
HOOK, LINE AND THINKER

The Newsletter of the Fishermen and Scientists Research Society

Issue: 2005 - 4

Fall 2005

REGISTER NOW FOR THE 13TH ANNUAL FSRS CONFERENCE

You are invited to attend the Fishermen and Scientists Research Society 13th Annual Conference being held on February 24 & 25, 2006 at the Howard Johnson Hotel and Convention Centre in Truro, Nova Scotia. The Conference will include workshops on a wide variety of topics, from groundfish to lobster to seals to the ecosystem, and a posters/information displays session.

Planned workshop topics include: Lobster Recruitment and Commercial Trap Sampling Project Results, 4VsW Sentinel Program Results, Mapping the Ocean Floor, Grey Seal Pupping Areas Survey Results, Inshore Ecosystem Research on the Scotian Shelf, and Impacts of the Energy Sector on Crustacean Locomotion.

An informal reception is also planned for the evening of February 24th and will include a Dutch Auction. The auction at last year's conference raised over \$1,000 for the FSRS. Let's try to at least double that this year!

The Scientific Program Committee Report session on the second day will include: Shellfish Working Group Report, Groundfish Working Group Report, Results of Grey Seal Pupping Areas Survey, and 2006 Workplan.

The FSRS Annual General Meeting will be held following the Conference and will include: Directors' Report, Financial Report, Approval of 2006 Budget, Approval of 2006 Workplan, and Nominations & Elections.

Register on-line at www.fsrs.ns.ca or fill out the registration form on page two of this publication or contact Patty King at 902-876-1160.

We hope you can attend. See you there!

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LFA 33 & 34 LOBSTER MOLT & QUALITY MONITORING PROJECT

By Jean Lavallée, AVC Lobster Science Centre

The AVC Lobster Science Centre is pleased to announce that the website for the Lobster Molt & Quality Project is now available! To see a summary of the information gathered by this project, you can now go to:

www.lobsterscience.ca/molt

Southwest Nova Scotia generally produces high quality lobster. During the 2003/2004 season, variations in lobster quality (soft-shells and low yield) created an economic challenge. Understanding the factors that control the variation of lobster quality is vital to the sustainability and health of the lobster industry. In order to understand the variation in lobster quality, continuous and annual sampling is required. Since the summer of 2004, LFA 33 and 34 fishermen, NS Fish Packers Association, AVC Lobster Science Centre, DFO, FSRS, Clearwater, and NS Department of Agriculture and Fisheries have all participated in developing this collaborative research program designed to better document and understand the annual changes in molt-timing and lobster quality in LFAs 33/34.

The information collected for this project is now available on the Internet and allows people to look at lobster sex, size, blood protein, molt stage and shell hardness by sampling location or dates. We invite everyone to go online and browse through the site. We appreciate any comments or suggestions regarding this online site as this is truly a 'work in progress.' So do not hesitate to use the feedback form available on the website, or contact Natasha MacDonald directly (902-566-0906, ndoyle@upeil.ca).

FISHERMEN AND SCIENTISTS RESEARCH SOCIETY CONFERENCE PRE-REGISTRATION

Date: February 24 & 25, 2006

Location: Howard Johnson Hotel and Convention Centre

437 Prince Street, Truro, NS

Phone: 902-895-1651

To assist us in the planning of the Conference, please complete this pre-registration form and return it by February 7, 2006 or register on-line at www.fsrs.ns.ca. Thank-you for your cooperation.

Name: _____ **Phone #:** _____

E-Mail: _____

If a fisherman, please indicate

Home Port: _____

All others please indicate

Organization: _____ **Title:** _____

Return by February 7, 2006

by mail to Fishermen and Scientists Research Society, P.O. Box 25125, Halifax, NS B3M 4H4
or by fax to 902-876-1320 or register on-line at www.fsrs.ns.ca

CELESTIAL FISHES SPOTTED AROUND NOVA SCOTIA

By Curtis Young, FSRS Fisheries Technician

Everyone has seen a starfish and in the last issue of the newsletter you were introduced to the record breaking giants known as sunfish, but have you ever seen a moonfish?



Image courtesy of Scott's Bait and Tackle
<http://www.scottsbait.com/fishids/idmisc/moonfish.htm>

I had the opportunity to see a moonfish this October. A local fisherman from my home town (Florence, Cape Breton) found the small dead fish washed up on shore during his morning walk. Puzzled by this strange exotic fish, he decided to seek the opinion of others and it eventually made its way to me. The fish was identified as a juvenile Atlantic Moonfish (*Selene setapinnis*), a semitropical species common from Cape Cod south to Uruguay. The fish was extremely laterally compressed (meaning very thin) and was not much bigger or thicker than a toonie. It was a silvery gray/blue color which, along with its almost round shape has given this species the common name moonfish or, in some places, dollarfish.

The Atlantic moonfish can grow to 60 cm and weigh up to 4.5 kg (Agbayani 2005). It is often used in aquariums and I am told it makes a good food fish. It feeds mainly on small fish and crustaceans. Adults are typically found near the bottom of inshore waters up to 54 m deep but may form schools near the surface. Juveniles, on the other hand, are typically found on muddy bottoms near brackish estuaries and coastal marine waters (Agbayani 2005).

It is believed that young Atlantic moonfish may drift north into the waters of Nova Scotia in the late summer and fall of most years (Scott and Scott 1988). There are numerous records of the young fish being present during this period throughout much of the inshore waters of Nova Scotia but an adult specimen has yet to be recorded. Until this specimen, the northern most record of the Atlantic moonfish was found in 1984 off Sable Island Bank (Scott and Scott 1988). This fish found in eastern Cape Breton extends that northern limit and as such it has been sent to the Nova Scotia Museum of Natural History in Halifax.

So next time you are fishing or walking the beach and you come across a weird or interesting critter that you would like to know more about, what should you do? Simply contact the FSRS at 1-800-226-3777 and provide them with the following information: when and where you found the specimen, how big it was, how it was obtained and any other information that would be helpful to identify it.

Reference:

Agbayani, Eli 2005. Catalog of Fishes. *Selene setapinnis*. (Online). Fish Base <http://www.fishbase.org/Summary/SpeciesSummary.php?id=378>

Scott, W., and M Scott. 1988. Atlantic Fishes of Canada. Can Bull Fish Aquat Sci 219.

INTERESTED IN BEING ON THE SCIENTIFIC PROGRAM COMMITTEE?

For more information on the Committee and how you can participate contact Patty King at 902-876-1160 or pmdservices@eastlink.ca.

WORKSHOP ON NEW FISHERIES - IDENTIFYING EXPECTATIONS AND COORDINATING RESEARCH

By Patty King, FSRS General Manager

On December 8-9, 2005, I had the opportunity to attend the *2005 Workshop On New Fisheries - Identifying Expectations And Coordinating Research* hosted by Fisheries and Oceans Canada (DFO) and sponsored by Cape Breton University/Enterprise Cape Breton, NS Department of Agriculture and Fisheries, Canadian Centre for Fisheries Innovation and Louisbourg Seafoods Ltd.. Held in Dartmouth, Nova Scotia, this two day workshop included presentations on DFO's New Emerging Fisheries Policy, industry experiences and expectations, DFO assessment and scientific role in new fisheries co-ordination, current and future work on hagfish and sea cucumbers, social economic considerations, and funding sources. A key theme of the workshop was to promote a collaborative approach to developing new fisheries, which includes the collective community of federal, provincial governments, aboriginal representatives, university expertise, and industry interests.



2005 Workshop On New Fisheries - Identifying Expectations Coordinating Research, Fisheries and Oceans Canada.

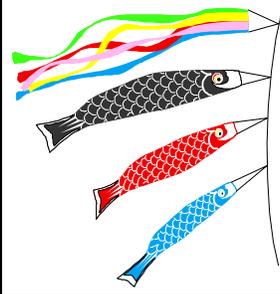
The broad objectives of the workshop included:

1. Providing an opportunity for university researchers, federal and provincial scientists and management staff, industry and aboriginal representatives to outline their respective expectations for new fisheries initiatives throughout Atlantic Canada to a like-minded forum.
2. Providing an opportunity for both government and industry to dialogue about the limiting factors associated with developing new fisheries, particularly those sensitive to over-exploitation.
3. Serving as a forum to modify industry expectations which have a legacy of increasing demands on resources, well in advance of sufficient data to support precautionary exploitation levels, and
4. Promoting awareness for the necessity to coordinate research and applied survey techniques for stock assessment for new fisheries through a multi-funded collaborative science initiative to avoid duplication of costs to industry.

In his presentation on the Protocol for New Fisheries, Scott Coffen-Smout indicated that the review process has a large science component. It was noted that information for decision making in new fisheries is sparse, that fisheries science is an important part of developing new fisheries. Information needs identified included: spatial distribution and abundance, growth, reproduction and recruitment, effect of fishing, and the role of the ecosystem.

Three research co-ordination models were presented, including a presentation I gave about the FSRS as a Proven Model For Effective Collaboration. In addition to providing general information about the FSRS and the projects we have undertaken, the presentation dealt with the benefits of collaboration and how the FSRS is unique. The presentation was well received. During the plenary to define next steps, numerous people commented on the FSRS and its potential as a model for collaborative science for new fisheries.

DFO is preparing proceedings from the workshop, expected to be available in March. For more information about the workshop or developing species, contact Chris Jones, DFO.



NEW TO THE FSRS LIBRARY

2004. Bedford Institute of Oceanography: 2004 in Review. Fisheries and Oceans Canada and Natural Resources Canada. ISBN: 0-662-4033-4.

AVC LOBSTER SCIENCE CENTRE STUDIES THE IMMUNE SYSTEM OF LOBSTERS

By Judy Peitzsche, FSRS Fisheries Technician

A veterinarian and Research Scientist with the AVC Lobster Science Centre (AVCLSC), is studying the immune system of lobsters. A bacterial disease model is being used to study how lobsters fight and respond to disease in order to remain healthy. The flow through system at the Bedford Institute of Oceanography (BIO) in Dartmouth, NS, is being used to see if earlier results from work done in the recirculation aquaria at the University of PEI can be reproduced using more natural conditions.

The scientist doing the work is Dr. Ian Keith. Ian has an undergraduate degree in Microbiology from the University of Guelph and a veterinary degree from the Atlantic Veterinary College. Ian's past projects include, among others, the commercial development of a vaccine for 'gaffkemia' (lobster disease) with Aqua Health Ltd. The AVCLSC has contracted the FSRS to assist with technical help for this work at BIO. The FSRS has hired Judy Peitzsche to assist with the project. Judy has an undergraduate degree in Aquatic Resources from St. Francis Xavier University. She has much experience in the lobster industry involving several field survey techniques (larval tows, juvenile trapping, drift buoy studies, adult trapping) which were applied in conservation measures research and various other projects.

The lobsters currently held at BIO are wild caught and are housed in individual compartments and fed a formulated diet. These lobsters are from a larger group, half of which was used previously in a study in PEI. The other half will be used for reproducing the results from 2004 and to add to the foundation established in the previous study. The lobsters will be injected with bacteria and will be monitored to assess how they are fighting or responding to the infection. A template or model can then be built from these results to study response to disease in general.

Watch future issues of *Hook, Line and Thinker* for project updates and results.



Fast Fact

Did you know that squeezing a lobster's shell to check for hardness causes the shell to become soft? As a shell becomes hard, the cells are aligning. When you squeeze the shell, you are scrambling the cells. A soft shell caused by squeezing will take up to five days to become hard again.

Tidings Volume 1. Issue 1. December 2005. A Publication of the AVC Lobster Science Centre.

BEACHCOMBING - What's New in The News

NORTHEAST REGIONAL COD TAGGING PROGRAM UPDATE

Phase II of the Northeast Regional Cod Tagging Program

The Northeast Regional Cod Tagging Program is entering a new phase. Since March 2003 they have tagged and released ~120,000 Atlantic cod in the Gulf of Maine and neighboring Canadian waters. This considerable achievement makes this the largest cod tagging program initiated to date. Most tagging organizations have completed their work and tagging operations will be suspended at the end of June 2005, until further funds become available. However, the Gulf of Maine Research Institute (GMRI) will be continuing to collect and reward tagged cod recapture information. The database will soon be complete, enabling the focus to shift to data analysis. Your tag returns are vital to the Program's success and tagged cod will be found for years to come - please continue to support this Program by continuing to return the tags you find.

*Summer, 2005: Issue No. 5. Northeast Regional
Cod Tagging Program Newsletter.*

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UPCOMING EVENTS

Fishermen and Scientists Re- search Society

13th Annual Conference
February 24 and 25, 2006

Howard Johnson Hotel, Truro, NS

**Registration Form on page two of this
publication.**

Lobster Biology & Management

**8th International Conference &
Workshop**

September 23-28, 2007

Charlottetown, PEI

www.Lobster Science.ca/Conference