



ATLANTIC
LOBSTER SUSTAINABILITY
FOUNDATION

Newsletter

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Research. Replenish. Results.

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Message from the Executive Director

It's hard to believe another summer has come and gone and with it our Annual Atlantic Lobster Sustainability Foundation Science Workshop on Sustainable Growth of the Atlantic Lobster. It was another great workshop bringing together people from all sectors of the lobster fishery – fishermen, processors, buyers. These are the people who work every day in this business and we had the chance to join with scientists who are looking at the future sustainability of the species and the fishery. It was a really productive and educational workshop for all of us.

More than 133 participants gathered for the two day event from Atlantic Canada, Québec, Iles de la Madeleine, Ontario, New England, Washington State, Belgium and New Zealand.

We were especially pleased to welcome Canada's federal Minister of Fisheries & Oceans Hon. Keith Ashfield along with his provincial counterparts from the Maritimes: Hon. Michael Olscamp(NB); Hon. Ron MacKinley (PEI) and Hon. Sterling Belliveau (NS). Every stakeholder in the lobster industry whether on the water, in a processing plant, in a lab or as a buyer is heavily influenced by government policy decisions so it was really important for us to have

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Summary of Science Presentations

During our Annual Atlantic Lobster Sustainability Foundation Science Workshop on Sustainable Growth of the Atlantic Lobster we heard from a variety of experts in lobster research and sustainability.

Dr. Andrew Jeffs of the University of Auckland opened the workshops with a discussion on the enhancement of marine organisms noting that removal of predators can be an excellent approach to enhancement (e.g. scallops). He pointed out that there is a lack of understanding of ecological processes and advised that projects need specific goals and stakeholder involvement. Although new technologies are promising, we still need to understand the recruitment bottleneck.

David Smith, VP Retail Strategy and Sustainability, Sobeys, discussed the notion of sustainability in retail. The bottom line depends on social, economic and environmental factors and he encouraged us to think of it as "responsibility" rather than "sustainability."

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Scholarship & Research Funding News

This year the Atlantic Lobster Sustainability Foundation was pleased to award its first annual scholarship to Benoît Bruneau who is studying at Université de Moncton. His will examine the behavior and survival of stage IV lobster larvae on different types of ocean bottom.

“As a graduate student, I am honored to have received a scholarship from the Atlantic Lobster Sustainability Foundation (ALSF),” says Benoît. “Their support and trust is greatly appreciated and will definitely help move the project forward.”

“The main objective of this study is to quantify how different thickness of fine sediments over preferred substrate will affect the behaviors of lobster larvae displayed during settlement. This project is part of a united effort between the academia, the government and the fishing industry in providing answers to questions raised by lobster stakeholders in eastern Canada. Improvements in the understanding of the lobster life cycle and recruitment processes are needed to better manage stocks says Benoît. Results from this study will rapidly provide useful information to the lobster industry by generating a pertinent and original data set to better understand recruitment processes as well as additional knowledge to increase the effectiveness of seeding.”

“Most marine benthic invertebrates have a complex life cycle including a pelagic dispersal phase followed by a benthic settlement phase. The transition between these phases is known as larval deposition and is critical to the American lobster (*Homarus americanus*). Larval deposition on the sea bottom is observed at stage IV. Lobster larvae are then vulnerable to various predators and will adopt a cryptic behavior to increase survival. Among the various biotic and abiotic factors that may affect larval deposition, the effect of sedimentation is poorly understood. In regards to climate change and diverse anthropic activities, particles deposition can be severely affected and ultimately impede the settlement and recruitment of the American

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the support of these Ministers.

The workshop had three specific goals:

1. **To inform stakeholders on the latest lobster science at home and abroad** by hearing from a number of scientists working in lobster research.
2. **To discover opportunities for serving the industry** through our roundtable discussion with our industry representatives, and;
3. **To map the way forward to support lobster sustainability through science** with input from participants about their priorities for investment and sustainability research.

If we want a viable lobster fishing industry we need to look at the challenges and at our practices so that we don't get trapped in feast or famine cycles. We need to be sharing information and investing in science that will help us build a sustainable industry that will be able to respond to shifting markets and benefit the coastal communities that depend on this industry. What better time to be investing in future sustainability than now when stocks seem so strong in many areas. Let's not let this opportunity pass us by.

This is our fourth issue of this newsletter and looking ahead we'd like to hear from you – what's happening in your LFA? In your sector of the industry? In your research? What issues would you like to hear about. Email us your story idea at info@lobster-homard.ca

Industry perspective: what research is missing on lobster sustainability?

Following our first science workshop in 2011, we heard recommendations that more time should be devoted to the industry perspective so we were pleased to include an industry round table in our 2012 event. As the federal government reduces research, participants felt the lobster industry should take more control of its science and research program with universities and the private sector playing a greater role. They also advocated for research at the local level where the stakeholders can have a voice on what work is done and how it will be applied to resolving local problems. Some of the research gaps identified include:

- **Coastal ecosystems and not just landings data:** We should not be complacent about the current high abundance of lobster. Large changes related to global warming are taking place in the marine ecosystem. Consequences of today's actions will be felt in 10-15 years. We need to better understand the threshold of where things may go wrong to avoid what happened to cod.
- **The socioeconomic perspective:** The three pillars of research on sustainable lobster are: resource, economy and community. The community is often forgotten. How can we maintain sustainability if we do not have quality of life in the communities?
- **Eco-certification:** As European and American markets become more demanding Canadian lobster fisheries will need to have third-party certification in order to enter these markets. We need research that would support eco-certification, including assessing stock status and potential impacts of the lobster fishery and ecosystem management.
- **Better quality product:** Up to 20% of landings can be discarded because of soft or weak lobster. The main priority in the lobster fishery should be to define the appropriate season for harvesting to get a better quality product. We also need to educate harvesters to improve handling and value of the product.
- **The impact of fishing patterns** that have moved further offshore and that target large or jumbo lobsters. Are we impacting the breeding stock?
- **The impact of fish farming** in open net pens on the natural ecosystem and lobsters. Fish farming should not be expanded until these impacts are better understood.
- **The impacts of toxic chemicals** and their interactions on the lobster.
- **Cost and benefits of harvesting strategies:** Reduced time at sea could lead to savings in fuel and an increased market price. 

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The Roundtable on Sustainability discussed what is meant by sustainability agreeing that lobster sustainability goes beyond the simple laws of the market and needs a long-term vision with government intervention. They encouraged reference points for stock health, harvest control rules and protocols related to bycatch for certification. It was suggested that the future of the lobster fishery depends more on empowering communities than continued economic growth and sustainability depends on what can be done to improve our weakest link.

Michael Tlusty of the New England Aquarium noted that climate change and lack of cold water may have large impacts on the early hatching and release of lobster larvae and the prevalence of disease, particularly in areas south of Maine. At the same time reproducing females appear to be getting smaller. He encouraged researchers to better communicate with one another.

Réjean Hébert outlined DFO's lobster sustainability measures that included a retirement of about 10% of licences, removal of 18,000 traps, an increase of legal size in the southern Gulf and measures to protect habitat.

Susanna Fuller of the Ecology Action Centre proposed that Canada is not meeting its biodiversity obligations citing a report by the Royal Society of Canada on marine biodiversity that found an increase in marine mammals and a 55% decline in fish biomass. Climate change has resulted in 2 degree increase of sea surface temperature, a decrease in oxygen in the Gulf of St. Lawrence, a 37% increase in ocean acidity and a 4% decline in ice cover.

We heard nine presentations from lobster research many of which were supported by the ALSF. The studies were closely linked to coastal communities, their fisheries and impacts of human activities. Presenters highlighted the need to have this type of forum to share information and understanding from the different perspective of all stakeholders.

In her recap of the science presentations Brock University's Liette Vasseur concluded that it would be fruitful to discuss the ecosystem, the species, the fishing community and the industry. By combining efforts we can see the bigger picture. 

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The next scholarship application deadline is December 15, 2012. A form is available on www.lobstersustainability.ca

Part I. Application form accompanied by a document of two (2) pages describing your research projects, expected results and its contribution to lobster sustainability.

Part II. The supervisor must complete a letter of support which should include the feasibility and appropriateness of the research project of the student, the importance of the scholarship for the student, the expected results from the supervisor point of view, overall academic excellence and research ability or potential of the student.

Forms for the next round of research projects can be found on the website.

Research Project Funding Deadlines & Review Process

- Letter of intent **Oct 31**
- Submission deadline **Dec 15**
- Science committee review **Feb 15**
- Foundation Board final approval **March 15**
- Notification of applicant **March 31**

About the Foundation

The Atlantic Lobster Sustainability Foundation is a non-profit, public/private sector association representing all stakeholders in the lobster industry; harvesters, processors, employees, marketers, customers, scientists, governments, and other interested parties; dedicated to preserving and enhancing the viability of the lobster industry and its communities for future generations through undertaking, sponsoring, and promoting scientific research on stock and habitat enhancement, environmental and ecological protection and sustainability of the industry as a whole. 🍷

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We'd love to hear from you.

Have a story idea? News from your area? Know someone we should be profiling? Stakeholders we should be adding to our distribution list?

Email suggestions to info@lobster-homard.ca

Mark your calendar! The next Atlantic Lobster Sustainability Foundation Science Workshop will be:

July 23 & 24, 2013.



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