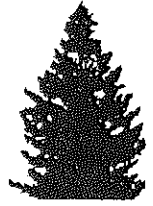


TEN MILE LAKE ASSOCIATION



Newsletter



FALL, 1990

RE-ELECT SKAUG TO LEAD ASSOCIATION

STAN SKAUG WAS RE-ELECTED to a third term as president at the Ten Mile Lake Association's annual meeting Aug. 4 in Hackensack. Other officers named were Deacon Larson, vice-president; Sally Helsing, secretary, and Al Hoover, treasurer.

Directors elected were Jack Adams, John Alden, Sally Helsing and Ellie Nelson, all for three-year terms. The Board has contracted with Heidi Hoppe to record meeting minutes, handle membership correspondence, and organize the membership directory.

PRIOR TO THE FORMAL meeting, a reception was held recognizing Lois Sandell's 15 years of service as association secretary. The affair provided residents with the opportunity to thank Lois personally and to visit with friends as they enjoyed refreshments. In appreciation of her dedicated service, the association presented Lois with a gold pendant and chain.

Featured in the meeting's program portion was Paul Strong, district wildlife biologist with the U.S. Forest Service, who spoke on loons and their calls. There are, he said, four different loon calls: the tremolo, the wail, the hoot and the yodel. Strong used his own voice and solicited additional help from the audience to illustrate the calls. Following Strong's presentation, committee chairs Walter Kane, Jim Schwartz, Rod Owre and Steve Chase reported briefly on their committees' activities.

CONTEST ANNOUNCED FOR NEW LOGO ART

THE TEN MILE LAKE Association is sponsoring a contest for a new logo design, and all members are eligible to enter. All you have to do is submit sketches of your idea by the

A "THANK YOU" FROM LOIS

Dear Friends of the Ten Mile Lake Association:

I would like to take this opportunity to express my gratitude and appreciation for all you have done for me at the time of my retirement as your secretary.

My family and I enjoyed the lovely reception and your good wishes. The beautifully engraved Service Award hangs in my office and daily reminds me of the wonderful opportunity you gave me to serve the Association as your secretary for fifteen years.

Wearing the exquisite gold pendant you presented to me fills me with pride and honor. I shall always cherish it.

Our Ten Mile Lake Association has proved to be an outstanding one in Minnesota because of the dedicated work of all our Officers and Directors, and I feel privileged to have worked with so many wonderful people during my years of service. I will still be a part of this as an honorary member of the Board.

Sincerely,
Lois E. Sandell

first of February, 1991. The Board will review the entries and select a winner, possibly at its mid-winter meeting.

In developing your design idea, keep in mind that the new logo will be used on association letterheads and envelopes as well as on other "house" publications. Some basics: Association name and address (Ten Mile Lake Association, HC 75, Box 380, Hackensack, MN. 56452), and possibly a suitable slogan.

The winning design will earn for its creator a year's free dues. Send your entries to Heidi Hoppe, HC 75, Box 380, Hackensack, MN 56452.



JOTTINGS from the NOTEBOOK

by Jim Schwartz

ENFORCING SAFETY REGULATIONS on Cass County's lakes amounts to an almost impossible task. Sheriff Jim Dowson reported at a regional lake management meeting that Cass has 516 lakes of 10 acres or more in size. For those lakes and the 500,000 visitors coming to the county each weekend during the summer season, he must make do with only 13 deputies. For that reason, it's important for lake residents and associations to do everything possible to encourage safety practices on their own waters by themselves and their guests.

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WE'RE HEARING THAT A NUMBER of lakes have established designated areas for such activities as jet and slalom skiing, fish spawning, loon nesting, speed limits (such as "no wake zones"), general boating and the like. The advice from lake management specialists is right to the point: The time to establish such "rules" is before problems arise.

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MORE BLACK BEAR SIGHTINGS -- this time by the Cecil Bairs. While travelling County #6 on the south side of the lake they spotted four of the critters, all together, near the bridge spanning the Boy River channel. Three appeared to be yearling cubs.

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SEVERAL TEN MILERS have asked about the algae bloom that showed up along shore lines during the late August heat wave. Microscopic examination of the organism led to its identification as a blue-green strain, probably Gloeotrichia. The bloom is a phenomenon that usually occurs during mid- or late summer months and becomes particularly evident on hot, windless days. The algae float to the surface and form a scummy, sometimes smelly, layer. It is possible for this algae species to cause what is known as swimmer's itch (see related article elsewhere in this Newsletter).

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FROM EARLY SEPTEMBER to the colder, blustery days of October lake residents enjoy an almost continuous flow of songbirds and waterfowl on their fall migration routes. It's a delightful spectacle,



worth enduring the snappier (and more invigorating) temperatures as well as the possibility of a snow squall or two. This year, we sighted our first flock of Canada geese on September 4. The following day a lone goose landed and honked up a storm, apparently hoping to attract some fellow travelers. Eventually, the goose gave up, took off and disappeared into a hazy southwest sky.

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WE ARE TOLD THAT a simple but effective way to lure pesky gnats away from your head while walking is simply to stick your hand up in the air and hold it there. The gnats, says our informant, will be attracted away from your face, head and ears and will cluster instead around your hand. Doesn't work on mosquitoes or deer flies.

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THE THOUSANDS OF dead and dying red oak and birch trees you've been seeing for the past two years are the victims of drought and insects. Consecutive dry seasons weaken the trees and leave them vulnerable to such insects as the bronze birch borer and the two-lined chestnut borer. Hardest hit area, apparently, is this section of the state. Whenever possible, the dead trees should be cut and burned.



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BEACH "CAMPFIRE" ARE usually considered romantic or a perfect setting for spinning eerie tales or both. There's no denying that, but beach fires have their down side as well. Apart from the danger that a forest fire might get started, the ashes that remain from beach fires are loaded with nutrients that get washed into the lake with the first rain. Nutrients enrich the lake, enrichment encourages algae growth, algae growth reduces clarity, and so on and on.

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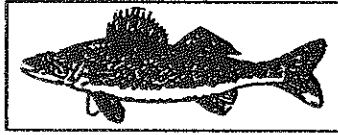
IT'S A GOOD BET there are moose in the vicinity of Ten Mile lake. Annie Knapp reports seeing one this summer about half way around the lake on County #71. And in mid-September Toni and I came across what could only be a line of moose tracks -- also on County #71. Still another spotter was Ray Raetz, up in the North Shore area. While on his "constitutional," Ray found clearly-defined moose tracks in the gravel road surface. If there are others who have had similar experiences, whether it's moose, moose spoor or other interesting sightings, let us know so we can tell our readers.

PAID YOUR DUES? DEADLINE IS FEBRUARY FIRST!

RECORD NUMBER TAKE PART IN FISH DERBY

By Ted Mellby

THE THIRD ANNUAL Ten Mile Lake Fishing Derby was held on August 10 and 11, and 50 association members and guests participated in the 24-hour event. The 1990 walleye champion is Myrtle Pahl (Marilyn Mellby's mother) who caught and released a walleye weighing three and one-quarter pounds. The women lost their two-year monopoly of the walleye division when men captured 2nd, 3rd and 4th places.



The northern division winner is Matt Nelson, a 13-year-old boy, who caught his first northern that weighed in at ten and one-quarter pounds. His winning fish was caught during the first half-hour of the derby. The walleye winner is an octogenarian and Matt is only 13 -- fishing is for all ages!

THE WEATHER WAS IDEAL Friday afternoon and evening. On Saturday a strong breeze whipped up 1 1/2' to 2' waves, forcing small boats to stay on shore. A light rain began as the award ceremony was concluded.

Thanks to the generosity of Northland Tackle, there were 22 door prizes. Happiness Resort also donated six lures and Swanson's Bait & Tackle donated 200 pounds of ice.

FOLLOWING THE DERBY, approximately 70 persons enjoyed brats and refreshments and the award ceremony. A new addition to the ceremony was the "Whiners Club of America." This award goes to the person who excels at complaining. The first annual award went to Molly Fransen and included a T-shirt, certificate and billfold-sized card acknowledging her significant achievement.

Virginia Wagner demonstrated her northern de-boning technique to an attentive and appreciative audience. Everyone enjoyed a fun, safe and sociable event. Approximately \$200 of excess fishing derby registration money will be donated to the Ten Mile Lake Association. Good fishing!

DOES A LAKE TILT? READ UP AND SEE!

By George Brandt

FLUID DYNAMICS is a fancy name for the study of liquids during the process of change, like water flowing thru a hose or syrup pouring out of a bottle and over a stack of pancakes. Each action is governed by fundamental laws of physics such as grav-

ity, viscosity, and friction.

When a body of water is at rest and contained, like Ten Mile Lake on a calm, still morning, it appears that the lake is motionless. Yet a stick cast on the water will move eventually on invisible tides of thermal unrest from the temperature differential of the uneven depths and the uneven heating from the sun. This, and other phenomena, is the result of a system that always tries to find equilibrium (rest) when changing external conditions will not allow rest to occur.

A VIVID DESCRIPTION of what takes place at Leech Lake under changing external conditions was recently given by John Zahalka, Resource Manager with the U.S. Corps of Engineers at Federal Dam. He reports that when a 20-25 mph wind blows out of the north the water level of the lake at the dam can drop by as much as a foot!

This is obviously caused by the friction of the wind moving water from the north end of the lake and distributing it, willy-nilly, to other more southerly parts of Leech Lake. The gradient (tilt) of the surface of the lake has therefore changed by more than 12 inches -- the drop at Federal Dam plus the increase at willy or nilly. This gradient of about an inch per mile is not visible to us, but the friction of the wind, it can be estimated, has moved one million gallons of water weighing about 7.7 million pounds more than one foot up hill!

BACK AT TEN MILE, in the summer of 1989, the beaver dam in the Boy River under Highway 6 was removed. Initially, the water dropped by more than a foot through the new opening, and the volume increased by almost 1,000 gallons per minute. This, of course, was gravity at work. But one week later, no noticeable decrease in the water level had taken place at the west shore of Ten Mile.



Friction, surface tension, and viscosity properties had worked their magic, changing a drop of nearly two feet to an invisible gradient of less than one inch per mile. Q.E.D.

The most dramatic example of gradient on a body of water is in the Bay of Fundy on the eastern coast of Canada and the U.S. There, 50 foot tides can rise twice a day! Laser technology might allow us to measure the tidal effects on Ten Mile Lake, for surely our lake is subject to all the rules of Fluid Dynamics if we wish to pause, study, and be aware. (Ed. Note: See lake level story elsewhere in this Newsletter.)

HEDDERLY WAS EARLY TEN MILE "SETTLER"

By Bill Macklin

BACK IN THE DAYS when catching a 20-pound northern was possible and land could be purchased for a pittance, a Minneapolis dentist pioneered on Ten Mile Lake. He was Dr. Thomas Hedderly, who moved his practice to Walker in 1906. He bought 400 acres of land on the southwest side of Ten Mile for \$4 an acre.

The site was bordered on the west by Kenfield Bay and on the north by the southwest shore of Ten Mile. The home he originally built is on land now owned by Mrs. Dan Mullendore. Dr. Hedderly moved his family into the house he built the first year. It was incomplete, and the parents nailed mosquito netting over openings.

THE FAMILY WAS THREE young boys, the parents and Mrs. Hedderly's father. He was a hunter and, game being plentiful, kept the family in meat — deer, partridge and rabbits. A fourth son was born in the new house but died of pneumonia at 18 months.

The home was a two-story affair that was added onto through the years. Horse-drawn wagons brought furniture to the house, including Mrs. Hedderly's grand piano. Dr. Hedderly soon realized he was no farmer, that clearing the land of stumps up to five feet in diameter was impossible for him. The stumps were left from the years when T. B. Walker, lumber tycoon, harvested the mature trees in the area.

THE FAMILY DID SOME CLEARING but found the soil too rocky for growing corn. Just enough clearing was done to grow hay, clover and timothy for the cattle. Farming was phased out and Dr. Hedderly went broke, but building operations continued. His sons dug out part of a basement by hand and a stone mason built walls.

They also hauled logs to a sawmill to be cut into boards for the outside of the home. There were some fun times, too: recollections of catching 20-pound northers, called "sand trout." These were sliced into steaks. In 1914, the marriage of Dr. Hedderly and his wife broke up. She gained possession of the house and 33 acres. To support the family, she taught school.

LATER SHE WENT TO the Dakotas to teach, where, instead of \$40 a month she got \$120 a month as the need for teachers there was great. Cyril Hedderly and his younger brothers remained in the area until a buyer was found for the homestead. A Hackensack banker

paid \$85 an acre for the land, including the house.

The Hedderly sons moved to Minneapolis in 1923 and joined their mother. Their father died in 1926. Dan and Norma Mullendore purchased the property in 1967. They built a new home to live in, closer to the lake, but kept the old house, which still stands.

HISTORY COMMITTEE SEEKS MEMORABILIA

By Willa Shonkweiler-Martin

(Annual Report of the History Committee)

FOR THE PAST FEW MONTHS the committee has been putting together materials we have collected in scrapbooks which were available for you to see at the August, 1990, annual meeting.

In case you missed seeing them there are at present three scrapbooks containing pictures, news articles and one book featuring eleven histories of families on Ten Mile Lake.

OUR FUTURE PLANS are to keep urging persons to write about their places on the lake or, if you would like, one of the committee members will come and tape your story. If you prefer you can send it to one of us and we will do the typing from either written material or from tape.

If you wonder what kind of questions we have usually asked when we interviewed persons, the following list might be of assistance to you:

WHEN YOUR FAMILY arrived on Ten Mile. Why you came. History of your cabin, lot or neighbors. Number of generations. Friendships or romances on the lake. Pictures or clippings we can have or copy. Others we should talk to. Information about Indians on the lake, individually or collectively. Evidence of Indian mounds, burials, hunting, fishing, maple sugaring, permanent residents or visitors, possible Indian fears of the lake. Logging operations. The town of Lothrop, and other settlements. Early farmers or homesteaders. Schools. Sawmills. Interesting persons on the lake. Early trails or roads. Fish, fishing and fish planting. The "great sea monster" sightings. Origin of area names on the lake.

Use this list as an aid and send us your stories, pictures and news articles so we can compile a memory book for all to enjoy. And feel free to contact any committee member if you'd like help. — Willa Shonkweiler-Martin, Chair; Ross Melgaard, Ginny Burnett, Warren Goss, Jack Adams.

TREASURER'S ANNUAL REPORT - AUGUST 4, 1990

Checking Account

Beginning Balance, 8/1/89		\$	299.43
Receipts:			
Miscellaneous	\$	55.00	
1990 Dues		7,965.38	
1991 Dues	\$	<u>2,265.00</u>	<u>\$10,285.38</u>
Total			<u>\$10,584.81</u>
Expenses:			
Copying	\$	107.09	
Postage		746.03	
Printing		405.82	
Telephone		30.00	
Donations (Deep Portage)		700.00	
Meetings (State and Area)		619.75	
Annual Meeting		163.73	
Association Dues		90.00	
Projects/Legal Expenses		1,441.24	
Miscellaneous		134.55	
Newsletter		499.45	
Transfer to Prime Account		2,500.00	
Transfer to Memorials	\$	<u>55.00</u>	<u>\$ 7,492.66</u>
Ending Balance 7/31/90			<u>\$ 3,092.15</u>

Prime Money Market Account

Beginning balance, 8/1/89		\$18,808.92
Addition (Memorials)	\$	2,552.08
Transfer from Checking		2,500.00
Dividends		1,583.56
Govt. Fund Correction	\$	<u>84.27</u>
		<u>\$ 6,719.91</u>
		<u>\$25,528.83</u>
Expenses:		
Transfer fee	\$	2.79
Account Fee		35.00
Miscellaneous		315.38
Postage	\$	<u>351.00</u>
Ending Balance 7/31/90		<u>\$ 704.17</u>
		<u>\$24,824.66</u>

Kemper Government Plus Account

Value, 7/31/90 (8791.393 shares @ \$7.25)	\$63,737.59
Total, 7/31/90	\$91,654.40

-- Al Hoover, Treasurer

**TIMBER CUTTING
PLAN QUESTIONED**

OFFICERS AND DIRECTORS of the Association have conveyed their concerns to the Minnesota Environmental Quality Board about the state's plan to greatly increase the timber harvest from state forests over the next few years.

SPECIFICALLY, the Board recommended a moratorium on boosting harvests pending intensive study of several issues:

1. The effect that recycling and conservation programs will have on demand for wood and its products.

2. The effect that increasing harvests will have on the state and global climates.

3. The impact on biodiversity that could come from shifting to a monocultural (aspen) forest management plan.

4. The impact of such dramatic harvest increases on Native Americans, many of whom still depend heavily on forest lands for their livelihood.

5. The possible detrimental effect on lakes and streams of the chemicals that will be used in processing paper products, whose output will climb as timber cutting increases.

6. The erosive effect on forest soils of clear-cutting harvest practices.

7. Tourists' responses to increasingly barren forest lands.

8. The long-term impact on regional economies, taking all considerations into account.

9. Whether better, more efficient management methods would make increased harvest levels unnecessary.

IF YOU HAVE SIMILAR concerns, the Board urges you to forward them as soon as possible to:

Mr. Mike Kilgore

Minnesota Environmental Quality Board

658 Cedar Street

St. Paul, MN 55155

For a copy of the Board letter, write Jim Schwartz.

LAKE LEVEL TAKES SUMMER DIP

AS OF SEPTEMBER 22, 1990, the level of Ten Mile Lake is 1379.2 feet above sea level. Compared to one year ago, it is down 3 inches. This should not be alarming since it dropped 8 inches in the summer of '89. The average summer time change is a drop of 3.4 inches. It's also interesting to note that the lake is 6.4 inches higher than it was two years ago on this date. In the last Newsletter, I glibly mentioned that I didn't think (see next page-->)

the lake tilted. That statement promptly brought an article by George Brandt spelling out in detail the error of my assumption. My dad always said: "Never assume anything . . ." Right again, dad -- the lake can tilt. My apologies to those who really care! -- Walt Kane.

OFFICERS AND DIRECTORS OF TEN MILE LAKE ASSOCIATION

OFFICERS

(Terms Expire 8/91)

President.....	Stan Skaug	675-6261	Box 450
Vice-President.....	Deacon Larson	675-6069	Box 654
Secretary.....	Sally Helsing	675-6821	Box 270
Treasurer.....	Al Hoover	675-6839	Box 550

DIRECTORS

<u>Resident</u> -- Terms expire 8/91:			
Willa Shonkwiler Martin.....	675-6952	Box 564	
Ginny Burnett.....	675-6458	Box 586	
<u>Resident</u> -- Term expires 8/92:			
Walt Kane.....	675-6193	Box 956	
<u>Resident</u> -- Terms expire 8/93:			
Sally Helsing.....	675-6821	Box 270	
John Alden.....	547-3114	Box 728	
<u>Summer Resident</u> -- Term expires 8/91:			
Steve Chase.....	547-3924	Box 770	
<u>Summer Resident</u> - Terms expire 8/92:			
Robert Crabb.....	675-6120	Box 347	
Mike Schwartz.....	675-6422	Box 626	
<u>Summer Resident</u> -- Terms expire 8/93:			
Jack Adams.....	547-3346	Box 801	
Ellie Nelson.....	547-3520	Box 780	
<u>Honorary Director</u>			
Warren Goss.....	675-6226	Box 604	
Lois Sandell.....	675-6628	Box 646	
<u>Ex-Officio Board Member</u>			
Ross Melgaard.....	547-1943	Box 750	

COMMITTEE CHAIRS AND MEMBERS

Environment and Ecology: J. Schwartz (Ch), Adams, B. Carlson, Goss, T. Hopkins, M. McCleery, J. McGill, Melgaard, Prince.

Financial Advisory: Chase (Ch), Adams, Crabb, Hoover, Melgaard, M. Schwartz.

Fisheries: Owre (Ch), C. Bair, B. Horn, H. Hotovec, C. Krueger, Madison.

Highway Beautification - Helsing (Ch), Martin.

History: Shonkwiler-Martin (Ch), Adams, Burnett, Goss, Melgaard.

Lake Level: Kane.

Lake Safety: Burnett (Ch), Chase, R. Hughes.

Loon Protection and Propagation: E. Nelson (Ch), Burnett, Melgaard, B. Nelson.

Membership and Directory Coordinator: Hoppe.

Newsletter: J. Schwartz and B. Macklin.

Zoning and Land Use: Macklin (Ch), Alden, Bob Nelson.

TWO CAUSES OF SWIMMERS' ITCH

IF YOU'VE EVER been unlucky enough to develop what is known as swimmer's itch, you learned how indescribably tormenting it can be. Almost nothing seems to help, but the good news is that in time it will go away.

BECAUSE SOME CASES of it were reported on Ten Mile this summer, questions arose as to what causes the problem. There are at least two possibilities: (1) Parasites, and (2) algae.

THE PARASITES are tiny organisms harbored by snails for a part of their lives, then mature in birds and mammals, usually waterfowl. Because humans are not the normal host, the parasites die when they enter one's skin -- and thereby cause the itching.

CONTROL OR alleviation of the itch usually is possible by applying copper sulfate along the beach area to kill the snails. A permit for such application is required and may be obtained from the regional DNR office at Brainerd.

THE OTHER possible cause, algae, is less common. The particular species is *Gloeotrichia* which, in heavy concentrations, can irritate swimmers' skin. It is a blue-green filamentous algae that can appear during hot, still days. The obvious preventive is to avoid swimming when algae levels are high. (Material for this article came from: DNR Information Leaflet #8, obtained by Ross Melgaard, and Non-Flowering Plants, a Golden Guide book.) -- Jim Schwartz.

WHY DOES THE TMLA donate \$700 annually to Deep Portage? President Stan Skaug explains: We believe, as do other lake associations, that Deep Portage is a valuable resource to both our membership and the region, and, more directly, because we rely on Deep Portage's laboratory for some water quality tests.

CATCH AND RELEASE FISHING: GOOD IDEA

By Harlan Fierstine, Supervisor
Walker Area Fisheries, DNR

CATCH AND RELEASE fishing -- every angler has practiced this form of fishing, but in the past the fish released were usually the small ones. Today many anglers are starting to practice catch and release fishing by releasing quality size fish. If they desire to have a meal of fish, they keep some of the smaller, more abundant fish for a fish fry.

Why release the quality size fish? Fishing pressure and expertise have increased dramatically during the last couple decades. Just as many or more fish are being caught today as in the past, but as most anglers realize, the average size those fish has generally declined. Our data on the fish populations in the lakes of Minnesota also show this decline in average size. This decline in quality is probably the most dramatic for bluegill and other panfish species. (See accompanying graphs showing length frequencies of bluegill sampled in Ten Mile Lake during 1971 and 1988.)

THE MINNESOTA DEPARTMENT of Natural Re-

FOUR FROM TEN MILE AT LAKE CONFERENCE

FOUR ASSOCIATION representatives attended the second annual Minnesota Lake Management Conference at Cragun's Lodge, Gull Lake, on October 8-9. They were John Alden, Ginny Burnett, Willa Shonkwiler-Martin and Jim Schwartz.

The conference theme was "Broader Perspectives on Lake Management" and featured panelists and speakers on a variety of topics aimed at preserving and improving lake quality.

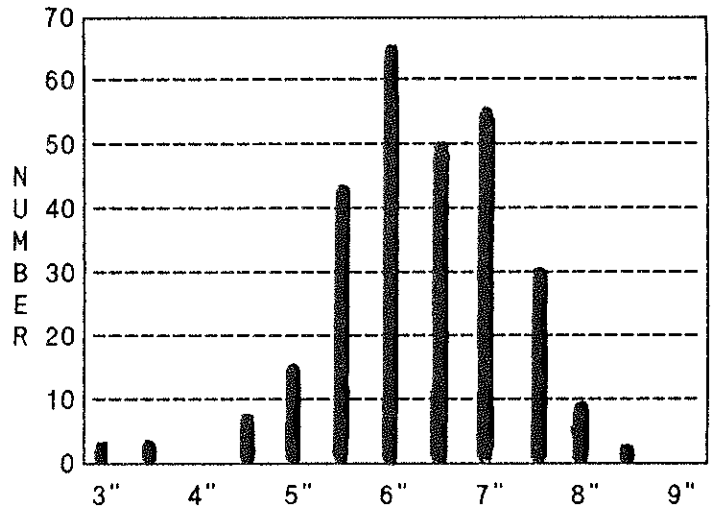
AMONG THE SESSIONS were presentations on managing aquatic plants; the impact of toxics on wildlife; water quality assessment methods; aquatic ecology and basic limnology; fisheries management; watershed management practices; ground water, pollution and their impact on lakes; landscaping lakeshore for wildlife.

Seven concurrent workshops were scheduled the final afternoon of the conference. Jim Schwartz was a panelist on the one entitled "Lake Association Operations: The How To's." He outlined the continuing TMLA water quality projects of the past decade and a half and answered questions on cost, procedures and apparent effects.

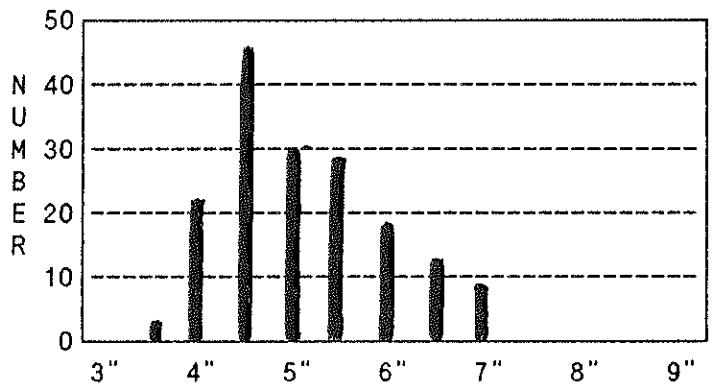
sources, Fisheries Section, has printed and made available to the public an educational brochure explaining the whys and hows of catch and release fishing. As many muskellunge, trout, and largemouth bass anglers have found, if enough anglers practice wise catch and release fishing (research shows that most properly released fish survive) the chances of catching a "trophy" greatly increase.

For more information on catch and release fishing contact the Walker Area Fishers Office at 547-1683.

TEN MILE LAKE 1971 BLUEGILL LENGTH FREQUENCY



TEN MILE LAKE 1988 BLUEGILL LENGTH FREQUENCY



CALLING ALL DESIGNERS!

SEND YOUR IDEA FOR A NEW DIRECTORY COVER TO HEIDE HOPPE BY 2/1/91. IF YOU WIN YOU NOT ONLY EARN FAME BUT FORTUNE AS WELL -- A YEAR'S FREE MEMBERSHIP!

FINANCE COMMITTEE OKAYS 3 PROJECTS

By Steve Chase, Chair

(Annual Report of Finance Committee)

THE FINANCE COMMITTEE has maintained investments in a U.S. Government Securities Fund, with interest reinvested monthly, and in a money market fund, with interest reinvested daily. The present lower prices in the market will permit an increased acquisition of shares in the fund.

A recent recommendation by the Finance Committee and approved by the Board allocated the memorial gift dollars to improvement of fisheries, the plant and animal environment and to a newly-adopted greenspace program. An initial \$700 was provided to the Department of Natural Resources for seven trap nets that will be used in connection with the agency's walleye stocking program. --Steve Chase, Chair; Jack Adams, Bob Crabb, Al Hoover, Ross Melgaard, Mike Schwartz.

HOW FAST DO FISH GROW? IT DEPENDS

By Harlan Fierstine, Supervisor
Walker Area Fisheries, DNR

"HOW OLD IS A 14-INCH walleye?" This is a question that I am asked fairly often. Most anglers are surprised when I tell them that in most cases a 14-inch walleye will be four years old.

Fisheries biologists can use a number of different parts from a fish to determine how old it is. The most commonly used part is a fish scale. Other bony structures such as spines and parts of the gill covers can also be used. An annulus is formed on these different structures sometime during late May or early June when fish growth increases due to warmer water temperatures and greater availabilities of food. Counting these annuli on fish scales and other bony structures, though more difficult, is similar to counting rings on a tree stump.

BY USING A COMPUTER program we can determine a growth rate for a species of fish from a particular lake. This growth rate information can be compared to historical growth rate information to determine good or bad trends that may be occurring in a lake's fish population. Also, changes in the growth rate of a fish population may determine whether a particular management practice is beneficial or harmful.

Different populations of a particular species of fish do not all grow at the same

rate. A species of fish in the northern United States is going to grow slower than the same species from the southern states. This is related to the length of the "growing season." Even within Cass County, a particular species may grow faster in one lake than in another. As an example, a 6-inch bluegill in Big Boy Lake is 3 years old while one from Ten Mile Lake is 6 years old. Difference in growth rates within a geographic area are determined by population density, food availability, and other factors within the lake environment.

THE TABLE BELOW gives average lengths at ages 4 and 7 years of common sportfish species found in Ten Mile Lake. When some people realize how long it takes to grow a quality size fish they also begin to understand the catch and release philosophy.

Table: Average length (inches) of sportfish from Ten Mile Lake at ages 4 and 7 years:

Species	4 yrs.	7 yrs.
Walleye	15.0	21.0
Northern Pike	23.0	30.0
Largemouth Bass	10.0	16.0
Bluegill	5.0	6.5
Black Crappie	8.0	11.0

STOCK TEN MILE WITH 50,000 FINGERLINGS

By Rod Owre, Chair, Fisheries Committee
FROM ALL REPORTS, fishing on Ten Mile was good this past season. The shallow bays were good producers from the opening through June while the deeper reefs and dropoffs gave up some nice catches in July. Also, July and early August were good times for evening plug fishing over deep waters inhabited by our dwarf tullibeets.

Ten Mile's walleye stocking was completed in late September and early October. Some 1,300 pounds of fingerlings were released, averaging approximately 40 per pound. That translates to about 50,000 young walleyes introduced to Ten Mile waters.

THE DNR CONTINUED its research on Ten Mile Lake walleye reproduction, launching 3 separate electro-shocking expeditions. As was the case last year, no conclusions were reached. More research will be necessary.

For the next season, we will be putting more emphasis on catch and release tactics, a topic on which we will be providing you with more information in coming newsletters.

ENVIRONMENT/ECOLOGY PROJECTS GO FORWARD

By Jim Schwartz, Chair

(Environment and Ecology Committee)

THE FOLLOWING IS AN abbreviated version of the annual report submitted to the Board of Directors at its September 22 meeting listing the committee's activities for the 1989-1990 fiscal year. The committee:

1. Organized and carried out a lakewide well water testing project on July 7. Samples taken, 160; number showing evidence of contamination, 32.

2. Conducted the initial phase of a shoreline testing project. Samples collected and analyzed, 435. Findings will be subjected to a confirmation review next July or August. See complete story elsewhere in Newsletter.

3. Took transparency readings at two lake locations weekly throughout summer. Clarity above average most of summer.

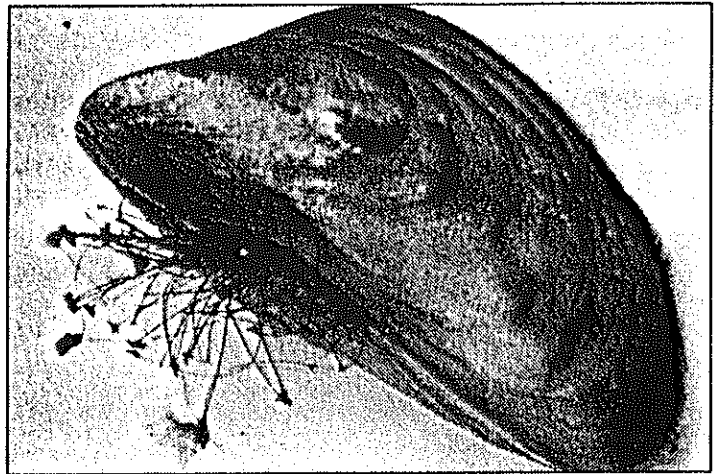
4. Took periodic temperature and dissolved oxygen readings at various lake locations at intervals during summer, from surface to 50' depth.

5. Made initial plans for a 1991 Cleanup Day encouraging lake residents to turn in hazardous materials for proper disposal.

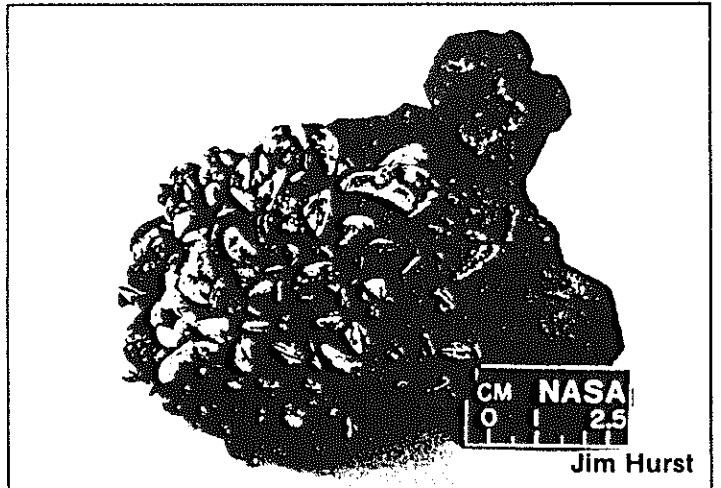
6. Discussed possibility of developing a brief booklet for members emphasizing best lake management practices.

7. Reviewed a videotaped program entitled Lake Protection: Everyone Contributes. May use as display item at 1991 annual meeting.

8. Authored a resolution asking region's legislators to consider a measure imposing a moratorium on the DNR's public water access program until the threat of Eurasian water milfoil and the zebra mussel can be fully



Close-up of a zebra mussel shows the tuft of byssal threads used for attachment. Particles on the ends of the threads are debris.

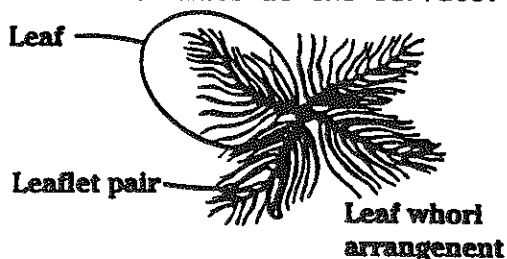


Jim Hurst

While reported to grow nearly two inches in length, most zebra mussels are the size of a fingernail. Tiny zebra mussels (juveniles) readily attach to older ones, causing colonies to grow rapidly to depths of several inches.

HOW TO IDENTIFY EURASIAN WATER MILFOIL

- * Long stems with feather-like leaves attached in whorls of four.
- * Leaves typically having 12 pairs of leaflets.
- * Flowers appearing terminally on the stem above water.
- * Formation of mats at the surface.



studied and effective control measures developed.

9. Authored a letter to the Minnesota Environmental Quality Board expressing the Association's reservations and concerns about projected plans for harvesting and managing state forest lands. See full story elsewhere in this Newsletter.

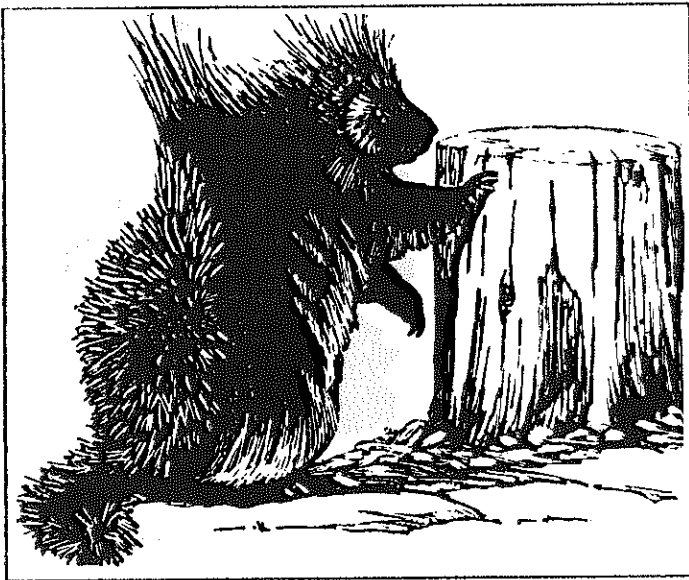
10. Began initial work on a means of assembling information for mapping all properties on Ten Mile Lake, locating buildings, waste disposal systems, wells, etc.

11. Prepared and filed an application for a lake assessment grant from the MPCA (Minnesota Pollution Control Agency). Purpose: To study nutrient concentrations reaching the lake from encircling swamps. The grant was not approved. — Jim Schwartz, Chair; Jack Adams, Bruce Carlson, Warren Goss, Terry Hopkins, Marty McCleery, Jim McGill, Ross Melgaard, Jim Prince.

MEMBERSHIP AT 725; DEADLINE IS FEB. 1

HEIDI HOPPE REPORTS that association membership at the end of October was 725, yet another record. She also reminds us that the deadline for paying the current year's dues is February 1, 1991. By Board decision, anyone in arrears at that time will have to be dropped from the rolls and, as a consequence will not be eligible to receive the new membership directory. That is due for publication this spring.

Enclosed with this issue are two listings: New members who have signed in since the last issue and address changes for the members who have moved. Both lists are printed on pages sized for insertion in your current directory.



COMPLETE PHASE ONE OF WATER TEST PLAN

THE FIRST PHASE of a two-stage water quality testing project was completed in September. A three-person crew boated along the shoreline around the entire lake, including all bays, collecting samples in front of every property.

Each sample was labeled and recorded on a chart carrying the names of property owners, who had previously been identified by fire number. Those samples then were analyzed for fecal coliform bacteria, total phosphorus, pH (acidity), conductivity, sodium, chlorine and nitrates.

NEXT JULY OR AUGUST, the same routine will be repeated, which means every Ten Mile Lake property will have undergone two identical sampling procedures and chemical analyses. Once this "double-checking" process is com-

pleted, each property owner will be notified as to the findings at that site.

Purpose of the testing program, the second for Ten Mile in eight years, is to determine whether there are contamination sources and where they are. The project is being administered by Del Hogen, President of Instrumental Research, Inc., Minneapolis. -- Jim Schwartz.

ROAD BEAUTIFICATION GROUP SEEKS MEMBERS

A HIGHWAY BEAUTIFICATION committee was set into motion at the September 22 meeting of Association officers and directors. Possible activities include picking up litter along County Highways 50, 71 and 6, planting trees and shrubs and otherwise doing whatever is necessary to improve the driving environment along these routes.

Volunteering for the committee were Sally Helsing, who will serve as chair, and Willa Shonkwiler-Martin. Other Ten Milers are invited to volunteer; write or call Sally or Willa of your willingness to serve.

OTHER BUSINESS AT the meeting included approval of a \$700 donation from the Association for the new senior citizen center being constructed in Hackensack.

The board's midwinter meeting was scheduled for February 23, 1991, at the home of Al and Katie Hoover. -- Jim Schwartz.

BOARD WANTS PUBLIC ACCESS PROGRAM HALT

CONCERN OVER THE THREAT of two exotic pest species to the quality of Minnesota's inland lakes led the Association Board this summer to call for a moratorium on the DNR's public water access program.

The Board asked regional legislators to introduce measures that would call a halt to further access construction until Eurasian water milfoil and the zebra mussel can be fully studied and effective control measures developed.

THE RECOMMENDATION was sent to Senator Bob Decker and Representative Tony Kinkel, both of whom indicated a willingness to act favorably on the request.

Also receiving copies of the recommendation were DNR officials in St. Paul. Commissioner Joe Alexander responded by advising President Stan Skaug that the DNR had no intention of curtailing its access program and would resist any such legislative effort. -- Jim Schwartz.