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# HOOK, LINE AND THINKER

The Newsletter of the Fishermen and Scientists Research Society

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SPRING 2014

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## GREETINGS EVERYONE!

With the impending departure of your friend and colleague Patty King, a pair of large shoes (or fishermen's boots) is being left to fill at the FSRS wharf...



And so, it's with much excitement, honour and yes, a few butterflies... that I'd like to introduce myself as your newly hired senior manager. I'm Dina - a lobster fisherman's daughter who's passionate about protecting our fishery, our coastline and ensuring that a decent living wage remains feasible in rural parts of the Maritimes. A former teacher, manager, parks interpreter (and wearer of several other hats), I've worked with people from all walks of life. Like my father, I love a good story and I've rarely met anyone I didn't find interesting to talk to.

I've got lots of energy and passion and will do everything in my power to keep the FSRS legacy afloat, however this isn't a boat that can be steered by one captain. And so, I really hope you'll come out to meet me and bring new projects and ideas to the table.

***When would be a good time to meet?***

July 25<sup>th</sup> 2014, from 10 a.m. to 11 a.m.

***Where?***

At the Bedford Institute of Oceanography (BIO) where our FSRS communications team will be hosting a meet and greet.

I hope to see you there - I'm happy to be on the team and looking forward to getting to know you all!

As I begin looking to chart our new path forward, please don't hesitate to contact me by phone or email if you have any questions, comments or concerns. I'm very approachable, especially if you happen to be approaching with lobster or chocolate!

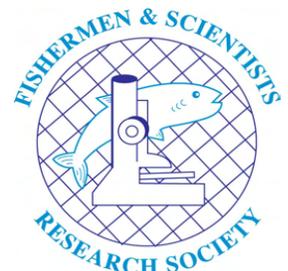
Here's to making this an exciting new FSRS chapter together!

My final words are for Patty:

Patty, you built such a beautiful vessel. My sincere wish for you is that the new voyage you're about to embark upon brings sparkling, pink sunrises full of promise and calm, serene seas every evening....

Cheers!

*Dina*



## FROM THE RESEARCH DESK

By Shannon Scott-Tibbetts, Fishermen and Scientists Research Society Research Biologist



As the lobster season closes in the Southwestern part of Nova Scotia, the Bay of Fundy, Eastern Shore and Cape Breton areas are continuing to collect valuable lobster data.

Our Senior Fisheries technicians Tricia Pearo and Shaun Allain are busy collecting data on lobsters from the Eastern Shore areas of Nova Scotia and our Fisheries technician Jennifer Dagley has been busy collecting data in Southwest Nova Scotia. They are sampling on the fishing boats collecting lobster measurements, checking on lobster condition, collecting additional information on the egg bearing females and learning more in general about lobster fishing in Nova Scotia. The technicians have collected data on 7361 lobsters since the spring fishing season began April 19th.

Our main lobster project, **The Lobster Recruitment Index project**, has entered its 15<sup>th</sup> year. We have over one million records of lobster information collected since 1999. We held our

information meetings for the Eastern Shore and Cape Breton fishing areas on April 4<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup>. Lobster Fishing Areas 33 and 34 have closed for the 2013/2014 season and the lobster data from the special science traps will be returned to the FSRS office over the next few weeks.

The **Atlantic Lobster Settlement Index** (Lobster collector project) is one of our collaborative projects. The FSRS works alongside biologists from DFO, University of Maine and University of New Brunswick (Saint John) to look at the settlement of stage IV lobsters/Young of the Year. The collectors (small traps full of cobble stones) will soon be deployed in June/July in Lobster Bay, False Bay and St Mary’s Bay. They will be retrieved in October/November once the lobster larvae have settled from the water column to begin their lives as bottom dwellers.

We have made some changes to our **Atlantic Lobster Moulting and Quality project**. The out of season field sampling has been dropped from the sampling plan due to a decrease in funding for this project for 2014. There will be preseason sampling completed in October for this project should funds be secured. The technician will be checking on lobster health and quality through measurements of blood protein and shell hardness and looking at moulting stages by examining the pleopods. You can learn more about this project by visiting the website at [www.lobstermoulting.ca](http://www.lobstermoulting.ca).

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The Canadian Fisheries Research Network's **Lobster Node project** is investigating berried females and timing of egg release to better understand the larval drift models and how the different stages all interconnect. Our FSRS technicians are recording information on berried females and collecting egg samples for further analysis as well as collecting females for research on maturity; this data is sent to researchers at UNBSJ.

Funding has been an issue this year and therefore we have had to reduce the number of projects with which we are involved. We are still on the lookout for additional funds to continue our projects for 2014/2015. Moving forward the FSRS can only take on projects for which we have full funding.

In other news, we were lucky enough to be invited to the Canadian Lobster Value Recovery Summit held in Halifax, NS on March 26<sup>th</sup> and 27<sup>th</sup>. Patty King and Shaun Allain attended the first day of the summit and myself, Tricia Pearo and Shaun attended the second day to learn more about the industry. The Lobster Summit was in response to the Maritime Lobster Panel report and the need for further collaboration and discussion about the lobster industry and its various issues.

Day One of the Summit started with a snow storm but there was a good turnout despite the weather. After the opening remarks from Geoff Irvine, Lobster Council of Canada, the three provincial Fisheries Ministers, Michael Olscamp, Ron MacKinley and Keith Colwell welcomed the participants to the Summit and gave their thoughts for a successful Summit. Following the Ministers' remarks, there was a review of the Maritime Lobster Panel recommendations. There were four main recommendations from the Report: 1. The establishment of an independent Maritime Lobster Market Intelligence Institute; 2. To develop and implement a comprehensive generic marketing and promotion campaign for Canadian lobster; 3. The development and implementation of a price setting mechanism for determining price pre-season; it would have to be legislated, is not mandatory but used by a particular group, that price is the minimum legal price allowed; and 4. Process to be

set up to collect an industry levy to support the other recommendations and an amount of 1 cent/pound to be paid by fishermen and 1 cent/pound from buyers.

Overall it was felt that up to date information was needed to make good business and management decisions. It is also important that the information is concise and reported in a timely manner. The Nova Scotia Coalition on Building Our New Economy's Ivany Commission Report mentioned the Maritime Panel Report in their document. They were very pleased that this open discussion process was occurring for Nova Scotia. ([www.onens.ca](http://www.onens.ca), page 55 for the lobster content).

On the second day of the Summit, the keynote address was from Egil Ove Sundheim, Director Market Information, Norwegian Seafood Council (NSC). The keynote address was given via phone conference as the snow storm impeded his travel to Halifax. Egil gave us a briefing about the Norwegian Seafood Council and how it operates in Norway. It is owned by the Norwegian Minister of Trade, Industry and Fisheries and is financed by the Norwegian seafood council through a levy on all seafood exports. One of the main points presented was on the importance of the media and the ability to promote your product and facts to the public in a correct and concise manner. Adapting to the customs of the target market to get the message out in the target area was also noted as being important; it is necessary to select the correct words and images for the culture being targeted.

Following the informative presentation from Egil, there was a panel discussion about implementing an industry levy that supports Canadian lobster value recovery. Joseph LaBelle (New Brunswick Department of Agriculture, Aquaculture and Fisheries), Ian McIssac (PEI Marketing Council) and Robert LeFurgey (Nova Scotia Department of Fisheries and Aquaculture) spoke about how they saw the levy affecting their provinces' policy and how they could/couldn't change the policies to make it work for the industry. Overall the discussion was varied concerning the levy but it was felt that more education was needed to get the industry to understand the reasons for a levy and how the fishermen themselves could benefit from it.

Fisheries and Oceans Canada (DFO) Minister Gail Shea was present for a short time after the lunch break and she spoke about the Maritime Lobster Panel report and the industry in general. She spoke about DFO's role in helping to maximize fisheries economic value, increasing funding to improve small craft harbours, the successful trade agreement with Korea, and NS/NB entering the MSC full assessment phase. Minister Shea did emphasize that fishermen must be organized and that the governments will work closely with fisheries organizations to help keep the fishery sustainable.

The Lobster Summit finished off with a lobster sector round table discussion and a review and

closing remarks. One of the authors of the Maritime Lobster Panel report wanted the take home message to be about moving forward and to not get bogged down in details. There is a need for market intelligence, generic marketing, and more understanding from the fishermen about a lobster levy.

You can reach me at the FSRS office at any time for further discussion on these or any fisheries related issue at 1-800-226-3777 or by email at [Shannon.tibbetts@fsrs.ns.ca](mailto:Shannon.tibbetts@fsrs.ns.ca). You can also learn more about our various projects at [www.fsrs.ns.ca](http://www.fsrs.ns.ca).

## 57 STUDENTS RECEIVE FSRS OCEANS 11 PROGRAM AWARD FOR OUTSTANDING ACHIEVEMENT

Fifty-seven students from Oceans 11 classes throughout Nova Scotia received the **11<sup>th</sup> Annual Fishermen and Scientists Research Society Award for Outstanding Achievement in the Oceans 11 Program**. Eleven of those students received their award at a ceremony held June 6<sup>th</sup> at the Bedford Institute of Oceanography in Dartmouth as part of Oceans Day celebrations. The students were presented with their awards and given a tour of the facilities by friendly and well-trained tour guides. The other students will receive their awards at ceremonies at their schools later this month.

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, and 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.

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

The FSRS would like to thank Ducks Unlimited, Wildlife Habitat Canada, the Canadian Wildlife Federation, and the Fisheries Museum of the Atlantic for their generosity in providing gifts for the award winners.

The FSRS congratulates the following students who received the award:

School	Student
Annapolis West Education Centre	Adrienne Lewis Marissa MacDonald Cole Orde
Avon View High School	Marlee Caldwell

School	Student
Barrington Municipal High School	Cara Atkinson Mercedes Nickerson Sarah Senst Zhongyun (Rose) Yue
Bridgetown Regional High School	Randy Fredericks
Cabot High School	Breigh Doyle
Cobequid Educational Centre	Gabriel Domingues Alicia Gould
Cobequid Educational Centre	Rebecca Green Bruce Landsberg Connor MacCoul Emma MacDonald Colleen Matheson Samantha McNutt Cabot Morgan Morganne Peck Brittany Pettigrew Mitchell Tarrant Nick Zscheile
Dr. John Hugh Gillis High School	Dyson MacLeod
École acadienne de Pomquet	Gilles Marchand
École Secondaire de Par-en-bas	Austin Amirault
J. L. Ilsley High School	Dante Manuel Sarah Marryatt Sean Vallis
Parrsboro Regional High School	Seth Lake
Pugwash District High School	Taylor Purdy

School	Student
Riverview Rural High School	Amy Boone Dylan Devison Victoria Howell Brady Lush Karlie Macinnis Cameron MacKinnon
South Colchester Academy	Trent Lynds
St Mary's Bay Academy	Raianne McNeil
St. Mary's Education Centre/Academy	Jenny Kaiser
Yarmouth Consolidated Memorial High School	Brittany Adams Maryann Chisholm Stacey Muise Carly Churchill Gregory Kaiser Amelia Rowe

## FSRS WELCOMES SUMMER STUDENT BRADLEY CLEM

My name is Bradley Clem and I am the student on board with the FSRS this summer. I am originally from Berwick, Nova Scotia and am entering my fourth and final year at Dalhousie University where I am completing a Bachelor of Management.



I have a great interest in our fisheries industry and strongly believe that collaboration between fishermen and scientists is the best way to ensure the continued prosperity and sustainability of this staple of our Atlantic economy. I look forward to helping the FSRS to the best of my abilities this summer.



## AMERICAN LOBSTER SETTLEMENT INDEX UPDATE 2013

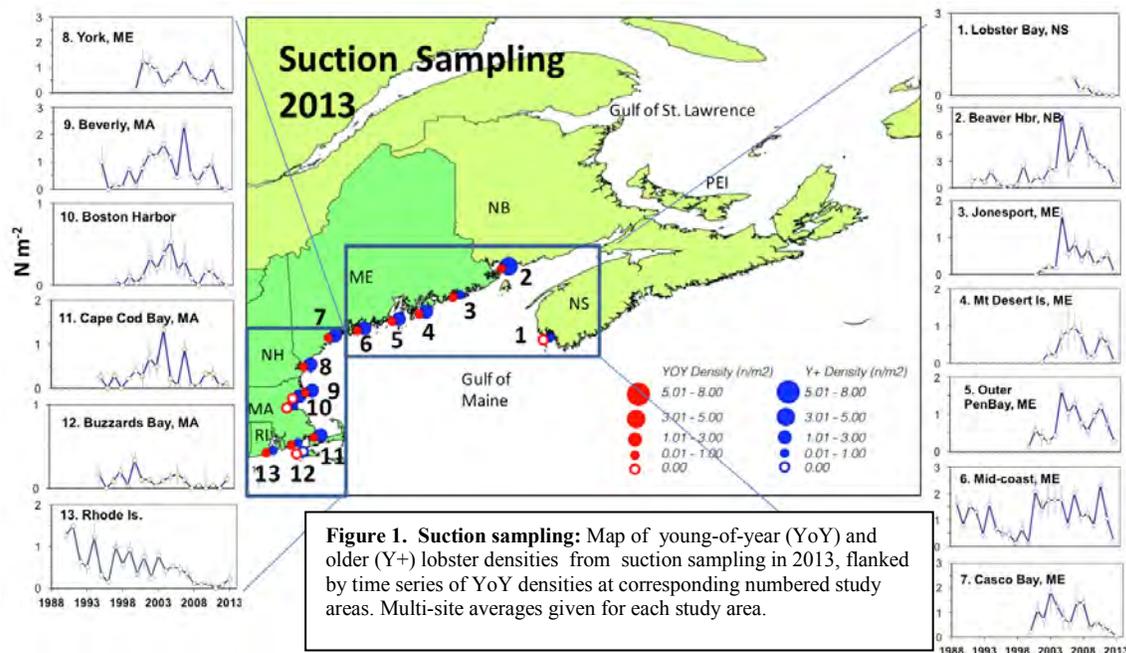
**Compiled by:** Richard Wahle & Noah Oppenheim (UMaine, [richard.wahle@maine.edu](mailto:richard.wahle@maine.edu))

**Participants:** ME DMR (C. Wilson), MA DMF (R. Glenn), RI DFW (M. Gibson), NH F&G (J. Carloni), DFO Canada (M. Comeau, P. Lawton, J. Tremblay), UNB, St. John (R. Rochette), Guysborough Co. Inshore Fishermen's Assoc., NS (E. O'Leary), Fishermen & Scientists Research Society (P. King)

<http://www.umaine.edu/marine/people/sites/rwahle/ALSIPage.htm>

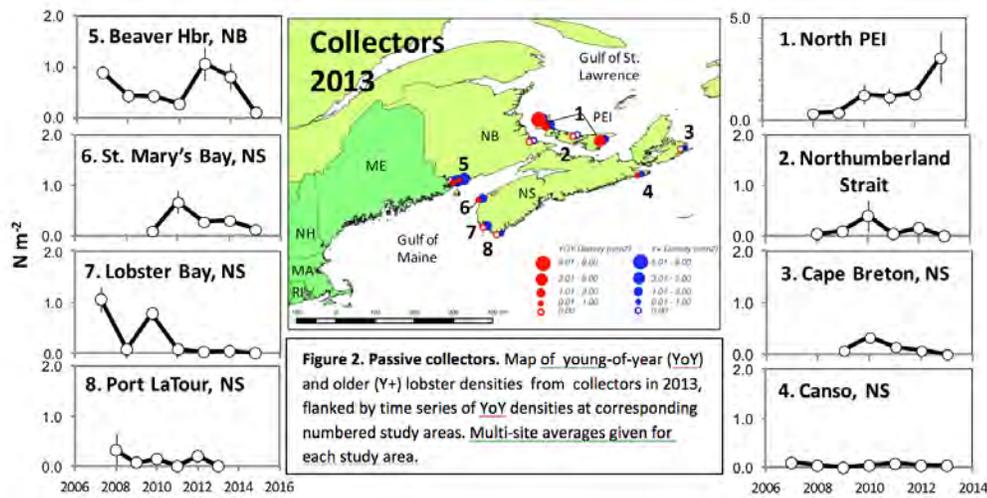
A widespread and deepening downturn of lobster settlement over much of the species' range is heightening concerns for the future of the region's lobster fishery, even as new data indicate a rising tide of lobsters in parts of the southern Gulf of Saint Lawrence. Before the full ALSI survey results had been compiled from all regions this spring, news of settlement declines and an uptick in shell disease in Maine prompted the state's marine resources commissioner to launch a series of meetings with the lobster industry to discuss the implications. Despite the settlement downturn, in 2013 Maine logged its second highest lobster

landings on record, at 126 million pounds (57,000 MT). Amidst this boom in production, questions remain: why is settlement trending downward, and what does it mean for the industry? This issue of the *Update* summarizes the regional ALSI time trends, and includes previously unreported survey time series from vessel-deployed collectors in Atlantic Canada. Finally, setting aside the question of why for now, we take a glimpse at preliminary ALSI-derived fishery recruitment forecasts that may forebode declines in the catches of some of today's most productive areas.



**Settlement 2013:** The diver-based suction sampling survey, our longest ALSI time series, reveals the precipitous downturn in settlement in the Gulf of Maine, from southwest Nova Scotia to Massachusetts (Fig. 1). The possible exception is Cape Cod Bay where settlement remained nearly even with 2012 levels, but was already as low as ever. Recent trends have reversed the growing contrast of recent years between the settlement

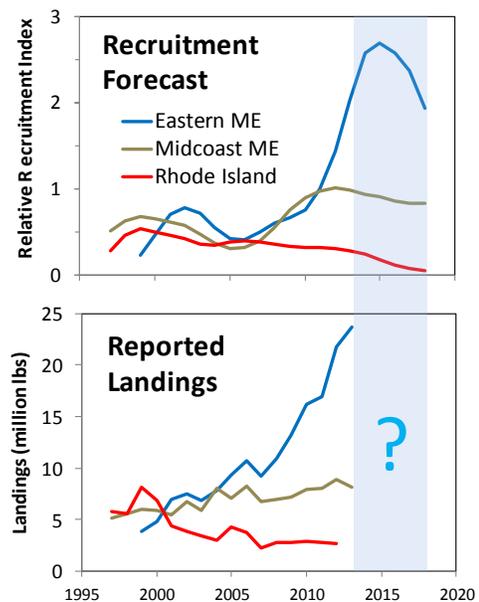
upsurge in the Gulf of Maine and the near collapse in southern New England. Although settlement south of Cape Cod remains barely detectable, Rhode Island and Buzzards Bay both reported a small uptick, the second year in a row for Rhode Island, which had bottomed out in 2011. Settlement at new sampling sites near Martha's Vineyard, MA, remains low.



In much of Atlantic Canada vessel-deployed passive collectors - rock-filled wire mesh trays lined with a fine screen - have been in use as a settlement monitoring tool since 2007. Although collector-based time series are still relatively short, they reaffirm the downward settlement trends observed by suction sampling, and even extend reports of the decline as far as Northumberland Strait on the south side of Prince Edward Island (Figs. 2). In contrast, the north shore of PEI has been seeing steady increases in settlement since surveys began. Previous research has demonstrated that the two monitoring methods produce comparable results.

**Forecasting:** Stakeholders are asking what the settlement downturn may mean for the future of the lobster fishery. In *Update 2012* we illustrated how we track the fate of a year class during its first year. While only a baby step, this analysis showed that the initial settlement signal determines year class strength well beyond a few weeks after larvae settle. But modeling the leap from settlement to fishery recruitment is more uncertain, in part because we need to account for growth and survival over the years it takes lobsters to mature to the fishery. Since growth rates vary, lobsters recruiting to the fishery in any given year may range from 5 to 9 years old, depending largely on temperature and individual variability. Fig. 3 compares our preliminary projections to corresponding landings for three regions with the longest ALSI time series. These locations also represent dramatically contrasting thermal regimes across a large portion of the species' range. The forecasts capture the divergent trajectories of reported landings for the three areas in the recent past. Over the next few

years, they suggest a considerable downturn in eastern Maine (still well above the long-term average), a continuing downward slide in RI, but little change in midcoast Maine. Note that the projection gives recruitment trends, not the absolute number of recruits. Uncertainty about changes in growth rate and natural mortality during the post-settlement years could change the outlook. Also bear in mind that a host of environmental and economic factors unrelated to recruitment can alter landings trends, so it will be critical to validate model predictions with abundance data from fishery



**Figure 3. Early warning?** Preliminary model projections of fishery recruitment index trends and reported landings through 2018 for 3 regions within the ALSI purview. Because landings mostly comprise newly recruited lobsters, they can be a useful indicator of recruitment, notwithstanding other factors that might influence landings. Projections from settlement time series 2, 8 and 13 in Fig. 1

## BEACHCOMBING - What's New in The News

**D**ina Desveaux came 'on board' as Senior Manager of the Fishermen and Scientists Research Society (FSRS) on June 4, 2014. She will be responsible for managing all aspects of the FSRS, including general, financial, and human resource management of the organization. In addition to overseeing the delivering of all scientific projects currently underway, Dina is eager to discover new projects, developments, possible collaborations and initiatives. Dina will also manage the communication, education and awareness initiatives like the newsletter, the annual conference and the Oceans 11 awards.

Dina can be reached through email at [Dina.Desveaux@fsrs.ns.ca](mailto:Dina.Desveaux@fsrs.ns.ca) or by phone at 902-461-8119

For media enquiries please contact Hilda Russell, Chair of the FSRS Communications Committee at [russelhj@gov.ns.ca](mailto:russelhj@gov.ns.ca).

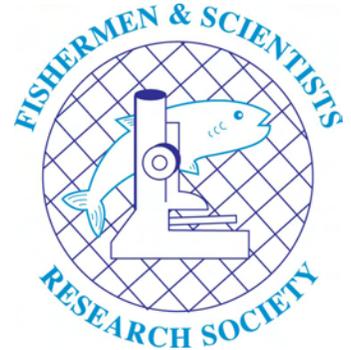
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## THE LOSS OF A GREAT STORYTELLER, JACK MACANDREWS

**I**t is with sadness that we report the passing of Jack MacAndrews in late May from recently diagnosed cancer. A well-known journalist, Jack was a valuable member of the FSRS and the Communications Committee in particular. He was a strong advocate of the FSRS, writing numerous articles about our research and our annual conference, always willing to promote the collaboration between fishermen and scientists which is the foundation of the FSRS. The article on CBC's website at <http://www.cbc.ca/news/canada/prince-edward-island/jack-macandrew-journalist-broadcaster-and-theatre-producer-dies-1.2651999> provides insights into not only Jack's career as a journalist but also his history in broadcasting and the theatre amongst other things. His enthusiasm and support for the FSRS will be greatly missed.