

## Program and Abstracts

2001 Annual Meeting of the<br>New York Chapter of The American Fisheries Society

January 18-20, 2001
The Treadway Inn, Owego New York

## Conference Theme:

Large Scale Climate Variability Impacts Upon New York Fisheries

# Agenda <br> 2001 Annual Meeting of the New York Chapter of The American Fisheries Society <br> January 18-20, 2001 <br> The Treadway Inn, Owego New York 

# Large Scale Climate Variability Impacts Upon New York Fisheries 

## Thursday, January 18

| 6:00-9:00 p.m. | Registration |
| :--- | :--- |
| 6:00-9:00 p.m. | Poster set-up |
| 6:30-8:30 p.m. | Excom Meeting |
| 8:00-11:00 p.m. | Informal Social |

Friday, January 19

| 7:30-3:00 p.m. | Registration |
| :---: | :---: |
| 7:30-8:30 | Continental Breakfast |
| 8:30-8:45 a.m. | Welcome - Peterson/Stewart |
| 8:45-9:15 a.m. | Art DeGaetano, Cornell. |
| 9:15-9:45 a.m. | David Bartlett, UNH. |
| 9:45-10:15 a.m. | George Hurtt, UNH |
| 10:15-10:45 a.m. | Coffee Break |
| 10:45-11:15 a.m. | Jim Shortle, PSU |
| 11:15-11:45 p.m. | Panel Discussion 1 |
| 11:45-12:45 p.m. | Lunch Buffet |
| 12:45-1:15 p.m. | Pat Sullivan, Cornell |
| 1:15-1:45 p.m. | Cliff Kraft, Cornell |
| 1:45-2:15 p.m. | John Casselman, OMNR |
| 2:15-2:45 p.m. | Brian Shuter, OMNR |
| 2:45-3:15 p.m. | Panel Discussion 2 |
| 3:15-3:30 p.m. | Coffee Break |
| 3:15-4:00 p.m. | Poster session |
| 4:00-5:00 p.m. | Business Meeting |
| 5:30-6:30 | Cash Bar Social |
| 6:30-7:30 | Banquet |
| 7:30-11:00 p.m. | Cash Bar/Beer |
| 8:30-9:30 p.m. | Student Sub-unit Meeting |

Starfire Lobby Starfire Lobby
Starfire West
The evidence for climate change: A state of the art review
The New England Regional Assessment Climate modelling for northeast water resources impacts
Starfire Lobby
The Mid-Atlantic Regional Assessment
(DeGaetano, Rock, Hurtt, Shortle)
Starfire East
Potential heat/temperature effects on fisheries
Potential ice storm effects on fisheries:
Woody debris and debris dam formation
Climate change effects on northeast fisheries
Forecasting impacts of climate change on Ontario walleye populations
(Sullivan, Kraft, Casselman, Shuter)
Starfire Lobby
Starfire Lobby - Authors in attendance, see bottom of agenda Starfire West
Starfire East
Starfire East
Starfire East
Owego Room

Saturday, January 20

| 7:30-8:00 a.m. | Continental Breakfast | Starfire Lobby |
| :--- | :--- | :--- |
| 8:00-a.m. - 12:30 p.m. | Contributed Papers | Starfire West |

8:00-8:20 a.m. Liming Acid Ponds for Brook Trout in New York's Adirondack Region: Status, Approach and Application for the Year 2000. William H. Gordon, NYS Dept. of Environmental Conservation

8:20-8:40 a.m. Natural spawning by brook trout (Salvelinus fontinalis) populations within Adirondack lakes with outlet barriers. Daniel C. Josephson, Clifford. E. Kraft, and Charles C. Krueger , Coldwater Fishery Research Program, Department of Natural Resources, Cornell University

8:40-9:10 a.m. A Method to Predict Fish Species Assemblages from Environmental Variables. James E. McKenna, Jr. Great Lakes Science Center, Tunison Laboratory of Aquatic Science US Geological Survey

9:10-9:30 a.m. The effects of double-crested cormorant predation on northern pike and muskellunge populations in the Eastern Basin of Lake Ontario and the upper St. Lawrence River. Molly A. Connerton (student), John M. Farrell, SUNY-ESF and the Thousand Islands Biological Station

9:30-9:50 a.m. Coffee Break Starfire Lobby
9:50-10:10 a.m. Recruitment Dynamics of Alewives and Rainbow Smelt in Lake Ontario. Robert O'Gorman, USGS, 17 Lake Street, Oswego,NY

10:10-10:30 a.m. Fish Community Response to Removal of Naturalized Smallmouth Bass in an Oligotrophic Adirondack Lake. Brian Weidel (student), Cornell University

10:30-10:50 a.m. Reproductive Success of Northern Pike in a Managed Spawning Marsh with Comparisons to Unmanaged Habitats in the St. Lawrence River. Gregory W. Hoag (student) and John M. Farrell, SUNY-ESF, Department of Environmental and Forest Biology and the Thousand Islands Biological Station

10:50-11:10 a.m. Survival and growth of eyed eggs and fry of Atlantic salmon (Salmo salar) stocked in the Salmon River, New York: implications for restoration. Stephen M. Coghlan Jr. (student) and Neil H. Ringler, Department of Environmental and Forest Biology, SUNY College of Environmental Science and Forestry, Syracuse, NY

11:10-11:30 a.m. The life-history and energetic meanings of the von Bertalanffy growth function for
fishes
Ji X. He and Donald J. Stewart, SUNY-CESF, Syracuse, NY

> 11:30-11:45 p.m. Closing, Awards, Adjournment

## Posters:

Adaptive Fishery Management : Research to Improve Brook Trout Angling in Adirondack Lakes Daniel C. Josephson and Clifford. E. Kraft, Coldwater Fishery Research Program, Department of Natural Resources, Cornell University

## Fish Population Assessment and Spring Water Chemistry in Adirondack Headwater Streams

 Howard A. Simonin, James R. Colquhoun, Eric A. Paul, John Symula and Howard J. Dean, New York State Department of Environmental Conservation, Aquatic Toxicant Research UnitIndex of Biotic Integrity: a review of this important tool receiving infrequent uses in NYS. Douglas M. Carlson, NYS Dept Environmental Conservation, 317 Wash. St., Watertown, NY

Management of Otisco Lake and Jamesville Reservoir Walleye Fisheries through Stocking.
Patty Thompson (student), SUNY-ESF
Echinogammarus ischnus, the next exotic threat?
N. Tisch, Cornell University, C. M. Mayer, Syracuse University

# ABSTRACTS 

[ALPHABETICAL BY FIRST AUTHOR]

Bartlet, David [no abstract]

## Index of Biotic Integrity: a review of this important tool receiving infrequent uses in NYS.

Douglas M. Carlson (NYS Dept Environmental Conservation, 317 Wash. St., Watertown, NY 13601 (315-785-2262), dmcarlso@gw.dec.state.ny.us)

Interpreting fish survey data was made earlier in the 1970s with the development of a biomonitoring tool called the Index of Biotic Integrity. It has been refined and widely applied to flowing waters in the 1990s, in many parts of this country outside of New York. In this poster, you will see some of the available literature and the few reports applying it to NY waters. The tool is very effective at recognizing stream quality and stream degradation, and it relies on general survey data including catches of all fish inhabitants. This display will also encourage you to contribute by sampling in ways useful to the development or testing of the tool for your region.

## Effects of Climate and Global Warming on Year-Class Production of Warm-Water, CoolWater, and Cold-Water Fishes in Eastern Lake Ontario

John M. Casselman, Ontario Ministry of Natural Resources, Research, Science and Technology Branch, Glenora Fisheries Station, R.R. 4, Picton, Ontario, K0K 2T0; 613-476-3287; FAX 613-476-7131;
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Predicting the impact of global warming on fisheries necessitates understanding the effects of temperature, an important factor influencing year-class strength and production. For three decades, index sampling in eastern Lake Ontario has produced catch statistics and age data to assess changes in the status of fish species in relation to thermal tolerance. Late fall and summer nearshore water temperatures have increased significantly, paralleling global warming and temperature extremes, particularly those associated with El Niño, La Niña, and the Mount Pinatubo eruption. Global warming will substantially increase year-class strength of warm-water species, such as smallmouth bass, which is positively correlated with July-August temperatures ( $r^{2}=0.47$ ); an additional increase of $1^{\circ} \mathrm{C}$ increases abundance by $2.5 \mathrm{x} ; 2^{\circ} \mathrm{C}$ by 6.0 x , and $3^{\circ} \mathrm{C}$ by 15 x . Year-class strength of northern pike, a cool-water species, is curvilinearly associated with July-August temperatures ( $r^{2}=0.65$ ); an increase of $1^{\circ} \mathrm{C}$ decreases year-class strength by 2.0 x , and $2^{\circ} \mathrm{C}$ by 60 x . For cold-water species such as lake trout, an increase in fall temperatures at spawning time has a major negative effect on year-class strength; an increase of $1^{\circ} \mathrm{C}$ decreases survival at hatch by $1.5 \mathrm{x}, 2^{\circ} \mathrm{C}$ by 2.4 x , and $3^{\circ} \mathrm{C}$ by 20 x . Global warming in the Great Lakes Basin will significantly alter year-class strength and fish-community structure and dynamics, with cold-water and even cool-water species becoming much less abundant and warm-water species predominating.

# Survival and growth of eyed eggs and fry of Atlantic salmon (Salmo salar) stocked in the Salmon River, New York: implications for restoration 

Stephen M. Coghlan Jr. and Neil H. Ringler

State University of New York, College of Environmental Science and
Forestry, 106 Illick Hall, 1 Forestry Drive, Syracuse, New York 13210

We stocked 150,000 Lake Clear strain Atlantic salmon (Salmo salar) fry and 125,000 eyed Atlantic salmon eggs at 16 sites in the Salmon River, New York. Survivorship of stocked fry ranged from 1.0 to $17.1 \%$ in the summer of 1999 and from 0.8 to $8.1 \%$ in the summer of 2000 . Daily instantaneous growth rates were similar between years, and ranged from 0.0249 to $0.0816 \mathrm{~g} / \mathrm{g} / \mathrm{d}$. Survival and growth rates were significantly different among sites ( $p<0.05$ ); survival appeared to be directly related to distance upstream from Lake Ontario, whereas growth was inversely related to distance. Although survival of stocked eggs through the alevin stage was generally high during the winter of 2000 ( $>50 \%$ ), survival after emergence was extremely low ( $<0.01 \%$ ). We have designed field studies to test the hypothesis that the most significant mortality occurs during the emergence period. Overall, fry-stocking resulted in significantly higher survival than did egg-stocking ( $p<0.0001$ ). Initial results suggest that summer water temperatures may limit salmonine production in the Salmon River. Wild steelhead (Oncorhynchus mykiss) juveniles were almost completely absent during 1999, yet were extremely abundant in 2000, with summer densities reaching $>1.34$ fish $/ \mathrm{m} 2$. Summer river temperatures averaged several degrees lower in 2000 than in 1999. We hypothesize that Atlantic salmon success is limited by interspecific competitive interactions with steelhead, the outcomes of which may be temperaturedependent. We predict that elevated summer temperatures will favor Atlantic salmon juveniles when sympatric with steelhead juveniles, whereas lower summer temperatures should favor steelhead. We have designed laboratory experiments to test competition between the two species at summer water temperatures ( $18-25^{\circ} \mathrm{C}$ ). Results should elucidate the effects of an ecologically similar exotic species on an indigenous salmonine during periods of potential thermal stress.

# The effects of double-crested cormorant predation on northern pike and muskellunge populations in the Eastern Basin of Lake Ontario and the upper St. Lawrence River. 

Molly A. Connerton and John M. Farrell

SUNY-ESF, Department of Environmental and Forest Biology and the Thousand Islands Biological Station, Illick Hall, Syracuse, NY 13210. Phone: (315) 470-4819. Email:maconner@syr.edu

Double-crested cormorant populations have increased dramatically in the Lake Ontario-St. Lawrence River region. In order to evaluate the effects of double-crested cormorant Phalacrocorax aurutis predation on esocid populations, we examined northern pike Esox lucius and muskellunge Esox masquinongy otoliths recovered from cormorant pellets (undigested remains) as a measure of fish consumption. Recovered otoliths were interpreted to determine structural differences among the species. In addition, predictions of the size and age of esocids consumed were compared to recent changes in fish population structure. Cormorant pellets were collected in 1999 and 2000 (May through September), from six nesting colonies. At this time, the ability to differentiate among northern pike and muskellunge otoliths from pellets remains uncertain. To estimate total esocid consumption a model was used that includes daily fish ingestion rates and the number of cormorant feeding days. An independent study using the above model indicated that in 1999, esocid consumption was estimated at $1.1 \%$ ( 60,000 fish) of the total double-crested cormorant diet. We will present updated estimates of esocid consumption for both 1999 and 2000. Regression analysis was used to establish a fish length to otolith length relationship ( $\mathrm{r} 2=0.95$ ) and was significant ( $\mathrm{a}=.05, \mathrm{p}$ value $=0.003$ ). The predicted mean size of esocids was $260 \mathrm{~mm}(S D=56.5)$. Maximum size consumed was 475 mm and age 1-2 esocids were predominant in the cormorant diet. Examinations of size and age structure and consumption estimates are needed to assess a relationship between declines in esocid populations and increases in double-crested cormorant predation.

## DeGaetano, Art [No abstract]

# Liming Acid Ponds for Brook Trout in New York's Adirondack Region: Status, Approach and Application for the Year 2000 

William H. Gordon, Biologist I (Aquatic)<br>NYS Dept. of Environmental Conservation, Region 6 - Fisheries, 317 Washington Street<br>Watertown, New York 13601 (315) 785-2254 whgordon@gw.dec.state.ny.us

Acid precipitation, its causes and effects, have been well documented. In New York State, the effects are most noticeable in the Adirondack Mountains Region. Recent amendments to the Clean Air Act have led to a reductions in both sulfur emissions and sulfate deposition, and lower sulfate levels in some Adirondack lakes and streams. Unfortunately, these have yielded very little change in lake and stream pH levels. Problems associated with acid deposition still exists in the Adirondacks. Pond liming has been used by the New York State Department of Environmental Conservation, Division of Fish, Wildlife and Marine Resources as a tool to neutralize acidified lakes and ponds for more than 40 years, largely for the benefit of Adirondack brook trout. Division policy has established specific pre-liming criteria and application methodology, which effectively direct pond treatment and re-treatment strategies. An evaluation of post treatment pH changes and related brook trout population benefits, indicates pond liming is still a productive fisheries management tool in the year 2000. Pond liming's use remains limited however, and therefore should not be viewed as a substitute for the need for more stringent air pollution control that will yield further reductions of sulfur and/or nitrate deposition.

# The life-history and energetic meanings of the von Bertalanffy growth function for fishes 

Ji X. He and Donald J. Stewart

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The von Bertalanffy growth function is the most used model for studying body growth and life histories of various organisms, from invertebrates to humans. Biological meanings of its parameters, however, have not been defined completely, and statistical comparisons of body-growth trajectories often do not have clear biological implications. For studying energy demand-supply relations and life-history diversity, model applications have been associated with the following unrealistic or inflexible assumptions: body mass scales to body length cubed; anabolism scales to $2 / 3$ power of body mass; maintenance metabolism or body substance breaking down is proportional to body mass; and there may be a nonzero age for zero body length. It has been repeatedly recommended to abandon the model because it appears to oversimplify growth processes and lifehistory relations. Here we demonstrate that none of the above assumptions is necessary. Hypothetical parameters in the model and related Ford-Walford plot can be defined fully by three measurable life-stage components. Thereby, many conflicting observations in life histories and energetics can be clarified.

## Reproductive Success of Northern Pike in a Managed Spawning Marsh with Comparisons to Unmanaged Habitats in the St. Lawrence River

Gregory W. Hoag and John M. Farrell

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Wetland loss and change due to hydrologic management is hypothesized as an important factor in decreased production and recruitment of northern pike. A regulated spawning marsh was evaluated as a potential management alternative toward improving northern pike recruitment. Specific objectives were to examine spawning success and growth of age-0 northern pike in a managed marsh, and compare results to unmanaged riverine habitats. Water level management began in fall 1998 at Cranberry Creek marsh, Alexandria Bay, NY. During spring 1999 and 2000, adult northern pike were trapped below the control structure and transferred into the marsh. Comparisons were made with two unmanaged habitats. Techniques employed included egg trapping, seining, fry trapping, spillway traps, and electrofishing. During 1999, no age-0 northern pike were observed leaving Cranberry Creek marsh, however, over four thousand emigrants ( $>75 \mathrm{~mm}$ ) were captured during the 2000 season. Northern pike growth at the Cranberry Creek marsh was compared to unmanaged habitats at Goose Bay, and a shoal habitat at Governor's Island. Fish emigrated from Cranberry Creek marsh beginning in June 2000 at a length of 73 mm . Shoal spawning was delayed in comparison, and fish only achieved a length of 12 mm by June. Growth rates were similar between habitats with the exception of considerably slower growth at Governor's Island. Hydrologic management of the marsh increased length of the growing season and water temperatures, resulting in greater age-0 growth rates. Differences in food consumption among habitats also may explain slower growth rates for shoal-spawned pike. Independent marsh water level regulation has been shown to be a successful method to promote increased northern pike production. This strategy has great potential for basin wide application with benefits to multiple species.

## Hurtt, George [No abstract]

# Natural spawning by brook trout (Salvelinus fontinalis) populations within Adirondack lakes with outlet barriers. 

Daniel C. Josephson ${ }^{1}$, Clifford. E. Kraft, and Charles C. Krueger

Coldwater Fishery Research Program, Department of Natural Resources, Cornell University, Ithaca, New York, 14853. ${ }^{1}$ Author and presenter. Phone: 315-369-6781; E-mail: dcj3@kcornell.edu.

Previous research concluded that fall emigration by brook trout (Salvelinus fontinalis) likely contributed to the virtual absence of age 3 and older age fish in many Adirondack lakes that depend on stocking instead of natural reproduction (Josephson and Youngs 1996). Barriers to downstream movement were constructed in the outlets of two study lakes with known emigration to further examine the relationship between emigration and age structure of brook trout populations. An unexpected outcome of blocking emigration by stocked fish was that detectable natural reproduction of brook trout occurred within the two stocked lakes (in the lake proper and/or tributaries), where little or no natural spawning was previously known. Brook trout were able to successfully locate groundwater and reproduce when forced to remain in the lakes. In Rock Lake the catch of unmarked wild brook trout increased 34 fold, from $0.8(\mathrm{SD}=0.7)$ to $16.6(\mathrm{SD}=23.7)$ fish per trapnet night, after the outlet was blocked for seven years. Brook trout were not known to have spawned within Rock Lake or its tributaries over the past three decades. In Lower Sylvan Pond the catch of umarked wild brook trout decreased 3 fold, from $30.8(\mathrm{SD}=18.0)$ to $12.0(\mathrm{SD}=10.7)$ fish per trapnet night, after the outlet was blocked for eleven years. Although brook trout spawned at previously unused sites within Lower Sylvan Pond, they could not access a historic downstream outlet spawning site and wild recruitment was reduced. "Forced" natural spawning occurred within both lakes after blocks were installed; however, with dramatically different population level effects on the wild brook trout fishery. A multi-faceted research and management approach that includes spawning habitat manipulations, strain management and outlet barriers might prove useful in the restoration of naturally reproducing brook trout populations in some Adirondack lakes. If potential spawning habitat exists in the outlets of lakes, special consideration would need to be given to the placement of outlet barriers so as not to prevent access by adult fish to those spawning sites. [References: Josephson, D.C., and W.D. Youngs. 1996. Association between emigration and age structure in populations of brook trout (Salvelinus fontinalis) in Adirondack lakes. Can. J. Fish. Aquat. Sci. 53: 534-541.]

# Adaptive Fishery Management : Research to Improve Brook Trout Angling in Adirondack Lakes 

Daniel C. Josephson ${ }^{1}$ and Clifford. E. Kraft

Coldwater Fishery Research Program, Department of Natural Resources, Cornell University, Ithaca, New York, 14853. ${ }^{1}$ Author and presenter. Phone: 315-369-6781; E-mail: dcj3@cornell.edu

For 50 years, Cornell University and private Adirondack landowners have worked together in a cooperative fishery research and management effort. Research and management activities have changed over the past fifty years, reflecting both a changing environment and angler preferences. Brook trout lake fisheries have been a primary Cornell research focus since 1950, when surveys initiated by Dr. Dwight Webster provided the foundation for future research and management efforts. Adaptive research and management has resulted in a substantial improvement in Adirondack lake brook trout fisheries over the past 50 years, despite acid rain and other environmental challenges. The larger proportion of fish released in recent years, combined with innovative fishery management approaches, has contributed to the observed increases in both notable brook trout and angler catch rates. Lessons learned through a partnership between Cornell University and private cooperators has provided new insights for managing Adirondack fisheries. Current research efforts are continuing to focus on understanding the components of aquatic ecosystems that limit trout production. Cornell researchers will continue to apply research results to manage fisheries in Adirondack waters and other coldwater fisheries, as well as towards improved management of other fish species.

## Potential ice storm effects on fisheries: Woody debris and debris dam formation

## Cliff Kraft

Department of Natural Resources, Cornell University, Ithaca, New York, 14853.
The January 1998 ice storm deposited woody debris in riparian areas and associated streams of northeastern U.S. and Canadian forests. Although large-scale disturbances have been recognized as important influences upon river and stream habitat, the potential impact of ice storms upon aquatic habitats have received little attention. We assessed in-stream deposition of woody debris in first, second and third-order streams as a function of ice storm canopy damage in associated riparian forests within five large watersheds in the eastern Adirondack Mountains (New York, U.S.A.). Riparian tree canopy damage, stream physical habitat and woody debris deposition were quantified in over 50 stream study sites. In the first year of this study, we found that the proportion of tree canopy damage near first and third-order streams was correlated with in-stream debris dam frequency and debris dam volume. By contrast, the frequency of individual pieces of woody debris was not strongly correlated with canopy damage in either first or third-order streams. Using data collected during the second study year, we determined that stream width and tree canopy damage were significant predictors for in-stream debris dam frequency and total debris dam volume. Our results indicate that debris dam formation is the primary in-stream habitat modification resulting from ice storm-related wood deposition. As this study continues, we will evaluate biological and physical responses within streams to the in-stream deposition of woody debris resulting from this ice storm, including an evaluation of fish distribution and abundance.

# A Method to Predict Fish Species Assemblages from Environmental Variables 

James E. McKenna, Jr.

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Biodiversity is much touted as important, but rarely is there management for a given level of
biodiversity. One reason may be that diversity indices contain little information about an assemblage of organisms and extracting species-specific characteristics is challenging. It makes intuitive sense that fish diversity is determined to some degree by environmental conditions; one of the greatest needs of fisheries managers is the ability to predict the effects of environmental adjustments on fish assemblages. Using a distribution-based diversity index and information about overall fish abundance and the general species pool, one should be able to back calculate the fish assemblage in a given area. If diversity and abundance can be predicted from environmental conditions, a link between the environment and fish assemblages is established. The method introduced here uses a three-step process to predict abundance and composition of species assemblages from environmental data. First, environmental data are fed to two neural networks trained to predict total fish abundance and species richness. Those predicted values are then used to calculate Fisher's a (diversity) and generate Whittaker Plots, which predict the abundance of each species. Species are then assigned to each abundance class by randomly choosing them from the species pool available for the habitat, weighting the probability of their selection by their observed relative abundance. Comparisons between the expected assemblage and those observed in the field can then be made. The method is applied to fish assemblages in the Finger Lakes and the Oswego River.

## Recruitment Dynamics of Alewives and Rainbow Smelt in Lake Ontario

R. O'Gorman and R. Owens, USGS, Lake Ontario Biological Station, 17 Lake Street, Oswego, NY 13126. T. H. Eckert and B. F. Lantry, NYDEC, P.O. Box 292, Cape Vincent, NY 13618.

The economically important Lake Ontario sport fishery for hatchery-reared salmon and trout is heavily dependent on two exotic prey fishes -- alewife and rainbow smelt. Understanding recruitment dynamics of these two prey fishes is required for efficacious management of stocking needed to maintain the fishery. During 1978-2000, size of alewife year classes varied 200 fold and size of rainbow smelt year classes varied 50 fold. Such variations in reproductive success often reflect changes in size of parental stock, environmental conditions, and/or predation pressure. Futhermore, recruitment in exotic fish stocks may be more sensitive to environmental extremes than is recruitment in endemic fish stocks. To identify factors influencing size of alewife and rainbow smelt year classes, we investigated the relationship between age-1 abundance during 1978-2000 and water temperature, number of spawners, and (for smelt) number of intra-specific predators. For alewives, catch of age- 1 fish was related to number of spawners, temperature of nearshore water during the spawning and larval period, and length of the winter. For rainbow smelt, catch of age-1 fish was not related to water temperature or number of spawners, but was negatively related to number of intra-specific predators suggesting that cannibalism determined year class size.

Shortle, Jim [No abstract]

# FISH POPULATION ASSESSMENT AND SPRING WATER CHEMISTRY IN ADIRONDACK HEADWATER STREAMS 

Howard A. Simonin, James R. Colquhoun, Eric A. Paul, John Symula and Howard J. Dean<br>New York State Department of Environmental Conservation, Aquatic Toxicant Research Unit, 8314 Fish Hatchery Road, Rome, NY 13440 (phone 315/337-0910)

Fish populations in 36 Adirondack headwater streams were surveyed by electrofishing in the fall of both 1979 and 1999. The streams were all judged to provide suitable year-around trout habitat containing pools, riffles, shaded areas, and shelter from high stream flow. Water samples were taken from these streams for chemical analysis during the spring of both 1980 and 2000. The occurrence of salmonids and of all fish appeared to be directly related to the water chemistry during the spring. In most cases streams which had pH levels less than 5.0 in the spring were fishless. No young of the year brook trout were found in streams which had a spring air equilibrated pH less than 4.98. A higher number of fish and a greater number of species were collected in 1999 than during 1979, but this may have been due to better electrofishing efficiency during 1999. No consistent change was observed in spring pH levels of the study streams from 1980 to 2000. However, considerable annual and seasonal variability is evident in spring stream samples depending on stream flow. There was a significant decrease in calcium concentrations in the spring 2000 stream samples when compared with similar samples collected in 1982. Sensitive and acid impacted streams continue to exist in the Adirondacks even though sulfate deposition has decreased. The annual median stream pH of Buck Creek (a stream with 17 years of monitoring data) was inversely correlated with the amount of precipitation during the spring and summer period

## Factors limiting zebra mussels (Dreissena polymorpha) in a polluted urban system, Onondaga Lake NY.

Spada, Michael Efim.
SUNY-ESF, Department of Environmental and Forest Biology, Illick Hall, Syracuse, NY 13210.
In most systems where zebra mussels (Dreissena polymorpha) become established, they reach nuisance densities.. Despite high densities in the adjoining Seneca River, populations in Onondaga Lake remained barely detectable for almost seven years. We hypothesized that emigration from the river was insufficient to overcome lake constraints. Substrate availability and fish predation were tested as possible constraints. In 1997 colonization patterns suggested that the river was a source of mussels, but in 1998 larval and settlement densities were low. We found sufficient substrate to support greater numbers of mussels than observed. An exclosure experiment with translocated mussels revealed $99 \%$ removal within two weeks, although it is unlikely that fish predation is the sole factor in limiting mussels, since similar species are found in the river. Zebra mussels appeared to be limited by the polluted conditions of Onondaga Lake and lack of protected substrate. Recently, mussel populations have exploded, perhaps aided by changing lake conditions.

## Sullivan, Pat [No abstract]

# Forecasting Impacts of Climate Change on Ontario Walleye Populations 

Brian Shuter, Research Scientist,Ontario Ministry of Natural Resources, and Adjunct Professor, University of Toronto, 519-583-0981 (office); 519-583-1547 (FAX)

Population statistics from a sample of Ontario walleye populations demonstrate strong statistical associations with both climate and water quality variables. Growth and maturity schedules change systematically with changes in both degree days and secchi depth. These and otherrelationships are used to forecast potential impacts of climate change on both walleye populations and walleye fisheries in Ontario.

## Thompson, Patty [No abstract]

## Echinogammarus ischnus, the next exotic threat?.

N. Tisch, Cornell University, and C. M. Mayer Syracuse University.

In recent years, a large number of exotic species have been introduced to the Great Lakes; many of these invaders have been benthic. In 1997 the presence of a European benthic amphipod, Echinogammarus ischnus was documented. Our study focused on determining the potential effect of $E$. ischnus on the resident amphipod Gammarus fasciatus, which is currently an important food web component in near-shore areas. In the laboratory we conducted habitat choice experiments with Dreissena covered rocks, algae covered rocks, bare rocks, and artificial plants. Gammarus preferred Dreissena covered rocks. In growth experiments both species were reared on a diet of Cladophora and chironimids at $24^{\circ}$ and $18^{\circ} \mathrm{C}$. G. fasciatus grew faster and matured earlier than $E$. ischnus at both temperatures. Further, G. fasciatus had a higher metabolic rate at both $24^{\circ}$ and $5^{\circ}$ C. Laboratory predation experiments showed that rock bass (Ambloplites rupestris) had a slight preference for G. fasciatus, and this preference was stronger (though not significantly so) in the presence of zebra mussels. Field sampling at Sodus Point, Lake Ontario revealed an increase in the abundance of $E$. ischnus during the late fall when Dreissena cover was also increased relative to algal cover. Thus the patterns observed in the field may represent a complex response to availability of habitat and food resources.

# Fish Community Response to Removal of Naturalized Smallmouth Bass in an Oligotrophic Adirondack Lake 

Brian Weidel, Graduate Student, and Cliff Kraft (advisor), Cornell University, Ithaca, NY.

Introductions of non-native smallmouth bass (Micropterus dolomieu) have limited the abundance and diversity of native soff-rayed fishes, altered lake trout trophic status, and reduced brook trout biomass in northern waters. This study is designed to demonstrate whether the impact of a widelyintroduced non-native fish predator (smallmouth bass) can be reversed in Little Moose Lake, a 270 hectare Adirondack lake. An intensive smallmouth bass removal effort was initiated in May 2000, during which 9500 bass were removed via boat electrofishing, angling and gill netting. Based on previous population estimates, we have removed at least half of the mature smallmouth bass population from Little Moose Lake, and will continue to remove bass during the next two years. By comparison with previous years, as well as a nearby reference lake, we have already observed a decline in smallmouth bass abundance in the experimental lake, though predation risk for tethered creek chubs has not declined. Smallmouth bass growth, diet and forage fish abundance are also being compared with data collected in previous years, as well as concurrent data from the reference lake.


Program and Abstracts

2001 Annual Meeting of the New York Chapter of The American Fisheries Society

January 18-20, 2001
The Treadway Inn, Owego New York

Conference Theme:
Large Scale Climate Variability Impacts Upon New York Fisheries

# Agenda <br> 2001 Annual Meeting of the New York Chapter of The American Fisheries Society January 18-20, 2001 <br> The Treadway Inn, Owego New York 

# Large Scale Climate Variability Impacts Upon New York Fisheries 

## Thursday, January 18

| 6:00-9:00 p.m. | Registration |
| :--- | :--- |
| 6:00-9:00 p.m. | Poster set-up |
| 6:30-8:30 p.m. | Excom Meeting |
| 8:00-11:00 p.m. | Informal Social |

Friday, January 19


Williamsburg Room
Starfire Lobby
Board Room
Williamsburg Room

Starfire Lobby
Starfire Lobby
Starfire West
The evidence for climate change: A state of the art review
The New England Regional Assessment Climate modelling for northeast water resources impacts
Starfire Lobby
The Mid-Atlantic Regional Assessment
(DeGaetano, Rock, Hurts, Shortie)
Starfire East
Potential heat/temperature effects on fisheries
Potential ice storm effects on fisheries:
Woody debris and debris dam formation
Climate change effects on northeast fisheries
Forecasting impacts of climate change on
Ontario walleye populations
(Sullivan, Kraft, Casselman, Shuter)
Starfire Lobby
Starfire Lobby - Authors in attendance, see
bottom of agenda
Starfire West
Starfire East
Starfire East
Starfire East
Owego Room
Saturday, January 20

| 7:30-8:00 a.m. | Continental Breakfast | Starfire Lobby |
| :--- | :--- | :--- |
| 8:00-a.m. - 12:30 p.m. | Contributed Papers | Starfire West |

8:00-8:20 am. Liming Acid Ponds for Brook Trout in New York's Adirondack Region: Status, Approach and Application for the Year 2000. William H. Gordon, NYS Dept. of Environmental Conservation


8:20-8:40 a.m. Natural spawning by brook trout (Salvelinus fontinalis) populations within
Adirondack lakes with outlet barriers. Daniel C. Josephson, Clifford. E. Kraft, and Charles C. Krueger , Coldwater Fishery Research Program, Department of Natural Resources, Cornell University

8:40-9:10 a.m. A Method to Predict Fish Species Assemblages from Environmental Variables. James E. McKenna, Jr. Great Lakes Science Center, Tunison Laboratory of Aquatic Science US Geological Survey

9:10-9:30 a.m. The effects of double-crested cormorant predation on northern pike and muskellunge populations in the Eastern Basin of Lake Ontario and the upper St. Lawrence River. Molly A. Connerton (student), John M. Farrell, SUNY-ESF and the Thousand Islands Biological Station

9:30-9:50 a.m. Coffee Break Starfire Lobby
9:50-10:10 a.m. Recruitment Dynamics of Alewives and Rainbow Smelt in Lake Ontario. Robert O'Gorman, USGS, 17 Lake Street, Oswego,NY

10:10-10:30 a.m. Fish Community Response to Removal of Naturalized Smallmouth Bass in an Oligotrophic Adirondack Lake. Brian Weidel (student), Cornell University

10:30-10:50 a.m. Reproductive Success of Northern Pike in a Managed Spawning Marsh with Comparisons to Unmanaged Habitats in the St. Lawrence River. Gregory W. Hoag (student) and John M. Farrell, SUNY-ESF, Department of Environmental and Forest Biology and the Thousand Islands Biological Station

10:50-11:10 a.m. Survival and growth of eyed eggs and fry of Atlantic salmon (Salmo salar) stocked in the Salmon River, New York: implications for restoration. Stephen M. Coghlan Jr. (student) and Neil H. Ringler, Department of Environmental and Forest Biology, SUNY College of Environmental Science and Forestry, Syracuse, NY

11:10-11:30 a.m. The life-history and energetic meanings of the von Bertalanfy growth function for fishes
Ji X. He and Donald J. Stewart, SUNY-CESF, Syracuse, NY
11:30-11:45 p.m. Closing, Awards, Adjournment
Posters:
Adaptive Fishery Management : Research to Improve Brook Trout Angling in Adirondack Lakes Daniel C. Josephson and Clifford. E. Kraft, Coldwater Fishery Research Program, Department of Natural Resources, Cornell University

Fish Population Assessment and Spring Water Chemistry in Adirondack Headwater Streams Howard A. Simonin, James R. Colquhoun, Eric A. Paul, John Symula and Howard J. Dean, New York State Department of Environmental Conservation, Aquatic Toxicant Research Unit

Index of Biotic Integrity: a review of this important tool receiving infrequent uses in NYS. Douglas M. Carlson, NYS Dept Environmental Conservation, 317 Wash. St., Watertown, NY

Management of Otisco Lake and Jamesville Reservoir Walleye Fisheries through Stocking. Patty Thompson (student), SUNY-ESF

Echinogammarus ischnus, the next exotic threat?
N. Tisch, Cornell University, C. M. Mayer, Syracuse University

# ABSTRACTS <br> [ALPHABETICAL BY FIRST AUTHOR] 

Bartlet, David [no abstract]

# Index of Biotic Integrity: a review of this important tool receiving infrequent uses in NYS. 

Douglas M. Carlson (NYS Dept Environmental Conservation, 317 Wash. St., Watertown, NY 13601 (315-785-2262), dmcarlso@gw.dec.state.ny.us)

Interpreting fish survey data was made earlier in the 1970s with the development of a biomonitoring tool called the Index of Biotic Integrity. It has been refined and widely applied to flowing waters in the 1990s, in many parts of this country outside of New York. In this poster, you will see some of the available literature and the few reports applying it to NY waters. The tool is very effective at recognizing stream quality and stream degradation, and it relies on general survey data including catches of all fish inhabitants. This display will also encourage you to contribute by sampling in ways useful to the development or testing of the tool for your region.

## Effects of Climate and Global Warming on Year-Class Production of Warm-Water, CoolWater, and Cold-Water Fishes in Eastern Lake Ontario

John M. Casselman, Ontario Ministry of Natural Resources, Research, Science and Technology Branch, Glenora Fisheries Station, R.R. 4, Picton, Ontario, K0K 2T0; 613-476-3287; FAX 613-476-7131; john.casselman@mnr.gov.on.ca

Predicting the impact of global warming on fisheries necessitates understanding the effects of temperature, an important factor influencing year-class strength and production. For three decades, index sampling in eastern Lake Ontario has produced catch statistics and age data to assess changes in the status of fish species in relation to thermal tolerance. Late fall and summer nearshore water temperatures have increased significantly, paralleling global warming and temperature extremes, particularly those associated with El Niño, La Niña, and the Mount Pinatubo eruption. Global warming will substantially increase year-class strength of warm-water species, such as smallmouth bass, which is positively correlated with July-August temperatures ( $r^{2}=0.47$ ); an additional increase of $1^{\circ} \mathrm{C}$ increases abundance by $2.5 \mathrm{x} ; 2^{\circ} \mathrm{C}$ by 6.0 x , and $3^{\circ} \mathrm{C}$ by 15 x . Year-class strength of northern pike, a cool-water species, is curvilinearly associated with July-August temperatures ( $r^{2}=0.65$ ); an increase of $1^{\circ} \mathrm{C}$ decreases year-class strength by 2.0 x , and $2^{\circ} \mathrm{C}$ by 60 x . For cold-water species such as lake trout, an increase in fall temperatures at spawning time has a major negative effect on year-class strength; an increase of $1^{\circ} \mathrm{C}$ decreases survival at hatch by $1.5 \mathrm{x}, 2^{\circ} \mathrm{C}$ by 2.4 x , and $3^{\circ} \mathrm{C}$ by 20 x . Global warming in the Great Lakes Basin will significantly alter year-class strength and fish-community structure and dynamics, with cold-water and even cool-water species becoming much less abundant and warm-water species predominating.

# Survival and growth of eyed eggs and fry of Atlantic salmon (Salmo salar) stocked in the Salmon River, New York: implications for restoration 

Stephen M. Coghlan Jr. and Neil H. Ringler

State University of New York, College of Environmental Science and
Forestry, 106 Illick Hall, 1 Forestry Drive, Syracuse, New York 13210

We stocked 150,000 Lake Clear strain Atlantic salmon (Salmo salar) fry and 125,000 eyed Atlantic salmon eggs at 16 sites in the Salmon River, New York. Survivorship of stocked fry ranged from 1.0 to $17.1 \%$ in the summer of 1999 and from 0.8 to $8.1 \%$ in the summer of 2000 . Daily instantaneous growth rates were similar between years, and ranged from 0.0249 to $0.0816 \mathrm{~g} / \mathrm{g} / \mathrm{d}$. Survival and growth rates were significantly different among sites ( $p<0.05$ ); survival appeared to be directly related to distance upstream from Lake Ontario, whereas growth was inversely related to distance. Although survival of stocked eggs through the alevin stage was generally high during the winter of 2000 ( $>50 \%$ ), survival after emergence was extremely low ( $<0.01 \%$ ). We have designed field studies to test the hypothesis that the most significant mortality occurs during the emergence period. Overall, fry-stocking resulted in significantly higher survival than did egg-stocking ( $p<0.0001$ ). Initial results suggest that summer water temperatures may limit salmonine production in the Salmon River. Wild steelhead (Oncorhynchus mykiss) juveniles were almost completely absent during 1999, yet were extremely abundant in 2000 , with summer densities reaching $>1.34 \mathrm{fish} / \mathrm{m} 2$. Summer river temperatures averaged several degrees lower in 2000 than in 1999. We hypothesize that Atlantic salmon success is limited by interspecific competitive interactions with steelhead, the outcomes of which may be temperaturedependent. We predict that elevated summer temperatures will favor Atlantic salmon juveniles when sympatric with steelhead juveniles, whereas lower summer temperatures should favor steelhead. We have designed laboratory experiments to test competition between the two species at summer water temperatures ( $18-25^{\circ} \mathrm{C}$ ). Results should elucidate the effects of an ecologically similar exotic species on an indigenous salmonine during periods of potential thermal stress.

# The effects of double-crested cormorant predation on northern pike and muskellunge populations in the Eastern Basin of Lake Ontario and the upper St. Lawrence River. 

Molly A. Connerton and John M. Farrell

SUNY-ESF, Department of Environmental and Forest Biology and the Thousand Islands Biological Station, Illick Hall, Syracuse, NY 13210. Phone: (315) 470-4819. Email:maconner@syr.edu

Double-crested cormorant populations have increased dramatically in the Lake Ontario-St. Lawrence River region. In order to evaluate the effects of double-crested cormorant Phalacrocorax aurutis predation on esocid populations, we examined northern pike Esox lucius and muskellunge Esox masquinongy otoliths recovered from cormorant pellets (undigested remains) as a measure of fish consumption. Recovered otoliths were interpreted to determine structural differences among the species. In addition, predictions of the size and age of esocids consumed were compared to recent changes in fish population structure. Cormorant pellets were collected in 1999 and 2000 (May through September), from six nesting colonies. At this time, the ability to differentiate among northern pike and muskellunge otoliths from pellets remains uncertain. To estimate total esocid consumption a model was used that includes daily fish ingestion rates and the number of cormorant feeding days. An independent study using the above model indicated that in 1999, esocid consumption was estimated at $1.1 \%$ ( 60,000 fish $)$ of the total double-crested cormorant diet. We will present updated estimates of esocid consumption for both 1999 and 2000. Regression analysis was used to establish a fish length to otolith length relationship $(\mathrm{r} 2=0.95)$ and was significant $(a=.05, \mathrm{p}$ value $=0.003$ ). The predicted mean size of esocids was $260 \mathrm{~mm}(\mathrm{SD}=56.5)$. Maximum size consumed was 475 mm and age 1-2 esocids were predominant in the cormorant diet. Examinations of size and age structure and consumption estimates are needed to assess a relationship between declines in esocid populations and increases in double-crested cormorant predation.

DeGaetano, Art [No abstract]

# Liming Acid Ponds for Brook Trout in New York's Adirondack Region: Status, Approach and Application for the Year 2000 

William H. Gordon, Biologist I (Aquatic)<br>NYS Dept. of Environmental Conservation, Region 6 - Fisheries, 317 Washington Street<br>Watertown, New York 13601 (315) 785-2254 whgordon@gw.dec.state.ny.us

Acid precipitation, its causes and effects, have been well documented. In New York State, the effects are most noticeable in the Adirondack Mountains Region. Recent amendments to the Clean Air Act have led to a reductions in both sulfur emissions and sulfate deposition, and lower sulfate levels in some Adirondack lakes and streams. Unfortunately, these have yielded very little change in lake and stream pH levels. Problems associated with acid deposition still exists in the Adirondacks. Pond liming has been used by the New York State Department of Environmental Conservation, Division of Fish, Wildlife and Marine Resources as a tool to neutralize acidified lakes and ponds for more than 40 years, largely for the benefit of Adirondack brook trout. Division policy has established specific pre-liming criteria and application methodology, which effectively direct pond treatment and re-treatment strategies. An evaluation of post treatment pH changes and related brook trout population benefits, indicates pond liming is still a productive fisheries management tool in the year 2000. Pond liming's use remains limited however, and therefore should not be viewed as a substitute for the need for more stringent air pollution control that will yield further reductions of sulfur and/or nitrate deposition.

# The life-history and energetic meanings of the von Bertalanffy growth function for fishes 

Ji X. He and Donald J. Stewart

State University of New York, College of Environmental Science and Forestry, 106 Illick Hall, 1 Forestry Drive, Syracuse, New York 13210

The von Bertalanffy growth function is the most used model for studying body growth and life histories of various organisms, from invertebrates to humans. Biological meanings of its parameters, however, have not been defined completely, and statistical comparisons of body-growth trajectories often do not have clear biological implications. For studying energy demand-supply relations and life-history diversity, model applications have been associated with the following unrealistic or inflexible assumptions: body mass scales to body length cubed; anabolism scales to $2 / 3$ power of body mass; maintenance metabolism or body substance breaking down is proportional to body mass; and there may be a nonzero age for zero body length. It has been repeatedly recommended to abandon the model because it appears to oversimplify growth processes and lifehistory relations. Here we demonstrate that none of the above assumptions is necessary. Hypothetical parameters in the model and related Ford-Walford plot can be defined fully by three measurable life-stage components. Thereby, many conflicting observations in life histories and energetics can be clarified.

## Reproductive Success of Northern Pike in a Managed Spawning Marsh with Comparisons to Unmanaged Habitats in the St. Lawrence River

Gregory W. Hoag and John M. Farrell

SUNY-ESF, Department of Environmental and Forest Biology and the Thousand Islands Biological Station, Illick Hall, Syracuse, NY, 13210. Phone: (315) 470-4819; E-mail: gwhoag@mailbox.syr.edu

Wetland loss and change due to hydrologic management is hypothesized as an important factor in decreased production and recruitment of northern pike. A regulated spawning marsh was evaluated as a potential management alternative toward improving northern pike recruitment. Specific objectives were to examine spawning success and growth of age-0 northern pike in a managed marsh, and compare results to unmanaged riverine habitats. Water level management began in fall 1998 at Cranberry Creek marsh, Alexandria Bay, NY. During spring 1999 and 2000, adult northern pike were trapped below the control structure and transferred into the marsh. Comparisons were made with two unmanaged habitats. Techniques employed included egg trapping, seining, fry trapping, spillway traps, and electrofishing. During 1999, no age-0 northern pike were observed leaving Cranberry Creek marsh, however, over four thousand emigrants ( $>75 \mathrm{~mm}$ ) were captured during the 2000 season. Northern pike growth at the Cranberry Creek marsh was compared to unmanaged habitats at Goose Bay, and a shoal habitat at Governor's Island. Fish emigrated from Cranberry Creek marsh beginning in June 2000 at a length of 73 mm . Shoal spawning was delayed in comparison, and fish only achieved a length of 12 mm by June. Growth rates were similar between habitats with the exception of considerably slower growth at Governor's Island. Hydrologic management of the marsh increased length of the growing season and water temperatures, resulting in greater age-0 growth rates. Differences in food consumption among habitats also may explain slower growth rates for shoal-spawned pike. Independent marsh water level regulation has been shown to be a successful method to promote increased northern pike production. This strategy has great potential for basin wide application with benefits to multiple species.

Hurtt, George [No abstract]

# Natural spawning by brook trout (Salvelinus fontinalis) populations within Adirondack lakes with outlet barriers. 

Daniel C. Josephson ${ }^{1}$, Clifford. E. Kraft, and Charles C. Krueger

Coldwater Fishery Research Program, Department of Natural Resources, Cornell University, Ithaca, New York, 14853. 'Author and presenter. Phone: 315-369-6781; E-mail: dcj3@kcornell.edu.

Previous research concluded that fall emigration by brook trout (Salvelinus fontinalis) likely contributed to the virtual absence of age 3 and older age fish in many Adirondack lakes that depend on stocking instead of natural reproduction (Josephson and Youngs 1996). Barriers to downstream movement were constructed in the outlets of two study lakes with known emigration to further examine the relationship between emigration and age structure of brook trout populations. An unexpected outcome of blocking emigration by stocked fish was that detectable natural reproduction of brook trout occurred within the two stocked lakes (in the lake proper and/or tributaries), where little or no natural spawning was previously known. Brook trout were able to successfully locate groundwater and reproduce when forced to remain in the lakes. In Rock Lake the catch of unmarked wild brook trout increased 34 fold, from $0.8(\mathrm{SD}=0.7)$ to $16.6(\mathrm{SD}=23.7)$ fish per trapnet night, after the outlet was blocked for seven years. Brook trout were not known to have spawned within Rock Lake or its tributaries over the past three decades. In Lower Sylvan Pond the catch of umarked wild brook trout decreased 3 fold, from $30.8(\mathrm{SD}=18.0)$ to $12.0(\mathrm{SD}=10.7)$ fish per trapnet night, after the outlet was blocked for eleven years. Although brook trout spawned at previously unused sites within Lower Sylvan Pond, they could not access a historic downstream outlet spawning site and wild recruitment was reduced. "Forced" natural spawning occurred within both lakes after blocks were installed; however, with dramatically different population level effects on the wild brook trout fishery. A multi-faceted research and management approach that includes spawning habitat manipulations, strain management and outlet barriers might prove useful in the restoration of naturally reproducing brook trout populations in some Adirondack lakes. If potential spawning habitat exists in the outlets of lakes, special consideration would need to be given to the placement of outlet barriers so as not to prevent access by adult fish to those spawning sites. [References: Josephson, D.C., and W.D. Youngs. 1996. Association between emigration and age structure in populations of brook trout (Salvelinus fontinalis) in Adirondack lakes. Can. J. Fish. Aquat. Sci. 53: 534-541.]

# Adaptive Fishery Management : Research to Improve Brook Trout Angling in Adirondack Lakes 

Daniel C. Josephson ${ }^{1}$ and Clifford. E. Kraft

Coldwater Fishery Research Program, Department of Natural Resources, Cornell University, Ithaca, New York, 14853. ${ }^{1}$ Author and presenter. Phone: 315-369-6781; E-mail: dcj3@cornell.edu

For 50 years, Cornell University and private Adirondack landowners have worked together in a cooperative fishery research and management effort. Research and management activities have changed over the past fifty years, reflecting both a changing environment and angler preferences. Brook trout lake fisheries have been a primary Cornell research focus since 1950, when surveys initiated by Dr. Dwight Webster provided the foundation for future research and management efforts. Adaptive research and management has resulted in a substantial improvement in Adirondack lake brook trout fisheries over the past 50 years, despite acid rain and other environmental challenges. The larger proportion of fish released in recent years, combined with innovative fishery management approaches, has contributed to the observed increases in both notable brook trout and angler catch rates. Lessons learned through a partnership between Cornell University and private cooperators has provided new insights for managing Adirondack fisheries. Current research efforts are continuing to focus on understanding the components of aquatic ecosystems that limit trout production. Cornell researchers will continue to apply research results to manage fisheries in Adirondack waters and other coldwater fisheries, as well as towards improved management of other fish species.

## Potential ice storm effects on fisheries: Woody debris and debris dam formation

## Cliff Kraft

Department of Natural Resources, Cornell University, Ithaca, New York, 14853.
The January 1998 ice storm deposited woody debris in riparian areas and associated streams of northeastern U.S. and Canadian forests. Although large-scale disturbances have been recognized as important influences upon river and stream habitat, the potential impact of ice storms upon aquatic habitats have received little attention. We assessed in-stream deposition of woody debris in first, second and third-order streams as a function of ice storm canopy damage in associated riparian forests within five large watersheds in the eastern Adirondack Mountains (New York, U.S.A.). Riparian tree canopy damage, stream physical habitat and woody debris deposition were quantified in over 50 stream study sites. In the first year of this study, we found that the proportion of tree canopy damage near first and third-order streams was correlated with in-stream debris dam frequency and debris dam volume. By contrast, the frequency of individual pieces of woody debris was not strongly correlated with canopy damage in either first or third-order streams. Using data collected during the second study year, we determined that stream width and tree canopy damage were significant predictors for in-stream debris dam frequency and total debris dam volume. Our results indicate that debris dam formation is the primary in-stream habitat modification resulting from ice storm-related wood deposition. As this study continues, we will evaluate biological and physical responses within streams to the in-stream deposition of woody debris resulting from this ice storm, including an evaluation of fish distribution and abundance.

# A Method to Predict Fish Species Assemblages from Environmental Variables James E. McKenna, Jr. 

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Biodiversity is much touted as important, but rarely is there management for a given level of
biodiversity. One reason may be that diversity indices contain little information about an assemblage of organisms and extracting species-specific characteristics is challenging. It makes intuitive sense that fish diversity is determined to some degree by environmental conditions; one of the greatest needs of fisheries managers is the ability to predict the effects of environmental adjustments on fish assemblages. Using a distribution-based diversity index and information about overall fish abundance and the general species pool, one should be able to back calculate the fish assemblage in a given area. If diversity and abundance can be predicted from environmental conditions, a link between the environment and fish assemblages is established. The method introduced here uses a three-step process to predict abundance and composition of species assemblages from environmental data. First, environmental data are fed to two neural networks trained to predict total fish abundance and species richness. Those predicted values are then used to calculate Fisher's a (diversity) and generate Whittaker Plots, which predict the abundance of each species. Species are then assigned to each abundance class by randomly choosing them from the species pool available for the habitat, weighting the probability of their selection by their observed relative abundance. Comparisons between the expected assemblage and those observed in the field can then be made. The method is applied to fish assemblages in the Finger Lakes and the Oswego River.

## Recruitment Dynamics of Alewives and Rainbow Smelt in Lake Ontario

R. O'Gorman and R. Owens, USGS, Lake Ontario Biological Station, 17 Lake Street, Oswego, NY 13126. T. H. Eckert and B. F. Lantry, NYDEC, P.O. Box 292, Cape Vincent, NY 13618.

The economically important Lake Ontario sport fishery for hatchery-reared salmon and trout is heavily dependent on two exotic prey fishes -- alewife and rainbow smelt. Understanding recruitment dynamics of these two prey fishes is required for efficacious management of stocking needed to maintain the fishery. During 1978-2000, size of alewife year classes varied 200 fold and size of rainbow smelt year classes varied 50 fold. Such variations in reproductive success often reflect changes in size of parental stock, environmental conditions, and/or predation pressure. Futhermore, recruitment in exotic fish stocks may be more sensitive to environmental extremes than is recruitment in endemic fish stocks. To identify factors influencing size of alewife and rainbow smelt year classes, we investigated the relationship between age-1 abundance during 1978-2000 and water temperature, number of spawners, and (for smelt) number of intra-specific predators. For alewives, catch of age-1 fish was related to number of spawners, temperature of nearshore water during the spawning and larval period, and length of the winter. For rainbow smelt, catch of age-1 fish was not related to water temperature or number of spawners, but was negatively related to number of intra-specific predators suggesting that cannibalism determined year class size.

Shortle, Jim [No abstract]

# FISH POPULATION ASSESSMENT AND SPRING WATER CHEMISTRY IN ADIRONDACK HEADWATER STREAMS 

Howard A. Simonin, James R. Colquhoun, Eric A. Paul, John Symula and Howard J. Dean

New York State Department of Environmental Conservation, Aquatic Toxicant Research Unit, 8314 Fish Hatchery Road, Rome, NY 13440 (phone 315/337-0910)

Fish populations in 36 Adirondack headwater streams were surveyed by electrofishing in the fall of both 1979 and 1999. The streams were all judged to provide suitable year-around trout habitat containing pools, riffles, shaded areas, and shelter from high stream flow. Water samples were taken from these streams for chemical analysis during the spring of both 1980 and 2000. The occurrence of salmonids and of all fish appeared to be directly related to the water chemistry during the spring. In most cases streams which had pH levels less than 5.0 in the spring were fishless. No young of the year brook trout were found in streams which had a spring air equilibrated pH less than 4.98. A higher number of fish and a greater number of species were collected in 1999 than during 1979, but this may have been due to better electrofishing efficiency during 1999. No consistent change was observed in spring pH levels of the study streams from 1980 to 2000. However, considerable annual and seasonal variability is evident in spring stream samples depending on stream flow. There was a significant decrease in calcium concentrations in the spring 2000 stream samples when compared with similar samples collected in 1982. Sensitive and acid impacted streams continue to exist in the Adirondacks even though sulfate deposition has decreased. The annual median stream pH of Buck Creek (a stream with 17 years of monitoring data) was inversely correlated with the amount of precipitation during the spring and summer period

## Factors limiting zebra mussels (Dreissena polymorpha) in a polluted urban system, Onondaga Lake NY.

Spada, Michael Efim.
SUNY-ESF, Department of Environmental and Forest Biology, Illick Hall, Syracuse, NY 13210.
In most systems where zebra mussels (Dreissena polymorpha) become established, they reach nuisance densities.. Despite high densities in the adjoining Seneca River, populations in Onondaga Lake remained barely detectable for almost seven years. We hypothesized that emigration from the river was insufficient to overcome lake constraints. Substrate availability and fish predation were tested as possible constraints. In 1997 colonization patterns suggested that the river was a source of mussels, but in 1998 larval and settlement densities were low. We found sufficient substrate to support greater numbers of mussels than observed. An exclosure experiment with translocated mussels revealed $99 \%$ removal within two weeks, although it is unlikely that fish predation is the sole factor in limiting mussels, since similar species are found in the river. Zebra mussels appeared to be limited by the polluted conditions of Onondaga Lake and lack of protected substrate. Recently, mussel populations have exploded, perhaps aided by changing lake conditions.

Sullivan, Pat [No abstract]

# Forecasting Impacts of Climate Change on Ontario Walleye Populations 

Brian Shuter, Research Scientist,Ontario Ministry of Natural Resources, and Adjunct Professor, University of Toronto, 519-583-0981 (office); 519-583-1547 (FAX)<br>Population statistics from a sample of Ontario walleye populations demonstrate strong statistical associations with both climate and water quality variables. Growth and maturity schedules change systematically with changes in both degree days and secchi depth. These and otherrelationships are used to forecast potential impacts of climate change on both walleye populations and walleye fisheries in Ontario.

## Thompson, Patty [No abstract]

## Echinogammarus ischnus, the next exotic threat?.

N. Tisch, Cornell University, and C. M. Mayer Syracuse University.

In recent years, a large number of exotic species have been introduced to the Great Lakes; many of these invaders have been benthic. In 1997 the presence of a European benthic amphipod, Echinogammarus ischnus was documented. Our study focused on determining the potential effect of $E$. ischnus on the resident amphipod Gammarus fasciatus, which is currently an important food web component in near-shore areas. In the laboratory we conducted habitat choice experiments with Dreissena covered rocks, algae covered rocks, bare rocks, and artificial plants. Gammarus preferred Dreissena covered rocks. In growth experiments both species were reared on a diet of Cladophora and chironimids at $24^{\circ}$ and $18^{\circ} \mathrm{C}$. G. fasciatus grew faster and matured earlier than $E$. ischnus at both temperatures. Further, G. fasciatus had a higher metabolic rate at both $24^{\circ}$ and $5^{\circ}$ C. Laboratory predation experiments showed that rock bass (Ambloplites rupestris) had a slight preference for G. fasciatus, and this preference was stronger (though not significantly so) in the presence of zebra mussels. Field sampling at Sodus Point, Lake Ontario revealed an increase in the abundance of $E$. ischnus during the late fall when Dreissena cover was also increased relative to algal cover. Thus the patterns observed in the field may represent a complex response to availability of habitat and food resources.

## Fish Community Response to Removal of Naturalized Smallmouth Bass in an Oligotrophic Adirondack Lake

Brian Weidel, Graduate Student, and Cliff Kraft (advisor), Cornell University, Ithaca, NY.

Introductions of non-native smallmouth bass (Micropterus dolomieu) have limited the abundance and diversity of native soft-rayed fishes, altered lake trout trophic status, and reduced brook trout biomass in northern waters. This study is designed to demonstrate whether the impact of a widelyintroduced non-native fish predator (smallmouth bass) can be reversed in Little Moose Lake, a 270 hectare Adirondack lake. An intensive smallmouth bass removal effort was initiated in May 2000, during which 9500 bass were removed via boat electrofishing, angling and gill netting. Based on previous population estimates, we have removed at least half of the mature smallmouth bass population from Little Moose Lake, and will continue to remove bass during the next two years. By comparison with previous years, as well as a nearby reference lake, we have already observed a decline in smallmouth bass abundance in the experimental lake, though predation risk for tethered creek chubs has not declined. Smallmouth bass growth, diet and forage fish abundance are also being compared with data collected in previous years, as well as concurrent data from the reference lake.


New York Chapter
American Fisheries
Society - Newsletter

## December 2001

| New York Chapter Officers |  |
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| 2001-2002 |  |
| President: | John M. Farrell |
| President-elect: | David S. Bryson |
| Past President: | Donald J. Stewart |
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| Title: | New York Chapter American <br> Issue Date: <br> Frequency: |
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| Newsletter | December (Winter Edition) |
| Editor: | Caniel Josephson |
|  | Conell University |
|  | O.O. Box 1124 |
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## AFS - New York Chapter Newsletter -- December 2001

## Editor's Note

The annual meeting is just around the comer. Many details about the meeting are included in the newsletter as well as the Final Call for Papers. A new President will be elected at the annual meeting and the biographical sketches for the two candidates (Karin Limburg and Webster Pearsall) are also in the newsletter.

Thanks to everyone who contributed articles and news.

Have a Happy Holiday season.
Dan Josephson
Editor

## President's Corner

Please plan on attending our upcoming NY Chapter AFS Annunal Meeting at Canandaigua, NY. Were hoping for a big turnout for the many quality presentations and posters and a lively panel discussion regarding lotic ecology and management. Also, we would like to see some new faces at this year's meeting. Therefore I challenge our membership to invite some friends and colleagues to attend. If you're interested in helping out, please contact our program chairs Margaret Murphy and Patty Thompson or Web Pearsall for local arrangements. I wish all of you a safe and happy holiday season.

Regards,
John Farrell
NYCAFS President

## 2002 Annual Meeting - NY Chapter AFS

Please turn to pages 7 through 10 of the newsletter for important information about the 2002 Annual Meeting.

## Candidates for Chapter President

Two members of the NYCAFS are running for the office of President. The candidates for President are Karin Limburg and Webster Pearsall. The election will take place at the annual meeting in January 2002. The successful candidate will serve as President-Elect in 2002 and then as President in 2003. Biographical sketches of the candidates follow.

## Karin Limburg

Karin Limburg is an ecologist who focuses on fish, fisheries, and their connections to ecosystems and society. She is currently an assistant professor at SUNY College of Environmental Science and Forestry, where she teaches Fisheries, Watershed Ecology, and conducts research with colleagues and graduate students. Her research involves fishes of the Hudson River and the Baltic Sea; recent themes include migration, recruitment, and food web dynamics of diadromous species. One of her favorite fish groups is the alosine herrings (the shads), and last May she co-organized a highly successful, international conference on their status and conservation. The proceedings will be published by AFS as a book in 2002. A week after the SHAD 2001 conference, Limburg convened a 2day workshop (also international in scope) on state-of-the-art in otolith research, under the auspices of the NY chapter.

If elected, Karin would like to encourage broader involvement of fisheries professionals and students across the Empire State, to make the NY AFS chapter truly representative of our great diversity.

## Webster Pearsall

Webster Pearsall is a Senior Fisheries Biologist with NYSDEC's Region 8 in Avon, NY. He is responsible for the management of the fishery resources in Wayne, Monroe, and Orleans counties, including the near-shore waters of Lake Ontario and some of its largest bays. In addition, he manages the Finger Lakes Zebra Mussel Monitoring Program and co-coordinates NYSDEC's Aquatic Nuisance Species Program.

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Web is a native of central New York. He graduated from the State University of New York College of Environmental Science and Forestry (SUNY ESF) in 1982 with a BS degree in Forest Biology (Fisheries emphasis), then completed a Master's in Biology (Fisheries) in 1989 at SUNY Fredonia. While at ESF, he was involved in resurrecting the ESF Student Chapter of AFS, and served as President.

Web worked for the State of Maine Department of Environmental Protection for over 11 years, more than 9 of the years as an Aquatic Biologist, and he always returned to New York to participate in New York's AFS Chapter meetings.

Web has been a member of the New York Chapter since 1981, and has been actively involved in the New York, Atlantic International, and Northeast Chapters. He has presented a talk, judged presentations, and moderated sessions. He is currently serving on the membership committee, and on an ad hoc committee that is reviewing and updating the Chapter's Bylaws and the Officers' Manual. He is also Chair of the Chapter's Professional Incentive Committee, and is in charge of local arrangements for the 2002 Annual Chapter Meeting in Canandaigua.

Web has written and published several training manuals and reports, written magazine articles in the Maine Fish and Wildlife and New York's Conservationist, and has contributed to the Journal of Great Lakes Research.

As NY Chapter President, Web would be interested in increasing educational and training opportunities for its members, and would work to increase membership.

Web currently resides in Manchester with his wife Heidi, and enjoys fishing, hunting, and golfing.

## Lake sturgeon study opportunities in the Great Lakes of NYS

## Doug Carlson from NY DEC writes:

Lake sturgeon have been regaining numbers in the border waters of Lakes Erie and Ontario and the Niagara and St. Lawrence Rivers, based on reports of captures by sportsmen and standardized monitoring with nets. There is need for further confirmation of recovery with additional studies, but these initial symptoms include captures of juveniles and indications of spawning. The only disconcerting issues are the incidence of botulism deaths of sturgeon in Lake Erie and the occasional captures in the lower Niagara R. of adult sturgeon with deformed backbones.

Additional enhancement opportunities in these waters are hereby being identified incase study groups come along with interests and funding. Nearly every piece of ongoing research would benefit greatly from the addition of other interested groups.

Studies have been underway at the two areas that have the highest numbers of sturgeon in NYS, near the large hydroprojects at Niagara Falls and the St. Lawrence R. at Moses Saunders Dam. Both studies have made substantial advances with field discoveries and final reports are pending. A third study effort in earlier stages of progress is at the mouth of the Genesee River at Rochester. This study examined habitat and habitat suitability in the river and will experiment with habitat use to determine fidelity of stocked sturgeon. Continuation of the experimental stocking portion of this study is on hold while waiting for juvenile sturgeon from a hatchery. Further progress awaits a break through at capturing egg-bearing females in the lower Niagara River, possibly at the Niagara R. bar just into Lake Ontario. A fourth study area is Oneida Lake where a population is being established to provide brood stock and possibly provide a future fishery. It is possible that hatchery stocking here and in the fifth study area, the Oswegatchie R. stocked from 1995-2000, will provide out-migrants to Lake Ontario and the St. Lawrence River that will eventually help establish spawning populations at the mouths of those tributaries.

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Other tributaries with histories of spawning sturgeon include the Black and Oswego rivers near Lake Ontario, the Oswegatchie R. near the St. Lawrence R. and Cattaraugus Creek near Lake Erie. More notable than these historic spawning areas in tributaries are river spawning areas of the upper Niagara R. where leaving Lake Erie at Buffalo and the St. Lawrence R. at Red Mills. Much remains to even begin understanding the changes or current situation in these areas.

Evidence of recovery at these areas offers opportunities for study groups to engage in sturgeon research. The NYSDEC with various field and coordinating units would like to foster additional studies, but is currently unable to become involved beyond limited hatchery support and assistance with various local contacts. A summary of current knowledge about this species in NYS and the progress reports from these studies is available from the Endangered Fish Project, Region 6, Watertown (dmcarlso@gw.dec.state.ny.us) or the researchers responsible for our present understanding, include T. Brooking, D. Dittman, J. Hayes, T. Hughes, S. LaPan, C. Lowie, S. Schlueter and R. Jackson.

## Recent Theses

## Parker, Sandra. The effect of ecosystem change on the feeding ecology of eastern Lake Erie rainbow smelt Osmerus mordax

Rainbow smelt Osmerus mordax is the primary forage species in eastern Lake Erie, dominating both fish biomass and the diets of piscivores. Since the 1960 s, rainbow smelt have experienced declining growth rates and, more recently, significantly decreased population densities. These changes have paralleled shifts in eastern Lake Erie that have resulted from nutrient reductions and the arrival of zebra and quagga mussels (Dreissena polymorpha, D. bugensis) and Bythotrephes longimanus. This study characterized the diet of rainbow smelt in 1998 and 1999 and examined diet shifts that have occurred since the 1960 s as a possible mechanism for recent population trends.

A significant compositional change occurred in the diet of rainbow smelt between 1961 and 1999. In
spite of this shift, the diet during the 1990s was energetically similar to, or superior to, the diet in the 1960s. However, even if energy content has been maintained, decreasing rainbow smelt condition could still occur if consumption, on a daily or seasonal scale, was significantly reduced. Prior to the mid-1980s, two large prey items, Mysis relicta and Diporeia hoyi, had extended diel and seasonal feeding by rainbow smelt. These important species have, however, both been rare in eastern Lake Erie since the mid-1980s. Although their near-disappearance is likely responsible for decreased condition up to the mid-1980s, it cannot explain the continued decrease in growth during the 1990s. Instead, rainbow smelt consumption of Bythotrephes, which increased during the 1990s, may play a significant role in reducing the seasonal growth potential of rainbow smelt. Because they are indigestible, Bythotrephes' caudal spines occupy space in rainbow smelt stomachs but provide no digestible energy to the fish. This effectively leads to a decrease in the daily consumption of available energy. If the space occupied by Bythotrephes spines were filled with energetically-valuable prey items, rainbow smelt would achieve higher seasonal growth.

The hypothesis that Bythotrephes caudal spines are retained in fish stomachs longer than other prey items was tested by comparing the number of Bythotrephes spines to the number of Bythotrephes bodies present in the stomachs of rainbow smelt. No retention of Bythotrephes spines was observed in June (night) samples, although significant retention was found in June (day), July (night), October young-of-year (night) and October yearling-and-older (night) samples. Spine retention increased significantly as time after sunset increased and decreased significantly as stomach fullness increased. This verified that other prey items, including Bythotrephes bodies, are evacuated from the stomach faster than Bythotrephes spines.

| Author's Full Name : | Sandra Parker |
| :--- | :--- |
| Candidate for Degree of: | Master of Science |
| Date: | August 2001 |
| Major Professors: | Dr. Edwards Mills |
|  | Dr. Lars Rudstam |
|  | Cornell University |

# AN INTRODUCTION TO THE DEC'S "FISH NY" INITIATIVE (URBAN/SUBURBAN FISHING INITIATIVE) 

By Chris VanMaaren, Fisheries Biologist, NYSDEC Region 2

The New York State Department of Environmental Conservation Division of Fish Wildlife and Marine Resources is in the process of designing the new Fish $N Y$ initiative. This initiative will work to provide those living in the urban areas of New York, quality fishing opportunities close to home and the knowledge and skills necessary to utilize those fisheries in a responsible manner.

New York State is second to none in terms of its fishery resources and the diversity of fishing opportunities available here. Despite this, fishing participation has declined in most areas of the state. One potential explanation is that our population is becoming increasingly urban while our fisheries management emphasis is on rural resources, resources that are only available to those fortunate enough to live close to them or affluent enough to travel to them. Urban and suburban residents, particularly minorities, low income and non-English-speaking people, have been under-served by our traditional natural resource management programs. Yet, these constituencies are important components of the state's population and are among the populations sectors most likely to grow in numbers.

Indeed, freshwater fishery resources located in and close to population centers are often of the lowest priority for fishery management, including programs like stocking. Access to these resources is mostly restricted to shore and pier fishing, a program area which receives little attention or financial help. Things are not much better for marine sport fisheries. Though most of the state's marine resources are closely associated with densely populated areas, little effort has been made to educate and inform city dwellers of local fishing opportunities and how to take advantage of them. In addition, there is a strong need to educate urban anglers about the health risks associated with consuming fish caught locally.

Many urban areas have numerous lakes, ponds, streams or marine waters within their borders. Unfortunately, these resources are often not well maintained. In the smaller urban lakes and ponds, it takes very little fishing pressure to overharvest top predators. Thus many of these systems are out of balance and smaller species like sunfish are able to overpopulate and become stunted, resulting in a poor fishery. These urban resources are impacted by pollutants, including toxins, solid wastes, and high nutrient loads. The shores are covered in garbage and the aquatic plants and algae tend to reach unpleasantly dense levels. In many cases contaminant levels in the fish are high enough to warrant health advisories regarding consumption of the fish. Even in areas where the fish have been tested and determined to be safe to eat, the public perception is often that it is unsafe to eat the fish. The Fish $N Y$ initiative will work with the local communities to turn urban aquatic resources from a liability to an asset and teach community members that by protecting and improving local aquatic resources they can become an important recreational resource.

A steering committee to manage this new initiative has been compiled of DEC staff from the Division of Fish Wildlife and Marine Resources, Bureau of Fisheries and Bureau of Marine Resources, Division of Information and Education, Division of Law Enforcement, and from SAREP. The initiative has been set-up to be implemented in two phases. The first phase is designed to build the initiative in New York City, Westchester and Nassau Counties and the four western towns of Suffolk County. In phase two, Fish NY will expand to Albany, Syracuse, Utica, Rochester, Buffalo and Binghamton.

Implementation of Phase one on the Fish NY Program will consist of three major steps:

## Step 1. Improve and expand the Department's database of the fisheries resources in the New York metropolitan area.

This will be accomplished by conducting an exhaustive inventory that will identify: areas without good fishing access or that need work; areas with good fishing opportunity that are underutilized; and inaccessible areas with potential. This inventory will identify and classify: both fresh and tidal water bodies; the recreationally important fish and crustacean species available; types of access; public transportation; and the amenities close by. The inventory will be used to create a searchable GIS database, to later be made available over the world wide web.

Step 2. Develop a set of information and education programs that will build public awareness of recreational fishing opportunities in the New York metropolitan area and provide technical information to enhance the fishing experience.

This step of the project will necessarily involve the formation of partnerships for assistance with program development and delivery. We will identify potential partners in non-English speaking and minority communities to determine their needs and encourage their involvement in outreach and extension. We will also reach out to community service organizations, governmental recreation providers, and local government/community health care providers to promote awareness of fish consumption advisories.

The following program areas will receive the major focus during this step:

1. Production of new fishing educational materials and revamping or supplementation of existing materials on the "howto" and "where-to" aspects of fishing in the metropolitan area and suburbs. These materials will cover fresh and saltwater and include newsletters, brochures, booklets and videotapes that can be distributed to libraries and adapted for the world wide web. We will also develop program promotional materials to build public awareness of the program.
2. Development and implementation of freshwater and marine fishing education programs designed to teach both fishing basics and advanced angling concepts. These programs will adapted for use in regional public school systems and will be conducive of the "train the trainer" style of education program to maximize program efficiency.
3. Development and implementation of family-centered fishing programs, such as fishing clinics and fishing rod and tackle loaner programs, to facilitate the introduction of youth to the fishing experience. This effort will include the production of a "fishing clinic assistance package" that provide a clinic organizer with the basic educational materials necessary for a successful clinic. In addition, we will explore the potential for development of a seasonal fishing assistant program that will provide on-the-water informal assistance to beginning anglers.

Step 3. Using the information collected in the inventory, improve quality of the fishing experience through improved access and enhancement of habitat and fisheries in the metro area.

This step of the program will need additional funding beyond the grant funding, through state capital and general fund projects. Access projects would include construction or rehabilitation of fishing piers and boat ramps, establishment of shore fishing rights or privileges, or other improvements, while habitat enhancements could be artificial reefs in association with piers or improvements to freshwater ponds or streams. We will explore the development of a stocking program that provides the species necessary to establish or improve the quality of desirable warm-water fish communities in the focus area, and consider a stocking program coordinated with scheduled family fishing events.

Despite a decline in the number of people living in cities upstate the overall percentage of urbanites in New York State has remained fairly constant over the past 10 years (Table 1). The DEC needs to work to improve urban fishing resources not only because $66 \%$ of the state lives in urban areas but also because we need to work to provide environmental justice to people of the state that been subjected to many of the state's poor environments.

The Fish NY steering committee is currently working on developing a more comprehensive strategic plan while it waits for its funding finalization. If you would like to know more about Fish NY, feel free to call Chris Van Maaren at the Region 2 DEC office (718) 482-4022.

Table 1. Population of New York State and its major urban areas from 1990 and 2000 US Census (www.census.gov)

| Location | $\mathbf{1 9 9 0}$ | $\mathbf{2 0 0 0}$ | Change |
| :--- | ---: | ---: | ---: |
| New York State total | $17,990,455$ | $18,976,457$ | 986,002 |
| Binghamton (City of) | 53,008 | 47,380 | $(5,628)$ |
| Buffalo (City of) | 328,123 | 292,648 | $(35,475)$ |
| Rochester (City of) | 231,636 | 219,773 | $(11,863)$ |
| Syracuse (City of) | 163,860 | 147,306 | $(16,554)$ |
| Utica (City of) | 68,637 | 60,651 | $(7,986)$ |
| Albany (City of) | 101,082 | 95,658 | $(5,424)$ |
| NYC (all 5 boroughs) | $7,322,564$ | $8,008,278$ | 685,714 |
| Westchester County | 874,866 | 923,459 | 48,593 |
| Long Island (Nassau and <br> Suffolk counties) | $2,609,212$ | $2,753,913$ | 144,701 |
| Percentage of NYS <br> residents that live within the <br> sum of the preceding set of <br> urban areas | $65 \%$ | $66 \%$ |  |

# New York Chapter American Fisheries Society Annual Meeting <br> January 23-25, 2002 Canandaigua, New York 

# Meeting Announcement and First Call for Papers Lotic Ecology - Where Are We Flowing? 

The 2002 Annual Meeting will be held at the Canandaigua Inn On the Lake in Canandaigua, New York, from Wednesday, January 23 to Friday, January 25.

Registration fees will be $\$ 75.00$ for members, $\$ 90.00$ for non-members, and $\$ 30.00$ for students. This includes lunch and the banquet on Thursday and all coffee breaks. Lodging costs are $\$ 55 /$ single and
$\rightarrow \$ 60 /$ double and reservations can be made by calling the Canandaigua Inn on The Lake at 1-800-2282801. When making your reservation please refer to password "fish." For more information about the Inn and directions, visit www.hudsonhotels.com/Canandaigua/index.html.

Special consideration was given this year to the economic situation facing government and private industry. To that end the Executive Committee has approved a registration option that will allow for a one day registration. Registration costs for the first day will be $\$ 50$ for members and $\$ 60$ for nonmembers. Registration for the second day will be $\$ 25$ for members and $\$ 30$ for non-members. It is hoped that this spilt registration will allow people to attend the meeting who otherwise would not have been able.

Canandaigua is in the heart of the Finger Lakes and New York's wine district. During late January both open water (Canandaigua, Seneca, and Keuka Lakes) and ice fishing (Honeoye, Canadice, Hemlock Lakes) should be available, with the possibility of both on Canandaigua. The Inn has extended the special room rates through the weekend for those wishing to take a mini vacation. For information about Canandaigua and the surrounding area, visit www.Canandaigua.com

With the change in meeting times and venue, it is important for us to get an estimate of the number of people planning to attend. Please e-mail Webster Pearsall at wepearsa@gw.dec.state.ny.us or call at 585-226-5339 if you plan on attending. There is no pre-registration, however this will help us coordinate with the Inn. Registration will be done at the meeting.

# MEETING AGENDA <br> Lotic Ecology - Where Are We Flowing? 

| Wednesday January 23, 2002 |  |  |
| :---: | :---: | :---: |
| 7:00-9:00 pm Executive Committee Meeting 9:00-11:00 pmInvited Speaker Social |  |  |
|  |  |  |
| Thursday January 24, 2002 |  |  |
| 8:30-8:45 | Welcome and Introductions |  |
|  | LOTIC ECOLOGY |  |
| 8:45-9:15 | Wood in Streams | Cliff Kraft |
| 9:15-9:45 | Biological Diversity/Conservation | Paul Angermeier |
| 9:45-10:15 | Food Webs | Tim Mihuc |
| 10:15-10:45 | Break |  |
|  | WATERSHEDS IN NYS |  |
| 10:45-11:15 | Canals | Bob Daniels |
| 11:15-11:45 | Catskills | Pat Sullivan |
| 11:45-1:15 | Lunch |  |
|  | LARGE RIVER ECOSYSTEMS |  |
| 1:15-1:45 | St. Lawrence River | John Farrell |
| 1:45-2:15 | Hudson River | Karin Limburg |
| 2:15-2:35 | Break |  |
| 2:35-3:40 | Panel Discussion -Future of NYS | Watersheds |
| 4:00 | Business Meeting |  |
| 6:00 | Cocktail Hour |  |
| 7:00 | Banquet |  |

Friday January 25, 2002
8:00-12:00 Contributed Papers
12:15 Awards and Dismissal

Application for Membership

## NEW YORK CHAPTER AMERICAN FISHERIES SOCIETY

(Note: Information provided will be used in the membership directory)
$\qquad$ — Last year you were a paid member? $\qquad$

Would you be interested in serving on any of the NYCAFS Committees? If so please check which committees would interest you.

## Environmental Concerns <br> $\qquad$

| Membership Committee |  |
| :--- | :--- |
| Program Committee |  |
| Finance Committee |  |
| Professional Diversity |  |
| Professional Incentives | Workshop Committee |
| Nominating Committee _ | Youth Education |

Newsletter Staff $\qquad$
$\qquad$ Student Sub-unit $\qquad$ -
$\qquad$

Make checks payable to New York Chapter AFS. Sent this form and your check to:
John Homa, Jr., Secretary/Treasurer, C/O Ichthyological Associates, Inc.
50 Ludlowville Road, Lansing, NY 14882, (607) 533-8801
PLEASE NOTE THE NUMBER 99, 00, OR 01, ON YOUR MAILING LABLE, THIS DENOTES YOUR MEMBERSHIP STATUS. TO BE A CURRENT PADD-UP MEMBER YOU SHOULD HAVE A 01 ON THE LABLE.

RECEIPT FOR MEMBERSHIP IN NEW YORK CHAPTER AMERICAN FISHERIES SOCIETY

Name:
Received by: $\qquad$ Regular (\$10.00) $\qquad$ Student (\$5.00) $\qquad$
Date: $\qquad$


## FINAL CALL FOR PAPERS

## Theme : "Lotic Ecology - Where Are We Flowing?"

Please submit abstracts ( 250 words or less) indicating author(s), title, student or professional status, paper or poster, as well as the presenting author's address, phone number, and email address. The abstracts should be one page long, single-spaced, and with one inch margins. Electronic submissions of abstracts are preferred; however, fax or hard copies will also be accepted. Please submit abstracts to:

Margaret Murphy
SUNY College ESF
Illick Hall 1 Forestry Drive
Syracuse, New York 13210

## Email: fishchef @localnet.com

Fax: 315-470-6934
Phone: 315-470-6768
Potential theme related topics include invertebrates and stable isotopes, wood in streams, water quality and urban streams, landscape ecology and stream ecosystem function, river ice dynamics, NYS Rivers - Case Studies, and food webs of large rivers.

Papers and posters may address any fisheries related topic and do not need to be theme related.

The Deadline for Abstract Submissions is January 7, 2002.


## New York Chapter <br> American Fisheries Society - Newsletter

## Spring 2001

| New York Chapter Officers |  |
| :--- | :--- |
| 2001-2002 |  |
| President: | John M. Farrell |
| President-elect: | David S. Bryson |
| Past President: | Donald J. Stewart |
| Secretary-Treasurer: | John Homa, Jr. |
| PUBLICATION STATEMENT |  |

New York Chapter Officers

2001-2002
President:
President-elect:
Past President:

PUBLICATION STATEMENT

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| Newsletter | Daniel Josephson |
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## AFS - New York Chapter Newsletter -- March 2001

Congratulations to these professionals for their contributions. The Chapter will provide support for Best Paper authors to present their research at the Northeast Fish and Wildlife Conference in Saratoga Springs in April 2001.

The net cost of this conference to the Chapter was approximately $\$ 400$. The Executive Committee is presently considering holding the 2002 annual Chapter meeting in January, 2002 in Canandaigua N.Y., with a theme of fisheries in large rivers. See you there!

Respectfully submitted,
Allen Peterson
Program Chairman

## Otolith Workshop

Dr. Karin Limburg from SUNY College of Environmental Science and Forestry has organized an excellent workshop entitled "Analysis, Interpretation, and Applications of Fish Otoliths and Other Hard Parts: the State-of-the-Art" to be held on June 1-2, 2001. This timely and informative workshop should be of great interest to anyone involved in understanding the age, growth, and life history of fishes. An impressive group of leading researchers will be presenting lectures and hands-on demonstrations. A complete description of the workshop is provided at the end of the newsletter.

Make plans to attend what promises to be an excellent workshop.

## Native People Fisheries Section

## Dick McDonald Writes:

Jim Johnson of Tunsion Laboratory of Aquatic Science will be presenting a poster titled: "Survival and Growth of Atlantic Salmon Fry in Two Tributaries of the St. Lawrence River" at the next IAGLR meeting in conjunction with Jim Snyder and Shawn Martin of the St. Regis Mohawk Tribe (Environmental Division), and Betsy Trometer of the USFWS Lower Great Lakes Fishery Resources Office.

Dawn Dittman of Tunison Laboratory of Aquatic
Science will be presenting a poster titled: "American Eel Assessment in the Lake Ontario/St. Lawrence River System" at the next IAGLR meeting in conjunction with Jim Snyder of the St. Regis Mohawk Tribe (Environmental Division) and Dave Arquette of
the Akwesasne Task Force on the Environment, and Betsy Trometer of the USFWS Lower Great Lakes Fishery Resources Office.

## Upcoming events

## $57^{\text {th }}$ Northeast Fish and Wildlife Conference; April 22-25, 2001

Sheraton Saratoga Springs Hotel and Conference Center, Saratoga Springs, New York. Theme "Staying Connected"

Contact: Ed Woltmann; 518/457-9748;
neinfo@gw.dec.state.ny.us
Visit this website for more information:
www.dec.state.ny.us/website/dfwmr/neconf/necmain.html

## 131st AFS Annual Meeting, August 19-23, 2001

Plaza Hotel and Convention Center, Pheonix, Arizona.
Contact: Betsy Fritz; 301/897-8616, ext. 212;
bfritz@fisheries.org

## Wanted

## Nominations Sought:

The Professional Incentives Committee is soliciting nominations for the Chapter's "Professional Achievement " and "Honorary Member" awards. The Professional Achievement Award is presented to an individual who has provided exceptional value to the profession beyond Chapter duties. Honorary Membership is presented to long-standing Chapter members who have contributed significantly to the Chapter.

Please give some thought to your coworkers or professional contacts as possible nominees. Send your nominations along with a short bio-sketch to Web Pearsall at wepearsa@gw.dec.state.ny.us
or
NYSDEC Region 8 Fisheries
6274 East Avon-Lima Road
Avon, New York 14414

## AFS - New York Chapter Newsletter -- March 2001

metabolism. There are many important advantages for reproduction from better physiology, notably the ability to defend spawning territories.

Experience -- Not all habitat in the lake is suitable for spawning. Also, within spawning habitats there are differences, such as gravel size and sediment quantity, that make some areas much better than others. Surviving young fish hatched from good habitat, have experience with the location of those "good" habitat areas and are expected to return to them as adults. This is a common trait in salmon and trout, exemplified in Pacific and Atlantic salmon migrations.

The current picture of Lake Ontario lake trout restoration, from the evidence gathered pertaining to the population over the last twenty years, is one of guarded optimism. The trends in the adult population and the consistent of production of eight naturally reproduced year-classes are reflective of a population that has benefitted from long term persistent and flexible management and the cooperation and patience of the anglers and public that have supported it. Restoration of a long-lived fish like lake trout, because they mature and spawn relatively late in life, requires a long term perspective. Results of management activities aimed at natural reproduction may not be fully observable for seven or more years and are often complicated by changes within the lake that can not be controlled and often can not be predicted. Also, complicating restoration in Lake Ontario, were exotic predator (sea lamprey) and prey species (alewife) which bring often unexpected problems, for example inhibition of thiamine uptake caused from eating alewives. An especially encouraging barometer for Lake Ontario came at a recent meeting of lake trout investigators from across the Great Lakes (Annual Lake Restoration Coordination Workshop in Ann Arbor, MI, Nov. 2000). At that meeting, biologists that were involved with restoration of the Lake Superior lake trout population indicated that just before natural reproduction really took off there, they were observing young naturally spawned fish at rates similar to those currently coming from Lake Ontario. The Lake Superior experience may then indicate that the consistent production of naturally spawned lake trout over the last eight years in Lake Ontario, which this past fall began to reach sexual maturity, could be setting the stage for a snowballing effect on natural reproduction.

Lake trout restoration has been and continues to be a viable goal throughout the Great Lakes. Naturally reproducing lake trout have been restored to Lake Superior and large adult stocks of hatchery origin fish occur in all of the other lakes. Rehabilitation efforts and investigations are ongoing throughout the basin. Lake Michigan management personnel have undertaken several years of experimental egg and fry stocking on known spawning shoals and placed a moratorium on fishing in a shoal complex in the northern end of the lake known as the Northern Refuge. Currently, there is a multi-agency effort underway there to examine adult recruitment from those experimental stockings and search for signs of natural reproduction. There is also good news for the lake trout restoration in the main body of Lake Huron. The lake trout population there had long suffered excessive lamprey predation from a population spawned in the St. Marys River. Control of the St. Marys River lamprey population had been impossible because of the size of the river and sheer volume of water moving through it. New control techniques employed in 1999 by the Great Lakes Fishery Commission, however, have had very encouraging results and promise to substantially enhance restoration efforts for Lake Huron. Also on the Canadian side of Lake Huron, two small stocks of native lake trout continue to persist. These stocks survived through the time period when most populations basin wide were extirpated. Restrictive fishing regulations for these stocks are currently allowing continued natural reproduction and overall increases in their abundance. Like the upper lakes, Lake Ontario lake trout restoration continues to be viable and now may be poised to produce fruit of the long rehabilitation process. While current management protocols are by no means sacred, in light of the considerable time and energy spent bringing this population to its' current status, great caution and informed decision making are certainly warranted.

# "ANALYSIS, InTERPRETATION, AND APPLICATIONS OF FISH Otoliths And Other Hard Parts: The State-of-The-Art" 

## 1-2 June 2001

Coordinator: Karin Limburg, SUNY College of Environmental Science \& Forestry, Syracuse, NY 13210 (KLimburg@esf.edu)

Purpose: Vital statistics such as age, growth rate, and many life history events are now routinely gathered with information stored in the otoliths, scales, and bones of fishes. Although methods of age and growth determination have become a standard part of the fisheries professional's toolbox, data analysis and validation remain problematic. Environmental information, which can be extracted from microchemical studies of many of these structures, offers a new means of validation and also opens up exciting avenues of inquiry. New, high-resolution techniques, in combination with traditional methods, have revolutionized fisheries research. Elements and isotopes in otoliths can now be measured at fine enough spatial scales on otoliths so as to correspond to the time scales of interest (daily, seasonal, and annual) that can be determined with otoliths and other hard parts of fishes. Hypotheses about behavior, energetics, and food web relationships can now be tested. By running a transect through an otolith and measuring isotopes or elements (Fig. 1), we can learn about migration (by the ratio of strontium to calcium), thermal histories (from oxygen stable isotopes), and we can discriminate between stocks or sub-populations of fish species (via multiple elemental analysis). Dietary information can be inferred from carbon isotopic ratios in otoliths, and other ecologically useful stable isotopes (e.g. nitrogen), while not within the realm of analysis at the present time, are on the horizon.


Fig. 1. Schematic of a sagittal otolith from a typical fish. The figure at left depicts the intact otolith, and a cross-section, showing the concentric growth increments, is shown on the right. By analyzing a transect from the core (innermost portion) out to an outer edge, valuable information on age, growth, and environment can be measured.

10. Ecological applications: K. Limburg, David Secor, and Don Stewart, SUNY-ESF

11. Futures in otolith research: a report by participants in an ESF graduate student seminar

Afternoon: departure for Cornell Biological Field Station
Tour of facilities
Dinner

## End of Workshop

Expected significance: Otolith research is a rapidly advancing field, and the opportunity to bring in world-class leaders to share their knowledge with students, educators, and researchers interested in fisheries and fish ecology will provide a rare opportunity for much cross-fertilization between the attendees and these experts. We anticipate that, in addition to providing this introduction to the state-of-the-art, participants will come up with their own novel ideas and applications to fisheries problems of the Great Lakes, Hudson River, Long Island Sound, and far beyond. We intend to advertise the workshop broadly, to draw in participants from a wide range of interests and geographic locations.

## For further information, contact Karin Limburg (KLimburg@esf.edu)

NEWSLETTER MAILING LABEL
An old mailing list was used, in error, for the distribution of the Winter Newsletter. If you did not receive your copy of that Newsletter and would like a copy please send a request to the address below.

The Chapter's distribution list has been updated for Chapter Members who paid:

- through the Parent Society, as of mid-January 2001,
- at the 2001 NYCAFS Annual Meeting, or
- directly to the Chapter, as of early March 2001.

If you feel your year of membership is in error (see top right corner of your address) please contact me at:

- NYCAFS Homa@AOL.com or
- J. Homa, Sec/Treas, C/O IA, 50 Ludlowville Rd, Lansing, NY 14882, (607)533 8801

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Projected Revenues
2002 Annual Meeting
2001 Membership Dues
Interest
Raffe
Otolith workshop
2001 Workshop

nycafs2001/BudgetA.xls

NEW YORK CHAPTER - AMERICAN FISHERIES SOCIETY - 2000 John Homa, Jr. C/O Ichthyological Associates, Inc.
50 Ludlowville Road, Lansing, NY 14882

Summary Treasurer's Report
Prepared December 31, 2000

| Baiance as of January 01, 2000 |  | \$ 22,054.50 |
| :---: | :---: | :---: |
|  | RECEIPTS |  |
| Memberships: | \$2,458.78 |  |
| Rattle: | 640.00 |  |
| Annual meeting: | 2792.21 |  |
| Workshop | 2670.00 |  |
| Interest: | 1310.78 |  |
| Other | 60.00 |  |
| : | =-===== |  |
| TOTAL RECEIPTS | \$9,931.77 |  |
| TOTAL |  | \$31,986.27 |
|  | EXPENDITUR |  |
| Award Plaques: | \$70.00 |  |
| Office Supplies | 0.00 |  |
| Newsletter -printing | 278.21 |  |
| Newsletter -postage/permit fees | 326.28 |  |
| Raffle | 431.35 |  |
| Annual Meeting, January | 1021.40 |  |
| Donation: (Walleye, Parent raffie) | 600.00 |  |
| Workshop | 2875.17 |  |
| Stipens/Best papers/poster | 0.00 |  |
| Misc | 0.00 |  |
| TOTAL EXPENDITURES | \$5,602.41 |  |
| Ending Balance 12-31-00 (all accounts) |  | \$26,383.86 |



## New York Chapter

American Fisheries Society - Newsletter

## Spring 2001

New York Chapter Officers<br>2001-2002<br>President:<br>President-elect:<br>Past President:<br>Secretary-Treasurer:<br>John M. Farrell<br>David S. Bryson<br>Donald J. Stewart<br>John Homa, Jr.<br>PUBLICATION STATEMENT

| Title: | New York Chapter American Fisheries Society Newsletter |
| :---: | :---: |
| Issue Date: | March 15, 2001 |
| Frequency: | The NYCAFS Newsletter is published three times annually: March-April (Spring Edition), July-August (Summer Edition), and NovemberDecember (Winter Edition) |
| Newsletter | Daniel Josephson |
| Editor: | Cornell University |
|  | P.O. Box 1124 |
|  | Old Forge, NY 13420 |
|  | (315) 369-6781 |
|  | dcj3@cornell.edu |

## AFS - New York Chapter Newsletter -- March 2001

Congratulations to these professionals for their contributions. The Chapter will provide support for Best Paper authors to present their research at the Northeast Fish and Wildlife Conference in Saratoga Springs in April 2001.

The net cost of this conference to the Chapter was approximately $\$ 400$. The Executive Committee is presently considering holding the 2002 annual Chapter meeting in January, 2002 in Canandaigua N.Y., with a theme of fisheries in large rivers. See you there!

Respectfully submitted,
Allen Peterson
Program Chairman

## Otolith Workshop

Dr. Karin Limburg from SUNY College of Environmental Science and Forestry has organized an excellent workshop entitled "Analysis, Interpretation, and Applications of Fish Otoliths and Other Hard Parts: the State-of-the-Art" to be held on June 1-2, 2001. This timely and informative workshop should be of great interest to anyone involved in understanding the age, growth, and life history of fishes. An impressive group of leading researchers will be presenting lectures and hands-on demonstrations. A complete description of the workshop is provided at the end of the newsletter.

Make plans to attend what promises to be an excellent workshop.

## Native People Fisheries Section

## Dick McDonald Writes:

Jim Johnson of Tunsion Laboratory of Aquatic
Science will be presenting a poster titled: "Survival and Growth of Atlantic Salmon Fry in Two Tributaries of the St. Lawrence River" at the next IAGLR meeting in conjunction with Jim Snyder and Shawn Martin of the St. Regis Mohawk Tribe (Environmental Division), and Betsy Trometer of the USFWS Lower Great Lakes Fishery Resources Office.

Dawn Dittman of Tunison Laboratory of Aquatic
Science will be presenting a poster titled: "American Eel Assessment in the Lake Ontario/St. Lawrence River System" at the next IAGLR meeting in conjunction with Jim Snyder of the St. Regis Mohawk Tribe (Environmental Division) and Dave Arquette of
the Akwesasne Task Force on the Environment, and Betsy Trometer of the USFWS Lower Great Lakes Fishery Resources Office.

## Upcoming events

## $57^{\text {th }}$ Northeast Fish and Wildlife Conference;

April 22-25, 2001

> Sheraton Saratoga Springs Hotel and Conference Center, Saratoga Springs, New York. Theme "Staying Connected"

> Contact: Ed Woltmann; 518/457-9748;
> neinfo@gw.dec.state.ny.us
> Visit this website for more information:

www.dec.state.ny.us/website/dfwmr/neconf/necmain.html

## 131st AFS Annual Meeting, August 19-23, 2001

Plaza Hotel and Convention Center, Pheonix, Arizona.
Contact: Betsy Fritz; 301/897-8616, ext. 212;
bfritz@fisheries.org

## Wanted

## Nominations Sought:

The Professional Incentives Committee is soliciting nominations for the Chapter's "Professional Achievement " and "Honorary Member" awards. The Professional Achievement Award is presented to an individual who has provided exceptional value to the profession beyond Chapter duties. Honorary Membership is presented to long-standing Chapter members who have contributed significantly to the Chapter.

Please give some thought to your coworkers or professional contacts as possible nominees. Send your nominations along with a short bio-sketch to Web Pearsall at wepearsa@gw.dec.state.ny.us
or

NYSDEC Region 8 Fisheries
6274 East Avon-Lima Road
Avon, New York 14414
metabolism. There are many important advantages for reproduction from better physiology, notably the ability to defend spawning territories.

Experience -- Not all habitat in the lake is suitable for spawning. Also, within spawning habitats there are differences, such as gravel size and sediment quantity, that make some areas much better than others. Surviving young fish hatched from good habitat, have experience with the location of those "good" habitat areas and are expected to return to them as adults. This is a common trait in salmon and trout, exemplified in Pacific and Atlantic salmon migrations.

The current picture of Lake Ontario lake trout restoration, from the evidence gathered pertaining to the population over the last twenty years, is one of guarded optimism. The trends in the adult population and the consistent of production of eight naturally reproduced year-classes are reflective of a population that has benefitted from long term persistent and flexible management and the cooperation and patience of the anglers and public that have supported it. Restoration of a long-lived fish like lake trout, because they mature and spawn relatively late in life, requires a long term perspective. Results of management activities aimed at natural reproduction may not be fully observable for seven or more years and are often complicated by changes within the lake that can not be controlled and often can not be predicted. Also, complicating restoration in Lake Ontario, were exotic predator (sea lamprey) and prey species (alewife) which bring often unexpected problems, for example inhibition of thiamine uptake caused from eating alewives. An especially encouraging barometer for Lake Ontario came at a recent meeting of lake trout investigators from across the Great Lakes (Annual Lake Restoration Coordination Workshop in Ann Arbor, MI, Nov. 2000). At that meeting, biologists that were involved with restoration of the Lake Superior lake trout population indicated that just before natural reproduction really took off there, they were observing young naturally spawned fish at rates similar to those currently coming from Lake Ontario. The Lake Superior experience may then indicate that the consistent production of naturally spawned lake trout over the last eight years in Lake Ontario, which this past fall began to reach sexual maturity, could be setting the stage for a snowballing effect on natural reproduction.

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**** WORKSHOP ****

# "ANALYSIS, InTERPRETATION, AND ApPLICATIONS OF FISH Otoliths And Other Hard Parts: The State-of-the-Art" 

## 1-2 June 2001

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Dinner

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## For further information, contact Karin Limburg (KLimburg@esf.edu)

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- NYCAFS Homa@AOL.com or
- J. Homa, Sec/Treas, C/O IA, 50 Ludlowville Rd, Lansing, NY 14882, (607)533 8801


nycafs2001/BudgetA.xls
NEW YORK CHAPTER - AMERICAN FISHERIES SOCIETY - 2000 John Homa, Jr. C/O Ichthyological Associates, Inc.
50 Ludlowville Road, Lansing, NY 14882
Summary Treasurer's Report
Prepared December 31, 2000
$\overline{\mathrm{jh} 2001 / \mathrm{md} / \mathrm{NYCAF}} \overline{\text { S2001/TREASREPORTyrend/Sheet2 }}$



## New York Chapter <br> American Fisheries <br> Society - Newsletter

Summer 2001

New York Chapter Officers 2001-2002<br>President:<br>President-elect:<br>Past President:<br>Secretary-Treasurer:<br>PUBLICATION STATEMENT

| Title: | New York Chapter American <br> Fisheries Society Newsletter |
| :--- | :--- |
| Issue Date: | August 31, 2001 |
| Frequency: | The NYCAFS Newsletter is <br> published three times annually: <br> March-April (Spring Edition), <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br> July-August (Summer <br> Edition), and November- <br> December (Winter Edition) <br> Editor: <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br> Daniel Josephson <br> Cornell University <br> P.O. Box 1124 <br> Old Forge, NY 13420 <br> (315) 369-6781 <br> dcj3@cornell.edu |

## Editor's Note

The summer newsletter has a lot of information for the NYCAFS membership. Importaṇt information includes the First Call for Papers for the Annual Meeting to be held in Canandaigua, New York, a Brook Trout Management Workshop, and general Chapter news. Everyone is encouraged to send in news or feature articles for the newsletter. Enjoy the rest of the summer and plan to attend the annual meeting in January 2002.

Dan Josephson
Editor

## President's Corner

Believe it or not summer is already winding down and classes at ESF begin in less than two weeks. I hope all of met your expectations and have had some fun. I am certain we can chalk another one up for warmwater fishes considering the recent heat. First l want to thank ESF Professor and EXCOM member Karin Limburg for her hard work with our recent NYAFS Workshop "Analysis, Interpretation, and Applications of Fish Otoliths and Other Hard Parts: The State of the Art" held at SUNY-ESF June 1-2, 2001. Over 80 participants observed ten formal presentations given by experts on otoliths structure, marking methods, elemental analysis, stable isotope analysis, radioisotopes, statistics and analysis and ecological applications of otolith data. A variety of demonstrations were also held including otoliths extraction and viewing, other hard parts demos, software demos, and a tour of ESF's SEM facility and the otoliths micromilling/stable isotope facility at Syracuse University. I would also like to thank the Cornell Biological Field Station on Oneida Lake for hosting the barbeque following the Workshop. Additional Thanks go out to all the Instructors, participants, volunteers and especially Horace Shaw III from ESF Continuing Education who helped pull it all together.
Great Job Karin!
I also wish to remind you of the upcoming NY Chapter Annual Meeting will be held January 23 to 25,2001 at the Inn on Canandaigua Lake, Canandaigua, NY. We are getting very excited about this year's meeting and we hope to attract some new and old faces for a big turnout.

Sincerely,
John M. Farrell
NYCAFS President

## Chapter News

2002 Annual Meeting - NY Chapter AFS

Please turn to pages $9 \& 10$ of the newsletter for important information about the 2002 Annual Meeting.

## Barb Knuth writes:

## Notes from a New Officer :

As newly-elected 2nd Vice President of AFS, I'd like to thank all of my New York Chapter colleagues for your support of AFS, and encourage you to let me know if you have an interest in becoming involved (or continuing your involvement) in any facet of AFS function beyond the Chapter. I'll be looking for volunteers over the next few years, as I continue in the various officer positions. I've been impressed with the level of activity and dedication in the New York Chapter, and would be pleased to help anyone desiring broader involvement to find a way to meet their goals for professional development and networking. Also, please let me know if you have any suggestions for AFS as an organization; I'd be interested to hear your ideas. You may reach me at bak3@comell.edu.

Dr. Barbara A. Knuth
Professor of Natural Resource Policy and Management Co-leader, Human Dimensions Research Unit 122A Fernow Hall, Department of Natural Resources Cornell University, Ithaca, New York 14853
Phone: (607) 255-2822; FAX: (607) 255-0349
http://www.dnr.cornell.edu/hdru/
http://www.dnr.cornell.edu/facstf/knuth.htm

## *****************************************

Hannelore Quigley from National AFS writes :

## News from the American Fisheries Society :

What's new at AFS? Read all about it at http://www.fisheries.org/WhatsNew.shtml

AFS T-Shirts on sale now! These $100 \%$ cotton T-shirts with the AFS logo on the front pocket, include a colorful silk-screen design by reknown artist H. Steven Logsdon on the back, with 7 marine and freshwater species. Color of shirt: Off-white. Available in S, M, L and XL (specify size with order). The cost for this shirt is:

## AFS - New York Chapter Newsletter -- September 2001

AFS Members: $\$ 15.00$, includes shipping and handling All Others: $\$ 20.00$, includes shipping and handling

To order, call the American Fisheries Society at (301)
897-8616, ext. 200, or Fax your information to (301) 897-8096, and ask for Stock \#699.08.

The AFS Online Bookstore is a valuable resource for all fisheries and aquaculture related books:
http://www.fisheries.org/Publications.shtm1

## AFS Certification:

http://www.fisheries.org/Certification.shtm]
Public Policy, including AFS Policy Statements: http://www.fisheries.org/PublicPolicy.shtml

One-stop shopping for your next dream job! Check it out at : www.fisheries.org/iobs.html.

Renew your membership online at
http://www.fisheries.org/Membership.shtml
Don't forget to browse featured articles from the latest issue of FISHERIES magazine at: http://www.fisheries.org/fisheries/fishery.shtml

Hannelore Quigley
Marketing Coordinator
American Fisheries Society
5410 Grosvenor Lane
Bethesda, MD 20814
Phone (301) 897-8616, Ext. 214
Fax (301) 897-8096

## New Members

The NY Chapter AFS welcomes the following new members:
Morgan McCosh; USFWS
Dennis Claire; Mattituck, NY
Allison Blind; Edenbrook Aquaculture
Meriel Brooks; Vermont
Alistar Dove; Wildlife Conservation Society

## Tpeomingevents

Brook Trout Management in Adirondack Lakes -
Workshop, September 22, 2001
Water's Edge Inn \& Conference Center, Old Forge, New York

Contact: Cliff Kraft; 607-255-2775; cek7@comell.edu Dan Josephson; 315-369-6781; dci3@cornell.edu
$* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *$
NY AFS Annual Meeting, January 23-25, 2002
Canandaigua Inn, Canadaigua, New York.
Contact: Web Pearsall; 716-226-5339;
wepearsa@gw.dec.state.ny.us

## Wanted

Web Pearsall writes:

## Nominations Sought:

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Please give some thought to your coworkers or professional contacts as possible nominees. Send your nominations along with a short bio-sketch to Web Pearsall at
wepearsa@gw.dec.state.ny.us OR
NYSDEC Region 8 Fisheries
6274 East Avon-Lima Road
Avon, New York 14414
Phone: 716-226-5339

## Electronic Version of Chapter Communication:

Any NYCAFS members who would like to receive an electronic version of Chapter communications including the newsletter, via email, should contact John Homa at NYCAFShoma@aol.com or at Ichthyological Associates, Inc., 50 Ludlowville Road, Lansing, NY 14882. Members are encouraged to receive correspondences via email to save on the costs of printing and mailing hard copies.

## AFS - New York Chapter Newsletter -- September 2001

## Feature Article

## EVALUATING SAREP ACTIVITIES <br> by Keith Koupal

The Sportfishing and Aquatic Resources Education Program (SAREP) recently conducted an evaluation of mid-term and long-term programs of SAREP. This past year we implemented a survey to youth participating in summer camps and traditional SAREP clubs. The purpose of the survey was to examine the effectiveness of increasing the knowledge of basic fishing, biological and ecological concepts, and ethical behavior. Youth in camps were given the survey before and after their experience, while club members took the survey once.

Camp assistants returned 127 completed pre/post-surveys to SAREP. The results are displayed in Table 1 for the overall survey scores and sections representing specific types of knowledge. Youth leaving summer camps that exposed them to fishing knew about $2 \%$ more of the material asked on the survey then when they arrived. This may seem like a small gain of scores, but statistically it was found to be a significant increase. The majority of the knowledge gained came from questions relating to fishing and biology and ecology. Youth participant did not show much of a change in their awareness of appropriate ethical behavior. However, this is not surprising as it is believed that ethical behavior and knowing what is right to do for the environment takes a long time to develop.

Table 1. Mean pre-survey and post-survey scores for youth participating in mid-term programming.

|  | Pre-Survey | Post-Survey | \% Change | p-value |
| :--- | :---: | :---: | :---: | :---: |
| Mean Overall Score | 69.8 | 71.9 | +2.1 | 0.002 |
| Mean Fishing Knowledge <br> Score | 67.8 | 72.0 | +4.2 | $<0.001$ |
| Mean Biology/Ecology Score | 59.5 | 64.7 | +5.2 | 0.001 |
| Mean Ethical <br> Knowledge/Behavior Score | 75.6 | 75.0 | -0.6 | 0.703 |

Attitudes towards fishing and "saving the environment" appeared to diminish during the camp experience, although only one relationship demonstrated a significant change (Table 2). However, the mean response did indicate that the attitudes of these participants was one of agreement, since a score of 1 meant a strong agreement with the statement and a score of 5 meant a strong disagreement. It is believed that lower catch rates during the summer camp experiences may have caused the decline in attitudes. Certainly understandable as all of us have felt a little deflated after a day when the fish have won. It is encouraging to see that the youth did feel a sense of commitment towards fishing and the environment. Perhaps we need to work on improving the catch rates at these venues or make sure that other exciting discoveries and learning can occur on the occasions that fish are not biting.

Table 2. Mean responses of youth participating in mid-term programming on their attitudes toward fishing and environmental protection. Youth scored their agreement with the attitudinal statement with a 1 representing strong agreement with the statement and 5 showing strong disagreement.

|  | Pre-Survey | Post-Survey | \% Change | p-value |
| :--- | :---: | :---: | :---: | :---: |
| Will continue to <br> fish | 1.76 | 1.81 | -2.8 | 0.237 |
| Fishing is <br> enjoyable | 1.85 | 1.98 | -7.0 | 0.039 |
| Saving <br> environment is <br> important | 1.89 | 1.98 | -4.8 | 0.200 |
| I will be active in <br> saving the <br> environment | 2.13 | 2.15 | -0.9 | 0.395 |

Club leaders provided 71 completed surveys, which encompassed youth members who were involved in SAREP clubs for $0-96$ months. Because participants completed the survey only once, the results were examined by comparing their survey score versus the number of months being a member of a SAREP club. The results indicate an exponential relationship, which basically means the youth encounter a leaming curve. Figure 1 shows that youth are learning information rather quickly. Additional relationships (not shown) explain that youth in clubs learn fishing information extremely quickly, ethical behavior knowledge at a moderate rate, and biological and ecological knowledge at a slower rate. These results would be consistent with the focus of SAREP trainings, which emphasize not only teaching youth to fish, but fish ethically. Ethical anglers will be compelled to learn about their aquatic resources and eventually become environmental stewards. However, we can use this information to remind us that it is important to include biological and ecological lessons in our clubs and perhaps in the future we can place more emphasis on these topics.

Figure 1. Exponential relationship ( $\mathrm{c}=1-0.4175 \mathrm{e}^{-0.0981 \mathrm{t}} ; \mathrm{R}^{2}=0.51$ ) comparing survey score (\%) versus length of time involved with a SAREP club.


The attitude of SAREP club members also improved over time. Youth entering a club agreed with the statement "they will continue to fish in the future" and strongly agreed with this statement after 60 months. Youth entering a SAREP club were neutral to agreeable with the statement they would be active in saving the environment and strongly agreed with this statement after 85 months (Figure 2). While these changes may seem slow, they actually represent a monumental increase of conviction for these youth. The indication that these youth intend on being active participants in fishing as well as saving the environment implicates that they are moving closer to becoming the environmental stewards SAREP is trying to facilitate.

Figure 2. Linear relationship comparing the agreement of a youth in a SAREP club with the statement they believe they will be active in saving the environment versus length of time involved with a SAREP club.


I would like to thank everyone involved with this program, because I promised anonymity I will not print your names, but you know who you are and thank you very much. The report for this evaluation is available to everyone. They can be obtained by emailing me (kdk23@cornell.edu) your address. Also, we are in the process of examining what these results mean to SAREP and I would be interested in any comments or concerns you may have associated with the results from this evaluation.

# Brook Trout Management in Adirondack Lakes - Growing Better Brook Trout 

Saturday, September 22, 2001, 8:30AM - 5:00PM<br>Water's Edge Inn \& Conference Center Old Forge, New York

The workshop will focus on the ecology and management of brook trout in the Adirondack Mountain region of NYS including:

- Ecology and Management of Brook Trout, Dan Josephson, Cornell University
- Brook Trout Management Regulations and Harvest, Clifford Kraft, Cornell University
- Stocking Guidelines for Brook Trout in Adirondack Lakes, Tom Field, Fernwood-Limne
- Reclaiming Adirondack Lakes, Rich Preall, NY DEC
- Removal of Non-Trout Fishes, Jon Fieroh, Brandon Enterprises
- Liming Adirondack Lakes for Improved Fish Production, Bill Gordon NY DEC
- Brook Trout Movement and Emigration Barriers, Dan Josephson, Cornell University


## Why You Should Attend:

Brook trout angling is at the heart of the Adirondack experience. For several decades, fishery managers have worked to maintain and restore Adirondack brook trout fisheries that have suffered from a variety of modern challenges. In recent years, improved management practices have brought many Adirondack lake fisheries back to a healthy condition that was once considered unattainable. This workshop will provide a detailed review of brook trout management practices that have been successful in restoring and maintaining Adirondack lake fisheries.

Landowners, managers and individuals with an interest in fisheries - as well as those interested in the potential to restore and maintain native Adirondack aquatic ecosystems - will have an opportunity to learn about state-of-the-art fishery management techniques. Workshop speakers will include university researchers, consultants and agency biologists who are actively engaged in Adirondack brook trout management.

Workshop participants will learn about:

- The successful use of harvest regulations and angling practices to manage brook trout fisheries;
- Removal of non-native fish through lake "reclamation" efforts:
- Issues to consider in establishing brook trout stocking programs;
- Implementation of lake liming programs and their success in maintaining suitable pH for brook trout fisheries;
- Design considerations and the use of emigration barriers in maintaining brook trout populations.

Location - The workshop will take place at Water's Edge Inn \& Conference Center on Rt.28, Old Forge, NY.
Registration Fee - All workshop participants are required to register. A workshop fee of $\$ 30$ will include lunch and workshop materials. Payment is required with registration by either check or credit card. (prices may change by final copy of brochure)

## Accommodations -

Best Western Sunset Inn - 315-369-6836
Blue Spruce Motel-315-369-3817; as well as several others in the area.
For more information - Clifford Kraft email: cek7@cornell.edu. 607-255-2775;
Dan Josephson email: dcj3@comell.edu, 315-369-6781.
Directions to the workshop -
From Syracuse Airport take I-90 NYS Thruway to Exit 31 Utica, then Rt. 12 North to Alder Creek, Rt. 28 North to Old Forge.
From Albany take Rt. 87 The Northway', to Exit 23 in Warrensburg, then to Rt. 9 North, pick up Rt. 28 South in Blue Mt. Lake, follow to Old Forge.

# Workshop Registration -- Brook Trout Management in Adirondack Lakes 

Saturday, September 22, 2001
Water's Edge Inn \& Conference Center
Old Forge, New York
(copy for additional registrants)
Name:
Address:
$\qquad$
City:
$\qquad$
State, Zip: $\qquad$
Phone: $\square$
$\square$
Price
Registration \$30
Total: $\qquad$

## Send Registration to:

Deanna Owens, 112 Fernow Hall, Ithaca, NY 14853. If paying by credit card you may fax your registration to: 607-255-2815. No registrations will be taken over the phone. Registration and payment must be received by September 6, 2001, if you are having lunch, or September 18, if you are not having lunch at the workshop site. We will be unable to provide refunds after that date. Onsite registration is discouraged and will depend on availability of space at the workshop. On-site registrants will be subject to a $\$ 5$ surcharge.

Check or Credit Card Payments Only
Make checks payable to:
Cornell University
Federal ID \#: 150532082

## MasterCard and Visa Payment

Card Number:
Expiration Date: $\qquad$ Amount: \$ $\qquad$
Questions about registrations - Deanna Owens email: dlo3@cornell.edu, 607-255-2814.

[^0]
# New York Chapter American Fisheries Society Annual Meeting <br> January 23-25, 2002 Canandaigua, New York 

## Meeting Announcement and First Call for Papers Lotic Ecology - Where Are We Flowing?

The 2002 Annual Meeting will be held at the Canandaigua Inn On the Lake in Canandaigua, New York, from Wednesday, January 23 to Friday, January 25.

Registration fees will be $\$ 75.00$ for members, $\$ 90.00$ for non-members, and $\$ 30.00$ for students. This includes lunch and the banquet on Thursday and all coffee breaks. Lodging costs are $\$ 55 /$ single and $\$ 60 /$ double and reservations can be made by calling the Canandaigua Inn on The Lake at 1-800-2282801. When making your reservation please refer to password "fish." For more information about the Inn and directions, visit www.hudsonhotels.com/Canandaigua/index.html,

Canandaigua is in the heart of the Finger Lakes and New York's wine district. During late January both open water (Canandaigua, Seneca, and Keuka Lakes) and ice fishing (Honeoye, Canadice, Hemlock Lakes) should be available, with the possibility of both on Canandaigua. The Inn has extended the special room rates through the weekend for those wishing to take a mini vacation. For information about Canandaigua and the surrounding area, visit www.Canandaigua.com

With the change in meeting times and venue, it is important for us to get an estimate of the number of people planning to attend. Please e-mail Webster Pearsall at wepearsa@gw.dec.state.ny.us if you plan on attending. There is no pre-registration, however this will help us coordinate with the Inn. Registration will be done at the meeting.

TENTATIVE AGENDA
Wednesday, January 23
7:00-9:00 Excom Meeting
9:00-11:00 Evening Informal Social
Thursday, January 24
7:30-8:30 Registration (and periodically during breaks)
8:30 Opening Remarks
8:45-3:00 Invited speakers (two breaks plus lunch included)
3:00-4:00 Poster Session
4:00-5:00 Business Meeting
5:30-6:30 Social
6:30 Banquet
8:30 Student Chapter Meeting
Friday, January 25
8:00-12:00 Contributed Papers
12:10-12:20 Awards/Adjournment


## FIRST CALL FOR PAPERS

## Theme : "Lotic Ecology - Where Are We Flowing?"

Please submit abstracts ( 250 words or less) indicating author(s), title, student or professional status, paper or poster, as well as the presenting author's address, phone number, and email address. The abstracts should be one page long, single-spaced, and with one inch margins. Electronic submissions of abstracts are preferred; however, fax or hard copies will also be accepted. Please submit abstracts to:

Margaret Murphy
SUNY College ESF
Illick Hall 1 Forestry Drive
Syracuse. New York 13210

## Email: fishchef @localnet.com

Fax: 315-470-6934
Phone: 315-470-6768
Potential theme related topics include invertebrates and stable isotopes, wood in streams, water quality and urban streams, landscape ecology and stream ecosystem function, river ice dynamics, NYS Rivers - Case Studies, and food webs of large rivers.

Papers and posters may address any fisheries related topic and do not need to be theme related.

The Deadline for Abstract Submissions is January 7, 2002.

# NEW YORK CHAPTER AMERICAN FISHERIES SOCIETY <br> ANNUAL BUSINESS MEETING, TREADWAY INN, OWEGO, NY <br> JANUARY 19, 2001 

Welcome. Don Stewart opened the annual business meeting of the New York Chapter American Fisheries Society at 4:00 PM and welcomed all chapter members.

Last Call for Ballots. The last call for ballots for the NYCAFS annual election was made and elections were closed so the vote could be tabulated.

Minutes. Minutes from the last Annual Business Meeting held during the Tri-Society conference, Syracuse, NY on January 28, 2000 (as accepted by EXCOM on June 12,2000) were presented to chapter members for review and discussion. A motion was made, and seconded to accept the minutes as published and the members voted to approve the minutes without revision.
Treasure's Report. John Homa indicated that the NYCAFS started 2000 with a net worth of $\$ 22,054.50$, had total receipts of $\$ 9,931.77$ and had total expenses of $\$ 5,602.41$, and ended the year with a net worth of $\$ 26,383.86$. The chapter's net worth increased by $\$ 4329.36$. Chapter rebates, the very successful Tri-Society Conference and Aquatic Plant Workshop, and higher interest rates were the primary drivers for the positive cash flow. In addition, travel and office expenses were minimal. A detailed treasure's report is attached, including a graph of the net worth of the Chapter from 1989 through 2000. The net worth of the chapter has increased over the twelve-year period, considering inflation the net worth of the chapter is about the same as it was in 1989.
A motion was made and seconded and the chapter members voted to accept the treasure's report.
News from the Northeast. Doug Stang presented an update of Northeast and parent society news.
Old Business. The chapter did not have any old business items to discuss.

## COMMITTEE REPORTS:

Audit/finance. Lars Rudstam indicated that he had audited the Chapter Records and had found them complete and in order.

Program 2001. It was noted that 2001 annual meeting Large Scale Climate Variability Impacts Upon New York Fisheries, was proceeding well. Hard work of many individuals was noted. It looks like the attendance should bring the meeting to the breakeven point. Margaret Murphy noted that a list of organizations that provided donations for the items was above the raffle table.

Program 2002. Web Pearsall is looking into facilities for the 2002 annual meeting, likely to be in the vicinity of Canadaigua, NY. Margaret Murphy will work on program.

Environmental Concerns. Dave Bryson requested members provide him with any issues they think may be appropriate for NYCAFS consideration.

Resolutions. Dave Bryson indicated that the NYCAFS resolution conceming support for the Lake Ontario Lake Level Study that had received support from the parent society was starting to see funding and scheduling considerations.

Nominating. Allen Peterson. David Bryson and Norm Soule accepted the invitation to run for chapter president-elect.
Membership. John Homa reported that the last Newsletter went out with an old mailing list. He is presently updating the membership list with a recent print out from the parent society.

Newsletter. Dan Josephson indicated that the next issue is due March 31. He will welcome any articles or ideas for the Newletter.

## AFS - New York Chapter Newsletter -- September 2001

Professional Incentives. Web Pearsall. Web had no nominations for special awards this year. Web indicated he would like to work on a new Conservation Award for nonmembers (individual or organization).

Workshop 2000. Lars Rudstam presented for Tom Brooking. The two sessions of the Aquatic Plant Identification Workshop held at the Shackleton Point Field Station were very successful. Some 80 individuals attended the workshop. The workshop was run at the break even level.

Workshop 2001 or 2002. It was noted that two NYSDEC staff will be trained for Aquatic Safety by the Pennsylvania Boat and Fish Commission. In the future, it may be possible for the chapter to tap this resource for a future workshop.

Professional Diversity. Karin Limburg. Indicated that ESF has a program coordinator for Women in Science that she may be able to utilize.

Student Affairs. Margaret Murphy. Students will be running the raffle and the money raised will be used for student orientated activities. She will continue to reach out to colleges and universities.

Youth Education. Don Stewart reviewed the write up of SAREP activities provided by Keith Koupal. It was noted that over 700 people attended a SAREP event at Letchworth Park.

Native Affairs. Dick McDonald. Indicated that the St Regis Mohawk Tribe continues to have a level of interest in Atlantic salmon and other fisheries issues. The Onondaga Nation has shown some interest in hatcheries. The parent society has shown an interest in tribal issues, with most activity being on the West Coast.

Web Site. John Farrell indicated he has some leads through ESF on Web site development that he has recently tapped into. He asked EXCOM members to send a photo and brief bio for use on the Site. His budget will include $\$ 500.00$ for site development. The chapter will continue to work toward more electronic communications for members who prefer this communication format.

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New Business. No new business.
Election Results. Allen Peterson tallied the votes and announced that David Bryson received the majority of votes for president-elect.

Installation of New Officers. Past presidents Stewart and Peterson escorted John Farrell to the podium where he was installed as Chapter President.

John Farrell presented a brief statement of some of his objectives for the year including sponsorship of the Otolith Workshop, a Web Site for the Chapter including progress for electronic communications for members who favored email vs snail mail. He indicated he would be approaching some members to serve as committee chairs.

John presented his budget for discussion. A motion was made and seconded to accept the budget as presented and members voted to approve it.

Noted for the Record. The best paper awards for the conference were as follows:

| Professional Paper | James E. McKenna, Jr. |
| :--- | :--- |
| Student Paper | Stephen M. Coghlan, Jr. |
| Poster | C. M. Mayer |

Application for Membership

## NEW YORK CHAPTER AMERICAN FISHERIES SOCIETY

(Note: Information provided will be used in the membership directory)


Would you be interested in serving on any of the NYCAFS Committees? If so please check which committees would interest you.

| Environmental Concerns | Membership Committee | Program Committee |
| :---: | :---: | :---: |
| Resolutions Committee | Finance Committee | Professional Incentives |
| Newsletter Staff | Professional Diversity | Workshop Committee |
| Student Sub-unit | Nominating Committee | Youth Education |
| Native Peoples Fisheries |  |  |

Make checks payable to New York Chapter AFS. Sent this form and your check to:
John Homa, Jr., Secretary/Treasurer, C/O Ichthyological Associates, Inc.
50 Ludlowville Road, Lansing, NY 14882, (607) 533-8801
PLEASE NOTE THE NUMBER 99,00 , OR 01, ON YOUR MAILING LABLE, THIS DENOTES YOUR MEMBERSHIP STATUS. TO BE A CURRENT PAID-UP MEMBER YOU SHOULD HAVE A 01 ON THE LABLE.

RECEIPT FOR MEMBERSHIP IN NEW YORK CHAPTER AMERICAN FISHERIES SOCIETY

Name:
Received by: $\qquad$

Regular (\$10.00) $\qquad$ Student (\$5.00) $\qquad$
Date: $\qquad$

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Poster
C. M. Mayer

JH2001/md/NYCAFS2001/min_annual01a.doc
Attachments:
Annual Report for 2000
Proposed Budget for 2001

Sheet 1

Page 1

NEW YORK CHAPTER - AMERICAN FISHERIES SOCIETY - 2000 John Homa, Jr. C/O Ichthyological Associates, Inc. 50 Ludlowville Road, Lansing, NY 14882

Summary Treasurer's Report
Prepared December 31, 2000


## PROPOSED -- 2001 BUDGET -NEW YORK CHAPTER AMERICAN FISHERIES SOCIETY

## Projected Revenues

| 2002 Annual Meeting | $\$$ | $5,000.00$ |
| :--- | ---: | ---: |
| 2001 Membership Dues | $\$$ | $2,500.00$ |
| Interest | $\$$ | 800.00 |
| Raffle | $\$$ | 350.00 |
| Otolith workshop | $\$ 2,500.00$ |  |
| 2001 Workshop | $\$ 3,000.00$ |  |
|  | $\$ 14,150.00$ |  |


| Projected Expenses |  |  |
| :--- | ---: | ---: |
| 2002 Annual Meeting | $\$$ | $5,000.00$ |
| Office Supplies | $\$$ | 100.00 |
| Postage | $\$$ | 450.00 |
| Newsletter/membership list | $\$$ | 700.00 |
| 2001 Workshop | $\$$ | $2,400.00$ |
| Otolith workshop | $\$$ | $2,500.00$ |
| Donations | $\$$ | 300.00 |
| Awards for Best Papers | $\$$ | 300.00 |
| Student Travel Award for NEDor Nat. Meeting | $\$$ | 250.00 |
| Web page | $\$$ | 500.00 |
| Raffle | $\$$ | 200.00 |
| NED AFS Meeting - Travel/Expenses | $\$$ | 450.00 |
| AFS Nat. Meeting - Travel/Expenses | $\$ 1,000.00$ |  |

Subj: Rế: hycaf́s 2001 meeting - near final summary?
Date: $\quad 2 / 15 / 2001$ 8:26:21 AM Eastern Standard Time
1:: ampeterson@nyseg.com
MALansing@aol.com
CC: jmfarrel@mailbox.syr.edu, wepearsa@gw.dec.state.ny.us
File: TREASANN2001MEETNGSUMM.xls (29696 bytes)
DL Time (45333 bps): < 1 minute

Excellent job John! Dana will be pleased to know that his \$5 contribution is forever inscribed in Chapter history. Thank you for not mentioning that he ate $\$ 12$ worth of danish and soda!

Allen Peterson
NYSEG
ampeterson@nyseg.com
607-762-7072 phone
607-762-8457 fax

| IALansing@aol |  |
| :---: | :---: |
|  | To: Allen Peterson@NYSEG, |
| 02/14/01 | wepearsa@gw.dec.state.ny.us (Web Pearsa |
| 04:31 PM | jmfarrel@mailbox.syr.edu cc: |
|  | Subject: nycafs 2001 meeting -- near final summary? |

## Hi Guys:

The attached file gives a near final summary of the 2001 meeting in Owego. I still await receipt of invoiced attendance (NYSDEC and OCDDS).

After paying mileage and travel and other, misc. expenses
Accounting for credits for audio visual, room tax,
Taking out raffle and meeting registration costs, it looks like a net loss of
\$569.88.
Web for your planning purposes we had 70 attendees
44 NYC members
6 non NYC members
3 invited speakers
10 student members
2 students who werent members (one, fall 2001 student; one out of state)

5 student workers/presenters .
$\int_{\text {tration })}^{\text {total }}$ (50 full registration, 12 student registration; 11 supported
Web also for your planning purposes your should consider some of the
"hidden" "hidden"

# The New York Chapter of the American Fisheries Society's Theodore Roosevelt Conservation Awards 

Individual:
Awarded to an Individual(s) whose devotion to the protection aquatic environment and its resources is unequaled.

Award recipient has spend personal resources (time, effort, monies) above and beyond their normal work responsibilities to protect the State's aquatic environment and its associated resources.

Organization:
Awarded to an organization (Private, non-Governmental, or Governmental) that displays continual leadership in the community to advance the cause for protection of the aquatic environment and their associated resources.

## Community is defined as being local, regional, state, national or global.

8:20-8:40 a.m. Natural spawning by brook trout (Salvelinus fontinalis) populations within
Adirondack lakes with outlet barriers. Daniel C. Josephson, Clifford. E. Kraft, and Charles C. Krueger, Coldwater Fishery Research Program, Department of Natural Resources, Cornell University

8:40-9:10 a.m. A Method to Predict Fish Species Assemblages from Environmental Variables. James E. McKenna, Jr. Great Lakes Science Center, Tunison Laboratory of Aquatic Science US Geological Survey

9:10-9:30 aim. The effects of double-crested cormorant predation on northern pike and muskellunge populations in the Eastern Basin of Lake Ontario and the upper St. Lawrence River. Molly A. Connerton (student), John M. Farrell, SUNY-ESF and the Thousand Islands Biological Station

9:30-9:50 a.m. Coffee Break Starfire Lobby
9:50-10:10 a.m. Recruitment Dynamics of Alewives and Rainbow Smelt in Lake Ontario. Robert O'Gorman, USGS, 17 Lake Street, Oswego,NY

10:10-10:30 am. Fish Community Response to Removal of Naturalized Smallmouth Bass in an Oligotrophic Adirondack Lake. Brian Weidel (student), Cornell University

10:30-10:50 arm. Reproductive Success of Northern Pike in a Managed Spawning Marsh with Comparisons to Unmanaged Habitats in the St. Lawrence River. Gregory W. Hoag (student) and John M. Farrell, SUNY-ESF, Department of Environmental and Forest Biology and the Thousand Islands Biological Station

10:50-11:10 am. Survival and growth of eyed eggs and fry of Atlantic salmon (Salmon alar) stocked in the Salmon River, New York: implications for restoration. Stephen M. Coghlan Jr. (student) and Neil H. Ringler, Department of Environmental and Forest Biology, SUNY College of Environmental Science and Forestry, Syracuse, NY

11:10-11:30 atm.
The life-history and energetic meanings of the vo Bertalanffy growth function for fishes
Ji X. He and Donald J. Stewart, SUNY-CESF, Syracuse, NY
11:30-11:45 p.m. Closing, Awards, Adjournment
Posters:
Adaptive Fishery Management : Research to Improve Brook Trout Angling in Adirondack Lakes Daniel C. Josephson and Clifford. E. Kraft, Coldwater Fishery Research Program, Department of Natural Resources, Cornell University

Fish Population Assessment and Spring Water Chemistry in Adirondack Headwater Streams Howard A. Simonin, James R. Colquhoun, Eric A. Paul, John Symula and Howard J. Dean, New York State Department of Environmental Conservation, Aquatic Toxicant Research Unit

Index of Biotic Integrity: a review of this important tool receiving infrequent uses in NYS. Douglas M. Carlson, NYS Dept Environmental Conservation, 317 Wash. St., Watertown, NY

Management of Otisco Lake and Jamesville Reservoir Walleye Fisheries through Stocking. Patty Thompson (student), SUNY-ESF

Echinogammarus ischnus, the next exotic threat? N. Tisch, Cornell University, C. M. Mayer, Syracuse University


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Fish Community Response to Removal of Naturalized Smallmouth Bass in an
$S$ Oligotrophic Adirondack Lake. Brian Weidel (student), Cornell University
10:30-10:50 arm. Reproductive Success of Northern Pike in a Managed Spawning Marsh with
S Comparisons to Unmanaged Habitats in the St. Lawrence River. Gregory W. Hoag (student) and John M.
Farrell, SUNY-ESF, Department of Environmental and Forest Biology and the Thousand Islands Biological Station
10:50-11:10 atm. Survival and growth of eyed eggs and fry of Atlantic salmon (Salmon alar) stocked in the Salmon River, New York: implications for restoration. Stephen M. Coghlan Jr. (student) and Neil H. Ringler,
$\int$ Department of Environmental and Forest Biology, SUNY College of Environmental Science and Forestry, Syracuse, NY

11:10-11:30 a.m.
The life-history and energetic meanings of the vol Bertalanffy growth function for
fishes
Ii X. He and Donald J. Stewart, SUNY-CESF, Syracuse, NY
11:30-11:45 p.m. Closing, Awards, Adjournment

Posters:


Adaptive Fishery Management : Research to Improve Brook Trout Angling in Adirondack Lakes Daniel C. Josephson and Clifford. E. Kraft, Coldwater Fishery Research Program, Department of Natural Resources, Cornell University

Fish Population Assessment and Spring Water Chemistry in Adirondack Headwater Streams Howard A. Simonin, James R. Colquhoun, Eric A. Paul, John Symula and Howard J. Dean, New York State Department of Environmental Conservation, Aquatic Toxicant Research Unit

Index of Biotic Integrity: a review of this important tool receiving infrequent uses in NYS.
Douglas M. Carlson, NYS Dept Environmental Conservation, 317 Wash. St., Watertown, NY
Management of Otisco Lake and Jamesville Reservoir Walleye Fisheries through Stocking.
Patty Thompson (student), SUNY-ESF
Echinogammarus ischnus, the next exotic threat?
N. Tisch, Cornell University, C. M. Mayer, Syracuse University


# REGISTRATION <br> NEW YORK CHAPTER AMERICAN FISHERIES SOCIETY <br> 2001 ANNUAL MEETING <br> JANUARY 18-20, 2000 <br> Treadway Inn, Owego, New York 

Name:
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Students, please use permanent mailing address.
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Non member, Registration
NYCAFS membership
Student, Registration
Student Membership
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Make checks payable to New York Chapter AFS
Note: Registration includes lunch, banquet, and breaks
Please check any that would interest you.


RECEIPT
NEW YORK CHAPTER AMERICAN FISHERIES SOCIETY, JANUARY 18-20
2001 ANNUAL MEETING, TREADWAY INN, OWEGO, NEW YORK
NAME: $\qquad$ DATE:
AMOUNT PAID SIGNED: $\qquad$

# Agenda <br> 2001 Annual Meeting of the New York Chapter of The American Fisheries Society <br> January 18-20, 2001 

The Treadway Inn, Owego New York

# Large Scale Climate Variability Impacts Upon New York Fisheries 

## Thursday, January 18

| 6:00-9:00 p.m. | Registration |
| :--- | :--- |
| 6:00-9:00 p.m. | Poster set-up |
| 6:30-8:30 p.m. | Excom Meeting |
| 8:00-11:00 p.m. | Informal Social |

Friday, January 19

| 7:30-3:00 p.m. | Registration |
| :---: | :---: |
| 7:30-8:30 | Continental Breakfast |
| 8:30-8:45 a.m. | Welcome - Peterson/Stewart |
| 8:45-9:15 a.m. | Art DeGaetano, Cornell. |
| 9:15-9:45 a.m. | David Bartlett, UNH. |
| 9:45-10:15 a.m. | George Hurtt, UNH |
| 10:15-10:45 a.m. | Coffee Break |
| 10:45-11:15 a.m. | Jim Shortle, PSU |
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| 12:45-1:15 p.m. | Pat Sullivan, Cornell |
| 1:15-1:45 p.m. | Cliff Kraft, Cornell |
| 1:45-2:15 p.m. | John Casselman, OMNR |
| 2:15-2:45 p.m. | Brian Shuter, OMNR |
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| 8:30-9:30 p.m. | Student Sub-unit Meeting |

Starfire Lobby
Starfire Lobby
Starfire West
The evidence for climate change: A state of the art review
The New England Regional Assessment
Climate modelling for northeast water resources impacts
Starfire Lobby
The Mid-Atlantic Regional Assessment
(DeGaetano, Rock, Hurtt, Shortle)
Starfire East
Potential heat/temperature effects on fisheries
Potential ice storm effects on fisheries:
Woody debris and debris dam formation
Climate change effects on northeast fisheries
Forecasting impacts of climate change on
Ontario walleye populations
(Sullivan, Kraft, Casselman, Shuter)
Starfire Lobby
Starfire Lobby - Authors in attendance, see
bottom of agenda
Starfire West
Starfire East
Starfire East
Starfire East
Owego Room
Saturday, January 20
7:30-8:00 a.m. Continental Breakfast
8:00-a.m. - 12:30 p.m.
Contributed Papers
Starfire Lobby
Starfire West
$p$ 8:00-8:20 a.m. Liming Acid Ponds for Brook Trout in New York's Adirondack Region: Status, Approach and Application for the Year 2000. William H. Gordon, NYS Dept. of Environmental Conservation

Introduction
 recent ye
Thu presence of a new benthic species, the European amphipod Echinogammarue schnus, was documented in the Great Lakes In 1997.

- E ischnus is very similar in size and appaarance to the resident amphipod
Gammarus fasciatus, which is currently an Important food wab component in nearshore areas.


Habitat Selection Individual amphipods, elther
plastic containers that contain Each animal was placed on sand in the center of the
contalner and the first habltat recorded. Though the pattern of
hablitat selection was

 covered rocks significantly
more frequently than
axpected (total $\chi^{2}=15.00$
 Predator Selectivity
 Conclusions


- Laboratory data suggest that G. fasciatus grows fastor and has a higher metabolic rate at both low and high temperatures. Therefore, differential growth responses to abundance in the field. However, delayed reproduction of E. Ischnus may contribute to their scarcity early in the season.

Laboratory data show that G. fasclatus grows well on Cladophora. Therefore, $E$.
schnus may experience competitlve release when algal cover ( $G$. fasclatus food supply)


The preference of fish for G. fasciatus relative to E. ischnus may have contributed to
the observed increase in relative abundance of E. ischnus at the end of the season.
$\underbrace{\text { suo!l? }}$.


- The selectivity of other predator species (fish and macrolnvertebrates) toward $\mathbf{G}$. fasciatus and $E$. ishnus will be investigated.
- Quantititive flold samples collected at two week Intervals in 1999 and 2000 will be
used to estimate slze-speclicic growth and survival probablilitios for the Sodus Bay populations of both species.



## Echinogammarus ischn ;, the next exotic threat?



The density of G. fasclatus was related to \% cover of Drelssena ( $\mathrm{P}<0.0060$ ), but not
\% algal cover ( $\mathrm{P}<0.4760$ ) or depth ( $\mathrm{P}<0.2123$ ).
The density of E . Ischnus was relatad to \% cover of Dreissena ( $\mathrm{P}<0.008$ ), \% algal
cover ( $\mathrm{P}<0.0067$ ) and depth ( $\mathrm{P}<0.0031$ ).
둔
Groups of 10 amphipods ware reared in filtered lake water and fed a dlet of chambers were maintalined at 18 and $24^{\circ} \mathrm{C}$ with $14: 10 \mathrm{LD}$ cycle. $\mathrm{N}=6$ for each

 increase in growth rate with highor temporature was more pronounced for $G$.
fasclatus. Stars indicate the presence of gravid females. Survival rates were simlarus. for both specles ( $-20-30 \%$, at nine weeks). It is possilble that the different
siowth rates were a response to the laboratory diet.

Resplration


 0.6 Respiration was monitored 0.5 continuously untlia a | $E$ | 0.4 |
| :--- | :--- |
| $E$ | $T$ |
|  |  |




$\mathrm{O}_{2}$ consumption was highor for both species at $22^{\circ} \mathrm{C}$, but the difference was not
statlcally significant (ANOVA, $\mathrm{P}<0.1249$ ). G . fasclatus had a higher $\mathrm{O}_{2}$ consumption
. statically significant (ANe at both temperatures (ANOVA P<0.0003).
rate at

# New York Chapter AFS <br> Raffle Sponsors 

New York State DEC
Northeast AFS
American Fisheries Society

In Fisherman

## TNN Outdoors

Cabelas

YBC

## TTI Companies

```
Subj: Re:Treadway bill ok
Date: 2/1/2001 9:40:19 AM Eastern Standard Time
i: ampeterson@nyseg.com
```

To: IALansing@aol.com

John:
Treadway reports only 24 room/nights used. This seems awful low. Can you please e-mail the Treadway a list of attendees, or barring that, the membership list, so they can compare names? The e-mail address is Treadwayow@aol.com. Attention Laura Costello.

Thanks
Allen Peterson
NYSEG
ampeterson@nyseg.com
607-762-7072 phone
607-762-8457 fax

IALansing@aol

01/30/01 Subject: Re: Treadway bill ok
04:30 PM

Allen:
Should we be paying sales tax (4.80/night) or occupancy tax (1.92/night)
on the rooms ( 5 nights) used by invited speakers?
John H

[^1]Phone: ( 6$)^{-}$) 255-1-51
Fix: $\left.1(0)^{-}\right)$25ラ-2100


26 January, 2001

Mr. John Homa
Ichthylogical Associates
50 Ludlowville Road
Lansing, NY 14882

Dear John:
Dan Josephson informed me that I should send you any travel expenses that I may have incurred as a -speaker at the NY Chapter AFS meeting. The only travel expense I had was 80 miles on my personal vehicle.

I hope you found my presentation informative.


February 1, 2001

## 144 Old Ancaster Road

Dundas, Ontario
Canada L9H 3R4

## John Home

Ichthylogical Associates
50 Ludlowville Road
Lansing, NY 14882

Dear John,
Expenses incurred during my recent visit to Owego New York to give a talk at the Chapter Meeting of the the American Fisheries Society are as follows:

Car Rental \begin{tabular}{r}

OR $\quad$| $\$ 154.34$ Canadian funds Receipt \#1 |
| :--- |
| $\$ 100.32$ US funds |
| conversion to US Funds at |
| $\$ 1.00$ US $=0.65$ CAN | <br>

\end{tabular}



Please send a check made out to Brian Shuter to my home address:

144 Old Ancaster Road,
Dundas, Ontario
Canada L9H3R4
If there are any problems, please call me at 905-628-1122 or email me at: shuter@zoo.utoronto.ca

Brian Shute


```
Subj: Re: Treadway bill ok
Date: 2/1/2001 9:12:16 AM Eastern Standard Time
\: ampeterson@nyseg.com
iv. IALansing@aol.com
```

Treadway says pay no taxes on the hotel rooms. Deduct that amount from the total bill. Treadway is also checking to see if any of those rooms should be complimentary and will notify me today if so.

## Allen Peterson

NYSEG
ampeterson@nyseg.com
607-762-7072 phone
607-762-8457 fax

IALansing@aol
.com To: Allen Peterson@NYSEG
cc:
01/30/01 Subject: Re: Treadway bill ok
04:30 PM

Allen:
Should we be paying sales tax (4.80/night) or occupancy tax (1.92/night)
on the rooms ( 5 nights) used by invited speakers?
John H


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FAX -607-687-2456
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Document Date: 01/20/01
Page: I
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TO: CfO N.Y.S.E.G. PO BOX 5224 BINGHAMTON, NY 13902

Ship Via.:
Ship Date: 01/20/01
Due Date.: 02/19/01
Terms....: NET 30
Curt I.D.....: 0119
P.O. Number..:
P.O. Date....: 01/20/01

Job/Order No.:
Salesperson. .:


AMERICAN FISHERY SOCIETY MASTER FOLIO


Terms: All Past Due Accounts ---ー-ー--------------Subject to A Finance Charge of $1.5 \%$ Per Month (Annual Rate 18\%)

Subtotal:
Tax.....:
Total...:

4205.36
0.00
4205.36


Subj: Re:
Date: 1/25/2001 2:22:27 PM Eastern Standard Time
n: ampeterson@nyseg.com
iu: nsoule_cshfha@juno.com

Norm;
It is our policy not to release the vote totals, but I can tell you that Dave Bryson won by a substantial margin. I suspect the reason is because he's been on the Executive Committee and this is the third time he ran (he lost the first two times).

I feel you'd be a good president, and with a little exposure and experience on Excom, can see it happen eventually.

I know John Farrel and Web Pearsall will be looking for help putting together the summer workshop and next year's annual meeting.

## Allen Peterson

NYSEG
ampeterson@nyseg.com
607-762-7072 phone
607-762-8457 fax

Norman Soule
<nsoule_cshfha To: Allen Peterson@NYSEG
@juno.com>

## cc:

## Subject:

01/24/01 03:20
PM

Allen,
Just for my info. could you possibly share with me the final vote count for the pres. election

Norman Soule
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Juno offers FREE or PREMIUM Internet access for less!
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http://dl.www.juno.com/get/tagj.

Subj: Treadway bill ok
nąte: 1/30/2001 11:17:53 AM Eastern Standard Time
lm: ampeterson@nyseg.com
10: ialansing@aol.com, jmfarrel@mailbox.yr.edu
John,
The Treadway bill of $\$ 4,205.36$ is good for payment. It is slightly under the estimate. I will fax a signed copy to you and John Farrel now.

Allen Peterson
NYSEG
ampeterson@nyseg.com
607-762-7072 phone
607-762-8457 fax

Headers
Return-Path: [ampeterson@nyseg.com](mailto:ampeterson@nyseg.com)
Received: from rly-xd03.mx.aol.com (rly-xd03.mail.aol.com [172.20.105.168]) by air-xd05.mail.aol.com (v77.31) with ESMTP;
Tue, 30 Jan 2001 11:17:53-0500
Received: from lgoSmtp1.nyseg.com (mta.nyseg.com [199.98.200.7]) by rly-xd03.mx.aol.com (v77.27) with ESMTP; Tue, 30
Jan 2001 11:17:37-0500
Subject: Treadway bill ok
To: ialansing@aol.com, jmfarrel@mailbox.yr.eduX-Mailer: Lotus Notes Release 5.0.2c February 2, 2000
Message-ID: [OFD2B8EB5E.D7C84077-ON852569E4.00594019@nyseg.com](mailto:OFD2B8EB5E.D7C84077-ON852569E4.00594019@nyseg.com)
From: ampeterson@nyseg.com
r-te: Tue, 30 Jan 2001 11:17:30-0500
lIMETrack: Serialize by Router on IgoSmtp1/INTERNET(Release 5.0.2c IFebruary 2, 2000) at 01/30/2001 11:21:44 AM
MIME-Version: 1.0
Content-type: text/plain; charset=us-ascii

Subj: Re: excom meeting/ invited speakers
Date: 1/22/2001 9:02:05 AM Eastern Standard Time
Im: ampeterson@nyseg.com
10: IALansing@aol.com

John, thanks so much for your help with the AFS meeting. It's nice to have a few reliable old hands kicking around to make sure I don't mess up too badly! Sorry about the Snapple up your nose.

Allen Peterson
NYSEG
ampeterson@nyseg.com
607-762-7072 phone
607-762-8457 fax

Return-Path: [ampeterson@nyseg.com](mailto:ampeterson@nyseg.com)
Received: from rly-za02.mx.aol.com (rly-za02.mail.aol.com [172.31.36.98]) by air-za01.mail.aol.com (v77.31) with ESMTP;
Mon, 22 Jan 2001 09:02:05-0500
Received: from IgoSmtp1.nyseg.com (mta.nyseg.com [199.98.200.7]) by rly-za02.mx.aol.com (v77.27) with ESMTP; Mon, 22
Jan 2001 09:01:45-0500
Subject: Re: excom meeting/ invited speakers
To: IALansing@aol.comX-Mailer: Lotus Notes Release 5.0.2c February 2, 2000
Message-ID: <OF67ECC93A.9F434197-ON852569DC.004CE201 @ nyseg.com>
Finm: ampeterson@nyseg.com
e: Mon, 22 Jan 2001 09:01:39-0500
X-MIMETrack: Serialize by Router on IgoSmtp1/INTERNET(Release 5.0.2c IFebruary 2, 2000) at 01/22/2001 09:05:42 AM
MIME-Version: 1.0
Content-type: text/plain; charset=us-ascii

Subj: RE: Thanks
Date: 1/22/2001 1:47:45 PM Eastern Standard Time
From: john.casselman@mnr.gov.on.ca
'dcj3@cornell.edu
しv. ampeterson@nyseg.com, IALansing@aol.com
Dan and Allen,
I have no other charges but I left the room in the Chapters name.
It was good to see so many of my NY friends!
Lois and I very much enjoyed the time. Thanks for the invitation.
Cheers,
John
------Original Message-----
From: Daniel Josephson [mailto:dcj3@cornell.edu]
Sent: January 22,2001 9:41 AM
To: john.casselman@mnr.gov.on.ca
Cc: ampeterson@nyseg.com; IALansing@aol.com
Subject: Thanks

John:

On behalf of the NY Chapter AFS, I want to thank you for your excellent presentation at our invited speaker session on fisheries \& climate change. The session was well attended and very informative - thanks in large part to ynir contribution.
,
You can send all of your travel expenses for reimbursement to the NY Chapter AFS Secretary/Treasurer below:

John Homa
Ichthylogical Associates
50 Ludlowille Road
Lansing, NY 14882

Best Regards,

Dan

Headers
Return-Path: [john.casselman@mnr.gov.on.ca](mailto:john.casselman@mnr.gov.on.ca)
F fived: from rly-yh03.mx.aol.com (rly-yh03.mail.aol.com [172.18.147.35]) by air-yh02.mail.aol.com (v77.31) with ESMTP;
A...., 22 Jan 2001 13:47:44-0500

Received: from rlc00aex055.rlc.gov.on.ca (rlc00aex055.rlc.gov.on.ca [142.106.192.34]) by rly-yh03.mx.aol.com (v77.27) with
ESMTP; Mon, 22 Jan 2001 13:47:24-0500

## REGISTRATION

## NEW YORK CHAPTER AMERICAN FISHERIES SOCIETY 2001 ANNUAL MEETING <br> JANUARY 18-20, 2000 <br> Treadway Inn, Owego, New York

Name:
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Students, please use permanent mailing address.
Mailing Address: $\qquad$

Work Phone:
Home Phone:
$\qquad$
Fax: $\qquad$

WOULD YOU BE WILLING TO
RECEIVE ALL CHAPTER COMMUNICATIONS VIA
ELECTRONIC MAL?
YES? $\qquad$ NO $\qquad$

## NYCAFS Member, Registration

Email $\qquad$

Non member, Registration
$\$ 75.00$
NYCAFS membership
$\$ 85.00$
\$10.00
$\qquad$
$\qquad$
Student, Registration
$\$ 30.00$
Student Membership
$\$ 5.00$ $\qquad$

TOTAL DUE
\$ $\qquad$
Note: Registration includes lunch, banquet, and breaks

NEW YORK CHAPTER AMERICAN FISHERIES SOCIETY, JANUARY 18-20 2001 ANNUAL MEETING, TREADWAY INN, OWEGO, NEW YORK

NAME: $\qquad$ DATE:
AMOUNT PAID SIGNED: $\qquad$
NYCAFS2001/MEETING REGISTATION 2001


## Program and Abstracts

# 2001 Annual Meeting of the <br> New York Chapter of The American Fisheries Society 

January 18-20, 2001
The Treadway Inn, Owego New York

## Conference Theme:

Large Scale Climate Variability Impacts Upon New York Fisheries

# Agenda <br> 2001 Annual Meeting of the New York Chapter of The American Fisheries Society January 18-20, 2001 <br> The Treadway Inn, Owego New York 

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The New England Regional Assessment Climate modelling for northeast water resources impacts
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The Mid-Atlantic Regional Assessment
(DeGaetano, Rock, Hurtt, Shortle)
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Climate change effects on northeast fisheries
Forecasting impacts of climate change on
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Starfire Lobby
Starfire Lobby - Authors in attendance, see bottom of agenda

Starfire West
Starfire East
Starfire East
Starfire East
Owego Room
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| 8:00-8:20 a.m. | Liming Acid Ponds for Brook Trout in New York's Adirondack Region: Status, |  |

Approach and Application for the Year 2000. William H. Gordon, NYS Dept. of Environmental Conservation

8:20-8:40 a.m. Natural spawning by brook trout (Salvelinus fontinalis) populations within Adirondack lakes with outlet barriers. Daniel C. Josephson, Clifford. E. Kraft, and Charles C. Krueger , Coldwater Fishery Research Program, Department of Natural Resources, Cornell University

8:40-9:10 a.m. A Method to Predict Fish Species Assemblages from Environmental Variables. James E. McKenna, Jr. Great Lakes Science Center, Tunison Laboratory of Aquatic Science US Geological Survey

9:10-9:30 a.m. The effects of double-crested cormorant predation on northern pike and muskellunge populations in the Eastern Basin of Lake Ontario and the upper St. Lawrence River. Molly A. Connerton (student), John M. Farrell, SUNY-ESF and the Thousand Islands Biological Station

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Ji X. He and Donald J. Stewart, SUNY-CESF, Syracuse, NY

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Fish Population Assessment and Spring Water Chemistry in Adirondack Headwater Streams
Howard A. Simonin, James R. Colquhoun, Eric A. Paul, John Symula and Howard J. Dean, New York State Department of Environmental Conservation, Aquatic Toxicant Research Unit

Index of Biotic Integrity: a review of this important tool receiving infrequent uses in NYS. Douglas M. Carlson, NYS Dept Environmental Conservation, 317 Wash. St., Watertown, NY

Management of Otisco Lake and Jamesville Reservoir Walleye Fisheries through Stocking. Patty Thompson (student), SUNY-ESF

Echinogammarus ischnus, the next exotic threat?
N. Tisch, Cornell University, C. M. Mayer, Syracuse University

## ABSTRACTS

## [ALPHABETICAL BY FIRST AUTHOR]

Bartlet, David [no abstract]

## Index of Biotic Integrity: a review of this important tool receiving infrequent uses in NYS.

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Interpreting fish survey data was made earlier in the 1970s with the development of a biomonitoring tool called the Index of Biotic Integrity. It has been refined and widely applied to flowing waters in the 1990 s , in many parts of this country outside of New York. In this poster, you will see some of the available literature and the few reports applying it to NY waters. The tool is very effective at recognizing stream quality and stream degradation, and it relies on general survey data including catches of all fish inhabitants. This display will also encourage you to contribute by sampling in ways useful to the development or testing of the tool for your region.

## Effects of Climate and Global Warming on Year-Class Production of Warm-Water, CoolWater, and Cold-Water Fishes in Eastern Lake Ontario

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Predicting the impact of global warming on fisheries necessitates understanding the effects of temperature, an important factor influencing year-class strength and production. For three decades, index sampling in eastern Lake Ontario has produced catch statistics and age data to assess changes in the status of fish species in relation to thermal tolerance. Late fall and summer nearshore water temperatures have increased significantly, paralleling global warming and temperature extremes, particularly those associated with El Niño, La Niña, and the Mount Pinatubo eruption. Global warming will substantially increase year-class strength of warm-water species, such as smallmouth bass, which is positively correlated with July-August temperatures ( $r^{2}=0.47$ ); an additional increase of $1^{\circ} \mathrm{C}$ increases abundance by $2.5 \mathrm{x} ; 2^{\circ} \mathrm{C}$ by 6.0 x , and $3^{\circ} \mathrm{C}$ by 15 x . Year-class strength of northern pike, a cool-water species, is curvilinearly associated with July-August temperatures ( $r^{2}=0.65$ ); an increase of $1^{\circ} \mathrm{C}$ decreases year-class strength by 2.0 x , and $2^{\circ} \mathrm{C}$ by 60 x . For cold-water species such as lake trout, an increase in fall temperatures at spawning time has a major negative effect on year-class strength; an increase of $1^{\circ} \mathrm{C}$ decreases survival at hatch by $1.5 \mathrm{x}, 2^{\circ} \mathrm{C}$ by 2.4 x , and $3^{\circ} \mathrm{C}$ by 20 x . Global warming in the Great Lakes Basin will significantly alter year-class strength and fish-community structure and dynamics, with cold-water and even cool-water species becoming much less abundant and warm-water species predominating.

# Survival and growth of eyed eggs and fry of Atlantic salmon (Salmo salar) stocked in the Salmon River, New York: implications for restoration 

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We stocked 150,000 Lake Clear strain Atlantic salmon (Salmo salar) fry and 125,000 eyed Atlantic salmon eggs at 16 sites in the Salmon River, New York. Survivorship of stocked fry ranged from 1.0 to $17.1 \%$ in the summer of 1999 and from 0.8 to $8.1 \%$ in the summer of 2000. Daily instantaneous growth rates were similar between years, and ranged from 0.0249 to $0.0816 \mathrm{~g} / \mathrm{g} / \mathrm{d}$. Survival and growth rates were significantly different among sites ( $p<0.05$ ); survival appeared to be directly related to distance upstream from Lake Ontario, whereas growth was inversely related to distance. Although survival of stocked eggs through the alevin stage was generally high during the winter of 2000 ( $>50 \%$ ), survival after emergence was extremely low ( $<0.01 \%$ ). We have designed field studies to test the hypothesis that the most significant mortality occurs during the emergence period. Overall, fry-stocking resulted in significantly higher survival than did egg-stocking ( $p<0.0001$ ). Initial results suggest that summer water temperatures may limit salmonine production in the Salmon River. Wild steelhead (Oncorhynchus mykiss) juveniles were almost completely absent during 1999, yet were extremely abundant in 2000, with summer densities reaching $>1.34$ fish $/ \mathrm{m} 2$. Summer river temperatures averaged several degrees lower in 2000 than in 1999. We hypothesize that Atlantic salmon success is limited by interspecific competitive interactions with steelhead, the outcomes of which may be temperaturedependent. We predict that elevated summer temperatures will favor Atlantic salmon juveniles when sympatric with steelhead juveniles, whereas lower summer temperatures should favor steelhead. We have designed laboratory experiments to test competition between the two species at summer water temperatures ( $18-25^{\circ} \mathrm{C}$ ). Results should elucidate the effects of an ecologically similar exotic species on an indigenous salmonine during periods of potential thermal stress.

# The effects of double-crested cormorant predation on northern pike and muskellunge populations in the Eastern Basin of Lake Ontario and the upper St. Lawrence River. 

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Double-crested cormorant populations have increased dramatically in the Lake Ontario-St. Lawrence River region. In order to evaluate the effects of double-crested cormorant Phalacrocorax aurutis predation on esocid populations, we examined northern pike Esox lucius and muskellunge Esox masquinongy otoliths recovered from cormorant pellets (undigested remains) as a measure of fish consumption. Recovered otoliths were interpreted to determine structural differences among the species. In addition, predictions of the size and age of esocids consumed were compared to recent changes in fish population structure. Cormorant pellets were collected in 1999 and 2000 (May through September), from six nesting colonies. At this time, the ability to differentiate among northern pike and muskellunge otoliths from pellets remains uncertain. To estimate total esocid consumption a model was used that includes daily fish ingestion rates and the number of cormorant feeding days. An independent study using the above model indicated that in 1999, esocid consumption was estimated at $1.1 \%$ ( 60,000 fish) of the total double-crested cormorant diet. We will present updated estimates of esocid consumption for both 1999 and 2000. Regression analysis was used to establish a fish length to otolith length relationship ( $\mathrm{r} 2=0.95$ ) and was significant ( $a=.05, \mathrm{p}$ value $=0.003$ ). The predicted mean size of esocids was $260 \mathrm{~mm}(\mathrm{SD}=56.5)$. Maximum size consumed was 475 mm and age 1-2 esocids were predominant in the cormorant diet. Examinations of size and age structure and consumption estimates are needed to assess a relationship between declines in esocid populations and increases in double-crested cormorant predation.

## DeGaetano, Art [No abstract]

# Liming Acid Ponds for Brook Trout in New York's Adirondack Region: Status, Approach and Application for the Year 2000 

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Acid precipitation, its causes and effects, have been well documented. In New York State, the effects are most noticeable in the Adirondack Mountains Region. Recent amendments to the Clean Air Act have led to a reductions in both sulfur emissions and sulfate deposition, and lower sulfate levels in some Adirondack lakes and streams. Unfortunately, these have yielded very little change in lake and stream pH levels. Problems associated with acid deposition still exists in the Adirondacks. Pond liming has been used by the New York State Department of Environmental Conservation, Division of Fish, Wildlife and Marine Resources as a tool to neutralize acidified lakes and ponds for more than 40 years, largely for the benefit of Adirondack brook trout. Division policy has established specific pre-liming criteria and application methodology, which effectively direct pond treatment and re-treatment strategies. An evaluation of post treatment pH changes and related brook trout population benefits, indicates pond liming is still a productive fisheries management tool in the year 2000. Pond liming's use remains limited however, and therefore should not be viewed as a substitute for the need for more stringent air pollution control that will yield further reductions of sulfur and/or nitrate deposition.

# The life-history and energetic meanings of the von Bertalanffy growth function for fishes 

Ji X. He and Donald J. Stewart<br>State University of New York, College of Environmental Science and Forestry, 106 Illick Hall, 1 Forestry Drive, Syracuse, New York 13210<br>The von Bertalanffy growth function is the most used model for studying body growth and life histories of various organisms, from invertebrates to humans. Biological meanings of its parameters, however, have not been defined completely, and statistical comparisons of body-growth trajectories often do not have clear biological implications. For studying energy demand-supply relations and life-history diversity, model applications have been associated with the following unrealistic or inflexible assumptions: body mass scales to body length cubed; anabolism scales to $2 / 3$ power of body mass; maintenance metabolism or body substance breaking down is proportional to body mass; and there may be a nonzero age for zero body length. It has been repeatedly recommended to abandon the model because it appears to oversimplify growth processes and lifehistory relations. Here we demonstrate that none of the above assumptions is necessary. Hypothetical parameters in the model and related Ford-Walford plot can be defined fully by three measurable life-stage components. Thereby, many conflicting observations in life histories and energetics can be clarified.

## Reproductive Success of Northern Pike in a Managed Spawning Marsh with Comparisons to Unmanaged Habitats in the St. Lawrence River

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Wetland loss and change due to hydrologic management is hypothesized as an important factor in decreased production and recruitment of northern pike. A regulated spawning marsh was evaluated as a potential management alternative toward improving northern pike recruitment. Specific objectives were to examine spawning success and growth of age-0 northern pike in a managed marsh, and compare results to unmanaged riverine habitats. Water level management began in fall 1998 at Cranberry Creek marsh, Alexandria Bay, NY. During spring 1999 and 2000, adult northern pike were trapped below the control structure and transferred into the marsh. Comparisons were made with two unmanaged habitats. Techniques employed included egg trapping, seining, fry trapping, spillway traps, and electrofishing. During 1999, no age-0 northern pike were observed leaving Cranberry Creek marsh, however, over four thousand emigrants ( $>75 \mathrm{~mm}$ ) were captured during the 2000 season. Northern pike growth at the Cranberry Creek marsh was compared to unmanaged habitats at Goose Bay, and a shoal habitat at Governor's Island. Fish emigrated from Cranberry Creek marsh beginning in June 2000 at a length of 73 mm . Shoal spawning was delayed in comparison, and fish only achieved a length of 12 mm by June. Growth rates were similar between habitats with the exception of considerably slower growth at Governor's Island. Hydrologic management of the marsh increased length of the growing season and water temperatures, resulting in greater age-0 growth rates. Differences in food consumption among habitats also may explain slower growth rates for shoal-spawned pike. Independent marsh water level regulation has been shown to be a successful method to promote increased northern pike production. This strategy has great potential for basin wide application with benefits to multiple species.

# Adaptive Fishery Management : Research to Improve Brook Trout Angling in Adirondack Lakes 

Daniel C. Josephson ${ }^{1}$ and Clifford. E. Kraft

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For 50 years, Cornell University and private Adirondack landowners have worked together in a cooperative fishery research and management effort. Research and management activities have changed over the past fifty years, reflecting both a changing environment and angler preferences. Brook trout lake fisheries have been a primary Cornell research focus since 1950, when surveys initiated by Dr. Dwight Webster provided the foundation for future research and management efforts. Adaptive research and management has resulted in a substantial improvement in Adirondack lake brook trout fisheries over the past 50 years, despite acid rain and other environmental challenges. The larger proportion of fish released in recent years, combined with innovative fishery management approaches, has contributed to the observed increases in both notable brook trout and angler catch rates. Lessons learned through a partnership between Cornell University and private cooperators has provided new insights for managing Adirondack fisheries. Current research efforts are continuing to focus on understanding the components of aquatic ecosystems that limit trout production. Cornell researchers will continue to apply research results to manage fisheries in Adirondack waters and other coldwater fisheries, as well as towards improved management of other fish species.

## Potential ice storm effects on fisheries: Woody debris and debris dam formation

## Cliff Kraft

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The January 1998 ice storm deposited woody debris in riparian areas and associated streams of northeastern U.S. and Canadian forests. Although large-scale disturbances have been recognized as important influences upon river and stream habitat, the potential impact of ice storms upon aquatic habitats have received little attention. We assessed in-stream deposition of woody debris in first, second and third-order streams as a function of ice storm canopy damage in associated riparian forests within five large watersheds in the eastern Adirondack Mountains (New York, U.S.A.). Riparian tree canopy damage, stream physical habitat and woody debris deposition were quantified in over 50 stream study sites. In the first year of this study, we found that the proportion of tree canopy damage near first and third-order streams was correlated with in-stream debris dam frequency and debris dam volume. By contrast, the frequency of individual pieces of woody debris was not strongly correlated with canopy damage in either first or third-order streams. Using data collected during the second study year, we determined that stream width and tree canopy damage were significant predictors for in-stream debris dam frequency and total debris dam volume. Our results indicate that debris dam formation is the primary in-stream habitat modification resulting from ice storm-related wood deposition. As this study continues, we will evaluate biological and physical responses within streams to the in-stream deposition of woody debris resulting from this ice storm, including an evaluation of fish distribution and abundance.

# A Method to Predict Fish Species Assemblages from Environmental Variables James E. McKenna, Jr. 

Tunison Laboratory of Aquatic Science, US Geological Survey, 3075 Gracie Rd., Cortland, NY 13045<br>(607) 753-9391 x21, jim_mckenna@usgs.gov<br>Biodiversity is much touted as important, but rarely is there management for a given level of

biodiversity. One reason may be that diversity indices contain little information about an assemblage of organisms and extracting species-specific characteristics is challenging. It makes intuitive sense that fish diversity is determined to some degree by environmental conditions; one of the greatest needs of fisheries managers is the ability to predict the effects of environmental adjustments on fish assemblages. Using a distribution-based diversity index and information about overall fish abundance and the general species pool, one should be able to back calculate the fish assemblage in a given area. If diversity and abundance can be predicted from environmental conditions, a link between the environment and fish assemblages is established. The method introduced here uses a three-step process to predict abundance and composition of species assemblages from environmental data. First, environmental data are fed to two neural networks trained to predict total fish abundance and species richness. Those predicted values are then used to calculate Fisher's a (diversity) and generate Whittaker Plots, which predict the abundance of each species. Species are then assigned to each abundance class by randomly choosing them from the species pool available for the habitat, weighting the probability of their selection by their observed relative abundance. Comparisons between the expected assemblage and those observed in the field can then be made. The method is applied to fish assemblages in the Finger Lakes and the Oswego River.

## Recruitment Dynamics of Alewives and Rainbow Smelt in Lake Ontario

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The economically important Lake Ontario sport fishery for hatchery-reared salmon and trout is heavily dependent on two exotic prey fishes -- alewife and rainbow smelt. Understanding recruitment dynamics of these two prey fishes is required for efficacious management of stocking needed to maintain the fishery. During 1978-2000, size of alewife year classes varied 200 fold and size of rainbow smelt year classes varied 50 fold. Such variations in reproductive success often reflect changes in size of parental stock, environmental conditions, and/or predation pressure. Futhermore, recruitment in exotic fish stocks may be more sensitive to environmental extremes than is recruitment in endemic fish stocks. To identify factors influencing size of alewife and rainbow smelt year classes, we investigated the relationship between age-1 abundance during 1978-2000 and water temperature, number of spawners, and (for smelt) number of intra-specific predators. For alewives, catch of age-1 fish was related to number of spawners, temperature of nearshore water during the spawning and larval period, and length of the winter. For rainbow smelt, catch of age-1 fish was not related to water temperature or number of spawners, but was negatively related to number of intra-specific predators suggesting that cannibalism determined year class size.

## Shortle, Jim [No abstract]

# FISH POPULATION ASSESSMENT AND SPRING WATER CHEMISTRY IN ADIRONDACK HEADWATER STREAMS 

Howard A. Simonin, James R. Colquhoun, Eric A. Paul, John Symula and Howard J. Dean

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Fish populations in 36 Adirondack headwater streams were surveyed by electrofishing in the fall of both 1979 and 1999. The streams were all judged to provide suitable year-around trout habitat containing pools, riffles, shaded areas, and shelter from high stream flow. Water samples were taken from these streams for chemical analysis during the spring of both 1980 and 2000. The occurrence of salmonids and of all fish appeared to be directly related to the water chemistry during the spring. In most cases streams which had pH levels less than 5.0 in the spring were fishless. No young of the year brook trout were found in streams which had a spring air equilibrated pH less than 4.98. A higher number of fish and a greater number of species were collected in 1999 than during 1979, but this may have been due to better electrofishing efficiency during 1999. No consistent change was observed in spring pH levels of the study streams from 1980 to 2000. However, considerable annual and seasonal variability is evident in spring stream samples depending on stream flow. There was a significant decrease in calcium concentrations in the spring 2000 stream samples when compared with similar samples collected in 1982. Sensitive and acid impacted streams continue to exist in the Adirondacks even though sulfate deposition has decreased. The annual median stream pH of Buck Creek (a stream with 17 years of monitoring data) was inversely correlated with the amount of precipitation during the spring and summer period

## Factors limiting zebra mussels (Dreissena polymorpha) in a polluted urban system, Onondaga Lake NY.

Spada, Michael Efim.
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In most systems where zebra mussels (Dreissena polymorpha) become established, they reach nuisance densities.. Despite high densities in the adjoining Seneca River, populations in Onondaga Lake remained barely detectable for almost seven years. We hypothesized that emigration from the river was insufficient to overcome lake constraints. Substrate availability and fish predation were tested as possible constraints. In 1997 colonization patterns suggested that the river was a source of mussels, but in 1998 larval and settlement densities were low. We found sufficient substrate to support greater numbers of mussels than observed. An exclosure experiment with translocated mussels revealed $99 \%$ removal within two weeks, although it is unlikely that fish predation is the sole factor in limiting mussels, since similar species are found in the river. Zebra mussels appeared to be limited by the polluted conditions of Onondaga Lake and lack of protected substrate. Recently, mussel populations have exploded, perhaps aided by changing lake conditions.

Sullivan, Pat [No abstract]

# Forecasting Impacts of Climate Change on Ontario Walleye Populations 

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Population statistics from a sample of Ontario walleye populations demonstrate strong statistical associations with both climate and water quality variables. Growth and maturity schedules change systematically with changes in both degree days and secchi depth. These and otherrelationships are used to forecast potential impacts of climate change on both walleye populations and walleye fisheries in Ontario.

## Thompson, Patty [No abstract]

## Echinogammarus ischnus, the next exotic threat?.

N. Tisch, Cornell University, and C. M. Mayer Syracuse University.

In recent years, a large number of exotic species have been introduced to the Great Lakes; many of these invaders have been benthic. In 1997 the presence of a European benthic amphipod, Echinogammarus ischnus was documented. Our study focused on determining the potential effect of E. ischnus on the resident amphipod Gammarus fasciatus, which is currently an important food web component in near-shore areas. In the laboratory we conducted habitat choice experiments with Dreissena covered rocks, algae covered rocks, bare rocks, and artificial plants. Gammarus preferred Dreissena covered rocks. In growth experiments both species were reared on a diet of Cladophora and chironimids at $24^{\circ}$ and $18^{\circ} \mathrm{C}$. G. fascialus grew faster and matured earlier than $E$. ischnus at both temperatures. Further, G. fasciatus had a higher metabolic rate at both $24^{\circ}$ and $5^{\circ}$ C. Laboratory predation experiments showed that rock bass (Ambloplites rupestris) had a slight preference for G. fasciatus, and this preference was stronger (though not significantly so) in the presence of zebra mussels. Field sampling at Sodus Point, Lake Ontario revealed an increase in the abundance of $E$. ischnus during the late fall when Dreissena cover was also increased relative to algal cover. Thus the patterns observed in the field may represent a complex response to availability of habitat and food resources.

## Fish Community Response to Removal of Naturalized Smallmouth Bass in an Oligotrophic Adirondack Lake

Brian Weidel, Graduate Student, and Cliff Kraft (advisor), Cornell University, Ithaca, NY.
Introductions of non-native smallmouth bass (Micropterus dolomieu) have limited the abundance and diversity of native soft-rayed fishes, altered lake trout trophic status, and reduced brook trout biomass in northern waters. This study is designed to demonstrate whether the impact of a widelyintroduced non-native fish predator (smallmouth bass) can be reversed in Little Moose Lake, a 270 hectare Adirondack lake. An intensive smallmouth bass removal effort was initiated in May 2000, during which 9500 bass were removed via boat electrofishing, angling and gill netting. Based on previous population estimates, we have removed at least half of the mature smallmouth bass population from Little Moose Lake, and will continue to remove bass during the next two years. By comparison with previous years, as well as a nearby reference lake, we have already observed a decline in smallmouth bass abundance in the experimental lake, though predation risk for tethered creek chubs has not declined. Smallmouth bass growth, diet and forage fish abundance are also being compared with data collected in previous years, as well as concurrent data from the reference lake.
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033548, Randal, Snyder, SUNY Coll of Buffalo, Biol Dept 1300 Elmwood Ave,Buffalo,NY,1 4222.

036427, Robert, Klumb, Cornell Biol Fish Sta,900 Shackelton Point Rd, Bridgeport, NY,1 3030,
037539, Timothy,Strakosh,2 Howard Ave,,Bloomfield,NY,14469,
038326, Owen, Baird, Minnesota DNR, PO Box 86,Waterville,MN, 56096,
038600, Paul, Muessig, 20 Campfire RD, ,Wallkill, NY,12589,
039370, Anthony,VanDeValk,900 Shackelton Point Rd, ,Bridgeport, NY, 13030,
039802 , Susan, Metzger, Lawler Matusky \& Skelly, One Blue Hill Plaza, Pearl River, NY, 1 0965 ,
040025,Thomas, Hughes, NYS Dept Environ Conservation, Region 1 Bur Fish SUNY Bldg 40 , Stony Brook, NY,11790-2356,
040719, Michael, Sowinski, 115 Griffith St, Sloan, NY, 14212,
040907, James, Beemer, 20 Roxanne Blvd, Highland, NY, 12528,
041028, Susan, Allen-Gil, Biology Dept Ithaca College, Ithaca, NY,14850,
041238, Cathy, Drew, The River Project, Pier 26 North River, New York, NY, 10013,
041704, Patricia, Thompson, 1 Forestry Dr, 243 Illick Hall, Syracuse, NY,13210,
043280, Scott, Davis, 2155 Sawkill-Ruby Rd, Kingston, NY, 12401,
044888, David,Warner, 2133 Mecklenburg Rd Apt 2, Ithaca, NY,14850,
constit-id, firstname, lastname, addr-line1, addr-line2, city, state, zip,
000068 , Paul, Dowser, Dept of Microbio \& Immunology, Cornell Univ, College of Vet Med , Ithaca, NY, 14853-6401,
000455, Robert, Daniels, NY State Museum, CEC 3140, Albany,NY,12230,
000628, Gerald, Barnhart, ENCOM Fish Wdlf \& Mar, 50 Wolf Rd-560C,Albany, NY,12233-4753
000630, John, Blake, 23 Cross Ridge Rd, Chappaqua, NY, 10514,
000638, John, Cooper, 1444 Co Rt 23،, Constantia, NY, 13044,
000671, Andrew, Kahnle, 8 Phillips St, Nassau,NY,12123,
000965, Charles, Krueger, Great Lakes Fishery Comm, 2100 Commonwealth Blvd Ste 209, An n Arbor, MI, 48105,
000999, Phyllis,Cahn, Dept Biol Brooklyn Coll CUNY, 2900 Bedford Ave, Brooklyn,NY,112 10-2889,
001111, Joseph, Buttner, Dept Bio 352 Lafayette, Salem State College, Salem, MA, 01970,
001420, Alan, Wells, Lawler Matusky \& Skelly,One Blue Hill Plaza, Pearl River, NY,1096 5 ,
001548, Robert, O'Gorman, USGS 17 Lake St,, Oswego, NY,13126,
001778, J., Allen, RR 1 Box 9, ,Roxbury,NY, 12474-9779,
001866, Louis, Garibaldi, NY Aquarium, Boardwalk @ W 8th, Brooklyn, NY, 11224,
002229, James, At, 106 Bayview Ave, , Port Washington, NY, 11050,
002232, Dale, Bath, PO Box 104, ,Lake Placid,NY,12946,
002241, Philip, Briggs, 62 Johnson Ave, Sayville, NY, 11782-1202,
002271, Ronald, Engel, Dept Zool St Univ Coll, Oswego,NY, 13126,
002272, William, Eustance, PO Box 42, Circleville, NY,10919,
002293, David, Green, PO Box 1865, ,Richfield Springs,NY,13439-1865,
002301, John, Hasse, 207 Genesee St, Utica, NY, 13501,
002320, Walter, Keller, 6 Lake St,, Stamford,NY,12167,
002321,H.,Ketola,Tunison Lab, 3075 Gracie Rd, Cortland,NY,13045,
002327, Robert, Kurtz, 27 Smith St, ,Valley Stream, NY, 11580,
002329, Robert, Lance, 50 Wolf Rd, Albany, NY, 12233-4753,
002342, James, McLaren, Beak Consultants Inc, 140 Rotech DR, Lancaster, NY, 14086-9706,
002343, Gerald, Mikol,NY Dept Environ Conserv, 270 Michigan AVE, Buffalo,NY,14203,
002348, Paul, Neth, 160 Juniper Dr, ,Ballston Spa,NY,12020,
002362, Martin, Pfeiffer, Box 141, ,Bloomingdale, NY, 12913,
002371, Joseph, Rachlin, Dept Biol Sci Lehman College, 250 Bedford Park Blvd W, Bronx, NY, 10468-1589,
002391,J. Douglas, Sheppard,3 Birchwood Dr, Clifton Park,NY,12065-4816,
002393, Lawrence, Skinner, 40 Edwards Rd, Wynantskill,NY,12198,
002394,C., Smith, 6827 Rosewood Dr, Colorado Springs, CO, 80918,
002413, Carl, Vans, 22806 Fralick Rd, Watertown, NY, 13601,
002420, Robert, Werner, 2130 Lakeview Ln, , Skaneateles, NY, 13152,
002421, Carl, Widmer, 6772 Italy Valley Rd, Naples, NY, 14512,
003228, Donald,Stewart,SUNY-Coll Envir Sci \& For, 1 Forestry Dr, Syracuse, NY, 13210,
004013, Philip,Hulbert, RD 1 Box 622, E Meridith, NY,13757,
0045277 , Waned, Lawal, 2930 West 30 th St Apt 6C1, , Brooklyn, NY, 11224,
0046680 , Shannon, Stimpson, 529 Wading River Rd, ,Manorville, NY,11959,
0046902 , Brooke, Jordan, Cuba Rushford Ctr School, 5476 Rte 305, Cuba, NY, 14727,
0047155 , Sandra, Dumais, PO Box 3016,20 Ocean Ave, East Quogue, NY, 11942,
0047161,Ralph,Huddleston, Carpenter Environ Assoc Inc, 70 Hilltop Rd, Ramsey, NJ, 0744
6-1150,
0047308, Robert,Rosen, 33 s Service Rd, Jericho, NY,11753-7555,
0047313, Tamara, Smith, Fernow Hall, Cornell Univ, Ithaca, NY, 14853,
0047385 , Christine, Kurtzke,Gateway Nat Park/ Ft Wadsworth, 210 New York Ave, Staten
Island, NY, 10305,
0047400, David, Buys, BBL Inc, 6723 Towpath Rd, Syracuse, NY,13214,
0047499, Mark, Cornell, PO Box 671, Cobleskill, NY,12043,
004836, Dennis, Dunning, NY Power Authority, 123 Main St, White Plains,NY,10601,
0048382 , Michael, Gray, PO Box 201, ,Warnerville, NY, 12187,
004845, John, Grim, 1 Kerr Rd, ,Rhinebeck, NY,12572,

016614, J. Ellen, Marsden, School of Natural Resources, George D Aiken Ctr Univ VT, Bu rlington, VT, 05405-0088,
016638, Edward,Woltmann, 44 Summit Dr,,Averill Park,NY,12018,
016773, William, Banaszewski, Finger Lakes Comm College, 4355 Lake Shore Dr, Canandaig ua, NY, 14424,
218024 , Fred, Dieffenbach, 9056 Center Rd, Holland, NY, 14080,
018286, Kim, McKown, 16 Birchwood AVE, E Setauket, NY,11733,
018557, Walter, Zelie, Carpenters Brook, Fish Hatchery Rt 321, Elbridge, NY, 13060,
019228, Barry, Baldigo, 425 Jordan Rd, Troy,NY, 12180,
019716, Stephen, Hurst, 2143 Berne Altamont Rd, Altamont, NY, 12009,
019733, Emerson, Hasbrouck, 3059 Sound Ave, ,Riverhead, NY, 11901,
020218, Terry, Culp,TR Culp \& Assoc, PO Box 249, Stamford, NY,12167,
020654, Tommy, Brown, Cornell Univ, 122 Fernow Hall, Ithaca, NY,14853,
021132, Michael, Flaherty, 28 Autumn Knoll, New Paltz,Ny,12561,
021210, Lawrence, Miller, Ecological Servs-ME Field Office, 1033 South Main ST, Old To wn, ME, 04468,
021307, Patrick, Sullivan, Dept of Natural Resources, 214 Fernow Hall, Ithaca, NY, 14853 -3001,
023037,Tom, Lake, 7 Steinhaus Ln, ,Wappinger Falls, NY,12590-3927,
023914, Karin, Limburg, Dept of Envir \& Forest Biol, SUNY - CESF, Syracuse, NY, 13210,
024856, Laurie, Landeau, 367 Asharoken Ave, ,Northport, NY,11768,
024883, Margaret, Murphy, SuNY Coll Env Sci \& For, Illick Hall I Forestry DR, Syracuse
, NY, 13210,
025107, David, Yozzo, Barry A Vittor \& Assoc, 271 Zena Rd, Kingston, NY,12401,
025127, David, Lemon, 11 Banks St, Cortland, NY, 13045-1103,
026136, Karl,Strause, 6749 S Westredge Ave Ste K \#133, Portage, MI, 49002,
026390 , Lars, Rudstam, Cornell Bio Field Sta, 900 Shackelton Point Rd, Bridgeport, NY, 1
3030-9750,
027123, Laurence, King, 18 Sharon St, , Sidney, NY, 13838,
027708, Carl, Safina, Natl Audubon Society, 306 S Bay Ave, Islip, NY,11751,
028791, Edward, Roseman, PO Box 195,,Niantic, CT, 06357,
029725, Laurie, Trotta, RR2, Box 709, Cobleskill, NY, 12043,
029885, Thomas, Hurst, Mar Sci Res Ctr, SUNY Stony Brook, Stony Brook, NY, 11794-5000,
030573, Leslie, Surprenant, PO Box 10, , Palenville, NY,12463,
031320, Anthony, Dilernia, 58-23 196 Pl, Fresh Meadows, NY, 11365,
032069, Thomas, Baudanza, PO Box 370, , Shokan,NY, 12481,
032124, Jeffrey, Clock, Central Hudson Gas \& Electric Co, 284 South Ave, Poughkeepsie, NY,12601,
032295, Bernard, Pientka, Ill Nat Hist Survey, 400 17th St, Zion, IL, 60099,
032851,Richard, Ruby, 3053 1/2 Henneberry Rd, Jamesville, NY,13078,
033185, Richard, McDonald, 886 Caldwell Hill Rd, Lisle, NY, 13797-1603,
033374, Mark, Arrigo,500 W Genesee St Apt 148, , Chittenango, NY, 13037,
033440,William, Dey,Applied Sci Associates, 51 Old State Rd, Wappingers Falls,NY, 125 90,
033548, Randal, Snyder, SUNY Coll of Buffalo, Biol Dept 1300 Elmwood Ave, Buffalo,NY,1 4222.

033752,Alexander,Flecker, Dept of Ecology \& Evolutionary, Corson Hall Cornell Unive rsity,Ithaca, NY,14853,
034049,Helena, Andreyko,99 Bank St \#3M, New York, NY, 10014,
035094, Leo, Demong, RR 1 Box 199, ,Vermontville, NY,12989,
036126, Mary, Thiesing, 727 Forest Glen Rd, Monroe, NY, 10950,
036144, Michael, Goehle, 8 Byron Ave Apt \#1, Kenmore, NY,14223,
036427, Robert, Klumb, Cornell Biol Fish Sta,900 Shackelton Point Rd, Bridgeport, NY, 1 3030,
036685, Michael, Martin, PO Box 407, 207 Broadway,Saranac Lake, NY, 12983,
037263, Keith, Holley, 17 Woodward Pkwy, , Farmingdale, NY, 11735,
037539, Timothy, Strakosh, 2 Howard Ave, ,Bloomfield, NY,14469,
037563, Adam, Zerrenner, 502 Jeanne Mance Hall, Univ VT Pearl St, Burlington,VT, 05401,
037626, Douglas, Peterson, Dept of Biology CMU, ,Mt Pleasant,MI, 48859,

038219, John, Farrell, 253 Illick Hall SUNY ESF, 1 Forestry Dr,Syracuse, NY,13210, 038326, Owen, Baird, Minnesota DNR, PO Box 86,Waterville, MN, 56096, 038328, Peter, VanDusen, 740 DOW Biol Sci Michigan Tech, ,Houghton, MI, 49931, 038600, Paul, Muessig, 20 Campfire RD, Wallkill, NY,12589,
039038, Nathan, Smith, DNR Fernow Hall, Cornell Univ, Ithaca, NY, 14853, 039180, Robert, Roth, PO Box 181, ,Sheridan, NY,14135,
039370, Anthony, VanDeValk, 900 Shackelton Point Rd, ,Bridgeport, NY,13030,
039802, Susan, Metzger, Lawler Matusky \& Skelly, One Blue Hill Plaza, Pearl River, NY, 1 0965,
039984,John, O'Connor,221 Decker Rd,,Ancram,NY,12502,
040025, Thomas, Hughes, NYS Dept Environ Conservation, Region 1 Bur Fish SUNY Bldg 40 , Stony Brook, NY,11790-2356,
040255, Peter, Brown, 83 Woodbury, ,Amherst, NY,14226,
040409, Ryan, Brown, 61 1/2 George St, , Burlington, VT, 05401,
040719, Michael, Sowinski, 115 Griffith St, Sloan, NY, 14212,
040900, Heather, Barker-Baird, 405 Hoosac St E, Waterville, MN, 56096,
040907, James, Beemer, 20 Roxanne Blvd,,Highland,NY,12528,
041028, Susan, Allen-Gil, Biology Dept Ithaca College, Ithaca, NY, 14850,
041030, Marci, Meixler, 208 Fernow Hall Cornell Univ, Dept of Natural Resources, Ithac a, NY, 14850,
041238, Cathy, Drew, The River Project, Pier 26 North River, New York, NY,10013, 041406, Matt, Nemeth, 4175 Tudor Center Dr \# 202, Anchorage, AK, 99508,
041437, John, Clark, Northeast Aquatics, PO Box 575, Rhinebeck, NY, 12572,
041541, Keith, Koupal, Cornell Univ, Fernow Hall,Ithaca, NY,14853,
041704, Patricia, Thompson,1 Forestry Dr, 243 Illick Hall,Syracuse, NY,13210,
043280, Scott, Davis, 2155 Sawkill-Ruby Rd,,Kingston, NY,12401,
044888, David, Warner, 2133 Mecklenburg Rd Apt 2,,Ithaca, NY,14850,

Subj: RE: Recent NYCAFS memberships
Date: 1/15/2001 3:12:29 PM Eastern Standard Time
1 :: jdavis @fisheries.org (Jenelle Davis)
Reply-to: jdavis @fisheries.org
To: IALansing@aol.com
CC: Ihutchcroft @fisheries. org
File: NY_2000del.txt (13455 bytes)
DL Time (45333 bps): < 1 minute

Jenelle Davis
Database Administrator
American Fisheries Society
5410 Grosvenor Lane, Suite 110
Bethesda, MD 20814
phone: (301) 897-8616 ext 204
fax: (301) 897-8096
jdavis @fisheries.org <mailto:jdavis @fisheries.org>

-----Original Message-----
From: Laura Hutchcroft [mailto:Ihutchcroft @fisheries.org]
Sent: Monday, January 15, 2001 11:18 AM
Tr- idavis@fisheries.org
: ect: RE: Recent NYCAFS memberships
just all contact info for people who did not renew for 2001
as an ascii text file
can you also tell him that membership is only up to Dec 14, 2000.
thanks
------Original Message-----
From: Jenelle Davis [mailto:jdavis @fisheries.org]
Sent: Monday, January 15, 2001 11:08 AM
To: Ihutchcroft @ fisheries.org
Subject: RE: Recent NYCAFS memberships

Laura,
I can retrieve the list what do they need...just addresses or a count?
John Homa, Jr.,
Attached is the New York Chapter members who have not renewed for 2001. If you have any questions please email again.


Jenelle Davis
Database Administrator
f jican Fisheries Society
5. Grosvenor Lane, Suite 110

Bethesda, MD 20814
phone: (301) 897-8616 ext 204
fax: (301) 897-8096
jdavis @fisheries.org <mailto:jdavis ©fisheries.org>

Laura:

I looked at the file you provided, it looks like a list of NYC members who have paid for 2001! Is this correct?

My requests were specific to memberships for the year 2000. Can this information be provided?

Thanks
John H.

New York Chapter, American Fisheries Society
John Homa, Jr,, Sec/Treas
c/o Ichthyological Associates, Inc.
50 Ludlowville Rd., Lansing, NY 14882
voice 607.533.8801 fax 607.533.8804

Return-Path: <jdavis @fisheries.org>
Received: from rly-xa02.mx.aol.com (rly-xa02.mail.aol.com [172.20.105.71]) by air-xa02.mail.aol.com (v77.31) with ESMTP; Mon, 15 Jan 2001 15:12:29-0500
Received: from fisheries.org (host.fisheries.org [207.233.213.195]) by rly-xa02.mx.aol.com (v77.27) with ESMTP; Mon, 15 Jan 2001 15:11:56-0500
Received: from tmilburn [192.168.0.36] by fisheries.org [207.233.213.195]
with SMTP (MDaemon.13.1.2.R)
for <IALansing @aol.com>; Mon, 15 Jan 2001 15:04:14-0500
Reply-To: [jdavis@fisheries.org](mailto:jdavis@fisheries.org)
From: "Jenelle Davis" [jdavis@fisheries.org](mailto:jdavis@fisheries.org)
To: [IALansing@aol.com](mailto:IALansing@aol.com)
Cc: [lhutchcroft@fisheries.org](mailto:lhutchcroft@fisheries.org)
Subject: RE: Recent NYCAFS memberships
Date: Mon, 15 Jan 2001 15:08:56-0500
Message-ID: <NEBBKFKCFOEDGFBECNLNEEBLCBAA.jdavis @fisheries.org>
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In-Reply-To: <007b01c07f0e\$b8e8ad20\$3200a8c0@Wingate>
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$\lambda . .$. Rept-To: Ihutchcroft @fisheries.org
X-MDRemotelP: 192.168.0.36
X-Return-Path: jdavis@fisheries.org
X-MDaemon-Deliver-To: IALansing@aol.com

# NEW YORK CHAPTER AMERICAN FISHERIES SOCIETY <br> EXCOM MEETING, ESF, SYRACUSE, NY <br> AUGUST 29, 2001 

Attendees. Don Stewart, Allen Peterson, John Farrell, Karin Limburg, Dick McDonald, David Bryson, Web Pearsall, Patty Thompson, Randy Vaas, John Homa.

Minutes. J. Homa. Minutes from the last EXCOM Meeting held on May 24, 2001 at ESF were reviewed and revised. A motion was made, and seconded to accept the minutes as revised.

Treasure's Report. J. Homa indicated that he had not finalized the second quarter report.
New Business. A. Peterson indicated an interest in discussing Membership Benefits.
President's Report. J. Farrell reported that M. Murphy attended the Parent Society meeting in Phoenix. The Chapter will pick up some of her travel costs. The 2002 meeting will be in Baltimore, August 18-22.

## COMMITTEE REPORTS:

Program 2002. Local Arrangements: Web Pearsall reported that the walk through visit on May 24 when went well and that the Canandaigua Inn, in Canandaigua, NY would be acceptable for the Chapter's annual meeting. He will finalize arrangements for the January 23, 24, and 252002 meeting. Based on an expected attendance of 80 , The cost of the meeting is expected to be $\$ 90$ non-members, $\$ 75$ members, and $\$ 30$ students. Student members may attend for free if they work or give a presentation. Best Student Paper will receive $\$ 100$ at the meeting. Best Student Poster $\$ 50.00$.

Program: Patty Thompson Margaret Murphy. The program theme will be Lotic Ecology - Where Are We Flowing? Several speakers have agreed to give presentations. The initial call for papers will be included in the summer newsletter.

Raffle: D. Bryson will contact various vendors for raffle items. Web indicated he would contact wineries in the vicinity of Canandaigua.

Environmental Concerns. R. Vaas/D. Bryson. Folloy/ng several issues including: recent concerns in the Province of Ontario for heavy metals and radio activeh in Lake Ontario; the clean up of the St. Lawrence in the vicinity of Massena; progress on dredging of PCB's in Hudson; potential enlargement of the St Lawrence Seaway to accommodate 50 foot draft and winter navigation; and CFAB (Conservation Fund Advisory Board) items.

Resolutions. B. Gordon, not present. A potential resolution to address PCB dredging on the Hudson was briefly discussed.

Nominating. Don Stewart and Allen Peterson. Will have names for President elect at the next EXCOM meeting.

Membership. D. Bryson. Looking to involve other interest groups (such as TU, NYRU, et al) and will try to emphasize importance of membership at various internal meetings.

Newsletter. Dan Josephson not present, but summer Newsletter is nearly ready for distribution. Many members desire geetren communications


Professional Incentives. Web Pearsall. Continues to work on Theodore Roosevelt Conservation Award.
J. Homa will obtain a second plaque to have on hand.

Workshop 2001. Karin Limburg. Over 90 individuals attended the very successful May 21-23 conference Analysis, Interpretation, and Applications of Fish Otoliths, and Other Hard Parts: The State-of-the-Art. All but one of the invited speakers presented. It is unlikely funds will be needed from the Chapter for this conference.

Professional Diversity. Karin Limburg, nothing significant to report, most of her effort was spent on the otolith conference.

Student Affairs. Margaret Murphy, not present. Made several contacts with student at the National Meeting.

Youth Education. Keith Koupal, not present SAR年activities continue to be successful, he is recruiting individuals who can act as instructors in the program.

Native Affairs. Dick McDonald. Continues to work with Nations, Onondaga Nation trying to secure funding for and Environmental Office.

Web Site. Patty Thompson indicated she has begun to assemble Chapter materials on the NED site. EXCOM Members should send a photo and brief resume to be posted. The page can be reached at: http://www.fisheries.org/ned/chapters/newyork/index.html

New Business. After considerable discussion about potential membership benefits, A. Peterson indicated he would work on an "Ad Hoc Committee" to look at Membership Benefits and come back to EXCOM with recommendations.

Next Meeting. The next EXCOM meeting was scheduled for 10:00 AM, November 14, 2001 at ESF.
JH2001/md/NYCAFS2001/min_excom082901a.doc

# Agenda <br> New York Chapter of the American Fisheries Society Executive Committee Meeting November 14, 2001 

Call to Order


Minutes from last meeting
Treasurer's Report
New Business
President's Report
Committee Reports:
Annual Meeting Program
Local arrangements
Environmental Concerns/Resolutions
Nomimating
Membership
Newsletter
Professional Incentives
Workshop
Professional Diversity
Student Affairs
Youth Education
Native American Affairs
New Business
Next meeting

[^2]- E Jher, Bryion, Hooper- 160



## Subj: American Fisheries Society Book Sale! <br> Date: 11/6/2001 1:06:03-PM Eastern Standard Time <br> Fram: fisheries @fisheries.org (American Fisheries Society) lsheries @fisheries.org

Hello AFS Members:
Need a good read for the holidays?
Check out the AFS Book Sale starting today at www.fisheries.org!
Selected titles are on sale for only $\$ 10.00$. Sale starts today and goes through January 1, 2002. So, hurry and save on selected AFS titles!
------------------------ Headers
Return-Path: <fisheries @ fisheries.org>
Received: from rly-yb05.mx.aol.com (rly-yb05.mail.aol.com [172.18.146.5]) by air-yb05.mail.aol.com (v82.22) with ESMTP id MAILINYB54-1106130603; Tue, 06 Nov 2001 13:06:03-0500
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X-Sender: fisheries @ wingate

- ` iler: Windows Eudora Pro Version 2.2 (32)
l. .e-Version: 1.0

Content-Type: text/plain; charset="us-ascii"
Date: Tue, 06 Nov 2001 09:57:23-0500
To: fisheries @fisheries.org
From: American Fisheries Society [fisheries@fisheries.org](mailto:fisheries@fisheries.org) Subject: American Fisheries Society Book Sale!
X-MDRemoteIP: 192.168.0.30
X-Return-Path: fisheries@fisheries.org

Subj: Re: Upcoming EXCOM meeting
Date: 11/8/2001 8:11:32 AM Eastern Standard Time

I don't have any bylaws either. We can ask next week if anyone knows.

Allen Peterson<br>NYSEG<br>ampeterson@nyseg.com<br>607-762-7072 phone<br>607-762-8457 fax

|ALansing@aol
To: Allen Peterson@NYSEG cc:
11/07/2001
Subject: Re: Upcoming EXCOM meeting
04:36 PM

Allen:
Bual membership type and fee.

I can't locate a copy of the bylaws at my desk. I didn't see anything in the
officer's handbook, but I think the bylaws cover membership type such as full, honorary and student.

John H.

[^3]
## Subj: Re: Upcoming EXCOM meeting

## Date: 11/7/2001 1:31:38 PM Eastern Standard Time

## Frmm: Dave_Bryson@fws.gov

mfarrel@mailbox.syr.edu (John M. Farrell)
CC: ampeterson@nyseg.com, dcj3@cornell.edu (Daniel Josephson), dick_mcdonald@usgs.gov, djstewar@mailbox.syr.edu, fishchef@localnet.com, IALansing@aol.com, jmfarrel@mailbox.syr.edu, kdk23@cornell.edu, KLimburg@esf.edu (Karin Limburg), nawpap@tweny.rr.com (Randy Voss), pfthom01@mailbox.syr.edu (Larval Phish), wepearsa@gw.dec.state.ny.us (Web Pearsall), whgordon@gw.dec.state.ny.us (Bill Gordon)

I would like to send out our winter newsletter with an invitation to join (or re-join) the chapter to individuals who are not members. This may encourage additional participation at our sponsored events (such as the annual meeting and other workshops) and may add new blood to the chapter. Prior to the upcoming EXCOM meeting, please think about those who might be encouraged to join the chapter and bring their name(s), address(es) and phone number(s) to the meeting.

Some persons who might be encouraged to join could be from other nongovernmental organizations involved in conservation work (e.g. trout unlimited, the Nature Conservancy, Isaac Walton League, etc.)

Thanks for your assistance.
Dave Bryson
(607) 753-9334
.-
Return-Path: [Dave_Bryson@fws.gov](mailto:Dave_Bryson@fws.gov)
Received: from rly-yg03.mx.aol.com (rly-yg03.mail.aol.com [172.18.147.3]) by air-yg03.mail.aol.com (v82.22) with ESMTP id MAILINYG39-1107133138; Wed, 07 Nov 2001 13:31:38-0500
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Subject: Re: Upcoming EXCOM meeting
To: "John M. Farrell" [jmfarrel@mailbox.syr.edu](mailto:jmfarrel@mailbox.syr.edu)
Cc: ampeterson@nyseg.com, "Daniel Josephson" [dcj3@cornell.edu](mailto:dcj3@cornell.edu), dick_mcdonald@usgs.gov, djstewar@mailbox.syr.edu, fishchef@localnet.com, IALansing@aol.com, jmfarrel@mailbox.syr.edu, kdk23@cornell.edu, "Karin Limburg" [KLimburg@esf.edu](mailto:KLimburg@esf.edu), "Randy Voss" [nawpap@tweny.rr.com](mailto:nawpap@tweny.rr.com), "Larval Phish" <pthom01 @mailbox.syr.edu>, "Web Pearsall" [wepearsa@gw.dec.state.ny.us](mailto:wepearsa@gw.dec.state.ny.us),
"Bill Gordon" <whgordon@ gw.dec.state.ny.us>
X-Mailer: Lotus Notes Release 5.0.7 March 21, 2001
Message-ID: <OF2ED694E7.06185F26-ON85256AFD.0064FE34@irm.r9.fws.govs
From: Dave_Bryson@tws.gov
Date: Wed, 7 Nov 2001 13:28:47-0500
X-MIMETrack: Serialize by Router on FWOHUB1/FWS/DOI(Release 5.0.8 IJune 18, 2001) at 11/07/2001
11:33:22 AM
MIME-Version: 1.0
Content-type: text/plain; charset=us-ascii

## 2002 AFS Meeting - Recipe for Success

 Baltimore Style
## Ingredients:

*Baltimore City and Inner Harbor


*Chesapeake Bay<br>*Wide range of fisheries presentations; Papers, Posters, and Symposia<br>*Continuing education workshops<br>*World class plenary session speakers<br>*National Aquarium Social<br>*Spawning Run<br>*Opening Social, Trade show, and Raffle *Student Social and Job Fair<br>*Old Bay Seasoning (Maryland tradition!)

## Directions:

Combine ingredients together from August 18-22, 2002. Cook at $90^{\circ} \mathrm{F}$ during daytime, $70^{\circ} \mathrm{F}$ nighttime. Insure that all events are within walking distance of headquarters' 'jotels and Convention Center. Stir in a dash of: student volunteers, dedicated fisheries professionals, Maryland DNR and AFS headquarters employees, AFS Tidewater and Potomac Chapter assistance, generous sponsors, and some Old Bay seasoning! Add liquid refreshments to taste, local breweries and wineries recommended.

## Serves:

1,200+ fisheries professionals, students, industry representatives, and family members.

## Dessert:

Baltimore's Inner Harbor, family and friend oriented dish, easily prepared. Includes within walking distance: Maryland Science Center and IMAX theater, ESPN Zone Sports Bar, Port Discovery (for kids), diverse dining with lots of seafood restaurants, theme shops, Camden Yards Stadium (Baltimore Orioles major league baseball), tour and paddle boats, Pride of Baltimore II tall sailing ship, live music and entertainment, Maritime
Museum, charter boat fishing and much more! Also available for those with more adventuresome appetites and willing to travel (within a 1 hour drive): The Nation's Capital, Fort McHenry National Park, Baltimore Zoo, Bass Pro Shops newest megastore, U.S. Naval Academy, Historic downtown Annapolis, Sandy Point State Park, and much more!

From fishchef@localnet.com Thu Aug 16 20:05:05 2001
Date: Wed, 18 Jul 2001 21:44:54 -0400
From: Patrick \& Margaret Murphy [fishchef@localnet.com](mailto:fishchef@localnet.com)
Subject: NYCAFS 2002 Meeting
To: jmfarrel@mailbox.syr.edu, pfthom01@mailbox.syr.edu
F Patty and John-
.are is tentative topics and speakers for the meeting. Please let me know what you think and if you have any other ideas. I'm out in the field July B-Aug 3 - would like to get topics together for the newsletter (Aug 20 .deadline).

Lotic Ecology

1. Inverts/stable isotopes/food webs

Tim Mihuc
any others?
2. Wood in streams

Cliff Kraft
3. Water quality in urban streams

Margaret Palmer (MD)
4. Landscape ecol and stream ecosys. function Margaret Palmer
5. River Ice dynamics
still need a person for this
6. NYS Rivers - Case Studies

St. Lawrence
S. LaPan, J. Farrell
K. Limburg; J. Cronin

Hudson

Others?
7. Fish and food webs of large rivers That's all for now. Please get back to me within the next couple weeks. I'd like to make preliminary calls to people so we can start planning. Thanks.
Margaret





Subj: NYAFS Excom meeting
Date: 8/15/2001 1:32:57 PM Eastern Daylight Time
F n: jmfarrel @ mailbox.syr.edu (John M. Farrell)
.ishchef@localnet.com, ampeterson@nyseg.com, IALansing@aol.com, dave_bryson@fws.gov, djstewar@mailbox.syr.edu, pthom01@mailbox.syr.edu, jmfarrel@mailbox.syr.edu, wepearsa@gw.dec.state.ny.us, dcj3@cornell.edu, SalarMcD@aol.com, klimburg@esf.edu, kdk23@cornell.edu, whgordon@gw.dec.state.ny.us (Bill Gordon), nawpap@tweny.rr.com

File: Agenda.doc (21504 bytes)
DL Time (45333 bps): < 1 minute
Dear Excom:
A reminder that our next EXCOM meeting will be held at SUNY-ESF at 10:00 am on August 29th in llick Hall room 8 (same as last time I'll bring the donuts). Please review the attached agenda and contact me with any additions/changes you may have. Margaret Murphy will be attending the AFS Annual Meeting in Phoenix, AZ in my absence and will report to us about the event. I look forward to seeing all of you.

Sincerely,
John M. Farrell
President, NY Chapter AFS

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<DIV>Sincerely,</DIV>
<DIV>&nbsp;</DIV>
<DIV>John M. Farrell</DIV>
<DIV>President, NY Chapter AFS</DIV>
<DIV>&nbsp;</DIV>
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Return-Path: [jmfarrel@mailbox.syr.edu](mailto:jmfarrel@mailbox.syr.edu)
Received: from rly-ye05.mx.aol.com (rly-ye05.mail.aol.com [172.18.151.202]) by air-ye05.mail.aol.com (v79.27) with ESMTP id
MAILINYE55-0815133257; Wed, 15 Aug 2001 13:32:57 2000
Received: from syr.edu (syr.edu [128.230.1.49]) by rly-ye05.mx.aol.com (v79.20) with ESMTP id MAILRELAYINYE58-
0815133230; Wed, 15 Aug 2001 13:32:30-0400
P-nsived: from musky (musky.esf.edu [149.119.5.198])
by syr.edu (8.9.3/8.9.3) with SMTP id NAA01362;
Wed, 15 Aug 2001 13:31:37-0400 (EDT)
Message-ID: <003e01c125b1\$7b93afc0\$c6057795@esf.edu>
From: "John M. Farrell" [jmfarrel@mailbox.syr.edu](mailto:jmfarrel@mailbox.syr.edu)

# Agenda New York Chapter of the American Fisheries Society Executive Committee Meeting August 29, 2001 

Executive Committee:<br>President, John Farrell<br>Past President, Don Stewart<br>President-elect, Dave Bryson<br>Secretary-Treasurer, John Homa<br>Newsletter Editor, Dan Josephson<br>Student Sub-Unit, Margaret Murphy<br>Professional incentives, Web Pearsall<br>Resolutions/Environmental Concerns, Dave Bryson<br>Native American Affairs, Dick McDonald<br>Professional Diversity, Karin Limburg<br>Youth Aquatic Education, Keith Koupal<br>Workshop, Karin Limburg<br>Nominating, Don Stewart and Allen Peterson<br>Annual Meeting, Margaret Murphy, Web Pearsall, and Patty Thompson

Call to Order

Minutes from last meeting
Treasurer's Report
New Business

President's Report
Committee Reports
Program- Margaret Murphy, Patty Thompson
Local arrangements - Web Pearsall
Environmental Concerns/Resolutions - Randy Vaas, Dave Bryson

Nomimating- Don Stewart, Allen Peterson

Membership- Bill Gordon
Newsletter- Dan Josephson
Professional Incentives- Web Pearsall

Workshop- Karin Limburg
Professional Diversity- Karin Limburg
Student Affairs- Margaret Murphy
Youth Education- Keith Koupal
Native American Affairs- Dick McDonald

New Business-
Next meeting-

Subj: AFS Meeting projections
Date: 8/26/2001 5:45:50 PM Eastern Daylight Time
F- $\boldsymbol{\eta}$ : web6@flare.net (Heidi or Web Pearsall)
alansing@aol.com
CC: wepearsa@gw.dec.state.ny.us (Web Pearsall)
File: 2002afsmeeting.xls (20992 bytes)
DL Time (45333 bps): < 1 minute
John:
I am sorry this took so long, but I got caught up in safety training last week. Attached you will find my projections. I feel we should keep the cost the same as last year with the exception for nonmembers ( 75.00 members, 90.00 non-members, 30.00 students).
I have assumed 80 people attending. Of those 53 will be members, 6 non-members, 12 students. We will subsidize 9 people ( 4 invited speakers and 5 working student).

My two earning projections are listed under "projected 2002".
My costs projections are listed under "projected 2002 costs". The difference between the two cost estimates is a per diem charge for invited speakers from $\$ 200.00$ to $\$ 0.00$. Under both cost scenarios I have included an $\$ 80.00$ printing and mailings cost.

Another big expense that was not utilized fully last year was the Continental Breakfast. It was offered but very few people took advantage of it. If we omit this we could save another $\$ 999.98$

Please review and let me know what you think - I will be in all day Monday (716-226-5339).

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- jks
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<HEAD>
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<META content="MSHTML 5.50.4611.1300" name=GENERATOR>
<STYLE></STYLE>
</HEAD>
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<DIV>&nbsp;</DIV>
<DIV>Thanks</DIV>
<DIV>&nbsp;</DIV>
<DIV>Web</DIV>
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| Item | unit/cost | Units | sub-total | Total cost | Cost/person** | Units | Total cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| soda | \$1.25 | 75 | \$93.75 | \$118.37 | \$1.67 | 75 | 118.37 |
| snacks | \$5.95 | 6 | \$35.70 | \$45.07 | \$0.63 | 6 | 45.07 |
| cookies | \$9.00 | 14 | \$126.00 | \$159.09 | \$2.24 | 14 | 159.09 |
| lunch | \$9.95 | 80 | \$796.00 | \$1,005.03 | \$14.16 | 80 | 1,005.03 |
| dinner | \$15.95 | 80 | \$1,276.00 | \$1,611.08 | \$22.69 | 80 | 1,611.08 |
| breakfast (Th.) | \$4.95 | 80 | \$396.00 | \$499.99 | \$7.04 | 80 | 499.99 |
| breakfast (F.) | \$4.95 | 80 | \$396.00 | \$499.99 | \$7.04 | 80 | 499.99 |
| PM break | \$1.50 | 80 | \$120.00 | \$151.51 | \$2.13 | 80 | 151.51 |
| AM Break | \$1.95 | 80 | \$156.00 | \$196.97 | \$2.77 | 80 | 196.97 |
| 1/2keg | \$150.00 | 1 | \$150.00 | \$189.39 | \$2.67 | 1 | 189.39 |
| rooms (invited speakers) | \$55.00 | 4 | \$220.00 | \$235.40 | \$3.32 | 4 | 235.40 |
| Travel (invited speakers) | \$200.00 | 4 | \$800.00 | \$856.00 | \$12.06 | 4 | 0.00 |
| Printing and mailings | \$80.00 | 1 | \$80.00 | \$80.00 | \$1.13 | 1 | 80.00 |
| Totals |  |  |  | \$5,647.89 | \$79.55 |  | 4,791.89 |

[^4]Cost/person**
1.67
0.63
2.24
14.16
22.69 7.04 7.04 2.13 2.77 2.67
3.32
0.00
1.13 67.49

| Registration | Units | Rate |  |
| :--- | ---: | ---: | ---: |
| Total |  |  |  |
| Member | 44 | 75 | 3300 |
| Non-member | 6 | 85 | 510 |
| Invited Speakers | 3 | 0 | 0 |
| Student | 10 | 30 | 300 |
| non-student | 2 | 30 | 60 |
| Student worker | 5 | 0 | 0 |
|  |  |  |  |
| Total |  |  | 4170 |


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# NEW YORK CHAPTER AMERICAN FISHERIES SOCIETY EXCOM MEETING, ESF, SYRACUSE, NY MAY 3, 2001 

Attendees. Don Stewart, Allen Peterson, John Farrell, Dick McDonald, David Bryson, Web Pearsall, Keith Koupal, Patty Thompson, Margaret Murphy, Bill Gordon, John Homa.

Minutes. J. Homa. Minutes from the last EXCOM Meeting held on January 18, 2001 at Treadway, Owego, NY were reviewed and revised. A motion was made, and seconded to accept the minutes as revised.

Minutes from the Chapter's Annual Meeting held on January 19, 2001 at Treadway, Owego, NY were reviewed and revised. A motion was made, and seconded to accept the minutes as revised. These minutes should be published in the next Newsletter.

Treasure's Report. J. Homa. Presented first quarter 2001 statement in draft form. He reported that there was a discrepancy of $\$ 5.00$ that he could not resolve before the meeting. He will continue to work to resolve the discrepancy.
Skinner Fund ha request for $\$ 100.00$ was received from the parent for the Skinner Fund. After discussion it was decided that the Chapter would purchase T-shirts from the NY Student Chapter and NYS Duck Stamps. These would be donated to be used in a raffle at the National Meeting with proceeds going to the Skinner Fund. Patty Thompson will coordinate between students and D. Stang.

## COMMITTEE REPORTS:

Program 2001. The 2001 annual meeting Large Scale Climate Variability Impacts Upon New York Fisheries, was fairly successful. The breakeven point was projected to be about 70 paying attendees. Attendance was in the high 60 's. J. Homa reported that the chapter lost between two to five hundred dollars depending on the exact allocation of expenses and credits for the meeting. J. Homa will work with Web to determine an appropriate budget for the 2002 Annual Meeting

Program 2002. Web Pearsall is looking into facilities for the 2002 annual meeting. Margaret Murphy will work on program. The Canandaigua Inn, in Canandaigua, NY appears to offer an attractive/competitive package. A walk through visit was scheduled for May 24. If the walk through is acceptable, Web will begin to finalize arrangement for the January 23, 24, and 25,2002 meeting.
(A)

Committee Volunteers. J,Homa indicated that some dozen individuals had indicated a desire to serve on committees. Most volunteers were students, Environmental Concerns had an overabundance (10 individuals) of volunteers. J. Farrell and A. Peterson indicated they would review and distribute names to appropriate committees.

Environmental Concerns. B. Gordon. R. Vaas was unable to attend due to recent health complications but Randy is willing to head up the Committee. D. Bryson will continue to work with the group. Names of volumteerswill be provided to

Resolutions. B. Gordon will work on committee with D. Bryson.
Nominating. Don Stewart and Allen Peterson. Will begin a search for President elect.
Membership. B. Gordon D. Bryson. Looking to involve other interest groups (such as TU, NYRU, et al).
Homa reported that the last Newsletter went out with an old mailing list. He is presently updating the membership list with a recent print out from the parent society.

Newsletter. Dan Josephson not present. March 31 Newsletter went out. Many members desire electronic communications. Need to resolve how this will work. Will acknowledge New Members. J. Home will provide Dan with an list of email addresses.

Professional Incentives. Web Pearsall. Would like to see the Chapter sponsor a new award for individuals/organizations who have made a significant contribution to aquatic resources in the state. Potential name for the award is the Theodore Roosevelt Conservation Award. However, Web will check to see if permission is needed to use Roosevelt? name.
J. Home will obtain a second plaque to have on hand.

Workshop 2001. Karin/Limburg. Not present, work continues on the Analysis, Interpretation, and Applications of Fish Otoliths, and Other Hard Parts: The State-of-the-Art, Conference scheduled for 24-23- Dune 2001 Mom ,2004, to be held at SUNY ESF.

Professional Diversity. Karin Limburg, not present
Student Affairs. Margaret Murphy. Contacts at Morrisville and Cobleskill did not respond to her inquiries.


Youth Education. Keith Koupal. SARUPActivities continue to be successful. Presently he is recruiting individuals who can act as instructors in the program.

Native Affairs. Dick MacDonald. Onondaga Nation trying to secure funding for and Environmental Office. Onondaga Nation also looking to stock streams.

Web Site. John Farrell/Patty Thompson indicated he has some leads through ESF on Web site development that he has recently tapped into. He asked EXCOM members to send a photo and brief bio for use on the Site. His budget wittincludes $\$ 500.00$ for site development.
n
New Business. None.
Next Meeting. The next EXCOM meeting was scheduled for 10:00 AM, August 29, 2001 at ESF.
JH2001/md/NYCAFS2001/min_excom050301a.doc

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NEW YORK CHAPTER - AMERICAN FISHERIES SOCIETY - 2001

John Homa, Jr. Sec/Treas. C/O Ichthyological Assoc Summary Treasurer's Report 50 Ludlowville Road, Lansing, NY 14882

Prepared May 3, 2001
Page 1
Balance as of January 01, 2001
qi $\$ 26,383.86$

| RECEIPTS <br> Beginning Balance (all acc \$26,383.86 \$0.00 \$0.00 \$0.00 |  |  |  |  |  |  |  |  |
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|  | 3/31/01 | 6/30/xx | 9/30/xx | 12/31/xx |  | YR TO-DATE |  | DGET |
| Membership Student Rebate | \$1,445.00 | \$0.00 | \$0.00 | \$0.00 | q | \$1,445.00 | \$ | 2,500.00 |
| 2001 Annual Meeting | \$4,030.00 |  |  |  | q1 | \$ 4,030.00 | \$ | 5,000.00 |
| Raffle | 346.00 | 0.00 | 0.00 | 0.00 | q | \$ 346.00 | \$ | 350.00 |
| 2001 Workshop | 0.00 | 0.00 | 0.00 | 0.00 | q 1 | \$ | \$ | 3,000.00 |
| Otolith Workshop | 0.00 | 0.00 | 0.00 | 0.00 | q 1 | \$ | \$ | 2,500.00 |
| Interest | 237.93 | 0.00 | 0.00 | 0.00 | qi | \$ 237.93 | \$ | 800.00 |
| Other | 0.00 | 0.00 | 0.00 | 0.00 | q1 | \$ | \$ |  |
| TOTAL RECEIPTS | \$6,058.93 | \$0.00 | \$0.00 | \$0.00 | q 1 | \$6,058.93 |  | 14,150.00 |



NYCAFS2001/TREASREPORT2001/quarterly

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#### Abstract

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[^0]:    Sponsored by:
    CORNELL COOPERATIVE EXTENSION
    Helping You Put Knowledge to Work

[^1]:    Return-Path: [ampeterson@nyseg.com](mailto:ampeterson@nyseg.com)
    Received: from rly-ye04.mx.aol.com (rly-ye04.mail.aol.com [172.18.151.201]) by air-ye01.mail.aol.com (v77.35) with ESMTP; Thu, 01 Feb 2001 09:40:19-0500
    Received: from lgoSmtp1.nyseg.com (mta.nyseg.com [199.98.200.7]) by rly-ye04.mx.aol.com (v77.27) with ESMTP; Thu, 01 Feb 2001 09:40:13-0500
    Subject: Re: Treadway bill ok

    - ALansing@aol.com

    X-wrailer: Lotus Notes Release 5.0.2c February 2, 2000
    Message-ID: [OF8E09468A.FBAB472B-ON852569E6.00502043@nyseg.com](mailto:OF8E09468A.FBAB472B-ON852569E6.00502043@nyseg.com)
    From: ampeterson@nyseg.com
    Date: Thu, 1 Feb 2001 09:40:10-0500

[^2]:    $\overline{\text { NYCAFS2001/TREASREPORT2001_3rd/quarterly }}$

[^3]:    --------------------- Headers
    Return-Path: [ampeterson@nyseg.com](mailto:ampeterson@nyseg.com)
    Received: from rly-yh01.mx.aol.com (rly-yh01.mail.aol.com [172.18.147.33]) by air-yh01.mail.aol.com (v82.22) with ESMTP id MAILINYH14-1108081132; Thu, 08 Nov 2001 08:11:32-0500
    Received: from mailbox1.appliedtheory.com (mailbox1.appliedtheory.com [204.168.16.14]) by rly-yh01.mx.aol.com (v82.22) with ESMTP id MAILRELAYINYH18-1108081108; Thu, 08 Nov 2001 08:11:08-0500
    Received: from IgoSmtp1.nyseg.com (mta.nyseg.com [199.98.200.7])
    by mailbox1.appliedtheory.com (8.11.1/8.11.1) with ESMTP id fA8DAav12478
    for [lALansing@aol.com](mailto:lALansing@aol.com); Thu, 8 Nov 2001 08:10:36-0500 (EST)
    Subject: Re: Upcoming EXCOM meeting
    To: IALansing@aol.com
    X. ${ }^{\text {4 }}$ ailer: Lotus Notes Release 5.0.6a January 17, 2001
    i bage-ID: <OF9B3C952E.65F717D9-ON85256AFE.0047690A @nyseg.com>
    From: ampeterson@nyseg.com
    Date: Thu, 8 Nov 2001 08:00:31-0500
    X-MIMETrack: Serialize by Router on IgoSmtp1/INTERNET(Release 5.0.6a IJanuary 17, 2001) at

[^4]:    * assume 125 letters mailed $=42.50$
    ** cost based on 71 paying participates

