

HOOK, LINE AND THINKER

Issue: 2009-2

Spring 2009

FUNDING FROM NS FISHERIES ENABLES EXPANSION OF LOBSTER COLLECTOR PROJECT

The Nova Scotia Department of Fisheries and Aquaculture has provided funding to the Fishermen and Scientists Research Society (FSRS) for two of its lobster research projects. The funding is from the Department's Lobster Science Program. The FSRS has received \$5,000 for the Lobster Moults and Quality Project, to be used to help pay the vessel charter expense reimbursement fee for the vessels doing the project.

We also received \$25,000 for the Lobster Collector Project which is studying settlement of young-of-year lobster. The project is a collaboration of fishermen, the FSRS, DFO Science Branch, Rick Wahle of the Bigelow Laboratory for Ocean Science in Maine and the Nova Scotia Department of Fisheries and Aquaculture. Implemented in 2007 as



NS Fisheries and Aquaculture Minister Ron Chisholm presents FSRS General Manager Patty King with cheques totaling \$30,000 for lobster research.



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a pilot project in Lobster Bay in Southwestern Nova Scotia, the project expanded last year to also include Port La Tour, Pennant Point and Big Bras d'Or. The funding from NS Fisheries and Aquaculture is making it possible to expand the project even further this year. Lobster collectors will be set in St. Mary's Bay, Lobster Bay, Port La Tour, Pennant Point, Port Bickerton and False Bay.

NS Fisheries and Aquaculture has been a strong supporter over the years of the work we do, recognizing its value in helping ensure a sustainable fishery through collaborative science and communication between fishermen and scientists. On behalf of the FSRS members, I would like to extend our sincere thanks to Minister Ron Chisholm and his Department for their continued support and on-going contributions to the FSRS.

FSRS PARTICIPATES IN WORLD OCEANS DAY CELEBRATIONS ON THE WATERFRONT.

By Jeanna Fletcher; Assistant Data Analyst, FSRS

Though World Oceans Day was on June 8th, many were gathered for celebrations on June 5th at the Halifax Waterfront. Various industry, government and non-government organizations set up displays which were educational, interactive and both stimulating to the eye and taste buds, ranging from the Fish on Ice Exhibit, Nova Scotia Department of Fisheries and Aquaculture's Touch Tank featuring the coolest creatures in our oceans, or edible samples of mussels and clams. The event was a great opportunity for organizations, like the FSRS, to network, share ideas and identify potential opportunities for collaboration with other organizations such as the Nova Scotia Department of Fisheries and Agriculture (NSDFA), Bay of Fundy Ecosystem Partnership (BOFEP) and World



Jeanna Fletcher and Krista MacEachern with the FSRS display and mascots.



The children becoming juvenile fishermen.

Wildlife Foundations (WWF) to name a few. Appearances were made by a giant lobster and also FSRS's own Larry the Lobster and Frankie the Cod, to which the children really took a liking. In addition to petting our cuddly representatives, the students were taught how lobsters were caught, measured and banded. Mackerel tagging and temperature recording were also discussed, allowing the children to have an interactive learning experience like that of a real fisheries technician. The celebrations took place on Friday allowing the Halifax schools to bring their students to the event, assisting them on their educational experience of learning about the oceans, conservation efforts to maintain the present species and how we can reduce our contribution to the destruction and harm being performed.

A VIEW FROM ACROSS THE POND – WHAT THE FSRS-GOMLF CONFERENCE DID FOR ME

By Craig Burton, Seafish/Seafood Scotland



Firstly, I would like to thank Patty and the other organisers for giving me the opportunity to attend your lobster science workshop and annual conference in February 2009. I had a great time, your hospitality was wonderful, I really enjoyed talking to all of you, and, more importantly, I learnt a lot.

Get any group of lobster fishers together in the same room and it quickly becomes apparent that we have similar problems. We all want to get an idea about recruitment levels. How we control fishing effort is a hot topic everywhere. Carbon footprint and increasing fleet efficiency strike a chord with everyone. We may fish closely related species on different sides of the same piece of water, but we share a lot.

The FSRS model of promoting a close working relationship between fishers and scientists tackling real fishery issues is one that should be emulated across the world. Too often elsewhere there is mutual distrust and suspicion between the parties. Whilst we may not be able to copy you exactly, certainly in the short-term, we will be trying to promote this closer relationship. The restructuring of local fisheries management in Scotland, where I do the majority of my work, gives us the first chance to build on this. Proposed changes in England and Wales may give a similar opportunity there.

As many of you will have heard from me, the move towards more localised management of the inshore fisheries in Scotland presents fishers with the opportunity to exercise a measure of control over their fisheries for the first time. Within the lobster and crab fleets, they are considering limits on the number of traps per boat and/or the number of boats for the first time. Should they have escape panels and drop-out panels to prevent ghost fishing? Local increases in the minimum landing size have been proposed, but should they also go for a maximum landing size? Some areas have been V-notching. Should that be extended or should the landing of berried females be banned out-right? These are all topics they are discussing. To help them, we can take your real experiences and use them to guide the discussion and decisions.

We can do the same with the science. If the fishers are to develop management plans for the long-term health of their fisheries, they need to have the underpinning scientific information and advice. Too often there are fundamental gaps in our knowledge of important inshore species. When we tried suction sampling for post-larval juvenile lobsters, it did not work for us (and no we cannot explain why either). However, we may be able to use the passive collectors, and at least one Scottish institute has been in touch to discuss that option – but we need more to get involved. Understanding the dynamics of the stocks will help us ensure that they are there to catch in the future. Ensuring the health and quality of any animals we store for future markets is crucial to us all. Using new technologies to help target a fishery more precisely could help the fleet get the same returns for a lower cost and less environmental impact. Our shared experiences of stocking lobsters from hatcheries can help both sides decide on the effectiveness of this approach. If by gathering information for the fisheries, we can generate additional information for other uses, such as biodiversity studies etc., it can show the industry in a positive light and bolster our case for being responsible users of the marine environment.

You are doing work, we are doing work. We need to make sure we swap ideas and information regularly so that we both get the maximum benefit for our respective fleets. I will certainly be working towards promoting closer links with FSRS and my offer of individual help still stands. I am only an e-mail away.

My thanks once more for letting me gate-crash your conference and I wish you all ‘good fishing’. Best wishes from a mild, wet and windy west coast of Scotland.



FROM THE RESEARCH DESK

By Shannon Scott-Tibbetts, Acting Research Biologist, FSRS

With summer time fast approaching, sitting at a desk on a sunny day is a difficult thing to do. But here I am giving you a summary of the FSRS activities over the spring season.

As I mentioned in the previous edition, a one day workshop was held at BIO in mid March on Remote Sensing Imagery: SAFARI (Societal Applications in Fisheries and Aquaculture using Remotely-Sensed Imagery). This information session was attended by a few FSRS members and other fishermen. They learned that water colour changes seen on remote-sensing imagery is an indication of changing primary production and how this colour change can be quantified to provide estimates of productivity and biomass.

There were various presentations on using remote sensed data for fisheries harvesting, science and management. Speakers such as Alida Bundy, Peter Koeller and Trevor Platt brought data involving shrimp and haddock to the audience. As well, there were general presentations and discussion on using satellite technology to aid in fishing practises. Please feel free to explore the SAFARI website at www.geosafari.org.

Late March saw myself and our Vice President, Jr. Risser attend a Canada/ US Lobstermen's Townhall meeting in Saint John, NB. Below is a summary of the event taken from the Lobster Institute's newsletter, Spring 2009. The full article can be found at www.lobsterinstitute.org.

Sustainability Labeling & Traceability Trigger Much Discussion at Lobster Institute's 2009 Canadian/U.S. Lobstermen's Town Meeting

Lobstermen from both Canada and the United States gathered in Saint John, New Brunswick on March 27 & 28 for the Lobster Institute's sixth annual Canadian/U.S. Lobstermen's Town Meeting. The Town Meeting is designed as an industry-wide gathering of lobstermen, lobster dealers and distributors, scientists and other interested parties coming together to discuss topics of direct concern to the fishery and the lobster industry. Nearly 50 people were in attendance from throughout the commercial lobstering areas in the US and Canada. Lobstermen were asked to share their thoughts, concern, questions, and experiences. The suggested focus for the meeting was, "The status of the resource: what is on the horizon?" While there was some talk of water quality and the possible effects on lobsters from electromagnetic fields generated by offshore power cables, the topics uppermost on most people's minds were sustainability labeling, marketing, and traceability requirements – and this was reflected in the conversation.

During the course of discussion, all agreed that being able to claim that the lobster fishery is sustainable would be a valuable and almost necessary marketing tool. How to substantiate that claim and label the product triggered considerably more debate. Obtaining certification of sustainability for the lobster fishery in various regions through the Marine Stewardship Council (MSC) was widely discussed. It was noted that both the lobster fishery in LFA 41 in Nova Scotia and the Maine fishery are both being reviewed for certification through MSC. In the case of the

Maine fishery, it was noted that a select group of people with private funding were pursuing the MSC certification and that there was no consensus in the industry that this was the best course of action. [...]

The concept of “self-certification” as an alternative to MSC and other “outside” certifying companies was also discussed at length. “Self-certification” would entail promoting all of the conservation measures and fishing regulations, historically and currently, which have kept the commercial lobster fishery vital for nearly 150 years.

A call for exploring a joint marketing effort between the U.S. and Canada was also raised, as it had been at the 2008 Town Meeting in Portland, Maine. The Lobster Institute reported that it is currently developing a feasibility study to explore the benefits and pitfalls of implementing such an effort. Catherine Lessard, a graduate student in Resource Economics and Policy at University of Maine, who has an undergraduate degree from Université Laval (Québec) in Agricultural Economics and Management, will be developing this project.

Traceability was another topic that elicited much discussion. It was suggested that many lobstermen look at traceability strictly as a marketing tool, used to facilitate branding. While it can be used for this purpose, it appears traceability may soon be a more pressing issue as a food safety requirement for international and inter-state shipping. *The objective for traceability in this instance would be to track lobsters from boat to plate in order to facilitate trace-back should concerns be raised about quality control and food safety.* Lobstermen from Canada noted that having a reliable system in place for traceability might soon be required by the European Union for lobster imports. Others noted that this movement may quickly emerge in the U.S. as well, and that preparing for such an eventuality now would be in the best interest of the lobster industry.

FSRS CONTRACTED TO IMPLEMENT MACKEREL TAGGING PROJECT

The Fishermen and Scientists Research Society (FSRS) has been contracted by Fisheries and Oceans Canada (DFO) to implement a tagging project for mackerel along the Atlantic coast of Nova Scotia. Up to 3,000 mackerel will be tagged from three locations; 500 in Pubnico, 2,000 in St. Margarets Bay and 500 in Dingwall. The overall purpose of the project is to learn more about the movements of this fish stock.

The FSRS will also be administering the tag reward program for the project. Anyone finding a tag is asked to return it to the address on the tag along with the following information:

- Date and location of capture (lat. and long., fishing ground, etc.);
- Method of Capture if possible; and
- Their name, phone number and mailing address so we can send them their reward.

The reward for returned tags is a limited edition tagging project hat.

A tagging study to learn more about the movements of this important species has long been an interest of industry and they are pleased that funding has finally become available to do the project, even on a small scale. DFO Mackerel Biologist François Grégoire hopes that this will be just the first year of an on-going project and collaboration between DFO, the FSRS and the fishing industry.

A special thanks to the fishermen who are helping with the project, taking the FSRS Fisheries Technicians out aboard their vessels to do the tagging – Kurby Malone, Gary Stevens and Kelly Fitzgerald.

For additional information about the mackerel tagging project, contact François Grégoire, DFO at (418) 775-0589, Francois.Gregoire@dfo-mpo.gc.ca or Patty King, FSRS General Manager at (902) 876-1160, pmdservices@eastlink.ca.



Fisheries and
Oceans
Canada

Pêches et Océans
Canada



MACKEREL TAG REWARDS

Fisheries and Oceans Canada (DFO) and the Fishermen and Scientists Research Society (FSRS) have tagged and released **Mackerel** in the Pubnico, St. Margarets Bay and Dingwall areas of Nova Scotia. This study will help determine movements of this fish stock.



Finders Of Tags Are Asked To Provide The Following:

- **Date and location of capture** (lat. and long., fishing ground, etc.)
- **Method of Capture** if possible
- **Your name, phone number and mailing address** so we can send you your **Reward!**



A Reward (**Special Hat**) Will
Be Given For Each Returned Tag

Send tag and information to:

Attn: François Grégoire
Department of Fisheries and Oceans
Maurice Lamontagne Institute
850 route de la Mer
P.O. Box 1000, Mont-Joli (Qc)
Canada G5H 3Z4

FOR MORE INFORMATION CONTACT

François Grégoire, DFO, (418) 775-0589, Francois.Gregoire@dfo-mpo.gc.ca
Patty King, FSRS General Manager, (902) 876-1160, pmdservices@eastlink.ca

COINATLANTIC: A NETWORK OF PEOPLE, INFORMATION AND TECHNOLOGY FACILITATING ACCESS TO COASTAL INFORMATION

By P.R. Boudreau, ACZISC Secretariat, COINAtlantic@dal.ca

One of the biggest challenges in managing coastal and marine resources is finding and accessing the necessary information required to understand what is going on. The task of accessing the appropriate information is particularly difficult in the coastal zone where information is required for land, estuarine and marine environments. No one person or agency can, nor should attempt to, manage all of the information required to adequately address coastal and marine ecosystems.

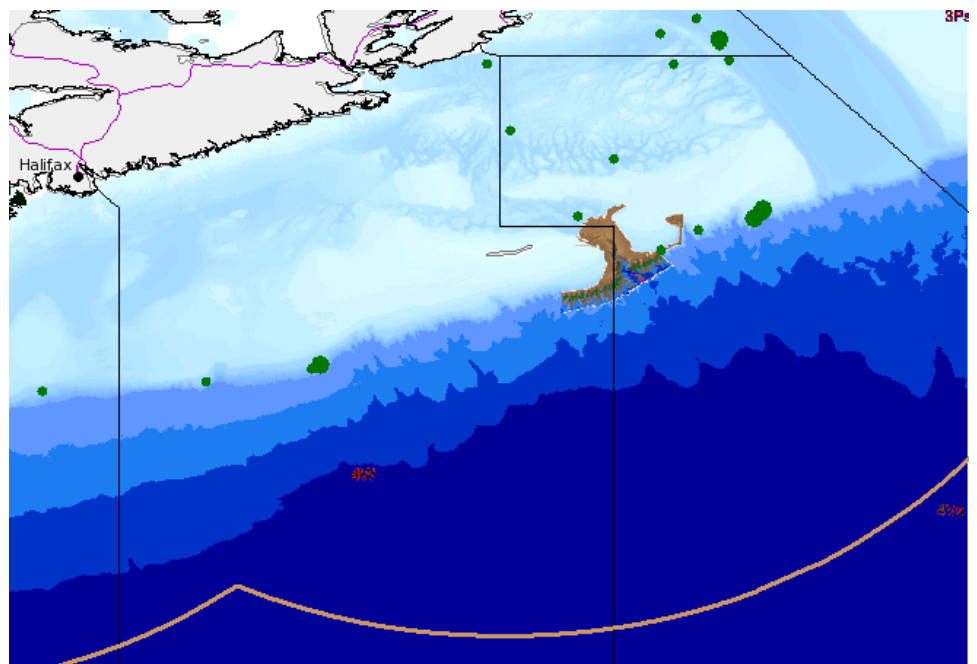
Coastal and Ocean Information Network – Atlantic (COINAtlantic), an initiative of the Atlantic Coastal Zone Information Steering Committee (ACZISC), is working to develop a network of people, information and technology that will allow users to search, find, access and use the incredible amount of information online.

Through the contributions from the members of the ACZISC, and other collaborators, COINAtlantic has implemented an on-line search utility that is accessible from any internet browser that can help users find maps from many different sources in Atlantic Canada. For instance the attached map generated from the COINAtlantic Search Utility displays information that is published on-line from both the Department of Fisheries and Oceans and Natural Resources Canada. It shows:

- the multibeam bathymetric image for the Gully;
- the locations where northern wolffish have been caught in the DFO summer groundfish survey;
- the NAFO boundaries in the area; and,
- the extent of Canada's exclusive economic zone (EEZ).

Of course, on-line users can easily zoom in, find geographic coordinates, add other layers and many other simple tasks.

Users are encouraged to use the on-line training materials to learn how to find information of interest and to make their own maps and figures. For a quick introduction, you can watch a 4-minute on-line video or work through a 2-page quick start lesson. Both can be accessed from the bottom of the home page at: <http://COINAtlantic.ca>.



To learn more about COINAtlantic, check out <http://COINAtlantic.ca>, or contact Paul Boudreau at 902-494-7452.

AMERICAN LOBSTER SETTLEMENT COLLABORATIVE Update 2008– A Growing Network

Compiled by: Richard Wahle, Bigelow Laboratory for Ocean Sciences

Participants: ME DMR (C. Wilson), MA DMF (R. Glenn), RI DFW (M. Gibson), DFO Canada (M. Comeau, P. Lawton, D. Robichaud, Glyn Sharp, J. Tremblay), UNB (R. Rochette), Memorial Univ. (V. Burdett-Coutts, K. Jones), U. Mass. (P. Milligan), Guysborough Co. Inshore Fishermen’s Assoc., NS (E. O’Leary), Fishermen and Scientists Research Soc. (P. King).

This year saw further coast-wide expansion of US and Canadian collaboration, continuing the long-standing diver-based suction sampling and widening deployments of passive postlarval collectors. Just as we mark the 20th year of suction sampling in mid-coast Maine, New Hampshire has resumed sampling after a decade-long hiatus, filling a conspicuous gap in New England participation. Welcome back NH! The real geographic expansion, though, has been in the deployment of collectors in all the provinces of Atlantic Canada, including what is likely to be a one-time sampling effort in Newfoundland. This surpasses last year’s effort which was already the largest synoptic view of lobster settlement ever conducted. While not likely to be sustained at this scale, prospects are good that some level of long-term monitoring will continue with collectors for some years to come, especially in Canada. This update reports 2008 settlement patterns from the long term suction sampling, as well as the second,

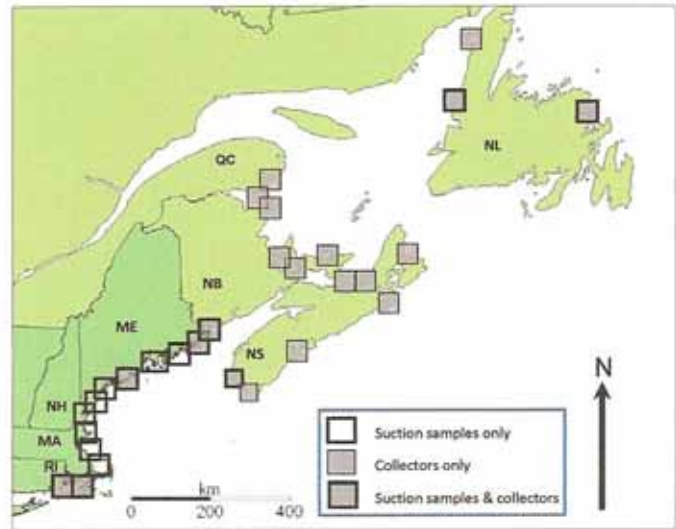


Figure 1. Sampling regions. Lobster settlement data were collected in 2008 either by suction sampling, passive collector, or both. Initiated in Maine and Rhode Island in 1989-90, annual suction sampling spans some 70 sites from RI to New Brunswick, with a single year effort in Newfoundland in 2008. Passive postlarval collectors have considerably added spatial coverage. Boxes surround sites used for regional averages presented in Figs. 2 and surround sites used for regional averages presented in Figs. 2 and 4.

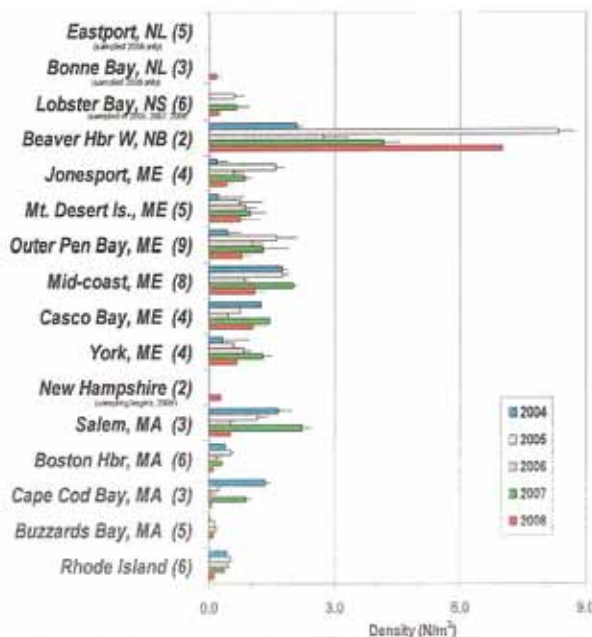


Figure 2. Suction sampling. Regional 5-year time series of average lobster settlement in New England and Atlantic Canada from 2004 to 2008. Number of sites sampled per region in parentheses.

and in some places final, year of coast-wide and depth-wise collector deployment (Fig. 1).

- 2008 Suction Sampling:** The first-ever suction sampling in Newfoundland revealed barely detectable densities of young-of-year lobster at this northern extreme in the species’ range (Fig. 2). Further south, from Lobster Bay, Nova Scotia to Rhode Island, where annual time series exist, 2008 was a poor year relative to 2007, some locations dropping by more than 50%. Beaver Harbour, New Brunswick, was the only exception with higher young-of-year densities compared to 2007. Southern New England is a region of particular concern. Rhode Island reported its lowest numbers in its 19-year record. Buzzards Bay’s already low densities fell below detectable levels for the first time in its 15-year time series. Time will tell whether 2008 is an anomalous year or the beginning of a downward trend from a series of relatively strong years in New England since 2001.

- Postlarval Collectors:** Our deployment of passive postlarval collectors expanded considerably from 2007 to 2008, with the second and last year of NOAA Northeast Consortium support for the New England deployment, and enlarged Canadian participation. The combined effort resulted in 1127 collectors deployed from Newfoundland to Rhode Island. From this large-scale perspective, the Gulf of Maine and southwest Gulf of St. Lawrence look to be the hot spots for settlement and older juveniles, with Newfoundland and eastern Nova Scotia more sparsely populated (Fig. 3). The general spatial agreement of high young-of-year densities with high older juvenile densities suggest regional differences in juvenile abundance, and perhaps fishery yields, are driven by the availability of settlers. In New England for the second year we used collectors to evaluate depth-wise patterns of settlement in three regions of contrasting oceanography: southern New England shelf, central Gulf of Maine, and eastern Gulf of Maine (Fig. 4).

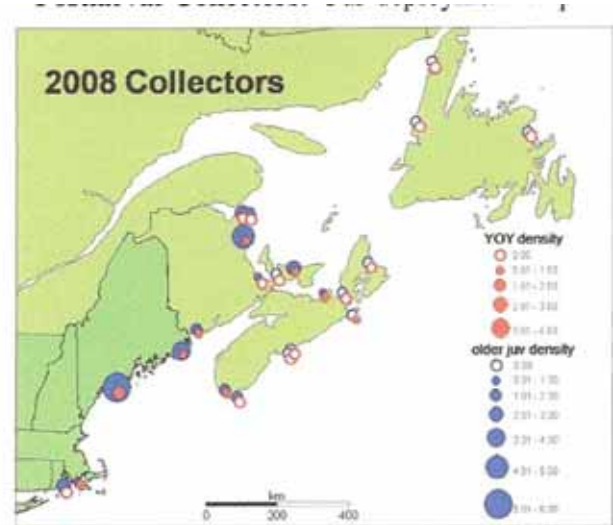


Figure 3. Collector data. Average densities of young-of-year (red) and older juvenile lobsters (blue) found in collectors deployed only at the shallow depth stratum (7-18 m) in 2008. Symbols represent a regional average of 1-3 sites with >10 collectors per site.

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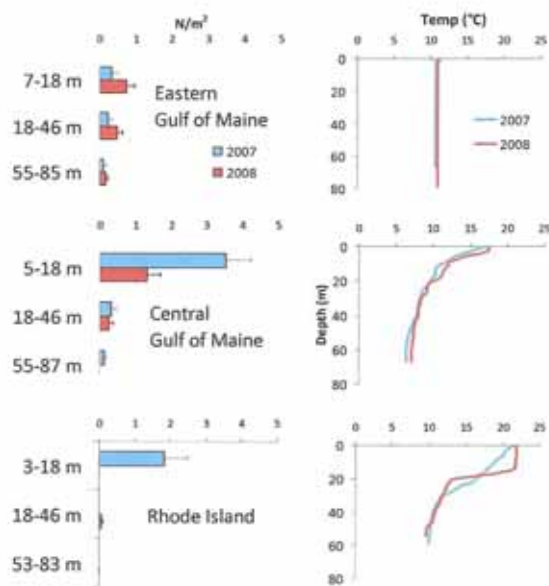


Figure 4. Lobster settlement by depth. Settlement densities in 2007 and 2008 at 3 depth strata in the eastern and central Gulf of Maine and Rhode Island (left panel), and typical temperature profiles in those regions (right panel).

In each region 100 collectors were divided among three depths. Depth-wise patterns of settlement have been consistent over the two years in mirroring the degree of water column thermal stratification. That is, in summer-stratified southern New England and mid-coast Maine most settlement occurred in the shallowest depths, whereas in eastern Maine settlement spread more evenly over all depths down to more than 80 m (Fig. 4).

Taken together, the numbers of lobsters in collectors are strongly correlated with those in suction samples from the same site. As we continue with monitoring, it will be important to know how to calibrate our regional estimates of settlement strength by the two methods. As we enter the 2009 season, we celebrate the 20th anniversary of the settlement index with a workshop in Boothbay Harbor on June 19-21, hosted by Bigelow Laboratory and Maine Department of Marine Resources, and convening collaborators up and down the coast. The aim is to take a critical look back at our accomplishments, and look ahead to prioritize monitoring and research opportunities the collaborative creates. Looming large is the need to think

strategically about the funding challenges ahead to keep the time series going. For more information on the workshop contact Rick Wahle at rwahle@bigelow.org.

**ICES**International Council for
the Exploration of the Sea**CIEM**Conseil International pour
l'Exploration de la Mer

YOUNG FISHERMEN AT THE ICES ASC 2009

ICES has limited funds available to invite young fishermen to participate at the Annual Science Conference in 2009. A maximum of 12 young fishermen is set up for a visit to the ASC in Berlin, Germany from 21–25 September.

ICES welcomes fishermen at the ASC as this will be mutually beneficial for both the receivers of ICES advice and ICES advisory scientists. ICES also encourages young scientists to visit the ASC and, by so doing, we can bring together networks with young people that are important for the future.

The Science Conference is an annual meeting place for scientists where new work is presented in Theme sessions. The topics for Theme sessions are diverse, see below for some examples:

- Bringing collaborative science–industry research data into stock assessment and fishery management: Evaluating progress and future options;
- Avoidance of by-catch and discards: Technical measures, projects, and state of data;
- Interactions between aquaculture and wild stocks: Comparative experiences for Atlantic cod and Atlantic salmon;
- Beyond geolocation: Inferring and explaining the behavior of tagged fish;
- Presenting scientific and advisory results: Best practices;
- Marine fish: Discovering centennial patterns and disentangling current processes;
- How does fishing alter marine populations' and ecosystems' sensitivity to climate?
- What do fish learn in schools? Life cycle diversity within populations, mechanisms and consequences.

Some sessions are very scientific, but many relate directly to fisheries and their environment. The main language at the ASC is English.

Candidature

Potential candidates to attend this meeting can be nominated by the European Regional Advisory Councils (one each) and the delegates from ICES non-EU members. ICES will decide on the final stipends depending on some basic criteria for candidates:

- Not older than 25–40 years;
- Active sea fisheries experience in the past year;
- Some fluency in English.

Since funds are limited, ICES support can only be partial. In general, ICES will fund each candidate attending the meeting with a total of € 1,100. for travel and hotel costs. The registration fee for the candidates will be waived. If RACs would like more than three candidates at the meeting, these cannot be supported by a stipend from ICES but the registration fee for a maximum of two additional candidates per RAC can be waived.

Your application form should be submitted through the RACs or non-EU delegates to the Science Programme (e-mail: hgj@ices.dk) by no later than **Monday 20 July 2009**. Successful applicants will be notified at the beginning of August 2009.

ICES 2009 Annual Science Conference Young Fishermen Application Form

Please complete this form and e-mail it as an attachment (pdf) to: hgj@ices.dk or send it or fax it to: ICES Secretariat, attention: Helle Gjeding Jorgensen, H.C. Andersens Boulevard 44-46, DK-1553 Copenhagen V, Denmark. Fax +45 33 93 42 15

Deadline for submission of this form is 20 July 2009.

Personal information

Family name..... First name

Date of birth (Da/Mo/Yr) ___/___/___

Nationality.....

Address

.....
.....

City/State/Country.....

E-mail:

Main type of fisheries you have experience with

.....
.....

When / Vessel, Fisheries / Position (apprentice - captain)

.....
.....
.....
.....

Education (when, grade)

.....
.....
.....

Other relevant experience

.....
.....
.....

Name.....

Date..... Signature.....

To be filled in by the RAC or non –EU delegate:

This candidate is nominated by:

Name.....

Date..... Signature.....

70 STUDENTS RECEIVE FSRS OCEANS 11 PROGRAM AWARD FOR OUTSTANDING ACHIEVEMENT

Seventy students from Oceans 11 classes throughout Nova Scotia received the eighth annual Fishermen and Scientists Research Society Award for Outstanding Achievement in the Oceans 11 Program. Twenty-six of these students received their awards at a ceremony held at the Bedford Institute of Oceanography, on Oceans Day. Each student was presented with their award and given a tour of the facilities by friendly and well trained tour guides. This annual award recognizes students, nominated by their teachers, who have demonstrated outstanding accomplishments in their Oceans 11 class, including level of interest, participation and contribution to the class, along with scholastic achievement. The Oceans 11 Program is a science program for grade 11 students, offering them the opportunity to learn about a wide range of marine science topics, including biology, oceanography, fisheries science and fisheries management.

Established in January 1994, the Fishermen and Scientists Research Society (FSRS) is a non-profit organization which is an active partnership between fishermen and scientists. The FSRS was developed with the overall objectives to establish and maintain a network of fishermen and scientists capable of conducting collaborative research and collecting information relevant and necessary to the long-term sustainability of marine fisheries, and to promote effective communication between fishermen, scientists and the general public. The current membership consists of 404 members. As the name suggests, the FSRS members are predominantly either fishermen or scientists who study the fisheries resources and the marine systems on which they depend. Other members include social scientists, educators and interested citizens. The prime requirements for becoming a member are an interest in the goals of the FSRS and a willingness to contribute towards them.

The FSRS works towards achieving the first objective in two related ways. First, members conduct science projects. These involve field collections of data, samples and specimens, and laboratory processing and analysis by FSRS technicians, interns and members. The data produced by FSRS projects have been used in stock assessments and marine mapping of fisheries resources, and published results have appeared in the primary scientific literature. The second way the FSRS seeks to improve the long-term prospects for our fisheries is through education, or more properly, co-education. Both the fishermen and scientist members have a wealth of knowledge about fisheries resources and the ocean. They certainly do not express it the same way but, more importantly it is not the same knowledge. When these two groups have put their heads together, learned each other's way of describing what they know, and pooled their knowledge, strong new insights have emerged.

As previously mentioned, one of the FSRS's primary objectives is also to facilitate and promote effective communication between fishermen, scientists, and the general public. With a view to advancing communication between these stakeholders and increasing fishermen's participation in fisheries science, the FSRS has undertaken a number of initiatives since its inception, including a quarterly newsletter, an annual conference and workshops, and a web site. Promoting communication and education also includes supporting initiatives such as the Oceans 11 Program, which is educating the future stakeholders of this industry, the future scientists and fishermen.

The FSRS implemented the Oceans 11 Achievement Award to recognize the efforts of others that work towards the goals they share with the FSRS. The development of the Oceans 11 program in our schools is clearly such an effort, and the achievements of students in the program are worthy of recognition.

The FSRS congratulates the following students who received the award:

School	Student	Student
Auburn Drive High School	Alannah Farouse	Logan Francis
	Tamara Lindenmann	Jordan MacRae
	Dominique Oliver-Dares	Kendra Pottie
	Lyndsey Smith	
Avon View High School	Sangah Lee	
Barrington Municipal High School	Thomas Crowell	
Breton Education Center	Greg MacPhee	
Cabot Junior/Senior High School	Shelby Buchanan	
Central Rural High School	Kelsey Brydon	Dexter Pulsifer
Chignecto Central Adult High School	Patrick Norwich	
Cobequid Education Center	Rebecca Denton	Briana Stewart
	Rebecca Blank	Nicholas Toole
	Kelsey MacKenzie	Myles Nicholls
	Katelyn Bower	David Callaghan
Cole Harbour District High School	Tajia Boudreau	Nicole Brackley
	Kelsy Burns	Conlin Harvey
	Keanne Thibodeau	Chelsea Tufts
	Kelsea Williams	
Dartmouth High School	Kaitlyn McKinnon	
Dr. John Hugh Gillis Regional School	Julie Vermeer	
École Secondaire de Par-en-Bas	Nathaniel King	
École NDA	Jérémie Larade	
Glace Bay High School	Maria Nicole Bonaparte	Kirsten Marie Cable
	Raven Alexandria Kostey	Garrett MacDonald
	Jessica MacInnis	Jennifer MacLean
	Stuart MacQuarrie	
Halifax West High School	Jarrett Bent	Matthew Campbell
	Samantha Martin	Spencer Scott
Holy Angels High School	Kristi Evans-Bragg	Emmy Hines
Lockeport Regional High School	Tyler Dominic	
Middleton Regional High School	Chelsea Fougere	Karen Hynes
	Tony Taylor	Pulsuk Khemapu Kpong
North Nova Education Centre	Taylor Borden	Michelle Lemieux
	Crystal Roberts	Lori Stewart
Park View Education Centre	Lindsey Vidito	
Riverview Rural High School	Jessica Conohan	Meredith Higgins
	Nicole Martell	Hannah Saxon
	Kathleen Steel	
Shelburne Regional High School	John Allen Williams	
South Colchester Academy	Alannah Collins	Stephanie Wilson
	Hilary Brown	Paxton Dickey
	Amelia Goulet	Matraca Volans
Springhill Jr/Sr High School	Jennifer Mont	Asia Shay

FSRS BIDS FAREWELL TO SOME AND WELCOME TO OTHERS

In recent months, the FSRS has seen a number of changes to its team of fisheries technicians and other staff. FSRS Research Biologist Carl MacDonald returned May 4th from his leave of absence but was soon bidding the FSRS a fond farewell when he was offered and accepted a position with Fisheries and Oceans Canada (DFO) as the newest advisor in resource management. Shannon Scott-Tibbetts has taken over the position of Research Biologist.

We have also bid farewell to Senior Fisheries Technician Jeff Graves. Jeff took a leave of absence last October to train to become a Fisheries Officer. He successfully completed the course and has accepted a Fisheries Officer position with DFO.

Fisheries Technician Eric Branton has accepted a position with the UPEI AVC Lobster Science Centre (AVCLSC). Eric had been hired by the FSRS in 2008 as the technician in Southwestern Nova Scotia for the Atlantic Lobster Moulting and Quality Project, a joint project with the AVCLSC, with funding for the position provided by the AVCLSC. This year it was decided to staff the position directly through the AVCLSC. Although no longer directly employed by the FSRS, Eric will still be helping with FSRS projects, such as the Lobster Recruitment Index Project and Lobster Collector project, as part of the collaborative relationship we have with the AVCLSC.

Tricia Pearo, who had been on a short-term contract with the FSRS, has now been hired permanently as a Fisheries Technician. In May, the Fisheries Technicians for the Petitcodiac River Causeway Lobster Monitoring Project, Lindsay Butland and Katie McGrath, were rehired after a winter break while the lobster fishing season in LFA 35 was closed and no sampling was being done.

There are three new additions to the team for the summer. Nicole Gear has been hired until mid-August as the Fisheries Technician in Cape Breton and is busy doing at-sea lobster samples and mackerel tagging. Jeanna Fletcher, Assistant Data Analyst, and Krista MacEachern, Fisheries Technician, have been hired until the end of August and are based out of the FSRS office at BIO in Dartmouth. They are keeping busy with v-notching and data entry for the lobster recruitment index project and other projects. Nicole and Jeanna will also be helping out with the deployment of the lobster collectors.

On behalf of the members of the FSRS, we wish Carl, Jeff and Eric the best of luck in their new jobs and welcome the new additions to our team. To learn more about the newest team members, check out their articles in this issue.

NEW ASSISTANT DATA ANALYST

My name is Jeanna Fletcher and I hail from the foggy village of Advocate Harbour, NS. I am the new Assistant Data Analyst at FSRS for this summer. I recently graduated from Mount Allison University with my Bachelor of Science in Biology with a concentration in animal and plant studies with a minor in Chemistry. I've been living and working in the fishing industry my entire life and have grown to love everything about it including the smell of bait to the keen fashion sense.

My favourite fish is the *Hippoglossus hippoglossus* (Atlantic Halibut). So, if you have any spare filets lying around, feel free to send them my way! I have two Tetra



-fin Goldfish, Rosa and Cuervo, and I have long ago accepted the irony of owning fish since I am the daughter of a fisherman.

I'm extremely excited to be working with this team and predict an educational and entertaining year.

NEW CAPE BRETON FISHERIES TECHNICIAN



Hello everyone, my name is Nicole Gear and I hail from Alder Point, Cape Breton, Nova Scotia. I hold the position of Fisheries Technician for the Cape Breton area with the Fishermen and Scientists Research Society.

Currently I am a student who will be soon completing a BSc with a Major in Marine Biology with Co-op in Marine Biology as well. Within my degree my main areas of interest are in fisheries oceanography and sustainable management projects involving fish and crustacean stocks as well as other marine species native to the Atlantic coast. A goal of mine would be to be able to continue doing farther research, specifically within the Maritimes.

Working with the FSRS I know will help me become closer to achieving this goal and it will be a great chance to test my knowledge and skills in my areas of interest. I enjoy being challenged and being given the chance to get 'hands on' with anything with which I am involved. Over the course of time that I will be with the FSRS, I will have the pleasure of working on some of the following projects; the lobster recruitment index project, lobster collectors and mackerel tagging all along the east coast of Cape Breton.

I am very excited to be given the opportunity to become part of the FSRS team. I hope to be able to contribute as much as I can to the many important research projects that the Society allows me to be part of. This work that I am involved with is a great learning experience and I hope to gain as much skill and knowledge that I can from my work term and meet many new people along the way.

NEW HALIFAX REGION FISHERIES TECHNICIAN

As one of the new fisheries technicians working this summer with the FSRS, I would like to introduce myself to you all. My name is Krista MacEachern and I am originally from Antigonish, NS. As a graduate of the Aquatic Resources and Biology Bachelor of Science program at St. F.X, I have a strong interest in the work that the FSRS has done, and is currently doing.

After graduating, I did a wide variety of research in a number of different fields, but it's great to be a part of fisheries research again! It's going to be a great summer, and I look forward to seeing a lot of you over the summer, and working with you on the various projects underway at the FSRS.



NEW TO THE FSRS LIBRARY

Journals

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Fundy Issues: Bay of Fundy Ecosystem Partnership. Issue 29. 2008.

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Weston, Rodney. MP, Chair. Report of the Standing Committee on Fisheries and Oceans, *The Canadian Lobster Fishery: Trapped In a Perfect Storm*. 40th Parliament, 2nd Session. House of Commons.

Brochures

Our Oceans, Our Future; Federal programs and activities brochure. Communications Branch DFO Canada. 2009

Green Boating Guide, T. Buck Suzuki Foundation. 2009.

Video

Oasis of the Deep: Cold water corals of Atlantic Canada. Fisheries and Oceans Canada. 2007.

CD

Volume 43/Number 1/February 2009, Proceedings of the 8th International Conference and Workshop on Lobster Biology and Management, 23-28 September 2007, Charlottetown, Prince Edward Island, Canada.



BEACHCOMBING - What's New in The News

Fisheries Standing Committee Report Makes Recommendations to Address Economic, Marketing And Sustainability-Related Challenges of The Lobster Fishery

The Standing Committee on Fisheries and Oceans released the Report, *The Canadian Lobster Fishery: Trapped In a Perfect Storm* in June 2009.

The report looks at the current low price of Lobster and discusses concerns about the high exploitation rate and the sustainability of the lobster fishery.

A copy of this report is available on the Parliament of Canada Web Site:
<http://www.parl.gc.ca>

Or from the Publishing and Depository Services, Public Works and Government Services Canada, Ottawa, Ontario K1A 0S5
Telephone: 613-941-5995 or 1-800-635-7943
Fax: 613-954-5779 or 1-800-565-7757
publications@tpsgc-pwgsc.gc.ca
<http://publications.gc.ca>

Or from the FSRS Library by contacting Patty King at pmdservices@eastlink.ca or (902) 876-1160

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UPCOMING EVENTS

Coastal Zone Canada 2010 Conference and Youth Forum

25-29 July 2010
University of Prince Edward Island
Charlottetown, Prince Edward Island

The conference is being hosted by the PEI Department of Fisheries, Aquaculture and Rural Development.

For more information visit the web site at:
<http://www.gov.pe.ca/czc2010/>

5th Annual Lobster Science Workshop "A Quality Product in Troubled Times"

July 15-16th
Rodd Charlottetown, Charlottetown, PEI

For more information visit the web site:
<http://www.lobsterscience.ca/workshop/>