cass 71 and the Shingobee River on Cass 50. That's a distance of only four miles. That was last spring shortly after the snow had disappeared. My youngest son was a willing helper.

It seems logical to conclude that roadside trash much come from thoughtless transients. It has crossed my mind that these transients probably come from outside the state. Minnesotans know the value of a clean environment and are too much in tune with nature to foul their own nest. We all know that the hickel per can law in Iowa makes the Iowan feel as though he or she is actually throwing money out of the car window. That's why one sees relatively little roadside trash in Iowa. But, until Minnesota gets a deposit law to restrain the Donald Discards and Pitching Paulines, we have a problem! Sure, there's a law against littering in Minnesota, but have you ever heard of anyone being prosecuted for littering? Too hard to catch!

My spouse and I have made several excursions around northern Minnesota - Fergus Falls, Thief River Falls and International Falls, to name three. When I have spotted some highway trash, I have often checked the odometer. On only two occasions out of perhaps 300, have I been able to drive a full mile before seeing another can, bottle or piece of plastic. Litter Louses get around!

As I looked out upon our winter wonderland thinking about roadside trash, I also wondered about the acidity of this snowfall. Slowly the immortal words of Thomas Stearns Eliot come to mind..... "The world ends not with a bang, but with a whimper." ... R. J. LARSON

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LAKE VETERANS PLEASE STEP FORWARD

At the last annual meeting, Secretary, Lois Sandell, gave recognition to Ten Mile residents who have been coming here for a half-century or longer.

She would like to get more on her list. If you were a visitor or summer regular or year-around before 1934, and still come to the lake, please send a card to Lois Sandell, Star Route 2, Hackensack, MN 56452.

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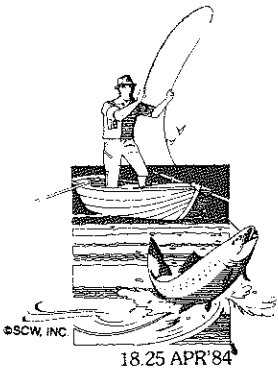
TIGER SALAMANDER MAY PUT BITE ON WALLEYE

I just finished reading the Ten Mile Lake Winter Newsletter and it is both interesting and informative. I am greatly impressed by the large number of dedicated individuals working to meet Ten Mile Lake Association goals. With my background and interest in fishery projects, I appreciate the effort made by Bill Macklin and his netting team to obtain first-hand information indicating the excessive number of game fish caught in many whitefish nets.

Mention is made that the netted northerns were released but some failed to survive. You can believe that some more of these northerns succumbed later from the effects of hanging in the nets.

Ten Mile was noted for its nice-size northerns during the 1940's to the mid-1950's. Sport fishermen quite often docked and displayed fish weighing 10 to 12 pounds and more.

Naturally, one would expect larger takes of large northerns then. Whitefish netting and dark house spearing were closed at Ten Mile during 1944, 1945, 1946, 1947 and part of 1948. Northerns 25 inches or more in length represented about 20 per-cent of the total northern population during the 1940's to the mid-1950's followed by a gradual decline when netting and dark house spearing were allowed during the years that followed the 5-year closing.



Referring again to the netting results of Macklin and his team. I was surprised by the low walleye net count. One might theorize that the recent sharp decline in the walleye population coupled with the 1983 delayed opening of the whitefish netting season resulted in a tally lower than those of the 1970's.

It was disturbing to learn that the Hiram Lake walleye rearing facility failed to produce any significant number of fingerlings. A further decline in Ten Mile's walleye numbers is imminent unless the Ten Mile Lake Association's cooperative stocking program is put "back on track." Hiram Lake is a shallow lake, this coupled with prolonged hot weather last summer might have raised the water temperature beyond tolerable levels. Water temperature exerts a profound influence on aquatic life.

Consequently fingerling mortality might have occurred. The large number of tiger salamanders present might also been cause for failure. This amphibian is reported to prey on all small forms of aquatic life.

Last February I contacted John Kollar and pin-pointed the location of a small lake that, to me, appears to have potential as a fingerling production facility. Roughly the location of the small lake is about one-third mile E-SE of Chub Lake. It is in close proximity to Ten Mile and to a good road, about 10-15 acres in size (eyeball estimate), entirely surrounded by public land, two-thirds is highland shoreline, landlocked, free of excessive weeds, and with a reported maximum depth of 9 to 10 feet. The depth should be verified.

Who knows, this small lake could be a winner!

.... A.G. HORN, Forest Biologist.

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RETURNING TO JAKE'S POND

John Koller, Fisheries Chief in Walker for Department of Natural Resources, said Jake's Pond probably would be used for walleye propagation in 1984. The pond was idled last year after a slim "catch" in 1982. The water had been a good producer for a decade.

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WHY DON'T WALLEYES REPRODUCE IN LAKES? ANOTHER THEORY....

Rain and snow carry small concentrations of various contaminants into our lakes. These include several compounds of sulfur, especially sulfuric acid, which owes its origin to the combustion of coal and other fossil fuels as well as to volcanic emissions.

Massive propaganda and political heat have been generated by so-called "acid rain" which has damaged quite a few soft-water lakes and threatens many more.

A study of acid rain has been conducted for several years by the Deep Portage Conservation Reserve utilizing a network of volunteer participants who measure precipitation year-around. They rush samples from each rain of one-tenth inch to the laboratory at Deep Portage for analysis. These chores on Ten Mile Lake are being performed by Earl Holle.

One of the preliminary findings is that the precipitation in our area does contain appreciable amounts of sulfur compounds, but they usually are not very acidic and often are neutral or even alkaline, so it is a misnomer to call them acid rain. The source would appear to be agricultural, i.e. fertilizers blown from dry fields.

Ten Mile Lake has water of medium hardness and therefore is resistant to acidification, but we may not be immune from damage caused by sulfur compounds in our precipitation. An exploratory set of analyses of the core extracted from the sediments in the deepest part of Ten Mile Lake shows that the layers deposited during the last 16 years contain, on the average, about 50 times as much sulfide as do the layers deposited at the turn of the century!

The relatively large amounts of sulfides may prove quite deleterious. During the late winter months the water in contact with the sediments becomes devoid of oxygen so that extreme "reducing" conditions develop. The result is conversion of the sulfides to hydrogen sulfide, which is highly toxic.

It has been suggested that this release of hydrogen sulfide could be poisoning the walleye eggs and fry, i.e. another theory for the failure of walleyes to reproduce in Ten Mile Lake during recent years. The Board of Directors accordingly has authorized Del Hogen to conduct additional analyses for sulfides in the "deep" core, hoping to obtain data that will indicate whether we should urge the DNR to conduct further research on this problem.

.... W. GOSS

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FAMILY NEEDS LAKE CABIN

WANTED: Young family of 6 in search of lakeshore cabin on Ten Mile Lake with 2-3 bedrooms and excellent beach - to purchase or lease. You may respond to: Peter and Connie Gilbertson
20975 Engen Blvd. NW
Elk River, MN 55330 Phone: 612-441-3980

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CORRECTION

This writer was chastized by friends in the Gull Lake-Nisswa area for including in our last newsletter a comparison between their pollution study and our's on the basis of dollars per mile of shoreline. It seems that their study included a large proportion of homes that are not on shoreline properties, so we apologize.

Maybe it is a mistake to compare apples and oranges, but we'll try again. On a per household basis their study cost about \$59 vs \$28 for our's. We think we're getting our money's worth and believe that they are too!

..... W. GOSS



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ANNUAL MEETING ON AUGUST 4TH

Mark your calendar to attend the annual meeting of the Ten Mile Lake Association, Saturday, August 4th. President, Dan Mullendore says we will return again to the Hackensack Community Building, where mosquitos were screened out last summer and Dan cooled the building with fans and blocks of ice.

AUGUST 1984						
S	M	T	W	T	F	S
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12	13	14	15	16	17	18
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TREASURER'S REPORT

Balance - January 17, 1984:		\$ 4,019.52
Income - Dues -		<u>415.00</u>
TOTAL -		\$ 4,434.52
Expenses -		
Stamps, etc. -	\$ 17.30	
Warren Goss, tele., etc. -	50.58	
Repair depth gauge -	254.94	
Post office, stamps -	20.00	
Environmental Research (DeI Hogen), final phase of lake testing project	2,938.50	
Job printing -	<u>48.65</u>	- <u>3,329.97</u>
NET BALANCE -		<u>\$ 1,104.55</u>
SAVINGS ACCOUNT -	\$ 3,641.95	

..... E. HOLLE, TREASURER