

Newsletter

Northwestern Ontario Chapter of the American Fisheries Society

Vol.8

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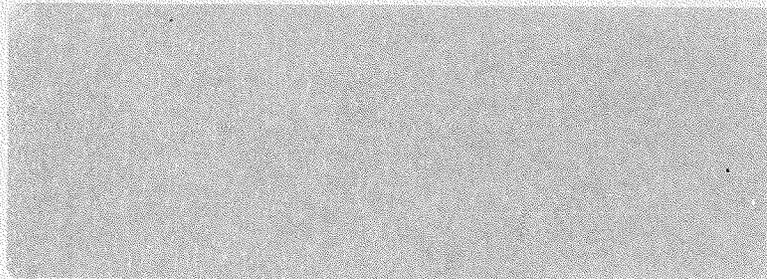
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President.....Tom Mosindy
President-elect.....Alan Dextrase
Past President.....Phil Ryan
Secretary-Treasurer....Arnold Laine

The newsletter of the Northwestern Ontario Chapter of the American Fisheries Society is printed periodically three times annually and sent to its members free of charge.

Membership in the chapter may be obtained by remitting \$5.00 to the Secretary-Treasurer. Chapter members are urged to consider joining the parent organization.



1. Annual Meeting, 1988 - TORONTO!

This year's meeting has been scheduled for Monday, September 12th, 1988 at 1:00 p.m. in the Royal York Hotel. Attendance from our Chapter at the conference will be excellent, from all reports. We look forward to seeing you there. A rough agenda is as follows -

NW Ontario Chapter AFS Annual Meeting, 1988

Date & Time - Monday, September 12th, 1988 - 1pm start

Location - Royal York Hotel, Confederation Room 4.

Topics:

1. Election of officers
2. 1989 meeting (joint Minnesota Chapter meeting to be discussed)
3. Newsletter - printing costs, format, number per year, etc.
4. Parent Society Items - Chapter vote on items including name, federal fisheries funding.
5. New Business

Please contact Al Dextrase at (807) 934-2233 if there are items you wish to add to the agenda or views you wish to express if you are unable to attend.

See you in Toronto!



2. Minnesota Chapter Meeting Report - joint meeting in 1990?

 -Al Dextrase

In February, Val Macins, Scott Lockhart, Dave Reid and myself attended the 21st annual meeting of the Minnesota AFS Chapter. The meeting was high spirited with over 100 members and guests in attendance. Although we were only able to attend the first day of the meeting, the sessions we attended were well worth the trip to Grand Rapids, Minnesota.

The first session was conducted by an interstate panel which addressed the pros and cons of various tagging methods and their uses. Much of the discussion focused on coded wire tags which are growing in popularity for stocking assessment purposes. The second session on walleye stocking assessment was addressed by panelists representing Iowa, South Dakota, Wisconsin and Minnesota. Stocking strategies and rearing techniques were reviewed. Although walleye stocking may be useful in reservoirs and lakes where little natural reproduction occurs, there was disagreement about the effectiveness of supplemental stocking. the success of supplemental stockings is generally assessed by planting fish in alternate years and monitoring year class strength. This technique is hindered by the large year to year variability in year class strength of native stocks. The use of coded wire tags should improve stocking assessment in the future. In the third session, David Phillip reviewed the National Fisheries Genetic Research Plan. The last session described the Mississippi River Environmental Management program with an interesting presentation on the massive rehabilitation program in the upper Mississippi River.

After the day's session had been completed, we met with the executive of the Minnesota Chapter to discuss the possibility of a joint meeting. Winter 1990 in International Falls/Fort Francis was put forth as a tentative time and meeting place.

3. Lakehead University News

This has been a busy year at L.U. A number of graduate students are completing their MSc thesis. In addition Dr. Momot was involved in a study of the Kam River and Mrs. Hartviksen and Dr. Momot are completing their book on the Fishes of Thunder Bay. During this past summer, work was mainly on crayfish exploitation responses.

M.Sc. Thesis completed:

Helen Ball -- The dynamics of a polyphagous lake trout population in a northwestern Ontario lake.

Kevin Trimble -- Ecology of forage fish following cessation of overharvest of walleye in Henderson Lake.

Brian Wisendon -- Population dynamics and recruitment of walleye in Henderson Lake, Ontario.

George Morgan -- Population dynamics of an exploited population of Orconectes virilis in NW Ontario.

Arnie Laine -- Ecology of a northern pike population in a small oligotrophic lake.

Sabine Maxwell -- Effects of several biotic and abiotic factors on growth and survival of young crayfish.

Papers Published -

Momot, W.T. and G. Leering. 1987. Agressive interaction between Pasifasticus lenisculus and Orconectes virilis under laboratory conditions: 87 - 93. In Brinck, P. (Ed) Freshwater crayfish 6: 281 p. Lund, Sweden.

Morgan, G. & Momot, W.T. 1988. Exploitation of Orconectes virilis in northern climates: complementarity of management options with self regulatory life history strategies. Freshwater Crayfish 8: in press.

Momot, W.T. 1988. Orconectes in the U.S.A. and elsewhere. In Holdich, D.M. and R.S. Lowery (Eds). The biology and exploitation of freshwater crayfish. Croom-Held Publishers Ltd. (U.K.) (in press).

Momot W.T., C. Harviksen and G. Morgan. 1988 A new range extension for the crayfish Orconectes rusticus from Sibley Provincial Park, Northwestern Ontario. Canadian Field Naturalist (in press).

Mosindy, T., W.T. Momot and P.Colby, 1987. Impact of angling and yield of mature walleye and northern pike in a small boreal lake in Ontario. North American Journal of Fish Management 7 (4): 493-501.

Honours thesis completed:

McIver, S. 1986. Age and growth of the white sucker, Catostomus commersoni in Henderson Lake, Ontario.

Lindsey, J.E. 1986. The effects of density on egg production in the crayfish.

4. Upcoming Conferences:

Canadian Conference For Fisheries Research - Quebec City, Quebec January 4-5, 1989

Major themes will be - 1. measuring the health of fisheries habitats, 2. oceanographic aspects of aquaculture, and 3. environmental control of freshwater and marine production in relation to fisheries.

Reservations should be made directly with the hotel before December 2nd, 1988:

Auberge des gouverneurs (\$65.00 per night/non-students, \$44.00 per night for students)

3030, boul. Laurier, Saint Foy, Quebec, G1V 2M5 (418) 651-3030



Chinook and Coho 1988 - Bellingham, Washington, October 3-4

The North Pacific Chapter of the AFS is hosting the first workshop on Northeast Pacific chinook and cohomstocks.

For more info : Bruce Sheperd, Vancouver B.C. DFO (604) 666-0115

50th Midwest Fish and Wildlife Conference- Columbus, Ohio, Dec 4-7, 1988

The Midwest will be held at the University Inn, Columbus, Ohio. An emphasis of the meeting will be 'perspective'

For more information: Tom Hall, Ohio DNR, Division of wildlife, 1500 Dublin Road, Columbus, Ohio, 43215
(614) 481-6308

International Symposium on Water Quality in Aquaculture- Los Angeles California, February 12-16, 1989

Part of the Aquaculture 89 International Symposium. For more info - Aquaculture '89, C/O Crest International, 940 Emmett Ave., Suite 14, Belmont, California. 94002, USA.



5. Interest Items - ☞

1. Kaministiquia Study

During the summer of 1987, a physical, chemical and biological survey was made of the Kam River from Kakabeka Falls to the mouth - a distance of 47km. A total of 44 fish species were collected by employing six gear types, and nearly 12,000 specimens were examined. The most important species in terms of abundance and prevalence were, as expected, white suckers. The most prevalent sport species which comprised 26% of the total catch, in order of occurrence, were smallmouth bass, walleye, northern pike and lake sturgeon. Also found were catchable sized populations of yellow perch, black crappie and rock bass.

Excepting the lower 10 km, the upper river (37 km) can be characterized as a productive smallmouth bass stream. The lower 10 km are extremely degraded to the point where dissolved oxygen readings 0.0 mg/l during portions of the summer.

Kaministiquia River Study con't.



Sport fish in the lower 10 km of the river comprised less than 1.7% of the total catch. Silver redhorse, carp, white suckers and longnose suckers made up most of the catch. The study was conducted with the Remedial Action Plan funding from the O.M.O.E. through the Lake Superior Fisheries Unit. Al Dextrase, Rod Sein, Bea Roddy and Sam Stevenson all participated in the field work, with Al and Rod doing the data analysis. The published results should be available soon. Hopefully these results can be used to force a clean up of this river and restore its potential as a fisheries resource.

2. Walleye Modeling Workshop



Dominic Baccante

On March 9 and 10, 1988, a workshop was held in Toronto, Ontario, to model the effects of regulations on walleye populations. Cheryl Lewis, Warmwater Fisheries Biologist with the OMNR, organized the workshop. The facilitators were Mike Jones, a systems ecologist with ESSA in Toronto and Joe Koonce, a professor at Case Western Reserve University, Cleveland, Ohio. Mike and Joe have been working together to develop the model.

The workshop had two primary goals - 1. To review the expected benefits of various harvest regulations. (minimum, maximum and slot limits), 2. To use a simple fish population model to illustrate the effects of a range of harvest control options.

Recently there have been a lot of new fisheries initiatives within the experimental management framework of the OMNR. Many of these initiatives include recommendations for establishing slot limits for walleye in order to maintain quality fishing with increasing angler pressure. We held the workshop to assist managers and researchers formulate hypothesis on responses of walleye populations to various degrees of fishing pressure and regulations.

Biologists and managers from throughout Ontario, as well as David Berry, a biologist from Edmonton attended. David informed us that people in Alberta are working on a similar model.

During the first session we discussed the use of fish population models in fisheries management, asking what are models?, what are they used for?, why use them for fisheries?, what are the limitations?. The walleye model was introduced - it is simple and deals with only one species over a period of 20 years. It calculates changes in age and size compositions, growth, length-weight, reproduction and mortality. Fishing effort and size limit regulations can be altered.

In the second session, we discussed management objectives. We also evaluated slot limits and other regulation changes proposals from various lakes. The group discussed in detail the problems that prompted the proposals and the desired objectives. Proposals included size limit regulations, creel limits, gear restrictions, sanctuaries, elimination of night fishing and habitat improvements to improve natural reproduction.

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The next day was spent gaming with the model using different scenarios. Deficiencies of the model were discussed. It was clearly a successful workshop. By workshops like this, fisheries biologists and managers can implement programs with more confidence and control. If anyone is involved with modeling, or interested in it, you may wish to contact Cheryl Lewis, Warmwater Fisheries Biologist, c/o Glenora Fisheries Station, R.R.#4, Picton, Ontario. K0K 2T0 (613)476-3255

☞ ☞ ☞ **FREE** ☞ ☞ ☞

Copies of *Walleye and Tourism; Future Mangement Strategies*, proceedings of a workshop by the NW Ontario Chapter of the AFS, held in 1985. Conference topics include - Habitat Protection and Rehabilitation, Traditional and Experimental Approaches to Harvest Regulation, Walleye Culture and Stocking. If you would like a copy, write to Dominic Baccante, OMNR, Walleye Research Unit, P.O. Box 5000, Thunder Bay, Ontario P7C 5G6.

