



AMERICAN FISHERIES SOCIETY

NORTHWESTERN ONTARIO CHAPTER

NEWSLETTER VOLUME 12, NUMBER 1 FEBRUARY ¹⁹⁹² 1991

PRESIDENT'S MESSAGE

To say I have arrived at the helm of our Northwestern Ontario Chapter, of the AFS, during the busiest of times is not intended to down play the efforts of our past Ex-com. Rather, they are responsible for paving the way for many activities that are so well laid out in our "Five Year Action Plan" adopted at the last Annual Meeting at Memory Lodge (for those who may not remember). A tremendous effort by Al Dextrase, Neville Ward, and Kim Armstrong, as well as the guidance from Bev Ritchie produced a road map that even I can follow.

Chapter members are working on several aspects of the Five-Year Plan, and the various committee status reports can be found in this Newsletter. As a group, there has been some concern expressed regarding communications during these changing times. Changes that affect all of us in some way. Our committee status reports will appear in each Newsletter in an attempt to keep our membership informed of NWO Chapter activities. In addition, the Newsletter may be used as a vehicle to allow other organizations to express their views or provide new information in regard to fisheries science, management, use and techniques.

No President's commentary is complete without a reference to membership. Our goals of establishing a Canadian Office, expanding the newly created Canadian Aquatic Resources Section, and changing the Society name to better reflect the membership are high profile reasons for joining the parent AFS.

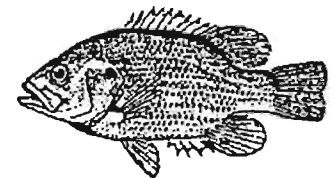
Not so obvious, but most certainly of greater importance, is our existence. These concerns are well explained in the letter to all Chapter members from Terry Marshall, President of the Canadian Aquatic Resources Section of the Parent Society. The shock is in the observation that our Chapter has the worst AFS to non-AFS membership ratio and it may be entirely possible to lose our Chapter status. Strange as it may seem, this is one of those rare opportunities where digging into your pockets for an AFS membership is ALL you have to do to make a difference today. We may, however, ask for your time tomorrow.

Details for the annual fall meeting of the NWO Chapter of the AFS are not yet available, but our wheels are in motion. Quetico Centre is likely not the meeting site as discussed at last year's meeting, so we have turned our search back to the Thunder Bay area. The theme for next year's

event is Native Fisheries and this has generated a considerable amount of interest. Information will be provided in the next newsletter, so travel arrangements can be made.

Hope the holiday season was great, and lets focus some efforts to ensure a great New Year. 🐟

Randy Wepruk



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CHAPTER AND COMMITTEE NEWS

Minutes of Annual Business Meeting

1) Motion to call to order

-moved by Nick Baccante, seconded by Mike Fruetel

2) Approval of meeting agenda

-no additional items brought forward

3) Welcome

-President Bev Ritchie welcomed all to the meeting and recognized Chapter Ex. Comm. -Randy Wepruk (President Elect), Helen Ball (Secretary-Treasurer), and Mike Fruetel (Newsletter Editor).

-recognition of past presidents Walter Momot, Tom Mosindy, Bob Walroth, Nick Baccante, Neville Ward, Tom Mosindy, and Al Dextrase.

-introduction of guests, Mark Gordon and Les Stanfield

4) Determination of Quorum

-40 members present, quorum established

5) Approval of Previous Minutes

-moved by Nick Baccante, seconded by Sue Hissa.

6) Presidents Remarks

-Bev Ritchie reflected on her 2 year presidency, and on her vision for the future of the Chapter. Bev stressed communication, science transfer, and goals in the new Long Range Plan as important.

-Bev attended AFS annual meeting in San Antonio and touched on some of the highlights. Bev urged the incoming Ex. Comm. to attend Parent Society and NCD meetings.

-More involvement from ALL Chapter members is essential to our success.

7) Committee Reports

Long Range Planning Committee

-Al Dextrase reviewed the highlights from the Five Year Chapter Action Plan that was prepared by the committee, and distributed to members prior to the meeting. The Plan sets short and long-term goals for the Chapter, as well as strategies by which they can be achieved.

-Al Dextrase put forth a motion to adopt the Long Range Chapter Plan, seconded by Terry Marshall, unanimously carried.

[*editor's note - additional copies of the plan are available from Al Dextrase and Randy Wepruk]

Membership Committee

-no formal activities, made phone calls to ensure attendance at meeting and provided list at meeting for potential new members.

Fund Raising Committee

-T-shirts, sweatshirts for sale

-consider an auction, and books from publishers at next meeting.

8) Treasurer's Reports

-Motion to accept report put forth by Walter Momot, seconded by Dana Kinsman.

-Bev Ritchie put forth a motion for the new executive to write up a proposed budget, seconded by Mike Fruetel.

9) Old Business

-Continuity plan-Bev Ritchie prepared file boxes for all incoming executive members. These packages contain a numbered filing system for all AFS related material, which will expedite the learning process for

incoming Ex. Comm. members.

10) Election of new Executive Committee

President Elect

Tom Mosindy - nominated by Helen Ball -declined

Kim Armstrong - nominated by Al Dextrase, seconded by Neville Ward
Rob Swainson - nominated by Terry Marshall, seconded by Mike Fruetel -declined,

Kim Armstrong - President Elect by acclamation

Secretary/Treasurer

Dana Kinsman - nominated by Bev Ritchie, seconded by Mike Fruetel
Dana Kinsman - Secretary/Treasurer by acclamation

Newsletter Editor

Bev Ritchie - nominated by Nick Baccante, seconded by Neville Ward (declined)

Alan Dextrase/Helen Ball - nominated by Bev Ritchie, seconded by Dana Kinsman

Mike Fruetel - nominated by Dan Puddister (declined)

Rick Salmon - nominated by Susan Hissa, seconded by Rose Hartley (declined)

Al Dextrase and Helen Ball - Newsletter editors by acclamation

Membership Committee

Ed Paleczny (Chair)

Ed Iwachewski

Rod Sein

Professional Certification Committee

Bev Ritchie (Chair)

Terry Marshall

Walter Momot

Fund Raising Committee

Dana Kinsman (Chair)

Rod Sein

Walter Momot

11) New Business

Canadian Concerns - Terry Marshall

-there is a majority of support within AFS for a name change, but not the 75% needed at the EX. Comm. to pass. We may have sufficient support next year. Preferred name is North American Fisheries Society.

Establishment of a Canadian Office - money needed to open and operate an office (\$45,000/year), have to find sources within Canada

-not a non-profit organization, therefore, cannot provide receipts to donors for tax purposes

-at San Antonio meeting, the Canadian Aquatic Resources Section (CARS) was approved by AFS EX. Comm. after lots of hard work by Terry Marshall, Bev Ritchie and Don MacDonald and a constitutional advisor.

-once CARS has 200 members, we will have a voting member on AFS Ex. Comm., which will help us to get things done.

-we have to get 200 members, **URGE EVERYONE TO JOIN!!!**

-Meeting adjourned at 6:00 pm and reconvened at 12:00 p.m., Friday, September 27, 1991.

11) New Business (cont'd)

Alan Dextrase presented a resolution for the establishment of a Co-op Fisheries Unit between the OMNR and Lakehead University in Thunder Bay (copy below). The resolution was unanimously supported by the membership and will be forwarded to the Hon. Bud Wildman (Minister of Natural Resources) and Dr. Bob Rosehart (Pres. Lakehead University)

for their consideration.

Proposal to establish a 1st Vice President

-Motion put forth by Neville Ward to amend the Chapter by-laws to establish the position of 1st Vice president. This will result in a staggering of duties and a more experienced Ex. Comm. The duties must be drawn up and attached to the job title when submitted. The motion was seconded by Alan Dextrase and unanimously carried.

12) Ideas for next year's workshop

Walter Momot proposed Native Fisheries-how are they managed now, and how will they be managed in the future?

-Concerns were expressed that this is a potentially political and that a clear separation between OMNR and AFS has to be established. The format should be an open forum, and an exchange of information. It is a good issue to test the water for independent discussion by professionals. The decision was made to go with the idea.

13) Time and Place of next year's workshop

Kim Armstrong suggested that the workshop be kept in the Northwest Region. Quetico Centre was proposed as a possible location and the proposed timing would be during the week of September 25-30, 1992. The motion was put forth by Alan Dextrase and seconded by Rob Swainson.

14) Future workshops

Possibilities for joint meetings with the Mid-Canada Chapter and the S. Ont. Chapter were discussed, but there was no consensus.

15) Best Paper Award

-awarded to Rob Swainson. Rob's

talk was on his work on the Nipigon River. Well done Rob!

16) Adjournment

-moved by Bev Ritchie, seconded by Dan Puddister. 📝

RESOLUTION FOR THE ESTABLISHMENT OF A CO-OPERATIVE FISHERIES UNIT IN THUNDER BAY

WHEREAS Co-operative Fisheries Units between government resource management agencies and universities have proven to be extremely successful in the United States; and

WHEREAS the OMNR/Laurentian University Co-operative Unit has proven extremely valuable to fisheries management and research in Ontario; and

WHEREAS the OMNR/Laurentian University Co-operative Fisheries Unit has provided benefits to the OMNR, Laurentian University, the City of Sudbury, and the international scientific community; and

WHEREAS the OMNR is committed to partnerships as outlined in the publication Direction 90's; and

WHEREAS the Ontario government is committed to expanding post-secondary education in the north; and

WHEREAS northwestern Ontario has a large share of the Province's fisheries resources, and currently has a limited capability to conduct fisheries research: Therefore be it

RESOLVED that the Northwestern Ontario Chapter of the American Fisheries Society at its 12th Annual Meeting in Thunder Bay, Ontario, on September 27, 1991, recommends that the OMNR and Lakehead University consider establishing a Co-operative Fisheries Unit, in Thunder Bay, Ontario.

Conference Summary

The conference theme of our annual meeting at Memory Lodge last September was Fish Habitat: Inventory/Assessment; Protection; Rehabilitation and new Technology. This session was kicked off by a tour of the Centre for Application of Resource Information Systems (CARIS) at Lakehead University. Members were shown GIS mapping abilities and air photo digitizing techniques, that represent the leading edge of computerized terrestrial habitat inventory and recording. We then moved to Memory Lodge on Lake Superior where the rest of the conference and annual business meeting occurred.

John Gunn brought guests from the then U.S.S.R. and they provided a revealing session on habitat issues in Siberia. Our Chapter has been enlightened by their visit and eager participation in our annual information transfer event.

Presentations were made under the respective categories for the next two days with some excellent field examples. As a general observation, fish habitat inventory and assessment is typically site specific with data collection normally motivated by some form of crisis management. Shoreline development (Muskoka Lakes), acid precipitation (Sudbury area), industrial development and regulation (Nipigon River and Moose River Basin), and the occasional industrial accident (Matachewan Mine tailing pond spill) are the type of situations fish habitat information is immediately required, but seldom available.

Habitat information across large geographic areas would appear to be a long way off. Satellite imagery is

still fairly crude with resolution of magnitude unsuitable for daily management requirements. It is also expensive. Air photographs are probably the most cost effective but are certainly restricted to surface features such as aquatic vegetation.

Fish habitat ranking methodologies, like the Habitat Suitability Index, are in use but still require regional adjustments before they can be of assistance in daily habitat management requirements. The use of GIS is promising but input data must be gathered and is very labour intensive.

In summary, fish habitat inventory, assessment and rehabilitation may best be described as a relatively new frontier. Although some methods for ranking and assessment are available, insufficient base line data remains the biggest problem. As the importance of maintaining fish habitat is incorporated into social goals, so too, will information and assessment methodologies develop to ensure stable ecosystems.

Randy Wepruk

Committee Reports

MEMBERSHIP

The membership committee is currently developing a brochure/leaflet that will provide information to new and potential members on the mission of our Chapter, as well as it's organization and activities. A progress report on this initiative will be provided in the

next newsletter.

Ed Paleczny

FUND-RAISING

The fund-raising committee has been unable to meet since the fall, however they have lots of good ideas they wish to explore. A full committee report will be provided in the next newsletter. Remember to save your old fish paraphernalia for the auction at our next meeting!

Dana Kinsman

CERTIFICATION

So far, the committee has not met so this report is essentially to open the debate to the membership to get input on your concerns about the lack of accreditation/certification in Ontario/Canada for fisheries professionals. Professional credentials are accepted for other professionals in Canada (Foresters, Engineers), upon completion of four year university degrees. This is a timely committee given the reformation of the Association of Biologist's in Ontario and the Canadian Aquatic Resources Section of AFS.

The definitions of professional, profession, and professionalism according to the Oxford Dictionary (1982 ed.) are 'a person belonging to or connected to a profession for monetary reward' and 'a vocation involving some branch of advanced learning or science' and 'qualities or typical features of a profession or professionals', respectively.

You may or may not know that the American Fisheries Society offers certification for different levels of achievements in the fisheries profession, but is this recognized in Ontario/Canada and is it what fisheries professionals need? (We will provide more information on the specifics of AFS Certification in the next newsletter). Should the membership believe that the lack of recognized fisheries accreditation is negatively affecting the perception by managers, peers, and the public of the level of professionalism (ie. ethics, excellence, peer review, etc.) in fisheries, we would appreciate your opinions, now. We would also like to know what you feel are the features of fisheries professionals that could be used to develop criteria for accreditation. A brief questionnaire is provided on page 16 of this newsletter for you to fill out and return (by April 10th). Thank you.

Bev Ritchie

AMERICAN FISHERIES
SOCIETY

NORTHWESTERN ONTARIO
CHAPTER

EXECUTIVE COMMITTEE

Randy Wepruk - President
Kim Armstrong - President-Elect
Dana Kinsman - Secretary/Treasurer
Helen Ball, Al Dextrase - Newsletter Editors

COMMITTEES

Membership - Ed Paleczny (Chair), Ed Iwachewski, Rod Sein
Fund-Raising - Dana Kinsman (Chair), Walter Momot, Rod Sein
Certification - Bev Ritchie (Chair), Walter Momot, Terry Marshall

PARENT SOCIETY AND DIVISION NEWS

The Canadian Aquatic Resources Section: Progress and Inroads

The fledgling Canadian Aquatic Resources Section (CARS) is slowly acquiring momentum as it gains recognition and its membership begins to build. Although still immature, the Section is active in many areas and is attempting to accomplish some of its many objectives.

Work is being carried out by a number of committees, including the Nominations Committee, Newsletter Committee, Membership Committee, Environmental Concerns Committee, and Canadian Certification Committee. The function of some of these committees is self explanatory; that of others requires further explanation.

The Membership Committee is responsible for monitoring the specific interests and needs of CARS members, and developing program elements to address these concerns, thereby retaining existing members and attracting new ones. Two important sub-committees have been struck.. the Canadian Office Subcommittee is directed to: a) prepare a prospectus to be used to promote the AFS in Canada, b) identify potential investors and encourage a commitment of funds and c) collect monies previously committed to the Canadian Office. The Name Change Subcommittee is directed to: a) prepare articles supportive of an AFS name change for use in AFS newsletters and in Fisheries, b) perform a poll of the AFS Executive to determine their position on this issue, and c) prepare a draft resolution for the name change for presentation at the 1992 AFS annual meeting.

The Environmental Concerns Committee is largely responsible for identifying Canadian or trans-boundary environmental issues of current or potential concern that should be addressed by the AFS and drafting position papers and policy statements on high priority issues. For the current year, sub-committees have been formed to develop position papers related to: Wetlands Conservation Hydroelectric Power Development, Riparian Zone Management Instream Flows, Marine Fisheries, and Sustainable Development.

A Canadian Certification Committee has also been formed to establish certification standards for fisheries and aquatic biologists in Canada. Initially, Canadian educational institutes are to be surveyed to determine their degree requirements for fisheries and aquatic science programs. These findings will then be compared with those of U.S. institutions, and the results reported and published in Fisheries. Standards for Canadian certification will ensue.

Our premier CARS Newsletter will soon be published, and this first issue will be mailed to all Canadian AFS members in an effort to stimulate CARS membership. In addition, the first report of CARS directed at the general AFS membership will be published the March /April issue of Fisheries. This article by T. Marshall and D. MacDonald, is entitled "Expanding the role of AFS in Canada: The issues, recent initiatives, and future strategies:, and emphasizes the importance of both

a revised name for the Society and a Canadian sub-office to the development of AFS in Canada.

We require considerable help to accomplish these chores, and request the assistance of all members-just let us know where you think you can contribute. For those of you that have yet to join CARS, please don't delay. It is important that we quickly build our membership to 200+, to demonstrate the enthusiasm and dedication of Canadian members, and to ensure representation on the AFS EXCOM. It's easy to join CARS - simply write to:

American Fisheries Society
5410 Grosvenor Lane, Suite 110
Bethesda, Maryland
USA 20814-2199,

and tell them that you wish to join the Canadian Aquatic Resources Section, and enclose Section dues of \$10.00 (U.S.). You MUST be an AFS Parent Society member before you can join the section.

In this way you can contribute to a revitalized AFS in Canada. 🐟

Terry Marshall



NCD Esocid Technical Committee Formed

An Esocid Technical Committee was formed at the recent Midwest Fish and Wildlife Conference held in Des Moines, Iowa. The committee's mission is to encourage and coordinate research of esocids and to provide a forum for exchange of pertinent data and technologies within North Central Division (NCD) chapters of AFS. To kick-off the new committee, a symposium on northern pike ecology and management was held which included eight technical papers on pike research in our area.

The Esocid Technical Committee will hold its next meeting in July at LaCrosse, WI. Discussions for this mid-year meeting will centre around historical and current esocid management strategies, and ongoing research within the NCD. The purpose of this meeting is to bring together management philosophies and research directions of NCD states and provinces. Any AFS member can be a member of the Esocid Technical Committee. For more information on the Esocid Technical Committee or the July meeting at LaCrosse, contact Terry Margeneau (715/635-4162). 🐟

Terry Margeneau

NCD Special Regulations Committee

The North Central Division (NCD) of AFS formed a committee in June 1991, to develop a position paper on special fishing regulations. As fisheries professionals, we have seen

numerous fishing regulations developed and adopted in recent years. In many cases, these regulations were implemented very quickly, out of immediate need for action, without the opportunity for managers and biologists to assess the need for the regulation, and develop alternatives.

Out of these and other concerns, the NCD thought it wise to make a statement, through a position paper, where these problems could be addressed. The members of the committee are: Tim Goeman (MN) - chair, Dave Willis (SD), D. Bonneau (IA), Gary Novinger (MO), Rick Clark (MI), and Nick Baccante (ON).

After a number of drafts, the committee's position paper was submitted to the Division. At the Midwest Fish and Wildlife Conference in Des Moines, Iowa, the EXCOM agreed to review the paper and return it to our committee early in 1992. After any necessary revisions are made, it will be published in the spring issue of the NCD's newsletter *Mainstream* for review by the membership. There will then be a mail ballot to accept or reject the position paper as an official Division document.

The Parent Society is also taking an interest in this position paper, because it is the first time within the AFS that this topic has been dealt with as a policy statement. If you are not a member of the Parent Society, join now, so you can receive a copy of *Mainstream* and read the position paper, which will be of interest to you! 🐟

Nick Baccante

Back To The Future, Part IV (President's Corner, Larry Nielsen, Fisheries 16, No. 3)

Early June 2041. Marty McFly skims over Pine Valley Lake on his hover board, snaking along the edge of the littoral zone. His handheld sonar identifies, measures, weighs, and ages each fish as he passes by. His laser beamed sensor scans to the bottom, checking temperature, dissolved oxygen, and two dozen other conditions at one-meter intervals.

Doc Brown frowns on the shore. "Hurry, Marty, there's trouble." When Marty reaches the DeLorean, Doc cranks up the flux-capacitor and lands them on the same lake-shore a century earlier.

Pine Valley Lake looks pretty good in 1941. The men in the rowboat are identifying, measuring, and weighing fish taken from a gillnet. Then they raise a series of water bottles tied at one-meter intervals along a weighted line, measuring temperature, dissolved oxygen, and other conditions.

"No problems here, Doc," says Marty. "It's a little primitive, but they're doing the right stuff."

"Wait, Marty, the trouble is ahead." He sets the time machine for 50 years later and pops the clutch.

The lake is a mess in 1991, with neither a boat nor a hover board in sight. In a rundown building on shore, a timid-looking man in a uniform is inserting replacement pages in his procedures manual. In storms a big brute. "Your new regulations stink, McFly. Where's the data to support your changes? You don't know anything about this lake. Change your recommendations-or else!"

"Okay, Biff," McFly says, "whatever you want."

"Whoa, Doc," says Marty, "something went wrong."

Marty is right-something did go wrong. We hung up our waders and took up residence at our desks. Many of us have done this personally (mea culpa), but the tragedy is that we have also done it as a profession.

Early fisheries professionals spent much of their time learning how many of what were where. Their work led the way for the development of fisheries ecology and management. But their survey projects went out of fashion. As available budgets dwindled, we eliminated field crews. As paper trails became labyrinths, we cut our own

field time. As management became politicized and publicized, we relinquished our mastery of the facts and even the theories of management. Now inventory and monitoring are as rare as carp teeth.

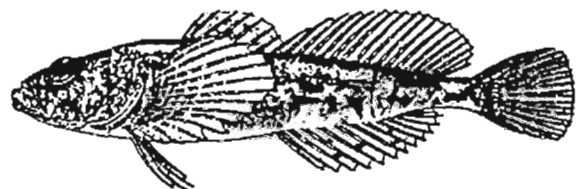
I'm a proponent of planning, the epitome of desk jobs, but every planner knows that the first planning step is finding out "where we are." That requires inventory and monitoring. Of water quality. Of fish species composition and distribution. Of year-class strength. Of forage availability. Of catch and harvest. And not just once in awhile, but regularly.

If we are to retain-regain-our rightful place as the experts in fisheries management, then we must allocate the time and money to get the facts. Imagine how we would react if stock market quotes only came out annually or if the Cub's scores only got reported in August (heaven forbid). Fisheries deserve at least the same attention as such minor human concerns.

Fortunately, the climate is right for a change. Political maneuvers, like the California court case to prohibit bear hunting because of insufficient data, will require fisheries and wildlife professionals to gather their facts. Stronger political positions of many special interest groups will also balance the present political system that can push us well beyond the proven facts. When all interest groups are at the table, then facts are necessary and powerful again. All we need do is gather those facts, competently and fully.

So, here I am again, the unabashed optimist. Those folks hammering at your door to challenge your facts and your decisions are your best friends. Tell them you agree-you need more information about fish, habitat, and people. Tell them to talk to the boss, the legislature, and the governor.

Then pull on your waders and wade back into the water-and back to the future. 🐟



Editors' Notes

"This edition of the newsletter comes to you after a long wait" (Fruetel 1991). We can't even blame the contributors for the delay, as most submissions came in a timely fashion under tight deadlines. We can, however, blame our computer (or at least its operators). Two hard disk crashes have reminded us what floppy disks should be used for.

A recurring theme in this issue of the newsletter is "Join the Parent Society". This has never been more important, as the Canadian Aquatic Resources Section (CARS) has just been formed, and we need 200 members to obtain a vote on the Parent Society EXCOM. All of you have probably received a letter from Terry Marshall (CARS President) urging you to join the Section. Terry brought forth several good reasons why you should be a member. Please don't delay any longer.

Our Chapter newsletter normally contains several items reprinted from *Fisheries* magazine. This publication is distributed to all Parent Society members. Therefore, to avoid duplication, and encourage Parent Society membership, we are not going to continue this practice. We have made an exception for Larry Nielsen's article on the previous page, as it is extremely apropos.

We would be very interested in any comments or suggestions you have regarding the newsletter. Also be sure to submit any items of interest, letters to the editor, or announcements, that you may have for our next newsletter by May 15th.

Helen Ball and Alan Dextrase

NEWS FROM NORTHWESTERN ONTARIO

Quetico-Mille Lacs FAU

THE RAINBOW TROUT THAT SWALLOWED JON GEORGE... or should we say the rainbow trout study? For those of you who didn't know, Mr. George was seconded to lead the implementation of a rainbow trout assessment program for Lake Superior's north shore rivers and to participate as the region's representative on the Great Lakes Fish Commission Steelhead Committee in 1991-92. This is planned to be a three year program. There has been a noticeable decline of this naturalized species in other jurisdictions of Lake Superior. It was therefore imperative that baseline information be collected to evaluate the status of local stocks prior to any regulation changes.

The study involved: a trapnet/tagging program and roving creel survey on the Neebing and MacIntyre rivers, a cooperative sampling program with the North Shore Steelhead Association, and the establishment to juvenile index stations on several rivers. So far preliminary results substantiate the importance of environmental variables in affecting yearclass strength. The adult spawning population show longevity and repeat spawning numbers generally associated with a lightly exploited fishery. At least three annual years of assessment is essential to evaluate the effects of environmental conditions versus exploitation stress on these populations.

If you have any questions about the program please contact Jon at 807-475-1537.

ASSESSMENT OF A WALLEYE INTRODUCTION... Muskeg Lake, a 1.5 hour drive NW from Thunder Bay, is planned to be a new home for walleye in the fall of 1992. The lake supports pike, whitefish, herring and has an abundance of potential shoal spawning habitat. Baseline information will be gathered in 1991 and 1992 prior to stocking adults in the fall of 1992. The assessment program includes geographically-referenced (for GIS) habitat, aquatic vegetation mapping (per Muskoka Lakes FAU standardized methods), benthos species composition/relative biomass, fish community index fishing for littoral zone and open-water habitats, seasonal water quality and plankton sampling. The lake was also resounded resulting in a change from an estimated 97% littoral area to 50%. Habitat mapping and contours were done on the new OBM and will be digitized enabling surface area and volume calculations to be done by computer--a great time-saver for those of you summarizing lake survey information.

Depending on funding, we are hoping to use radio-transmitters applied in the fall to assist in locating spawning areas. Beginning in 1996 we will initiate a program to assess walleye recruitment and changes in other trophic levels.

SMALLMOUTH BASS MODELLING CONTINUES... We were recently informed that the bass information collected from Crooked Pine Lake (requested from Fisheries Research-Mark Ridgeway) is being used to evaluate a model which can

be used to test impacts of management actions such as season changes. Since the spawning season way up here likely differs from central and southern Ontario and the growing season is shorter, the Crooked Pine data set has been valuable. This only goes to show that participating in standardized data collection programs and province or region-wide research projects can be beneficial to all. Besides, isn't the new mecca for smallmouth fishing in the Atikokan-Quetico area?

THE LAKE TROUT LAKE THAT WOULDN'T... quit churning out lots of lake trout that is!! Yes, a report from QMLFAU would not be complete without mention of Squeers Lake. This project was started back in 1982 to determine the allowable yield of lake trout in non-coregonid/smelt lakes. But there are other objectives of this project: To determine which indicators of exploitation stress are best to use in terms of cost and amount of change which can be detected; to evaluate pulse fishing strategy (crop rotation) once allowable yield is determined by experimenting with different rotation periods (the Ignace lakes and six other lakes near Squeers could be added). So far results from Squeers have made a significant contribution to advancing our knowledge about assessing lake trout status and illustrating the fundamental differences between piscivorous and 'polyphagous' (known also as planktivorous or non-coregonid/smelt eaters) populations and that potential management strategies and assessment approaches will differ.

In 1991, approximately 1,000 anglers harvested 2.7 kg/ha during a 9 day fishery. Strong 1980 and 1984 year classes have occurred (post-sanctuary

and pre-harvest period). The spawning population fluctuates between 9 and 14 thousand due to yearclass abundance and we are still seeing no changes in age structure or growth. By 1997, four year classes produced from population harvested at 2 to 2.5 kg/ha will be recruited and at that time we can potentially determine whether to continue at the same harvest level or increase it. In 1992, we are planning to collect fecundity data to compare to results from Helen Ball's 1984 work.

The 1992 fishery is scheduled for March 22 through the 30th. Applications will be available beginning in mid-January for those of you interested in being 'pillagers'. If you would like to be a volunteer worker contact Jon George at 475-1537.

FACTORS AFFECTING YEAR-CLASS STRENGTH IN LAC DES MILLE LACS WALLEYE... Walleye in Lac des Mille Lacs are prone to periodic fluctuations in year-class strength. These fluctuations can have important impacts on angler catch rates and satisfaction levels. Environmental factors such as spring water levels, summer temperatures and spring precipitation appeared to be important in controlling year-class strength. During years when growing degree days > 5°C (GDD5) were high (1983, 1988), strong year-classes were produced. In years when GDD5 were low (1982, 1985), poor year-classes were produced. The summer of 1987 was the warmest summer in the last 30 years and should have produced a strong year-class. However, declining April water levels appear to have resulted in a very weak 1987 year-class. Declining April water levels and/or low GDD5 also produced a weak 1979 year-class. Years with little spring rain

tended to produce strong year-classes.

The importance of warm growing seasons was also evident in Whitefish Lake and Pekagoning Lakes where strong 1983 and 1987, and weak 1985 year-classes were observed. These data suggest a regional temperature effect on walleye.

It is interesting to note that weak year-classes tended to be followed by strong ones, suggesting a cannibalism or competition effect. The strong 1988 year-class has shown improved growth rates, possibly due to a lack of competition from the weak 1987 year-class.

We would be interested in hearing from anyone else who has noted strong or weak year-classes. ☺

For more information please contact: Mike Fruetel at the Quetico-Mille Lacs FAU, 475-1660

Kam River Chinooks

It looks like Thunder Bay got it's long awaited chinook salmon run. A number of 8 to 12 pound salmon were caught this fall in the Kam and Whitefish Rivers.

The run is the result of a lot of hard work by members of the Thunder Bay Salmon Association, who stocked the first smolts from their Kakabeka Falls hatchery in 1988. The smolts stocked in 1988 and 1989 were from eggs collected in the Michipicoten River. The 1990 and 1991 stockings were Sydenham River fish. The Salmon Association currently has 400,000 Sydenham eggs in their hatchery to be stocked next spring.

Hopefully, future egg collections can be made from fish returning to the Kam River.

Dissolved oxygen levels in the Kam downstream of the CP mill were pretty scary in early October, but a timely shutdown combined with good rainfall improved the situation, and a good number of fish made it past the mill. A new treatment plant at CFPF should be operational next fall, reducing BOD significantly in the lower Kam.

The majority of fish sampled this fall were precocious (2+) males from the 1989 stocking. The run generated a lot of excitement around Thunder Bay, and next year should see a much larger run, with the majority of the 1989 smolts returning as full grown 3+ fish.

Jeff Black

Ruffe in Thunder Bay

On August 14, 1991 the first capture of a ruffe (*Gymnocephalus cernuus*) in Canadian waters was made at Thunder Bay. Local angler John Schelling caught a ruffe in the Kaministiquia River about 7 kilometres upstream from the mouth and brought it to the Ontario Ministry of Natural Resources (OMNR) district office for identification. The identification was confirmed by Dennis Pratt of the Wisconsin Department of Natural Resources.

The ruffe is a small fish native to northern Europe and Asia. There, it is considered an undesirable species and is of no sport or commercial value. It has become widely

distributed in Europe and Asia, often by anglers using it as bait. Once introduced into new waterbodies, it frequently becomes overabundant and stunted, often displacing native species or reducing numbers of important sport or commercial species through competition and predation on their eggs and larvae.

Ruffe were first discovered in North America in the Duluth-Superior harbour in 1987. As with many of the recently introduced species such as zebra mussels and the spiny water flea, ruffe probably travelled in the ballast water of ocean-going ships. Since its discovery, the ruffe population has exploded and it is now the most abundant fish species in the Duluth-Superior harbour and the St. Louis River estuary. They have also been discovered along the south shore of Lake Superior as far east as Iron River, Wisconsin.

The ruffe is a serious threat to Ontario's fisheries. Its highly aggressive nature and reproductive capabilities often allow it to out-compete and displace native species. All of Ontario may be suitable habitat, including parts of James Bay and Lake Superior. Once established, ruffe cannot be eliminated or readily controlled, so the emphasis must be on preventing or slowing its spread to inland waters. Ultimately, the introduction of ruffe is another example of the underlying problem of unregulated dumping of ballast water in the Great Lakes.

Since a number of OMNR, OMOE and Lakehead University netting and electrofishing projects over the last four years failed to reveal any ruffe in the Thunder Bay area, it is hoped that few ruffe are present at this time. Further netting and trawling will be concentrated in the

Kaministiquia River this fall by the OMNR to determine abundance levels of ruffe.

Gord Johnson

Nipigon River Brook Trout Spawning Area Groundwater Study

Nipigon District MNR has identified three small but important locations on the Nipigon River where brook trout spawn. Based on visible seepage on the bank and on information contained in the literature, it is speculated that these spawning locations are zones of groundwater discharge.

Ontario Hydro operates a power generating station upstream of these 3 locations. Hydro wishes to have maximum flexibility to fluctuate flow rates in the river in response to power demand and levels of precipitation.

Recent MNR studies have demonstrated that current Ontario Hydro dam operating practices are destroying brook trout spawning habitat in the Nipigon River. To develop an operating plan that ensures that brook trout can successfully reproduce in the Nipigon River, it is necessary to understand the specific characteristics of the brook trout spawning sites in the river. Of particular interest is how the characteristics of these sites change with fluctuating water levels.

This study was designed as a scoping exercise to determine the extent of the problem by examining discharge patterns under various flow regimes.

Depending on the results of this study, further investigation may be required in 1992.

STUDY OBJECTIVES

1. To determine if water flowing into the river at the three spawning sites is groundwater discharge or water being released from bank storage;
2. To obtain a major ion characterization of the discharge water in an attempt to gain insight into the age and source of the water;
3. To delineate the size of the discharge areas in which water is flowing into the river;
4. To determine if the location of these discharge zones change in response to fluctuating river levels;
5. To determine if the quantity of discharge changes in response to fluctuating river levels;

METHODOLOGY

This study was conducted using mini-piezometers installed in bundles consisting of one deep (3m) and one shallow (1 m) piezometer, with 12 piezometers installed at each of the three spawning sites.

The river was cycled through a series of water level changes from September 20, 1991 to September 29, 1991. Water samples and piezometer readings were taken following each river level stabilization.

The results and final report of this study will be available in April 1992. The study is being coordinated by J. Gebrels and D. Hollinger of Ontario Ministry of the Environment. Allan Curry, PhD candidate, University of Guelph, supplied and installed the piezometers and is completing the data analysis and final report. Funding was provided by Environment Canada through the Great Lakes Clean-Up Fund as part of efforts to rehabilitate Nipigon Bay

fish populations through the Remedial Action Plan for Nipigon Bay. 🐟

Rob Swainson

Water Levels in Rainy and Namakan Lakes

Water levels on the Rainy and Namakan Lake reservoirs are regulated by the International Joint Commission. Rule curves specifying seasonal water levels on the system, have not been modified since 1970.

Although harvest is probably one of the most important factors affecting fish populations in the reservoirs, water levels also play an important role. Recently, Voyageurs National Park in Minnesota completed studies of the impacts of current water level management practices on fish and wildlife in the reservoirs. In addition, the Minnesota DNR, the Ontario MNR, and Boise Cascade cooperated in a joint study of the effects on fisheries.

These studies showed that existing water level fluctuations have adverse effects on fish and wildlife. High stable summer and fall levels contribute to spring spawning problems for northern pike and walleye by creating spawning beds at high lake elevations. A large winter drawdown makes access to these areas difficult in the spring, especially if runoff is minimal. The existing practice also adversely affects loons, beaver, muskrat, aquatic invertebrates and plants.

The study also found that large fluctuations in water levels occurred

about once every 5 years. The size of walleye, northern pike, lake whitefish, and yellow perch populations was related to this long term pattern. The occasional large fluctuation may improve the survival of young fish by increasing the variety and abundance of aquatic macrophytes.

These studies suggest that in order to improve the fish populations, water levels on Rainy and Namakan should be managed to allow for a large fluctuation once every 5 years. A smaller annual fluctuation with an earlier drawdown should also provide benefits.

An informal public steering committee was formed in 1991 with public and government representatives from the U.S. and Canadian, as well as Boise Cascade. This committee will provide a process for public input on water level management issues, and develop a proposal for a change in water level management practices if warranted. The committee will be conducting a public consultation process this spring to determine if such a proposal is indeed, required. 🐟

Darryl McLeod

FABLES



"You were right. The lake's frozen!"

OMNR/Laurentian University Cooperative Fisheries Unit, Sudbury

The Coop Unit is located at Laurentian University and involves partnerships between OMNR, Laurentian University and the Ontario Ministry of the Environment. The following is a brief outline of our current activities.

The past field season began with a spring lake trout stocking assessment designed to assess the success of stocking two strains of lake trout into either deep lakes containing coregonids or shallow lakes without coregonids. Also, a large part of our field work was conducted on the lakes located within the city limits of Sudbury. Ten percent of the surface area within the city limits is covered in water presenting an array of angling opportunities from lake trout and walleye to panfish. We completed lake surveys on the 34 lakes located within the city limits of Sudbury to collect data on fish species distribution, water quality and fish habitat. Students associated with the unit are currently working on a variety of studies including yellow perch colonization of previously acidic lakes and amphipod distribution within city lakes. In addition, M.Sc. students are currently working on projects on the growth of anadromous and riverine Sutton River Brook trout, chemical parameters affecting the presence/absence of lake trout in Sudbury lakes, and estimation of perch biomass in recovering systems.

During the fall, we conducted the first phase of a long term project designed to assess the effect of spawning habitat loss on a lake trout population. Egg deposition and

density data was collected during the past year with future plans to include restricting access to the spawning grounds and monitoring the trout's response to the new conditions.

Our efforts to establish a spawning population of Aurora trout in Whirligig Lake in Temagami district continued with the construction and implanting of two up-welling boxes and the liming of an acidic inflow. There has been no luck so far in establishing a reproducing population, however we are hopeful of success next year.

For further information contact either John Gunn (705) 688-1139 or Rod Sein (705) 675-4832. See you at the next AFS NWO chapter meeting. 🐟

Rod Sein

News from Lakehead University

GRADUATE STUDENTS

Debbie Pangkey is working on the effects of sodium tellurite on the goldfish, *Carrasius auratus*. Mrs. Pangkey is from Indonesia and funded by a grant from Eastern Indonesia University Development Project. She is working in the toxicology lab under the supervision of Mr. Al Smith. Lloyd Mohr will be starting an M.Sc. project related to the effects of sediment on lake trout habitat.

GRADUATES

Mr. Sam Stephenson is now a Ph.D. student at the University of Manitoba. Sam completed his M.Sc. thesis on fish distribution of the Sibley Peninsula. He was supported

by an OGS and Centre for Northern Studies at Lakehead University.

PRESENT ACTIVITIES

The past summer was spent in the field making additional collections of local fish to enhance our knowledge of the distribution of the local fauna. Mrs. Connie Hartviksen is compiling all of this information and we hope eventually to publish an Atlas of the fishes of Northwestern Ontario. Lakehead University has provided funding for this long term project.

Mr. Stephenson is completing several manuscripts based on the extensive findings of his M.Sc. thesis research and spent the summer adding to our knowledge of the local fauna through a large number of fish collections. Such programs are available in several US states and should be a priority given all of the development proposed by Hydro etc. for this portion of Ontario.

As a result of our fish collecting activities we now know of four new localities for the distribution of the rusty crayfish *Orconectes rusticus* in northwestern Ontario. The distribution and spread of this species should be an item of considerable concern to managers since it has great potential for modifying fish habitat in the littoral zones of northern Ontario lakes.

PUBLICATIONS

Momot, W.T., P.L. Hauta and J.A. Schaefer, 1990. Yield estimates for the crayfish, *Orconectes virilis*, employing the Schaeffer logistic model. Journal of Shellfish Research, 9(2):373-381.

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American Journal of Fisheries Management 11(2):220-225.

Storck, T. and W.T. Momot, 1989. Annual production of creek chub and southern redbelly dace in a small woodland stream. Ohio Journal of Science 89(3):55-61.

Momot, W.T., 1991. Potential for exploitation of freshwater crayfish in coolwater systems: Management guidelines and issues, Fisheries 16(5):

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Stephenson, S.A., 1991. The distribution of fishes in the Thunder Bay area of Northwestern Ontario with special reference to the darters (Genus *Etheostoma*) and the Sibley Peninsula.

Dean, J.F., W.T. Momot, and S.A. Stephenson, 1991. Geofisheries: A new concept for determining fish habitat suitability as applied to brook trout. Part I. Definitions and importance of key geological glacial and climatic components used in defining brook trout habitat. Ontario Ministry of Natural Resources Report, 77 p.

Dean, J.F., W.T. Momot and S.A. Stephenson, 1991. Geofisheries: A new concept for determining fish habitat suitability as applied to brook trout Part II. Key and maps for determining brook trout habitat Ontario Ministry of Natural Resources Report, 55 p.

Friday, M., 1991. Adult walleye introductions in the Thunder Bay District H.B.Sc. thesis 43 p.

Walter Momot



Fisheries and Tourism Research Unit

The Fisheries and Tourism Research Unit of the Centre for Northern Forest Ecosystem Research (Thunder Bay) has begun designing and implementing research assessing the effects of timber harvest activities on fish populations and fish habitat. The research is intended to evaluate the effectiveness of MNR's Timber Harvest Guidelines for the Protection of Fish Habitat (OMNR 1987).

In order to evaluate the guidelines, the project will employ three research approaches: 1) a case study; 2) a comparative survey; and 3) individual project experiments. By integrating the three research approaches, different types of questions related to the effects of timber harvesting on aquatic ecosystems can be answered by providing different types of information.

The case study approach will be used to monitor whole-basin integrated watershed responses that occur following timber harvesting activities. Such approaches have been used successfully in experimental watershed research in the Experimental Lakes Area in northwestern Ontario, for studies on nutrient dynamics and acidification. In our research, we will monitor terrestrial and aquatic responses to timber harvest in the watershed through time. Responses being monitored include changes in microclimate, hydrology, sediment transport, organic transport, water chemistry, chlorophyll, phytoplankton, zooplankton, cyprinid communities, and the lake trout population. Presently we are working with the Atikokan District MNR in planning a timber harvest on several lake trout lakes. Pre-harvest data are already being collected on these lakes.

While the case study approach provides realism (i.e. it will monitor effects from an actual harvest), the results can be site- and/or time-specific. To generalize results, a comparative study will be initiated this summer in order to assess relations between biotic and abiotic conditions of streams and lakes and past timber harvest and road building activities. This research will address cumulative time-transient effects of timber harvest and may elucidate how resilient aquatic ecosystems are. Comparative work will be conducted across several ecoregions of Ontario in order to further generalize results. A second comparative study, to be initiated later, will attempt to relate size and composition of natural buffer strips with their ability to intercept sediment from roads and harvested areas.

The third research approach will utilize individual project experiments that focus on understanding both processes and responses of watersheds to perturbations. Such an approach will allow us, for instance, to assess how sediment and how much sediment is transported to lakes and streams and where it is most likely to be deposited. Additional research will assess how specific components of lakes and streams respond to such perturbations (eg. assessing the survival to emergence of eggs as a result of increased sediment).

The project will be ongoing over the next 10 years and each of the three approaches will be used in order to better understand linkages between land-use and streams in Ontario.

Michael Bozek

OTHER FISHERIES NEWS

Auditor General's Report

The Auditor General's report for the 90/91 fiscal year included a review of the Department of the Environment (DOE) as well as the Department of Fisheries and Oceans (DFO). Both departments were criticized in the report for failing to clearly define the roles of the Federal and respective Provincial governments as they relate to environmental protection. This confusion has resulted in inadequate compliance and enforcement activities related to environmental regulations. It has also resulted in unnecessary delays in the implementation of the 1986 Fish Habitat Management Policy and the remedial Action Plan Program on the Great Lakes, according to the report. On the bright side, The Auditor General's report recognized scientific excellence of the DFO's Experimental Lakes Area Program by calling it the "flagship for freshwater research in Canada". This is despite substantial funding reductions, that have resulted from higher priorities on Atlantic and Pacific marine issues. 🐟

Canadian Water Watch 5(1-2)

Regina versus Sparrow

Most of us have heard the Sparrow case mentioned at work, on the news, or around the coffee table in recent months. With a Native fisheries theme at our next conference, it is probably timely to review the implications of this Supreme Court of Canada ruling.

Mr. Sparrow, a Native from the Musqueam Band in British Columbia, was charged by the DFO for fishing with an illegal sized net. The Court held that the *Fisheries Act* and Regulations do not disclose an intention to extinguish the Indian aboriginal right to fish. Although the Court recognized the role of regulations in conserving and managing the fisheries resource, the ruling requires the federal government to justify any regulations that have a negative impact on any aboriginal right that is protected in Section 35(1) of the *Constitution Act*, R.S.C. 1982. This means that after making the first allocation to the resource

for conservation purposes, the top priority is the native food fishery. If there are any fish available for allocation after this, then they may be allocated to sport fishing and commercial fishing. 🐟

CALENDAR

July 1992 - *NCD Esocid Technical Committee Meeting* - LaCrosse, Wisconsin. Contact Terry Mergen (715) 635-4162.

September 1992 - *Annual Meeting of the Northwestern Ontario Chapter of the American Fisheries Society* - Thunder Bay, Ontario. Dates and location have yet to be finalized (complete rundown in next newsletter!). Contact Kim Armstrong (705) 272-7012 or Randy Wepuk (807) 274-5337.

September 14-17, 1992 - *The 122nd Annual Meeting of AFS* - Rushmore Plaza Hotel, Rapid City, South Dakota. Contact Paul Brouha, AFS, 5410 Grosvenor Lane, Suite 110, Bethesda Maryland 20814-2199, (301) 897-8616. [If a number of chapter members are planning to attend, it may be possible to drive in tandem to Rapid City. Also the hosts are looking for volunteer assistance to help them run the show!]

December 6-9, 1992 - *Annual Meeting of the North Central Division of AFS* - Regal Constellation Hotel, Toronto, Ontario. Contact Laurel Winston-Smith, OMNR, Wildlife Policy Branch, Sixth Floor, 90 Shepherd Avenue East, North York, Ontario, M2N 3A1, (416) 314-1068. 🐟



MEMBERSHIP INFORMATION

The Northwestern Ontario Chapter of the American Fisheries Society is a scientific and professional, non-profit organization composed of persons interested in the conservation and enhancement of fisheries resources. The purpose of the Chapter is to: advance the conservation, development and wise use of fisheries resources; gather and disseminate information on fisheries science and management; and promote and evaluate the educational, scientific, and technical aspects of the fisheries profession.

Our Chapter has been active for over 10 years, drawing together fisheries workers with a common purpose. The Chapter publishes three newsletters annually, and hosts an annual business meeting and conference.

Inquiries about the Chapter and its activities should be directed to : **Randy Wepruk**, President, c/o Ontario Ministry of Natural Resources, 922 Scott Street, Fort Frances, Ontario, P9A 1J4.

Please mail the following membership application with dues enclosed to :

Dana Kinsman
Secretary/Treasurer
American Fisheries Society
Northwestern Ontario Chapter
c/o Ontario Ministry of Natural Resources
P.O. Box 448
Ignace, Ontario
P0T 1T0

Membership dues are \$10.00 annually (\$5.00 for AFS Parent Society members)

NWO-AFS Membership Application Form

NAME _____

ADDRESS _____

CITY/TOWN _____

POSTAL CODE _____ PHONE _____

AFFILIATION _____

Northwestern Ontario Chapter Opinion Survey on Professional Certification

Name: (optional)

Occupation:(please fill in)

1. Should fisheries professionals in Ontario be concerned about lack of accreditation when it is recognized for other professions such as Forestry, Engineering, for example?

Why or Why not?

2. What do you believe are the qualities of professionalism?

3. Do you feel that lack of accreditation in the fisheries profession in Ontario/Canada affects employer and public perceptions of fisheries professionals?

Why or why not?

If yes, what do you feel the perceptions of the employer and public are?

Employer: (Please state who the employer is, ie consulting firm, Ontario government, for example).

Public: (Be specific on which members of public: ie. media, industry, resource users).

4. Should a fisheries certification process and criteria be developed for Ontario? Why or Why not? What are the alternatives?

5. Who or what organizations should be involved in developing criteria and the process or the alternatives?

Thank you for your input, results will be summarized in the next newsletter. Please return to B. Ritchie, 160 Rupert St., Thunder Bay, P7B 3X1 by April 10th, 1992.