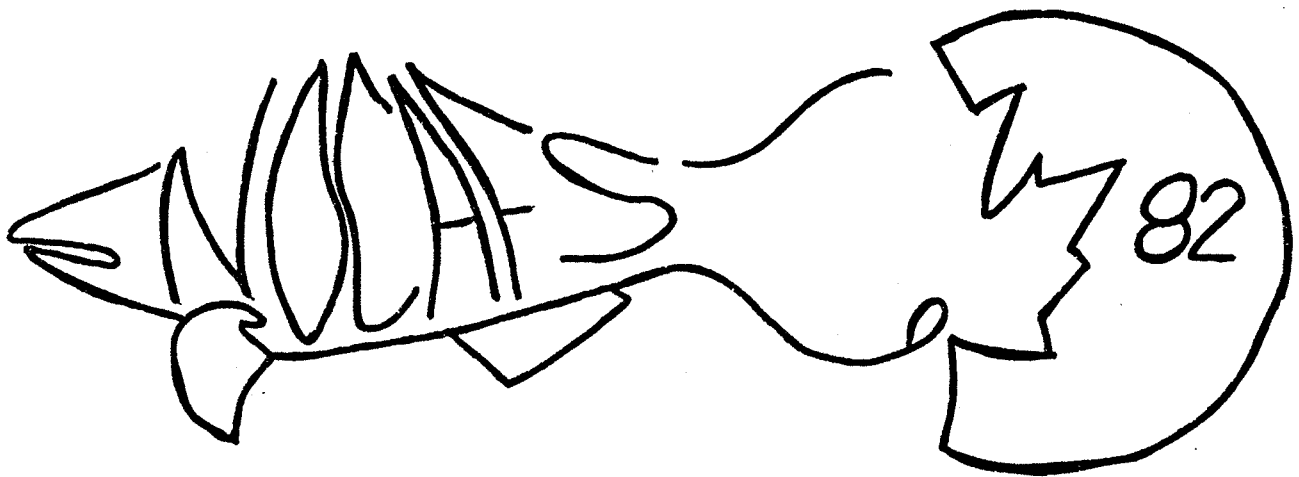


NORTHWESTERN ONTARIO CHAPTER NEWSLETTER



AMERICAN FISHERIES SOCIETY

Vol. 2 (3)

AMERICAN FISHERIES SOCIETY

*** NORTHWESTERN ONTARIO CHAPTER ***

President:	Chris Brousseau, Box 5000, MNR, Thunder Bay
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Secretary/Treasurer:	Ken Cullis, Box 2089, MNR, Thunder Bay

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ANNOUNCEMENTS

1. President's Report

With this, the third and final issue of this volume of the Chapter newsletter, it may be my last chance to address the membership until the annual meeting. I would like to take this opportunity to review the activities of the Chapter in the past year and to announce some of the details of the annual meeting in October.

Over the past year the Chapter has continued along its regular format and has been recognized several times by the Parent Society (Fisheries, AFS Diary) as an active Chapter. Following our Annual Meeting and Conference at the Quetico Centre the Chapter held 3 technical meetings in Thunder Bay involving a total of 7 speakers. The topics were Environmental Assessments, Contaminant Monitoring and Rainbow Trout and Salmon Studies in the Great Lakes. In addition to this, the Chapter had a social meeting courtesy of Dorans Brewery in Thunder Bay.

Although the regular meetings were generally well attended (20-25) the newsletter has been the primary means of communication among the members. For the first time we have received articles from the Northwest and North Central regions of the Province and I hope this practice will continue. The Newsletter is getting bigger and better with every issue so please keep on contributing.

The Chapter provided input into the Little Jackfish River project and feedback from Ontario Hydro is expected to continue in the future. We also sent a letter and resolution to John Magnuson and the Internationalism Committee regarding a name change for the Parent Society to reflect its international character (see Secretary/Treasurer's Report).

Although there may be a Chapter meeting this summer, the next scheduled get together will be the annual meeting. In conjunction with the meeting the Chapter and Lakehead University are sponsoring a workshop on fish parasites and diseases. It is scheduled to begin on the morning of October 7, and run through to the afternoon of October 8. The workshop will provide Chapter members with an excellent opportunity to "brush up" on current knowledge of this important topic. Both lecture and lab sessions are planned and an identification workshop of fish collected in Northwestern Ontario will be held. So please save any fish that you may collect over the summer and bring them to the workshop. Due to the nature of the workshop, registration will be limited to 50 people and will be on a first come first serve basis. Registration details and an agenda will be mailed to all Chapter members at a later date. All the activities will be held at Lakehead University including the annual meeting and banquet.

Volunteers are needed to help organize some aspects of the program. Contact me if you are willing to help out.

Remember that Chapter dues (still only \$5.00, cheap at twice the price) are due September 1, 1982. We presently have over 60 members and are growing annually.

Before signing off, I would like to thank all the executive and committee members for making this another successful Chapter year.

Chris Brousseau

2. Secretary/Treasurer's Report

The Northwestern Ontario Chapter of the American Fisheries Society has recently taken a formal stand on the proposed name change of the parent society. The topic was discussed at the annual meeting of the chapter on October 7, 1981, with the general consensus being to pursue the issue. As a result, the executive formulated the following letter to John Magnuson, AFS President, prior to the Executive Committee meeting on March 14, 1982 at Milwaukee. The Chapter received a reply from John Magnuson on April 5, 1982 stating that the international nature of the society was discussed at the meeting and a motion was passed to encourage the Internationalism Committee to continue work in the direction of the name change. Furthermore, Dr. Magnuson stated that he liked the motion and would keep the issue active.

The Chapter will be forwarding a formal resolution to the parent society in support of a name change of the American Fisheries Society to reflect its international character. The resolution will be based on the points emphasized in the following letter. However, any additional comments from the Chapter members would be encouraged at this time.

* * *

February 15, 1982

Dr. John Magnuson
President, American Fisheries Society
Laboratory of Limnology
University of Wisconsin
Madison, Wisconsin
U.S.A. 53706

Dear Dr. Magnuson:

It was almost 100 years ago when the American Fish Culturist's Association decided to change its name to the American Fisheries Society. I am sure that back in 1884 the members would never have dreamed that the AFS would grow to 8,000 strong and into the most respected and well known fisheries organization in the world. And at that time an almost entirely American membership must have seemed appropriate for a young and aspiring society.

But times have changed. In the September-October (1981) issue of Fisheries, Carl Sullivan's article "The History, Structure, and Function of the American Fisheries Society" pointed to a truly international fisheries organization. The membership statistics showed that approximately 10% of the AFS individual memberships and 40% of the library subscribers reside outside the United States. In fact, about 75 foreign countries are represented on the membership roster. Canada alone has 475 members and 156 library subscribers.

These percentages, although significant, do not entirely reflect the valuable contribution made to the AFS by this so called "foreign" membership. For example, there have been 3

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Canadian AFS presidents in the last 6 years; Canadians have been presidents of every division except the southern division, and Canadians have served on just about every committee for several years.

Not only are AFS members international, many of the problems facing our fisheries resource also ignore political and geographical boundaries. For example, atmospheric borne emissions often travel thousands of miles before falling to the earth as acid rain. Marine fisheries face problems world-wide and we are all familiar with over-exploitation, pollution, and the introduction of undesirable species.

In 1979-80, a new Chapter of the AFS was formed comprised of, for the first time, an all Canadian membership. The Northwestern Ontario Chapter, now with over 60 members, has grown rapidly into a viable and active Chapter of the North Central Division. It has demonstrated that there is a need amongst its members to share our common interests regardless of affiliation, and its local theme has contributed greatly to the Chapter's success. Due to the Parent Society's name, however, it is often difficult to act upon environmental issues from a Chapter point of view. Our political impact is often reduced when we state we are a Chapter of an American fisheries society. On every issue we have to go into a lengthy discussion as to our identity, whom we represent, and what we are trying to accomplish. We always have to stress that we are a Canadian Chapter representing a world wide fisheries organization. On one occasion when we booked a room for a meeting, they thought we were a group of "yankee anglers".

In summary, I feel that the time may be right to change the name of the Parent society to reflect the international nature of our organization, our members, and our problems. I am sure that it would also encourage foreign membership.

The Northwestern Ontario Chapter strongly supports any move by the Parent Society to change its name to echo our global character. We urge you to make this a topic of discussion at the 1982 Excom meeting in Milwaukee. Our Chapter plans to follow up this letter by submitting a resolution to the Parent Society.

Chris Brousseau, President
Northwestern Ontario Chapter
American Fisheries Society

c.c. C. Sullivan
J. Triplett

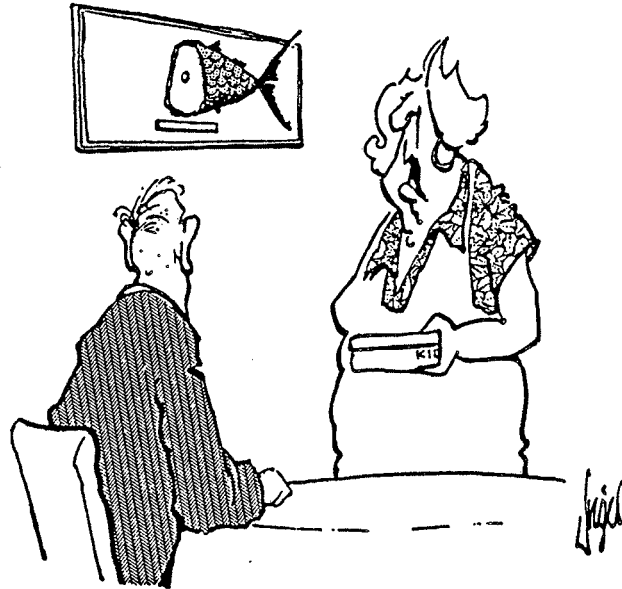
Ken Cullis

3. Chapter Meetings

WORKSHOP ON FISH PARASITES AND DISEASES

In conjunction with the annual meeting of the Northwestern Ontario Chapter of the American Fisheries Society and Lakehead University.

October 7-8, 1982 Lakehead University Thunder Bay, Ont.



PROGRAM UPDATES "It's your own fault for forgetting the can of cat food."

1. Ministry of Natural Resources

Walleye Introductions in the Thunder Bay District

Once again, the Ministry of Natural Resources (MNR) is continuing its ongoing walleye introduction program in the Thunder Bay District. Over the past month of May, adult walleye have been transported by truck in a portable hatchery tank and released at several sites on the upper Dog River system.

The fish were made available through a research project carried out by the Walleye Unit of the Ministry's Fisheries Research Branch, under the direction of research scientist, Dr. Peter Colby. Their simulated exploitation studies on Savanne Lake necessitate the removal of a certain portion of the lake's existing walleye population. The fish were live-trapped in trap nets and then transferred by District staff to nearby lakes and rivers which do not naturally support a walleye population. The intention is to establish self-sustaining, reproducing populations in these waterbodies.

Originally, the native distribution of walleye in the Thunder Bay district was restricted to only a few watersheds due to past glacial history. However, in the past 40 years the number of good walleye producing lakes has been greatly increased by similar type introduction projects. The transfer of adult walleye (including both juvenile and mature fish) has proven to be the most reliable and economical method. Lakes

- -

and rivers which receive an introduction of adult walleye have all been surveyed as part of the Aquatic Habitat Inventory program and found to have no natural walleye population present, although the characteristics of each waterbody meet the requirements of walleye habitat. Suitable spawning beds have been identified in each case prior to an introduction of walleye. Other environmental and biological concerns are taken into consideration as well.

Relatively small numbers of walleye are transferred to each recipient waterbody, often as low as a minimum 150 fish per site. The MNR therefore stresses to the public that the success or failure of an introduction is dependent on the ability of those fish to reproduce and eventually establish a viable population. Therefore anglers are advised to refrain from fishing for walleye in recently introduced lakes and rivers to allow time for nature to take its course. It usually takes at least 5 - 10 years before the population will be built up to a level that would support a sport fishery.

Introductions of walleye in the Thunder Bay District in recent years have been concentrated within the upper Dog River watershed as well as some lakes in the Spruce River Road area. A few examples of lakes which have successfully been introduced with walleye include such popular fishing lakes as Batwing, Hicks, Iron Range, Perching Gull Lakes, Prelate, Sandstone, and Swallow. Even Whitefish Lake, Ontario's equivalent to Escanaba Lake, Wisconsin, was originally planted with walleye eggs back in the mid 1940's. Migration of fish from lakes where walleye have been introduced has further increased their range to a great extent.

As a direct result of the MNR's walleye introduction program, combined with subsequent migration the extent of walleye waters in the Thunder Bay District is continually increasing to the benefit of all walleye anglers.

Len Godwin

2. Ministry of Natural Resources

Scale Reading - North Central Region

Determining the age of fishes from their scales was discovered several decades ago. The fish scale method of population study grew into one of the major tools for fisheries research and management. Now, within the last few years, the use of calcified tissues from fish has developed into a very promising and accurate method of age determination. For some species, interpretation of information contained in the scales is difficult or even impossible to determine, as in the scaleless species. In this case, calcified tissues have been found to be superior for age and growth analyses. It has been shown that fin rays/spines, otoliths, opercles and cleithra reveal the same year marks when properly prepared as do scales.

The 1981-82 season was the first year of operation of the North Central Regional Aging Facility under the direction of the present regional aging technologist. The majority of the age determinations that were made during that year were from scale samples aged by the aging technologist. But now, Kelly Goodwin has been added to the staff at the aging facility and with her assistance,

over the 1982-83 season the proposal is to do extensive age and growth analyses using scales and calcified structures.

Nadine Triemstra

3. *Ontario Hydro*

Mission Island Marsh Study

Mission Island is located in Lake Superior, east of the city of Thunder Bay. This 390 hectare island is surrounded by the Mission, Kaministiquia and McKellar rivers. The 40 hectare marsh along the eastern shore has been the focus of a wildlife survey by Ontario Hydro and the Ministry of Natural Resources for 5 years (1975, 1979-82). During data collection, the following fish species have been identified utilizing the environs of the marsh for spawning.

<u>Species</u>	<u>Date of Spawning</u>
Northern pike	late April-early May
Sucker spp.	mid-May
Carp	mid-June
Spottail shiner	early July
Yellow perch	early July

K. E. Wylie-Bellhouse
Ontario Hydro

4. *Ministry of Natural Resources*

Update from the Northwestern Region

Planning pervades fisheries management in the Northwestern Region. The districts have just completed open houses that presented proposed policies and optional plans of the District Land Use Plan. By December 1982, we should have a plan that outlines where resource management activities, such as timber harvesting, commercial fishing and tourist facilities can occur. The fisheries management plan, which will outline how much of the resource will be allocated to outfitters, commercial fishermen, resident recreationalists, etc., has been separated into two phases - the resource inventory and analysis phase and the management directives phase. The first phase has been completed for Lake of the Woods, Rainy Lake, Fort Frances and Kenora Districts. This summer the first phase will be completed for Lac Seul and for Dryden, Ignace, Red Lake and Sioux Lookout Districts. The management directives phase won't begin until 1983, when the district land use plan should be approved and we have some direction as to where sport and commercial fishing can occur and where the major environmental concerns such as logging will happen.

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1. Lake Superior Trout Hunt

The third annual Lake Superior Trout Hunt, which is sponsored by the Shuniah Volunteer Fire Department, was held on June 5th and 6th of this year and, from the organizer's standpoint, it could be considered a great success. Over 4,000 entry tickets were purchased and the final figures placed the total number of fish entered at 685. The Derby is divided into three classes: lake trout, brook trout and rainbow trout. This year, 648 lake trout, 28 rainbow trout and 9 brook trout were entered with the largest fish being 10.64 kg, 4.29 kg and 3.96 kg in each respective class. According to Derby organizers, there were more entries on the first day (236) than the total number entered the entire previous year and the final figure more than doubled the 1981 totals.

Ontario Ministry of Natural Resources staff were present again this year conducting creel censuses and obtaining biological information on those fish that were entered in the Derby. Thunder Bay District staff interviewed a total of 197 parties comprised of 568 people. At the time of the interviews, the individuals had fished over 1,300 hours and had caught 212 lake trout and 1 rainbow trout. This resulted in a catch per unit effort of .163 or approximately 1 fish every 6.1 hours.

Staff of the Lake Superior Fisheries Assessment Unit were kept more than casually occupied sampling 212 fish on June 5th and 396 fish on June 6th. Data collected by the F.A.U. showed 78% of those fish entered were native Lake Superior trout and of the 22% clipped fish, 79% of those were adipose clipped. Those fish with an adipose clip were stocked by O.M.N.R. into Lake Superior in 1977.

Although the trout hunt is "lake wide" and in fact fish were caught as far east as Terrace Bay and as far west as Cloud Bay, the majority of those trout entered were caught either in Bays End or in the waters off Caribou Island. These two areas accounted for approximately 81% of fish sampled.

Dave Payne

2. Area F.M.A.'s Recently Signed

Two more Forest Management Agreements (Domtar's Lake Nipigon Forest and Ontario Paper's Black River Forest) were recently signed between the M.N.R. and area pulp and paper companies. This brings to three the number of licences now under long term agreement in the North Central Region (Abitibi Price signed the Spruce River Forest F.M.A. in December).

With the prime objective of Forest Management Branch to place all major pulp and paper companies in Northern Ontario under F.M.A. by 1988, it is important to understand what these agreements mean in terms of future protection for our fisheries resource from indiscriminate cutting and road building practices.

The concept of F.M.A.'s originated in 1976 when a Government report recommended that timber companies assume responsibility for both the harvesting and regeneration of trees within

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their licence area. The signing of a F.M.A. therefore, effectively transfers all responsibility for forest management practices from the Government to the Industry. The M.N.R. believes that these long term agreements will result in a continuous supply of forest products and ensure our forests are harvested and regenerated on a sustained yield basis.

The Forest Management Agreement is a contractual statement between the company and government for a period of 20 years, to be reviewed at 5 year intervals. Since timber harvesting practices with their associated road building activity can adversely affect fisheries habitat, built in safeguards are an integral part of any F.M.A. These take the form of exclusions, withdrawals and deferrals.

Prior to the signing of a F.M.A., productive forest in the vicinity of sensitive fisheries habitat can be removed from the agreement. These are called exclusions, and usually include 400 feet solid reserves around lake trout and brook trout lakes and streams. At no time during the life of the agreement will the company be allowed to harvest this wood. Additional productive forest lands removed during the 20 year life of the F.M.A. are referred to as withdrawals. These can usually constitute up to a maximum of 5% of the Annual Allowable Cut (A.A.C.) by Working Group although this may vary among F.M.A.'s. All services within the M.N.R. (i.e. Lands) as well as other Government Ministries or Agencies (i.e. M.T.C., Ontario Hydro) must be accommodated by this percentage thereby limiting somewhat the amount of timber reserves Fish and Wildlife can recommend for the protection of aquatic habitat. Important walleye lakes and rivers, recharge and headwater areas are usually withdrawn with 200-400 foot reserves. Other waterbodies which demonstrate a need for habitat protection can also be accommodated by withdrawals.

Occasionally, warmwater habitat can be adequately protected by block cuts which retain approximately 50% of the shoreline in a solid reserve while allowing the remaining 50% to be cut. This can be accomplished through a system of deferrals which allow for modified cuts to be left for a maximum of 10 years. At that time the residual blocks must be either offered to the company or be taken out of the A.A.C. as withdrawals. There is usually no limit as to the amount of timber that can be reserved as deferrals and for some waterbodies a return cut after 10 years will not significantly affect the habitat.

An important component of F.M.A.'s which directly involves the A.F.S. is the public examination and scrutiny of companies' intentions with regards to the area under licence. Prior to the signing of a F.M.A. a series of Open Houses must be held in convenient locations. All areas which have been excluded from the agreement along with proposed road building activity and the rationale behind the number and type of exclusions are presented for public discussion. Revisions and additions to the F.M.A. can be made at this time.

Subsequent to signing, a 5 year Operating Plan must be completed by the company within four months. Contained in this plan are specific recommendations concerning cutting prescriptions along all waterways. This document is presented

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to the public for scrutiny and input. The Ministry will not approve an operating plan until the required review process by the public has been completed.

The importance of the public review process in all stages of F.M.A.'s cannot be underestimated. It gives the opportunity to concerned individuals and groups like the A.F.S. to ensure that adequate safeguards are installed to protect our sensitive fisheries resource.

Bob Walroth

3. *Little Jackfish River Information Centres*

Ontario Hydro has taken the show on the road. Bob Ruggles and Chris Taylor, now becoming familiar faces with those interested in the proposed hydroelectric installation, were on hand in Beardmore (April 3rd) to present Ontario Hydro's intentions to date through an open house format.

The commercial fishermen of Lake Nipigon had contacted the Nipigon office of the M.N.R. to request that a biologist be sent to Beardmore with directions to explain things in local terms. It seemed apparent that the fishermen were prepared to cut right through any gimmicks and get down to their single most important issue - the walleye fishery of Ombabika Bay.

The Hydro display was quite impressive and provided even the casual observer with everything he might need to catch up on the progress of the project. Small scale aerial photograph composites, a relief map of the Little Jackfish River and various schematics on generating station features showed who was putting what, where. The fishermen were quick to pick up on the how, when and why of it all though.

Apparently Ontario Hydro imports up to 20% of Northwestern Ontario's power requirements from friendly Manitoba and so, it was explained, local developments could help offset this reliance. The fishermen perceived the high voltage transmission line with not a little bit of concern over its generally south and easterly inclinations.

The "how" of the project seemed to appease some local concerns when it was explained that the project should ultimately have at least short term benefits for Ombabika Bay walleye. If Ontario Hydro doesn't go in, the erosion of the river and consequential siltation of the bay will continue at its present rate. With Ontario Hydro's plan to repair some of the downstream erosion problem spots and their commitment to responsible water flow management during critical times of the year (especially May-June), current silt loading may decelerate enough to allow the bay to become more conducive walleye habitat. Nevertheless, Ontario Hydro has not finalized its optional planning phase and intends to return to "sell" one construction strategy over the others and then proceed with the work schedule (early 1985).

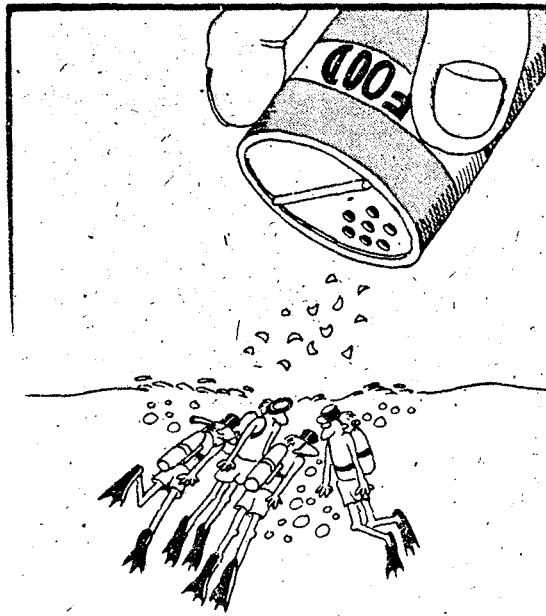
Chris Taylor made it clear that Ontario Hydro's mandate does not require it to enter the realm of fisheries management. However, this will not preclude them from cost efficient repair of water-courses to ameliorate multi-use concerns.

Frank Goodman, a fisherman, summarized the views of most of his companions when he stated that, "After all the studies you do up there at least we'll finally know what's in the bay. Ten years down the road we'll know what the changes have been and who was responsible. Then I guess we'll talk again".

Hal Schraeder

4. Large River Inventory

Large warmwater rivers; what are they? In Ontario they are generally slow running, punctuated with rapids, chutes, dams, reservoirs, often turbid, sometimes tea colored, long, short, and almost any combination of these. From within this confusion of features, what is it that unifies these bodies of water? Already we know that under given geomorphological conditions flowing water reacts in a predictable manner. Within limits we can measure one gross physical feature such as watershed area and predict river length, width at a point, the number of tributaries and so on. Given that this is true, it is likely that we can predict the productivity of fish biomass of a given river based on what may be simple area parameters. Welcomme for African floodplain river, Huet, Kölbing and Holčík for the Danube in Europe each have used similar types of measures to predict fish catch in large rivers. This should not be confused with potential yield though the two are related under some circumstances. We in Ontario are faced with a deficiency of commercial riverine catch data which will allow us to test these predictors adequately. Most of the spring river work that has been done samples river run lake stock and has little or no bearing on the resident river population. Care and controls, all labor intensive, must be used in order to separate the two stocks, and can only be done once per year. Another method may be used that does not require the same controls. That is to sample the river after spawning runs and when the fish are dispersed. Although this is more desirable from the point of limiting the need for controls, it has proven difficult to do. We are currently working on some methods that will allow us to sample river populations and estimate biomass. At this point, a population/biomass estimate has been made for the Frederickhouse River in Northern Ontario and we will continue to use it in order to test proposed sampling techniques. These include various electrofishing and netting techniques that as yet are untested for our situation. We will know better by the end of the field season how to address some of the more nagging problems that have limited work to date on large rivers. Beyond that we will have started a data base with which to test for the physical parameters that relate empirically to fish production.



Ian MacRitchie

ANSWER TO LIMNOLOGICAL TERMS

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START	DIR	WORDS
T- 9	U-R	ALLOCHTHONOUS
T-27	L	AMICTIC
B- 6	R	BENTHOS
S-14	R	CHEMOCLINE
S-14	U-R	CHEMOSYNTHESIS
P-23	U-R	CLINOGRADE
U-11	U-R	CONDUCTIVITY
8	U	DECOMPOSITION
I-27	U-R	DENSITY
F-20	D-R	DETRITUS
W-19	U	DIMICTIC
C-17	D	DYSTROPHY
J- 5	D	EPILIMNION
Q-16	L	EUTROPHICATION
C- 3	D-R	FETCH
G-11	R	GYTTJA
N-10	U-R	HETEROTROPHY
L-29	R	HOLOMICTIC
K- 6	U-R	HYPOLIMNION

START	DIR	WORDS
U-15	R	LANGMUIR
L-31	U-R	LITTORAL
F-10	L	METHANE
U-30	U-L	MONIMOLIMNION
N-38	U-L	NUTRIENTS
O-18	R	OMBOX
M-33	D	PERIPHYTON
Q-11	U-R	PHOTOSYNTHESIS
G- 2	D	PROFUNDAL
Q-13	D-L	REDOX
O- 8	U-R	SEDIMENTATION
N- 7	U-R	SEICHES
H-33	U-L	SESTON
H-30	D-R	STABILITY
L-16	L	STRATIFICATION
V-25	U-R	TRANSPARENCY
V-25	L	TURBIDITY
F- 9	L	VISCOSITY
I-11	L	ZOOPLANKTON

PARENT SOCIETY NEWS

Notes from the AFS Diary

Possible AFS name change - The oft-debated topic of changing the name of AFS to more accurately reflect its international thrust and membership composition, received considerable discussion. As a result the EXCOM voted to ask the Internationalism Committee to consider the further action and procedure which would be required to implement a possible initiative for a name change of AFS.

New Wildlife Society Executive Director - is Harry E. Hodgdon, who has been Field Director for TWS since 1977. He has an MS and a PH.D. in Wildlife Biology from the University of Massachusetts. The Wildlife Society is located in the same building as AFS. Founded in 1937, the Society represents nearly 8,000 wildlife biologists, managers, researchers, educators, and administrators. There are also striking similarities between AFS and TWS in staff, size and numbers of members.

the \$90,000 Plateau in our Permanent Home Fund drive has been topped, and efforts are continuing. To pay for new office space our total goal is \$224,000. Remember the first 100 Life Memberships go for this purpose, and 60 are still available. All contributions as well as life memberships are tax deductible.

AFS Section membership as of April 30, 1982 is as follows: We expect another 400 members to renew, so these figures should grow slightly during the rest of the year.

Total 1982 Section Membership:	4,621
Fish Culture:	1,026
Fish Health:	449
Fisheries Administrators:	166
Fishery Educators:	253
Water Quality:	575
Early Life History:	328
Marine Fisheries	454
Exotic Fish:	194
Fisheries Managment:	941
Bio-Engineering:	235

NOTE: New Sections being organized or considered include a Recreational Fishing Section, a Fisheries Economics Section, an Ornamental Fishes Section, and a Mining Reclamation Biologist Section.

Organization of a new section - to be called "Fish and Wildlife Relationships to Mining" seems to be progressing well. Quite a number of members are signing their petition and there appears to be strong interest from biologists in states strongly impacted by mining activities.

"Thinking of Fish - When Planning Small Hydro Projects" is the title of a brochure provided herein for your possible interest. The brochure was produced by the Oregon Chapter of AFS and may have implications for your area. Other AFS Chapters might consider redesigning the brochure to fit small hydro project concerns in their area.

(continued)

The "Fisheries as a Profession" Rewrite Committee has virtually completed its work, with printing scheduled before our annual meeting. Bob Carline's committee has done an excellent job, and will produce a far superior product. The new brochures will sell for 50 cents, additional copies 25 cents, with a minimum order of \$1.00. This is necessary because of the cost of printing, postage and handling, and to provide control of distribution which is impossible with free brochures. The brochure will be invaluable to anyone contemplating "fisheries as a profession".

Here's How Your Chapter Can Earn \$\$\$\$\$ and the same deal is open to Sections and Divisions. Any member who recruits a new AFS, Associate, Sustaining Library or Official Member will earn the Chapter, Section, or Division of his or her choice a "reward" equal to one half the first year's dues. Associate and Sustaining memberships are \$1,000 and \$100 per year respectively, and both are tax deductible. Library memberships are \$140 beginning in 1983 and Official Memberships are \$250.00. Recruitment isn't that tough, and it can fatten your Chapter's coffers.

Chris Brousseau

UPCOMING MEETINGS

1. Sept. 22-25, 1982 - The 112th Annual Meeting of AFS.

Hyatt on Hilton Head Island, Hilton Head, South Carolina

For information contact:

Mr. Carl Sullivan
Executive Director
American Fisheries Society
5410 Grosvenor Lane
Bethesda, Maryland
U.S.A. 20814

2. December 12-15, 1982 - Annual Meeting of the North
Carolina Division of AFS.

Fort Des Moines, Des Moines, Iowa

For information contact:

James K. Mayhew
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Indianola, Iowa
U.S.A. 50125

PERSONNEL UPDATE:

Steve Kerr will be leaving Wawa soon to assume the position of District Biologist in Owen Sound.

Gerry Leering recently left the Lake Superior Fisheries Assessment Unit to become Temogami's District Biologist.

Walter Momot will be returning from sabbatical in Louisiana in June.

Chris Nunan is furthering his academic studies at the University of Guelph.

Dario Romani left Thunder Bay to take a position with the Government of Saskatchewan at La Ronge, Saskatchewan.

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Terry Marshall - Ministry of Natural Resources
Barb Pike - Ministry of Natural Resources



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