



# Atlantic International Chapter NEWSLETTER

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## **President's Message**

Dear AIC members,

We are now full swing into summer and no doubt many of you are busily casting your nets upon the waters. I must confess that I am not one of those people. The truly observant will recall that I endured a "dry" AIC annual meeting in Quebec last year (the meeting with the most free beer in history). The result is that I am currently enjoying an extended time away from the office with my new son. Rather than wax philosophical, lets just say that being removed from the day to day business of fisheries management has both its "ups" and "downs."

On the "Up-side", I actually had the opportunity to read an entire copy of *Fisheries* (a first). I was particularly moved by the May 2004 "president's hook column" entitled "Should AFS Be More Active in Promoting Professional Safety." In the article, **which I encourage all of you to read**, AFS President Ira Adelman says that he was left "moved, concerned and feeling guilty" after attending the plenary session entitled "A Safety Perspective for Biologists" at the AFS Southern Division Meeting. He went on to say that although he is concerned for the safety of his students and employees, he had never done all he could to educate and protect them and that he even took his own personal safety "pretty lightly." No doubt there are many AIC-AFS members who can count themselves in this group. My hand is up. Beyond the obvious fact that we all work around water, which is inherently dangerous in itself, let's add boats, motors, trailers, nets, airplanes, helicopters, ice, SCUBA, electricity, night work, chemicals, etc. etc. etc. Safety is a really important issue that we need to force ourselves to work at – it is a responsibility to ourselves, our co-workers and our employees. Last year I wrote an information piece in this newsletter about a Swiftwater Safety Operations course offered here in NB. That course was an eye-opener for many of us who admittedly through the years have done some crazy stunts and just plain been lucky. In future, I suggest we all make a concerted effort to rely less on the luck aspect.

Following this, I would be interested in receiving suggestions for any Continuing Education (CE) courses or workshops for which members see a need. The expressed purpose of this Chapter is to "foster communication through total participation (workshop approach) and to exchange applied information and techniques..". So please feel free to e-mail your suggestions to me or any member of the ExCom. Perhaps we can set up a suggestion box on the website. Recently the Northeast Division (NED) changed the principal duties of its CE Committee from organizing courses at NED meetings to support for and facilitating Chapter CE efforts. This includes submitting paperwork for CE Units, keeping records of past courses offered and tracking course evaluations. There will also be increased networking among the Chapters for course availability, ideas, and information.

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I would like to take this opportunity to thank Past-President Larry Miller who represented the AIC at the NED Annual Meeting in Ocean City, Maryland in April. At that meeting Larry was also elected as First Vice-President of the NED. Thank you Larry – and Congratulations!

Conducting AFS business from home for the latter part of my term as AIC President has required some flexibility and creativity. I would sincerely like to thank Greg, Steve, Larry, John & Shawn for accommodating me through conference calls and delayed and re-directed e-mails. Everybody has been great to work with! I can't say enough about the work that John and Shawn do with the newsletter, website and e-mail messages. Absolutely top-notch work in what are probably the two most unenviable positions. I send them cryptic and "royal we" type messages ("maybe we should put this on the web..") and it happens. And how great is it that Shawn is able to provide some content in both French and English? A gesture that I am confident is appreciated by the membership. So thank you both for your hard work on these two important communication tools.

The votes for the new AIC logo have been cast and I would like to thank those of you who took the time to vote. The winning logo will be unveiled at the meeting in September.

Speaking of which, the 30th Annual Meeting is being held September 19-21st at the Lake Morey Resort in Fairlee, Vermont. The venue looks great and this year's theme has a lot of potential. There will be a few special surprises as well! However - **no meeting is successful without your participation!** The second call for papers is now out. Please contact V-P Greg Mackey if you are interested in presenting a paper. If you don't see a paper that interests you, please consider that maybe it's because *you* should be *giving* one!

As always, the Raffle Committee would be happy to receive any items that people may have available. Please contact Shawn Good re the availability of any "goods." (oh please let this be my year for the Bear Hat!!). Also, a reminder to those in the academic world that there are student bursaries available for the annual meeting. All we ask is that the student present a paper or poster at the meeting. Please enquire.

Please make your plans now to meet your AIC friends and colleagues in Vermont in September. Until then, happy fishing – stay safe.

## Nominations

If you are interested or know someone who would like to become more involved in the American Fisheries Society, specifically the Atlantic International Chapter – your Chapter - please consider running for office. You may submit a nomination to the Excom in advance of the Annual meeting or alternatively, be prepared to be nominated at the meeting in September. Give it some thought – the benefits are many (and the pay is fabulous!!).

Kathryn Collet

## Our Annual Chapter Meeting

The 30th Annual Meeting of the Atlantic International Chapter of the American Fisheries Society will be held at the Lake Morey Resort in Fairlee, VT on September 19–21, 2004. Please see the registration form at the end of this newsletter.

## Final Call for Papers!

“Axis of Evil?: Perceived and Real Issues Regarding Species Interactions”

NOTE: Posters will be accepted as well. Follow abstract guidelines below.

This is the final call for papers for our 30<sup>th</sup> Annual meeting of the AIC. Please consider submitting a paper for presentation at this special event. You may submit a paper under our theme:

“Axis of Evil?: Perceived and Real Issues Regarding Species Interactions” or, papers may be submitted for the Open Session, where submissions from the full spectrum of fisheries biology are welcome.

Papers will be considered on a first come, first serve basis, so submit yours early to insure a spot in the program. As always, your participation adds to quality of our meetings.

You are invited to submit abstracts for review on any topic related to species interactions, with an emphasis on Alosids. Species interactions range from predation to symbiosis. With increasing levels of invasive and non-native species, and fundamental shifts in fisheries management philosophy, species interactions have increasingly been moving to the forefront of fisheries biology. In addition, we will still hold our traditional Open Session, for which abstracts for any topic are invited.

**Preparing your abstract:** The abstract is a short descrip-

tion of your work and should contain all the elements necessary to define your aims and results to the reader, i.e., background, methods, results and conclusions. Prepare the abstract in MSWord (preferred) or WordPerfect.

**Format of abstracts:** The abstract, including the title through references cannot exceed ONE 8.5 x 11 inch page in length. Lines should be single-spaced and the text done in Times, plain text, font size 12. Each abstract should have the following elements laid out as follows.

**Title:** Clearly identify the contents of the abstract. Bold type all letters in the title and italicize scientific names. Leave a double space between the title and the authors' list.

**Authors:** Use the first initials and full last name of authors. Indicate the presenting author in bold type. All authors' names should be in upper and lower case letters (not all capitals). Leave a single space between the authors' list and affiliations.

**Affiliations:** All affiliations should follow the authors' names. Use only institution/agency and city, state address. Write affiliations in upper and lower case, and in italics. Use superscript numerals to link affiliations and authors. Leave a double space between the affiliation list and the body of the abstract.

**Abstract Text:** Write the text of the abstract in Times, plain text, font size 12, single-spaced. The text should contain no more than 300 words. Insert sub or superscripts, italics or other symbols as necessary. Leave a double space between the text and the reference list (if used).

**References (optional):** Write references in Times, plain text, font size 10, single-spaced. Abbreviate journal titles.

**Contact information:** At the bottom of the page separate from the abstract text, include Name, phone, fax, and email address of presenting author.

#### **Submitting your abstract**

Abstracts are to be submitted to the meeting coordinator before the **deadline of Friday, August 20**. Early abstract submissions will be given priority for presentation. Abstracts must be submitted electronically by the deadline. Fax copies will not be accepted. Send abstract to:

Program Chair  
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Don't forget to bring with you or submit in advance your photos for two of the most prestigious awards bestowed by the AIC – the Lunker and Soggy Boot Awards!! The Lunker Award is for a large or unusual fish of any sort. The Soggy Boot Award is for anything that can possibly be caught on those attractive fluorescent lures from the 1997 Coldwater Workshop meeting in Jay Peak, VT.

Please check the AIC website for meeting information including the schedule of events, symposia times and locations, poster and platform session information, and even a searchable database of the posters and presentations. Click on:

<http://www.fisheries.org/aic/>

## **Our Annual Parent Society Meeting**

The Gathering: Leopold's Legacy for Fisheries  
The American Fisheries Society (AFS) will convene its 134th Annual Meeting at the Frank Lloyd Wright-designed Monona Terrace in downtown Madison, Wisconsin, from August 22nd through August 26th, 2004.

The theme celebrates Wisconsin's name (which has been translated as "gathering of waters") and Wisconsin's celebrated ecologist Aldo Leopold. Best known for his "land ethic" and as a pioneering figure in wildlife management, Leopold defined land as "a community" that explicitly embraced fish and water. In his writings he encouraged others to see land as he did: as soils, waters, plants, and animals "all interlocking in one humming community of cooperations and competitions, one biota."

Your hosts invite you to gather with professionals, with colleagues, with old friends, and with new friends on the Isthmus next summer to learn how Leopold's legacy has influenced the conservation of our aquatic resources in the past and to plan how it may influence the future.

For more information: check <http://www.fisheries.org>.

### **Other meetings of interest**

Wild Trout VIII Symposium  
September 20-22, 2004  
Yellowstone National Park, Old Faithful Inn

Symposium Theme: "Working Together to Ensure the Future of Wild Trout:"

The first International Wild Trout Symposium was held in 1974 and symposia are now being held at 4-year intervals. The objectives of these symposia have focused on the conservation and restoration of wild trout resources. These symposia have sought to attract fishery professionals, natural resource conservationists, non-governmental conservation groups, and other individuals interested in wild trout.

See [WWW.WILDTROUT8.COM](http://WWW.WILDTROUT8.COM) for more details.

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### **Other AIC News**

**Many thanks** to those of you who have submitted articles and reviews. The newsletter is our primary outlet for sharing information with those members who cannot attend our annual meeting, so it is important to spread the word about projects happening in your region.

**As a reminder, I take submissions anytime throughout the year. You can contact me via e-mail:**

**[Jmagee@gomezandsullivan.com](mailto:Jmagee@gomezandsullivan.com)**  
**or by phone: (603) 529-4400**

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### **New AIC Logo – Shawn P. Good**

In recent years, there has been some discussion about updating the AIC logo. Members felt that it was out-of-date, but more importantly, it was recognized that Quebec was not represented in the "map" portion of our current logo. Consequently, during the 2001 AIC meeting in New Hampshire, Norm Dube, AIC President at the time, promised to address this issue in his term. In his President's message in the January 2002 AIC newsletter, Norm proposed a contest for AIC members to draw and submit new AIC logos, with a prize of one year's AFS membership being awarded to the winner.

Unfortunately, in the time that has passed, no entries were received. However, our newsletter editor, John Magee, happens to have a friend who is quite good with graphic design, and he was kind enough to provide a couple of

new AIC logos for us to consider (gratis). We would like to take a vote on the logos, and officially adopt a new one (assuming one of the batch is deemed suitable) at the upcoming meeting in Vermont, September 2004.

I am working on a page on the website where members can go and vote for their favourite logo ([www.fisheries.org/aic/logo.htm](http://www.fisheries.org/aic/logo.htm)), but I've been having difficulties administering the website through AFS lately, so the poll is not yet ready. In the meantime, the proposed logos are below for your consideration. If you feel like weighing in before the website is ready, just send me an e-mail ([shawn.good@anr.state.vt.us](mailto:shawn.good@anr.state.vt.us)), and I'll tally your vote.

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### ***AIC Bibliography***

The bibliography is now available on the chapter website. New submissions (citation only—please do not email the actual document to Gabe) should be sent to the AIC bibliography coordinator, Gabe Gries at [ggries@nhfgd.org](mailto:ggries@nhfgd.org). The citations will then be posted on the website in both pdf and text format.

Lots of AFS news can be found at:  
<http://www.fisheries.org/WhatsNew.shtml>

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### **Maine**

#### **Penobscot River Restoration Project Passes Major Milestone**

Parties to the Penobscot River Restoration Project signed the final agreement, the road map to restoring the Penobscot River's anadromous fisheries, and then filed the agreement with the Federal Energy Regulatory Commission. Read more at:  
<http://www.penobscotriver.org/index.html>.

#### **Facts About Alewife in Maine**

David Halliwell  
Maine Department of Environmental Protection

*Editor's note:* The following fact sheet was prepared for lake managers in Maine to specifically describe the difference between restoring anadromous alewife runs and the illegal introductions of non-native landlocked alewife.

Fact 1 - Alewife can occur in fresh waters as either historically present/restored anadromous or stocked landlocked forms. The same can be said for several other 'freshwater' fish species (Atlantic salmon, rainbow smelt, and white perch).

Fact 2 - Generally speaking, landlocked and anadromous forms of fish are very different in terms of their behavior and ability to adapt to various aquatic habitats. Although landlocked alewives may move between waterbodies, the population no longer has an inherent ability to migrate to the sea. Conversely, an anadromous alewife does not have the inherent ability to survive and prosper in inland lakes and ponds. Some individual fish may survive for a time, but are not capable of overwintering, or completing their life cycle wholly in freshwater environments.

Fact 3 - The historical (pre-industrial or pre-dam) natural distribution of alewife in freshwaters is well documented by the Maine Department of Marine Resources and includes all waterways and waterbodies included in the current anadromous fish restoration program - representing all three Maine-New England native and indigenous Alosine-type fishes (alewife, blueback herring, and American shad).

Fact 4 - Anadromous fish populations, including alewife, are indigenous species which were historically an integral part of the freshwater ecosystem to which they are currently being restored. The trophic status of many of these waterbodies have become increasingly eutrophic over the past century. Given the inherent capacity of anadromous alewives for entrance and departure from natal lakes and ponds are not interfered with (beaver dams, inadequate flow levels), then the lake water quality impact of their temporary presence should not be a problem.

Fact 5 - If for any reason (e.g., beaver dams, extended drought, dam regulation, inadequate fish passage) adult post-spawning anadromous alewives are not able to effectively exit from a given waterbody - then they will not survive, but will fall prey to avian and mammalian predators and/or scavengers and ultimately could be an additional source of nutrients to the aquatic ecosystem in which they occur.

## **New Brunswick**

### **Spednic Lake Smallmouth bass**

Steve Currie

New Brunswick Department of Natural Resources

The fourth Spednic Lake Smallmouth Bass Assessment day held on 23 June 2004 was another successful event which has taken place every 3 years since its beginnings in 1995. In this cooperative effort, biologists from New

Brunswick and Maine join forces with local anglers to collect biological information on the smallmouth bass population which is recovering from population decline and subsequent re-stockings in the late 1980's. The definitive cause of the initial population decline is unknown, but it occurred during a time of wide water level fluctuations and high numbers of alewives. Since the restocking, water levels have been stabilized during the spawning season, the retention fishery has been closed, and upstream passage of anadromous alewives into the lake has been prevented. This one day biological assessment day puts between 24 and 36 anglers on the water for 6 to 8 rod hours to collect lengths, weights and scales samples. Preliminary results using the proportion of the population < 30 cm shows an increase from 15% in 1995 to an average of 40% in 1998, 2001 and 2004 indicating that the bass are successfully spawning and recruiting into the population. This year a total of 240 smallmouth bass were sampled and the catch per day of 7.1 fish was increased from an average of 4.4 during the first three years (1995, 1998, and 2001). A special note of thanks goes out to all those who helped in the planning and preparation of this worthwhile cooperative event, and to those in attendance from the Maine Inland Fisheries & Wildlife, Fredericton Anglers Club, New Brunswick Cooperative Fish and Wildlife Research Unit, St. Croix Outdoor Network, and the NB Department of Natural Resources.

### **New Brunswick Closes Fish Hatchery**

Peter Cronin

New Brunswick Department of Natural Resources

In April 2004, all New Brunswick government departments, including Natural Resources, faced fiscal challenges that required difficult decisions for setting spending priorities. New Brunswick's fiscal challenges are comparable to those being faced by other provinces and territories. After budget deliberations, the Department determined it could no longer operate the Grand Lake Fish Hatchery. The closure of the facility will save taxpayers about \$300,000 a year.

The hatchery, which opened in late 1970's, primarily reared brook trout and landlocked salmon. Secondary species included lake trout and Atlantic salmon (gene banking for endangered species). Annual fall fingerling and yearling production in past six years varied between 55,000 and 233,000 fish.

Before the hatchery closed fisheries staff stocked all of the fish, except the brood stock which were moved to hatcheries operated by the Miramichi Watershed Management Committee. The Department recognizes the

economic and social value of New Brunswick's recreational fishery and will make arrangements with private sector hatcheries to rear the proper species and strains of wild landlocked salmon and brook trout required to enhance priority populations and selected recreational fisheries.

The hatchery has been decommissioned and government will now attempt to sell it.

### **Stable isotopes – Tools to study energy flow in aquatic systems**

Tim Jardine

University of New Brunswick

There are many important processes occurring under the surface of the water that are never witnessed by the human eye. One of these processes is the transfer of energy from one species to another. We often wonder, "Who is eating who?" Fish biologists have traditionally answered this question by examining stomach contents. However, diet interpretation from stomach content analysis is limited to the most recent meal eaten and tells us nothing about assimilated food. Also, stomach analysis often requires sacrifice of the animal, an undesirable outcome. Non-lethal techniques are preferred, especially for species that tend to be in low abundance, are threatened or endangered.

Naturally occurring stable isotope ratios ( $^{13}\text{C}/^{12}\text{C}$ ,  $^{15}\text{N}/^{14}\text{N}$ ,  $^{34}\text{S}/^{32}\text{S}$ ,  $^{18}\text{O}/^{16}\text{O}$ , D/H) offer an alternative method of determining the diets of aquatic species. This technique has a wide variety of applications from detecting the shift of human populations from hunter-gatherer societies to extensive corn cultivators, to determining the migratory origins of bats, butterflies and birds, and reconstructing past climate.

For fish biologists, the technique has also been very fruitful. It has been used to quantify the importance of nutrients carried by salmon to small streams of north-west North America, to determine the effects of introduced species on local fish populations, to estimate the proportion of sea-run and resident fishes in mixed populations, and to understand the importance of food chain length in governing contaminant levels in top predators. Overall, it has given us an enhanced understanding of how energy flows through aquatic ecosystems.

Why stable isotopes?

Stable isotope analysis (SIA) rests on two central tenets: 1) the isotopic "signature" of an animal directly reflects that of its diet, and 2) different diets have different signatures. It is often said, "you are what you eat." This is

certainly the case in SIA. The heavier isotope of nitrogen (nitrogen-15) tends to become concentrated with each step in the food chain, so that top predators (e.g. lake trout, sharks) have the most nitrogen-15, and primary producers (e.g. algae, diatoms) have the least. This allows us to create continuous food chains using these signatures, and account for animals that feed on different levels of the food chain. By contrast, the amount of carbon-13 in a consumer stays more or less the same as energy is transferred up the food chain from producers to top consumer. Therefore, carbon-13 signatures are indicative of the origin of the food source(s) for the consumer.

Isotopic signature gradients exist on both large and small scales. For example, plants and animals living in the ocean have very different isotopic signatures than those living in freshwater. On a smaller scale, due to changes in available  $\text{CO}_2$  and  $\text{N}_2$  to algae, differences in signatures might exist between a specific tributary and the main river, or between the pelagic and littoral zones of lakes.

What questions can I answer using stable isotopes?

There are a variety of applications of SIA in fisheries research. These include, but are not limited to: Detecting marine nutrient inputs to streams and lakes by anadromous fishes (e.g. salmon, herring). Measuring the uptake of human generated waste such as agricultural runoff and sewage. Revealing alteration of food web structure caused by invasive species (e.g. bass, zebra mussels). Understanding energy dependence within lakes and rivers (e.g. benthic vs. pelagic, terrestrial vs. aquatic). Establishing food chain length in relation to contaminant burdens (e.g. mercury) of top predators.

How do I sample for SIA?

Greater analytical capabilities have led to smaller and smaller amounts of tissue required for SIA. Most labs require less than half a milligram of dried tissue. For most fish species and life stages, this is the equivalent of a fin clip or a scale. These tissues have been shown to have the same isotopic signature as muscle tissue, and therefore reflect long-term patterns of nutrient uptake. The use of other rapid-turnover tissues, including blood, may hold potential in determining short-term patterns of resource use. Sample costs are also relatively low, usually ranging from \$15-20 CAD per sample.

Remember, you are only a fin clip away from learning more about the feeding ecology of your species! If you are interested in using SIA in your research, or would

like to learn more about how isotopes work, visit our website at [www.unb.ca/cri/sinlab](http://www.unb.ca/cri/sinlab) or email us at [isotope@unb.ca](mailto:isotope@unb.ca).

Tim Jardine ([tim.jardine@unb.ca](mailto:tim.jardine@unb.ca)) & Rick Cunjak ([cunjak@unb.ca](mailto:cunjak@unb.ca))  
Stable Isotopes in Nature Laboratory  
Canadian Rivers Institute  
University of New Brunswick

#### **CAMP: Monitoring Estuarine Health**

David Dunn, Manager, Oceans and Habitat Management, DFO Gulf Region

In 2003, the Gulf Region's Stewardship and Environmental Science Sections of Fisheries and Oceans Canada (DFO) collaborated with community groups to develop a monitoring program to help determine the ecological health of estuaries in the southern Gulf of St. Lawrence (sGSL). The objective of this project, known as the Community Aquatic Monitoring Program (CAMP), is to assess the health of an estuary or coastal shoreline by measuring changes in the diversity and abundance of fish species which live in that estuary. For example, an estuary which has been degraded by human activity may have fewer species and fewer fish than one which is healthy and undisturbed by human activity. This has a direct relationship to the food web including many anadromous species that will journey through an estuary, such as salmon, sea trout, striped bass, eels and various herring-related species.

To help develop this program, a pilot project was set up during the summer of 2003 to test this monitoring approach at four sites in the sGSL. They are: Lamèque Bay and the Shediac Estuary in New Brunswick, Basin Head on Prince Edward Island and Antigonish Harbour in Nova Scotia.

Based on the initial success of the program, in 2004 CAMP was expanded and the timelines for sampling were extended. Overall, data are now being gathered at more than 30 sites. Of these, 15 have been designated as core monitoring locations where biological and physical information is collected monthly from May to September. This community program has been implemented so that key environmental groups from an estuary become the lead organization and data collectors. As well as the community partners, professors and students from the University of Moncton, University of Prince Edward Island and St. Francis Xavier University have developed projects related to the monitoring of estuarine health. Area offices in DFO's Gulf Region have provided training, materials and logistic support to the local commu-

nity organizations.

Using a beach seine measuring 30 metres by 2 metres, monthly daytime samplings are done between May and September, at 6 collection sites per estuary. Fish caught in the seine are identified, counted, separated according to growth stage (juvenile or adult) and released. The temperature, salinity and dissolved oxygen concentration of the water are also recorded. A general profile of aquatic vegetation is also calculated by using a quadrat thrown randomly three times at each sampling station. All the data from all the sites are being sent to the Gulf Region headquarters in Moncton for collation.

The participation of local community groups has always been key in developing this type of monitoring. DFO's goal is to develop a program that groups can use in their community to help determine the health of their estuary or coastal shoreline. Initial evaluations show that community groups now have another tool to enhance ownership of their local environment. This type of program has the potential to expand to other Northumberland Strait locations and the baseline data being gathered can prove useful in many ways in the future.

If you have questions or require a more information about the program, please contact DFO's Stewardship Section at (506) 851-7780 or via e-mail at: [WeldonJ@df-mpo.gc.ca](mailto:WeldonJ@df-mpo.gc.ca)

## **New Hampshire**

### **Gone Fishin'**

Duncan McInnes retired on June 17, 2004 after a 26-year career with the New Hampshire Fish and Game Department. Duncan served as Fish and Game's Large Lake Bass Project Leader early in his career, eventually working his way up to Fisheries Division Chief. He was serving as Inland Fisheries Program Supervisor for the last several years until his retirement. Duncan was also a tireless supporter and Department spokesman for Atlantic salmon restoration on both the Connecticut and Merrimack Rivers. His dedication to restoration of salmon was evidenced by his recent visits to Washington, DC to meet with Congressional staffers in order to maintain funding for the restoration programs. Duncan was an active AFS member and a Past President of the AIC. If you would like to drop Duncan a line, he resides at 11 Bartlett Road, Durham, NH 03824 or e-mail him at [dcmcinnes@yahoo.com](mailto:dcmcinnes@yahoo.com).

And...Scott Decker has taken a new position with NH

Fish and Game. Scott is now the Inland Fisheries Program Supervisor. Congratulations, Scott!

## Vermont

### **Possible Alewife discovered in northern Lake Champlain**

Shawn P. Good  
District Fisheries Biologist  
Vermont Department of Fish and Wildlife  
Email: [shawn.good@anr.state.vt.us](mailto:shawn.good@anr.state.vt.us)

During recent fisheries sampling efforts in the La Motte Passage in northern Lake Champlain, which is located between Isle La Motte and Alburg, staff from the Essex Junction office of the Vermont Department of Fish and Wildlife collected a single specimen of a fish (6" in length) they suspected to be an alewife. On board, Bernie Pientka, VTDFW fisheries biologist, opened the fish to inspect the peritoneum, which was an off-whitish colour with sparse black flecking - indicative of an alewife peritoneum, and not the solid black of a blueback herring. However, due to its similarity to several other fish species known to occur in Lake Champlain, staff preserved the fish for identification confirmation. Bernie, along with fisheries biologist Shawn Good later dissected the suspected alewife to closely examine its key morphological characteristics such as peritoneum colouration, jaw morphology, snout length to eye diameter, and gill raker count. In every case, one or more features examined ruled out all species but alewife. The next closest candidate was the blueback herring, but in this case, the peritoneum colour and the fact that the snout length was less than the eye diameter in the unknown fish concluded it be an alewife.

Alewives, an aquatic nuisance species (ANS), were first discovered in 1997 in Lake St. Catherine, Rutland County, Vermont, during routine bass surveys. Since that time, biologists have not found alewives in any other Vermont waters including the Vermont portion of Lake Champlain. It is suspected the alewives in Lake St. Catherine were illegally imported from out-of-state and introduced in the mid-1990's by anglers; however, Lake St. Catherine is not considered to be the source of the introduction in northern Lake Champlain. If alewives had escaped Lake St. Catherine and entered southern Lake Champlain, they most likely would have followed a typical dispersal pattern of an ANS species, slowly building up numbers and spreading north through the lake. Routine fish sampling activities are conducted annually throughout Lake Champlain, and if alewives were slowly spreading north from Lake St. Catherine,

they almost certainly should be found elsewhere in Champlain before now.

It seems likely then, that this alewife originated from some other source, possibly arriving from the north. Pierre Bilodeau, biologist with the Société de la faune et



Suspected alewife (top) from Lake Champlain and known alewife from Lake St. Catherine (bottom).



Photograph of peritoneum of suspected alewife taken immediately following capture, taken on July

des parcs du Québec, has indicated in the past that one confirmed alewife was collected in the Pike River (which flows from Québec into Missisquoi Bay in northern Lake Champlain) in 1987. Also, in August 2003 they collected 7 specimens suspected of being alewives in the Québec portion of Missisquoi Bay itself. These specimens are currently being tested in a genetics lab in Maine for species confirmation. The location of the most recent discovery by Bernie is in close proximity to Missisquoi Bay with a connection to the La Motte Passage through the Alburg Passage.

The discovery made in Lake Champlain has Vermont biologists worried about the potential impacts this spe-



cies may have on Lake Champlain's fish community and ecosystem. Alewives reproduce rapidly and can quickly dominate a lake. They eat the eggs and fry of important sport fish, and also compete with native fish species for food and habitat. Native fish such as smelt, yellow perch, and walleye can often decline following the introduction of alewives. Alewives also interfere with the natural reproduction of lake trout and landlocked Atlantic salmon. If alewives were to become firmly established in Lake Champlain, they could foreseeably replace smelt as the dominant forage in the lake, which has many implications for fisheries management in the big lake. First, this would destroy a currently important and popular winter fishery for smelt. Second, alewife populations can fluctuate wildly, and an alewife forage base would make for difficult management of trout and salmon in Lake Champlain, especially with respect to cultured fish requests which must be made 2 years in advance. Third, broodstock and eggs collected from wild fish in Lake Champlain for hatchery use would potentially need to be treated with thiamine to prevent high levels of early mortality syndrome.

The week following Bernie's initial discovery, additional sampling was conducted that failed to produce any more suspected alewives. Further fisheries sampling in the Isle La Motte area of Lake Champlain will occur over the next month. Any suspected alewives will be collected for positive identification.

#### **Update on the Removal of Peterson Dam, Lamoille River, Vermont**

Rod Wentworth  
Vermont Department of Fish and Wildlife  
Email: [rod.wentworth@anr.state.vt.us](mailto:rod.wentworth@anr.state.vt.us)

In the July 2003 Chapter newsletter, I reported on a settlement agreement reached concerning the relicensing of the four most downstream hydropower dams on the Lamoille River. The agreement called for the removal of an active hydropower dam 20 years from now. However, this agreement is contingent upon a decision from Vermont's Public Service Board (PSB) allowing the utility to recover the costs of dam removal from ratepayers. The PSB has held one public hearing and two more will be held in September. Parties to the agreement will then be filing testimony with the PSB. A decision is expected before the end of 2004.

Those attending the first public hearing were largely in opposition to the project, questioning the fisheries benefits and wisdom of removing an inexpensive source of power. In a comment that seemed to characterize the

tenor of the group, one local farmer remarked, "more people use light bulbs than fishing poles."

A detailed report, Ecological Assessment of the Peterson Dam Reach of the Lamoille River, is available at [http://www.vtfishandwildlife.com/library/Reports\\_and\\_Documents/Fish\\_and\\_Wildlife/peterson\\_reach\\_report.pdf](http://www.vtfishandwildlife.com/library/Reports_and_Documents/Fish_and_Wildlife/peterson_reach_report.pdf)

#### **International**

#### **Gulf of Maine Mapping - User Needs Survey**

Joanne Cook  
CEF Consultants Ltd.  
[jcook@cefconsultants.ns.ca](mailto:jcook@cefconsultants.ns.ca)

If you fish on Georges Bank or Browns Bank, or anywhere in the Gulf of Maine; if you're working on coastal issues in the estuaries from Cape Cod around to the head of the Bay of Fundy, and down to Yarmouth; if you're interested in offshore oil and gas and the Georges Bank moratorium; if you're involved in \*any\* marine issues in the Gulf of Maine -- GOMMI needs your help. GOMMI is the 'Gulf of Maine Mapping Initiative', and its goal is to map the Gulf's sea floor, from the intertidal zone to the upper continental slope.

GOMMI is a joint Canadian-American project, which began as a result of the Gulf of Maine Council on the Marine Environment's 2001 Gulf of Maine Marine Habitat Characterization and Mapping Workshop, sponsored by NOAA.

Now, GOMMI's steering committee needs \*your\* input on where and how GOMMI should focus its efforts. Please help - tell us what areas are most interesting and important to you or your co-workers.

Just copy this link into your web browser:

<http://www.surveymonkey.com/s.asp?u=66692528236>

And you'll find a short survey -- it should only take 10-15 minutes to fill out.

Please ... take a few minutes to do it now -- the GOMMI steering committee thanks you! (They are: Thomas Noji, NOAA Fisheries; Susan Snow-Cotter, Ma. Coastal Zone Management; Brian Todd, Geological Services of Canada; and Page Valentine, US Geological Survey).

If you would prefer, Joanne Cook at CEF Consultants Ltd. will mail you a PDF which you can print out and fax back to her; just email her at [cook@cefconsultants.ns.ca](mailto:cook@cefconsultants.ns.ca), or phone 1-902-425-4802. CEF, a Nova Scotian environmental consulting group, is helping the GOMMI steering committee with the user needs analysis and survey logistics.

**ATLANTIC INTERNATIONAL CHAPTER  
AMERICAN FISHERIES SOCIETY  
BYLAWS**

The Executive Committee of the AIC undertook a review of the Chapter Bylaws in an effort to update them, and include provisions to incorporate the newly formed Student Subunit at the University of Maine, Orono. These revised Bylaws will be discussed, and voted on at the 2004 Annual Business Meeting, in Fairlee, Vermont. Please take sometime to review proposed changes to the Bylaws. Chapter Members can forward any comments they may have on these revisions to Larry Miller, Chair of the Bylaws Review Committee, any Chapter Executive Committee member, or raise them from the floor when they are discussed at this year's Annual Business Meeting. Thank you for your consideration of this request.

Larry Miller, Past President

**Section 1. Name and Objectives**

- a. The name of this subunit of The American Fisheries Society, hereinafter referred to as the Society, is the Atlantic International Chapter, hereafter referred to as the Chapter.
- b. The objectives of the Chapter are those of the Society as set forth in Article I of the Constitution of the Society, and especially, to encourage exchange of information among members of the Chapter.
- c. All activities of this Chapter shall conform to the Society's Constitution, Rules, and Procedures.

**Section 2. Membership**

- a. The members of the Chapter are Active Members of the Society in good standing that reside in the American states of Maine, New Hampshire, and Vermont and the Canadian provinces of New Brunswick, Newfoundland and Labrador, Nova Scotia, Prince Edward Island, and Quebec, and any other Active Member of the Society specifically requesting membership in the Chapter on a year-to-year basis.
- b. Members of the Student Subunit from the University of Maine at Orono (UM) are Chapter members.

**Section 3. Officers and Executive Committee**

- a. The Chapter officers are the elected officers -- President, Vice-President, Secretary-Treasurer, the Immediate Past President, and the UM Student Subunit President.
- b. Only Active Members of the Chapter who are active members of the Society may be nominated for or serve in the elected offices of the Chapter.
- c. Officers shall be nominated by a nominating committee appointed by the President. The nominating commit-

tee can also entertain nominations from the floor at the Chapter's Annual Business Meeting.

d. The officers are elected at the Annual Business Meeting of the Chapter by a majority of ballots cast by the membership in attendance at the Annual Business Meeting. They are installed at the meeting during which they are elected. At that time, the current President automatically becomes the Immediate Past President. The officers retain office until the next Annual Business Meeting. Officers, except Secretary-Treasurer, may not be elected for successive terms.

e. The Executive Committee of the Chapter is comprised of the elected officers. The Executive Committee is authorized to act on behalf of the Chapter between meetings and to perform appropriate duties and functions.

f. If an elected officer cannot complete the term of the office, the Executive Committee may appoint a qualified replacement to serve out the unexpired term.

g. A quorum is required for transaction of official business at an Executive Committee meeting. A quorum for an Executive Committee meeting shall consist of four of the five members. Executive Committee members can appoint a proxy.

h. Each member of the Executive Committee shall have one vote on Executive Committee decisions. In the event of a tie, the President's vote shall be the deciding vote.

i. Executive Committee meetings are called by the President and are typically held three times per year (December-January, March, and June-July).

j. In the event of cancellation of the Annual Business Meeting the officers and the members of any appointed committees shall continue to serve until the next scheduled business meeting at which elections may be held.

k. No elected officer or appointed committee member of the Chapter shall receive any salary or other compensation. Expenses may be defrayed from funds available to the Chapter when authorized by the Executive Committee.

**Section 4. Meetings and Voting**

a. The Chapter shall meet at least once per year. The Executive Committee sets the time and place of the Annual Business Meeting and any other meetings of the Chapter.

b. In an emergency, the Executive Committee may cancel or change the place of the Annual Business Meeting.

c. Fifteen Active Members constitutes a quorum for transaction of Chapter business at Chapter meetings.

d. Unless otherwise specified in these Bylaws or the Constitution of the Society, meetings are conducted according to the latest edition of Robert's Rules of Order.

e. Decisions at meetings are by simple majority of Active Members voting, except 2/3 majorities are required in special cases such as amending the Bylaws and sus-

pending a Rule. Other less frequently used voting requirements are described in Robert's Rules of Order.

### Section 5. Duties of Officers and Committees

a. The President shall serve on the Executive Committee, preside at all meetings, chair the Executive Committee, appoint all committees, serve as a voting member of the Executive Committee of the Northeast Division and non-voting member of the Governing Board of the Society, coordinate the activities of the Chapter's standing and technical committees and serve as liaison between such committees and the Executive Committee, conduct official correspondence for the Chapter and present reports of Chapter activities at the annual meeting, and make such appointments and perform other duties and functions as are authorized and necessary.

b. The Vice-President shall serve on the Executive Committee, chair the Program Committee, which has responsibility for the program arrangements at Chapter meetings, and shall assume the duties of the President if the latter is absent or unable to act.

c. The Secretary-Treasurer shall serve on the Executive Committee, keep the official records of the Chapter, submit minutes of the Chapter meetings to the Executive Director of the Society and the Secretary-Treasurer of the Northeast Division within 30 days after each meeting, collect and be custodian of registration fees collected under Section 8 of these Bylaws, and of any funds which may be allotted to the Chapter, disburse funds as authorized by the Executive Committee, submit a record of receipts and disbursements at the Annual Business Meeting, annually update and distribute current copies of the Chapter Bylaws to the Society's Executive Director and each member of the Chapter Executive Committee by October 1, conduct the annual election of officers, and discharge other duties as requested by the Executive Director of the Society, by the Secretary-Treasurer of the Northeast Division, and by other appropriate Society officers.

d. The immediate Past-President shall serve on the Executive Committee, serve as the chair of the Nominating Committee, and assist the other officers as needed.

e. The UM Student Subunit President shall serve on the Executive Committee, represent the interest of the Subunit to the Chapter Executive Committee and act as liaison between the Executive Committee and Subunits, work cooperatively with the Chapter's Executive Committee to assist in Chapter function and Subunit participation, and not advance in the Executive Committee, but instead be replaced yearly by a new Subunit President. The Chapter will fund travel expenses and meeting registration costs for the Student Subunit President that are not paid by the University of Maine, the Student Subunit, a grant, or other means, so the Student Subunit

President may attend the Chapter annual meeting and represent the Subunit on the Chapter Executive Committee. If the Subunit President is unable to attend the Subunit President may select another Student Subunit officer to serve as a proxy.

f. Committees and Chairpersons of committees, except as listed in Sections 3 and 5 of these Bylaws, shall be appointed and charged by the President. Except for Standing Committees, these Chapter Special Committees shall cease to function upon discharge of the duties for which they were appointed, or the end of the term of the appointing officer.

g. Standing Committees help the President and the Executive Committee conduct the Chapter's affairs, and the chairs should report their committees' activities, findings, and recommendations at annual Chapter meetings and interim meetings of the Executive Committee. The Standing Committees will be organized by the chairpersons with assistance from the Executive Committee by the beginning of the Executive Committee meeting following the Annual Chapter Meeting. The chair of each standing committee shall provide a written report to Chapter Executive Committee at the annual Executive Committee meeting held prior to the Annual Business Meeting. In the event an annual meeting is canceled, committee reports shall be published in the newsletter. The term of duty for members of a standing committee shall extend from their appointment to the next Annual Business Meeting, unless otherwise specified.

h. The Chapter has established the following standing committees:

1. An Arrangements Committee shall be responsible for making all arrangements for the annual meeting, exclusive of program, to include lodging, meals, pre-registration, and registration, publicity and any other necessary facilities or equipment.

2. The Chapter's Archivist shall be responsible for organizing, maintaining, and storing the Chapter records.

3. A Membership Committee shall maintain Chapter membership, take appropriate measures to attract new members and maintain accurate account of chapter membership.

4. A Newsletter Committee shall prepare a minimum of two issues of the Chapter newsletter on a yearly basis (January- February, May-June). The newsletter will provide a mechanism to update Chapter members on Chapter activities, and advocacy and policy issues. The funding for publication and printing will be covered by the Chapter and included in the annual budget. The Chapter webmaster shall be a member of the newsletter committee and is responsible for maintenance of the Chapter web site.

5. A Nominating Committee shall recommend a slate of candidates for office to the Secretary-Treasurer for the Chapter. The Committee shall consist of the immediate Past-President as chair plus at least two members.

#### **Section 6. Amendment of Bylaws**

The Bylaws are the defining document for the Chapter and take precedence over all other rules and procedures of the Chapter. The Bylaws cannot be suspended and cannot be changed without prior notice to members.

a. The Bylaws may be amended by a 2/3 majority of Active Members at the Annual Business Meeting in accordance with Section 4 of these Bylaws, provided that the proposed amendment(s) are circulated in writing to the membership at least 30 days prior to voting.

b. In accordance with the Society Constitution, an adopted amendment shall be reviewed by the Society's Constitutional Consultant for conformity with the Constitution, Rules and Procedures of the Society. The Constitutional Consultant presents the adopted amendment to the Society Governing Board for approval.

c. Amendments take effect when the Chapter receives written notice of their approval by the Governing Board from the Executive Director.

#### **Section 7. Dues and Fees**

The membership of the Chapter may establish annual dues for membership in the Chapter. The Executive Committee may assess each registrant attending a meeting of the Chapter a registration fee necessary to cover the costs of the meeting and Chapter activities.

Accepted Revision  
September XX, 2004



**Atlantic International Chapter Newsletter**

John Magee, Editor

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Weare, NH 03281

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[Jmagee@gomezandsullivan.com](mailto:Jmagee@gomezandsullivan.com)

**30<sup>th</sup> Annual Meeting of the  
Atlantic International Chapter of the American Fisheries Society  
September 19-21, 2004**

Lake Morey Resort  
P.O. Box 326  
Fairlee, VT 05045  
(802) 333-4311  
(800) 423-1211  
[www.lakemoreyresort.com](http://www.lakemoreyresort.com)



Conference Rates : Single Occupancy : \$260.00 USD (\$130.00 Per Person, Per Night)  
Double Occupancy : \$190.00 USD (\$95.00 Per Person, Per Night)

Package Rates Include :

2 nights lodging, 2 breakfasts (Monday & Tuesday), 2 lunches (Monday & Tuesday) and 2 dinners (Sunday and Monday). Package rate also includes the use of all the standard resort amenities, including full access to the resort's 18-hole golf course.

Spouse MAP Rates - \$89.00 per person per night. This includes 2 nights lodging, 2 breakfasts, 2 dinners, and use of all standard resort amenities, including golf.

Commuter Rate - \$26.00 per person per day. This includes morning break (coffee, tea, muffins, bagels, pastries), lunch, and afternoon break (soda, juice, cookies, brownies).

- Above rates are subject to 18% service charge and 9% Vermont Tax

The Lake Morey Resort requires a \$50.00 per person deposit in order to guarantee all reservations. Visa, MasterCard and American Express are accepted.

**Resort Reservation Deadline : August 20, 2004**

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Check-in time is 2:00 p.m. Sunday and Check-out time is 11:00 a.m. Tuesday.

As this is the AIC's 30<sup>th</sup> anniversary we will be planning some special activities, including a BBQ for Sunday evening, so make sure you arrive early to take advantage.

If you would like to golf during your free time, either Sunday afternoon, Monday evening, or Tuesday afternoon before departing, please call the resort directly to arrange tee times – the sooner the better as they fill up fast.

**More details will follow via e-mail and the website as the conference approaches**

Lake Morey Resort  
P.O. Box 326  
Fairlee, VT 05045  
(802) 333-4311  
(800) 423-1211  
www.lakemoreyresort.com



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**Atlantic International Chapter of the American Fisheries Society  
Reservation Form**

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

Affiliation : \_\_\_\_\_

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

City : \_\_\_\_\_ State/Province : \_\_\_\_\_ Zip/Postal Code : \_\_\_\_\_

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

Arrival Date : \_\_\_\_\_ Departure Date : \_\_\_\_\_

Number of Attendees : \_\_\_\_\_ Spouse : \_\_\_\_\_

Room Sharer Name  
(if unspecified you be randomly paired with another conference participant : \_\_\_\_\_

Visa    MasterCard    American Express

Credit Card Number : \_\_\_\_\_ Exp. Date : \_\_\_\_\_

Please advise the number of meals required :

Monday Dinner Choice :    Chicken : \_\_\_\_\_    Fish : \_\_\_\_\_    Beef : \_\_\_\_\_

Please mail or fax to : Lake Morey Resort  
P.O. Box 326, Fairlee, VT 05045  
Toll Free : (800) 423-1211 or (802) 333-4311  
Fax: 802-333-4553

**No later than August 20, 2004**

**Atlantic International Chapter of the American Fisheries Society**  
**Chapter Registration Dues for Conference**

**Early Registration (pre-August 31<sup>st</sup>)**

AFS Members \$20 USD

Non-AFS Members \$25 USD

**Late Registration (after August 31<sup>st</sup>, or "at the door")**

AFS Members \$25 USD

Non-AFS Members \$30 USD

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

Affiliation : \_\_\_\_\_

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

City : \_\_\_\_\_ State/Province : \_\_\_\_\_ Zip/Postal Code : \_\_\_\_\_

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

E-Mail : \_\_\_\_\_

AFS Membership # : \_\_\_\_\_

Please send registration fee in US dollars  
Please make cheques payable to Atlantic International Chapter

Return this form with payment to :

Shawn P. Good  
Vermont Dept. Fish & Wildlife  
317 Sanitorium Road, West Wing  
Pittsford, Vermont 05763



## How to Get There :

The Lake Morey Resort is easily accessible off I-91 along the Vermont/New Hampshire border.

### Driving

From the north, take exit 15 of I-91. At the bottom of the ramp, turn right onto Lake Morey Drive. Continue to Lake Morey East Road and make a right. The resort is just up the road on your left.

From the south, take exit 15 of I-91. At the bottom of the ramp, turn left onto Lake Morey Drive. Continue to Lake Morey East Road and make a right. The resort is just up the road on your left.

### Flying

The Lake Morey Resort is approximately 1.5 hours from both Burlington International Airport in Vermont and the Manchester Airport in New Hampshire .

