

AMERICAN
FISHERIES
SOCIETY



NORTHWESTERN
ONTARIO
CHAPTER
NEWS

Fvw

VOLUME 2(1): 1981

AMERICAN FISHERIES SOCIETY

*** NORTHWESTERN ONTARIO CHAPTER ***

| | |
|----------------------|---|
| President: | Chris Brousseau, Box 5000, MNR, Thunder Bay |
| President-Elect: | Bob Walroth, Box 970, MNR, Nipigon |
| Past-President: | Terry Marshall, Box 2089, MNR, Thunder Bay |
| Secretary/Treasurer: | Ken Cullis, Box 2089, MNR, Thunder Bay |

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ANNOUNCEMENTS

1. *President's Report*

The recent conference on Fisheries and Aquatic Ecology at Quetico Centre was a huge success and a great way to kick-off our winter program. The conference was attended by over 60 people with representatives from Manitoba, Minnesota and all over Ontario. The papers were excellent and provided for the exchange and discussion of information of various fisheries and related topics among the members. The conference also served to illustrate the Chapter's viability and importance to fishery workers in Northwestern Ontario.

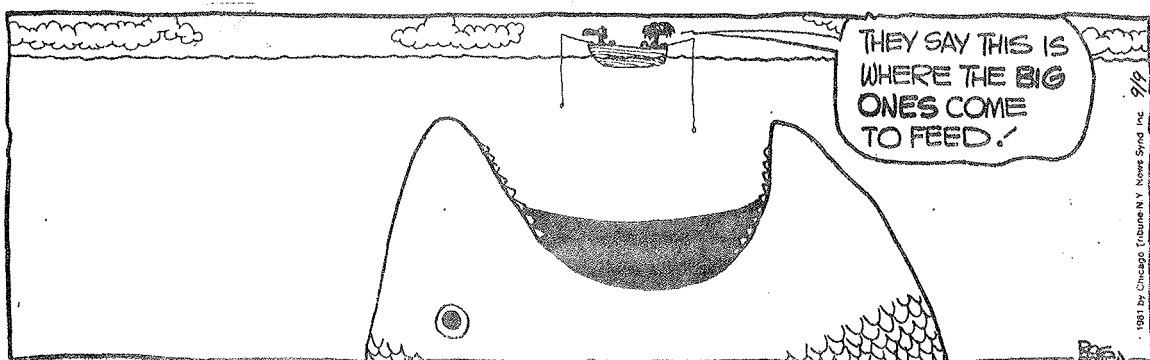
The success of the conference can be attributed to a number of people and I would like to thank all those who attended and contributed to its organization. The session chairmen, Doug Dodge, Jake Vander Wal and Doug Howell, did an excellent job as did the 25 speakers who made presentations. I would also like to thank the various agencies who supported their representatives and Terry Marshall, Dominic Baccante and Ken Cullis whose hard work and dedication brought it all together. I have included some memoirs of the conference at the end of the newsletter.

In the 1981-82 Chapter fiscal year (remember that dues are now paid annually on September 1) we hope to produce three newsletters. This is one of the methods we can use to get information on Chapter activities to all our members so I encourage everyone to submit articles, items, letters, and other information that may be of interest to others. Submissions can be sent to any member of the newsletter committee: Paul Harvey (editor), Len Godwin and Nadine Hunziger.

It's your newsletter so let's make it as interesting and informative as possible. Hal Shraeder designed the cover of this edition and is presently working on future covers and a Chapter logo.

The Chapter also hopes to hold about 5 monthly meetings over the course of the winter. We have been very fortunate in the past to have some excellent speakers and I am sure that this will continue. If anyone is aware of potential speakers, please let someone on the Program Committee know. The committee for this year is Bob Walroth (chairman), Phil Ryan, Jim Sutton and Murry Lankester.

Chris Brousseau



2. Secretary/Treasurer's Report

We are pleased to report that membership of our Chapter has increased quite favorably since the original petition was circulated in the spring of 1979. A continual trend of growth of this nature is absolutely essential if the Chapter is to continue to achieve its objectives as an individual chapter and to fulfill its responsibilities to the parent society. This trend can only be continued through the active support and enthusiasm of each member on a personal basis:

| | Chapter members | Parent Society members |
|--------------|-----------------|------------------------|
| October 1979 | 20 | 16 |
| October 1980 | 40 | 15 |
| October 1981 | 59 | 25 |

A motion was passed at our Annual Meeting on October 8, 1981 concerning the appointment of two satellite representatives who will coordinate chapter activities and act as a communication link between distant members and the Chapter as a whole:

| | |
|--|--|
| Val Macins Ministry of Natural Resources P.O. Box 5080 Kenora, Ontario P9N 3X7 | Bill Dentry Ministry of Natural Resources P.O. Box 730 Cochrane, Ontario POL 1C0 |
|--|--|

Any members residing in these respective areas should feel free to contact Val or Bill concerning any suggestions, questions, or contributions they may have concerning AFS activities.

If sufficient interest is generated in these outlying regions, formation of subchapters could be feasible and activities (such as seminars and workshops) could be integrated with the unit chapter.

One area in which the membership has been lacking over the past two years, is the percentage of chapter members who are also parent society members. We would like to stress that along with the important advantages of parent society membership listed below, a member may not hold a position in the chapter executive unless he is also a member of the parent society. This point significantly restricts personal involvement in the Chapter and we believe, should be seriously considered by all non-parent society members.

WHY YOU SHOULD BE A MEMBER OF THE AFS PARENT SOCIETY

AFS members are kept informed of developments in the fisheries field, through the Society's bulletin, FISHERIES.

AFS helps motivate establishment of new fisheries positions in public agencies.

AFS has formed a network of fisheries consultants utilizing the services of retired members.

AFS and its subunits plan, promote, and conduct many scientific workshops, symposia, and conferences.

AFS Sections advance science and improve the opportunity for establishing close working relationships among fisheries specialists in fish culture, fish health, marine fisheries, fisheries education and administration and water quality.

AFS resolutions are aggressively pursued, often receiving high level attention and stimulating action.

AFS operates a program of certification for fisheries scientists and membership in AFS helps confirm your dedication to professionalism.

AFS has improved international communication between fisheries scientists.

AFS publishes fisheries monographs and other special publications which are available to members at a discounted price.

AFS bulletins, Transactions, and the Journal of Fisheries Management are available to all members.

3. Chapter Meetings

1. Northwestern Ontario Chapter meeting

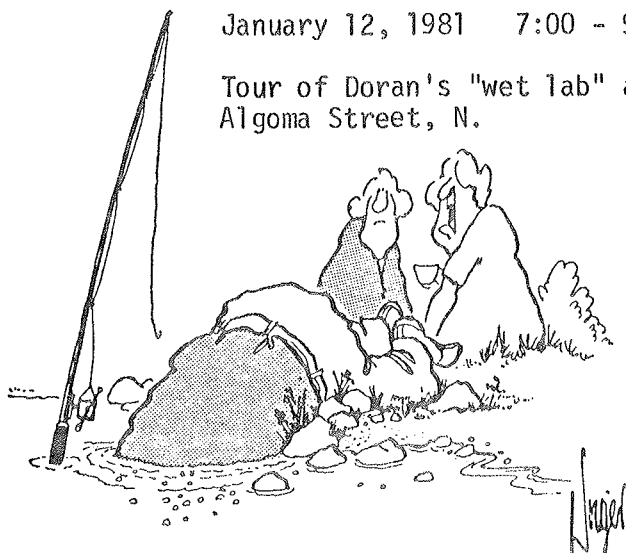
December 15, 1981 7:30 PM
CB 1004 Lakehead University

A presentation will be given by Chris Taylor and Robert Ruggles of Ontario Hydro, Toronto on the environmental assessment study presently being undertaken with respect to the proposed hydroelectric project on the Little Jackfish River, north of Lake Nipigon. Reference is to be made to the potential impact that the development may have on the aquatic community of Little Jackfish Lake and environs.

2. Northwestern Ontario Chapter meeting

January 12, 1981 7:00 - 9:00 PM

Tour of Doran's "wet lab" at Northern Breweries, 154 Algoma Street, N.



PROGRAM UPDATES

1. Ministry of Natural Resources

Fisheries Management Plans for
Thunder Bay and Nipigon Districts

The Ministry of Natural Resources has begun preparation of fisheries management plans in both the Thunder Bay and Nipigon Districts. These 20-year plans are intended to generate at the district level a commitment to an organized approach to fisheries management based on Strategic Planning for Ontario Fisheries (SPOF) objectives.

Contract biologists, Hal Schraeder in Nipigon, and Len Godwin in Thunder Bay are presently working on phase 1 of the plans. This phase will identify and analyse the existing fisheries resource in each of the respective districts. Upon completion of phase 1, phase 2 will involve the preparation of management strategies and directives aimed at maintaining our important resource and hopefully improving it in the future.

Active public involvement in all stages of the planning process will be encouraged during preparation of the fisheries management plans. Interested resource users will have the opportunity to participate in the development of management strategies which will form the framework of fisheries management in the Thunder Bay and Nipigon Districts for the next 20 years.

The preparation and implementation of these fisheries management plans will help to fulfill SPOF goals of maintaining healthy aquatic environments and fish communities in order to ensure continued supplies of fish and fishing opportunities in the years to come.

Len Godwin

2. Ministry of the Environment

On November 24, I attended the MOE sponsored Technology Transfer Conference No. 2 held at the Constellation Hotel in Toronto. This one day conference was organized by the Research Advisory Committee for the purpose of distributing information arising from studies funded by Provincial Lottery research grants as well as other in-house projects.

One session of particular interest was entitled "Monitoring Fish Populations in the Acid Stressed Lakes of Haliburton - Muskoka, Ontario" by Dr. H. H. Harvey, University of Toronto. Dr. Harvey discussed two common phenomena in acid stressed lakes: The shrinkage of age class distributions and entirely missing age classes. To date, over 12,500 fish have been tagged for Mark-Recapture studies in 4 Muskoka lakes. From this intensive study, Dr. Harvey hopes to better estimate fish populations in other less intensively studied lakes in the area. From his data to date,

Ministry of the Environment (cont'd)

Dr. Harvey was able to regress the number of species found in a lake against the log lake area as $Y = 3.38 + 3.94X$ at a very high statistical level of significance. Using this relationship, he estimated the number of missing populations from acid stressed lakes. He also noted that the spines from acid-stressed fish contained 16% less calcium than those from non-stressed populations.

Len Maki

Ministry of Natural Resources

Fisheries Activities in the Northern Region

Stretching from Manitoba in the west to Quebec in the east, the OMNR's northern region includes all of Ontario's portion of the Hudson and James Bay lowlands. Vast expanses of muskeg, bog lakes, immense rivers and a thinly spread and widely dispersed population of mostly native peoples characterize the area. In the far northwest, the occasional Arctic charr is caught; most rivers appear to contain plentiful populations of anadromous brook trout, while the larger, deeper lakes contain walleye and whitefish. Reports of fishermen angling brook trout at rates of up to 50 an hour have prompted Moosonee biologist, John Wier to conduct several years of study into the evaluation of this poorly understood fish. There is still much to learn, and the anadromous brook trout will continue to receive much attention from Moosonee staff funds permitting.

Many natives in the far north utilize river-run fishes as food, and a few have attempted to establish small-scale commercial operations. Mercury contamination has forced the Ministry to close some of these. Moosonee's continuing search for rivers with lower contaminant levels have yet to prove successful.

An experimental permit to take riverine lake sturgeon with small mesh gillnets has been allowed for several years. Initially, the project was designed to determine optimal mesh size. In 1980, biologist Wier, initiated a study on the sturgeon designed to evaluate population size and structure, mortality rates and other biometrics.

Another Moosonee biologist, Ron Threader, has since taken on this program and expanded it substantially. Of particular interest are his attempts to use histological procedures to evaluate fecundity and to determine when and how often a single female has reproduced.

With so much of the northern region's waters in the form of rivers, it isn't surprising to see the launch in 1980 of a 3-year project designed to provide the Ministry with a river inventory methodology. Under the skillful guidance of Cochrane biologist, Ian MacRitchie, all manner of equipment and methods are being sought out and tested. Gogama residents got quite a bang out of Ian's use of "prime-a-cord" and "silly putty" to literally lift the fish out of the river. Gathering the chemical and morphological characteristics of rivers hasn't proved overly difficult; evaluating the fish populations and gathering their biometrics is proving a tough nut to crack. Biologist MacRitchie advises that the final list of recommended procedures will be applicable to all of Ontario's rivers, and that the information gathered will provide the manager with substantial management oriented, decision making capabilities.

Ministry of Natural Resources (cont'd)

Dr. Eugene Balon of Guelph University and William Dentry the region's fisheries specialist, had planned a research project using the nearly extinct "Aurora trout". The region maintains these fish with hatchery assistance in 6 lakes. The project, which is part of a larger scheme to establish self-sustaining Aurora populations, had to be postponed until the fall of 82 since only a couple of mature adults could be found in the 4 lakes netted.

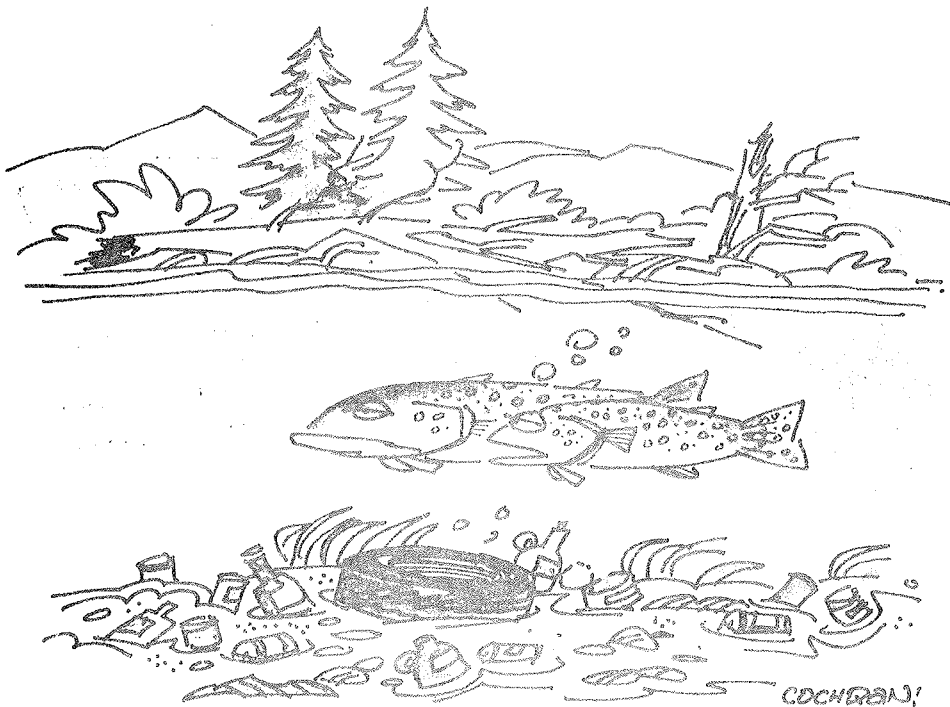
Are the adults gone, or couldn't we catch them? No one knows. Good numbers of age 1+ and 2+ fish were found, so all is not yet lost.

Five of the region's 8 districts have begun developing fisheries management plans. This process is expected to take 2 years.

While we could go on to describe additional recently completed and current projects, we'll save some of these for future newsletters.

All the staff engaged in these projects would welcome your input and queries, so don't hesitate to write. Do it now!

Bill Dentry



"I'm not spawning in this shit!"

FEATURE ARTICLES

Proposed Little Jackfish River Hydroelectric Development Project

The Little Jackfish River flows 48 km southwards from Mojikit Lake to Lake Nipigon, carrying diverted water from the Ogoki River (Arctic watershed) into the Great Lakes System. The original Ogoki diversion (1943) inundated 24,500 ha of land and formed one new lake (Ogoki Reservoir) while greatly enlarging another (Mojikit). It was constructed during the war years to increase electric power production in the lower Great Lakes.

In order to satisfy the Provincial Government's future electrical power requirements, the Ministry of Energy approved 17 new hydro electric projects in 1979. Two sites on the Little Jackfish River were ranked #1 and #2 in terms of technical and economic feasibility. The proposal calls for two dams, 12.7 and 19.3 km upstream from Lake Nipigon to be constructed, with the first one being operational by 1990. When completed, the dams will form two lakes, further flooding about 2,500 ha of land and eliminating 11 sets of rapids.

Prior to the original diversion, the estimated flow of the Little Jackfish River was 4 m³/s (141 cu ft/s). Since 1943 this has been dramatically increased with a present mean flow of 120 m³/s (4200 cu ft/s), although the Summit Control Dam at the head of the diversion was designed to regulate the flow to a maximum of 283 m³/s (10,000 cu ft/s). The increased flow had a dramatic effect on the sediment loading in the lower stretches of the river and between 1940 and 1972 an estimated 6 million cubic yards of eroded material have been deposited in Ombabika Bay.

The new dams are only scheduled to operate 10 hours per day (during peak power demand periods), meaning that daily water velocity fluctuations between 0 and 10,000 cu ft/s can be expected. The new dams will also be located downstream from the present diversion (Summit Dam), and much closer to the highly erodible lower stretches of the river which will likely increase scouring and sediment loading downstream. The overall effect of this development on the aquatic community is of primary concern. The Little Jackfish River is suspected to possess a substantial walleye spawning run and Ombabika Bay contains a large resident population of walleye. The 1979 commercial harvest was 28,400 lbs which represented 34% of the total lake harvest of walleye.

In order to investigate all potential impacts (including fisheries) caused by the construction and operation of the two proposed generating stations, representatives of Ontario Hydro began environmental assessment studies in May 1981, in compliance with the Environmental Assessment Act. The first draft is tentatively scheduled to be completed by December 1982. Ontario Hydro plans a public involvement program which includes "meeting and working with those who might be affected or are interested in the proposal".

It is hoped that when the environmental assessment is released for public review the N.O.C. A.F.S. can take an active role in evaluating its treatment of the aquatic community.

Bob Walroth

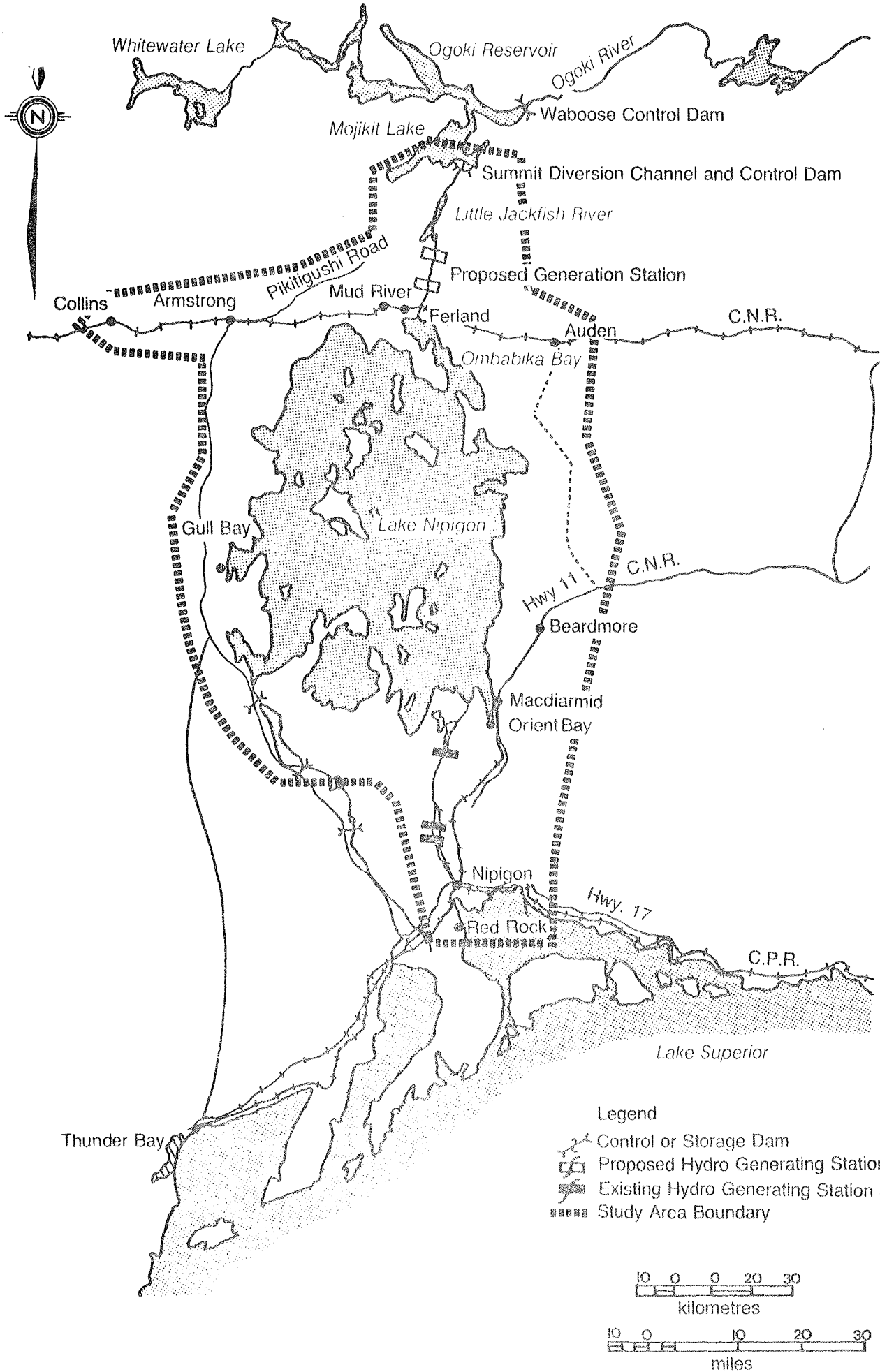


Figure 2 Study Area - Little Jackfish Hydroelectric Development

FIND 25 FISH OF NORTHWESTERN ONTARIO

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| BLUEGILL | MUDMINNOW |
| BULLHEAD | PUMPKINSEED |
| BURBOT | REDHORSE |
| DARTER | SALMON |
| FATHEAD | SCULPIN |
| GOLDEYE | SMALLMOUTH |
| HERRING | SMELT |
| LAMPREY | STEELHEAD |
| LARGEMOUTH | STICKLEBACK |
| MADTOM | STURGEON |
| MASKINONGE | WALLEYE |
| MENOMINEE | WHITEFISH |
| MOONEYE | |

** The answer will be provided in the next issue of the Newsletter, Volume 2(2): 1982.

PARENT SOCIETY NEWS

Notes from the AFS Diary

Membership renewals for 1982, though brisk, are running behind the pace of the last few years. It may be attributed to the uncertain times, to the slight dues increase, to the inclusion of so many options on the dues bill, to the 1-days-earlier billing this year, or even to slower mail delivery. In any event, we'll be watching the trend carefully as a sign of what to expect.

The first issue of the North American Journal of Fisheries Management has been sent to every AFS member at no cost. The second 1981 issue (there will be only 2 in 1981) will be available at \$5.00, and a 1982 subscription to 4 issues will cost \$10.00. Of the first 100 1982 dues bills returned, 33 members subscribed to the new *North American Journal of Fisheries Management*. Should that rate of return continue, we would anticipate about 2200 individual subscriptions, plus a maximum of 1200 library members or a total print run of about 3400. We hope that number keeps increasing. Printing costs for 9,000 copies of the first issue of the new management journal were \$12,305.52. Substantially fewer copies will be ordered of future issues.

Only two AFS sections have less than the 200 members required to insure a vote on the excom. The two are the Fisheries Administrators with 186 members; and the Exotic Fish Section with 181 members. Both could still reach the 200 figure if additional 1981 members were to join before the end of the year. NOTE: The newly formed Bio-Engineering Section has only a few members, but recruitment has only begun.

In the November 13, 1981 issue of the AFS Diary, Executive Director, Carl Sullivan stated:

"A copy of the minutes of the Northwestern Ontario Chapter's October 8 meeting has reached us from the Secretary-Treasurer, K. I. Cullis. I must say that it is the best organized and most easily read meeting account that I've ever seen."

Congratulations, Ken.

NEW APPOINTMENTS/PERSONNEL CHANGES

Dave Payne has recently accepted a 3-year contract position of Information and Education Biologist with Fish and Wildlife, North Central Region of the Ministry of Natural Resources in Thunder Bay.

Valerie Walker, formerly with the Ministry of Natural Resources, North Central Region, is now a fish and wildlife instructor at Sault College, Sault Ste. Marie, Ontario.

NEW APPOINTMENTS/PERSONNEL CHANGES (cont'd)

Walter Momot is on sabattical leave from Lakehead University and is presently conducting growth and production studies on a commercially-exploited species of crayfish at the University of Louisiana, Baton Rouge, Louisiana.

ANNOUNCEMENT OF UPCOMING MEETINGS

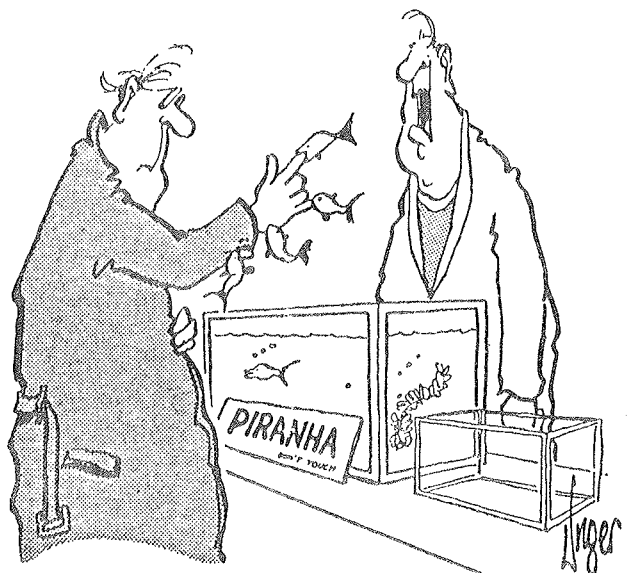
1. Annual Meeting of the North Central Division of AFS.
December 6-9, 1981. Wichita Hilton Inn, Wichita, Kansas
For information: Calvin Groen
1102 Maple Street
Pratt, Kansas
U.S.A. 67124

2. 1982 Joint Annual Meetings
Canadian Conference for Fisheries Research
Canadian Society of Environmental Biologists
Canadian Society of Limnologists

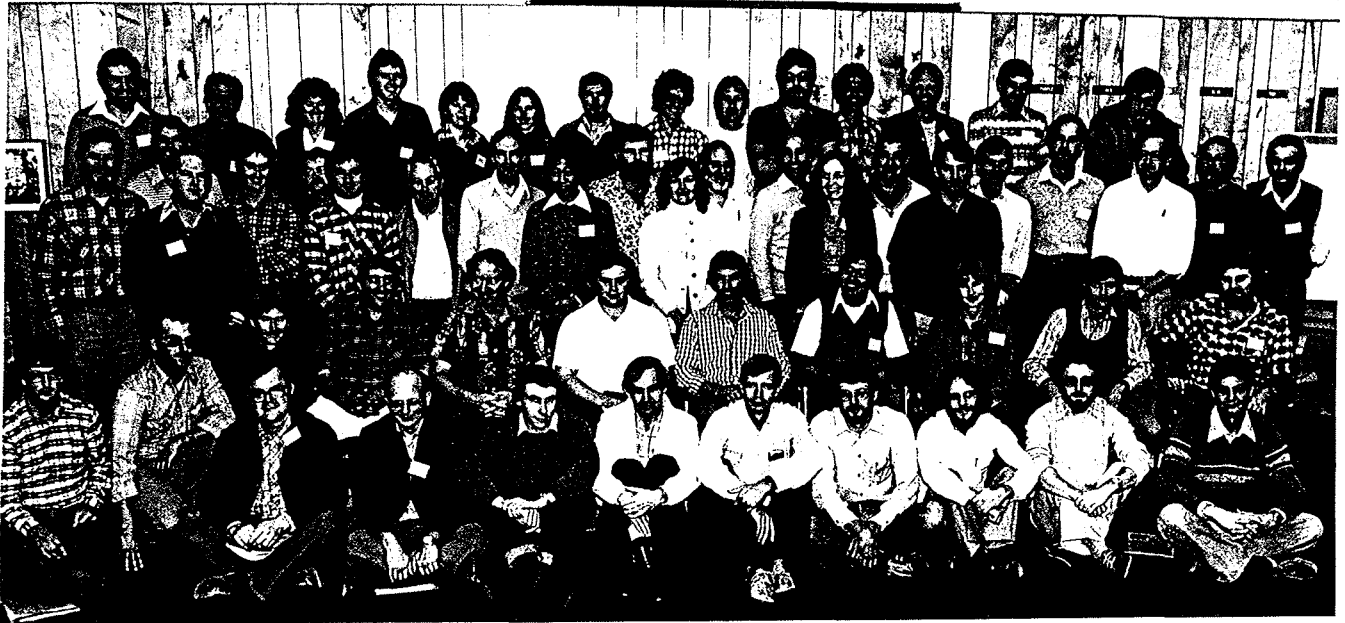
January 4-6, 1982 Ottawa

CONTRIBUTORS

Chris Brousseau - Ministry of Natural Resources
Terry Marshall - Ministry of Natural Resources
Len Godwin - Ministry of Natural Resources
Bill Dentry - Ministry of Natural Resources
Bob Walroth - Ministry of Natural Resources
Ken Cullis - Ministry of Natural Resources
Len Maki - Ministry of the Environment
Barb Pike - Ministry of Natural Resources



Participants in the Conference on Fisheries and Aquatic Ecology
Quetico Centre, October 7-9, 1981



Back Row: Left to right: Jacques Landry, Ken Loftus, Mary Walker, Len Godwin, Nadine Hunziger, Jill Incheistle, Doug Howell, Paul Harvey, Len Maki, Norman Van, Jake Vander Wal, Nels Conroy, Jim Sutton, Phil Ryan.

Second Row: Bob Hamilton, Don Busch, Murrey Lancaster, John Roos, John Brisbane, Daric Romani, Jim Fraser, Ray Effer, Tony Kwain, Wayne MacCallum, Mary Ellen MacCallum, Doug Dodge, Rick Borecky, Gail Beggs, Val Macins, John Gunn, Bob Walroth, Hal Schraeder, John Casselman, Peter Colby, Peter Waring.

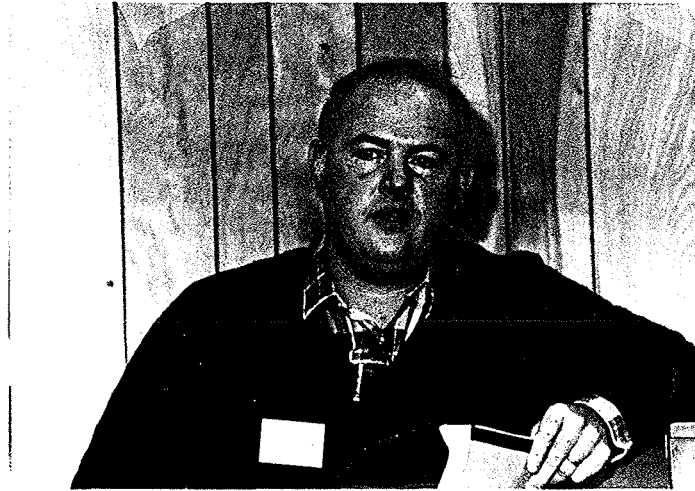
Third Row: John George, Marcel Pellegrini, Tom Nostudy, Dominic Saccante, Richard Ryder, Chris Bronsseau, Terry Marshall, Bill Dentry, Laurie Tinker, Jim Atkinson, Ken Cullis.

Front Row: Gary Glass, Jim Kramer, Bruce Swift, Ted Swift, Ross Chessel, Gerry Leering, William Macdonald, Steve Kerr, Dave Payne.

Missing from Photograph: Walt Lysak, John Medowal, Ken Charles.



1981-82 Northwestern Ontario Chapter Executive



"Quetico Conference Memoirs"