

FISHERIES AND AQUACULTURE

NEWS

CONTENTS

Red sand shrimp fishery:
Biotechnical feasibility
study underway on
the North Shore

2

A maritime strategy to
develop coastal regions

American Fisheries Society:
Nearly 2,000 fisheries experts
meet in Québec City

3

Delegation of Taiwanese
investors welcomed

From subsistence
to *table d'hôte*:
A history of the North
Shore for foodies

4

The preliminary data for the 2014 fishing season provide an overview of the industry's performance over the course of the past year. The figures as they stand today indicate an increase in the total value of seafood landings in Québec, despite a drop in the volume of landings.

With an estimated value of \$181.2 million, Québec landings have reached a record level not seen since 2004, although the 45,959-tonne total catch volume is markedly lower than last year. Rising prices for some major species, such as snow crab, lobster and shrimp, have served to offset the impact of the drop in catches, notably on the Gaspé Peninsula.

Although preliminary, this overview shows that markets are strengthening and bodes well for the sector for the next few years. Consequently, we invite the industry to continue the work undertaken to improve product marketing and

develop new markets. On the other hand, the drop in landings raises questions about how marine resources are used. We need to reflect on the best way to make the most of the fish and seafood stocks available to us. This work is already well underway within the food processing industry. In this regard, the diversification in processed lobster products is a fine model to follow.

In closing, we remind you that last May 8, the Government of Québec announced

its intention to implement a maritime strategy. This major measure, which seeks to enhance the potential of the St. Lawrence and its estuary, is one of the pillars on which the government intends to base its efforts to revitalise the economy. Of course, Québec's maritime regions will play a key role in the deployment of this strategy.

We wish you all an excellent season's end!



Pierre Paradis
Minister of Agriculture,
Fisheries and Food



Germain Chevarie,
MNA for Îles-de-la-Madeleine
and parliamentary assistant to
the Minister of Agriculture, Fisheries
and Food

NORTH SHORE BIOFOOD FORUM NOVEMBER 4 AND 5, 2014

By Marthe Kleiser,

North Shore Regional Directorate

The North Shore Biofood Forum will be held in Sept-Îles on November 4 and 5, 2014; it will be the fourth edition of this biennial activity. This year's theme is *North Shore biofood: A world of opportunities*. Participants from the region and from throughout Québec are expected to attend the event at the Cégep de Sept-Îles in great numbers.

The Forum is a perfect venue for producers, fish harvesters and processors active in the fisheries, aquaculture and agriculture sectors as well as for restaurant operators and distributors who want to build or expand their business networks and stimulate business opportunities. The North Shore Biofood Forum also gives the general public a chance to

discover local and regional products by visiting the exhibitors' stands.

Presentations focussing specifically on the concerns and needs of participants will deal with such topics as the next generation and the transfer of companies from one generation to the next, taxation, innovation, markets and the latest trade agreements with Europe as well as with the impacts of climate change on the biofood industry in the North.

As was the case at the last edition, the meals served to participants will feature products sourced exclusively from North Shore agriculture, fishery and aquaculture. It is important to point out that the 2012 edition of the Forum was awarded the *Vivats* prize for the *Food* category,

Québec's greatest accolade for the organisation of an eco-responsible activity.

The Forum will also be an opportunity for actors in the fisheries and aquaculture system to take part in relevant training activities, notably a seminar exploring the *Identification, traceability and ecocertification of aquatic products: The new market reality* organised jointly by the freshwater aquaculture system table and the Québec mariculture system table in cooperation with the Ministry of Agriculture, Fisheries and Food. This will be the last opportunity to take part in this seminar, already offered on the Magdalen Islands and in Gaspé. Participants can learn about and gain a greater understanding of the latest consumer

trends and the growing demand for products derived from eco-responsible activities.

The Ministry of Agriculture, Fisheries and Food is partnering this gathering, which encourages network building between industry players, and showcases the North Shore's biofood products and businesses. MAPAQ has provided funding for this event via its *Financial support program for collective initiatives in the commercial fisheries and aquaculture sector*. Don't miss this important gathering!

To register or for information, please visit <http://www.tablebioalimentaire.cotenord.ca/>

PUBLISHED BY

Le ministère de l'Agriculture, des Pêcheries et de l'Alimentation
Commercial Fisheries and Aquaculture Branch
96 Montée de Sandy Beach, Suite 2.06, Gaspé, Québec G4X 2V6
www.mapaq.gouv.qc.ca

Coordination team: Donald Arseneau, Micheline Côté, Meggie Desnoyers,
Micheline Fournier, Jean Lavallée, Rabia Siga Sow, Louise Therrien.

Graphic design: Ghislaine Roy

FISHERIES AND AQUACULTURE NEWS is published bimonthly
as an insert in Pêche Impact.

Québec 

RED SAND SHRIMP FISHERY: BIOTECHNICAL FEASIBILITY STUDY UNDERWAY ON THE NORTH SHORE

By Julie Boyer,
Gaspé Peninsula Regional Directorate

The red sand shrimp (sculptured shrimp) is currently drawing the attention of North Shore fish harvesters and buyers who are interested in using new marine species to improve their income and diversify the regional marine product supply. Some people feel that the species, given its large size, could occupy a niche similar to that of the Norway lobster. The red sand shrimp is a benthic species that dwells on rugged seabeds in the Estuary and Gulf of St. Lawrence. It has never been commercially developed in Québec.

In 1979, a summary evaluation of the potential for a commercial harvest of the red sand shrimp stock in the Mingan Islands area – done by the Ministry of Agriculture, Fisheries and Food (MAPAQ) – showed an area of concentration but concluded that the stock was not very abundant in the study area. Since the early 2000s, other research, done primarily by Fisheries and Oceans Canada (DFO), has served to improve knowledge about red sand shrimp biology and its life cycle. However, the crustacean's distribution and abundance are two aspects which are still poorly documented.

RED SAND SHRIMP BIOTECHNICAL FEASIBILITY STUDY

Last spring, Mathieu Morin, a biologist at Merinov Centre in Sept-Îles, Bernard Sainte-Marie, a Maurice Lamontagne Institute researcher, Jean-Claude Brêthes, a Université du Québec à Rimouski professor, and student Wassila Merabti began a research project to evaluate the biotechnical feasibility of a red sand shrimp fishery on the North Shore. The team is seeking to determine areas of interest between Tadoussac and Blanc-Sablon suitable for the harvest of this species, find the best trap for this fishery, and improve knowledge about the species' biology and the status of its population.

GATHERING INFORMATION ON THE SPECIES' DISTRIBUTION AND ABUNDANCE

The researchers are currently conducting a study surveying fish harvesters to hear what they have to say about the species' distribution and abundance in terms of red sand shrimp by-catch, particularly in their scallop dredges and whelk pots. They also consulted the data held by the Réseau de suivi de la biodiversité aquatique, adding this information to their study. Details obtained via the surveys conducted in North Shore waters every year by DFO round out the information needed to identify and map the areas of interest. A review of the literature and a synthesis of the oceanographic data made available by Jean-Denis Dutil, of Fisheries and Oceans Canada, will then be used to characterise the selected benthic environments based on such parameters as depth, substrate and currents.

Last May and June, Bernard Sainte-Marie conducted new scientific surveys at sea along the North Shore to document the shrimp population, including details on depth, temperature and substrate. Wassila Merabti is analysing the size, sex and maturity of the specimens caught, which will improve knowledge about the distribution of classes of individuals in this environment.

CHOOSING THE RIGHT FISHING GEAR

Traps would seem to be the best gear for catching red sand shrimp. In this regard, a workshop for fish harvesters and Merinov Centre staff as well as for MAPAQ and DFO representatives will be held in Sept-Îles next spring, the specific goal being to identify the most suitable trap model. The researchers responsible for the project will also consult specialists at the Institut français de recherche pour l'exploitation de la mer (IFREMER) on this same subject. Once these actions have been completed, two or three trap models will be selected on the basis of specific criteria including price, robustness, ease of handling and repair, behaviour of the gear in the current, the trap's ability to hold bait, and its selectiveness.

WORK PLANNED FOR 2015 AND 2016

In 2015, tank trials will be conducted to identify the best traps, without considering certain factors such as the presence of predators and bait competitors. Thereafter, at-sea trials will take place in the selected areas with the assistance of a professional fish harvester, the goal being to compare the catch efficiency of each of the selected traps, determine the best period for fishing, and explore the fishing area. These tests will also serve to make technical adjustments to the lines, ballast, and baits, observe shrimp behaviour using an underwater camera, and identify the best areas. Finally, in summer 2016, a larger scale fishing campaign will be conducted.

The results will inform fish harvesters and managers about the feasibility of a red sand shrimp fishery and help them make an informed decision regarding the harvest of this marine species. The MAPAQ's North Shore Regional Directorate is taking a great interest in this project, which is being supported financially by MAPAQ.

For more information about this project, please contact Mathieu Morin by phone at 418-962-9848, ext. 376, or e-mail him at mathieu.morin@merinov.ca.



A MARITIME STRATEGY TO DEVELOP COASTAL REGIONS

By Jean-Michel Poulin,

Fisheries and Aquaculture Analyses
and Policies Directorate

Last May, the Government of Québec announced that it would be moving forward with the deployment of a maritime strategy designed to stimulate the revitalisation of Québec's economy. This major measure aims to boost the economy in Québec's coastal regions, make the most of the capacities of new industrial systems, and enhance the potential of the St. Lawrence. The strategy is multi-sectoral in scope and notably encompasses the marine shipping, fisheries and aquaculture, maritime tourism, marine and environmental technologies and labour training sectors.

A ministerial committee chaired by Jean D'Amour, Minister for Transport and the Implementation of the Maritime Strategy and Minister responsible for the

Bas-Saint-Laurent and Gaspésie—Îles-de-la-Madeleine regions has been mandated to carry out this ambitious initiative. Numerous ministries are engaged in the strategy's implementation even as government authorities work to put it into place. For instance, the Ministry of Agriculture, Fisheries and Food has actively taken part in the efforts undertaken so far. At the same time, the interministerial committee is proceeding to consult industry actors to thoroughly identify needs. The government will announce the measures it intends to introduce via this strategy within the next few months.

Québec's maritime environment is vast and one of the cornerstones of its economic development. The commercial

fisheries and aquaculture sector is crucial to the maritime strategy's design and implementation. In fact, historically, this sector has been a pillar in the growth and prosperity of Québec's maritime regions and it has had a considerable impact not only on regional economic growth but also on the way the coastal area is occupied. Today, numerous coastal communities depend greatly on the spinoffs generated by commercial fisheries and aquaculture activities, particularly on the North Shore, Gaspé Peninsula and Magdalen Islands.

The sustainability and prosperity of the commercial fisheries and aquaculture sector are intimately connected to the capacity of companies to develop and meet the "competitiveness" challenge.

Given this, one solution is for the sector to continue its sustainable development efforts. To achieve this, fishing and aquaculture activities, the natural environment, dynamic use of the territory and communities must all be closely linked.

The maritime strategy will help make the fisheries and aquaculture industry become a true force driving the economic development of the coastal regions. It will support the growth and viability of the fisheries and aquaculture sector by encouraging the sustainable use of the St. Lawrence's potential. Building on this, it will place an emphasis on research and development, and on marine biotechnology to enhance the economic prospects of these regions.

AMERICAN FISHERIES SOCIETY: NEARLY 2,000 FISHERIES EXPERTS MEET IN QUÉBEC CITY

By Julie Boyer,

Gaspé Peninsula Regional Directorate

On stepping through the door to attend the plenary session marking the opening of the annual meeting of the American Fisheries Society (AFS), which took place last August 17 to 21, it was quickly evident that the organisers had managed to draw to Québec City an impressive number of fisheries experts from throughout North America and elsewhere in the world. The international meeting featured some forty symposia and more than 30 themed workshops – 1,672 scientific presentations in all. A trade show was also held and numerous scientific posters were presented.

The meeting provided the stage for a symposium dealing with *Research and innovation for sustainable fishing in the St. Lawrence Estuary and Gulf* that drew nearly 125 participants who attended one or more of the presentations on the program. The symposium covered such issues as the impact of climate

change, endangered species, the interaction between fisheries and aquaculture, the ecosystemic approach and sustainable fisheries management, marine protected areas, and traditional Aboriginal knowledge. In addition, speakers representing Aboriginal associations and organisations in the fishery sector joined researchers to present an overview of fishery practices and various conservation, biomass valorisation and marketing measures that foster the sustainability of the fisheries.

During the meeting, Pascal Sirois and Dominique Robert, researchers at the Université du Québec à Chicoutimi and at Memorial University in Newfoundland and Labrador respectively, co-chaired the 38th Annual Larval Fish Conference. Another major symposium, the International Eel Symposium, also took place all week long; it was organised by Martin Castonguay and David Cairns

of Fisheries and Oceans Canada, Guy Verreault of the Ministry of Forests, Wildlife and Parks, and John Casselman of Queen's University. Moreover, nearly a dozen researchers and some twenty students and post-doctoral fellows, members of the Ressources aquatiques Québec strategic network, presented the results of their work. They also contributed to the organisation of several other symposia dealing with a range of themes including fish migration, mammals and their interactions with the fisheries, spatial ecology and environmental DNA as a new tool to support conservation and fishery management.

It is important to point out the participation of Louis Bernatchez, a Québec researcher who is Canada's preeminent evolutionary biologist and holder of the Canada Research Chair in Genetic Conservation of Aquatic Resources based at Université Laval. Bernatchez

took advantage of the outreach provided by the AFS annual meeting to draw attention to the essential contribution of fundamental research to fishery management.

Hats off to the Fisheries and Oceans Canada team that brilliantly organised this major gathering of scientific fishery experts! Congratulations to the Marine Resource, Science and Technology Cluster people who highlighted the projects carried out in Québec!

It is important to point out that the sustainable fishing symposium received financial support from the Ministry of the Economy, Innovation and Export, the Ministry of Agriculture, Fisheries and Food, and Fisheries and Oceans Canada. Various Aboriginal fishery associations and organisations also contributed to the organisation of the symposium.



FISHERIES AND AQUACULTURE NEWS

DELEGATION OF TAIWANESE INVESTORS WELCOMED

By **Françoise Nicol**,
Fisheries and Aquaculture Analyses
and Policies Directorate



Photo : Ministère de l'Économie, de l'Innovation et des Exportations

François Lamothe-Charlebois, Business Development Manager at Investissement Québec; Chia-Chin Sheu, CEO of Simpson Biotech; Benoît Cayer, Director, Biopterre; Hung San-Yuan, CEO of Everyone Excellent-Algae; Richard Kong, CEO of Bio Taiwan Foundation; Yoko Kong, Executive Assistant at Yoko Group International; and Pierre-Philippe Couture, International Advisor at Export Québec.

Invited by Investissement Québec and Export Québec, four delegates representing Taiwanese biotechnology companies visited Québec last August 11 to 15 to evaluate investment potential in Québec, and purchase seaweed products.

In Québec City, the delegation was welcomed at the Ministry of Agriculture, Fisheries and Food by Denis Desrosiers, Fisheries and Aquaculture Analysis and Policy Manager, where they watched a presentation on Québec's fisheries and aquaculture industry. The delegation then moved on to Université Laval's Nutrition and Functional Food Institute for a tour of the facilities.

Thereafter, the Taiwanese guests travelled to the Rimouski area to meet representatives of three enterprises involved in seaweed production and marine biotechnology – Pro-Algue Marine, Ocean Nutrasciences and Organic Ocean – as well as members of research bodies working on seaweed and its properties. In addition, the program included meetings with repre-

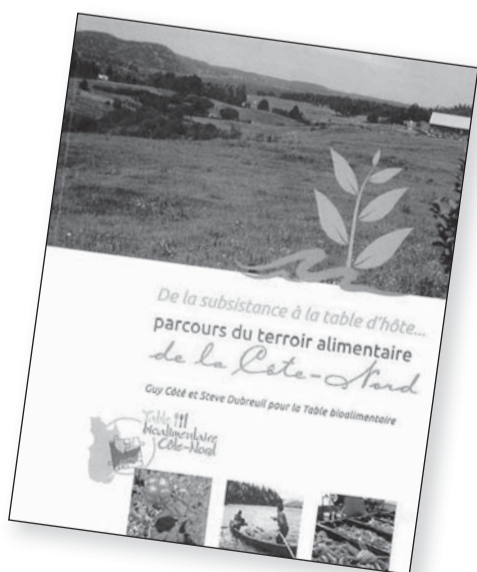
sentatives at the Marine Biotechnology Research Centre, the Institut des sciences de la mer de Rimouski (ISMER), the Technopole maritime du Québec and the Marine Resource, Science and Technology Cluster.

All these meetings served to build ties between potential foreign investors and the business and fisheries research communities in Québec. It was an opportunity to raise awareness about Québec's seafood, and promote the research and innovation know-how developed here in the fisheries and aquaculture sector. This being said, discussions with certain agencies, begun while the Taiwanese visitors were here, are still underway.

In closing, it's important to point out that the Ministry of Agriculture, Fisheries and Food helps welcome foreign delegations, the ultimate goal being to foster not only investment in the fisheries sector but also the development of new markets for Québec products.

FROM SUBSISTENCE TO TABLE D'HÔTE: A HISTORY OF THE NORTH SHORE FOR FOODIES

By **Jean Lavallée**,
North Shore Regional Directorate



In response to an invitation from the North Shore Biofood Table, two of the region's historians, Guy Côté and Steve Dubreuil, undertook a research quest that led to the publication of a book about the history of agriculture and the fisheries from the time the first settlers arrived on the North Shore in 1740. In this book, entitled, *De la subsistance à la table d'hôte: parcours du terroir alimentaire de la Côte-Nord*, the reader will find a mother lode of documents and many early photos that make this journey through time as exciting as it is instructive.

The book follows the evolution of fishing and agriculture from the time when they were the settlers' means of survival to the establishment of the first commercial activities. For instance, the La Tabatière plant, founded in 1939 by Saint Lawrence Seafood Products, owned by businessman Louis-Télesphore Blais, became the first modern plant on the Lower North Shore,

processing both fish and seal. Today, the plant, although it stopped operating a few years ago, is still the oldest processing plant in Québec.

The book also contains a wealth of anecdotes and testimony. For instance, did you know that the Department of Colonisation set up a program for fishermen's gardens? Here's what Marie-Ange Roussy, of Magpie had to say, "I remember the ministry sent some seeds and Mom grew pumpkins. This was in the 1950s. The idea was that when there would be no more fish, people would be able to make do." For more information about his book, please visit the website www.tablebioalimentairecotenord.ca/p-arcours-du-terroir-alimentaire-de-la-cote-nord/. It's important to point out that this book was published with support from funding partners, notably the Ministry of Agriculture, Fisheries and Food. Enjoy your reading!