



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

*abstract*

Author

Title

Abstract

1977

4:35 - 4:50 PM Friday Feb 4

(1)

NEW YORK FISHERIES MEETING

Name: Rostyslaw Caryk  
Address: Box 71 SUNY at Buffalo, 14211 <sup>Buffalo, NY</sup> Telephone: 831-2638  
Title: A study of rock bass (*Ambloplites rupestris*) in the upper Niagara River  
Type of presentation: paper xxx demonstration \_\_\_\_\_  
Approximate time needed: 15 minutes  
Special equipment needs: slide projector xxx overhead projector \_\_\_\_\_  
Abstract: (a brief paragraph describing your paper or demonstration)

Please return to: John G. Nickum by December 1, 1976  
New York Cooperative Fishery Research Unit  
Fernow Hall, Cornell University  
Ithaca, New York 14853

~~A Study of~~ Rock Bass (Ambloplites rupestris)

in the Upper Niagara River

Rostyslaw Caryk

Populations of rock bass were studied in the upper Niagara River of New York<sup>state</sup> and Ontario<sup>Canada</sup>.

Sampling was done by trap nets and an electrofishing boat. Fin clips and self-piercing #1 Monel tags were used in marking fish. Results from four trap nets<sup>that were</sup> set in the spring (May 7-25)<sup>1976</sup> within an half-mile radius, indicate that the populations are quite<sup>extensive</sup> large, and exhibited no discernible movement in that sampling period. Length data, coupled with scale analyses, indicate these fish to have a faster growth rate than those of previously studied<sup>rock bass</sup> populations. Fish sampled in the spring, prior to annulus formation, averaged 114 mm<sup>in length</sup> at 1+<sup>years</sup>, 150 mm<sup>in length</sup> at 2+<sup>years</sup>, 196 mm<sup>in length</sup> at 3+<sup>years</sup>, and 220 mm<sup>in length</sup> at 4+<sup>years</sup>. Both males and females appear<sup>ed</sup> to mature<sup>during</sup> in their third growing season.

Periodic seine collections of ~~the~~ young-of-the-year rock bass were made. Average lengths were as follows: August 16 - 19.8 mm, August 27 - 26.1 mm, September 7 - 31.8 mm, September 19 - 35.8 mm, October 4 - 40.1 mm, October 28 - 42.2 mm, and November 15 - 42.7 mm.

7:30 PM Friday, Feb 4

(2)

NEW YORK FISHERIES MEETING

Name: Howard J. Dean

Address: 8314 Fish Hatchery Road, Rome, New York 13440 Telephone: 337-0910

Title: Associate Aquatic Biologist - Bureau of Environmental Protection  
New York State Department of Environmental Conservation

Type of presentation: paper \_\_\_\_\_ demonstration X

Approximate time needed: 10 minutes

Special equipment needs: slide projector \_\_\_\_\_ overhead projector \_\_\_\_\_

Abstract: (a brief paragraph describing your paper or demonstration)

This ~~is~~<sup>was</sup> a demonstration of a department designed fish shocker.

Personnel from the Bureau of Electronics, NYDEC ~~will~~ presented the

demonstration. For further information, please contact author.

Demonstration - NYDEC, Fish Shocker

Please return to: John G. Nickum by December 1, 1976  
New York Cooperative Fishery Research Unit  
Fernow Hall, Cornell University  
Ithaca, New York 14853



3:50 - 4:05 Fri. Feb 4

New York, N.Y.  
100 ~~100~~ 34

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NEW YORK FISHERIES MEETING

Name: Antoinette DeFazio

Address: 81 Seaman Ave

Telephone: 942-7796

Title: A learning paradigm for studying discriminative abilities in fish

Type of presentation: paper ☒ demonstration ☐

Approximate time needed: 15 Minutes

Special equipment needs: slide projector ☒ overhead projector ☐

Abstract: (a brief paragraph describing your paper or demonstration)

A simplified learning paradigm has been used to study the discriminative abilities of a weakly electric freshwater african mormyrid fish, Gnathonemus petersii. This method involves repeated presentation of a stimulus for five 10-minute trials for one group of fish (stimulus-same condition). A second group of fish was presented the same stimulus for four 10-minute trials and the stimulus was then changed along the parameters of size or shape. Behaviors which were measured included the electric organ discharge of the fish, backwards and forwards swimming past the introduced stimulus, touching of the stimulus, and swimming under the stimulus object. Under the stimulus (same condition by trial five) the mean response rate for all behaviors was 15% of the initial response rate of lower. By trial five under the stimulus (changed condition) the fish were responding at a mean rate of 55% of its initial response level.

Uses and advantages of this method for determining discriminative abilities of fish species that are commercially important in the United States <sup>were</sup> ~~will be~~ discussed.

Please return to: John G. Nickum by December 1, 1976  
New York Cooperative Fishery Research Unit  
Fernow Hall, Cornell University  
Ithaca, New York 14853

4:05 - 4:20 Friday Feb 4

(4)

NEW YORK FISHERIES MEETING

Dennis Jay Dunning and Wayne F. Hadley

Dept. of Biology, S.U.N.Y. at Buffalo 14214

716 831 2638

Title: The relationship between 9-to-15-year-old anglers and the fisheries of Erie County, New York

During 1975 and 1976 a survey of anglers and non-anglers was conducted in Erie County, New York. A portion of the survey involved telephone interviews with 163 9-to-15-year-old residents of Erie County. 81.6 percent of those interviewed indicated that they had been fishing before. Active anglers were identified and described. The profile of the 9-to-15-year-old angler was then compared <sup>to</sup> ~~with~~ that of the licensed angler. The results indicate that young anglers not only outnumber licensed anglers, but they generate more angler days per year in Erie County than resident license holders.

Approximate time needed: 10-15 minutes

Special equipment: Slide projector

8:10 — 8:45

## NEW YORK FISHERIES MEETING

Name: William E. Eustance  
 Address: P.O. Box 42, Cridville, NY 10919 Telephone: (914) 361-4541  
 Title: ~~Some~~ Beaver Kill & Willowemoc<sup>m</sup> Water Quality & Fisheries  
 Type of presentation: paper ✓ demonstration \_\_\_\_\_  
 Approximate time needed: 15-25 minutes  
 Special equipment needs: slide projector \_\_\_\_\_ overhead projector ✓  
 Abstract: (a brief paragraph describing your paper or demonstration)

The Beaver Kill and Willowemoc Creek are intensively managed trout streams in southern New York State. This paper presents the basic water quality parameters from 1972 through 1976. The effects of the sewage treatment plant discharges at Livingston Manor and Roscoe, N.Y. are shown along with diurnal oxygen cycles on these streams.

Please return to: John G. Nickum by December 1, 1976  
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 Ithaca, New York 14853

Paper prescheduled at 1976 meeting for this  
 1977 meeting. Bill Eustance

3:00 PM  
- 3:20 PM Friday Feb. 4

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# NEW YORK FISHERIES MEETING

Name: William S. Ewell  
Address: Eastman Kodak Company, Rochester, NY 14650 Telephone: 716-458-1000  
Ext. 84528  
Title: A Laboratory Model for Evaluating the Behavior of Heavy Metals  
in an Aquatic Environment  
Type of presentation: paper x demonstration  
Approximate time needed: 15 minutes  
Special equipment needs: slide projector x overhead projector  
Abstract: (a brief paragraph describing your paper or demonstration)

## Abstract

A dynamic biological system capable of simultaneously distinguishing between bioaccumulation and biomagnification through successive trophic levels in an aquatic ecosystem is described. The organisms used in the system were algae, predominantly Scenedesmus sp., Daphnia magna, fresh water mussels (Ligumia sp. and Margaritifera sp.) and the fathead minnow, Pimephales promelas.

Thiosulfate complexed mercury and silver were each studied at two concentrations. The water and organisms were analyzed for the metals periodically during the ten-week tests. Both mercury and silver can be bioaccumulated by fish. The concentration factors for mercury are greater than for silver. Further, mercury is biomagnified by fish whereas silver is not. Fresh water mussels were found to be poor indicator species for metal contamination.

IP This paper was published in Water Research  
January, 1977, Vol. 11(1): 101-110.

Please return to: John G. Nickum by December 1, 1976  
New York Cooperative Fishery Research Unit  
Fernow Hall, Cornell University  
Ithaca, New York 14853

7

NEW YORK FISHERIES MEETING

Name: William Flick

Address: Paul Smith's, New York 12970 Telephone: 518 327 3534

Title: Progress Report on Use of Hybrid (Canadian X Domestic) Brook Trout in Adirondack Ponds

Type of presentation: paper Informal demonstration                     

Approximate time needed: 15 min

Special equipment needs: slide projector 35mm overhead projector                     

Abstract: (a brief paragraph describing your paper or demonstration)

Hybrids strains of brook trout involving two Canadian wild strains crossed with New York State domestic strains have shown superior performance and growth, as compared to domestic strains and some pure wild strains. The paper ~~would~~ <sup>will</sup> update this information with data from the past couple of years.

IP

~~John:~~ This material has not been summarized as yet but all indications point to verification of past information. (Comparisons between Temiscamie X domestic and Assinica X domestic (the two Canadian strains used) may indicate possible differences between the two hybrids) but this I do not know as yet. Maybe the best bet would be to keep this on the shelf in case you are short at the last minute, or if you are short now. <sup>IP</sup> (Much of the data <sup>would</sup> not be considered "hard" research but ~~will~~ <sup>will</sup> give some information on what has happened even though good population estimate data <sup>is</sup> ~~is~~ not available and results <sup>were</sup> ~~are~~ based on angling catch. If you have further questions give me a call. <sup>gave</sup>

Please return to: John G. Nickum by December 1, 1976  
New York Cooperative Fishery Research Unit  
Fernow Hall, Cornell University  
Ithaca, New York 14853

4:20 - 4:35 Friday Feb 4

NEW YORK FISHERIES MEETING

Name: Ellie George

Address: Bio. Dept., Cary Hall, SUNY at Buffalo, Buffalo, NY Telephone: 716-831-2638

Title: The Incidence and Effect of *Myxobolus dentium* (Protozoa: Myxosporidea)  
on *Esox masquinongy* of the Niagara River

Type of presentation: paper x demonstration

Approximate time needed: 10 min.

Special equipment needs: slide projector x overhead projector

Abstract: (a brief paragraph describing your paper or demonstration)

The histozoic myxosporidean parasite *Myxobolus dentium* <sup>Fantham</sup> was found in 94 of 280 angler-caught muskellunge, *Esox masquinongy* <sup>mitchell</sup>, taken in the Niagara River from 1968 to 1976. Among fish from 71-to 81-cm <sup>Total length</sup> TL, the coefficient of condition was significantly lower for infected fish than for uninfected fish ( $.001 < p < .01$ ). Incidence of infection increased from June to August and decreased until October, showing a high correlation with water temperature ( $r = .92$ ,  $.01 < p < .05$ ). Fish 71-to 96-cm TL had a significantly greater incidence of infection than fish 96-to 122-cm TL ( $p < .001$ ).

This paper was published in Transactions of American Fisheries Society, 106(5):476-480, 1977

Please return to: John G. Nickum by December 1, 1976  
New York Cooperative Fishery Research Unit  
Fernow Hall, Cornell University  
Ithaca, New York 14853

(9)

Abstract

yield and standing crop of  
Effect of various minimum size limits on largemouth bass and chain pickerel  
yield and biomass

Paper presented at

New York Chapter, American Fisheries Society Meeting, February 4-5, 1977 at

Bergamo East, Marcy, N.Y.

→ Box 1865, Richfield Springs, New York 13439 (Cornell University)

The effect of various minimum size limits on yield of largemouth bass and chain pickerel were determined. The model was based on population dynamics of the bass and pickerel populations of Dryden Lake. Current minimum size limits (bass, 10 inches; pickerel, 12 inches) yield the greatest numbers of fish. Little change in weight yield occurs at an 11 and 12 inch size limit for bass and a 13 and 14 inch size limit for pickerel. A pickerel size limit of 16 inches would substantially reduce the numbers and weight harvested. Increased yield of numbers and weight of moderate size to large bass and pickerel could be expected by increasing the size limit above the current one. Rates of exploitation above 10-20% substantially reduce numbers of "trophy" bass and rates above 40% would be too high to maintain good numbers of even moderate size and larger bass. ✓ Yield of larger pickerel would be reduced substantially only at high rates of exploitation. Yield of larger fish would be maintained at higher levels at increased exploitation rates by increasing size limits above the current minimum. Increasing size limits would increase biomass of the two predators and the higher the exploitation rate, the greater the relative gain in biomass with increased minimum size limit over the current size limit.

David M. Green, Research Associate

Dept. of Natural Resources, Cornell University

(10)

10:00 - 10:15<sup>AM</sup> Saturday Feb 5, 1976

## NEW YORK FISHERIES MEETING

Name: John Hasse  
 Address: 207 Genesee, UTICA<sup>NY</sup>, 13501 Telephone: 7976120  
EXT 417  
 Title: cons. bio. Reg. 6.  
 Type of presentation: paper ✓ demonstration \_\_\_\_\_  
 Approximate time needed: 10-15 min  
 Special equipment needs: slide projector ✓ overhead projector \_\_\_\_\_

Abstract: (a brief paragraph describing your paper or demonstration)

Since 1974 <sup>NY</sup>D.E.C. has been gathering information on muskellunge in the St. Lawrence River. Information gathered included length, weight, age, and fishing effort. The data indicate the present <sup>new</sup> size limit does not protect fish to maturity. A comparison with other muskellunge waters shows St. Lawrence River fish have excellent growth rates and that their diets are similar to other study waters. Fishing styles and effort vary with location.

St. Lawrence River Muskellunge.

Please return to: John G. Nickum by December 1, 1976  
 New York Cooperative Fishery Research Unit  
 Fernow Hall, Cornell University  
 Ithaca, New York 14853



10:30 - <sup>10:50</sup>~~10:30~~ AM. Saturday Feb. 5

(11)

NEW YORK FISHERIES MEETING

Name: Gerald F. Mikol and Wayne F. Hadley  
Address: Biology Dept. S.U.N.Y. Buffalo Buff., N.Y. Telephone: 831-2638  
Title: see attached sheet  
Type of presentation: paper X demonstration  
Approximate time needed: 15 Min.  
Special equipment needs: slide projector X overhead projector  
Abstract: (a brief paragraph describing your paper or demonstration)  
see attached sheet

Please return to: John G. Nickum by December 1, 1976  
New York Cooperative Fishery Research Unit  
Fernald Hall, Cornell University  
Ithaca, New York 14853

(11)

~~Investigation of Basic~~ Population Characteristics and Reproductive Success of the Lake-Run Rainbow Trout/Steelhead (Salmo gairdneri) of the Upper Niagara River and Tributaries of Eastern Lake Erie in Erie County, New York.

Gerald F. Mikol and Wayne F. Hadley

ABSTRACT

Adult rainbow trout/steelhead (Salmo gairdneri) were sampled during the fall (1975) and spring (1976) runs in tributaries of eastern Lake Erie and the upper Niagara River. Fish were collected by electroshocking, seining and angling. ~~Data~~ <sup>Fish</sup> were analyzed for age, growth and spawning information. Additional information on sex, condition, incidence of lamprey attack and fin clips was collected to determine overall success of the population.

Data on 220 and 92 adult fish were collected in the fall and spring, respectively. A total of 145 adult fish were tagged. Recapture data indicate some overwintering of fall-run fish in the spawning streams until ~~the~~ spring.

Scale analysis has indicated a total of 19% of all adult fish sampled to be naturally reproduced. Repeat spawners composed 39.5% of the fall-run fish, while 20.6% of the spring-run <sup>fish</sup> had spawned ~~on~~ previously runs. The majority of the fin clipped fish were of non-New York State origin. Lake residence time does not seem to vary greatly between hatchery fish and "naturals". Most adult fish seem to be spending from 1-3 years in the lake environment. Incidence of lamprey attack <sup>appeared</sup> ~~seemed~~ insignificant.

Investigation of potential spawning streams for naturally reproduced juveniles was also undertaken. Significant numbers of juveniles were found in four tributaries of Cattaraugus Creek, Erie County, New York. Comparisons of reproductive success of these streams are being made. Scale analysis of the juveniles collected indicate an average residence time of 1-2 years in the nursery streams before smolting.



DIVISION OF BIOLOGY  
(Environmental and Organismal)

FACULTY OF NATURAL SCIENCES AND MATHEMATICS

December 15, 1976

John G. Nickum  
New York Cooperative Fishery Research Unit  
Fernald Hall, Cornell University  
Ithaca, New York 14853

Dear Dr. Nickum,

Please amend the designated author~~s~~ for the submitted abstract  
entitled " Smallmouth Bass Angler Data-Upper Niagara River and Adjacent Lake Erie."  
to read Timothy B. O'Mara and Wayne F. Hadley. Thank you.

Sincerely,

A handwritten signature in cursive script that reads "Timothy B. O'Mara".

Timothy B. O'Mara

Box 48

Cary Hall

SUNY/Buffalo

Buffalo, N.Y. 14213

320 - 3:35 PM Fr. day Feb. 4

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NEW YORK FISHERIES MEETING

Name: Timothy B. O'Mara and Wayne F. Hadley  
Box 48 Cary Hall  
Address: Division of Biology, SUNY/Buffalo, Buffalo, N.Y. Telephone: ( 716 ) 831-2638

Title: Smallmouth Bass Angler <sup>Survey</sup> ~~Data~~ Upper Niagara River and ~~Adjacent~~ Lake Erie

Type of presentation: paper ☒ demonstration

Approximate time needed: 15 minutes

Special equipment needs: slide projector ☒ overhead projector

Abstract: (a brief paragraph describing your paper or demonstration)

Angler derived data on upper Niagara River and adjacent Lake Erie smallmouth bass collected by Erie-Niagara Fisheries Research, State University of New York at Buffalo during the 1975-1976 angling seasons numbered 398. Data derived included length and weight, general area of catch, and, where possible, sex. Additionally, two Erie county angler clubs' annual fishing contests were surveyed in the two year study period. This second data source, numbering 598 samples, was deficient in catch location and sex distribution. from

Age composition and derived growth statistics were ascertained via scale reading a subsample of these data. Management implications of age composition and per cent harvest in regards to New York State Department of Environmental Conservation current minimum size limit of ten inches and proposed twelve inch regulation ~~will~~ <sup>was</sup> ~~be discussed.~~ <sup>discussed.</sup>

Please return to: John G. Nickum by December 1, 1976  
New York Cooperative Fishery Research Unit  
Fernow Hall, Cornell University  
Ithaca, New York 14853

Th.

William A. Pearce, P.O. Box 316, Cape Vincent, NY 13618

"Coordination of New York fisheries management with interstate and international agencies"

This discussion addressed NY states' fisheries management coordination with interstate and international agencies involved in <sup>the</sup> mutual waters of the Great Lakes, Lake Champlain and Hudson River.

The implications for job possibilities, which look good for the next decade, were discussed. Fisheries people ought to be aware of such programs and job potentials.



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

P.O. Box 316, Cape Vincent, New York 13618

5:05 - 5:15 Friday Feb. 4

December 16, 1976

Author: William A. Pearce, P.O. Box 316, Cape Vincent, NY 13618

Dr. John Nickum  
Coop Leader  
Fernow Hall  
Cornell University  
Ithaca, New York 14863

Title: Coordination of New York fisheries management  
with interstate and international agencies

Dear John:

If you have room on the Agenda for the Chapter meeting at Bergamo, I would be happy to talk about ten minutes to inform the attendees of how our fisheries management coordinated with interstate and international agencies involved in mutual waters. I will primarily discuss the Great Lakes and Lake Champlain, but will also refer to the Hudson.

The implications for job possibilities look good. I expect there will be sizable amounts of money available in the next decade, therefore fisheries people ought to be aware of such programs and job potentials.

I will also contact Equitable Environmental Health, Inc. (Dr. Roy R. Stoecker, Ph.D., Director of Biological Sciences, 333 Crossways Park Drive, Woodbury, New York 11797. Phone 516-364-8500) and see if they would like to have someone present a paper on what their company covers. They are a nationwide organization. From my understanding, Equitable Life Insurance Company has bought out several local consultants and incorporated them into a network. Again, there are job implications.

They are the consultant for Hooker Chemical. I doubt if we can get much specific input from the as it relates to mirex and Hooker because of the legal implications.

Possibly we might be able to get someone from GE in Schenectady to respond from the industrial sector as it relates to the PCB situation. I sure hope we can get some representation from these groups. If I can be of help, give me a yell.

Sincerely,

William A. Pearce /p

William A. Pearce, Executive Committee Member

WAP:jss

cc: Dr. Robert Werner, Dr. L. Smith



STATE UNIVERSITY OF NEW YORK

14

# COLLEGE OF ENVIRONMENTAL SCIENCE AND FORESTRY

SYRACUSE CAMPUS  
SYRACUSE, NEW YORK 13210

SYRACUSE CAMPUS  
SYRACUSE, N. Y. 13210

December 16, 1976

Schools of:

- Biology, Chemistry, & Ecology
- Continuing Education
- Environmental and Resource Engineering
- Environmental and Resource Management
- Landscape Architecture

Applied Forestry  
Research Institute

Empire State  
Paper Research Institute

Institute of Environmental  
Program Affairs

State University  
Polymer Research Center

U.S. Forest Service  
Cooperative Research Unit

Dr. John Nickum  
Department of Natural Resources  
Cornell University  
Ithaca, New York 14850

Dear John:

I would like to make a 15 minute presentation at the  
A.F.S. meeting in February, if this fits into your schedule.

The title would be Feeding Ecology of Some St. Lawrence  
River Fishes.

I hope all is going well with your efforts to enlist  
some keynote speakers.

CRANBERRY LAKE CAMPUS  
CRANBERRY LAKE, N. Y. 12927

Charles Lathrop Pack  
Demonstration Forest  
Cranberry Lake  
Biological Station

NEWCOMB CAMPUS  
NEWCOMB, N. Y. 12852

Archer & Anna Huntington  
Wildlife Forest  
Adirondack Ecological Center

NHR:rtp

Sincerely,  
  
Neil H. Ringler  
Assistant Professor  
Department of Forest Zoology

TULLY CAMPUS  
TULLY, N. Y. 13159

Heiberg Memorial Forest  
Genetic Field Station

9:40 - 10:00 AM Saturday Feb 5

WANAKENA CAMPUS  
WANAKENA, N. Y. 13695

Forest Technician Program

WARRENSBURG CAMPUS  
WARRENSBURG, N. Y. 12885

Charles Lathrop Pack  
Demonstration Forest  
Summer Field Program

J.W. Garsuch  
Rec - 3-8-77

141

Presented  
@ NY AFS meeting  
Feb 1977

~~THE DIETS OF~~ <sup>Some</sup> FEEDING ECOLOGY OF <sup>River</sup> ST. LAWRENCE FISHES

REPORT ON A PRELIMINARY STUDY

BY

Neil H. Ringler & James H. Johnson

State University of New York  
College of Environmental Science and Forestry  
Syracuse, New York 13210

~~INTRODUCTION~~

An analysis of the dietary components of fishes is one prerequisite to assessment of potential impacts of extension of the navigation season on the St. Lawrence River. Knowledge of prey composition is needed to assess the effects of changing abundance or diversity of prey communities, and estimates of food consumption rates are required in the quantification of major energy pathways. Except for descriptive investigations by Sibley and Rimsky-Korsakoff (1930), practically no work has been published dealing directly with feeding ecology of fishes in the St. Lawrence River. Therefore, preliminary work on the diets of St. Lawrence fishes was undertaken during the summer of 1976, in cooperation with Thomas Eckert of the Department of Environmental Conservation.



9:20-9:40 AM. 50 Feb. 1976  
Feb. 5

15

NEW YORK FISHERIES MEETING

Name: Schiavone  
Albert Schiavone Jr.  
Address: NYDEC, State Office Bldg., Watertown, NY Telephone: 1364 782-0100  
Ext. 311  
Title: Walleye Fingering Production at Cape Vincent Hatchery  
Type of presentation: paper ☒ demonstration ☐  
Approximate time needed: 15 min  
Special equipment needs: slide projector ☐ overhead projector ☐  
Abstract: (a brief paragraph describing your paper or demonstration)

The Presentation will summarize the techniques used  
and the experiences gained at the Cape Vincent Hatchery walleye  
fingering project. The report will be similar to the  
copy you received earlier

Walleye

Please return to: John G. Nickum by December 1, 1976  
New York Cooperative Fishery Research Unit  
Fernow Hall, Cornell University  
Ithaca, New York 14853

**New York State Department of Environmental Conservation**

50 Wolf Road, Albany, New York 12233



Ogden Reid,  
Commissioner

Peter A. A. Berle

December 22, 1976

Dr. John G. Nickum  
New York Cooperative Fishery Research Unit  
Fernow Hall  
Cornell University  
Ithaca, New York 14853

Dear Dr. Nickum:

Bill Pearce has asked that I make a short presentation on Department activities and findings relative to Mirex in Lake Ontario. Noting that the December 1 deadline had passed when Bill called, I tried to phone you numerous times but apparently you are as busy as I am.

Therefore I hope you will consider this belated submission.

Sincerely,

Lawrence C. Skinner  
Associate Aquatic Biologist

LCS:dmc  
Attachment

## NEW YORK FISHERIES MEETING

Name: Larry Skinner 12233  
 Address: NYS DEC, 50 Wolf Rd., Albany, N.Y. Telephone: 457-6179  
 Title: Sr. Aquatic Biologist  
 Type of presentation: paper X demonstration \_\_\_\_\_  
 Approximate time needed: 30 min  
 Special equipment needs: slide projector potentially X overhead projector \_\_\_\_\_

Abstract: (a brief paragraph describing your paper or demonstration)

Mirex <sup>presence</sup> has been demonstrated in Lake Ontario.  
 A summary of the findings and Department activities relative to fisheries and point sources ~~is planned~~ <sup>was given</sup>. Copies of "Summary of Available Mirex Data for Lake Ontario and Tributaries" (As of January 28, 1977) were available to members.

Please return to: John G. Nickum by December 1, 1976  
 New York Cooperative Fishery Research Unit  
 Fernow Hall, Cornell University  
 Ithaca, New York 14853

Abstract for Consideration of Program Committee  
NE Div. AFS -- 1977 Meeting

ICELANDIC SALMON, CHAR AND BROWN TROUT --  
Management Problems and Options in a Country Looking for Tourists  
and with Vast Untapped Energy Resources

Dwight A. Webster  
Department of Natural Resources  
Cornell University  
Ithaca, New York 14853

Iceland, with a population of 215,000 and an area about the size of Pennsylvania, has extensive energy resources in geothermal heat and water power. But to utilize these, the world's energy market must move to Iceland. The environmental costs could be high in a country where air and water pollution is now virtually unknown and where much of the island is ice or desert. The salmonid resource is extensive and provides a substantial recreational fishery that could be increased considerably by innovative approaches to management. This resource base will be examined in the light of current management practices and future options for development of inland fisheries. The private ownership status of both anadromous and resident stocks adds an interesting dimension to management.

PROGRAM - NEW YORK FISHERIES MEETING

Sponsored by

New York Chapter, American Fisheries Society

February 4-5, 1977

Bergamo/East, Marcy, New York

February 4, 1977

10:00 AM Registration

12:00 Lunch - Bergamo/East dining hall

I. 1:15-2:45 Business Meeting

- A. Call to order
- B. President and Executive Committee reports
- C. Committee reports
- D. Old business
- E. New business
- F. Election of officers

2:45-3:00 Coffee Break

II. 3:00-5:15 Contributed papers

- 3:00 A laboratory model for evaluating the behavior of heavy metals in an aquatic environment - William Ewell, Eastman Kodak
- 3:20 Smallmouth Bass Angler Survey, Upper Niagara River and Lake Erie - Timothy O'Mara and Wayne Hadley, SUNY-Buffalo.
- 3:35 Critical thermal maxima of minnows from two western New York streams - Kevin Kowalski, SUC-Buffalo
- 3:50 A learning paradigm for studying discriminative abilities of fish - Antoinette DeFazio
- 4:05 The relationship between 9-15 year old anglers to the fisheries of Erie County, New York - Dennis Sunning, SUNY-Buffalo
- 4:20 The incidence and effect of Myxobolus dentium on Esox masquinongy of the Niagara River - Ellie George, SUNY-Buffalo
- 4:35 Rock bass in the upper Niagara River - Rostyslaw Caryk, SUNY-Buffalo
- 4:50 The effect of arsenic on fish from Chautauqua Lake, New York - Robert Foley, SUC-Buffalo
- 5:05 Coordination of New York fisheries management with interstate and international agencies - William Pearce, N.Y.S.D.E.C.

- III. 5:15- Happy Hour  
(Bring your own booze - beer by the pitcher will be available for a modest "donation")
- We also plan to have available at this time some of the products developed from deboned fish (primarily white suckers) by Dr. Robert C. Baker, Cornell University. Possibilities include fish crispies, fish chowder, fish newburg, and lasagna.
- 6:00 Supper - Bergamo/East dining hall
- IV. 7:30-9:30 Demonstrations and Papers
- 7:30 Demonstration - D.E.C. Fish Shocker - Howard Dean, N.Y.S.D.E.C.
- 7:40 Effects of minimum size limits on yield and standing crop of largemouth bass and chain pickerel - Dave Green, Cornell University
- 8:10 Impressions of fisheries and fish culture in the USSR - Gary Rumsey, Tunison Laboratory of Fish Nutrition, U.S. Fish and Wildlife Service
- (Dr. Rumsey was one of four U.S. representatives on an extensive tour of Russian fisheries stations. The tour took them from eastern Siberia across the nation to Europe. They were allowed photographic privileges, so the talk will be illustrated.)
- 9:00 Icelandic Salmon, Char, and Brown Trout -- Management Problems and Options in a County Looking for Tourists and with Vast Untapped Energy Resources - Dwight Webster, Cornell University.
- (Dr. Webster has visited Iceland several times in recent years and has an excellent series of photographs to illustrate the points in this discussion.)

February 5, 1977

- 8:00-8:45 Breakfast - Bergamo/East dining hall
- V. 9:00-12:00 Contributed papers
- 9:00 Use of hybrid brook trout in Adirondack ponds - William Flick, Cornell University
- 9:20 Walleye fingerling production at Cape Vincent - Albert Schiavone, N.Y.S.D.E.C.
- 9:40 Feeding ecology of some St. Lawrence River fishes - Neil Ringler, SUNY-College of Environmental Science & Forestry

- 10:00 St. Lawrence River muskellunge - John Hasse, N.Y.S.D.E.C.
- 10:15 Coffee Break
- 10:30 Population characteristics and reproductive success of lake-run rainbow trout of the upper Niagara River and tributaries of eastern Lake Erie - Gerald Mikol and Wayne Hadley, SUNY-Buffalo
- 10:50 South Sandy Creek creel census - Daniel Farr, N.Y.S.D.E.C.
- 11:05 The impact of thermal effluents on the fish of eastern Lake Erie and the upper Niagara River - James Spotila, SUC-Buffalo
- 11:25 Chemical contaminants in Lake Ontario fish - Larry Skinner, N.Y.S.D.E.C.

## After Abstracts

Members, etc.

### Acknowledgements

The Newsletter Committee wishes to thank ~~the following~~  
for contributing to the publication of this issue:  
(Eastman Kodak Company, Rochester, NY and The Daily  
Record, Rochester, NY - Johnson D. Hay, Publisher -)

### Reminder

Remember to send any information, ~~job positions~~,  
and special requests to Joseph W. Gorsuch, Chairman  
of the Newsletter Committee. <sup>We cannot function without news -</sup> Send to!

Joseph W. Gorsuch, Toxicology Section, B-306  
HS&HFL, Eastman Kodak Company, Rochester, NY 14650



# NEWSLETTER

~~Vol. 1, No. 1~~

Joseph Gorsuch, Chairman  
William Ewell, and Terry Culp

December 19, 1977

## Abstracts from Papers given at 1977 Annual Meeting

During the February 4, 1977 business meeting, Bill Eystance moved that the abstracts of the papers presented at the meeting be included in a newsletter. The motion was passed. ~~This is the first volume for 1978 at the newsletter.~~ <sup>new</sup>  
This newsletter contains those ~~which includes~~ abstracts submitted by the authors of those papers given at the 1977 Annual Meeting.

Include for each:

Author(s) Name, Address  
Title →

Abstract

→ As edited -



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

NEW YORK CHAPTER

AMERICAN FISHERIES SOCIETY

1978 Membership Application

Annual Dues: \$2.00

Annual Dues: \$2.00

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Home Address: \_\_\_\_\_

Home \_\_\_\_\_

Phone: \_\_\_\_\_

Employer (School): \_\_\_\_\_

Bus. \_\_\_\_\_

Phone: \_\_\_\_\_

Job Title: \_\_\_\_\_

Area of Specialization or Interest: \_\_\_\_\_

Mail \$2.00 check in name of N.Y.S. Chapter AFS to:

Joseph Gorsuch, Sec-Treas.  
Toxicology Section  
Eastman Kodak Co.  
1169 Lake Avenue  
Rochester, New York 14650

I tentatively do/do not (circle one) plan to attend the February, 1978 annual meeting.



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 6, 1977

Mr. Ed Brothers  
Sec. Ecology and Systematics  
Langmuir Laboratory  
Cornell University  
Ithaca, NY 14853

Dear Ed:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to serve on the Membership Committee.

Working with you will be:

Bruce Shupp, Chairman  
Pine Street  
Chestertown, NY 12817

C. Braxton Dew  
LMS Engineers  
415 Rt. 303  
Tappan, NY 10983

George Seeley, Jr.  
M. R. 3  
Rome, NY 13440

Herb Eschbach  
DEC  
New Paltz, NY 12561


We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



December 13, 1977

Archibald C. Petty  
5 Miller Drive  
Homer, NY 13077

Dear Arch;

Thank you for the check for your 1978 chapter dues. Your I.D. card is enclosed. Also thank you for the comment; however, my records show that seventeen pages (eleven of these were back to back) have been mailed to all 1977 members and twelve page were sent to previous members (back to 1975) plus the mailing list compiled by the Executive Committee during the last three years (total of 257 plus parent society). The last mailing was sent to these people plus 204 more for a total of 461. In addition I've sent more than 100 letter to various members and officers, in addition to handling the film replies. For comparison, during the year 1975, while you were secretary, I received nine pages in four mailings. I will be sending out the newsletter within a couple weeks, in addition to the program which is to be sent to all 461 people. I would urge you to help this lack of correspondence by contributing to our newsletter. As far as money goes, we received \$68 more in dues in 1977 than we did in 1975. I would expect an even greater return this coming year. Also our mailing costs will be less, yet reaching four times the number of people. What this all boils down to is this, I spend on the average 8 hours a week doing NY Chapter AFS work, in addition my secretary spends one to two hours per week. This is all without charge as is the reproductive costs for those 4000 + pages.

If you know of any member from 1976 that is not receiving these mailings send me his name. Sorry about this typing. Have a nice holiday season.

EASTMAN KODAK COMPANY • 1669 LAKE AVE. • ROCHESTER, NEW YORK 14650 • 716 458-1000

*Joe*  
Joe



---

NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

---

November 16, 1977

Memo to: Members, New York Chapter American Fisheries Society

From: J. W. Gorsuch, Secretary-Treasurer

Re: Minutes of the Executive Committee Meeting of November 4, 1977

The second executive committee meeting was called to order at the College of Environmental Science and Forestry at 1:30 p.m. by President Smith. Present were Gorsuch, Judd, Shupp, Smith and Werner.

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President Smith stated that the New York Chapter of the American Fisheries Society was not an effective lobbying organization. The chapter members' responses to the change in the Federal Regulations [21CFR Part 109] (May 11, 1977 mailing) of pesticides were not recognized by the Food and Drug Administration. To increase our chapters' lobbying power on such matters that affect fisheries, President Smith is seeking counsel.

Secretary-Treasurer Gorsuch reported that the New York Chapter of the American Fisheries Society now has a non-profit organizational bulk rate status. The chapter is also the owner of 257 duplication embossed name-address plates. Vice-President Shupp added another 197 names to the Chapters mailing list for call for papers. This mailing is being sent to at least 454 people.

The bulk rate annual fee is \$40.00 (non-transferrable) plus \$20.00 for imprint fee (paid once in that city). These fees cover the time period

November 16, 1977

Memo

-2-

of January 1 to December 31. It was agreed upon by the executive committee, and will be voted on at the 1978 annual meeting that the Secretary-Treasurer should begin his correspondent duties on January 1 for the calendar year. This effort should save the chapter \$40.00 a year.

President Smith will contact committee chairmen to remind them that their reports are due in three months.

There being no new business and no further old business the meeting was adjourned at 3:30 p.m.

Respectfully,

A handwritten signature in cursive script that reads "Joseph W. Gorsuch". The signature is written in dark ink and is positioned above the typed name.

Joseph W. Gorsuch  
Secretary-Treasurer

JWG:d1b



## NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

November 9, 1977

TO: All New York Marine and Aquatic Fishery Scientists and Technicians -

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Be a professional, join your national and state professional societies. Write those checks today!

See you February 3 at Bergamo-East.

Membership Committee,  
Ed Brothers  
Braxton Dew  
Herb Eschbach  
George Seeley  
Bruce Shupp, Chairman

P.S. Chapter President, Lavett Smith, reminds all Committee Chairmen to begin preparation of their annual reports.



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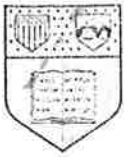
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George Seeley  
Bruce Shupp, Chairman

P.S. Chapter President, Lavett Smith, reminds all Committee Chairmen to begin preparation of their annual reports.





**New York State College of Agriculture and Life Sciences**  
a Statutory College of the State University  
**Cornell University**

Department of Natural Resources  
Fernow Hall, Ithaca, N. Y. 14853

Fishery Science  
Forest Science  
Wildlife Science  
Natural Resources  
Outdoor Recreation  
Environmental Conservation

Mailing address: Box 27, RD# 3  
Richfield Springs  
New York 13439

December 19, 1977

Dr. C. Lavett Smith  
President, N.Y. Chap. AFS  
Dept. of Ichthyology  
American Museum of Natural History  
New York, New York 10024

Dear Smitty:

The nominating committee is nominating the following slate of officers to be presented at the February meeting of the New York Chapter of the American Fisheries Society:

For President - Bruce D. Shupp

for Vice President - Philip T. Briggs and Michael W. Duttweiler

for Secretary-Treasure - Joseph W. Gorsuch

*← Not yet member*

Sincerely,

*Dane*

David M. Green  
Chairman, Nominating Comm.

cc: C. George  
J. Gorsuch ✓  
B. Shupp  
P. Briggs  
M. Duttweiler

December 7, 1977

Mrs. Tonia Brome  
Office of the Executive Director  
American Fisheries Society  
5410 Grosvenor Lane  
Bethesda, Maryland 20014

Dear Mrs. Brome:

Enclosed is a copy of our NY Chapter's latest mailing. Please note the date of our Annual Chapter meeting is February 3 and 4, 1978. We would appreciate it if you could have these dates placed in the Fisheries magazine calendar. Thank you for your cooperation.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NY Chapter AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo

1977 Annual Meeting Minutes  
New York Chapter  
American Fisheries Society  
February 4, 1977

The meeting, held at Bergamo East, Marcy, New York, was called to order at 1:20 p.m. by President Werner.

The minutes of the 1976 meeting, previously circulated and summarized by Secretary-Treasurer Smith, were approved.

President's Report: President Werner expressed satisfaction that the Chapter has continued to broaden its membership coverage and that we now have a substantial representation of members from the academic community and industrial concerns as well as members of the New York State Department of Environmental Conservation. He expressed satisfaction at the number of students present and thanked the various committee chairpersons for their part in helping the Chapter to grow.

Executive Committee's Report: Bob Werner reported that the Executive Committee met twice during the year. Cliff Creech had resigned during the year owing to the press of other duties, and his job as Membership Chairman was taken over by Neil Ringler.

Secretary-Treasurer's Report: As of January 31, 1977, there was a balance of \$86.94 in the checking account, \$2,608.13 in the savings account, and \$37.03 in the film account for a total of \$2,732.10.

During 1976 there were four mailings to the membership and additional fisheries personnel throughout the state. Ninety-eight members paid dues for 1976. Meeting notices were sent to a total of 204 people.

Program Committee: The outstanding program for this meeting was accepted in lieu of a formal report.

Auditor's Report: The Auditor's report was deferred to allow time for the audit. Ned Holmes replaced Lee Cooper who resigned during the year. [The audit was completed February 4 and a report submitted.]

Membership Committee's Report: Neil Ringler reported that with the help of Joe Gorsuch the list of members and potential members is growing. He asks that you keep your officers informed as to your address and those of other persons who might profit from membership in our Chapter.



April 28, 1977

Mrs. Tonia Brome  
Office of the Executive Director  
American Fisheries Society  
5410 Grosvenor Lane  
Bethesda, Maryland 20014

Dear Mrs. Brome:

Enclosed is a copy of our Annual Meeting of the New York Chapter's minutes and reports. On behalf of our Chapter, I want to thank you and Mrs. Fry for assisting us. We will be in contact with you throughout the year.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYS-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo

Enc.



The tentative dates for the 1978 Annual Meeting are February 3-4, 1978 at Bergamo East, Marcy, NY.

Chapter Members--2  
April 6, 1977

A newsletter is being formulated at this time. We hope to start by including abstracts of the papers presented at the 1977 Annual Meeting. We would like to encourage your participation in this communication. Your newsletter could be a means of informing others throughout New York of fisheries' related events. We hope to include employment opportunities, so employers send us a description of your needs. We hope to include a calendar of fishery and aquatic ecology symposia. Send your news to Joe Gorsuch or Bill Ewell both in the Toxicology Section, B-306, Health, Safety, and Human Factors Laboratory, Eastman Kodak Company, Rochester, NY 14650; or Terry Culp, P.O. Box 2, Stamford, NY 12167.

Respectfully,

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo

Enc.

CUT OFF AND RETURN

To: Joseph W. Gorsuch  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory  
Eastman Kodak Company  
Rochester, NY 14650

Enclosed are my 1977 dues in the amount of \$2.00 (check or money order payable to New York Chapter of A.F.S.).

Date \_\_\_\_\_ Name \_\_\_\_\_  
Please Print

Address \_\_\_\_\_  
\_\_\_\_\_

Zip Code \_\_\_\_\_ Affiliation \_\_\_\_\_



## NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

November 16, 1977

Memo to: Members, New York Chapter American Fisheries Society

From: J. W. Gorsuch, Secretary-Treasurer

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Respectfully,

A handwritten signature in cursive script that reads "Joseph W. Gorsuch".

Joseph W. Gorsuch  
Secretary-Treasurer

JWG:dlb





NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

November 9, 1977

TO: All New York Marine and Aquatic Fishery Scientists and Technicians -

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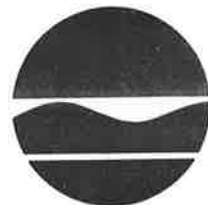
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Membership Committee,  
Ed Brothers  
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Herb Eschbach  
George Seeley  
Bruce Shupp, Chairman

P.S. Chapter President, Lavett Smith, reminds all Committee Chairmen to begin preparation of their annual reports.

**New York State Department of Environmental Conservation**  
50 Wolf Road, Albany, New York 12233



Peter A. A. Berle,  
Commissioner

November 11, 1977

Mr. Joe Gorsuch  
Toxicology Section  
Eastman Kodak Co.  
1669 Lake Avenue  
Rochester, New York 14650

Dear Joe:

Enclosed are the original and two copies of the 1978 membership recruiting letter for the New York Chapter of AFS.

Also enclosed is a copy of the 1977 list of New York residents that are members of parent AFS.

Sent separately, were 500 parent society membership applications (sample attached).

You have done a great job building this mailing list--a real contribution to continued Chapter growth.

Holler if you need anything else. Thanks.

Sincerely,

Bruce D. Shupp  
Supervising Aquatic Biologist  
Inland Fisheries Section

BDS/ja  
Enc.



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AMERICAN FISHERIES SOCIETY

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Name: \_\_\_\_\_

Date: \_\_\_\_\_

Home Address: \_\_\_\_\_

Home

Phone: \_\_\_\_\_

Employer (School): \_\_\_\_\_

Bus.

Phone: \_\_\_\_\_

Job Title: \_\_\_\_\_

Area of Specialization or Interest: \_\_\_\_\_

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annual meeting.

November 10, 1977

Dr. John Nickum  
NY Coop. Fishery Research Unit  
118 Fernow Hall  
Cornell University  
Ithaca, NY 14853

Dear John:

We held our executive NY Chapter AFS meeting at SUNY in Syracuse November 4, 1977. With the new year and subsequently the 1978 meeting approaching, it is imperative that the 1977 abstracts be published soon. The officers agreed at our meeting that these abstracts should be published this year. We also need this mailing to pay for our recent purchase of the bulk mailing permit which expires December 31.

Please send the abstracts of papers given to me immediately. If they need editing, the Newsletter Committee will do so. Thank you for your cooperation.

Sincerely,



Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



September 20, 1977

Dr. C. Lavett Smith  
AMNH  
Central Park West at 79th Street  
New York, NY 10024

Dear Smitty:

It has been several months since we had our last telephone conversation. At that time, I informed you that we now have "Non-Profit" bulk rate mail status. I paid \$60 at that time for annual charge (\$40) and inprint fee (\$20). I am a little disappointed that we have not had a newsletter mailing. I am still waiting for John Nickum to send me the dress-up abstracts of 1977 papers. We need to make at least two mailings of 260 (number on mailing list) pieces of mail at 2.1 cents each to break even. We must pay another \$40 on January 1, 1978. This may complicate our officer year which has begun in February at the meeting. Might I suggest that the Secretary-Treasurer office year begin January 1 and end December 31 other than the reading of minutes at the February meeting. Election of this office could be done by a mail ballot. This is only a suggestion to avoid confusion near February meeting. This option could allow maximum interest accumulations on savings too by withdrawing at end of quarter December 31.

Another matter of importance is the authorization from you to purchase three (3) Aquatic Ecologist Films. We sold the three remaining copies since the February meeting. Bob Werner suggested buying three more films, although we have not had a request for one for three months. Should we purchase these films? If so, please authorize me to do so in writing.

I have enclosed a copy of the letter I sent to Bruce Shupp and the additional paid members. I am encouraged by the interest we have developed in our Chapter since 1975.

Sincerely,

A handwritten signature in cursive script that reads "Joseph W. Gorsuch".

Joseph W. Gorsuch  
Secretary-Treasurer  
NYC-AFS

JWG:bdo  
Enc.





September 20, 1977

Mr. Bruce Shupp  
Pine Street  
Chestertown, NY 12817

Dear Bruce:

As of today, we have 108 paid members for 1977. Attached is a list of 24 names of members that sent their dues to me. I thought you might want these names in order to avoid mailing reminders to them again. If you have such a mailing, it could be done in Rochester since the Chapter now has a Non-Profit mail rating. This enables us to mail up to 3 oz. for 2.1 cents, provided the materials enclosed are identical, printed and number more than 200 pieces. I have not yet had a mailing (waiting for abstracts from John Nickum) since purchasing our Bulk-Rate permit (initial layout of \$60). We need to utilize this service before January 1, 1978, or we paid the money for nothing. I hope to be hearing from you in the near future.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer  
NYC-AFS

JWG:bdo  
Enc.

cc: C. L. Smith

**New York State Department of Environmental Conservation**  
50 Wolf Road, Albany, New York 12233



Peter A.A. Berle  
Commissioner

May 23, 1977

Joseph W. Gorsuch  
Eastman Kodak Company  
Rochester, New York 14650

Dear Joe:

Attached find a modified version of the resolution submitted by Lee Blake on FDA's proposed reduction of the PCB temporary tolerance from 5.0 ppm to 2.0 ppm in fish.

The modifications made were to reflect statewide considerations and make the resolution more responsive to fisheries needs.

I have discussed the resolution with C. Lavett Smith by phone and Bruce Shupp here in the office. Both agree as to its content. Mr. Smith suggests that you and Bob Werner review the resolution, approve or incorporate changes if necessary, and draft a letter transmitting the resolution. This must be done prior to May 31, 1977. The address for transmittal is:

Hearing Clerk  
Food and Drug Administration  
Room 4-65  
6500 Fishers Lane  
Rockville, Maryland 20857

Sincerely,

  
Lawrence C. Skinner  
Associate Aquatic Biologist

cc: C. Lavett Smith  
Bruce Shupp  
Bob Werner  
Leigh Blake



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

May 11, 1977

Mr. Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety and Human Factors Laboratory  
Eastman Kodak Company  
Rochester, New York 14650

Dear Joe:

In regard to the resolution on the Federal regulations relating to PCB's and mirex, Lee Blake has suggested that, in addition to the formal resolution, perhaps it would be a good idea to write to all our members and suggest that they make their views known as individuals. Accordingly, I am including a draft of the letter urging them to do just that, which I think we should send to our mailing list.

I hope you have the addressograph set up to speed this procedure but I do think that this is an important function of the Society and we really should make our views known.

Sincerely,

C. Lavett Smith  
President

CLS:vp  
Enc.

NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

May 5, 1977

Mr. Lawrence C. Skinner  
Associate Aquatic Biologist  
New York State Department of  
Environmental Conservation  
50 Wolf Road  
Albany, New York 12233

Dear Larry:

Thanks for agreeing to serve as chairman of the Water Quality Committee. When you do a great job you can expect to get more work.

Lee Blake has called to our attention the proposed changes in FDA tolerance levels for PCB and Mirex and has suggested that the chapter might want to submit a resolution against the change. I wonder if you and your committee would review his proposal and if you agree we should take such a stand let me know and we will ask the executive committee to approve it on behalf of the Society.

I'm sending copies to the executive committee so that if your committee agrees to this or suggests a modified form we can make our decision by telephone in time to meet the May 31 deadline.

Sincerely,

*Smith*  
C. Levett Smith  
President

CLS:vp  
Encs.

copies to: B. Shupp  
R. Werner  
W. Pearce  
J. Gorsuch ✓  
W. Eustance

Whereas, the FDA has proposed reduction of temporary tolerances for PCB's, and

Whereas, the Commissioner has stated that "current data do not indicate that consumers of fish have actually experienced deleterious effects from contaminated fish" and further that "the temporary tolerances have been sufficient to protect the public health", and

Whereas, the FDA includes consideration of the proposed change on the commercial fishery and concludes that a level of 2 ppm would eliminate a relatively minor percentage of marine fish and less than 25 percent of freshwater fish from commercial markets, and

Whereas, New York State has banned possession of several species of sport fish from Lake Ontario, based on FDA contaminant levels in fish of mirex and PCB's and this ban has had serious impact on the sport fishery and associated support industries valued at \$100,000,000 annually in Lake Ontario, and

Whereas, lowering the level for PCB's to 2 ppm will preclude relaxation of the existing bans which are indicated resulting from additional testing for mirex, and

Whereas, lowering the level for PCB's to 2 ppm will result in additional bans on possession of sport fish in Lake Ontario and likely the St. Lawrence River and Lake Erie as well, resulting in further reduction in sport fishing and associated support industries, and

Whereas, sport fishing support industries provide the total income for many small family run businesses such as motels, bait shops, marinas, and restaurants in communities along the Great Lakes in New York and continued reduction of sport fishing will result in these enterprises going out of business.

Therefore, be it resolved that the FDA retain a tolerance level for PCB's at 5 ppm until such time as levels of PCB's in fish declines or until data indicates adverse effects to people who eat fish contaminated at 5 ppm PCB's and further.

The New York Chapter of the A.F.S. hereby petitions the FDA to raise the tolerance level of mirex from the present level of 0.1 ppm to 0.3 ppm so as to lessen the economic impact on the sport fishery in Lake Ontario and associated support industries.

# PROPOSED RULES

## SUPPLEMENTARY BACKGROUND:

### BACKGROUND

Section 214.2(h)(3)(i) of the Immigration and Naturalization Service Regulations (8 CFR 214.2(h)(3)(i)), issued under the Immigration and Nationality Act, requires, in support of a petition for the admission of an alien into the United States to perform certain temporary labor:

Either a certification from the Secretary of Labor or his designated representative stating that qualified persons in the United States are not available and that the employment of the beneficiary will not adversely affect the wages and working conditions of workers in the United States similarly employed, or a notice that such a certification cannot be made, shall be attached to every nonimmigrant visa petition to accord an alien a classification under section 101(a)(15)(H)(ii) of the Act. . . .

Each year the Department updates its adverse effect rates so that, in light of current economic conditions, employers will be required to offer workers a wage which will not adversely affect the wages of U.S. workers.

### RELATIONSHIP OF PROPOSED RULE TO PROPOSED REGULATIONS FOR 20 CFR PART 665

On January 25, 1977, at 42 FR 4670, the Department proposed comprehensive new regulations for the entire labor certification process for the temporary employment of aliens in the United States in agricultural and logging occupations. Those regulations, when eventually finalized, were proposed to be placed into a new Part 655 in 20 CFR, and to replace all the present regulations at 20 CFR 602.10, 10a, and 10b. The rule proposed in this document, however, is merely the annual update of the adverse effect rates. Because of the considerable interest shown by the public in the January 25 proposed comprehensive revision, the Department expects that it will be some time before the January 25 proposal will be finalized. The Department expects, however, that the new adverse effect rates proposed in this document will be finalized shortly after the end of the thirty-day comment period.

### WHERE TO SEND COMMENTS

Comments on the proposed rule should be sent to the Assistant Secretary for Employment and Training, Attn: William B. Lewis, Administrator, United States Employment Service, Room 8000, 601 D Street, NW., Washington, D.C. 20213.

Accordingly, 20 CFR 602.10b, paragraph (a)(1), is proposed to be revised to read as follows:

### § 602.10b Wage rates.

(a)(1) Except as otherwise provided in this section, the hourly wage rates set forth below shall be offered and paid to agricultural workers. The Department has found that, unless these wage rates are offered and paid, the wage rates of similarly employed U.S. workers will be adversely affected.

State:	Rate
Connecticut	\$2.75
Maine	2.84
Massachusetts	2.70
New Hampshire	2.97
Rhode Island	2.72
Vermont	2.93
New York	2.70
Maryland	2.43
Virginia	2.63
Florida (sugar cane only)	3.23

Signed at Washington, D.C. this 25th day of March, 1977.

ERNEST G. GREEN,  
Assistant Secretary for  
Employment and Training.

[FR Doc. 77-9519 Filed 3-31-77; 8:45 am]

## DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

### Food and Drug Administration

#### [21 CFR Part 109]

[Docket No. 77N-0680]

### POLYCHLORINATED BIPHENYLS (PCB'S)

Unavoidable Contaminants in Food and Food Packaging Materials; Reduction of Temporary Tolerances

AGENCY: Food and Drug Administration.

ACTION: Proposed reduction of temporary tolerances for polychlorinated biphenyls (PCB's).

SUMMARY: The Food and Drug Administration (FDA) is proposing to reduce the temporary tolerances for unavoidable residues of the industrial chemicals PCB's in several classes of food. Specifically, the agency is proposing to reduce the tolerances in milk and dairy products from 2.5 parts per million (ppm) to 1.5 ppm (fat basis); in poultry from 5 ppm to 3 ppm (fat basis); in eggs from 0.5 ppm to 0.3 ppm, and in fish and shellfish from 5 ppm to 2 ppm.

DATES: Comments on or before May 31, 1977.

ADDRESSES: Written comments on this proposal may be sent, in quadruplicate, to the Hearing Clerk, Food and Drug Administration, Rm. 4-65, 5600 Fishers Lane, Rockville, MD 20857.

### FOR FURTHER INFORMATION CONTACT:

Howard N. Pippin, Division of Regulatory Guidance (HFF-312), Bureau of Foods, Food and Drug Administration, Department of Health, Education, and Welfare, 200 C St. SW., Washington, DC 20204, (202) 245-3092.

SUPPLEMENTARY INFORMATION: PCB's are a class of toxic industrial chemicals that are highly stable, heat resistant, and nonflammable. By late 1971, the unique physical and chemical properties of PCB's and their widespread, uncontrolled industrial application had resulted in their becoming a persistent and ubiquitous environmental contaminant. One consequence of the contamination of the environment with PCB's was the indirect contamination of certain foods.

## REGULATORY HISTORY

In the FEDERAL REGISTER of July 6, 1973 (38 FR 18096), the Commissioner of Food and Drugs issued regulations under Part 122 (21 CFR Part 122), to deal with the problem of contamination of animal feeds, foods, and food packaging materials with PCB's. Among these regulations are those establishing temporary tolerances for unavoidable PCB residues resulting from environmental contamination of milk and dairy products, poultry, eggs, fish and shellfish, infant and junior foods, and feed and feed components for food producing animals. There is also a temporary tolerance for PCB's in paper food-packaging material intended for or used with human food, finished animal feed and components intended for animal feeds, which is currently stayed (by order published in the FEDERAL REGISTER of August 24, 1973 (38 FR 22794)) pending completion of an evidentiary hearing under sections 406 and 701(e) of the act (21 U.S.C. 346 and 371 (e)). In establishing these tolerances as "temporary" the Commissioner recognized that, in the future, unavoidable PCB contamination should decrease. The stated intention of the Commissioner has thus been to reduce the temporary tolerances as PCB contamination became less unavoidable.

At the National Conference on PCB's sponsored by the Environmental Protection Agency (EPA) on November 19 through 21, 1975, in Chicago, FDA announced that it had initiated a review of the appropriateness of the current temporary tolerances. (The proceedings from the National Conference have been published and a copy is on file in the office of the Hearing Clerk.) In a notice published in the FEDERAL REGISTER of February 26, 1976 (41 FR 8409), the Commissioner issued a statement of policy regarding PCB's in certain freshwater fish. The notice discussed the review of the temporary tolerances and stated that if, on the basis of this review, lowering of any of the temporary tolerances was warranted, the Commissioner would issue a proposal in the FEDERAL REGISTER to amend the existing PCB regulations.

### TOXICITY OF PCB'S

The temporary tolerances established in 1973 were arrived at after evaluation of the best available toxicological data. Data from long-term (2-year) animal studies established that a no-effect level in rats and dogs for PCB's with three levels of chlorination (42, 54, or 60 percent) is 10 ppm. These animal data were used as a basis for estimating a no-effect level in man. When data derived from dogs were used, a no-effect level of 2.5 micrograms per kilogram (g/kg) body weight per day was calculated. When rat data were used, the no-effect level in man was 3g/kg body weight per day. Thus, for a 70-kilogram individual (approximately 155 pounds), an allowable level of PCB ingestion would be 175 to 210 micrograms per day.

When establishing tolerances for environmental contaminants, such as

PCB's, it is preferable, though not always possible, to rely on human rather than animal data. In the case of PCB's, human data were available from the unfortunate "Yusho" poisoning incident in Japan in 1968 in which many individuals consumed rice oil contaminated with PCB's. The rice oil involved in the Yusho incident was contaminated with Kanechlor 400, a Japanese brand of PCB containing 48 percent (by weight) chlorine. The 48 percent (by weight) chlorine-containing PCB Aroclor 1248, an American product, is very similar to the Kanechlor 400. Consequently, the human data derived from the Yusho incident, though stemming from exposure to a Japanese PCB, were relevant and significant in establishing a temporary tolerance for residues resulting mostly from American-made PCB's.

The victims in the Yusho incident were calculated to have consumed an average of 15,000 milligrams per day (mg/day) of the rice oil contaminated with Kanechlor 400. At that time the rice oil was determined to be contaminated at levels of 2,000 to 3,000 ppm PCB's, the average level of PCB contamination in the oil being 2,500 ppm. The levels of PCB contamination of the oil were calculated by comparing the measured organic chlorine content of the rice oil with the known organic chlorine content of Kanechlor 400. Using the two average levels (consumption of rice oil and PCB level in the rice oil), the average daily intake of PCB's was estimated to be 37.5 mg/day. The average cumulative dose of PCB's that caused an overt effect in the Japanese victims was reported to be 2,000 milligrams. Based on the average daily intake of 37.5 mg/day, it would take 53 days of exposure for an individual to consume this amount. Actual periods of exposure no doubt varied around this figure. However, it was estimated that the maximum exposure at Yusho would have been 100 days.

Humans in the United States have not been exposed to PCB's at the concentrated levels that existed in the Yusho incident. General public exposure in the United States to PCB's has been sporadic. In developing temporary tolerances based on the data from the Yusho incident, a time period of 1,000 days of exposure to PCB's was used. As previously stated, this was not an analysis based on lifetime exposure. Rather, it was postulated that PCB levels in food would steadily decrease over the 1,000-day time period used in the calculation. The sporadic exposures in the United States were generally thought to result mainly from contaminated animal feed and, as measures were adopted to prevent future contamination, the PCB level in food was expected to be reduced. In calculating a total allowable exposure from the average overt dose in the Yusho incident, a safety factor of 1 to 10 was used and a total allowable exposure of 200 milligrams was calculated. Because of the sporadic nature of PCB exposure in the United States, the total exposure (200 milligrams) was spread out over the 1,000-day time period (over 10 times as long as Yusho exposure) providing a

tolerable daily exposure of no more than 200 micrograms per day. Transforming this figure to body weight per day for a 70-kilogram adult produced a figure of 3 µg/kg body weight per day.

As indicated previously, FDA established the temporary tolerances for PCB's in 1973 with the clear intent that they should be lowered as experience indicated the appropriateness of such changes. The Chairman of the HEW Committee to Coordinate Toxicology and Related Programs established a Subcommittee on the Health Effects of PCB's and Polybrominated Biphenyls (PBB's), whose purpose was to assess new data developed since 1973 on the toxicology, human exposure to PCB's and sources of residues of PCB's, and to formulate recommendations about future research needs. This subcommittee, composed of scientists from several governmental agencies concerned with PCB's, reviewed all the currently available scientific literature and has released its final report. A copy of the report is on file in the office of the Hearing Clerk.

This information, as well as information obtained since the subcommittee report was published, has been evaluated by FDA. Three problem areas with PCB's are of major concern to FDA, namely, new toxicity data on PCB's, studies that indicate PCB's are carcinogenic, and the presence of PCB's in the environment resulting in widespread occurrence of residues in freshwater fish.

It is known that the toxicity of chlorinated biphenyls depends upon the degree of chlorination and the isomeric form. The low chlorinated biphenyls tend to have a higher acute toxicity compared to the higher chlorinated biphenyls, whose different pattern of toxicity is associated in part with a longer biological half-life and less susceptibility to metabolic alteration or degradation by the liver and other organs (Reference 2). Studies have shown that PCB's containing six or fewer halogen atoms are readily absorbed from the intestine. They are not excreted to an appreciable extent before being metabolized to more polar compounds, and long-term storage in the skin and adipose tissue occurs. However, tissues from animals and man containing PCB's from environmental exposure have residues resembling PCB mixtures with more than 50 percent chlorination, suggesting that PCB's with five or fewer chlorine atoms (less than 50 percent chlorination) are more readily metabolized than the PCB's with higher chlorination (Reference 3).

Evaluation of the toxicity of specific PCB's is further complicated by the finding that commercial preparations of PCB's contain, as impurities, some quantity of chlorinated dibenzofurans (Reference 4). Certain isomers of the chlorinated dibenzofurans are appreciably more toxic than a similar amount of chlorinated biphenyls (Reference 5). More recent information from the Yusho episode has brought new factors into consideration with the finding that the rice oil contained approximately 1,000 ppm PCB, chlorinated dibenzofurans at

approximately 5 ppm, and unknown organic chlorinated substances, which so far are unidentified, at approximately 1,000 ppm (Reference 6). It is not known whether the chlorinated dibenzofuran contaminant or the unidentified source of organic chlorine is a crucial toxic substance producing the symptoms observed in the Yusho incident, whether exposure to the 1,000 ppm PCB produced the observed effects, or whether an interaction occurred.

Different animal species vary in their susceptibility to the toxic effects of PCB's. However, evaluation of this susceptibility is complicated by a general lack of information on the detailed composition of the PCB mixtures used in the studies and the relationship between the composition of a PCB mixture and the toxicity of that mixture. PCB's have been shown to cause effects on reproduction, hepatic porphyria (Reference 7) and other biochemical changes in the liver (Reference 8) and gastric mucosa (Reference 9) as well as liver tumors (Reference 10). In primates, the skin and the Meibomian glands are affected, in addition to the liver and gastric mucosa (Reference 11). In the rabbit, atrophy of the thymus has been reported (Reference 12). The levels causing these effects depend on the species and the compound tested. In rats, a dietary level of 20 ppm Aroclor 1254 depressed reproduction while a level of 500 ppm Aroclor 1260 was needed to reduce reproduction in the same strain of rats (Reference 13). Dietary levels of 5 ppm Aroclor 1254 have a marked effect on reproduction in the mink (Reference 14), and limited studies have shown that 2.5 ppm Aroclor 1248 affects reproduction in nonhuman primates (Reference 15).

Numerous biochemical systems are reported to be affected by PCB's. Hepatic porphyria has not been reported in the monkey, mink or human, but Aroclor 1254 or Aroclor 1242 and Aroclor 1016 have produced it in the rat (Reference 7). The female rat is more sensitive than the male and Aroclor 1016 is less active than either Aroclor 1254 or 1242 (Reference 7). Other biochemical changes reported in the liver include lipid accumulation, induction of microsomal enzymes, including the hydroxylase and demethylase enzymes as well as an increase in cytochrome PL-448 (Reference 16). Mitochondrial function is inhibited when rats are fed extremely high levels of PCB (1,000 ppm) but not at 100 ppm (Reference 17).

Histological and ultrastructural changes in the liver reflect the observed biochemical changes, and include hepatomegaly with a concomitant increase in smooth endoplasmic reticulum, atypical mitochondria and the formation of "fingerprints" in the hepatic cytoplasm. These changes are more pronounced at higher dose levels, and with Aroclor 1254 and 1260. The effects are less pronounced with Aroclor 1242 or 1016 (Reference 18).

Some of the new toxicity data relate to the carcinogenic effect of PCB's in mice and rats. In one strain of mice,





April 12, 1977

Dr. C. Lavett Smith  
American Museum of Natural History  
Central Park West at 79th Street  
New York, New York 10024

Dear Smitty:

I received the tax identification number April 9, 1977. I enclosed a copy of it for your (President's) file.

Also enclosed is the letterhead with AMNH address. I thought you might like to keep it for your AFS correspondence.


The first mailing (minutes, reports, etc.) should be ready within two weeks or so. I am waiting for Bruce Shupp to send me Godfrey's first name before having the copies made. I have checked into several printing shops concerning the Addresso-graph. Each plate will cost about 15 cents and processing charges vary on amount of services rendered. If we decide on this method for addressing envelopes, how many plates do we want to have made and for whom? We may be able to trade off "bulk rate" mail saving for the increased printing charges. Our present mailing list (both members and prospectives) consists of 260 names and addresses. Please tell me how much I am authorized to spend for the addresso-graph project.

Sincerely,

Joseph W. Gorsuch  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo  
Enc.





April 5, 1977

Mr. Bruce Shupp  
Pine Street  
Chestertown, NY 12817

Dear Bruce:

I have enclosed the mailing lists that are currently being used. Placing all the names on 3" x 5" cards is a good idea and it could be the start of a "real" Chapter Directory.

Bruce, I need the addresses of the following men appointed to committees:

Herb Eshblock - Membership Committee  
Jerry Latender - Resolution Committee  
Godfrey - Water Quality Committee  
Jack Long - New Initiative Committee

I would appreciate getting their addresses at your earliest convenience in order to confirm their appointments. Also, what is your telephone number? Thanks.

Sincerely,



Joseph W. Gorsuch  
Toxicology Section  
Health, Safety, and Human Factors Laboratory

JWG:bdo  
Enc.



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 6, 1977

Mr. C. Braxton Dew  
LMS Engineers  
415 Rt. 303  
Tappan, NY 10983

Dear Braxton:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to serve on the Membership Committee.

Working with you will be:

Bruce Shupp, Chairman  
Pine Street  
Chestertown, NY 12817

George Seeley, Jr.  
M.R. 3  
Rome, NY 13440

Ed Brothers  
Sec. Ecology and Systematics  
Langmuir Laboratory  
Cornell University  
Ithaca, NY 14853

Herb Eschbach  
DEC  
New Paltz, NY 12561

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 6, 1977

Mr. Larry Skinner  
Box 562  
Nassau, NY 12123

Dear Larry:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to Chair the Water Quality Committee.

Working with you will be:

Bill Eustance  
7 Oakcrest Drive  
Goshen, NY 10924

Joe Spodaryk  
49 Winstead Road  
Rochester, NY 14609

Dr. John C. Godfrey  
Bristol Labs.  
Div. of Bristol Co., Box 657  
Syracuse, NY 13201

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 6, 1977

Mr. George Seeley, Jr.  
M.R. 3  
Rome, NY 13440

Dear George:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to serve on the Membership Committee.

Working with you will be:

Bruce Shupp, Chairman  
Pine Street  
Chestertown, NY 12817

C. Braxton Dew  
LMS Engineers  
415 Rt. 303  
Tappan, NY 10983

Ed Brothers  
Sec. Ecology and Systematics  
Langmuir Laboratory  
Cornell University  
Ithaca, NY 14853

Herb Eschbach  
DEC  
New Paltz, NY 12561

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYS-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 6, 1977

Mr. David Green  
Box 1865  
Richfield Springs, NY 13439

Dear David:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to Chair the Nominating Committee.

Working with you will be:

Carl George  
Dept. of Biological Sciences  
Union College  
Schenectady, NY 12308

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 6, 1977

Mr. Carl George  
Dept. of Biological Sciences  
Union College  
Schenectady, NY 12308

Dear Carl:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to serve on the Nominating Committee.

Working with you will be:

David Green, Chairman  
Box 1865  
Richfield Springs, NY 13439

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 6, 1977

Mr. William Youngs  
Riley Road  
Moravia, NY 13118

Dear Bill:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to serve on the Resolutions Committee.

Working with you will be:

Neil Ringler, Chairman  
Dept. Forest Biology  
College of Environ. Sci. and Forestry  
Syracuse, NY 13210

Jerry LeTendre  
Box 204  
Cape Vincent, NY 13618

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 6, 1977

Mr. Jerry LeTendre  
Box 204  
Cape Vincent, NY 13618

Dear Jerry:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to serve on the Resolutions Committee.

Serving with you will be:

Dr. Neil Ringler  
Dept. Forest Zoology  
College of Environ. Sci.  
and Forestry  
Syracuse, NY 13210

Bill Youngs  
Riley Road  
Moravia, NY 13118

We hope that you will be willing and able to accept this task but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo





NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 19, 1977

Mr. Herbert Eschbach  
DEC  
New Paltz, NY 12561

Dear Herb:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to serve on the Membership Committee.

Working with you will be:

Bruce Shupp, Chairman  
Pine Street  
Chestertown, NY 12817

George Seeley  
NYS Fish Hatchery  
Rome, NY 13440

Braxton Dew  
IMS-Engineers  
415 Rt. 303  
Tappan, NY 10983

Ed Brothers  
Section of Ecology and Systematics  
Langmuir Laboratory, Cornell Univ.  
Ithaca, NY 14853

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 19, 1977

Dr. John C. Godfrey  
Bristol Labs.  
Division of Bristol Co.  
Box 657  
Syracuse, NY 13201

Dear Dr. Godfrey:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to serve on the Water Quality Committee.

Working with you will be:

Larry Skinner, Chairman  
Box 562  
Nassau, NY 12123

Bill Eustance  
7 Oakcrest Drive  
Goshen, NY 10924

Joe Spodaryk  
49 Winstead Road  
Rochester, NY 14609

Bill Pearce recommended you for this appointment and should have contacted you about it by now. We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 19, 1977

Mr. Michael W. Duttweiler  
17F Bird Lane  
Oswego, NY 13126

Dear Mike:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to serve on the New Initiative Committee.

Working with you will be:

Bill Pearce, Chairman  
615 Broadway  
Box 316  
Cape Vincent, NY 13618

Walt Kretser  
RayBrook  
New York 12977

John J. Long  
918 Niagara Avenue  
Niagara Falls, NY 14305

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 19, 1977

Mr. John J. Long  
918 Niagara Avenue  
Niagara Falls, NY 14305

Dear John:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed by Bill Pearce to serve on the New Initiatives Committee.

Working with you will be:

Bill Pearce, Chairman  
615 Broadway  
Box 316  
Cape Vincent, NY 13618

Mike Duttweiler  
17F Bird Lane  
Oswego, NY 13126

Walt Kretser  
RayBrook, NY 12977

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 6, 1977

Mr. Walt Kretser  
Raybrook  
New York 12977

Dear Walt:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to serve on the New Initiative Committee.

Working with you will be:

Bill Pearce, Chairman  
615 Broadway  
Box 316  
Cape Vincent, NY 13618

Mike Duttweiler  
17F Bird Lane  
Oswego, NY 13126

John J. Long  
918 Niagara Ave.  
Niagara Falls, NY 14305

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 6, 1977

Dr. William Eustance  
7 Oakcrest Drive  
Goshen, NY 10924

Dear Bill:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to serve on the Water Quality Committee.

Working with you will be:

Larry Skinner, Chariman  
Box 562  
Nassau, NY 12123

Joe Spodaryk  
41 Winstead Road  
Rochester, NY 14609

Dr. John C. Godfrey  
Bristol Labs.  
Div. of Bristol Co., Box 657  
Syracuse, NY 13201

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 6, 1977

Mr. Joseph Spodaryk  
49 Winstead Road  
Rochester, NY 14609

Dear Joe:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to serve on the Water Quality Committee.

Working with you will be:

Larry Skinner, Chairman  
Box 562  
Nassau, NY 12123

Bill Eustance  
7 Oakcrest Drive  
Goshen, NY 10924

Dr. John C. Godfrey  
Bristol Labs.  
Div. of Bristol Co., Box 657  
Syracuse, NY 13201

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 6, 1977

Dr. Neil Ringler  
Dept. Forest Zoology  
College of Environ. Sci. and Forestry  
Syracuse, NY 13210

Dear Neil:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to Chair the Resolutions Committee.

Working with you will be:

Bill Youngs  
Riley Road  
Moravia, NY 13118

Jerry LeFendre  
Box 204  
Cape Vincent, NY 13618

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo





NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 6, 1977

Mr. Douglas Shepherd  
Bureau Fisheries  
50 Wolf Road  
Albany, NY 12201

Dear Doug:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to serve on the Professional Standards Committee (the Brochure Committee has been incorporated into this committee).

Working with you will be:

Wayne Hadley, Chairman  
Biology Dept.  
SUNY  
Buffalo, NY 14214

Russell Fieldhouse  
4 Lake Street  
Stamford, NY 12167

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 6, 1977

Mr. Kenneth Wich  
22 Washington Avenue  
Coxsackie, NY 12051

Dear Ken:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to serve on the Program Committee.

Working with you will be:

John Judd, Chairman  
N.Y.S. Sea Grant  
99 Washington Avenue  
Albany, NY 12246

John Nickum  
2 Top Forty Road  
Freeville, NY 13068

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 6, 1977

Dr. John Nickum  
2 Top Forty Road  
Freeville, NY 13068

Dear John:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to serve on the Program Committee.

Working with you will be:

John Judd, Chairman  
N.Y.S. Sea Grant  
99 Washington Avenue  
Albany, NY 12246

Ken Wich  
22 Washington Avenue  
Coxsackie, NY 12051

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

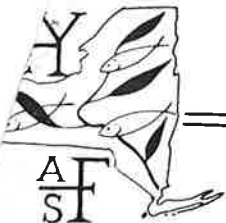
Also, John, I need the abstracts of those papers given at our February meeting. They will be published in our first Chapter Newsletter, hopefully by May.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 5, 1977

Mr. John Judd  
N.Y.S. Sea Grant  
99 Washington Avenue  
Albany, NY 12246

Dear John:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to Chair the Program Committee.

Working with you will be:

John Nickum  
2 Top Forty Road  
Freeville, NY 13068

Kenneth Wich  
22 Washington Avenue  
Coxsackie, NY 12051

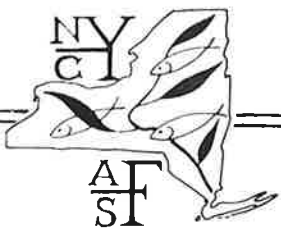
We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

April 5, 1977

Dr. Wayne Hadley  
Biology Dept.  
SUNY  
Buffalo, NY 14214

Dear Wayne:

At the March meeting of the Executive Committee of the New York Chapter of the American Fisheries Society, you were appointed to Chair the Professional Standards Committee (including the Brochure Committee which we hope to use in coordinating young people - trainees - and employers).

Working with you will be:

Doug Shepherd  
Bureau of Fisheries  
50 Wolf Road  
Albany, NY 12201

Russ Fieldhouse  
4 Lake Street  
Stamford, NY 12167

We hope that you will be willing and able to accept this task, but if there is any problem, please let C. Lavett Smith know as soon as possible.

Sincerely,

*Joseph W. Gorsuch*

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory

JWG:bdo

XXXXXXXXXXXX

Peter A. A. Berle

April 28, 1977

Dr. C. Lavett Smith  
American Museum of Natural History  
Central Park West at 79th Street  
New York, NY 10024

Dear Dr. Smith:

I gratefully accept the chairmanship of Water Quality Committee for the New York Chapter of the American Fisheries Society.

I hope that the committee members and I will provide informative reports which will keep the society abreast of current contaminant situations and other factors affecting the water quality of the state. Further, we may strive to affect changes in regulations affecting water quality where appropriate for the protection of fisheries.

Sincerely,

Lawrence C. Skinner  
Associate Aquatic Biologist

LCS:dmc  
cc: Joseph W. Gorsuch



**New York State College of Agriculture and Life Sciences**  
a Statutory College of the State University  
**Cornell University**

Department of Natural Resources  
Fernow Hall, Ithaca, N. Y. 14853

Fishery Science  
Forest Science  
Wildlife Science  
Natural Resources  
Outdoor Recreation  
Environmental Conservation

Mailing address:  
R. D. #3, Box 27  
East Lake Road  
Richfield Springs  
New York 13439  
April 21, 1977

Mr. Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety and Human Factors Laboratory  
Eastman Kodak Company  
Rochester, New York 14650

Dear Joe:

I will be glad to serve as chairman of the  
Nominating Committee of the New York Chapter  
of the American Fisheries Society.

Sincerely,

David M. Green

CC: C. Lavett Smith  
Carl George

**BRISTOL**

**LABORATORIES**

Division of Bristol-Myers Company

April 25, 1977

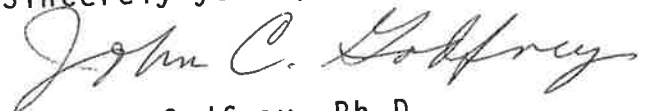
Joseph W. Gorsuch  
Eastman Kodak Company  
Rochester, N. Y. 14650

Dear Dr. Gorsuch:

I did call Dr. C. Lavett Smith to find out just what would be involved in serving on the Water Quality Committee of NYC-AFS. I didn't want to automatically say yes to another commitment without some idea of what I would be getting into. It does sound like a useful function and one which I can fit in, considering that there is but one meeting a year.

Therefore, I am pleased to accept appointment to the Water Quality Committee.

Sincerely yours,



John C. Godfrey, Ph.D.  
Asst. Director of Med. Research  
Bristol Laboratories  
and  
Scientific Coordinator, GLSSA

JCG/hw



CORNELL UNIVERSITY  
DIVISION OF BIOLOGICAL SCIENCES  
ITHACA, N. Y. 14853 U.S.A.

Reply to:  
SECTION OF ECOLOGY & SYSTEMATICS  
BLDG. #6 LANGMUIR LAB


April 25, 1977

Mr. Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Eastman Kodak  
Toxicology Section, B-306  
Health, Safety, and Human Factors  
Laboratory  
Rochester, New York

Dear Mr. Gorsuch:

Thank you for notifying me of my appointment to the Membership  
Committee of the New York Chapter of the American Fisheries Society.  
I will be glad to serve.

Sincerely,



Edward B. Brothers  
Assistant Professor  
Ichthyology

EBB/ajw



DIVISION OF BIOLOGY  
(Environmental and Organismal)

FACULTY OF NATURAL SCIENCES AND MATHEMATICS

April 7, 1977

Joseph W. Gorsuch  
Secretary-Treasurer, NYC-AFS  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory  
Eastman Kodak Company  
Rochester, New York 14650

Dear Joe:

I'll be pleased to assist the chapter in any capacity. If there are activities that the executive committee feels are important, it would be well to have someone contact me with the appropriate information.

Sincerely,

A handwritten signature in cursive script that reads "Wayne F. Hadley".

Wayne F. Hadley  
Assistant Professor

WFH/ds

cc: D. Shepherd  
R. Fieldhouse  
C. Smith

Joe  
Goruch

Box 224

Cape Vincent, N.Y. 13618

May 30, 1977

Dr. C. Loretta Smith  
American Museum of Natural History  
Central Park West at 79th Street  
New York, N.Y. 10024

Dear Dr. Smith:

Thank you for selecting me as a member of  
the Resolutions Committee of the NYC-AFS. I am  
turning down the offer due to the fact that I am  
not a member of the New York Chapter.

Sincerely,

Gerard C. LeTendre

Gerard C. LeTendre

DEPARTMENT OF ICHTHYOLOGY  
AMERICAN MUSEUM OF NATURAL HISTORY  
NEW YORK, N.Y. 10024, U.S.A.

NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY



April 14, 1977

Mr. Joseph W. Gorsuch  
Toxicology Section, B-306  
Health, Safety, and Human Factors Laboratory  
Eastman Kodak Company  
Kodak Park Division  
Rochester, N. Y. 14650

Dear Joe:

Thanks for your April 12 letter. If you and Bill go ahead with the newsletter the chances are that we will, for the first year at least, send to the 260 on your list plus some others that we will pick up, so I think the addressograph plates will be a good investment. Since we are doing this for the newsletter primarily we can ascribe the charges to it and the newsletter was approved as a use for the \$2000 ± we made on the film. Therefore, in a sense we are already authorized to spend the money. If we can bulk mail for 2 cents vs. 13 for first class we'll pay for the plates and then some on the first two mailings so I think you should go ahead and apply for a bulk rate deal. I understand, though, that there is an annual fee for bulk mailing - around \$40 - then we pay 2 cents for ordinary weight letters. I think it will pay this year.

Your figure of 15 cents per plate sounds low. Is it possible that that's the plate material and then it costs more to get it embossed? Our nature center pays 50 cents for each prepared plate. Even at that we would be under \$200 to get our mailing operation streamlined and I think we should do it. Disregarding the typist time and the addressograph service charge it appears that we'll be ahead in 6 mailings and, besides, no institution should bear the secretarial costs of hand-typing that many items.

Go to it.

Sincerely,

*C. Lavett Smith*  
C. Lavett Smith  
President

CLS:vp

NEW YORK STATE CHAPTER  
AMERICAN FISHERIES SOCIETY  
PROFESSIONAL STANDARDS COMMITTEE  
ANNUAL REPORT - 1977

Chapter President C. L. Smith charged the committee with investigating two issues. These were: 1) whether the chapter should become involved in a survey effort to determine the expectations of employers with regard to the skills of fisheries graduates; 2) if a certification program, more rigorous in its requirements than that of the parent society, might be designed and implemented by the chapter.

It is the recommendation of the committee that both questions should be held in abeyance at the moment. Our suggestion is based on the status of the parent society involvement in these areas. Since it appears that some significant activities are underway, it seems more efficient to wait until the parent society either comes to some conclusion or it becomes evident that no conclusion satisfactory to the chapter will be forthcoming. We suggest that a general discussion of these questions at the business meeting is in order.

In formulating our recommendation the committee attempted to ascertain the present activities of relevant AFS Sections and Committees. Telephone conversations were held with officers from the Fisheries Administrators Section, Professional Educational Standards Committee and the Board of Professional Certification. In addition former members of the Board of Professional Certification were contacted. We felt that the activities of these groups were inextricably related to our responsibilities.

The Fisheries Administrators Section appears to be relatively inactive in matters pertinent to employer expectations or certification relevancies. We hope that both issues will be addressed by this Section in the immediate future and urge New York Chapter members to use any means available to them to press this section for action on these questions.

The Board of Professional Certification is functioning but does not seem to be encouraging the submission of applications as diligently as one might wish. The committee attempted to assess the status of certification by utilizing information from the AFS membership directory for 1977. Approximately 6000 members are listed in the directory. Of these 364 or 6% are from New York. About 15% of the parent society members are certified in comparison to 12% of the New York parent society members. New York residents make up only 6% of the total certified fishery scientists.

We include the following peripheral information as a matter of interest:

1. 1977 AFS officers - 100% certified
2. 1977 AFS Executive Committee - 65% certified
3. 1977 Division Officers - 63% certified
4. 1977 Section Officers - 40% certified
5. 1977 Committee Chairman - 70% certified
6. 1960 - 1977 past presidents - 59% certified

It is the consensus of the committee that certification is a useful,

if imperfect process. We recommend applying for certification to all

New York Chapter members who may qualify since it is our belief that

not only the requirements but the value of certification will increase substantially in the future.

The Professional Educational Standards Committee has submitted its report and no longer exists as such. It did however, submit a set of by-laws for review by the AFS Executive Committee and expects to be recognized as the Fisheries Educators Section later in 1978.

Apparently, its initial activities will be centered on program accreditation. A mini-symposium titled Fisheries Education in the 1980's is scheduled for the AFS 1978 meeting. This section is currently soliciting members and we feel every member employed by a college or university should be involved.

It is apparent that the AFS groups discussed above have a great deal of influence on the charge to our committee. We hope that the parent society will move to answer on an international scale the questions raised by our president. If, in the opinion of our chapter members, satisfactory progress is not forthcoming from the parent society within a year, we recommend an independent effort to fulfill the charge. We urge New York Chapter members to encourage the parent society to carefully coordinate these groups' activities. We suggest that our chapter president contact the parent society

president and voice our concern for integrated action by the Fisheries Administrators Section, the Fisheries Educators Section and the Board of Professional Certification. This could be achieved by requiring that the Section Presidents and Committee Chairperson be an ex officio member of the other two groups. In addition, a panel should be formed for a thorough consideration of areas of mutual interest at the 1979 AFS meetings.

# SOME NOTES ON THE HISTORY OF THE NEW YORK CHAPTER

## AMERICAN FISHERY SOCIETY

(Formerly Professional Fisheries Association of New York)

Prepared by: William A. Flick

Cornell University

The following material has been dug out of various old boxes, torn folders, the backs of envelopes, and parts from foggy memory (or perhaps imagination). New material may eventually appear as members retire and clean out their desks. Until then I hope this chronology\* will be an aid in plotting a course for further growth and achievements of the Chapter. We have done well but with the present large, diversified, and young membership we can and should do even better.

March - Fishery COOP Workshop at Cornell - Subject "Age and Growth of Fish." On March 10, 1965 at this meeting John Gould suggested creation of the N.Y. Association of Fishery Biologists.

October - Rome, N.Y. meeting of N.Y. Conservation Department Bureau of Fish - Organizational meeting of Professional Fisheries Association of New York - (Initially N.Y. Association of Fishery Biologists.)

Some of the original people involved are listed below. Additional names should be added as they are uncovered.

John Gould - Chairman (NYCD)

Erwin Alperin (NYCD)	Robert Griffith (NYCD)	Martin Pfeiffer (NYCD)
William Bentley (NYCD)	Robert Harding (NYCD)	Henry Regier (Cornell)
Robert Brewer (NYCD)	Bill Kelly (NYCD)	U. B. Stone (NYCD)
Howard Dean (NYCD)	Jim Lindsey (NYCD)	Earl Styles (NYCD)
Elj Dietsch (NYCD)	Howard Loeb (NYCD)	Dwight Webster (Cornell)
Neil Ehlinger (NYCD)	Paul Neth (NYCD)	Ken Wich (NYCD)
Al Eipper (Cornell)	William Pearce (NYCD)	Robert Zilliox (NYCD)
Bill Flick (Cornell)		

1966

March - First meeting of the "Professional Fisheries Association of N.Y. (PFANY) - Met in conjunction with the Fishery COOP Workshop at Cornell - Subject "Statistics". President - John Gould - Membership - 68.

At the meeting the members present agreed nearly unanimously that the advantages inherent in our fisheries group - i.e., the unique opportunities for really productive, searching discussion of fisheries research and management topics of mutual interest by all fisheries workers of the State - would be greatly reduced by changing over to a "joint meeting" arrangement with Wildlife Chapter. (Taken from the records of 1966.)

Attendance N.Y. Cons. Dept. Cornell

\* Note: The author will not be held responsible for the accuracy of the material herein.



1972

January - joint meeting with Wildlife Chapter - "How Does Fish and Wildlife Fit into the New N.Y. Dept. of Environmental Conservation." President - Howard Loeb. Membership - 91.

First Chapter News Letter - Ned Holmes Editor. Last year of N.Y. Fish News (Dept. publication). Work still progressing on film "The Aquatic Ecologist".

1973

February - Seventh annual joint meeting with the Wildlife Chapter - Theme - "Fish and Wildlife Values, Conflict or Concord". President - Martin Pfeiffer. Membership - 97.

For the first time  $\frac{2}{3}$  day was devoted to separate sessions. Fisheries subject was "Fish Management Today - Where Do We Go from Here". Film "The Aquatic Ecologist" nearing completion.

1974

January - Eighth annual joint meeting with the Wildlife Chapter - Theme - "Fish & Wildlife in Regional Planning: The Adirondacks and Beyond". President - Bill Pearce. Membership - 74.

Separate Fisheries Session Saturday morning "Role of Forage Fish in Salmonid Management". This was an excellent session with speakers such as N. V. Martin from Ontario. A real bright spot compared to most joint sessions.

Film - "The Aquatic Ecologist" was finally completed. Dave Haselman and Bernie Holman who produced the film did an excellent job and covered over 10,000 miles gathering material. The College of Forestry at Syracuse contributed the services of Dave and Bernie and the N.Y. Chapter begged, borrowed and pleaded (plus sold some film) to come up with the \$11,500 needed by the end of 1974. Steve Simkins was Committee Chairman through to the end with Dwight Webster and Bill Flick committee members attending all meetings for 6 years. Bob Werner was the super salesman that handled film distribution following completion and collected sale money to get us out of debt.

1975

February - Ninth (and last) joint meeting with the Wildlife Chapter. Also involved in this meeting were The Soil Conservation Service, and the N.Y. Upstate Chapter of the American Institute of Planners. Theme - "Environmental Aspects in Land Use - Preservation vs. Development". President - Bill Pearce. Membership - 84.

There was very little interest in this meeting (no separate session for Fisheries) and total attendance was 24 with 28 needed for a quorum. Officers from the previous year were asked to continue serving. Film - "The Aquatic Ecologist" received an award for reaching the finals in the American Film Festival. It was also accepted for entry in the "Cine Film Festival". It was selected by the United States Information Agency for use in their Science Reports. A short made from the film was made into 22 languages and sent to 84 countries.

1977 Annual Meeting Minutes  
New York Chapter  
American Fisheries Society  
February 4, 1977

The meeting, held at Bergamo East, Marcy, New York, was called to order at 1:20 p.m. by President Werner.

The minutes of the 1976 meeting, previously circulated and summarized by Secretary-Treasurer Smith, were approved.

President's Report: President Werner expressed satisfaction that the Chapter has continued to broaden its membership coverage and that we now have a substantial representation of members from the academic community and industrial concerns as well as members of the New York State Department of Environmental Conservation. He expressed satisfaction at the number of students present and thanked the various committee chairpersons for their part in helping the Chapter to grow.

Executive Committee's Report: Bob Werner reported that the Executive Committee met twice during the year. Cliff Greach had resigned during the year owing to the press of other duties, and his job as Membership Chairman was taken over by Neil Ringler.

Secretary-Treasurer's Report: As of January 31, 1977, there was a balance of \$86.94 in the checking account, \$2,608.13 in the savings account, and \$37.03 in the film account for a total of \$2,732.10.

During 1976 there were four mailings to the membership and additional fisheries personnel throughout the state. Ninety-eight members paid dues for 1976. Meeting notices were sent to a total of 204 people.

Program Committee: The outstanding program for this meeting was accepted in lieu of a formal report.

Auditors' Report: The Auditor's report was deferred to allow time for the audit. Ned Holmes replaced Lee Cooper who resigned during the year. [The audit was completed February 4 and a report submitted.]

Membership Committee's Report: Neil Ringler reported that with the help of Joe Gorsuch the list of members and potential members is growing. He asks that you keep your officers informed as to your address and those of other persons who might profit from membership in our Chapter.

Water Quality Committee: The appended report was submitted  
by Larry Skinner, Chairman.

The annual business meeting adjourned at 3:50 p.m.

G. L. Smith  
Secretary-Treasurer

New York Chapter  
American Fisheries Society

Secretary's Report  
February 4, 1977

The Chapter now has 98 paid-up members for 1976 exclusive of those who have paid at this meeting.

There have been four mailings to the membership in 1976-1977.

1. Spring, 1976, from Secretary-Treasurer to all 1975 paid-up members plus all members who attended the 1976 annual meeting. Copies of the 1976 meeting minutes were enclosed plus a dues reminder.

2. November 15, 1976. Announcement of meeting and call for papers to members and potential members.

3. December 8, 1976. Letter from President Werner and Executive Committee minutes to membership.

4. January 20, 1977, from Program-Executive Committee with Bergamo/East information and final agenda to members and potential members.

Various correspondence between Executive Committee and other committee members.

Respectfully submitted,

C. Lavett Smith  
Secretary-Treasurer

February 25, 1977

Honorable Hugh L. Carey  
Governor of the State of New York  
Capitol  
Albany, New York 12224

Sir:

The numerous problems related to the contamination of fish by various toxic substances are of great concern to the citizens throughout the State. It is of special concern to those who consume the fish and to those who must rely on a continuing fishery for their livelihood. Recognizing this question at issue, the New York Chapter of the American Fisheries Society, at its Annual Meeting February 4-5, 1977 at Marcy, New York, passed the enclosed resolution for your consideration and hoped for action.

Sincerely,

G. Lavett Smith  
President

Enc. 1

cc: The Hon. Warren M. Anderson, Majority Leader, Senate  
The Hon. Manfred Ohrenstein, Minority Leader, Senate  
The Hon. Stanley Steingut, Speaker, Assembly  
The Hon. Perry B. Duryea, Jr., Minority Leader, Assembly  
The Hon. Peter Berle, Commissioner, Environmental Conservation Department

WHEREAS, the contaminant problem in fish from many New York State waters has caused serious loss of public use and loss of associated recreational and economic benefits of the fisheries resources, particularly in the Great Lakes and Hudson River, and,

WHEREAS, providing the fullest safe public use of State fisheries is a responsibility of State and Federal agencies, and,

WHEREAS, it has been demonstrated in the Great Lakes and other New York waters that New York has the professional expertise to fully develop productive sport and commercial fisheries, and,

WHEREAS, the public should be afforded the maximum safe use of their fisheries resources, and,

WHEREAS, safe human consumption of fish from the Great Lakes, the Hudson River and other waters can only be accurately determined through intensive medical research on the human populations consuming such fishes,

THEREFORE, BE IT RESOLVED THAT THE NEW YORK CHAPTER OF THE AMERICAN FISHERIES SOCIETY

urges the Governor to direct responsible State agencies and request Federal agencies to undertake necessary medical research required to determine actual effects on human populations of the consumption of fish from the Great Lakes and the Hudson River containing present levels of contamination by 1980,

And further, that present contaminant surveillance and monitoring activities to determine point and non-point sources of contamination be expanded so as to identify all such sources by 1978,

And that all known contaminant discharge to New York State waters be controlled and enforced by 1978 in order to restore the fullest possible public use of their resources as quickly as possible and allow full development of Great Lakes salmonid and other State fisheries now being curtailed due to contamination problems,

And that necessary State funding be included in the 1977-78 State budget to carry out necessary medical research and contaminant surveillance/control programs,

And, that the Governor pursue all possibility of Federal or other funding to support the required medical research and contaminant control proposals required for New York waters.

DEPARTMENT OF ICHTHYOLOGY

Central Park West at 79th Street New York, New York 10024 (212) 873-1300



The American Museum of Natural History

October 25, 1977

Mr. Bruce Shupp  
New York State Department of Environmental Conservation  
50 Wolf Road  
Albany, New York 12233

Dear Bruce:

This will confirm our telephone conversation regarding the meeting of the Executive Committee of the New York Chapter of the American Fisheries Society.

The meeting is definitely set for Friday, November 4, at 1:30 p.m. in the Department of Forest Zoology, College of Environmental Science and Forestry.

See you then.

Sincerely,

C. Lavett Smith

President

New York Chapter-

American Fisheries Society

DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
RECEIVED  
OCT 27 1977  
INLAND FISHERIES SECTION

1977 N.Y.S. AFS CHAPTER MEMBERS  
THAT ARE PARENT SOCIETY MEMBERS

LAST NAME	FIRST NAME	ADDRESS	CITY FOREIGN COUNTRY	STATE	ZIP
Blake	Leigh M.	Box 122	Felts Mills	NY	13638
Boyle	Robert H.	Finney Farm	Croton-On-Hudson	NY	10520
Brewer	Robert C.	Friends Lake	Chestertown	NY	12817
Buffington	Burrell	317 Washington St., 5th Floor	Watertown	NY	13601
Cahn	Phyllis H.	L. I. University	Greenvale	NY	11548
Cary	George A.	Lincoln St.	Putnam Valley	NY	10579
Caryl	Rostylaw	455 Franklin, Apt. 7	Buffalo	NY	14202
Colquhoun	James R.	33 Pillmore Dr.	Rome	NY	13440
Cooper	Alexander L.	1011 Garson Ave.	Rochester	NY	14609
Coutu	Daniel J.	322 Ten Eyck St.	Watertown	NY	13601
Creech	Clifford E.	NYS DEC, Box 1169	Cortland	NY	13045
Culp	Terry R.	Ichthyol. Assoc., 111 Main St.	Stamford	NY	12167
Dean	Howard J.	State Fish Hatchery	Rome	NY	13440
Desko	Gerald J.	220 Bassett St.	Syracuse	NY	13210
Dunning	Dennis J.	41 Vernon Pl.	Buffalo	NY	14214
Duttweiler	Michael W.	17F Birch Ln., Wine Creek Apt.	Oswego	NY	13126
Eaton	Stephen W.	St. Bonaventure Univ., Biol.	St. Bonaventure	NY	14778
Elliot	Wayne P.	76 Main St.	Stamford	NY	12167



Engel	Ronald A.	St. Univ. College, Dept. Zool.	Oswego	NY	13126
Eutance	William E.	7 Oakcrest Dr.	Goshen	NY	10914
Fairchild	Robert P.	319 Hurlburt Rd.	Syracuse	NY	13224
Flick	William A.	Brandon Pk. Fishery Lab.	Paul Smith's	NY	12970
Forney	John L.	Cornell Biol. Fld. Sta., RD 1	Bridgeport	NY	13030
Gann	Michael C.	Box 153 Mountain Rd.	Rosendale	NY	12472
George	Carl J.	Union Coll., Biol. Sci.	Schenectady	NY	12308
Gorsuch	Joseph W.	132 Wyndham Rd.	Rochester	NY	14612
Green	David M.	Cornell, DNR, RD 3, E. Lake Rd.	Richfield Springs	NY	13439
Greene	Robert A.	179 N. Putt Corners Rd.	New Paltz	NY	12561
Griffin	Bradley L.	838 Buck Rd., RD 1	Groton	NY	13073
Griffiths	Robert H.	RFD 2	Voorheesville	NY	12186
Grosvenor	Richard B.	Enviro., 21 West St., 11th Fl.	New York	NY	10006
Hadley	Wayne F.	SUNY, Dept. Biology	Buffalo	NY	14214
Haje	Roy L.	60 N. Morris Ave.	Farmingville	NY	11738
Hasse	John J.	207 Genesee St.	Utica	NY	13501
Heacox	Cecil E.	Nat. Resource Consultant	Wassaic	NY	12592
Holmes	Edward D.	Dept. Environ. Cons., Box 57	Avon	NY	14414
Holsapple	John G.	P.O. Box 146	New Baltimore	NY	12124
Hutchinson	Brendan	Cornell Univ., Fernow Hall	Ithaca	NY	14850
Jensen	Albert C.	SUNY, Bldg. 40	Stony Brook	NY	11790
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Lawrence	W. Mason	40 Albin Rd.	Delmar	NY	12054
Leff	Eugene	80 Wichard Blvd.	Commack	NY	11725
Loeb	Howard A.	Dept. Environ. Cons.	Albany	NY	12233
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Martin	Robert L.	Ichthyol. Assoc., P.O. Box 2	Stamford	NY	12167
McFarland	William	Cornell Univ., Langmuir Lab.	Ithaca	NY	14850
McNaught	Donald C.	SUNY, Dept. Biology, 1400 Wash.	Albany	NY	12222
Melville, Jr.	James F.	Mercy College, 555 S. Broadway	Dobbs Ferry	NY	10522
Mikol	Gerald F.	43 Ivy Way	Lancaster	NY	14086
Miller	Richard L.	57 Brookside Ave.	Mt. Kisco	NY	10549
Mooradian	Stephen R.	128 South St.	Olean	NY	14760
Neuderfer	Gary N.	45 Norman Rd.	Rochester	NY	14623
Newell	Arthur J.	P.O. Box 2, Ich. Assoc.	Stamford	NY	12167
Nickum	John G.	Cornell Univ., Fernow Hall	Ithaca	NY	14850
Nielsen	Larry A.	35B Hasbrouck Apts.	Ithaca	NY	14850
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Otis	Maurice B.	P.O. Box 243	Saranac Lake	NY	12983
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Petty	A. C.	5 Miller Dr.	Homer	NY	13077
Pfeiffer	Martin H.	Conserv. Dept.	Ray Brook	NY	12977
Pickett, Sr.	Joseph F.	R.D. 3, Burden Lake Rd.	Averill Park	NY	12018
Plosila	Daniel S.	P.O. Box 27	Saranac Lake	NY	12983
Quinn	Scott	R.D. 3, Gregg Rd.	Schenectady	NY	12306
Reeves	Gordon H.	Lake Ontario Environmental Lab.	Oswego	NY	13126
Rehwoldt	Robert	Marist College	Poughkeepsie	NY	12601
Ringler	Neil H.	18 Getman Dr.	Baldwinsville	NY	10327
Schachte, Jr.	John H.	RFL, 8314 Fish Hatchery Rd.	Rome	NY	13440
Schiavone, Jr.	Albert	270 Paddock St.	Watertown	NY	13601
Schneider	Clifford P.	Box 165	Cape Vincent	NY	13618
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Stemp	Arthur	Star Rt.	Paul Smiths	NY	12970

Storr	John F.	St. Univ., Biology Dept.	Buffalo	NY	14214
Strait	Lawrence E.	NYS ENCON	Ray Brook	NY	12977
Swarts	William P.	SUA&TC, Dept. Med. Sci.	Alfred	NY	14802
Tarby	Martin J.	Cornell Univ. Fernow Hall	Ithaca	NY	14850
Trojnar	John R.	Cornell Univ. Fernow Hall	Ithaca	NY	14850
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Vaas	Carl R.	1218 Harris Rd.	Fabius	NY	13063
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Webster	Dwight A.	DNR, College AG & LS	Ithaca	NY	14851
Wedge	Leslie R.	W. Glen Haven Rd., RD 1	Homer	NY	13077
Werner	Robert H.	SUNY, College of Forestry	Syracuse	NY	13210
White	William B.	2 Dorsey Terr.	Saranac Lake	NY	12983
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Williams	George C.	SUNY, Marine Science Center	Stony Brook	NY	11790
Wilson	Douglas R.	61 E. Church St.	Adams	NY	13605
Youngs	William D.	Riley Rd.	Moravia	NY	13118
Zuckerman	Laurence D.	57-21 226 St.	Bayside	NY	11364

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Baiardi	John C.	NY Ocean Sci. Lab., DR EE	Montauk	NY	11954
Bainbridge	Kent L.	1800 Center Rd.	W. Seneca	NY	14224
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Beck	Andrew P.	RD 1, Box 110	Tuxedo Park	NY	10987
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D'Amico	Richard	10 Redfield St.	Rye	NY	10580
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Desai	Anand H.	NY Ocean Science Lab.	Montauk, L.I.	NY	11954
Dey	William P.	29 Bayview	Beacon	NY	12508
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Dovel	William L.	1109 N. Broadway	Yonkers	NY	10701
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Fraum	Michael	3000-2 Stevens St.	Oceanside	NY	11572
Fuiman	Lee	Cornell Univ., Fernow Hall	Ithaca	NY	14850
Funicelli	Nicholas A.	2137 80th St.	Jackson Hts.	NY	11370
Garbacz	Edward S.	NYU, 952 Brown Bldg., Wash. Sq.	New York	NY	10003
Gengerke	Thomas W.	275 Ringwood Rd.	Freeville	NY	13068
Gift	James J.	14 W. Spring Hollow Rd.	Centerport	NY	11721
Gilmore	Daniel C.	112 Deerhurst Ln. #4	Webster	NY	14580
Ginn	Thomas C.	NYU, Medical Center, Long Meadow Rd.	Tuxedo	NY	10987
Girton	Danny L.	18 Parkview Dr.	Avon	NY	14414
Goehle	Kenneth H.	Ecol. Resource Fund, 9850 Main	Clarence	NY	14031
Grim	John S.	Box 162	Rhinebeck	NY	12572
Gross	Christopher	12 Harbor Ridge Dr.	Centerport	NY	11721

Hadley	John T.	6 Hewitt Rd.	Rockville Center	NY	11570
Haines	Terry A.	St. Univ. College, Biol. Sci.	Brockport	NY	14420
Hall	Albert G.	15 S. Delaware St.	Stamford	NY	12167
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Hazzard	Albert S.	Star Rt.	Cadosia	NY	13742
Heit	Merrill	ERDA, 376 Hudson St.	New York	NY	10014
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Hubble	Robert R.	Sweetman Rd., R.D. 2	Ballston Spa	NY	12020
Huggins	Thomas G.	CHG & E, 284 S Ave.	Poughkeepsie	NY	12602
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Jackson	Tom	DNR, Cornell, Fernow Hall	Ithaca	NY	14850



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Kriewall	Dale F.	NALCO, 6720 Thompson Rd.	Syracuse	NY	13211
Kurtz	Robert J.	27 Smith St.	Valley Stream	NY	11580
Kuzmeskus	Daniel M.	27 Bellevue Garden Apts.	Cortland	NY	13045
Lake	Ellis R.		Alexandria Bay	NY	13607
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LeTendre	Gerard C.	Box 204	Cape Vincent	NY	13618
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Melville	Thomas S.	500 Palmer Ave.	Corinth	NY	12822
Merckel	Charles N.	89 Ivanhoe Rd.	Buffalo	NY	14215
Mills	Sarah M.	118 Broad St.	Greenport, L.I.	NY	11944
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Murphy, Jr.	James J.	239 Lakeview Ave.	Rockville Centre	NY	11570
Myers	Robert E.	337 New Boston Rd., RD 2	Chittanooga	NY	13037
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Nemecek	Russell J.	276 Garfield Ave.	Mineola	NY	11501

Neth	Paul C.	RD 5, Juniper Dr.	Ballston Spa	NY	12020
O'Connor	Joel S.	SUNY, Old Biology Bldg.	Stony Brook	NY	11794
O'Keefe	Tim	Cromwell Pl., Apt. 12D	Mohegan Lake	NY	10547
Occhiogrosso	Tom	Ecol. Anal., RD 2, Goshen Tpk.	Middletown	NY	10940
Peck	Thomas H.	Texas Instruments, PO Box 237	Buchanan	NY	10511
Petrillo	Edward A.	Edgemere Ave.	Greenwood Lake	NY	10925
Piehler	Glenn R.	Envirosphere Co., 21 West St.	New York	NY	10006
Pierce	Ronald	Rt. 1, Box 237	Stone Ridge	NY	12484
Plautz	James R.	AJC, 140 New Scotland Ave.	Albany	NY	12208
Podoliak	Henry A.	NAT Fish Hatchery	Cortland	NY	13045
Poole	John C.	SUNY, Env. Cons., Bldg. 40	Stony Brook	NY	11794
Poston	Hugh A.	Fish & Wildlife Service	Cortland	NY	13045
Rachlin	Joseph W.	Lehman Coll. Bedford Pk. Blvd.	Bronx	NY	10468
Raney	Edward C.	301 Forest Dr.	Ithaca	NY	14850
Reed	John	Malcolm Pirnie, 2 Corp. Pk. Dr.	White Plains	NY	10602
Richards	F. Paul	411 Tree Rd. N.	S. Setaukey	NY	11720
Ripley	William E.	35-24 164th St.	Flushing	NY	11358
Robson	Douglas S.	Cornell Univ., Warren H.	Ithaca	NY	14850
Roffer	Mitchell A.	173 St. Johns Ave.	Yonkers	NY	10704
Roos	Kathleen S.	333 Crossways Park Dr.	Woodbury	NY	11797
Rowland	Roy T.	Call Hollow Rd.	Stony Point	NY	10980
Ruggieri	George D.	Osborn Lab., Boardwalk/W 8th	Brooklyn	NY	11224

Rulifson	Roger A.	Texas Instruments, PO Box 237	Buchanan	NY	10511
Sage	Robert N.	278 Hayts Rd.	Ithaca	NY	14850
Salamon	Kenneth J.	RD 1, Baker Rd.	Hopewell Junction	NY	12533
Saltes	Jack G.	38 Bainton St.	Yonkers	NY	10704
Sawyko	Paul M.	89 East Ave.	Rochester	NY	14649
Schmidt	Paul	1135 Dobbs Ferry Rd.	White Plains	NY	10607
Schmidt	Robert E.	31 Whipoorwill Rd.	Armonk	NY	10504
Schneider	Joseph	64 Grand Blvd.	Massapequa Park	NY	11762
Schreiber	Robert	Env. Anal., 333 Crossways Pk.	Woodbury	NY	11797
Schultz	Kenneth S.	383 Madison Ave., Field/Stream	New York	NY	10017
Scofield	Bruce C.	144 Soundview Ave.	White Plains	NY	10606
Scott	Robert K.	P.O. Box 70	Hemlock	NY	14466
Scotton	Lewis N.	G & H, Inc., 393 Seventh Ave.	New York	NY	10001
Shearer	Robert I.	Rice Creek Biological Field Sta.	Oswego	NY	13126
Sheeran	James D.		E. Nassau	NY	12062
Sheldon	Jeffrey A.	99-25 60th Ave.	Queens	NY	11368
Shepard	Douglas B.	1788 Horton Rd.	Lake Mohegan	NY	10547
Smith	David B.	McKenzie Pond Rd.	Saranac Lake	NY	12983
Snoek	Edward	Hofstra Univ. Biol. Dept.	Hempstead	NY	11550
Snyder	Robert G.	R.D. 1, Box 314	Stamford	NY	12167
Sobczak	Michael T.	Tams, 345 Park Ave.	New York	NY	10022
Sosnow	Allan D.	794 Larkfield Rd.	E. Northport	NY	11731

Spotila	James R.	St. Univ. Biol., 1300 Elmwood	Buffalo	NY	14222
Stanley	Dale A.	1402 Theriot Ave.	Bronx	NY	10460
Stira	Robert J.	Hampton Oaks, Bldg. 15, #117	Peekskill	NY	10566
Stone	Udell B.	303 Troy Rd.	Rochester	NY	14618
Sylvester	Joseph	12 Brevoort Pl.	Brooklyn	NY	11216
Tantillo	Anthony	15 Old 299	New Paltz	NY	12561
Terry	O. W.	SUNY, Marine Sciences Res. Ctr.	Stony Brook	NY	11794
Thorsell	Richard S.	Edison Elev. Inst., 90 Park Ave.	New York	NY	10016
Tolsdorf	Alice	7014 Cypress Hills	Glendale	NY	11227
Toomajian	James H.	495 Brunswick Rd.	Troy	NY	12180
Tuttle, Jr.	Lloyd R.	13 Julie Dr., RD 4	Hopewell	NY	12533
Unger	Lawrence	31 Clinton St.	Mt. Vernon	NY	10552
Valenti	Robert	Ocean Science Lab., Box 867	Montauk	NY	11954
Wallace	Deborah N.	NY POW Auth., 10 Columbus Ctr.	New York	NY	10019
Watson	Lauren C.	Box 54	Buchanan	NY	10511
Weinstein	Michael P.	L. M. & S. Eng., 415 Rt. 303	Tappan	NY	10983
Welsch	Philip R.	90 Brigham Rd., Apt. F-31	Fredonia	NY	14063
Wickersham	David L.	99 E. North St.	Ilion	NY	13357
Wiedon	Alfred	NYU, Medical Center, Long Meadow Rd.	Tuxedo	NY	10987
Wohnsiedler	T. H.		Samsonville	NY	12476
Yackanich III	Demetrius J.	15 Hank Place	Staten Island	NY	10309



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

November 9, 1977

TO: All New York Marine and Aquatic Fishery Scientists and Technicians -

It is time to renew or apply initially for 1978 membership in the revitalized, dynamic and rapidly growing New York Chapter of the American Fisheries Society. Please return the attached application with your \$2.00, 1978 annual dues promptly. (It will facilitate our planning if you also answer the question on the bottom of the application pertaining to tentative annual meeting attendance.)

The New York Chapter now has over 110 members representing a healthy blend of diverse disciplines within aquatic science -- industry, environmental consultants, university staff and students, private and public fish propagation and aquaculture, plus federal and state management and research agencies.

Top caliber professional presentations and enjoyable, productive interaction among attendees highlighted the past two annual meetings. Enclosed is the first call for papers for the February 3 and 4, 1978 meeting. Please participate, you will definitely find it rewarding!

The \$2.00 dues of the New York Chapter will provide you two informative newsletters annually, voting membership in all Chapter activities plus opportunity to help mold the future of your profession in New York State.

Although membership in the parent AFS society is not a prerequisite for membership in the New York Chapter, we urge all of you without national affiliation to use the enclosed application and join AFS now. The \$20.00, non-transaction membership is worth the price just for the bi-monthly subscription to Fisheries magazine, not mentioned in the brochure.

Be a professional, join your national and state professional societies. Write those checks today!

See you February 3 at Bergamo-East.

Membership Committee,  
Ed Brothers  
Braxton Dew  
Herb Eschbach  
George Seeley  
Bruce Shupp, Chairman

P.S. Chapter President, Lavett Smith, reminds all Committee Chairmen to begin preparation of their annual reports.



NEW YORK CHAPTER — AMERICAN FISHERIES SOCIETY

NEW YORK CHAPTER

AMERICAN FISHERIES SOCIETY

1978 Membership Application

Annual Dues: \$2.00

Annual Dues: \$2.00

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Home Address: \_\_\_\_\_

Home

Phone: \_\_\_\_\_

Employer (School): \_\_\_\_\_

Bus.

Phone: \_\_\_\_\_

Job Title: \_\_\_\_\_

Area of Specialization or Interest: \_\_\_\_\_

Mail \$2.00 check in name of N.Y.S. Chapter AFS to:

Joseph Gorsuch, Sec-Treas.  
Toxicology Section  
Eastman Kodak Co.  
1169 Lake Avenue  
Rochester, New York 14650

I tentatively do/do not (circle one) plan to attend the February, 1978 annual meeting.

**BALLOT INSIDE-  
MAIL BACK NOW!**



**A  
S F**

**NORTHEASTERN DIVISION  
NEWSLETTER - 1977**



# PROGRAM

## Wildlife Technical Sessions

James M. Ruckel - Co-chairman

William M. Healy - Co-chairman

### Management Session - Monday afternoon, February 27

Richard L. Hall, W.Va. DNR, Elkins, W.Va., Moderator

Arnold H. Hayden, Pa. Game Comm., Wellsboro, Pa., Discussion Leader

1:30 p.m. Browse utilization by deer in relation to cutting and  
prescribed burning in southeastern New Hampshire

Barbara Philleo

John B. Cavanagh

David P. Olson

Institute of Natural and Environmental Resources

University of New Hampshire

Durham, New Hampshire

2:00 p.m. Nova Scotia moose management 1964-1977

Donald G. Dodds

Acadia University

Wolfville, N.S.

Arthur E. Patton

Dept. of Lands and Forests

Kentville, N. S.

2:30 p.m. Feeding behavior of young ruffed grouse in West Virginia

R. O. Kimmel

D. E. Samuel

Division of Forestry

West Virginia University

Morgantown, W. Va.

3:00 p.m. Effect of population density on gray squirrels

Larry A. Berry

W. Va. DNR, Romney, W. Va.

Edwin D. Michael

Division of Forestry

West Virginia University

Morgantown, W. Va.

H. Reed Sanderson

Pacific N. W. Forest Experiment Station

LaGrande, Oregon

## BIOGRAPHICAL INFORMATION ON NOMINEES

### FOR PRESIDENT-ELECT

Edwin L. Cooper received his B.S. (1940), M.S. (1948) and his Ph.D. (1949) at the University of Michigan. He served as director of the Pigeon River Trout Research Area in Michigan (1949-1952), as Chief Aquatic Biologist of the Wisconsin Conservation Department (1952-1956) and is currently Associate Professor of Biology of the Pennsylvania State University (1956-). He has been honored with appointments as editor of T.A.F.S. (1963-1966), the presidency of the American Institute of Fisheries Research Biologists (1968-1970), the presidency of the American Fisheries Society (1971) and has won the Professional Conservationist Award of Trout Unlimited (1971). He is a member of many professional societies and has more than 60 publications to his record, many of which are in notable journals such as Copeia, Ecology, Journal of the Fisheries Research Board of Canada, T.A.F.S., Copeia, Progressive Fish Culturist, etc. Dr. Cooper has also been a busy teacher of graduate students having to date served some 39 in the attainment of their masters or doctoral degrees. His interests are broad, ranging from matters parasitological through general fisheries technology to the ecology of diverse forms with the salmonids as a favorite subject.

Howard N. Larson states: "I have worked for the Fish and Wildlife Service for the last 20 years and have been a member of the American Fishery Society all during that period. From 1967 through 69, I served on the Fish Disease Committee. Said committee played an important role in Department of the Interior's revision of Title 50 designed to prevent the introduction of VHS and further introduction of whirling disease to the United States. In 1969, I served as Chairman of the Mail Ballot Committee. This is the extent of my official committee participation. Up until 1975, when I assumed my present position of Regional Director, all of my activities in the Fish and Wildlife Service were officially directed toward fishery resources."

FOR A.F.S. NOMINATING COMMITTEE REPRESENTATIVE:

Delano R. Graff lists his AFS activities as follows: "Have served as vice president, president, and director for the Central Penn Chapter. Have served on the Northeastern Division's Nominating Committee and am still on the Membership Committee, Salmonid Broodstock Committee, and Salmonid Workshop Advisory Committee of the Division. Was chairman of Salmonid Workshop Committee for 1974 and 1976 workshops. Have served on Nominating Committee for Administrator's Section and on Auditing Committee for Fish Culture Section of A.F.S. Have served as president of the Northeastern Division and consequently as a member of the parent Society Executive Committee. I am presently serving as Chairman of the Past Presidents Committee (thus Chairman of Professional Awards). I have also been involved in a few panels, given a few papers, served on a Program Committee, and chaired a couple of sessions at Northeastern Division meetings" Del is Chief of the Fisheries Division of the Pennsylvania Fish Commission.

Robert A. Jones is Director of the Marine Region for the Connecticut Department of Environmental Protection. In AFS he has been Northeastern Division Representative to the Nominating Committee; Membership Committee, Board of Professional Certification, Executive Committee. In the Northeastern Division, his activities include: Nominating Committee, Program Committee, Chairman, Program Committee (1964), Time and Place Committee (Chairman), Chairman, International Symposium on "River Ecology and the Impact of Man" (1971), Executive Committee, President (1972), Past Presidents Committee, Special Projects Committee, General Chairman, 1975 Fish and Wildlife Conference.

## PRESIDENT'S MESSAGE

Members of the Northeastern Division:

I am pleased to report that the affairs of the Division continue to be in excellent order. This is, in very large part, due to the energetic efforts of the executive committee, chapter officers and the chairmen and members of the numerous committees responsible for day to day operations. My personal thanks are extended for their support. Special acknowledgment is due to Carl George, our secretary-treasurer, for his tireless efforts on behalf of the Division.

In October the Northeastern Division sponsored an excellent Warm Water Fisheries Workshop on the Esocids. The workshop, hosted by the Quebec Ministere du Tourisme, de la Chasse et de la Pêche, attracted 53 registrants from two Provinces and 9 States, and once again demonstrated the great value of workshops as a forum for the exchange of information related to fisheries in the Northeast. Note must also be made of the strength of our Chapters which continue to serve a valuable role in the life of the Division.

I would be remiss, however, if I were to give the impression that all is well with the membership. During my tenure as President I have been made aware, on numerous occasions, of the growing dissatisfaction on the part of members with the choice of sites for the Division's annual meetings and the resultant high cost of attendance. Inflation, and the general austerity of university and government budgets, have made attendance at these meetings virtually impossible for the significant portion of our membership that does not receive travel support. This situation has developed because we traditionally hold our annual meetings in conjunction with the Northeast Fish and Wildlife Conference and therefore have no control over time or place of annual meetings. The parent society, faced with a similar problem, decided to organize its own meetings, the first of which will be held at the University of Rhode Island in 1978. The resulting reduction in cost of attendance has been phenomenal. Perhaps it is time for the Northeastern Division to adopt a similar strategy. Such a change could not be made without some sacrifices. Our concern, however, should be to provide the maximum benefits to the entire membership, not just to those able to obtain financial support to attend. This is a grass roots problem, and I encourage an active discussion of possible alternatives to the status quo at all levels of the Division.

In September I represented the Northeastern Division at the annual meeting of the parent society in Vancouver. Numerous decisions were taken to further improve the services provided to the membership, and to strengthen the responsiveness of the Society to its membership. The meeting also provided an excellent forum for exchange of ideas between Chapter and Division officers.

## NORTHEASTERN DIVISION BUSINESS

### 1978 COLDWATER WORKSHOP

The committee members for the 1978 Coldwater Workshop are BILL HOOPER, ANGELO INCERPI, FRED KIRCHEIS, REAL VEZINA and PETER OATIS. These members met in Boston on April 5, 1977.

The time and place for the 1978 workshop was tentatively placed in Fredricton, N.B. during late September 1978. The theme will be finalized by April 1, 1978 with the proper announcements to be sent out shortly thereafter.

### REMARKS FROM THE SECRETARY-TREASURER:

The Division is moderately affluent at this time. The symposium account has a balance of \$7,205.98, the working savings account has a balance of \$3,222.35 and the checking account a balance of \$1,224.15. The total for the three is 11,652.48 dollars. By the time of the annual audit we will have gained additional dollars in interest and will have spent some for our newsletter and other projects but our total assets will probably be about \$10,000. This is not a trivial amount and thus it now seems time for the Division to consider a review of our accounting procedures. Accordingly, I would like to propose that (1) the Division, at its forthcoming business meeting, vote to establish the calendar year as our fiscal year; that the auditing of accounts occur during the month of January prior to the annual meeting; and the annual report of the secretary-treasurer to the membership be based on this specified period. I would further like to propose that (2) the auditing committee of the Division consider the conformity of our accounting procedures with those recommended by certified public accountants for an organization of this type and then advise and otherwise collaborate with the secretary-treasurer in making sure that these methods are applied to divisional accounting.

The first annual meeting of this Division took place April 1-3, 1952, at Jackson's Mills, West Virginia and annual meetings have occurred each subsequent year with the exception of 1954. This means that the 1978 meeting will be the 26th. Kendall Warner, Chairman of the Archives Committee (est. 1973) has done a superb job of gathering the documents related to these meetings and has prepared a list of these which I now have on file. It is possible that there are still significant original items related to the history of the Division which are in the possession of the membership and if so we would be happy to receive them.

Toward further enhancing the style of our meeting and records Kendall Warner and I have proposed the establishment of a formal record

## WARM WATER WORKSHOP

The 1977 Warm Water Workshop was held at the Chateau Montebello in Montebello, Quebec. The theme of the workshop was management of Esocidae in the northeast.

Papers and field trips to illustrate Esocid management in the Quebec area were of benefit to all participants in the workshop. Proceedings of this workshop are being prepared by participants from the Quebec Ministry of Tourism, Division de la Faune Aquatique.

The next Warm Water Workshop will be held in Delaware in 1979. The theme for this workshop will be aquatic vegetation control.

## PROPOSED BY-LAW CHANGES

Proposed revisions to the by-laws of the Northeastern Division are presented here for your consideration and will be voted upon at the annual meeting in White Sulphur Springs in February. The by-laws for all the divisions were updated and corrected by the constitutional consultant to the Society in order to conform with recent changes in Society by-laws and with each other. The major purposes for doing this included: 1. eliminate virtually all references to specific sections of the Society so that future changes there will not require corresponding revisions at the division level, 2. delete all references to gender since we now have female officers and biologists, 3. incorporate a proposed quorum for executive committee meetings, 4. remove section 8 (order of business) and establish this as "Rules of Procedure" which is apart from the by-laws -- and properly so.

A number of other small changes have been made in order to remove inconsistencies, and to streamline administrative procedures involved. Any comments you wish to make on these proposals should be directed to myself or a member of the Northeastern Division Executive Committee (Division officers and chapter presidents). If these revised by-laws are approved by a two-thirds vote at the annual meeting they will be submitted to the executive committee of the Society for approval at their March mid-year meeting.

William C. Leggett  
President

In the event of a cancellation of an annual meeting, the officers and the members of any committee that have been appointed shall continue to serve until the next regularly scheduled meeting.

No elected officer or appointed committee member of the Division shall receive any salary or other compensation for ((his services)) services rendered. Clerical and other necessary expenses may be defrayed from funds available to the Division when such disbursements have been authorized at an annual meeting or by the Executive Committee in the interim between meetings.

SECTION V. Duties of Officers. (a) President. The president of the Division shall preside at all meetings, ((and shall)) serve as chairman of the Executive Committee of the Division((.)), ((He shall)) represent the Division of the Executive Committee of the Society, and ((shall)) make such appointments and perform other ((functions)) duties as are authorized. The ((outgoing)) President shall make an annual report to the Society ((of the Division's activities during his term of office immediately prior to or during)) at the annual meeting of the Society. As immediate past president, this officer shall also represent the Division on the Executive Committee of the Society. (b) President-elect. The president-elect shall assume the duties of the president ((in the event of his absence)) if the latter is absent or ((his inability)) unable to act. (c) Secretary-treasurer. The secretary-treasurer shall keep the official records of the Division, ((shall)) conduct its correspondence, ((shall)) collect and be custodian of any fees or assessments collected under the authority of these Bylaws and ((shall)) be custodian of ((any)) funds allotted to the Division by the Society pursuant to constitutional authority((.)) or derived from other sources authorized by the Division membership. ((He shall disburse)) Such funds as may be authorized by the Division membership or the Executive Committee ((thereof.)) also shall be disbursed by the secretary-treasurer, and a financial report for the previous calendar year ((his report on receipt and disbursement)) shall be submitted to the annual Division meeting, ((He shall also perform such)) Duties ((as may be)) requested ((from time to time)) by the Executive ((Secretary)) Director of the Society ((and shall submit a report to the Executive Secretary of the Society within thirty (30) days after the annual meeting of the Division is held)) shall be performed and the minutes of the annual meeting shall be submitted to the Executive Director within 30 days following the meeting.

SECTION VI. Executive Committee. The Executive Committee of the Division shall consist of the duly elected officers, the immediate past president, and presidents of ((local)) Chapters ((of)) within the Division. It is authorized to act for the Division between meetings and to perform other appropriate functions. A quorum for an Executive Committee meeting shall consist of 3 of 4 Division officers and one-third of the Chapter presidents.

SECTION VII. Divisional Committees. The president of the Division is authorized to appoint from members of the Division in good standing such committees as may be necessary for the conduct of the business of the

Minutes of the Twenty-Fourth Business Meeting of the Northeastern  
Division of the American Fisheries Society,  
Hershey Motor Lodge and Convention Center,  
Hershey, Pennsylvania, 27 April, 1976.\*

1. Calling to order by President Colton Bridges at 4:30 p.m.
2. Grouping of the clan for photography by Carl Sullivan, new executive director of the parent organization.
3. It was moved to accept the minutes of the previous meeting
  - I. William Leggett;
  - II. Roger Reed;Passed.
4. Remarks of the President:
  - a. The Executive Committee of the National organization has been expanded to include the presiding and past presidents.
  - b. A rebate system has now been instituted. Divisional dues are now included in the annual billing from the national offices. Derived money is applied to the production of the newsletter and other divisional expenses.
  - c. It is proposed that several standing committees be discontinued, as defined in remarks forthcoming.
5. The introduction of distinguished persons present.
  - a. Howard Larson
  - b. David Crestin
  - c. Richard Hatch
  - d. Robert G. Werner
  - e. J. Douglas Rosenborough
  - f. Past Presidents of the N.E.D. (nine)
  - g. John Gottschalk
  - h. Edwin Cooper, Past President of the American Fisheries Society
  - i. J. Cameron Stevenson, President of the American Fisheries Society.
6. Remarks of J. Cameron Stevenson, current President American Fisheries Society
  - a. "The A.F.S. has never been in better shape."
  - b. The next meeting of the A.F.S. will be in Dearborn, Michigan. Try to attend.
  - c. A welcoming of questions and suggestions regarding the A.F.S.
  - d. Introduction of the new Executive Director, Carl R. Sullivan.
  - e. Comments on the new Bulletin of the American Fisheries Society - "Fisheries"
  - f. New offices at 5410 Grosvenor Lane, Bethesda, Maryland 20014.
  - g. Revamping of the dues structure with active membership at \$20.00 which provides a subscription for "Fisheries". Ten dollars additional provides the "Transactions."

\* These by-laws were not received in time to be published in the 1976 Newsletter.



Robert H. Griffiths, and Bonnie J. Jackson [Members of the Auditing Committee])

b. Particulars:

Incomes/Disbursements

1)	At time of transfer of Treasurership	\$6,006.95
2)	Refund 1975 Northeastern A.F.S. Meeting	1,960.16
3)	Royalties ending 12/31/75 for River Ecology, Academic Press.	693.55
4)	Royalties ending 12/31/75 Fisheries and Energy Production, D.C. Heath and Co.	532.67
5)	Interest on savings on period ending 4/15/76	395.56
6)	Postage charges (-)	130.25
7)	Uncollected check (-)	1.00
	Balance on Hand 4/15/76	\$9,457.64

c. It was moved to accept the report of the Secretary-Treasurer.

I. David Cristin

II. James A. McCann

Passed

d. The Secretary-Treasurer was instructed to account, separately, income from the River Ecology Symposium as per a minute of an earlier meeting.

10. Reports of Divisional Committees and Chapters.

It was moved that the newsletter, as so assiduously and graciously prepared by Roger J. Reed of Amherst, Massachusetts, be accepted in lieu of individual reports by the diverse divisional committees and chapters (with the several exceptions evident).

I. William Leggett

II. Carl Sullivan

Passed, following discussions.

11. Report of the Time and Place Committee, by Robert A. Jones (Ch.) including the remark that the committee should because of redundant function be considered for dissolution.

It was moved that the report be accepted.

I. Peter Oatis

II. Richard Seamans

Passed

12. Report of the Resolutions Committee by Walter Murawski (Ch.)

Be it resolved that:

WHEREAS, the State of Pennsylvania has most capably and graciously hosted this conference; and

WHEREAS, the success at this conference is due to considerable efforts and contributions, willingly provided by members of the host state; and

WHEREAS, the deliberations, findings and ideas expressed will most positively benefit the American Fisheries Society; therefore, be it

RESOLVED, that the members of the Northeastern Division of the American Fisheries Society extend sincere appreciation and thanks to the State of Pennsylvania and to those numerous individuals whose participation made this conference worthwhile.

President and Past President attend the parent Society's executive meetings.

I. Roger J. Reed

II. Carl Sullivan

Passed, after discussion.

17. A plaque, commemorating the assignment of the Award of Merit, to the past president, Colton Bridges, was presented before the some 80 members attending.\*

18. It was moved that the meeting adjourn.

I. Robert A. Jones

II. Robert Parish

Passed, 6:15 p.m.

\* A signed list of those attending has been assigned to the Archives by the Past President.

Respectfully submitted  
Carl J. George  
Secretary-Treasurer



6. President Graff then invited Robert Hutton, President of the Society to make several remarks. The 1977 annual meeting of the Society will be held on 14-16th of September in Vancouver. Paper proposals are welcomed until the end of April.

The presence of the several fine exhibits was noted at this meeting.

The need for increased memberships and greater involvement of the existing membership was affirmed.

The development of a financial reserve equivalent to one year's operating expense for the Society was noted as a wise financial policy now adopted as a goal of the Society. Currently the Society has about \$100,000 or 25% of annual operating expenses, in its reserve fund.

7. The President then called for the report of the Secretary-Treasurer.

The financial records of the Division were audited and found in order on 4 February, 1977, by the auditing committee composed of Carl E. Parker, Chairperson, Dr. Paul Neth and Robert H. Griffiths. At this time the three accounts had the following balances.

Division Working Account	\$ 3,345.21
Division Symposium Account	6,660.75
Division Checking Account	<u>505.76</u>
Total	\$10,511.72

When compared to the funds on hand at the time of auditing in 1976 this represents an increase of \$1,531.69 or 17%. The Division Symposium Account was established on 13 May, 1976, in accord with the directions of the 8 Divisions and bears the account number of 01-02249. No disbursements were made from this account. The account received \$118.48 in royalty payments during the fiscal year as defined through dates of auditing. The Division Working Savings Account disbursed \$5,888.42 toward the establishment of the Division Symposium Account, \$1,200 to the Division Checking Account and received \$127.77 in interest and \$1,648.00 as dues allotment from the parent society. The Division Checking Account disbursed \$428.88 toward the establishment of the Division Symposium Account and \$1,065.14 for divisional operating expenses. Receipts from the Division Working Savings Accounts totalled \$1,200.

The Secretary-Treasurer recommends that the fiscal year of the Division be specifically defined in terms of calendar dates and that auditing of the financial records proceed in accord with such dates.

Respectfully submitted - C. George

the State of Massachusetts and to those numerous individuals whose participation made the conference worthwhile.

It was respectively moved and seconded by Bruce Pyle and David S. Crestin to endorse the proposal. The proposal was unanimously and enthusiastically endorsed.

11. The following resolution was presented by Jack G. Miller, Chairman of the Resolutions Committee.

WHEREAS, there are 321 Canadian members and a few Mexican members in the American Fisheries Society out of a total membership exceeding 7,000; and

WHEREAS, the Societies present name "American Fisheries Society" implies a United States fisheries organization; and

WHEREAS, historically Canadians have played a major role in the society, especially in Presidential involvement, and continued and expanded Canadian involvement will insure a large and stronger Society;

NOW THEREFORE BE IT RESOLVED that the present name, "The American Fisheries Society," be changed to "The North American Fisheries Society."

It was respectively moved and seconded to endorse the proposal by W. C. Hooper and Steve Rideout. Discussion followed. Many Canadian workers equate the term America to United States rather than the entire continent of North America and thus a change in name might foster greater Canadian involvement in the activity of the Society. Others offered that the current name is old, prestigious, well established within bibliographic systems of libraries, and in actuality is meant to cover the fisheries of the entire continent as suggested by the map on the cover of the Transactions. A hand vote indicated 16 in favor of the motion and 22 against thus causing the motion to not be endorsed. Any member may, however, forward a similar resolution to the parent organization on an individual basis.

12. The President then called for the report of the Ad Hoc Special Projects Committee as Chaired by Dwight Webster.

The following recommendation was then presented.

Special Projects Committee recommends the formation of a standing Award of Excellence Committee to select annually a recipient in each of two categories (1) student and (2) professional. That said committee develop standards and procedures for the screening of candidates, and that the Award of Excellence Program be initiated at the 1978 meetings of the N.E. Division of the A.F.S.

The gavel was then transferred to President Leggett who then expressed appreciation to former president Graff presenting him with a plaque bearing these sentiments.

14. The new president then announced his intentions to make committee appointments in the immediate future and then called for items of new business.

Items: a) Given the important role that women play in the A.F.S. it is strongly urged that the awkward implications of the use of the term 'ladies program', etc. be avoided by the use of alternate terms such as 'spouse', 'non-participant' or other and that such protocol be inserted in the procedural manner of the Society.

Carl Sullivan and William Leggett indicated that this matter is already being acted upon.

- b) Some planning attention may be necessary in the alternate year scheduling of the Coldwater and Warmwater workshops. President Leggett will act to clarify this matter.
- c) The deletion of the standing committees on Time and Place and Publicity and the addition of the Special Projects Standing Committee will require special executive action.
- d) The value of increased student representation of the divisional meetings was affirmed and President Leggett will give special attention to this matter.

15. The call for adjournment came at 6:17 p.m.

Respectfully submitted,

Carl J. George  
Secretary-Treasurer

### Report of the Program Chairman

Our "call for papers" provided us with 49 top quality selections for presentation. A new approach to stimulate membership involvement was developed, a fisheries management forum. A joint program with conservation engineers has been developed to address fisheries problems relative to power plant operation. We wish to thank the members of the Northeastern Division for their cooperation in making this fine program possible.

Peter Oatis and Leigh Bridges, Co-Chairmen

### Report of the Publicity Committee

No assistance was required of the Publicity Committee and the committee was inactive during 1976-77. As long as the annual meetings are conducted in the present manner, there will not be a need for the Publicity Committee. Unless the meeting format changes, the Publicity Committee will serve no useful function.

Vincent Mudrak, Chairman

### Report of the Resolutions Committee

The committee did not receive any proposed resolutions for presentation up to the date of this report. Therefore, the committee has only one resolution to offer. This resolution will serve to extend the appreciation of the membership to the host state of Massachusetts.

#### Resolution

WHEREAS, the State of Massachusetts has most graciously hosted this conference; and

WHEREAS, the success of this conference is due to considerable efforts and contributions, willingly provided, by members of the host state; and

WHEREAS, the deliberations, findings and ideas expressed will most positively benefit the American Fisheries Society; therefore, be it

RESOLVED, that the members of the Northeastern Division of the American Fisheries Society extend sincere appreciation and thanks to the State of Massachusetts and to those numerous individuals whose participation made the conference worthwhile.

Jack G. Miller, Chairman

9. Detailed financial statement of River Symposium Account from Sec.-Treas. Carl George (May 13, 1976)
10. Miscellaneous Presidential correspondence

Kendall Warner, Chairman

#### Report of the Past Presidents Committee

The Past Presidents were not called on for assistance in 1977. A luncheon meeting of the committee was scheduled in conjunction with the 1977 conference. The committee is available for guidance and assistance on future special projects of the Division and for continuing business associated with the possibility of publishing Transactions of the Northeast Fish and Wildlife Conference.

Colton H. Bridges, Chairman

#### Report of the Editorial Committee

The business of the Editorial Committee this year consisted of (1) publication and distribution of the annual Newsletter and (2) maintenance of the mailing list. The latter was handled at the University of Massachusetts under the direction of Jim Parrish, and using mostly donated labor and facilities.

An attempt was made to broaden the scope of the Newsletter by adding more organizations that employ A.F.S. members. This was partly successful; but at the same time, some organizations which had contributed news in the past did not respond this year. From 100 appeals sent out, we received 42 contributions, roughly the same number as last year.

Publication cost was only slightly more than last year, although two of the three bids received were considerably higher. If the same format is used next year, costs will undoubtedly approach \$1,000 (or \$1 per copy).

No special publications were produced or considered during the year. We would welcome more volunteer reporters and a volunteer from Canada to serve on the committee.

Dean Arnold, Chairman

#### Report of the Salmonid Brood Stock Selection Committee

The Brood Stock Committee met with representatives of the Fish and Wildlife Service in Hershey, Pennsylvania, at the time of the 1976 meeting of the Northeastern Division, American Fisheries Society. The discussion centered around the Fish and Wildlife Service setting aside one or more fish culture

### Report of the University Liaison Committee

President Graff requested that the University Liaison Committee review the concept of this ad hoc committee to determine if there is a need for the committee to continue to function; and, if so, what direction it should take. This year's committee took note of the fact that past committees have submitted excellent reports recommending measures to facilitate student attendance at annual meetings. These recommendations have included meeting times coordinated with university calendars and meeting places where low cost accommodations are available for students and lower-paid working biologists. Although these suggestions have been actively supported by the Society, they seem to carry little weight with the Time and Place Committee of the annual combined conference. The committee has also been concerned with the improving fisheries curricula and with the apparent surplus of trained personnel at all levels. The committee also noted a movement currently underway within the Society to form a Fisheries Educators Section which might assume many of these concerns on a nationwide basis.

The University Liaison Committee received no suggestions or requests for actions from the general membership or from other committees during the year. The committee feels that attracting high quality students to the profession is a function that individual professors automatically assume; that we have repeatedly made our opinions on meeting dates and sites known to the Time and Place Committee; that segregating student papers in a special "Student Session" is undesirable since most students want to be treated as equal members of the Society; and that curriculum improvement will be a major goal of the Fisheries Educators Section. We recommend that the Division representative on each year's Local Arrangements Committee be instructed to press for inclusion of low cost accommodations for students at the meeting site as part of the conference planning process. We suggest that the Division consider the possibility of establishing a fund to support student travel to meetings, perhaps with a subsidy for costs of board and room at the meeting site. Finally, it is our unanimous opinion that the committee, in its present form, should be disbanded. It can always be reconstituted at a future date to deal with a specific problem.

Richard Hatch, Chairman

### Report of the Warmwater Workshop Advisory Committee

The 1977 Warmwater Workshop is currently being planned for October 9-11 in Montreal, Quebec. As agreed upon at the last warmwater workshop, future meetings will be planned around a specific problem in warmwater fisheries management. The 1977 workshop will center its attentions on the management of Esocidae.



The chapter elected officers for 1977. The results were:

President	Peter Oatis, Massachusetts Division of Fish and Game
President Elect	Oliver T. Edstrom, St. of Ct.-DEP- Marine Region
Secretary-Treasurer	Carolyn Rogers, NMFS, Narragansett, Rhode Island

Oliver T. Edstrom, Secretary-Treasurer

(This year's chapter reports will be found at the end of this issue.)



*"I don't care if it is for science! If you think I'm gonna fertilize the eggs with someone watching, you're crazy!"*

Oceanology International / Compass Publications, Inc.

stock reached sexual maturity and spawned this past winter at a length of 49 mm, less than a year from the fertilized egg (R. GOLDBERG). Scallop growth was excellent above 15°C, but was markedly less at 12° and stopped at 10° (E.W. RHODES). Survival of surf clam embryos was increased by 80% in cultures changed 24 hrs. after fertilization of the eggs, compared to those in cultures changed at 48 hrs. Early failures of scallop embryos and larvae to survive were overcome by the antibiotic Neomycin. Post-set scallops survived and grew better in flowing than in standing seawater, and post-set clams did better in recirculated seawater than in flowing seawater, to both of which algal food was added.

In Aquaculture Genetics (A.C. LONGWELL), a long-term, several-generation selection program on the American oyster is continuing. This will demonstrate selection gains that can be realized practically. Theoretical predictions of selection gains are also being made for commercial characteristics. The relative advantages of family-based selection and mass selection are being compared. Inbreeding lines will determine the extent and nature of inbreeding depression on larval, juvenile, and adult stages; about 130 crosses have been made to establish such lines. Induced parthenogenesis, using heavily irradiated sperm, for obtaining absolute inbreds as an alternative to full-sib breeding is under way. Effort is also continuing to achieve inter-species crosses with the American oyster as one parent, for use in backcrosses to the American oyster, and triple-hybrid crosses for bridging incompatibility barriers.

The Mollusc Larval Disease Task (W.J. BLOGOSLAWSKI) monitors hatchery disease and tests disinfectant procedures to reduce disease incidence. A commercially available UV sterilizer was found to eliminate all marine bacteria (at least 10 cells/ml of known shellfish pathogens) from seawater, so that it could be safely used to rear shellfish larvae. Also in the past year, soft-shell and surf clams containing paralytic shellfish poison were successfully detoxified by ozonized seawater. In immunology research, cadmium exposure was observed to reduce antibody production and to affect phagocytic cells in striped bass, and a bacterial pathogen was isolated that has caused several hundred mortalities in striped bass in western Long Island Sound (R.A. ROBOHM).

#### UNIVERSITY OF CONNECTICUT

BILL LUND is continuing his evaluations of the inshore-offshore movements of lobsters. STELLA WILLIAMS (M.S., 1977) completed her study of the age and growth of 3 species of Fundulus in Connecticut. BARRY GOLD and RON McMAHON are beginning their studies of Fundulus and shrimp respectively.

WALLY WHITWORTH is currently working with the B.A.S.S. clubs of Connecticut in evaluating both largemouth and smallmouth bass populations in selected lakes and ponds. Club members collected many scales this season that are currently being interpreted. AL COHEN (M.S., 1977) completed his study of banded sunfish and is applying for a position with the Peace Corps.

all 20 recaptures were taken within 2 weeks of their release in or near the Canal by commercial fishermen.

ROBERT SANDER, in a new program, tagged 1,000 "marketable sized" blue crabs within the Chesapeake and Delaware Canal to determine migrational patterns and seasonal movements of this important shellfish. Recaptures (100 to date) by sport and commercial crabbers indicate substantial interchange between Chesapeake Bay and Delaware River populations. The furthest movement was approximately 50 miles in 13 days.

BRIAN HANSON and BARRY BEITZ continued studies of Johnson well screens as an intake screening system. A paper on some aspects of their work was presented at the Annual Meeting of the AFS in Vancouver, B.C. One part of their research involved the behavior of larval striped bass exposed to an operating intake screen at various intake velocities and the effect of impingement on live striped bass eggs.

KEVIN CHARLES investigated the in-situ biofouling and clogging rate and various backwash techniques for a full-scale Johnson screen. These studies were conducted with a model intake equipped with .040-inch slot 24 x 30 inch screen.

Investigations of the food habits of young striped bass, bluefish, and weakfish were continued in 1977 by ROBERT DOMERMUTH, ROBERT SANDER, and CRAIG SHIREY. Over 1,000 larval and young striped bass, 600 larval and young weakfish, and 250 bluefish were examined.

HARRY SHIREY, JR. and WALTER KEIRSEY have adapted a Hewlett-Packard 9830A computer system to handle routine data tabulation and analyses.

The extensive ichthyoplankton monitoring program initiated in 1975 was continued during the 1977 striped bass spawning season. The program was coordinated by RONNIE KERNEHAN and its results indicate that the 1977 year class is stronger than any produced in the upper Chesapeake Bay since 1970. The strong year class was further substantiated by the seine program and inshore trawl programs coordinated by WALTER KEIRSEY and ROBERT KOONS, a new member of the staff from State University College of New York at Buffalo, and JOHN EVERETT, University of Delaware.

#### DELAWARE DIVISION OF FISH AND WILDLIFE

ROY W. MILLER, Supervisor of Finfisheries, recently completed a survey of Delaware's recreational marine and freshwater fisheries. The marine survey combined aerial counts of boating pressure and a mail survey of fishing success. Results showed that boaters participated in an estimated 599,616 man-days of marine angling in 1976 and caught 5,816,836 fishes. Weakfish (Cynoscion regalis) dominated the catch (39.7% of the total number of fish caught). A completion report on this project is now available.

ICHTHYOLOGICAL ASSOCIATES, INC.  
MIDDLETOWN OPERATIONS

The Ichthyological Associates, Inc., group at Middletown, Delaware had a busy and productive 1977. Field and experimental studies on fishes and invertebrates of the Delaware River estuary continued. Computerization of the invaluable ecological data base compiled since 1968 is almost complete--a massive undertaking. The Experimental Studies section, directed by JOHN MELDRIM, is pioneering in efforts (quite successful) in spawning weakfish and bay anchovy to produce larvae and young for behavioral studies. These and other species are seasonal in appearance in the Delaware River, and time to collect spawning products for rearing is limited--so all must go well for a satisfactory experimental season.

This was the first year of operational studies for Unit 1 of the Salem Generating Station owned by Public Service Electric and Gas, the sponsor of these investigations. Studies of impingement and entrainment defined in the Technical Specification were implemented. Manual tabulation of data collected in 1975 and 1975 was completed and progress reports were published.

The hard winter of 1976-77 was reflected in a greatly reduced blue crab population. However, survivors had an apparently successful spawn, and the 1977 year class should bring the population back to previous levels next year.

Present staff level is 69. VICTOR SCHULER, Vice President, is Director of the Artificial Island Studies which are conducted by benthos, macro- and microinvertebrate, phytoplankton, fisheries, and terrestrial sections. JOHN MELDRIM, Technical Director of I.A. Experimental Studies, and his staff are developing a significant catalog of aquatic organism reactions to temperature and chemicals under varying environmental conditions.

Biologists joining us in 1977 were: DONALD SCHWARTZ, RICHARD SEAGRAVES, RICHARD HASSEL, ROBERT KRSKA, REBECCA SLEGER, JOHN HAKE, KENNETH TAFT, RONALD SUTTON, MICHAEL TONEYS, JEFFREY UNDERWOOD, WOLFGANG KONKEL, and THOMAS NEWLON.

Those leaving were: RUDOLPH ROSEN, LESLIE HOLLAND, and WILLIAM LANG.

DAVE McDANIEL from: Chief, Division of Fish Hatcheries to: Assistant Director, Operations, Leetown Laboratory.

JOHN NELSON serves as an officer of the newly formed Potomac AFS Chapter. The Chapter has been holding quarterly meetings and had its first annual meeting on Chesapeake Bay in May, 1977.

BILL NEWMAN has been instrumental in organizing a Washington, D.C. area division of AIFRB and is serving as its first senior officer.

RALPH PISAPIA from: Ecological Services, Annapolis to: staff of Program Services, ES, Central Office.

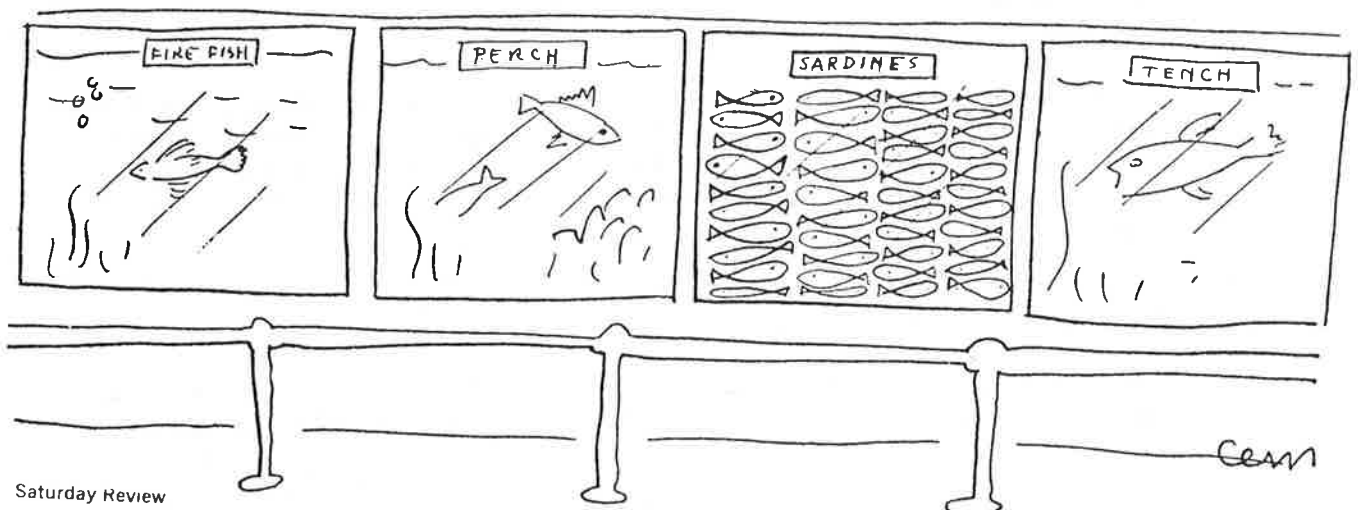
BOB PUTZ from: Deputy Associate Director - Research to: Laboratory Director, Leetown.

DICK ROBINSON from: Program Development and Budget staff, to: Assistant Chief, Division of Ecological Services.

DAN SMALLEY from: Federal Power Commission to: Staff of Federal Projects, Ecological Services.

WALLY STEUCKE from: Field to: Inland Fisheries and Reservoir Program, Central Office.

LEE WRIGHT from: Office of Biological Services to: Ecological Services.



Saturday Review

smolts and on the upstream movement of returning adults in the Penobscot River, Maine by means of telemetry; on the usefulness of ATPase in determining the readiness of smolts to migrate downstream; on the cryopreservation of Atlantic salmon semen; on the reconditioning of post-spawned salmon (kelts); on the suitability of the Mattawamkeag and St. Croix rivers in Maine for the restoration of Atlantic salmon; on the genetics of salmon; and on the effects of spruce budworm suppression with aerially-applied insecticides on Atlantic salmon and other salmonids.

The Atlantic Salmon Investigations office is now closing. ROBERT LENNON has retired from the Fish and Wildlife Service, but he has been retained on a part-time basis for the present. Fishery Biologist PEGGY CAMPBELL accepted a transfer to a woodcock project at the Moosehorn National Wildlife Refuge in Maine. Both Peggy and Bob have enjoyed the fine working relationships with biologists in the Northeastern Division.

UNIVERSITY OF MAINE  
MIGRATORY FISH RESEARCH INSTITUTE and  
MAINE COOPERATIVE FISHERY RESEARCH UNIT

The Migratory Fish Research Institute at the University of Maine expanded its activity during 1977 through recruitment of new members and because of receipt of a \$189,000 grant for three years from the National Science Foundation's Research Initiation and Support Program. Through this program the Institute will improve research opportunities of young fishery scientists by improving teaching and research facilities and providing unique educational and research experiences to graduate students and young faculty. The members of the Institute had a productive year in research.

JAMES ACHESON in the Department of Anthropology is taking a year leave of absence doing an intensive study of the social factors that affect the management of fisheries resources. He is living in a fishing community on the Maine coast.

HUGH DeWITT, Chairman of the Oceanography Department, is continuing study of the systematics of marine fishes, especially of Antarctic forms.

The effects of forest spraying on aquatic organisms are being studied by KATHLEEN GIBBS in the Department of Entomology.

An Environmental Contaminant Monitoring Unit is to be established at the University of Maine with TERRY HAINES as its first leader. The Unit is in the U.S. Fish and Wildlife Service and will be located in the Zoology building on campus. Dr. Haines is coming from SUNY-Brockport and will be responsible for developing research to ensure that fish and wildlife resources are considered whenever environmental contamination occurs.

RICHARD HATCH has transferred to the Great Lakes Fishery Laboratory at Ann Arbor, Michigan, where he will be responsible for development of fishery statistics and evaluation programs.

SUSAN ZELL, Department of Zoology, is moving to Duluth, Minnesota, and is finishing up work on cryopreservation of sperm and smoltification in Atlantic salmon.

Research Associate PHILLIP HULBERT completed his studies on the biological and physical characteristics of a model Atlantic salmon river and now works for the New York Department of Environmental Conservation. NORMAN DUBE has taken a job with Great Northern Paper Company to determine the fate of landlocked Atlantic salmon in the West Branch of the Penobscot River. STEPHEN FRIED is now chief biologist for the Pacific Salmon Trollers Association in Alaska.

#### Students in Residence (Advisor)

JOHN AKIELASZEK (M.S.). Ecosystem metabolism of mercury of natural origin. (Stanley)

STANDISH ALLEN, JR. (M.S.). Induction of polyploidy in landlocked Atlantic salmon. (Stanley)

JOSEPH BRAYDEN (M.S.). Karyotypes of sterile brook trout and salmon. (Roberts)

LEONORA BAUER (M.S.). The black flies (Diptera) of the Pisquataquis River watershed. (Gibbs)

KENNETH BELAND (M.S.). Evaluation of Atlantic salmon strains under controlled hatchery conditions. (Roberts)

RICHARD CRAWFORD (Ph.D.). Digestion rates and energetic efficiency in Nototheniid and Cottid fishes. (McCleave)

MARY HOSMER (M.S.). Influence of various hatchery procedures on Atlantic salmon. (Stanley)

RUSSELL McCULLOUGH (M.S.). Food habits of larval rainbow smelt. (Stanley)

JAMES POWER (Ph.D.). Computer simulation of eel larval drift in the North Atlantic Ocean. (McCleave)

GORDON RUSSELL (Ph.D.). Naturalization, production and yield in stream populations of brown trout in Maine. (Stanley)

BENJAMIN STONE (M.S.). Changes in metabolic carbon flow of migratory and non-migratory fishes induced by temperature acclimation. (Sidell)

BRIAN TARBOS (M.S.). Growth parameters and migratory behavior of alewives in the Scarborough River system. (Stanley)

## MASSACHUSETTS DIVISION OF MARINE FISHERIES

Three regional resource teams have been organized: a North Shore team (from the New Hampshire State Border to Cohasset) staffed by RUSTY IWANOWICZ, JOSEPH PELCZARSKI, and LARRY GIL; a South Shore team (Scituate to the Rhode Island State Line) staffed by DREW KOLEK, PAT RULE, and TOM CURRIER; and a Cape and Islands team (Cape Cod Canal to Provincetown and offshore islands) staffed by ARNOLD CARR, DAVID CHADWICK, and BETH HUBBARD. These teams were created to more effectively respond to local management problems and provide improved technical assistance to Massachusetts cities and towns. Collectively, during the past fiscal year, considerable time was spent in analyses of a statewide marine sport fishing survey; investigations into fixed and mobile gear fishing conflict and the occurrence of PCBs in the Acushnet River; assessment of damage caused by two major oil spills, the "Argo Merchant" and the "Bouchard 65"; evaluation of lobster larvae stocking; review and subsequent onsite inspections of United States Army Corps of Engineers' Section 10 Permits.

ARNOLD HOWE and BRUCE ESTRELLA continued their Nantucket Sound semi-annual bottom trawl survey. Their winter flounder young-of-the-year survey indicated a continued increase in flounder abundance. A major upturn of recruitment to the fisheries is expected over the next several years. ARNOLD HOWE presented a paper at the 1977 Northeast Fish and Wildlife Conference, and was recipient of the Massachusetts State Scientist of the Year Award.

DAVID PIERCE was promoted to Senior Marine Fisheries Biologist, liaison between the Division and the New England Regional Fishery Management Council. He and ARNOLD HOWE published a manuscript entitled "A Further Study on Winter Flounder Group Identification Off Massachusetts" in Volume 106 of the Transactions.

JIM FAIR completed a preliminary analysis of a two year lobster tagging study in Cape Cod Bay and published (in-house) results of a study to demonstrate the effectiveness of lobster trap escape vents. The latter paper was presented at the Northeast Fish and Wildlife Conference. He also participated in a sampling effort to assess larval lobster distribution in Cape Cod Bay and Buzzards Bay.

Under the management of JOHN HUGHES and TOM HOTZ, at our Lobster Hatchery/Research Station, approximately 475,000 lobster larvae were hatched, propagated, and liberated. An evaluation of stocking practices to determine initial mortality rates was begun. JOHN HUGHES took part in the joint United States--Australian Lobster Ecology and Physiology Conference in Perth, Australia.

The Division's environmental studies at the Pilgrim Nuclear, Cape Cod Canal, and Salem Harbor Power Plants continued. The former two projects undertook an intensified lobster larvae sampling program which led to delineation of major spawning grounds and nursery areas for lobster in Buzzards Bay and the west end of the Cape Cod Canal. Results from



for rationally establishing water quality criteria, effluent guidelines, and/or toxic pollutant standards.

GEORGE CARY, a recent addition to the Bionomics staff as Director of Aquatic Biology, has assumed the responsibility for direction of a project to determine the reduction of toxicity by industrial wastewater treatment systems utilizing aquatic organisms. In order to effectively conduct this project, Bionomics will use our mobile laboratory which will sample both the effluent outfall and the receiving stream in a predetermined ratio. The results of these efforts will provide EPA with adequate data regarding the efficacy of waste treatment methods with regard to reducing effluent toxicity in a cost effective manner to permit the formulation of appropriate guidelines.

Considerable time has been spent over the past year working with General Electric's PCB replacements DIELEKTROL I and DIELEKTROL II. In addition to static acute toxicity tests and egg and fry studies, bioaccumulation and bioconcentration studies were conducted with these materials. The results of all studies indicate that these new dielectric fluids do not pose a significant environmental hazard.

#### MASSACHUSETTS DIVISION OF FISHERIES AND WILDLIFE

During 1977 the Massachusetts Division of Fisheries and Wildlife continued several projects and began initial evaluation of new ones.

BILL EASTE completed a statewide telephone survey of anglers in an effort to elicit their feelings with respect to the opening of the Massachusetts inland fishing season on a year round basis. The sea-run brown trout program under the direction of JOE BERGIN continues to show a great deal of potential with respect to the survival and growth rates of selectively reared fish.

Although it is time consuming and at times frustrating, a great deal of progress has been made in our efforts to train volunteers as field agents for the purpose of gaining insight into local fisheries problems. TOM PALERMO leads this project which, at this point, focuses much of the effort at integrating fisheries information and objectives with aquatic weed control problems and solutions.

STEVE HENRY continued to monitor the anadromous fish runs in both the Connecticut and Merrimack Rivers in addition to taking on some of the additional responsibilities of our Quabbin Investigation from STEVE RIDEOUT who left, joining the federal aid section of the Fish and Wildlife Service in Boston. ROBERT MADORE was promoted to Aquatic Biologist after serving as an Assistant Aquatic Biologist and Central District Fisheries Manager. DAVID HALLIWELL joined this staff as an Assistant Aquatic Biologist in charge of stream-survey investigations - cutting his teeth on the Westfield Drainage.

Additional funding for the marine mammals observations program was acquired, due in part to the work of JOHN NICOLAS.

With all the controversy surrounding the "Argo Merchant" oil spill, the PMP for Atlantic herring, and so forth, JON GIBSON became the Northeast Fisheries Center's and Woods Hole Laboratory's point man for public relations efforts. He also began a system of detailed monthly reports on National Marine Fisheries Service research activities in the Northeast for distribution to key research facilities within the federal government and to Regional Fishery Management Council members.

Finally, BOB EDWARDS and DICK HENNEMUTH, directors of the center and the laboratory, respectively, received gold medals from the Secretary of Commerce, JUANITA KREPS, for their contributions to international cooperative fisheries research programs.

UNIVERSITY OF MASSACHUSETTS and  
MASSACHUSETTS COOPERATIVE FISHERY RESEARCH UNIT

Assistant Unit Leader, JAMES PARRISH, accepted the Leader's position in Hawaii and left in mid-August. His drive and expertise will be missed in our marine program. We are currently conducting interviews for Jim's replacement.

ROGER REED, Leader, continued his general supervision of research on American shad and shortnose sturgeon in the Connecticut River. The Unit employed about 40 part-time biological aides (undergraduates) associated with these studies. These young men and women gained field experience and also earned money for tuition from this rather unique opportunity. Project Leader JAMES LAYZER completed a final report draft of his four-year study of adult American shad behavior in relation to the Northfield Mountain pump storage plant operation. Jim's research made it possible to hire about 150 undergraduates over a five-year period.

The Unit Leader spent considerable time condensing the Lake Champlain Environmental Impact Committee's final report submitted to the International Lake Champlain-Richelieu River Board; prepared testimony for the Massachusetts Energy Facilities Siting Council to be presented at the public hearing next spring to decide whether or not Northeast Utilities Service Company will be granted a site permit; and assumed major advisor responsibilities for three of the four graduate students in the Unit's marine program.

New graduate students accepted into the program: CHRISTOPHER GLEDHILL, CINDY OBENCHAIN, PETER PHILLIPS, RUDOLPH ROSEN, and FREDERICK SUTTER.

## NEW BRUNSWICK

### UNIVERSITY OF NEW BRUNSWICK

The study by G.M. HARE on the use of parasites as biological tags of juvenile salmon is now complete. Although we have some misgivings about the potential use of this information with respect to management of fish populations, the work itself is most interesting and is now published. Following on this work is a study done by JAMES RICHARDSON as part of his requirements for an M.Sc. degree. His study involved a comparison of the helminth fauna of brook trout and juvenile Atlantic salmon. We were specifically interested in trying to determine what parasites, if any, are harboured by the resident brook trout population as parasite reservoirs which are then available to infect young developing juvenile salmon as they hatch. We know that most adult salmon returning to spawn are relatively clean of the parasites they took to sea with them after smoltification. Therefore, unless there is a resident fish population (for example brook trout), seasonal fluctuations in the parasite fauna of juvenile salmon could in certain cases lead to the elimination of certain parasites from their Atlantic salmon hosts. It is clear from this study that there is a certain level of crossed infection between brook trout and salmon. In addition, it was most interesting to note that the levels of prevalence of some parasite species had changed within two or three years from the previous study of Hare. This even further emphasized the unlikelihood of the biological tag principle, at least in this study, being particularly useful in the management of Atlantic Salmon stocks. RALPH APPY is just completing his research for a Ph.D. degree looking at the potential use of parasites as biological tags in ocean populations of cod. A computer analysis of the enormous amounts of data collected by Ralph is not yet complete. A most interesting side project of this study involved the investigation of piscine erythrocytic necrosis. The viral nature of this disease in cod has now been firmly established both by this study and by others. Our most recent work on fish parasites is being done by DAVID CONE working on the Monogenea found on yellow perch. The growth and fine structure of these interesting parasites is under investigation as is the host-parasite relationship.

### DEPARTMENT OF NATURAL RESOURCES

Department of Natural Resources biologists are involved in several continuing and new development projects of interest. In addition, several projects are expected to be initiated during the 1977-78 fiscal year.

#### Continuing Projects

- lake and stream inventories (STAFF)
- storage - retrieval system for intensive, physical, chemical, biological and sociological data (W.C. HOOPER, S. MITCHELL, J. GILBERT)

## NEWFOUNDLAND

### ENVIRONMENT CANADA, FISHERIES AND MARINE SERVICE

The emphasis and the objectives of the Research and Resource Services are directed to providing scientific information on the freshwater and marine renewable resources and the aquatic environment in the Canadian Atlantic continental shelf areas; with special emphasis in and around Newfoundland and Labrador.

As a result of Canada's extended fisheries jurisdiction to 200 miles and the added responsibilities for providing scientific advice on fish stocks in this vast area, the staff of Research and Resource Services was increased by 44 positions in 1977. Some of these positions have already been filled while others are in the process of being filled.

A.M. FLEMING, the Director of the Research and Resource Services, Newfoundland Region, has announced that he will be retiring at the end of December, 1977.

W.D. McKONE transferred from Pelagic Section (herring) to take up new duties as Section Head of the Redfish Section in the Groundfish Program.

D.H. SHAW went on sabbatical leave for one year at the Max Planck Institut fur Immunbiologie, Federal Republic of Germany.

S.C. STEVENSON was appointed to a Biologist position in the Groundfish Biostatistics Section.

M.C. MERCER accepted a position as Senior Policy/Program Advisor on Marine Mammals in the Fishery Research Branch, Ottawa.

L.S. PARSONS accepted a position as Associate Director, Resource Assessment, Fisheries Research Branch, Ottawa.

D.E. WALDRON transferred from Groundfish Biostatistics Section to Marine Fish Division, Resource Branch, Maritimes Region (Dartmouth, N.S.).

R.H. PAYNE resigned from the Biochemical Systematics Section and accepted a position as Research Scientist in Biochemical Genetics and Director of Biochemical Genetic Screening Laboratory in the Faculty of Medicine, Memorial University of Newfoundland.

D.W. KULKA was appointed to a Biologist position in the Foreign Cooperative Research Project in the Groundfish Program.

D.S. MILLER transferred from St. Andrews Biological Station, New Brunswick to a Biologist position in the Pelagic Section where he will be conducting research on capelin.

We are hoping for a change in the matching formula for Section 314 of Public Law 92-500, from the current 50% E.P.A., 50% State funding; to 75% E.P.A., and 25% State matching funds. And we hope further that the State will be allowed to "soft match" with services and equipment. If all this comes to pass, it is our intent to update our lakes and ponds inventory, some of which has not been done for forty years.

With the modernization, expansion and renovation of the wastewater treatment plant in the City of Laconia, and the connecting of the State School system to the municipal plant, this last summer (1977) has been the first year since 1961 that the 4200 acre Lake Winnisquam, which received the treated effluent, has not suffered an objectionable bloom of algae. This agency is much encouraged with what appears to be the restoration of this large recreational lake. The transparency of the water has increased significantly (four or five feet) since the baseline study of 1973. One ton of coarse-crystal copper sulfate was applied to the northern end of the lake late in June, but a complete treatment of the lake would have required about twelve tons. We notice a well defined, classical inverse relationship between dissolved oxygen and phosphorus, and between dissolved oxygen and nitrogen in the bottom waters. This phenomenon has been observed and commented upon by many investigators of other places and other times, and various theories have been promulgated to account for it. The 1976 Staff Report on Lake Winnisquam has been prepared, published, and is available upon request.

#### NORMANDEAU ASSOCIATES, INC.

Normandeau Associates, Inc. (NAI), of Bedford, New Hampshire, continued its pattern of growth and diversification in 1977. Research programs have continued for the utility industry, including projects in Maine, New Hampshire, Massachusetts, Connecticut and New York. NAI has also been active on projects for the U.S. Army Corps of Engineers, New Hampshire's Lakes Region Planning Commission, the oil and gas industries, the U.S. Navy, private industry, and state and local governments.

During the winter of 1976/1977, NAI completed environmental surveys for Continental Offshore Stratigraphic Test (COST) wellsites in the Atlantic. NAI was chosen as the prime contractor for predrilling environmental studies at COST wellsites G-2 (Georges Bank) and GE-1 (Georgia Embayment), operating under contract to Ocean Production Company of New Orleans, Louisiana. Predrilling studies are required by the Federal Government as a condition for issuance of the drilling permit. COST wellsites are drilled in possible oil and gas exploration areas to provide potential oil company bidders with detailed stratigraphic information on the geology of areas being offered for lease.

In late summer, NAI completed work on the Water Quality Sampling and Analysis Program of New Hampshire's Lakes Region Planning Commission. The project was performed under Section 208 of the Federal Water Pollution Control Act Amendments of 1972 through the U.S. Environmental Protection

sewage, dredge material, soils and biota. A full capability bacteriological laboratory was implemented, and the acquisition of an Atomic Absorption/Emission Spectrophotometer with a flameless graphite furnace has provided the capability for full-range heavy metal analysis. The laboratory has also become increasingly involved in NPDES (National Pollutant Discharge Elimination System) work entailing industrial effluent testing. The expanded Analytical Laboratory's staff now includes two nutrient chemists, a physical sedimentologist, bacteriologist, sediment chemist, geochemical technician and several support personnel including chemical, biological and data technicians.

New additions to the NAI staff include MELVIN LAMBLE, limnologist and manager of the Aquatic and Terrestrial Ecology Department with an M.S. from Southern Illinois University; JOSEPH O'NEILL, oceanographer with an M.S. from the University of Washington; WILLIAM TRUMPF, aquatic biologist with an M.S. from Tennessee Technological University; DENNIS SASSEVILLE, geologist and manager of the Analytical Laboratory, with an M.S. from the University of Maine; ROBERT NABER, mechanical engineer and manager of engineering, with a BSEE from the University of Buffalo; MICHAEL TUBMAN, oceanographer with an M.S. from Louisiana State University; PAUL FERREIRA, marine biologist with an M.S. from the University of Rhode Island. DOREEN NEWHOUSE was awarded an M.S. in Oceanography from Dalhousie University, Halifax, Nova Scotia. WELDON BOSWORTH with a Ph.D. in Zoology from Oregon State University, has been named Vice President of Operations; ROBERT VOKES with an M.S. in Physics from the University of Massachusetts and an M.B.A. in Management from Northeastern University, has been named Vice President of Finance and Administration; ANDREW McCUSKER with an M.S. in Zoology from the University of New Hampshire, has been named Manager of Offshore Services.



Recent studies involving the soft-shelled clam indicated that over-harvesting was resulting, particularly during the summer months. Regulations were changed to reduce the over-harvest and protect the shellfish fishery.

#### Personnel Changes

PHILIP WIGHTMAN, Fish and Wildlife Ecologist resigned and began work as the Regional Fisheries Biologist in the Northeast Kingdom of his home state of Vermont.

PETER BREZOSKY, Pathologist, was promoted to Supervisor of Fisheries Management, following ROBERT KNOWLTON'S retirement.

Marine Biologist EDWARD SPURR was promoted to Supervisor of Fisheries Research following ARTHUR NEWELL'S retirement.

THOMAS WOITHE was chosen to replace EDWARD SPURR as Marine Biologist.

Chief of Inland and Marine Fisheries, RICHARD SEAMANS, JR., resigned to accept a position with the National Marine Fisheries Service in Gloucester, Massachusetts.

New Hampshire Fish and Game Department Federal Aid Coordinator, CHARLES THOITS was promoted to Chief of Inland and Marine Fisheries Division.

#### U.S. FISH AND WILDLIFE SERVICE ECOLOGICAL SERVICES

We are currently involved in outlining a Plan of Study for the Passamaquoddy Tidal Power Project, a proposal to harness tides to generate electricity, for which the Corps of Engineers is preparing study proposals.

The proposed Dickey-Lincoln hydropower project continues to require considerable attention. The impacts of the transmission line on fish and wildlife are being evaluated and measures to mitigate anticipated losses from the reservoirs are being investigated.

GORDON BECKETT replaced MELVIN EVANS as Supervisor in August 1977. RUTH LADD started work here in April, after transferring from the Regional Office, and BOB CURRIE arrived in May from the Norfolk District, Corps of Engineers. VERNON LANG began work as Assistant Supervisor in July, transferring from the East Lansing, Michigan, office of Ecological Services.

MEL EVANS transferred to the Denver Service Center and DEWEY CASTER went west to the Ecological Services office in Pierre, South Dakota. MARGARET KOHL is now basking in the tropical sunshine prevalent at her new station with Ecological Services in Honolulu, Hawaii. DAVE RACKLEY moved south to the Raleigh, North Carolina, office of Ecological Services.

Studies conducted from 1972 through 1975 have been summarized recently in a draft document now in review. A major staff effort this year, coordinated by ANDY JAHN (Section Leader) has involved in-house computerization of the biological and physicochemical data base for studies conducted from 1972 through 1977. There are presently seven in-house computer staff at Absecon under the overall direction of JEFF HONDO (Technical Director, Data Processing).

ICHTHYOLOGICAL ASSOCIATES, INC.  
BRIGANTINE LABORATORY

The Brigantine Experimental Laboratory continues work primarily on thermal preference, avoidance, heat and cold shock, and swim speed of a variety of marine and estuarine organisms. MARC WYLLIE (Section Leader) is responsible for the operation of the Laboratory. KEN TERPIN is in charge of coordinating data analysis and quality control. Recent additions to the staff include MARK NEWCOMB and JUNE CARLTON, formerly with the I.A. Oyster Creek Generating Station study, and JOSEPH DOBARRO, a master's degree candidate from Rutgers University. The laboratory staff is presently (October 1977) preparing the experimental section of the 316 (a) demonstration for the proposed Atlantic Generating Station and is also involved in a variety of bioassay studies.

ICHTHYOLOGICAL ASSOCIATES, INC.  
FORKED RIVER LABORATORY

The laboratory, under the direction of THOMAS R. TATHAM and the technical direction of DAVID THOMAS, continues to study the effects of Jersey Central Power and Light Co.'s Oyster Creek Generating Station on fishes and macroinvertebrates in Barnegat Bay. These studies include impingement of organisms, entrainment of zooplankton and ichthyoplankton, effects of the heated discharge, and experimental temperature shock studies. Life history studies of 12 fishes, the blue crab, and the sand shrimp have been conducted since September 1975. The present staff numbers about 20.

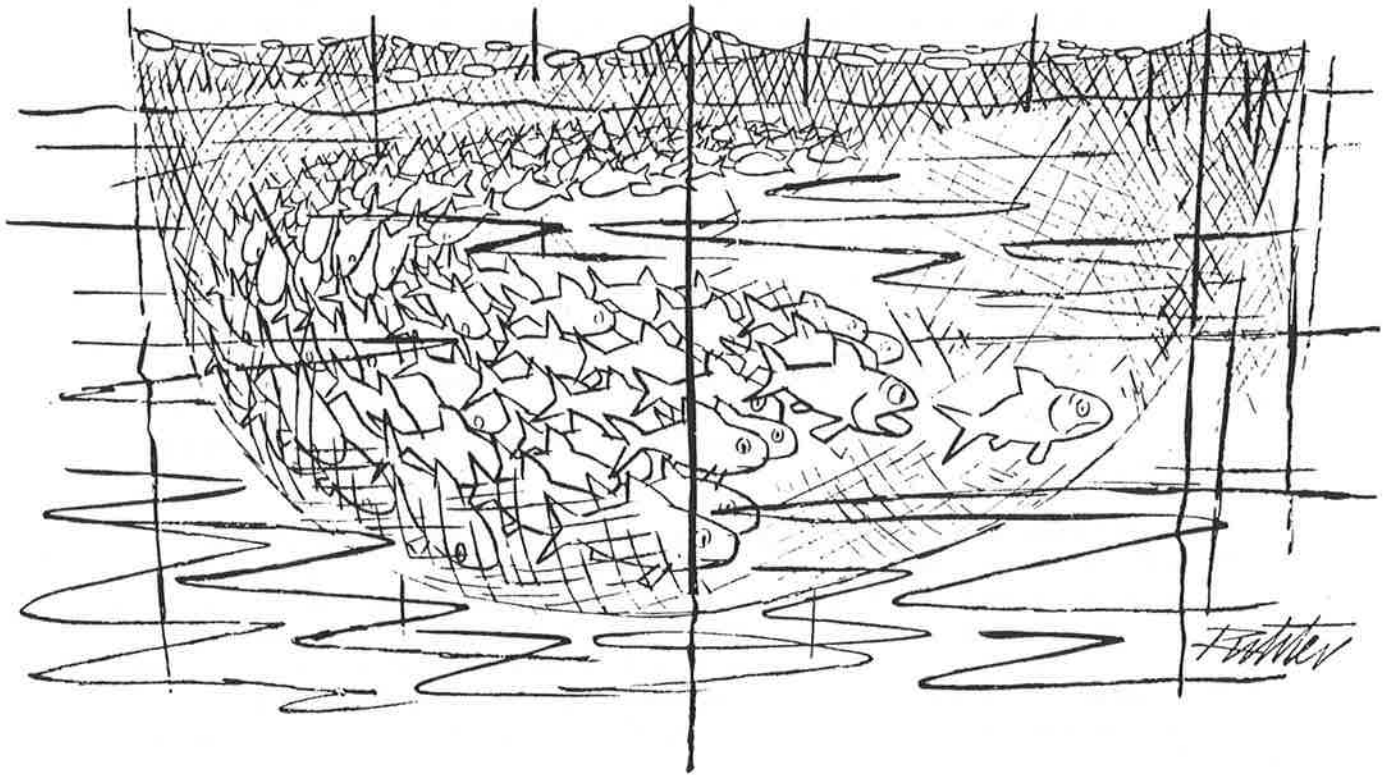
NEW JERSEY DIVISION OF FISH, GAME AND SHELL FISHERIES  
BUREAU OF FISHERIES

A. BRUCE PYLE, Chief, reports that progress on the new trout hatchery on the Pequest River has been made with the completion of the necessary production wells. Engineering design for bid consideration is well underway.

The supervisor of the Hackettstown Hatchery, ROBERT WILLIAMS, was quite pleased to be able to stock over 443,000 catchable size trout that he reared despite low summer flows and an extraordinary amount of heron depredation.



From the Marine Fisheries Lab at Nacote Creek it was learned that PAUL HAMER has been named to the Mid-Atlantic Fisheries Management Council's Scientific and Statistical Committee. He is also chairman of the Atlantic States Marine Fisheries Commission's Fisheries Advisory Committee. JOHN McCLAIN has been named to the Shortnose Sturgeon Recovery Team. JOHN MAKAI has been promoted to Senior Biologist. He is in charge of the Division's Estuarine Survey. Senior Biologist PAT FESTA has left his position and has gone on to work for New York State in their fresh water research program. PETE HIMCHAK has taken over Pat's work on marine fisheries research. Fisheries Biologist BILL FIGLEY has been given the responsibility of supervising the offshore monitoring study which is concerned with predicting and monitoring the anoxic conditions which develop off New Jersey during the summer period.



*"Know any more short cuts?"*

New Yorker

passing out of the river as of late November. Dissolved oxygen values of the block increased to safe levels for fish passage during mid-October.

Seasonal Biological Aides assisting in this years' activities included TOM CORSO, KEN HAYES, CAROL INCOLLINGO, WOLFGANG KONKEL, FLORA NIBOUAR, ANNIE THURSTON-ROGERS, MARCIA VERSE, and RICHARD WILSON. Administrative support was furnished by JOYCE JARVIS.

#### NEW YORK

##### STATE UNIVERSITY OF NEW YORK COLLEGE AT BROCKPORT

The Department of Biological Sciences at SUNY Brockport operates an aquatic ecology program in research and education. The most recent research project was a 2 year contract with the U.S. Army Corps of Engineers to assess the biological impact of construction of an access channel and a small boat harbor in Irondequoit Bay near Rochester, N.Y. This project was completed in August, 1977. There are two graduate students currently in the Master of Science program. SAM INSALACO is working on a project investigating tissue distribution of Mirex in Lake Ontario salmon, and CHUCK McCORMACK is determining the value of zeolite as a diet supplement for fish. In the past year, three students have completed their degree work. ART ROBB is employed as a project biologist by Dames and Moore in Cincinnati, Ohio. DOYLE ROARABAUGH and ALLAN AMERING are with Ichthyological Associates in Stamford, N.Y., working with water chemistry and ichthyoplankton, respectively.

There have been several staff changes recently. BOB ELLIS resigned in June, 1977, and has joined the Oregon Institute of Marine Biology, Charleston, Oregon. TERRY HAINES has resigned effective January, 1978, to become the leader of the Fish Pesticide Research Field Unit in Orono, Maine. STEPHEN ARNOLD from Cornell University arrived in August as a specialist in benthic invertebrates and population dynamics.

##### U.S. FISH AND WILDLIFE SERVICE TUNISON LABORATORY OF FISH NUTRITION

Biological filters that utilize easily established bacteria and other simple organisms to digest and thus remove toxic waste products of fish from aquaculture systems are the most practical and economical means of permitting re-use and conservation of the culture water. Unfortunately, many non-biodegradable waste products detrimentally accumulate in used, treated water unless regular, periodic and extensive backflushing of the biofilters, with replacement of 5 to 20 percent of the water in each cycle, is practiced. This causes problems, the more serious being (1) necessity for tempering or treating large volumes of make-up water, (2) necessity for treating or disposing large volumes of incompletely degraded solid and liquid waste in the hatchery effluent, and (3) inefficiency of the biological filtration process because of the periodic removal of some bacteria and bacterial nutrients from the aquaculture system. To circumvent these difficulties, systems employing nearly 100 percent water re-use

Our search for alternate sources of protein has been directed mainly to soybean meal, not because it is the only product which could be used, but from the standpoint of present and potential supplies, market availability, chemical composition and cost, it appeared most attractive.

Feeding trials have shown that the commercial solvent extracted soybean meal presently on the market is not suitable for inclusion at high levels in the diets of trout and salmon. However, when full-fat meal is made from soybeans that have been heated to temperatures much higher than are now commonly used it is almost equal to good quality fish meal in trout diets and has been used successfully at levels as high as 80% of the diet.

At the present (October, 1977) market prices for soybeans, soybean meal, fish meal, and the other ingredients commonly used in fish feeds, a saving of \$140-150 per ton of feed could be realized if the high fat soybean diets were used. This would amount to a saving of 10 to 15 cents for each pound of fish produced which would ultimately be passed on to the consumer, either in lower prices on the fish in the supermarket or in the form of more fish in the streams for the sport fisherman.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
BUREAU OF ENVIRONMENTAL PROTECTION - JOHN SPAGNOLI, Bureau Chief

#### Monitoring Section.

The identification of PCB and mirex contamination of some of New York's waters has required a redirection of some program areas and an increase in staff. EARL HARRIS, Associate Analytical Chemist and his staff chemists, RALPH KARCHER and SAM JACKLING continue to analyse fish and wildlife tissues for the presence and concentration of heavy metals and organochlorines. Most of their activities are now directed to the analysis of tissue for staff research projects rather than the past emphasis on monitoring. Our present approach to chlorinated hydrocarbon and metals monitoring began with budget acceptance of a new (1976) State-wide Toxic Substances Monitoring Program. This project coordinated by RON SLOAN involves the collection of specific species of fish from 104 locations in the state and their analysis for 17 compounds. The chemistry for this program is implemented at our newly acquired Cocksackie Analytical Laboratory by JOHN McKINNEY (Associate Sanitary Chemist), MICHAEL RADZEVICH (Analytical Chemist) and STEVE SCHWEBLER (Senior Laboratory Technician).

The Macroinvertebrate Program, which studies the relationship of stream communities to water quality, is presently in a state of flux. We are in process of combining this unit with the parent program which had originally been implemented through the Health Department. LAURA KINNEY and FRED ANGOLD (Technicians) will join the newly expanded unit but remain at their present location at Avon with modified duties.

### Impact Analysis Section.

This third section of the Bureau is involved with the analysis of impacts to fish and wildlife resources of proposed projects. JOE DELL (Section Head) has structured his staffing so as to achieve project development and coordination in the Albany Office and implementation in the regions. Staff now includes RICHARD KOEPPICUS (Conservation Biologist) - Power Plant Specialist and BRUCE ZEISEL (Conservation Biologist) - Stream Alteration Specialist, both in Albany and six (6) biologists in the field: CHARLES HAMILTON, Stony Brook; BOB BRANT, New Paltz; DICK POPP, Stamford; LARRY GUMAER, Cortland; JACK COOPER, Avon and KEN TAFT, Olean. Additional positions will be filled at Ray Brook and Watertown.

Regional personnel review, evaluate and comment on environmental impact statements of all types and prepare testimony and participate in public hearings. Albany personnel prepare guidelines, organize training programs and gather and analyze data and information and recommend policies and procedures used statewide; they seek and synthesize information in their specialty areas to function as consultants for administrative and field staff.

### BUREAU OF FISHERIES

#### Inland Fisheries Section - PAUL NETH, Supervisor

Thanks to support from New York's anglers and organized sportsmen, the Department of Environmental Conservation was granted broad authority by the Legislature to regulate freshwater fishing by Department Order. Authority was conferred for a three-year period and provides much needed flexibility to adjust fishing regulations to meet changing conditions in our fisheries. Major changes in New York's sportfishing regulations became effective on October 1, 1977. Designed to improve fishing, these regulations were discussed at over 100 public meetings in 1976 and 1977 and received strong support from New York's anglers. Original proposals were developed by a task group led by LEIGH BLAKE and including RUSS FIELDHOUSE, NED HOMES and BRUCE SHUPP. Studies to determine the effects of new regulations on fishing and fish populations, particularly stream trout and bass, will be formally implemented in 1978.

PATRICK FESTA has recently joined the Section replacing PIETER VAN-VOLKENBURGH as leader of the Habitat Management and Public Use Unit. Piet returned to the Division of Marine Resources on Long Island. Pat will have broad responsibilities for program planning, coordination and evaluation in habitat and public use programs. NORM McBRIDE, Senior Aquatic Biologist responsible for Region 4's three urban counties, has completed the strategic plan for the Capital District Urban Fishing Program. Base line data on fishing pressure and angler characteristics were collected on 23 urban waters.

the work accomplished on the Batten Kill.

Senior Aquatic Biologist BILL WHITE has also had his hands full this year with day-to-day direction of all Inland Fisheries Program activities at the Ray Brook headquarters plus handling all Environmental Protection activities for 5 of the Region's 8 counties, and all public fishing rights acquisition activities for the northern three counties. In terms of PFR purchased this year, the "big one" was a single transaction with DOMTAR Ltd. of Canada which netted New York State anglers 7.133 equivalent miles (more than 14 miles of streambank) of new public fishing rights easements on three excellent trout streams, the N. Branch Saranac River, the Big Salmon River and True Brook, all in Franklin County.

Senior Fish and Wildlife Technician LEN OLLIVETT has turned his talents to the intensive management of 327 acre Thirteenth Lake in Warren County with emphasis on the collection of wild brook trout and salmon spawn, this fall. 133,000 salmon eggs and 86,000 wild brook trout eggs were collected which will make a major contribution to the state's salmon and brook trout management programs. Beyond this, Len also collected data that will yield valuable estimates of population sizes for these two species.

LARRY STRAIT completed an urban fishing strategic plan for a prototype program on Long Island and subsequently joined DAN PLOSILA on the Lake Champlain salmonid fishery development program. Larry's replacement in Region 1 is ROBERT LANGE.

Work on Lake Champlain included completing a rainbow smelt trawling schedule that involved mid-lake sampling in June, and lakewide sampling in August and September. This work will be repeated in 1978 and should then provide data to finalize development of a long-term assessment plan for this forage and sport fish. Fisheries under the salmonid program continued to materialize in 1977. The Willsboro Point lake trout fishery showed new life with the creeling of three and four year old lakery stocked under this program. An April-May landlocked salmon fishery occurred in the lower Saranac River at Plattsburgh and an estimated 200 - 500 three year olds were caught. A fall run of at least 500 three year old salmon took place on the Bouquet River and an estimated 150 three-four pound fish were harvested below the Willsboro Dam. Some returning four year old salmon weighed nearly eight pounds.

WALT KRETZER recently completed serving as project manager of fisheries investigations designed to evaluate the effects water levels have on the fishery resource of Lake Champlain, particularly the northern pike. He is currently designing a statewide survey and inventory project to be initiated in 1978.

MARTIN PFEIFFER is in the process of completing a first draft of a strategic fisheries management plan for the Adirondack Ecological Zone.

This year marked completion of a formal plan for lake trout. Entitled, "A Lake Trout Management Program for New York State", its implementation will lead to substantial improvements in management of lake trout fisheries and angling opportunities for this species. Plan was authored by DANIEL PLOSILA. Copies are available on request.

A program was implemented to plant nine-inch yearling trout in 64 two-story lakes and ponds. Compared to eight-inch trout which were previously planted, the nine-inch requirements called for an equal weight (about 66,000 pounds) but a 30 percent reduction in numbers (319,000 to 224,000). Benefits expected to anglers are a four percent increase in numbers harvested, a 48 percent increase in weight harvested and 16 percent savings in production costs. This move came about primarily from studies and analyses provided by WAYNE ELLIOT in Region 4.

PHIL HULBERT joined our staff in April and will be working with BOB ENGSTROM-HEG on trout stream management. Statewide management of New York's trout streams will receive greater attention during the next five years. Emphasis will be placed on assessment suitability of current management practices including stream improvement, evaluation of new fishing regulations and redevelopment of our trout stream program to meet current resource problems and angler needs. Phil's immediate assignment is to critique our stream improvement program.

WALT KELLER will complete a strategic plan for management of wild and hybrid brook trout by the end of 1977. In 1978, we anticipate planting fast-growing, longer-lived wild x domestic hybrids and pure wild strains in all lakes and ponds currently stocked with domestic fall fingerlings.

TONY BONAVIDA will assume new responsibilities as leader for a new federal-aid fisheries project on the Hudson River. Primary goal of this phase of the project is the preparation of a comprehensive plan for management and development of the fish resources of this important and historic waterway.

Senior Aquatic Biologists BONNIE JACKSON and BURRELL BUFFINGTON resigned to take employment elsewhere. Both were dedicated, valuable employees and we wish them well in their new endeavors.

#### Great Lakes Section - BILL PEARCE, Supervisor

The GLFS supervised by BILL PEARCE (Cape Vincent) consists of a Lake Ontario-St. Lawrence River Unit under JERRY LETENDRE (Cape Vincent) and a Lake Erie-Niagara River Unit under BILL SHEPHERD (Olean). A Federal Aid Project, FA-2-R, Salmonid Fisheries Development in Lake Ontario, coordinated by TOM JOLLIFF (Cape Vincent) combines with State funded staff to form the Lake Ontario Unit. Regions 6-9 Fisheries Management Units - Watertown, LEIGH BLAKE; Cortland, CLIFF CREECH; Avon, CARL WIDMER and Olean, STEVE MOORADIAN coordinate with Section staff to help plan and implement Great Lakes fisheries programs. Regions have basic management

River near the village of Altmar in Oswego County, New York.

DEAN BOUTON completed annual commercial fisheries summaries as well as commercial fisheries sample collections for biological data analysis.

JERRY LETENDRE helped complete the final report of the 1972 IFYGL fisheries study in cooperation with Fish and Wildlife Service personnel. The material is being published as an official IFYGL publication along with Canadian fisheries study data, and includes a list of Lake Ontario fishes.

#### Lake Erie Unit.

Federal Approval is expected by 1978 for a five year Federal Aid Project, "Development and Management of Lake Erie Fisheries." The study proposal and strategic plan was prepared by Unit Leader BILL SHEPHERD. Bill is also DEC's representative on the GLFC Lake Erie Winter Navigation Environmental Study Team, Lake Erie Regulation Board Fish and Wildlife Environmental and Recreation Committee, and Great Lakes Fishery Commission's Lake Erie Committee.

Region 9 DEC personnel including STEVE MOORADIAN, Regional Fisheries Manager; JIM POMEROY, Senior Aquatic Biologist; FLOYD CORNELIUS, Conservation Biologist; TONY VENO, Senior Fisheries Technician; and TOM MURRAY, Principal Fisheries Technician were involved with spring, summer and fall activities on Lake Erie and tributaries. Spring inshore netting produced data on stocked salmonids as well as year class strength of adult walleye. Summer offshore chemical-thermo studies demonstrated that New York has approximately 200,000 acres of lake trout habitat. Fall fish collection on the lake and major tributaries demonstrated the good growth of stocked coho, rainbow and brown trout, and was used to alert anglers as to the location of these preferred species.

#### STATE UNIVERSITY OF NEW YORK COLLEGE OF ENVIRONMENTAL SCIENCE AND FORESTRY AT SYRACUSE

The major research activities at SUNY College of Environmental Science and Forestry in the last year have revolved around field work in the Adirondacks and the eastern Lake Ontario-St. Lawrence regions of New York as well as the establishment of laboratory facilities for experimental work on stream fishes and larval fishes.

JIM JOHNSON has been examining the extent of natural reproduction and the ecology of juvenile Pacific salmon and steelhead trout in tributaries of the Salmon River. He has found naturally reproduced coho salmon and steelhead trout in all of the five study streams. Natural reproduction of chinook salmon was minimal in the streams studied.

H.B. O'CONNORS has carried out projects designed to determine the impacts of PCB contamination on natural phytoplankton communities and research directed toward measurement of phytoplankton patchiness in the Long Island Sound. Special focus was given to the role of phytoplankton patches as a variable source of particulate food for zooplankton. He has completed a preliminary research project directed toward the determination of the environmental acceptability of marine disposal of stabilized calcium sulfite/sulfate wastes generated by coal-fired power plants.

AKIRA OKUBO is interested in the development of mathematical models for fish schooling. He, jointly with a few Japanese scientists in Fisheries, has completed a preliminary study on the dynamics of fish schooling. A paper on the matter will be published soon.

J.L. McHUGH has had two major projects underway in 1977, an annotated bibliography of Mercenaria mercenaria, and an analytical historical study of the fisheries of Middle Atlantic Bight. To date about 1,200 original abstracts have been written and about 400 papers remain to be obtained and read. The product will be an annotated bibliography of 1,600 - 1,800 titles, with a detailed subject index. The Mid-Atlantic Bight study is just entering the analysis stage, but several interesting aspects are emerging. One is the pattern and magnitude of variation between maximum historic catches and subsequent minima for some 35 major commercial species in the area. Ratios of maximum to minimum as high as four orders of magnitude have been encountered, and two orders of magnitude have not been uncommon. Recognizing that landings are imprecise measures of levels and trends in abundance, we find encouraging clues that they are useful as indices.

ANDREW MIRCHEL is completing a Master's thesis on the problem of hard clam law enforcement in New York. The study will evaluate the effectiveness of shellfishing surveillance and law enforcement, and provide estimates of levels of manpower, facilities, procedures, and costs necessary for adequate performance.

CHRISTOPHER SMITH is completing a Master's thesis on a conceptual management plan for a hard clam fishery. Models have been developed using existing information on recruitment, growth, stock sizes per unit area of bottom, and natural and fishing mortality. We hope that such conceptual models may be useful as preliminary management guides until more specific information is available.

GREGORY GREENE is completing a Master's thesis on certain aspects of hard clam growth and mortality based on field studies in Great South Bay. He and SCOTT BECKER, also a graduate student at MSRC, recently published the results of a survey of hard clam mortality in the severe winter of 1976-1977.



LUCIANO CORAZZA continued studies on intensive culture of walleye fry and fingerlings. A diet based upon the nutrient composition of walleye eggs will be tested in 1978 in an attempt to overcome problems with the acceptance of current diets by walleye fry.

#### NOVA SCOTIA

#### CANADA FISHERIES AND ENVIRONMENT FISHERIES AND MARINE SERVICE, HALIFAX

C.P. RUGGLES, former Chief of the Freshwater and Anadromous Division, has entered the consultant field through the executive interchange program and is working with Montreal Engineering Co. Ltd. R.E. CUTTING, Head of the Stock Assessment and Enhancement Section, acted in the vacant position until N.E. MacEACHERN was named permanent Chief in mid-November.

J. RICK SEMPLE, Fish Passage Research Biologist, has been seconded to Ottawa for one year to assist with assessment of environmental problems.

GARY TURNER has left his duties overseeing the salmon management work on the Miramichi River and is now Head of the Special Projects Section where, among other duties, he has carried out consultations with commercial salmon fishermen to develop a fishing plan for 1978 in New Brunswick.

TIM CAREY, Head of the Fish Culture Section, has assumed a position in Ottawa as Aquaculture Coordinator with the Department. J.A. RITTER is filling the vacancy pending a competition.

JOHN WEBER resigned his position as Fish Disease Biologist and accepted a position with Department of Health and Welfare in Ottawa. John's replacement is MALCOLM (SANDY) CAMPBELL who arrived on June 1. Sandy received his M.Sc. from Guelph University in 1975 and has since been working on fish diseases at the Freshwater Fisheries Institute in Winnipeg. Sandy and his assistant BETTY ZWICKER continued their diagnostic services for the federal fish culture stations.

GIL FARMER and his assistant DALE ASHFIELD transferred from the Division's Habitat Protection Section to Fish Culture at the beginning of the year. Gil is no stranger to the Fish Culture Section in that a good part of his time in the past two years has been spent on fish culture investigations to sea-water acclimation and parr-smolt transformation in juvenile Atlantic salmon. His role in the Fish Culture Section is that of Fish Physiologist.

Completing the biological support team to hatchery operations are AHMED FODA as Hatchery Nutrition Biologist, JOHN RITTER as Senior Hatchery Biologist, and DAN MacPHAIL as Senior Technician.

Investigations to identify management alternatives for depleted runs of Atlantic salmon to the Margaree River, Cape Breton Island, are expected to be completed by project biologist LARRY MARSHALL early in 1978. A River Management Committee consisting of representatives of potentially affected sport and commercial fishermen, and concerned federal and provincial agencies has been provided with a series of biological briefings to enable more public input into the selection of the ultimate management strategy.

Salmon management investigations in the Restigouche River system of Northern New Brunswick were continued by JOHN PEPPAR and his staff. The commercial salmon fishing ban in Chaleur Bay was extended to include the 1977 season, thus investigations initiated in 1972 were continued to assess effects of this closure. These investigations have included: the monitoring of adult and smolt runs (to assess timing and magnitude); tagging of adults and smolts (to obtain information on migration and exploitation); and electroseining (to assess juvenile salmon population levels in the freshwater areas). In addition, stream and angling surveys have been conducted in selected areas of the Restigouche. Results of the Restigouche River investigations are presently being considered in the development of proposals or options for the 1978 salmon fishing season.

TIM LUTZAC tells us that salmon development operations expanded to ten rivers and streams during 1977. Operations at various levels of effort extended from the Tetagouche to the Buctouche rivers in New Brunswick and included the Morell River on Prince Edward Island. Tim also advises that the Bartholomew River salmon enhancement and restoration project in the Miramichi drainage of eastern New Brunswick is on schedule to permit a limited reopening of the angling fishery for salmon beginning by 1980. With the dismantling of the Blackville dam in early September 1976 and free river access for returning stocks, 1977 fry counts doubled over the previous years' average, to 27.7/100m, the best in the nine-year interval for which records are available. Furthermore the 1977 salmon run at 305+ fish was the best since 1970.

The Mactaquac hydroelectric dam, located just above tide-head on the St. John River, has since its construction in 1967, formed a total obstruction to upstream migrating salmon. Fish ascending to the dam are captured in fish collection facilities and trucked to locations upriver of the dam. A 250,000 smolt capacity salmon hatchery was built in 1968 just below the dam to compensate for habitat destruction resulting from the reservoir created by the dam. GLEN PENNEY reports that the number of large salmon counted at Mactaquac in 1977 was the highest recorded since 1967. In 1977, 9,315 large salmon were counted compared to the low of 770 in 1968. Over 3% of the hatchery-produced smolts are returning as adults, and hatchery returns for the past four years have accounted for 41% of total counts at Mactaquac (salmon and grilse combined). Estimated egg depositions from adult releases upriver of Mactaquac, for the first time since 1967, appear to meet requirements for full salmon production.

During 1977, the lab has continued its interaction with the International Joint Commission, Great Lakes Fishery Commission, the Ontario Ministry of Natural Resources, the Ontario Ministry of the Environment, and Canadian universities such as Guelph, Brock, Waterloo, Queen's and Lakehead by contribution, participation, joint programs and cooperation. Research results appear frequently in the primary literature. Reprints and reprint lists are available from GLBL in Burlington.

#### UNIVERSITY OF TORONTO

FRED FRY as Professor Emeritus has not yet taken on the responsibility of castigating all his un-emeritus colleagues for straying from the proper way of science. In these respects there has been a vacant niche at U of T since the demise of much respected and well-liked A.G. HUNTSMAN.

HAROLD HARVEY convulses audiences with his account of some current mismatches between bureaucracy and science, having himself suffered a bout of bureacracy recently.

JYRI PALOHEIMO hasn't yet mastered the technique of buffering himself from suppliants seeking quantitative recipes. But apparently he's trying, -- there are accounts of Jyri walking determinedly down the hall with his eyes fixed so far in the distance as not to recognize even his close associates as they pass.

HENRY REGIER is still trying to find some operational handles on ecosystem science a la' Margalef. Yet he seems quite sure that academic ecology has little direct relevance to real problems in the field.

BRIAN SHUTER was for several years a U of T researcher specializing on stochastic modelling of human impacts on fisheries. He has now joined the Ontario Ministry of Natural Resources -- one of the few government agencies where scientists can work according to their own daily schedules. Even STEVE KERR's penchant for working only during hours of total darkness didn't create insuperable difficulties there.

ALAN WEATHERLEY of growth-of-fishes fame is well on his way to understanding even more about growth of fishes, with new ways of measuring activity. He's also up to here in paradigmatology.

There's not enough time to say a little about each of the brighter lights at U of T -- the recently recruited junior professors and the graduate students. They can wait their turn, -- it will come soon enough.

CLARK SHIFFER was officially established as the Commission's Herpetology and Endangered Species Coordinator. He is presently developing a comprehensive management plan for Pennsylvania's herps and endangered species.

COURTNEY GUSTAFSON, Chief of the Fisheries Research Section, has taken a position with commercial concerns. VINCENT MUDRAK is now Chief of the Research Section headquartered at the Benner Spring Fish Research Station. KEN STARK recently joined the Research Section as a Fisheries Technician.

LARRY JACKSON was officially established as the Area Fisheries Manager for the southcentral portion of the states including the Juniata River drainage, tributaries to the Potomac and James River and the western drainage of the lower Susquehanna River. HOBART "BUD" BAKER, Fisheries Technician, was also moved to the newly created office at the Huntsdale Fish Culture Station.

ROBERT MOASE has joined the Fisheries Management Section as a Fisheries Technician and will work in the North Branch Susquehanna River drainage.

BRUCE HOLLENDER was officially established as the Area Fisheries Manager for the West Branch Susquehanna River drainage and is located at the Bureau of Fisheries and Engineering headquarters at Pleasant Gap, Pa.

#### NUS CORPORATION ECOLOGICAL SCIENCES DIVISION

The year 1977 was an active one for NUS Corporation's aquatic biologists and limnologists. Ecological Sciences Division personnel completed investigations in more than 25 U.S. States and two Canadian Provinces. Aquatic personnel from our Pittsburgh headquarters and our regional facilities in Clearwater, Florida; Clear Lake, Texas; Denver, Colorado; Bayport, Minnesota; and Fair Haven, New York have been heavily involved in numerous Section 316(a) and (b) studies, regulatory hearings, coal, uranium and oil shale mining impact assessments, bioassay determinations and baseline field and laboratory investigations. They were conducted in freshwater, estuarine and marine environs.

BART MARCY put the final touches to a new book: "Power Plant Entrainment: A Biological Assessment", (Academic Press, Inc.) and was co-author of a paper "Ecological Trends in Licensing Nuclear Power Plants" for the American Nuclear Society. DICK NUGENT completed a major power plant study related to an ichthyoplankton investigation including intake and discharge impact evaluations on Lake Ontario. GERRY SGRO completed salmonid fisheries studies in Ontario, northern Labrador, and the Island of Newfoundland. BRAD OWEN directed three Section 316(b) studies in Minnesota and was senior author with MOHAMMAD AFZAL and BILL CODY on a paper "Staining Preparations for Phytoplankton and Periphyton." (British Phycological Journal).

population dynamics, and age and growth studies which concentrate on the important fishes in the Schuylkill River and Perkiomen Creek system. Data processing and analysis for most of the research conducted by the Pottstown laboratory is directed by ANDREW KAHNLE. All data are entered into a data management system and are subsequently analyzed using a variety of statistical packages.

During the year, most of the biologists were engaged in the preparation of an Environmental Report - Operating License stage for Limerick Generating Station. This task required the summarization and analysis of several years of data to describe the preoperational ecology of the Schuylkill River and Perkiomen system.

The remainder of the Pottstown staff was primarily engaged in studies necessitated by the implementation of the 1972 amendments (316a and b) to the FWPC Act which require that the effects of thermal discharges and water withdrawal on the aquatic community be investigated. ROBERT BLYE coordinated a team of twelve biologists involved in these programs. Studies of the plankton, benthic, and fish communities provided most of the information needed for 316 (a) demonstrations which evaluated the effects of thermal discharges from three electric generating stations on the Schuylkill River.

Losses of aquatic life at existing cooling water intakes were investigated at eight generating stations in the Philadelphia vicinity. The necessary field work at most of the stations has been completed and reports are in preparation.

#### ICHTHYOLOGICAL ASSOCIATES, INC. THREE MILE ISLAND AQUATIC STUDY

Ichthyological Associates personnel have been involved in an extensive ecological study of the York Haven Pond of the lower Susquehanna River since April 1974. The project is monitoring the environmental impact of the Three Mile Island Nuclear Station (TMINS), operated by Metropolitan Edison Company and located near Middletown, Pennsylvania.

Annual and supplemental reports summarizing the project's findings have been published since 1974. TMINS Unit 1 achieved criticality on 5 June 1974. Preoperational data for Unit 2, scheduled to go into commercial operation in 1978, are now being gathered.

Project leader GEORGE NARDACCI directs the research of nine aquatic and terrestrial biologists. DREW HAGERTY monitors fish populations by electrofishing and conducts movements and population estimates studies of fishes. Additional fisheries data are supplied by trapnet, fyke net, and seine programs directed by BOB MALICK. DICK EVANS studies the food habits of brown bullhead, channel catfish, rock bass, redbreast sunfish, and smallmouth bass. LYNN WIKE conducts a creel survey of fishermen throughout

- Upper Delaware, Schuylkill, Beaver and Clarion River Basins  
- Hydropower Studies at Raystown and Youghiogheny Reservoirs

#### New Jersey

- Fish and Wildlife Resources Studies for the Third, Hackensack, Rahway, Raritan, Kill Van Kull and Passaic River Basins
- Southern New Jersey Water Resource Study
- Cape May Inlet Study
- Pine Barrens Study

#### West Virginia

- Hydropower Studies on Tug Fork, Gauley, Kanawha and Cheat Rivers
- Ohio River Master Plan Study

Often several people from the office will work on a project. Our main objective in all of our work is to protect fish and wildlife habitat.

ED PERRY, TOM HUPF and CLIFF DAY are new employees. Ed came from Ecological Services in Rock Island, Illinois, Tom came from the Fisheries Station in Bermidge, Minnesota and Cliff is a recent graduate from West Virginia University.

#### ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA

The Fisheries Section of the Division of Limnology and Ecology, Academy of Natural Sciences of Philadelphia, has been involved in a variety of consulting and research projects over the past year. GEORGE CONSTANTZ, who has been head of the Fisheries Section for a little over a year, feels the section is in a transitional stage of improved capabilities and increased output of high quality work in both the consulting and research areas. George is involved in research on the ecology and behavior of the tessellated darter (Etheostoma olmstedi). George has also been co-teaching a course on population ecology at the University of Pennsylvania. Two biologists have recently joined the Fisheries Section staff. STEVE HALTERMAN, a recent graduate of Oklahoma State University is the leader of a project designed to study the effects of an electric generating plant on the Potomac River. Facets of the study include determination of the impact of the thermal plume on fish populations in the river and the impingement and entrainment of adult and larval fishes. Steve is also interested in the role and effects of nitrogen in the aquatic environment and is currently undertaking a literature search and review on the subject. PAUL STACEY is a recent graduate of Colorado State University. Paul has been serving as principal investigator for several studies, including the effects of temperature and silt on fish distribution, food habits, and condition in the Potomac River. Paul was also principal investigator for a recently completed survey of the impacts of chemical wastes on the fish populations of the Holston River in Tennessee.

analysis (BARRY ZAPLITNY). CHRIS FRESE supervises the trawling program in the heated discharge. Data analysis is performed in-house utilizing terminals in a NOMAD computer system. ALLAN KIRCH supervises the data processing and analysis section. The above studies are funded by Philadelphia Electric Company.

The fish behavior section, headed by SHERWOOD PETERSON, has conducted temperature preference, avoidance, and shock tests for Philadelphia Electric Company and Public Service Electric and Gas Company of New Jersey. Ammonia bioassay studies were also run for the City of Lancaster Sewer Authority.

Several members of the staff are assigned to the anadromous fish program from March through June. This program is coordinated by PETER FOOTE but the overall direction is guided by the Susquehanna River Anadromous Fish Restoration Committee, comprised of representatives of the states of Pennsylvania, Maryland and New York, the U.S. Department of Interior, U.S. Department of Commerce, and utilities operating facilities on the lower Susquehanna River. The objectives of the program are: (1) operate a fish collection facility and lift below Conowingo Dam to determine the numbers of anadromous fishes that reach the dam and (2) supply fertilized American shad eggs to a Pennsylvania Fish Commission experimental American shad hatchery and for transplantation to the Susquehanna River. Field activities are headed by GARY MCGHAN (collection facility) and RICHARD SIMMONS (egg collection). These programs are funded by Philadelphia Electric Company, Pennsylvania Power and Light Company, Safe Harbor Water Power Corporation, and Metropolitan Edison Company.

Other studies in which some members of the staff participated included an investigation of the water quality and benthos of the Conestoga River in the vicinity of the City of Lancaster sewage treatment plants, and a contract with the U.S. Fish and Wildlife Service, through Asplundh Environmental Services, on decision train schemes related to the siting of generating stations.

ENN KOTKAS, formerly a senior research biologist on the fisheries staff, assumed a new position as coordinator of environmental education. He is responsible for scheduling and conducting tours of the Drumore laboratory, and advises on environmental programs at the Muddy Run Recreational Park.

Additions to the staff in 1977 were biologists RICHARD SIMMONS, DENNIS SWARTWOUT, EDWARD TIERNEY, and BARRY ZAPLITNY.

GEOFFREY POWER had his contract as research professor with the Centre d'Etudes Nordiques, renewed for another year. This enabled him to continue work on the freshwater and anadromous fish of northern Quebec. He is also participating in a Hydro Quebec sponsored study of the esturine and marine fishes of eastern Hudson Bay. This forms part of a broader oceanographic study being undertaken by B.I.R.O.Q. under the direction of LOUIS LEGENDRE.

JIM BOULVA a marine mammal and fisheries specialist, left Laval to join the Fisheries and Marine Service, Environment Canada, Quebec. A replacement is being sought.

BILL LEGGETT from McGill University, spent his sabbatical leave at Laval, in part to improve his ability to communicate in French. His efforts were more than successful judging by the excellent response received following seminars he delivered 'en francais' on his Capelin work and his Memphramagog Lake studies. We all enjoyed his presence at Laval.

During the year several students completed, or are about to complete, their M.Sc. theses:

MARTINE CHARLOIS, Etude de l'evolution des elements nutritifs et de la production primaire d'un ruisseau dont le versant est soumis a l'exploitation forestiere.

JEAN-DENIS DUTIL, L'omble de Fontaine (Salvelinus fontinalis) du Golfe Guillaume-Delisle, Nouveau-Quebec.

BEATRICE ELOUARD, Etude de la Faune benthique d'un ruisseau dont la bassin versant est soumis a l'exploitation forestiere.

JACQUES LeCLERC, Nutrition de l'omble de fontaine et de la ouananiche de la riviere Meo, Nouveau-Quebec.

#### MATAMEK RESEARCH STATION

Matamek is located in Quebec on the North Shore of the Gulf of St. Lawrence, and our research there is carried out on a lake-river system. The program is operated in cooperation with the Woods Hole Oceanographic Institution and the Quebec government. This year scientists participated from Woods Hole, and the Universities of Laval, Quebec and Waterloo. On Matamek Lake HAMISH DUTHIE and PHILIP ROSS studied primary production and the utilization of phytoplankton by the zooplankton. JOHN CARTER and JOHN BOERS studied the population dynamics of Diaptomus minutus, a copepod. ARTHUR HARRISON and GARY KREAMER studied benthic production. They were ably assisted by BETSY ALKENBRACK, DEBBIE MARTIN and PETER HEINERMAN. On the river JOHN GIBSON and FRED WHORISKEY made population estimates and growth studies of salmon parr and brook trout, assisted by TOM DICKSON and HAYDN MacLEAN. These were primarily to study changes in density and growth, and interactions of the two species. Stream tank experiments were made by TOM DICKSON and JOHN GIBSON on salmon parr and brook trout energetics. JOHN CARTER and MARY HEPNER sampled zooplankton down the



from the Georges Bank region. Results indicate that two commercially important species, cod and haddock, co-occur in large numbers as larvae and share the same food source. Presently NEFC is directing micro-scale experiments to assess the feeding relationships between a number of species.

JERRY PREZIOSO has developed an improved cod-end bucket for the standard MARMAP bongo sampler which facilitates removal of the sample and protects plankton organisms from net turbulence. This new device, the "Jerry Bucket," is now being used on all plankton surveys.

A two-week zooplankton workshop to establish an optimum sorting protocol was hosted by NEFC, Narragansett. Attending were five Polish scientists from the Plankton Sorting Center in Szczecin, Poland. Sorting procedures used at both labs were reviewed. Discussions led to the design of a revised strategy for plankton sorting.

RAY MAURER, formerly task leader of the Food Chain Investigation, NEFC, Woods Hole, was transferred to Narragansett and is presently supervising plankton activities.

#### Environmental Impact Task:

Many personnel at the NMFS Narragansett Laboratory aided in collecting samples, analyzing data and preparing reports from the "Argo Merchant" oil spill. KEN SHERMAN, Laboratory Director and Chief of the Marine Ecosystems Division, was responsible for the initial biological report published by NOAA, March 1977. CAROLYN GRISWOLD acts as liaison between the Narragansett Laboratory and other agencies on the "Argo Merchant" spill and other environmental impact matters.

#### Larval Fish Investigation:

Increasing attention in NEFC is also being focused on laboratory and field studies of the extent and causes of larval fish mortality. Larval fish studies are now thought to hold some key answers in the determination of how adult populations and their resultant egg production affect eventual recruitment (stock-recruitment relationship). In addition, larval fish are good indicators of environmental quality and studies in this area are increasingly important. Successful feeding relationships and predators are the most probable factors controlling natural mortality during the larval fish stage. Studies of food capture and ensuing conversion for growth and metabolic processes as influenced by environmental factors show promise for determining causes of mortality in larval stages.

The Larval Fish Investigation under the direction of GEOFFREY LAURENCE continued laboratory studies of the physiology, feeding dynamics and biochemistry of early life stages. New initiatives included the development of a controlled environmental chamber to assess larval fish growth and mortality "in situ," and a cooperative project with the Danish Institute

DAVID BORDEN, who formerly headed the lobster program, has assumed the duties of the newly created Senior Biologist (liason) position. This position will free David to become involved in fisheries management programs and will provide the Division with continuity in its many organizations and programs.

A major accomplishment of the past year was the purchase of a new research vessel. The 42' Bruno and Stillman boat arrived at Wickford in April, 1977, and since has undergone fitting out. The vessel made its initial sampling trip on November 28, 1977. The vessel, which is named the T.J. Wright, after retired Division Chief TOM WRIGHT, is skippered by BILL WALSH who, along with his crew, have outfitted the vessel since its arrival last Spring. The vessel will play a major role in our planned studies to increase the utilization of knobbed whelks (Busycon caricum), in ocean quahaug population studies, and in assessing damage to lobsters resulting from the use of otter trawls as a harvesting tool.

#### Freshwater Section

The Freshwater Section is continuing surveys of Rhode Island River systems. (Field work was completed on the Saugatucket River in 1977)

The Burlingame pike rearing marsh yielded, approximately, six hundred northern pike upon drawdown in early October, 1977. Young-of-the-year chain pickerel were equal in numbers and size to the pike. Stomach analysis revealed crayfish to be the predominant food in late summer. Among the problems experienced were unauthorized stocking of adult chain pickerel, marginally toxic marsh and receiving water resulting in high mortality of introduced forage species, and difficulty of drawdown while retaining pike. Undoubtedly, the size and survival at drawdown can be increased if a forage fish tolerant to these waters can be found.

Alewife runs were monitored visually on four streams. One run was enumerated using a Smith-Root Electronic Tunnel. Comparisons of electronic counts against visual counts and correlation were conducted by Roger Williams Junior College biologists.

The shad restoration project in the Pawcatuck River was continued. With the assistance of the Massachusetts Division of Fisheries and Wildlife, Holyoke Power Company, and Massachusetts Cooperative Fishery Research Unit, two thousand (2,000) live adult shad were transplanted from the Connecticut River to the Pawcatuck. Spawning was successful and weekly samples of juvenile shad were taken for growth data. However, no method was found for determining numbers of shad fingerling. Shad eggs, collected on the Connecticut River, were hatched at the warm water hatchery. The small reclaimed ponds were fertilized and swim-up fry were scatter planted. Trout and salmon pelleted diets were fed in some ponds. Control ponds were unfed. The juvenile shad adapted well to feeding, and approximately 80,000 fingerlings were released directly into Roaring Brook, a headwater tributary of the Pawcatuck River.

attempt to reach the marine environment during the spring season. One of the radio tagged smolts completed 150 miles of the 266 mile downstream run within 19 days following its voluntary exit from the upstream holding facility.

#### Stream alteration

JOHN GERSMEHL is in the process of completing a major study on the White River and undertaking a new assignment on the international Lake Champlain. John has now completed seven years of field work on the effects of stream alterations on trout and salmon populations. The field data are now being analyzed and the final report is due during the summer of 1978.

#### Lake Champlain

Following the completion of the field work on the stream alterations study, John moved from Montpelier to operate a new sub-station in Essex Junction. In this position he will be working closely with resource personnel from the states of Vermont and New York on the cooperative Lake Champlain Salmonid Development Program.

Station biologists are also involved in the management of fishery resources on the Green Mountain National Forest, West Point and Camp Drum Military Reservations and Veterans Hospitals in New York and Vermont.

#### VERMONT FISH AND GAME DEPARTMENT

ANGELO INCERPI was promoted to Chief of Fisheries on July 1, 1977. Angie's former position as District V biologist will be filled by PHILIP WIGHTMAN, formerly with the New Hampshire Fish and Game Department. Phil was born and raised in Addison, Vermont on Lake Champlain.

RICHARD BIGGINS, District 1, has been evaluating the survival of salmon fry stocked in the tributaries of Harriman Reservoir. Dick has conducted a fisheries inventory for the U.S. Soil Conservation Service in conjunction with a PL566 watershed study.

JON ANDERSON reports Lake Champlain trout and salmon programs are starting to pay off. Several landlocked salmon (3+ years) over three pounds were caught in 1977. A new state record was established and it is expected to be broken again next year. All the salmon stockings have been with token numbers and it is hoped that the numbers can be increased in the near future.

Lake trout are being caught with consistency again this year after a two-year lull and this fishery should hit its peak by the mid-1980's. Unfortunately losses at the Salisbury Fish Hatchery will put the program back a year or two. Steelhead have put on excellent growth but provided only a limited fishery.

at age and growth, food habits, distribution, and abundance of cisco in Lake Champlain. DOUGLAS FACEY, an M.S. student, is studying the biology of the eel, a very important constituent of the Lake Champlain fish community. He is trying to determine the length of fresh water residence and food habits of this lacustrine population. For anyone interested in doing research on the lake, UVM has a 15m research vessel and several smaller craft which can be arranged for through the Water Resources Research Center (802-656-4057).

#### WEST VIRGINIA

Note: Ontario and West Virginia are now in other divisions of AFS; this will be their last report in the Northeast Newsletter.

#### U.S. FISH AND WILDLIFE SERVICE NATIONAL FISHERIES CENTER - LEETOWN

The Eastern Fish Disease Laboratory and the Leetown National Fish Hatchery are being reorganized and expanded to the National Fisheries Center - Leetown. In the next few years the scientific, development, and administrative staff is expected to double.

ROBERT PUTZ, formerly stationed in Washington D.C. as Deputy Associate Director of Research, has been named Director of the Center. He originally began his career in Leetown, working in the field of fish parasite research.

The new Assistant Director for Research is AL FOX who comes from Washington, D.C. where he was Chief, Division of Ecological Services.

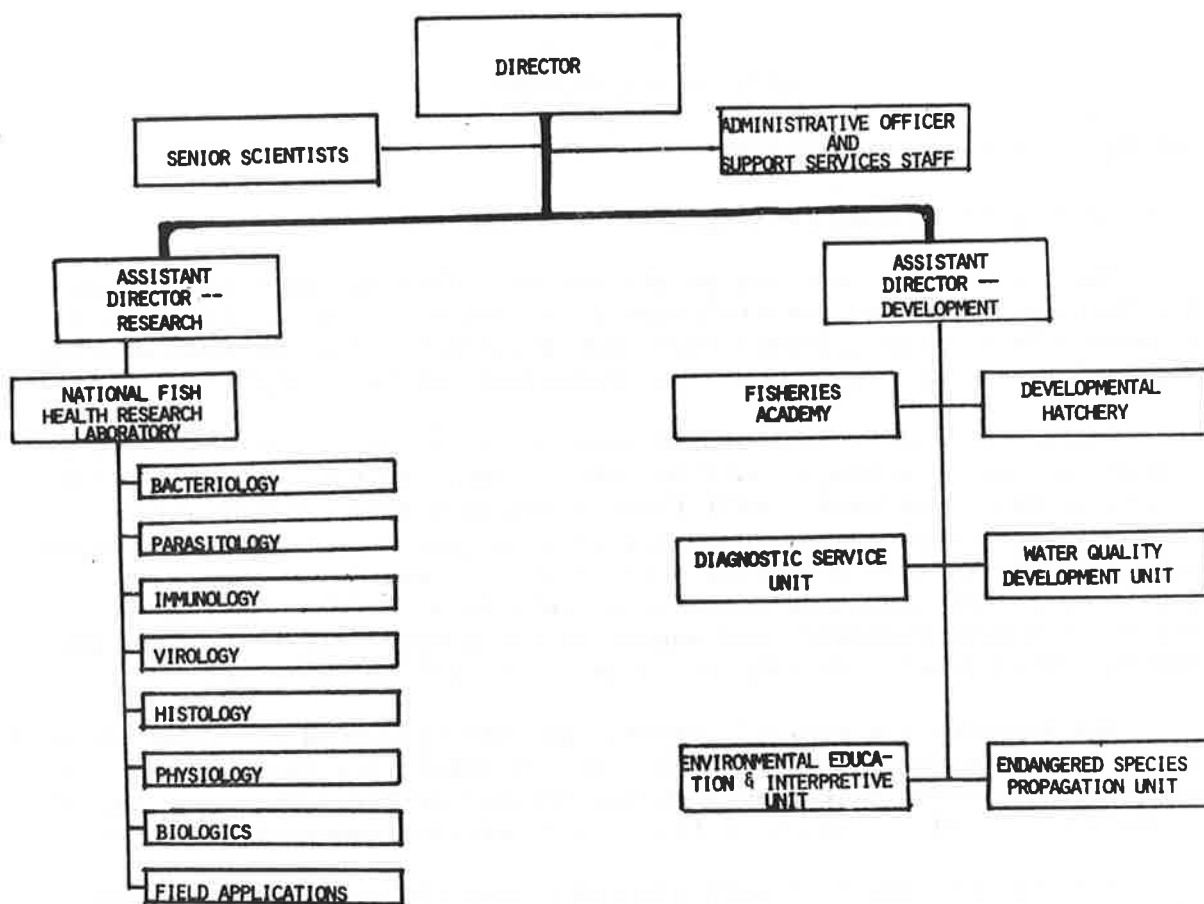
DAVE McDANIEL, the new Assistant Director for Development, and formerly a student trainee at Leetown, comes from his latest appointment as Chief, Division of Hatcheries.

STANISLAS SNIESZKO, senior scientist who received the Award of Excellence from the American Fisheries Society, carries on a world-wide correspondence and shares his wisdom gathered through many years of research with the staff.

KEN WOLF, senior research scientist, continues his work with fish viruses. Recently he and WINONA OWENS have developed the first cell lines of shad, rockfish, and kokanee. Dr. Wolf and MARIA MARKIW, parasitologist, are isolating Myxosoma cerebralis spores, and showing that the fluorescent antibody technique can be used for identification and detection.

BILLY GRIFFIN, acting Director and immunologist, is also working with Myxosoma cerebralis, showing that fish antibody may be used for the identification of infected fish. He is assisted by JACK ROSE in the immunology laboratory.

In bacteriology, PETE BULLOCK and MONTE STUCKEY are working with myxobacterial infections of fish that cause gill diseases. Also their research includes egg transmission of furunculosis and kidney disease.



The organization chart for the newly established National Fisheries Center - Leetown, combines the National Fish Health Research Laboratory (formerly the Eastern Fish Disease Laboratory) and the Leetown National Fish Hatchery under a Center Director and two assistant directors.

The Atlantic International Chapter has developed the following letter to send to potential members. We reproduce it for the inspiration of other chapters and members who might wish to use it with appropriate modifications.

Dear Colleague:

You are cordially invited to join the American Fisheries Society, the world's largest society serving the fisheries profession.

The membership benefits are numerous as you will notice listed in the enclosed pamphlet, "An Invitation to Membership." May I outline some of these and other benefits available to you as members:

- The AFS Bulletin titled "Fisheries" published bi-monthly.
- The AFS Transactions, published bi-monthly.
- The Northeastern Division Newsletter.
- The AFS Membership Directory, containing names and addresses of over 5,000 fisheries persons.
- Group Insurance Programs.
- Professional Certification.
- Special publications of the society are often offered to members at discount prices.
- Voting privileges for Society Officers as well as for officers of the Northeastern Division and respective Chapters.
- Notification and participation in at least four annual meetings of professional fisheries workers including:
  - a) annual parent society (International) conference.
  - b) annual Northeastern division conference, including Ontario, Atlantic Canada, Quebec, New England states, New York, District of Columbia, and Pennsylvania.
  - c) annual, or bi-annual cold and warm water fish workshops of mutual fisheries interest.
  - d) annual Atlantic International Chapter conference for fisheries workers in Quebec, Atlantic Canada, Maine, New Hampshire and Vermont.

their academic and personal interests as well as stimulate these interests.

Since its conception, the C.E.S.F. chapter has been active not only within the college community but also within the Syracuse area. 1977 brought many new ideas, interesting trips, speakers and projects.

During the spring semester, speakers who have participated in our program have included TOM CHIOTI, conservation biologist for the D.E.C. (Cortland), head of the Finger Lakes project; DR. ROBERT G. WERNER from our faculty, who addressed our chapter on some of his work and on graduate work in the fisheries field; and TROUT UNLIMITED (Iroquois Chapter) which gave us a presentation.

We have made trips to the Fishway on Cayuga Lake and to the Fish Lab at Cornell University.

Films have included "The Aquatic Ecologist", "Headwaters" and "Reproductive Behavior in the Brook Trout (Salvelinus fontinalis)".

Upcoming for the remainder of 1977 is a possible trip to the Salmon Weir on the Salmon River, Pulaski, New York, and a presentation by JAMES MAREN, NALCO Environmental Sciences, December 1.

We are currently constructing an aquatic biology outline for the students of our school and Syracuse University to be completed by April, 1978. This outline will offer insight and aid students in choosing aquatic courses from the two schools. Course evaluations by students are conducted at the close of each semester and the professor's synopsis of the course and its requirements are given.

We are looking forward to another productive and satisfying year for the aquatic biologists of C.E.S.F.

#### CENTRAL PENN CHAPTER

The Central Penn Chapter again held monthly meetings throughout the year. Meetings were rotated among Lamar National Fish Hatchery, Pleasant Gap Hatchery (Pennsylvania Fish Commission), Penn State University, and Juniata College. The annual meeting and steak fry was held at White Deer Camp, Mooresville. The Chapter continued to serve a vital function in providing for communication among state, federal, college, and private workers; and in exposing students to professional fisheries workers and their concerns.

Officers for 1977-78 are: DEAN ARNOLD, President; CLARK SHIFFER, Vice President; PAT BENDER, Secretary-Treasurer; and directors JOE VALENTINE and JIM MEADE.

International Activities Committee: Chairman Gottschalk represented the Chapter at the Coastal Zone Planning Workshop at North Hampton and at a similar type meeting at Fort Belvoir.

Ecological Concerns Committee: Ken Roberts, co-chairman of the Parent Society Committee reported on plans to present an action plan at Vancouver for the Parent body in formulating policies and positions on environmental issues.

Membership Committee: Chairman Aven Anderson reported that the Potomac Chapter was represented by 80 paid members. Five were added and two deleted since the annual meeting at Chesapeake Beach.

#### NEW BUSINESS

Program for Next Annual Meeting: By voice vote, the membership favored a meeting outside the metropolitan area of Washington, preferably in the western portion of the Chapter area. Carl Sullivan was appointed arrangements chairman to explore potential sites in the Harpers Ferry vicinity. All Chapter members residing in that area were placed on the Committee to work with Carl.

Washington Academy of Sciences: President Carlson briefed the membership on this organization. It is an aggregation of 44 different affiliate societies. Its purpose is to promote the various branches of science through cooperation of scientists and engineers in the Washington area. It frequently sponsors meetings and symposia on a variety of scientific topics of interest to the Potomac Chapter. Irwin Alperin was appointed to serve as Chapter delegate (Board of Managers) through July 1978 pending its election to the Academy in December.

#### PROGRAM

Bernie Zahurenec, Office of Naval Research was guest speaker. His topic: "Problems in dealing with the Russian technical community." A lively discussion followed.

#### ADJOURN

Meeting adjourned at 1:30.

Respectfully submitted,

Jon M. Nelson, Secretary



### FOOD SERVICES AND SOCIAL EVENTS

Will be handled on campus, cafeteria style by U.R.I. Dining Services at roughly \$8 per day, plus extra for special meals. These are an off-campus Clam Bake on Tuesday and a Beer Buffet (in lieu of a banquet) on Thursday evening. Cost of meal tickets will be built into registration fee. A get-acquainted mixer will be held in the Trade Show area on Monday evening.

### HOUSING

445 rooms have been reserved on the University campus in 5 separate dorms. 382 are double rooms with either 2 or 4 persons sharing adjoining bath @ \$10 per person single, \$8 per person double. There are 63 additional 2-bedroom central bath combinations @ \$20 per person single or \$10 per person multiple occupancy. All are single beds. Half price rates for children under 12. Washers and dryers in each dorm plus a small kitchen for heating infant foods. None of the dorm rooms are air conditioned. The cost of housing will be handled separately from the registration fee (unlike the food).

There are only 2 good motels near the campus (roughly 4 and 10 miles away) - Holiday Inn and Dutch Inn. All possible rooms in these are being reserved to go on a first-come, first-served basis. These will not be held beyond July 1 without a deposit. There are additional good hotels in Providence and Newport, roughly 20 miles distant. University housing, food service and meeting facilities are all in very short walking distance of each other.

### SPOUSE TOURS

There will be special tours which may include visits to the Mystic, Connecticut Seaport, and Newport Island, Rhode Island.

### TRADE SHOW

The Campus Union will be the Conference headquarters and the location of the Fisheries Trade Show featuring up to 24 commercial fisheries oriented exhibits. Potential exhibitors should contact AFS.

#### EDITOR'S MESSAGE

I regret that I must turn the editorship of the Newsletter over to another member after this year, but my excuse is a good one - another "volunteer" assignment for AFS! Best wishes to the new editor, RICK McCOY, whom I will be helping with production and mailing.

Response to this year's effort was encouraging. Appeals for news were sent to 103 organizations in our 18 states and provinces. News was received from 59 of these in time for publication (up 17 from last year).

Not bad, perhaps, but we can do better. If your organization is not reported in this issue, it probably means that whoever received the appeal did not have the time or interest to respond or to pass it on to another. Or, we might have overlooked your organization in sending out appeals. In many cases we need a specific name and address within an organization.

In any case, Rick would very much appreciate receiving the name and address of anyone in the "unreported" group who would be willing to spend a few minutes writing up this year's news for the next newsletter. Your efforts will help achieve our goals of greater knowledge, understanding, and comradeship among northeastern fisheries and aquatic biologists. Thanks! And again, a huge "thank you" to all our volunteer reporters throughout the Division, especially those who helped me greatly by sending in reports already typed in the style of the Newsletter.

Dean Arnold

NEW YORK STATE CHAPTER  
AMERICAN FISHERIES SOCIETY  
PROFESSIONAL STANDARDS COMMITTEE  
ANNUAL REPORT - 1977

Chapter President C. L. Smith charged the committee with investigating two issues. These were: 1) whether the chapter should become involved in a survey effort to determine the expectations of employers with regard to the skills of fisheries graduates; 2) if a certification program, more rigorous in its requirements than that of the parent society, might be designed and implemented by the chapter.

It is the recommendation of the committee that both questions should be held in abeyance at the moment. Our suggestion is based on the status of the parent society involvement in these areas. Since it appears that some significant activities are underway, it seems more efficient to wait until the parent society either comes to some conclusion or it becomes evident that no conclusion satisfactory to the chapter will be forthcoming. We suggest that a general discussion of these questions at the business meeting is in order.

In formulating our recommendation the committee attempted to ascertain the present activities of relevant AFS Sections and Committees. Telephone conversations were held with officers from the Fisheries Administrators Section, Professional Educational Standards Committee and the Board of Professional Certification. In addition former members of the Board of Professional Certification were contacted. We felt that the activities of these groups were inextricably related to our responsibilities.