NEW YORK CHAPTER - AMERICAN FISHERIES SOCIETY

NEWSLETTER

1992 NEW YORK CHAPTER AFS OFFICERS

President.....Neil Ringler
Past President.....Tom Field
President-Elect.....Ed Mills
Secretary-Treasurer.....Tim Sinnott

COMMITTEES

Environmental Concerns.....Gary Neuderfer
Audit/Finance.....Bob Lange
Program.....Open
Resolutions.....Bob Werner
Nominating.....Tom Field
Membership.....Ed Mills
Newsletter.....Al Schiavone/Steve LaPan
Professional Incentives.....Paul McKeown
Workshop.....Neil Ringler
Professional Diversity.....Open**
Student Subunit
  President.....Margaret Pike
  Vice President.....Brian Jonckheere
  Secretary.....Eric Fickbohm

** Volunteers interested in chairing the Professional Diversity Committee should contact Neil Ringler.

COMMENTS AND ITEMS OF INTEREST

If you have any items of interest or suggestions for the newsletter, please send them to the following:

Al Schiavone and Steve LaPan, Editors
N.Y.S.D.E.C., Region 6
317 Washington Street
Watertown, New York 13601
TEL (315) 785-2262
FAX (315) 785-2242

EDITOR'S NOTES

If your mailing label has a "90" printed on it, you are about to be eliminated from our mailing list. Please mail your Chapter dues to Jack Hasse by June 12, 1992.

During 1992 we will continue our "featured article" format of the newsletter. If you are interested in writing a feature article for future newsletters, please contact the editors.

Program

Bill Gordon reported no real problems for this year's meeting. We had 115 registered before the business meeting.

Environmental Concerns

Gary Neuderfer reported a good response from the Chapter to the request for environmental concerns. Habitat quality held the most concern for members (study summarized in the December newsletter). Position papers will be produced on the topics of most concern.

Resolutions

Bob Werner thanked Chris Gandino, Bob Lange and Dieter Busch for serving on the committee with him. EXCOM acted on a resolution concerning interest generated from license receipts being impounded but before we could send it out, the Department of Budget withdrew its plan to impound the monies. A resolution concerning the hearing on the water diversion from Schoharie Creek for snow making purposes was presented to the membership. The hearing by an administrative law judge was stopped for non-technical reasons. Negotiations are dragging on at this time but instream flows are still reduced below the IFIM recommendations. The trout population has been impaired. The resolution was voted on and passed by the membership with copies of the resolution being sent to DEC Commissioner Jorling and Governor Cuomo (see resolution on page).

Professional Incentives

Paul McKeown announced that our nominees for the National AFS Excellence Award would be John Forney and Bill Pearce. C.L. Smith has been nominated for the Dwight Webster Award. Paul Neth was nominated and accepted as an honorary member of the Chapter and Bob Engstrom Heg was nominated and accepted for the Professional Achievement Award.

President Field presented a special award to Joe Gorsuch for going the "extra mile" for the Chapter over the past years, especially in regard to getting the newsletter printed.

Student Unit

Chris Gandino reported there are 30 active members in the student subunit. Activities of the past year were manning booths at fishing tournaments and bringing in guest lecturers. The raffle to be conducted during the evening activities was plugged. The students would like to see up to $50 per student (with a maximum of $300/year) be used for students to attend the annual meeting if they are presenting a paper or poster.

fish destined for food production.

Barb Knuth reported the following election results. Our new officers will be Ed Mills as President-elect and Tim Sinnott as secretary/treasurer-elect.

Neil Ringler was then escorted to the podium by Bob Lange and Bob Werner and took over the meeting. As his first act of office, Neil presented the past-President's certificate to Tom Field. Tom thanked the group for their support as he moved into the past-President position.

President Ringler then presented his budget to the organization. Two of his objectives this year will be to develop ways to increase the number of females in the profession and to look into the possibility of updating the "Aquatic Biologist", the highly successful film the Chapter produced a number of years ago.

The meeting was adjourned at 5:17 pm.
Respectfully submitted,
John J. Hasse
Secretary

Schoharie Creek Resolution

WHEREAS Upper Schoharie Creek is an important Catskill Mountain trout stream providing an estimated 16,000 hours of recreational angling annually, and

WHEREAS Upper Schoharie Creek is a stream with a classification of "C" and with a standard of "ts" according to sections 701.8 and 701.9 of Title 6 of the "Official Compilation of Codes, Rules and Regulations of the State of New York, and

WHEREAS the classification "C" is designated for water suitable for fish propagation and survival, and standard "ts" is designated for water suitable for trout spawning, and

WHEREAS water is diverted under permit from Upper Schoharie Creek for snowmaking purposes, and

WHEREAS water in excess of that permitted has been diverted from Upper Schoharie Creek, and

WHEREAS instream flow studies indicate that a minimum of 26 cfs in Upper Schoharie Creek (at Demming Road Bridge) is necessary to provide adequate aquatic habitat to maintain the integrity of the aquatic community, and

1991 Annual Treasurer's Report

	Checking	Certificate of Deposit	Money Market	Totals
Balance 1/22/91	$ 197.08	$12623.38	$3430.39	$16250.85
1991 Receipts				
Interest	140.50	961.77	28.26	1130.53
1991 Annual Meeting	2529.00			2529.00
Dues (After Annual Meeting)	839.00			839.00
Transfer from Money Market	3438.75			3438.75
Student Account (raffle)	291.00			291.00
AFS Rebate	262.00			262.00
Miscellaneous	36.58			36.58
Sub-total	7536.83	961.77	28.26	8526.86
Total	7733.91	13585.15	3458.65	24777.71
1991 Expenses				
1991 Annual Meeting	3239.32			
1991 Annual Meeting	301.75			
Transfer to Checking	4.76		3438.75	
Donations	50.00			
Student Account (raffle prizes)	87.38			
Postage	347.49			
Service Charges	14.15		19.90	
National Meeting	492.90			
Office Supplies	29.30			
Sub-total	4567.05	0	3458.65	8025.70
Balance 1/29/92	$3166.86	$13585.15	0	$16752.01

Past Events

Guest Speakers

Dave Schrader presented a slide show on fly fishing in the eastern and western United States, on January 22. Dave shared some of his favorite locations and tactics for trout.

Robert D. Hennigan gave a presentation titled "Onondaga Lake, the past, present and future". During the presentation he covered the past events that led to the use of Onondaga Lake as a receptacle of industrial and municipal waste for over a century.

Dr. Steven Effler followed up on February 19 with a talk on the limnological aspects of Onondaga Lake that have been influenced by the pollution entering the lake.

MEMBERSHIP APPLICATION
NEW YORK CHAPTER OF THE AMERICAN FISHERIES SOCIETY
(information for use in the membership directory)

NAME _____ DUES
EMPLOYER/SCHOOL _____ REGULAR $10 _____
student must be endorsed by a faculty member _____ STUDENT $ 5 _____
ADDRESS _____
_____
PHONE business _____
home _____
INTEREST _____
(use numerical code from list below)

1. administration
2. aquaculture
3. aquatic ecology
4. benthic organisms
5. communications
6. economics
7. exotic species
8. fish, fishing, general
9. fish behavior
10. fish bio. freshwater
11. fish bio. marine
12. fish bio. estuarine
13. fish bio. salmonid
14. fish bio. warmwater
15. fish management
16. genetics
17. health/medicine
18. ichthyology/taxonomy
19. impact assessment
20. larval fish
21. limnology
22. pollution
23. power generation
24. research
25. striped bass
26. toxicology
27. teaching/education
28. water quality
29. other _____

THE NUMBER IN THE LOWER RIGHT CORNER ON YOUR MAILING LABEL DENOTES YOUR DUES STATUS. CURRENT PAID UP MEMBERS HAVE A 92. SEND DUES TO THE SECRETARY/TREASURER AT THE FOLLOWING ADDRESS.

JACK HASSE SECTY/TREASURER
NY CHAPTER AFS
c/o NYSDEC
207 GENESEE STREET
UTICA, NY 13501

CHECK HERE IF YOU WISH TO RECEIVE INFORMATION ABOUT NATIONAL AFS MEMBERSHIP _____

AUGUST, 1992

NEW YORK CHAPTER - AMERICAN FISHERIES SOCIETY

NEWSLETTER

1992 NEW YORK CHAPTER AFS OFFICERS

President.....Neil Ringler
Past President.....Tom Field
President-Elect.....Ed Mills
Secretary-Treasurer.....Tim Sinnott

COMMITTEES

Environmental Concerns.....Gary Neuderfer
Audit/Finance.....Bob Lange
Program.....Don Stewart/Bob Lange
Resolutions.....Bob Werner
Nominating.....Tom Field
Membership.....Ed Mills
Newsletter.....Al Schiavone/Steve LaPan
Professional Incentives.....Paul McKeown
Workshop.....Neil Ringler
Professional Diversity.....Open**
Student Subunit
President.....Margaret Pike
Vice President.....Brian Jonckheere
Secretary.....Eric Fickbohm

** Volunteers interested in chairing the Professional Diversity Committee should contact Neil Ringler.

COMMENTS AND ITEMS OF INTEREST

If you have any items of interest or suggestions for the newsletter, please send them to the following:

Al Schiavone and Steve LaPan, Editors
N.Y.S.D.E.C., Region 6
317 Washington Street
Watertown, New York 13601
TEL (315) 785-2262
FAX (315) 785-2242

EDITOR'S NOTES

Due to the recently adopted three newsletter per year format, it is necessary to announce the annual meeting in our "summer" issue, and we have included the first call for papers and abstract form in this edition. The editors wish to thank Cliff Schneider et al. for our feature article "Lake Trout Rehabilitation in Lake Ontario, 1991". If you are interested in writing a feature article for the newsletter, please contact the editors.

NEW YORK CHAPTER - AMERICAN FISHERIES SOCIETY

CALL FOR PAPERS

ANNUAL MEETING - JANUARY 30, 1993

AUTHOR:

TITLE:

ABSTRACT:

STUDENT ☐ PROFESSIONAL ☐ POSTER ☐

ADDRESS SENIOR AUTHOR: _____

_____

_____

TELEPHONE (DAYS): _____

SUBMIT ABSTRACTS TO: DR. DONALD STEWART
242 ILLICK HALL
SUNY - ESF
1 FORESTRY DRIVE
SYRACUSE, NEW YORK 13210

STRATEGY 2: MAXIMIZE RECRUITMENT OF STOCKED FISH

The Joint Plan recommends maximizing recruitment of stocked lake trout by optimizing hatchery rearing practices and stocking techniques. The use of coded wire tags (CWT) for marking fish has made it possible to initiate studies to evaluate the effects of rearing density, time of planting and stocking methods on post-stocking survival. Because of the longer history of CWT use from U.S. waters, most of the following discussion focuses on lake trout collected from southern Lake Ontario.

Releases of hatchery-reared lake trout in U.S. waters of Lake Ontario began with 66,000 yearlings of the 1972 year class (Figure 2), but plantings were predominantly fingerlings until the Allegheny National Fish Hatchery began producing yearlings (1977 year class). Releases of yearlings increased to a peak of 1.09 million for the 1982 year class and then declined to 0.72 million for the 1989 year class. Plantings of fingerlings were increased in the late 1980's to partially offset the reduced numbers of yearlings.

Survival of hatchery reared fish in their first year after stocking has been variable over the years. Fish reared at 40,000 per raceway and stocked as yearlings in May were the standard for evaluating survival. Experimental plantings revealed reduced first-year survival for (1) fish stocked as fingerlings in the fall, (2) yearlings stocked in March, and (3) yearlings reared at 50,000 per raceway. Indices of survival, based on catches with bottom trawls at age 2 in July-August and with gill nets at age 3 in September, showed a decline in first-year survival during the 1980's for Superior strain reared at 40,000 per raceway. Survival was negatively correlated ($P<0.01$) with abundance indices of large (>532 mm, >21 in) lake trout in the year of stocking. Recoveries of coded wire tags from fish captured with trawls and gill nets and by anglers indicate that first-year survival was also variable among genetic strains. Using Superior strain fish of the 1979-81 year classes stocked as yearlings as the standard, numbers stocked were adjusted to reflect the cumulative effect of all the above factors on first-year survival of individual year classes. The adjusted numbers show a 64 percent reduction in effective stocking rate from the 1980 to the 1990 year class (Figure 2)[1]. Density-dependent mortality was discussed in the Joint Plan, however, the effect was not considered when plan objectives were formulated.

STRATEGY 3: MAINTAIN ADULT SURVIVAL BETWEEN 60-65 PERCENT

Successful rehabilitation of lake trout in Lake Ontario demands that enough planted fish survive to produce a viable spawning stock. The Joint Plan prescribes a survival rate of 60 to 65 percent per annum. To attain this level, the plan

In 1991, the average age of mature females taken in gill nets in U.S. waters was 6.6 years (Figure 4). This was similar to 1990, even though it was expected that with the recent decrease in survival (Figure 3a), the average age would decline. Figure 4, however, also shows that the average age of first maturity (the onset) has increased to 5.8 years. This is the oldest first age of maturity recorded to date. It appears that the decline in numbers of the oldest fish (due to lower overall survival) has been offset by a decline in numbers of young adults, and thus the average age of mature females has remained unchanged.

3.1: MINIMIZE LOSSES FROM SEA LAMPREY

Three basic approaches were outlined to minimize sea lamprey predation. First, and foremost, was to maintain adequate control of sea lamprey recruitment with chemicals, barrier dams and/or other means. Increasing prey biomass should ultimately lead to reduced mortality of lake trout, since sea lampreys, under conditions of high density of large prey, are thought to function more like parasites than predators. The third tactic outlines in the plan was to stock genotypes of lake trout that were potentially resistant to sea lamprey induced mortality.

Monitor Sea Lamprey Effects

Density of lake trout carcasses killed by sea lamprey and average fresh wounds (A1) per lake trout are used to monitor the effect of sea lampreys in Lake Ontario.

In Canadian waters in 1991, the average number of A1 wounds per 100 lake trout over 431 mm (17 in) was 1.8, a 27 percent decline from 1990 (Figure 5a). In U.S. waters, however, A1 wounds per 100 fish increased 35 percent in 1991 to 2.7. Since 1985, there was no relation between Canadian and U.S. wounding statistics ($r = 0.36$, $P > 0.05$). This suggests that independent, regional factors effect production and/or activity of sea lamprey. However, sample sizes were small, and this could be the reason for the lack of a statistically significant correlation.

Each fall since 1982, lake trout carcasses have been collected with bottom trawls in U.S. waters. Results from these surveys provide direct and current evidence of sea lamprey induced mortality on lake trout. In 1991, twenty-nine carcasses were recovered from 289 ha (714 acres) of lake bottom.

Carcass density in the 30-99 m (98-325 ft) depth stratum is the longest and most complete data series (Figure 5b). Density of lake trout killed by sea lamprey in 1991 was 0.134 per hectare. This was 61 and 227 percent greater than 1990 and 1989, respectively. It is the third highest carcass

performance of recent U.S. stockings are cause for concern regarding future recruitment.

3.2: LIMIT EXPLOITATION:

Fishing is the other major, controllable component of lake trout mortality in Lake Ontario. Creel surveys provide an effective and reliable method for quantifying angling mortality. This information, in conjunction with carcass survey estimates, should permit a reasonable assessment of the management actions necessary to improve survival.

Canadian and U.S. creek surveys do not sample all fisheries or all seasons. The last Canadian survey in central and Kingston basins occurred in 1987, and will not be repeated until 1992. The U.S. surveys did not census the Kingston Basin either, although a comprehensive survey in 1984 suggested those U.S. estimates for 1985 to 1991 probably represented about 85 percent of the total U.S. harvest.

The U.S. sport harvest of lake trout taken by boating anglers in 1991 was 88,291 (Figure 7). If all U.S. waters and all seasons were included, lake trout harvest would have exceeded 100,000. The pattern of harvest since 1985 illustrates the effect of fishing regulations. Before 1988, when three lake trout could be taken per day, harvest by boaters ranged from 85,000 to 90,000. The establishment of a slot limit protecting lake trout between 635 to 762 mm (25 to 30 in) caused the harvest to drop 50 percent. Relaxation of the slot limit in 1990, by narrowing the protected interval to 686 to 762 mm (27 to 30 in), resulted in harvest returning to the 80,000 to 90,000 range.

Survival of adult lake trout is related to mortality from both fishing and sea lamprey (Figure 7). The best measure of adult survival, 50 percent, occurred in 1989, when mortality from sea lampreys and angling losses was near their lowest levels. In 1990, while sea lamprey mortality continued to drop, angler harvest increased to 80,000 fish and survival declined to 40 percent. The increased harvest since 1990, and the resulting reduced survival, demonstrate the importance of protecting sufficient numbers of adult fish. Because harvest exceeded the planned target of 60,000 fish and because survival is below the 60 percent objective, NYDEC proposed to limit harvest by expanding the slot limit, effective October 1, 1992.

The Canadian harvest remains low. The creel surveys expanded in recent years to cover the spreading salmonid fishery, and currently, boats launched at access points are surveyed throughout the western and central basins. The harvest rates for this fishery are 6,013 and 5,384 in 1990 and 1991, respectively. Extrapolating to the unsurveyed fisheries would probably double the estimates. The salmonine

Besides seeded egg bags, egg incubators were used to estimate embryo survival, fry emergence and predation. One incubator was buried next to each of the 45 seeded egg bags. Fifteen incubators were retrieved in December along with the egg bags. The other incubators will be retrieved in April and May. Fifteen incubators were also brought to the fish hatchery at Cornell University to serve as controls.

Preliminary analyses of data collected in December showed that : 1) post-spawning egg densities on Stony Island reef in 1991 were roughly six times greater than in the previous year (e.g., 5500 m^{-2} vs. 920 m^{-2}); 2) sculpin density on the reef in 1991 was roughly one sixth of that in 1990 (4 m^{-2} vs 24 m^{-2}); 3) egg fertilization was about the same as in 1990 (50 percent); 4) the number of live eggs per square meter was about 60 percent of the total number of eggs; 5) egg survival in the incubators retrieved in December was high (about 95 percent); and 6) egg survival in the seeded egg bags was somewhat less than in the incubators (about 60 percent).

During the routine sampling conducted by OMNR's Lake Ontario Fisheries Unit in 1991, 40 lake trout were collected that by visual examination appeared to be unmarked. Fins, scales, and otoliths of these fish were examined for characteristics that have been shown to differentiate between indigenous fish and those of hatchery origin (Casselman 1991). All of these fish had more than a 20 percent chance of being hatchery origin, so none were classified as indigenous.

Density Dependent Effects

The joint plan recognizes that density dependent responses could confound the attainment of plan objectives. The plan forecasts that as the lake trout population expands, growth rates and fecundity will decline, while natural mortality and age at maturity will increase. These kinds of changes were not intended to forebode a population collapse, rather they are normal responses that should be expected as the population increases.

GROWTH

The weight of a 600 mm (24 in) total length standard fish increased over the past year. Weight-length regressions calculated from fishes taken in September gill net surveys are used to estimate condition by predicting the weight of a standard fish. Condition declined substantially from 1978 to 1986, but thereafter it remained stable, and increased from 1990 to 1991 (Figure 8).

The predicted weight in 1991 was 2150 g (4.7 lbs). The decline in condition between 1978 and 1986 was associated

that may be subject to intense angler pressure.

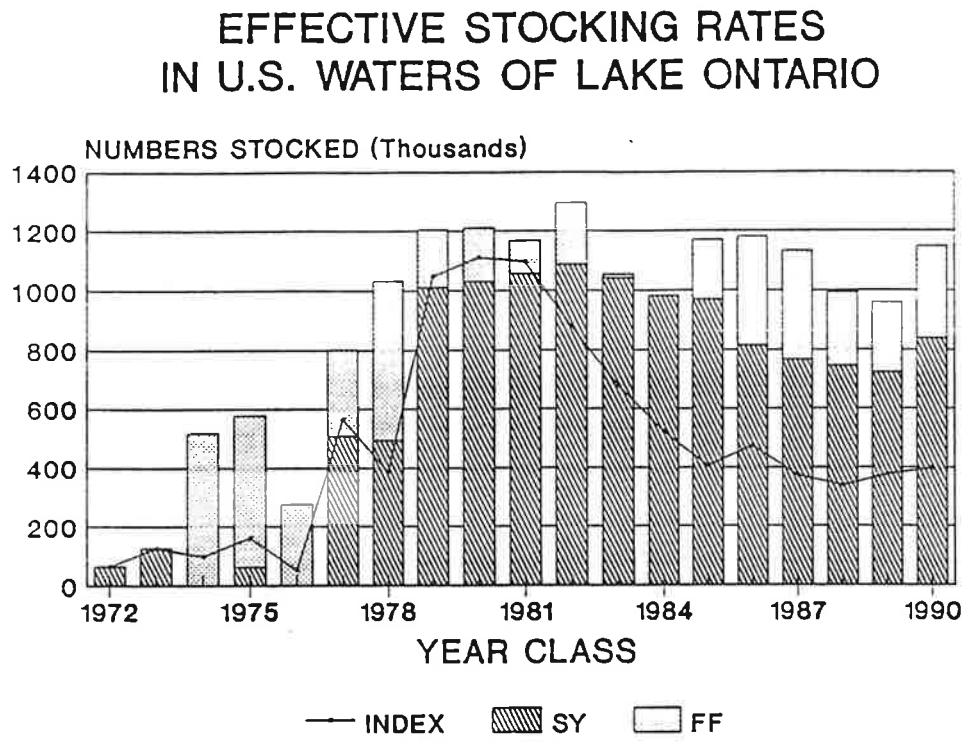
5. A lake trout assessment model for U.S. waters, predicts that the population of adult fish (age 5 and older) will decline by about 25 percent, to the lowest level observed since 1985. This reduction will be due principally to poor recruitment of young adults. Age 5 lake trout in 1992 are expected to be 55 percent less abundant than the 1987-1991 average. Ironically, lower abundance of adults in the future could result in improved effective stocking rates.

REFERENCES

CASSELMAN, J.M. 1992. Res. Project: Lake Trout Rehabilitation Studies, In: Lake Ontario Fisheries Unit 1991 Annual Report, LOA 92.1 Ontario Ministry of Natural Resources.

SCHNEIDER, C.P., T.H. ECKERT, J.H. ELROD, R. O'GORMAN, W. DENTRY, M.E. DANIELS, J.E. MARSDEN, C.C. KRUEGER AND P.G. SLY. 1987. Lake trout rehabilitation in Lake Ontario, 1986. Great Lakes Fishery Commission, Lake Ontario Committee Meeting, Buffalo, New York.

Figure 2



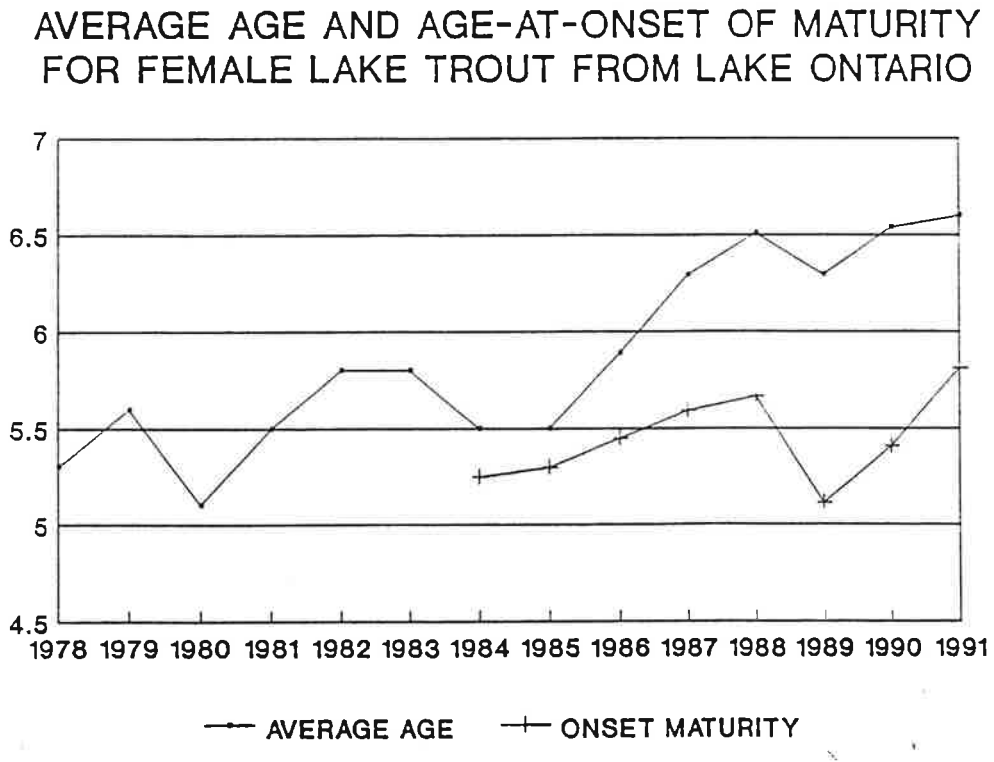


Figure 4

Figure 5b

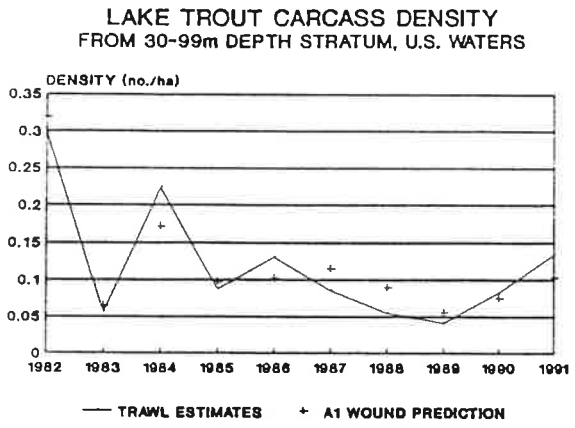
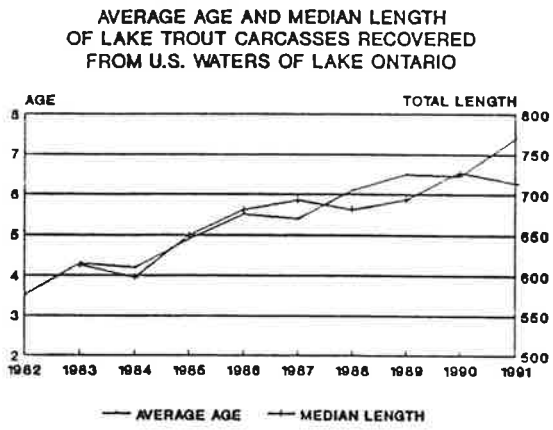


Figure 5c



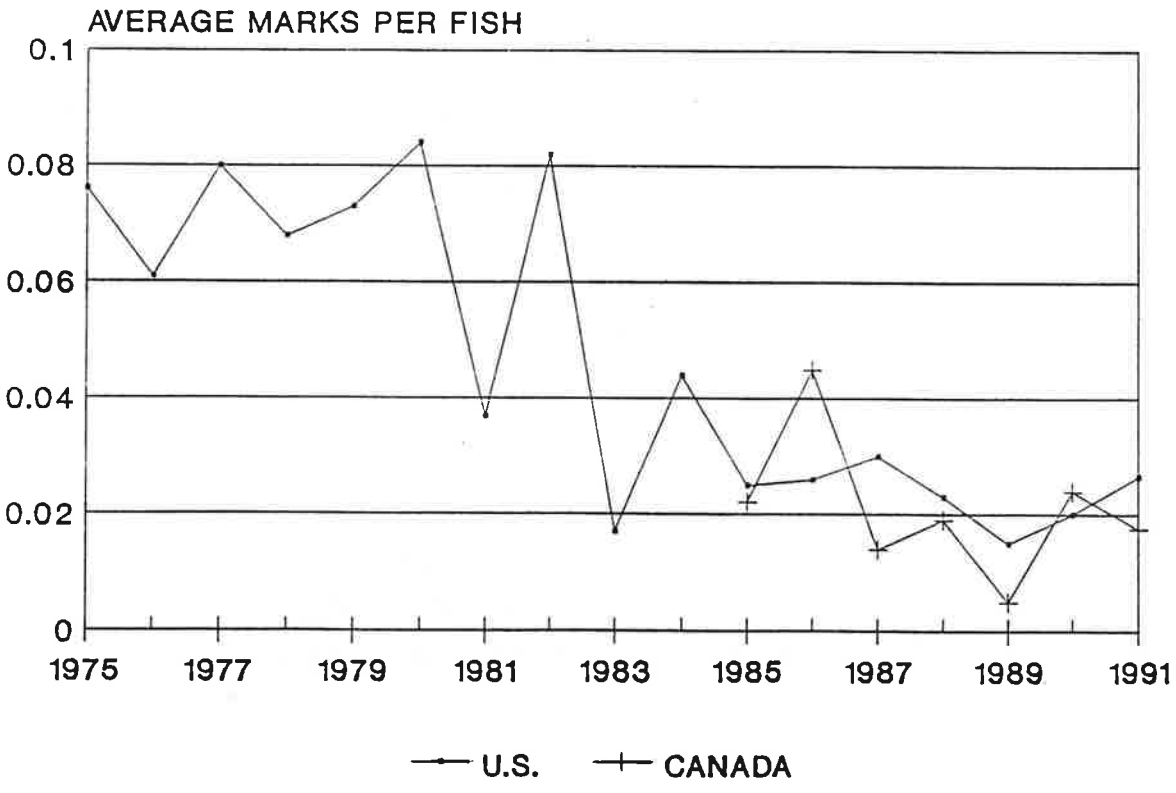
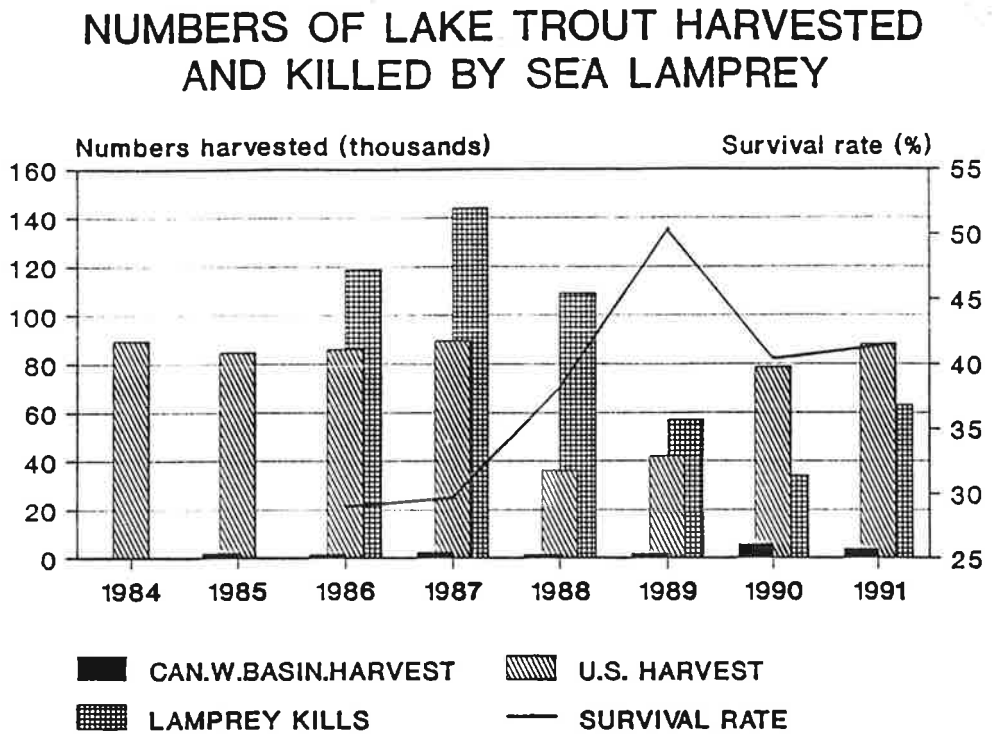


Figure 5a

Figure 7



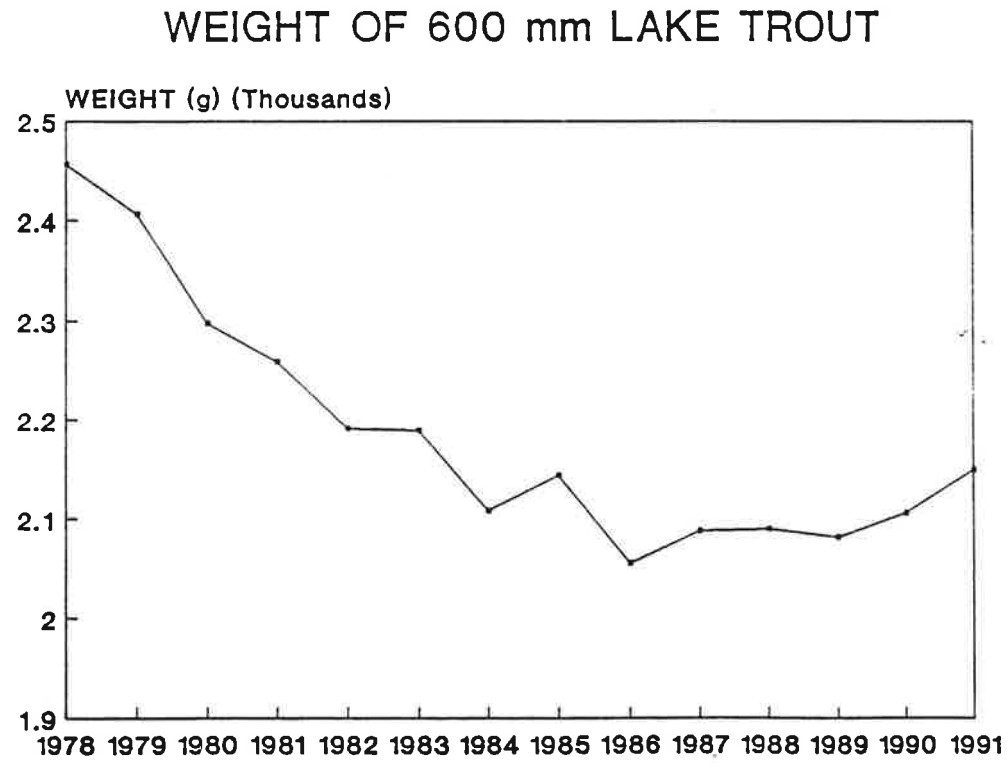


Figure 8

NOTE THE NUMBER 90 OR 91 ON YOUR MAILING LABEL.

THIS DENOTES YOUR DUES STATUS.

TO BE A CURRENT PAID UP MEMBER YOU SHOULD HAVE A 91 ON THE LABEL.

ENCLOSED IS A MEMBERSHIP BLANK FOR NEW OR RENEWAL MEMBERSHIPS.

SEND YOUR 1991 DUES TO SECRETARY/TREASURER.

Application for Membership

New York Chapter of the American Fisheries Society

(information provided will be used in the annual membership directory)

Applicant's name: _____

Mailing address: _____

_____

Employer or school: _____

Specialization (s) or interest ** _____

☐ Check here if you wish to receive information about national AFS membership.

☐ Regular $5.00 ☐ Student $2.00 *

_____

* Student members must be endorsed by a faculty member signing above.

Telephone _____ home
area code and number

_____ business

** Please indicate area (s) of interest by numerical code from list on reverse side of this form.

Make check payable to NY Chapter - AFS and mail with this detachable application to address on reverse side of this form.

Specialization or Interest

1. Administration
2. Aquaculture
3. Aquatic biology, ecology (freshwater)
4. Biological controls
5. Benthic organisms
6. Communications (writing, publishing, publicity)
7. Exotic species
8. Fish and fishing—general
9. Fish behavior
10. Fish biology—freshwater species
11. Fish biology—marine species
12. Fish biology—estuarine species
13. Fish biology—salmonids and cold-water species
14. Fish biology—warm-water species
15. Fish larvae
16. Fisheries management (population dynamics, habitat improvement, etc.)
17. Genetics
18. Health-medicine, aquatic animals
19. Ichthyology, taxonomy
20. Illustrations
21. Impact assessment
22. International fisheries development
23. Legislation and law enforcement
24. Limnology
25. Pesticides
26. Physiology
27. Plankton
28. Pollution
29. Power plants
30. Research
31. Striped bass
32. Sturgeon
33. Toxicology—all phases
34. Water quality—analysis, improvement, etc.
35. Crustaceans
36. Education/Teaching
37. _____
38. _____

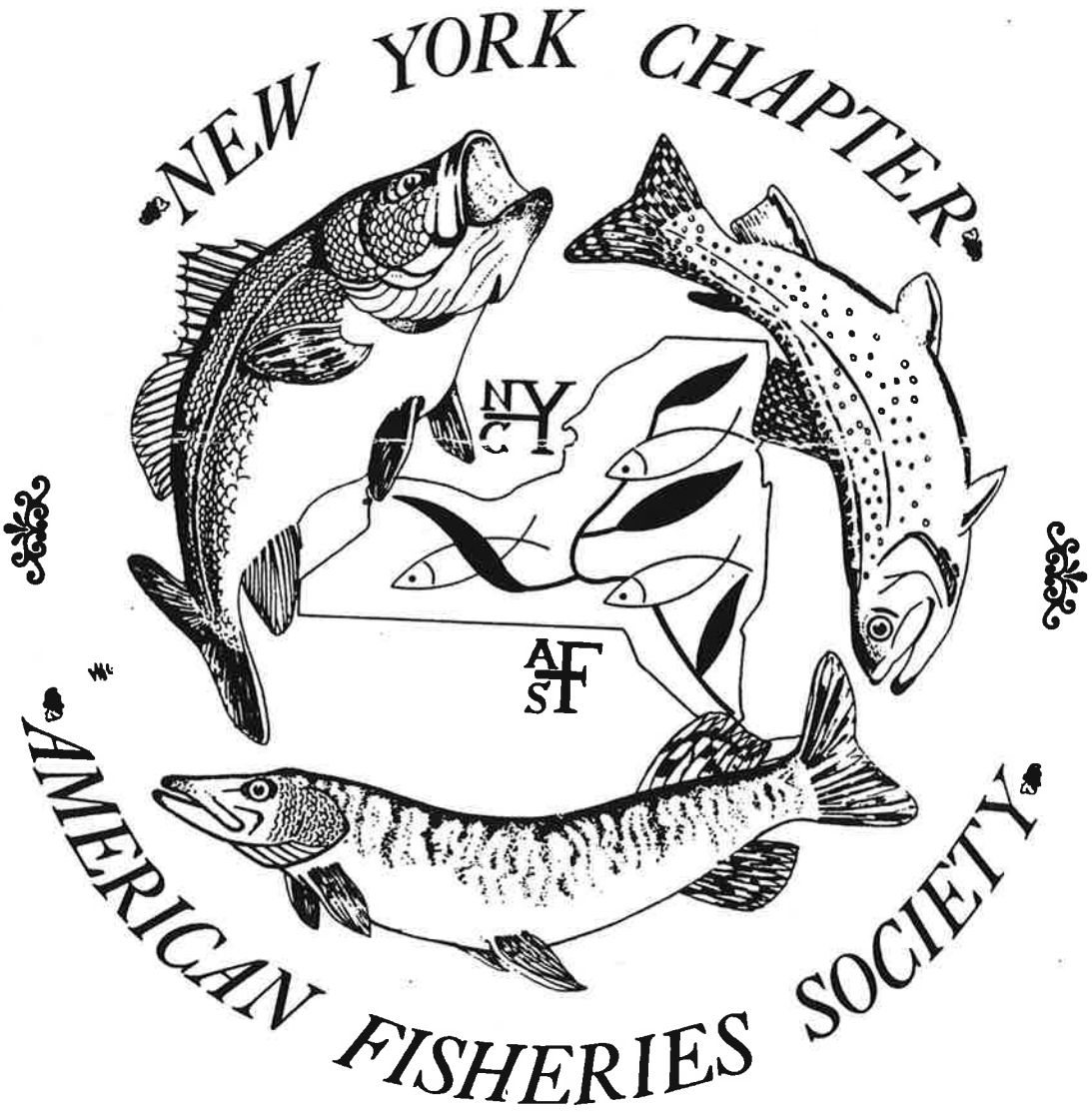
Mail Application to:

JACK HASSE
SECRETARY/TREASURER
NYAFS
c/o NYSDEC
207 Genesee St.
Utica, NY 13501

December, 1992

NEW YORK CHAPTER - AMERICAN FISHERIES SOCIETY

NEWSLETTER



1992 NEW YORK CHAPTER AFS OFFICERS

President.....Neil Ringler
Past President.....Tom Field
President-Elect.....Ed Mills
Secretary-Treasurer.....Jack Hasse

COMMITTEES

Environmental Concerns.....Gary Neuderfer
Audit/Finance.....Bob Lange
Program.....Don Stewart/Bob Lange
Resolutions.....Bob Werner
Nominating.....Tom Field
Membership.....Ed Mills
Newsletter.....Al Schiavone/Steve LaPan
Professional Incentives.....Paul McKeown
Workshop.....Neil Ringler
Professional Diversity.....Open**
Student Subunit
President.....Margaret Pike
Vice President.....Brian Jonckheere
Secretary.....Eric Fickbohm

** Volunteers interested in chairing the Professional Diversity Committee should contact Neil Ringler.

COMMENTS AND ITEMS OF INTEREST

If you have any items of interest or suggestions for the newsletter, please send them to the following:

Al Schiavone and Steve LaPan, Editors
N.Y.S.D.E.C., Region 6
317 Washington Street
Watertown, New York 13601
TEL (315) 785-2262
FAX (315) 785-2242

EDITOR'S NOTES

STUDENTS! **The Chapter will contribute $50.00 to any student who presents a contributed paper or poster at the annual meeting.** Included in this edition of the newsletter is an absentee ballot for the January 1993 Chapter elections. If you will not be attending our annual meeting in Owego, please complete the attached ballot and return it to Jack Hasse by January 15, 1993. Our feature article for this newsletter is directly related to the theme of our annual meeting, and is entitled "Signs of change in the Lake Ontario ecosystem". This information bulletin was co-written N.Y.S.D.E.C. and the Ontario Ministry of Natural Resources.

2:10-2:30pm	George LaBar	The Lake Champlain Ecosystem
2:30-2:50pm	Donald Stewart	The Lake Michigan Ecosystem
2:50-3:30pm	Coffee Break, VIEW POSTERS	
3:30-5:00pm	Business Meeting, address by Carlos M. Fetterolf, President, American Fisheries Society	

SESSION III: CONTRIBUTED POSTERS

5:00-5:30pm	Poster presentations, authors present. Social for registered participants (with free beer and soft drinks, cash bar for cocktails; drinks continue during and after dinner).
5:30-7:30pm	Banquet

30 January, Saturday

SESSION IV: CONTRIBUTED PAPERS (20 minutes each)

8:30-9:50am	Presentations
9:50-10:10am	Coffee Break
10:10-11:30am	Presentations
11:30-12:00pm	Awards for Best Papers and Poster

MEALS, CONFERENCE FEES AND DUES

Lunch and dinner on Friday, January 29, are included in the conference fee. Meeting attendees will be on their own for breakfast. Fees will be payable at the meeting.

Conference fee, regular member	$27.00
Conference fee, student member	$20.00
Chapter membership, regular member	$10.00
Chapter membership, student member	$ 5.00

ABSENTEE BALLOT

If you are unable to attend the 1993 annual meeting to vote for a candidate for President-elect, please complete this absentee ballot and return it to Jack Hasse, address below. All absentee ballots must be postmarked before January 16, 1993. BIOGRAPHIC SKETCHES OF THE CANDIDATES ARE INCLUDED IN THIS NEWSLETTER.

PRESIDENT-ELECT (check one)

_____ Paul McKeown _____ Don Stewart

RETURN BALLOT TO: Jack Hasse
N.Y.S.D.E.C., Reg. 6 Sub-office
State Office Building
Utica, New York 13501-2885

NEW YORK CHAPTER - AMERICAN FISHERIES SOCIETY

SECOND AND FINAL CALL FOR PAPERS

ANNUAL MEETING - JANUARY 30, 1993

AUTHOR:

TITLE:

ABSTRACT:

STUDENT ☐ PROFESSIONAL ☐ POSTER ☐

ADDRESS SENIOR AUTHOR:_____

_____

_____

TELEPHONE (DAYS):_____

SUBMIT ABSTRACTS TO: DR. DONALD STEWART
242 ILLICK HALL
SUNY - ESF
1 FORESTRY DRIVE
SYRACUSE, NEW YORK 13210

for Limnology, University of Wisconsin-Madison. Since 1987, Don has been an Assistant Professor at SUNY-ESF and the Research Center at SUC Oswego, and was appointed Associate Professor in 1991.

Don has authored and co-authored numerous publications, and has twice received the American Fisheries Society Award for the "Most Significant Paper in Transactions" (Vol. 110, 1981 and Vol. 115, 1986). Don has been a National AFS member since 1968, and currently serves on the Names of Fishes Committee. He has also been Associate Editor for Transactions, and has organized several symposia. Don joined the New York Chapter in 1988, and currently co-chairs the Program Committee. He has also served as a Best Paper judge.

Don is a member of many professional societies, including the American Association for the Advancement of Science, International Association for Great Lakes Research, American Society of Ichthyologists and Herpetologists, Ecological Society of America, Society for the Study of Evolution, Society of Systematic Zoology, and Sigma Xi.

Don resides in Warners, New York with his wife Myriam Ibbara, daughter Anna, and son Thomas.

HONORARY MEMBERSHIP AND PROFESSIONAL ACHIEVEMENT AWARD RECIPIENTS

Dr. Paul Neth will be presented with honorary membership in recognition of his many years of active involvement with the New York Chapter; particularly during the early, formative years. Dr. Robert Engstrom-Heg will be the first recipient of the Professional Achievement Award in recognition of his contributions to trout stream management. Congratulations Paul and Bob!

Paul McKeown, Chairman of the Professional Incentives Committee, is seeking deserving candidates for Honorary Membership and/or the Professional Achievement Award. Please submit names to Paul McKeown, N.Y.S.D.E.C., 128 South Street, Olean, New York 14760. (716) 372 - 0645.

Morning Session - 10 papers / 20 minutes each
I. **Stress and Environmental Physiology of Fishes: Compensatory Responses**

Topics concerning adaptations (from cellular to whole organism) to environmental changes are being solicited. Respiratory, hormonal, metabolic and even behavioral adjustments to changes in the environment (salinity, temperature, oxygen, etc.).

Afternoon Session - 10 papers / 20 minutes each
II. **Stress and Environmental Physiology of Fishes: Performance Capacity**

Stress that exceeds or pushes the tolerance limits of a fish will result in reduced growth, reduced reproductive potential, and reduced disease resistance. Papers addressing the physiological as well as behavioral differences among wild and domestic stocks are encouraged. And topics covering physiological measures as tools in fish management and fish culture are of great interest.

In addition, the Physiology Section will be responsible for a half-day general contributed paper session and a contributed poster session.

An original and six copies of the abstract for each paper submitted for the Symposium, Physiology Contributed Paper Session and Physiology Contributed Poster session **must be received by December 20!**

Abstracts should be sent to: **Colleen A. Caldwell, President**
AFS Physiology Section
Box 936
La Crosse, WI 54602
(608) 783-6451

FISH MATTER: AFS-ESF STUDENT CHAPTER & NYS SUBUNIT NEWS

The ESF student chapter has many activities planned for this year. Dr. Robert Carline, past president of the AFS Northeastern Division recently visited the Syracuse campus. He spoke to the chapter about the effects of acid precipitation on trout streams in Pennsylvania, and addressed the fisheries course on the effects of changing regulations on brown trout populations. Future speakers include Dr. Don Stewart, who will be speaking on predation on pelagic fish in Lake Ontario and Les Wedge (NYS DEC) who will give us a view of how state agencies may handle some of the problems the lake currently faces.

SIGNS OF CHANGE IN THE LAKE ONTARIO ECOSYSTEM[1]

Historically Lake Ontario contained a healthy, productive fish community with three major predators occupying the open waters: Atlantic salmon, lake trout and the burbot (freshwater cod). Atlantic salmon were lost in the late 1800's, as a result of deforestation and the construction of barriers to spawning migrations. Lake trout, on the other hand, survived until the 1950's when they too were lost, due to environmental degradation, overfishing and intensive predation by sea lampreys. The burbot population declined to very low levels but survived.

Until 1970, Lake Ontario was both abused and neglected. Pollution from municipal, industrial and agricultural sources resulted in diminished water quality, heavy algal blooms, contamination by toxic chemicals and, ultimately, to beach closures and other restrictions on use. Also, because of the loss of large predators, alewife and smelt populations exploded in abundance . Abundant alewife were prone to massive winter die-offs resulting in windrows of dead and dying fish. The Lake Ontario ecosystem was severely degraded.

Progress in Restoring a Degraded Ecosystem:

Several events marked the beginning of the recovery process. First, Canada and United States adopted the 1972 Great Lakes Water Quality Agreement, which committed both countries to restoring and enhancing the water quality of the Great Lakes. At the same time, aggressive programs were begun to control sea lamprey, rehabilitate lake trout and develop major hatchery supported fisheries for Pacific salmon, brown trout and rainbow trout. By the end of the 1980's, nearly everyone recognized that Lake Ontario was well on the road to recovery: water quality improved, toxic chemicals decreased, and salmon and trout fisheries were more productive than at any time in the lake's history. Also, populations of walleye, whitefish, and lake herring that declined earlier began to recover, and beaches were free of dead alewife. A reduction in DDT and other harmful chemicals resulted in resurging populations of waterfowl and shorebirds, including terns, gulls, and cormorants. The trends that marked the decline of the Lake Ontario ecosystem were reversed.

Maintaining a Balance:

The new challenge to fisheries managers is to maintain a balance during the recovery of the Lake Ontario ecosystem. The reasons for this can be best understood by considering how the Lake Ontario ecosystem functions.

One way to visualize the Lake Ontario ecosystem is to consider the idea of a food chain. The Lake Ontario food chain starts with microscopic plants called phytoplankton which, like all plants, require nutrients and sunlight to grow. The most critical nutrient limiting the growth of phytoplankton is phosphorous. Next in the chain are the microscopic animals called zooplankton, which feed upon the plants. The zooplankton, in turn, are fed upon by small fish such as alewife

---

1 *Based on the findings of a task group of scientist convened by the Lake Ontario Committee of the Great Lakes Fishery Commission. The Lake Ontario Committee consists of senior fisheries managers from the Ontario Ministry of Natural Resources and the New York Department of Environmental Conservation.*

- 3) At about the time that nutrients, zooplankton, alewife and smelt abundance were declining, numbers of hatchery reared salmon and trout stocked in Lake Ontario steadily increased to approximately 8.2 million in 1984 (Fig. 3). As the stocked fish continued to grow and accumulate the total weight of salmon and trout reached a peak in 1986 and since then has remained high.

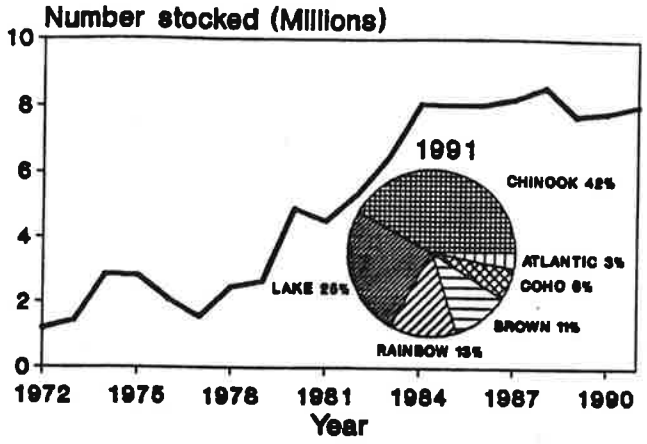


FIG. 3. Salmon and trout stocking in Lake Ontario by Canadian and United States agencies combined.

- 4) High abundance of salmon and trout not only resulted in exceptional fishing, but it also led to intense pressure on alewife and smelt populations, especially on the larger individuals preferred by the salmon and trout. Since 1980, there has been a consistent trend towards fewer large alewife and smelt (Fig. 4) and the alewife surviving are in poor condition (they have low body weight relative to their length). In addition, the average annual survival of adult smelt declined from 58% during 1980-86 to 35% during 1987-92, which also indicates intense predation.

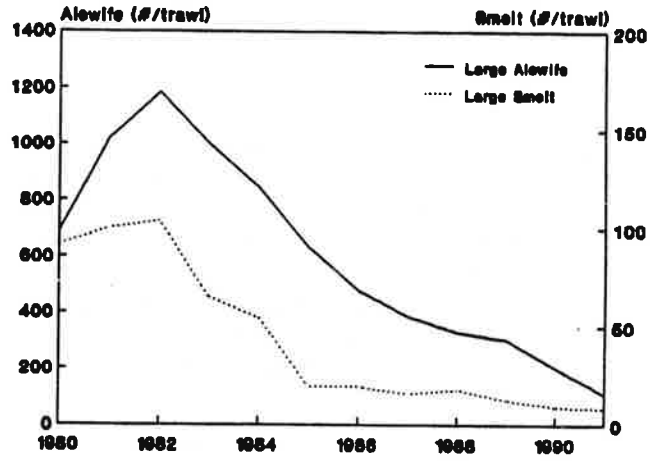


FIG 4. Relative abundance of the largest alewife and smelt in Lake Ontario.

- 5) The relative amount of smelt and alewife biomass consumed by the dominant predators is different for each predator population (Fig. 5). These predators are at the top of the food chain. Thus, the effects of declines at the beginning of the food chain take longer to become apparent for this group. Nonetheless, there are a few early indications of stress in salmon and trout populations, including collection of small numbers of dead and dying salmon in bottom trawl surveys, modest declines in the size of fish returning to spawn, and reduced angler harvest rates.

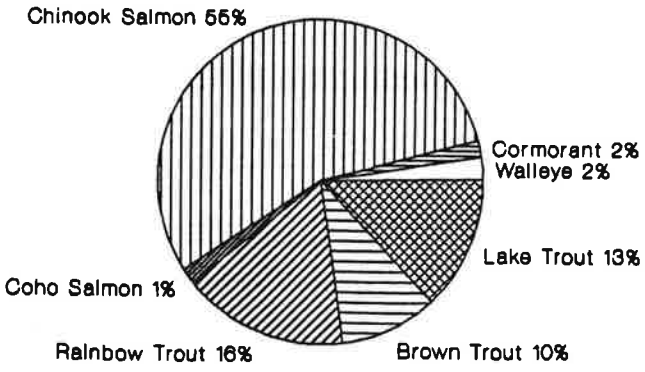


FIG 5. Relative amount of alewife and smelt biomass consumed by dominant predators in Lake Ontario.

NOTE THE NUMBER 91 OR 92 ON YOUR MAILING LABEL.
THIS DENOTES YOUR DUES STATUS.
TO BE A CURRENT PAID UP MEMBER YOU SHOULD HAVE AN 92 ON THE LABEL.

ENCLOSED IS A MEMBERSHIP BLANK FOR NEW OR RENEWAL MEMBERSHIPS.

SEND YOUR 1989 DUES TO SECRETARY/TREASURER.

Application for Membership
New York Chapter of the American Fisheries Society
(information provided will be used in the annual membership directory)

Applicant's name: _____

Mailing address: _____

_____

Employer or school: _____

Specialization (s) or interest ** _____

☐ Check here if you wish to receive information about national AFS membership.

☐ Regular **$10.00** ☐ Student **$5.00**

_____

* Student members must be endorsed by a faculty member signing above.

Telephone _____ home
area code and number

_____ business

** Please indicate area (s) of interest by numerical code from list on reverse side of this form.

Make check payable to NY Chapter - AFS and mail with this detachable application to address on reverse side of this form.

Specialization or Interest

1. Administration
2. Aquaculture
3. Aquatic biology, ecology (freshwater)
4. Biological controls
5. Benthic organisms
6. Communications (writing, publishing, publicity)
7. Exotic species
8. Fish and fishing—general
9. Fish behavior
10. Fish biology—freshwater species
11. Fish biology—marine species
12. Fish biology—estuarine species
13. Fish biology—salmonids and cold-water species
14. Fish biology—warm-water species
15. Fish larvae
16. Fisheries management (population dynamics, habitat improvement, etc.)
17. Genetics
18. Health-medicine, aquatic animals
19. Ichthyology, taxonomy
20. Illustrations
21. Impact assessment
22. International fisheries development
23. Legislation and law enforcement
24. Limnology
25. Pesticides
26. Physiology
27. Plankton
28. Pollution
29. Power plants
30. Research
31. Striped bass
32. Sturgeon
33. Toxicology—all phases
34. Water quality—analysis, improvement, etc.
35. Crustaceans
36. Education/Teaching
37. _____
38. _____

Mail Application to:

JACK HASSE
SECRETARY/TREASURER
NYAFS
c/o NYSDEC
207 Genesee St.
Utica, NY 13501