



Report of the Maritime Lobster Panel

November, 2013

Gilles Thériault, John Hanlon, Lewis Creed

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Dear Ministers:

We are pleased to provide you, in both official languages, the report of the Maritime Lobster Panel mandated by you to review the state of the lobster industry in the Maritime Provinces. The challenges we faced in preparing our analysis and recommendations are exceeded only by the real opportunities that we believe exist for placing the region's lobster industry on a sounder economic footing.

We could not have completed our work without the cooperation of the many fishermen, processors, buyers, dealers, shippers and brokers who provided us with valuable insights into the industry. We were also guided by many previous studies carried out by respected, knowledgeable industry experts and government bodies.

Our analysis concludes that the lobster industry in the Maritimes is not achieving the best value for production. We have laid out a Value Recovery Strategy that we feel will stabilize and increase economic returns. We also conclude that to make the Value Recovery Strategy work, we need a cooperative approach by all components of the industry.

We thank you for having entrusted this important study to us. We wish all sectors of the lobster industry success moving forward and hope our efforts will assist in promoting positive change.

Respectfully,

Gilles Thériault

John Hanlon

Lewis Creed

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Introduction and Acknowledgements

This report is presented to the Hon. Michael Olscamp, Minister of Agriculture, Aquaculture and Fisheries for the Province of New Brunswick; Hon. Keith Colwell, Minister of Fisheries and Aquaculture for the Province of Nova Scotia and Hon. Ron W. MacKinley, Minister of Fisheries, Aquaculture and Rural Development of Prince Edward Island.

The Maritime Lobster Panel was asked to address issues regarding lobster markets and pricing following a downturn in lobster prices in May 2013 which led fishermen in all three Maritime Provinces to take collective action and stop fishing in protest.

The content of this report embraces the lobster fishery of the Maritime Provinces. This is in keeping with the scope of our assigned mandate and is justified by the fact that approximately 90% of Canadian lobster is landed in the Maritime Provinces by Maritimers. **For those in Maine, Quebec or Newfoundland and Labrador who may wish to adopt some or many of the proposed directions in this report, we welcome and encourage you to do so.**

The Panel recognizes the importance of the lobster fishery to Canada's Aboriginal peoples and communities. Their participation in this fishery goes back thousands of years when lobster, known as "Wolum Keeh" was taken as a source of food and fertilizer; and shells were used for totemic and decorative purposes.

This activity was acknowledged in our Canadian Constitution by amendments made during its repatriation which formally recognized Aboriginal and Treaty rights. These rights have been upheld by the Supreme Court of Canada in the *Sparrow* and *Marshall* Decisions. The Panel also understands the "Obligation to Consult" and that the Crown has a requirement to consult with Aboriginal people. We acknowledge that any discussions held by the Panel with Aboriginal people during our work were not "consultations".

At first, the Panel heard skepticism that our appointment was just a way for the Provinces to give the impression that they were doing something about the problem; in other words, a diversion. However, when we invited the industry to come and meet with us, there was a very strong and positive response. People came prepared with well thought out views and suggestions to put forward. We had good, productive exchanges and were told they considered the Panel's work to be important and that we needed to take the time necessary to do a proper job.

Many of those the Panel met with took the time to follow up with written submissions. Other groups, who could not meet with us, also took the time to send in written submissions, as did several interested individuals. The Panel feels that all sectors of the industry took our mandate very seriously; in return, they provided valuable insight on how the industry operates, its weaknesses, and ideas about what needs to be done to correct the situation.

We are thankful to the three Maritime Provinces' Fisheries Ministers for having shown confidence in us. We have taken our appointment to this Panel very seriously and have worked diligently to come up with recommendations that will move our lobster industry forward in a manner that we believe will provide our coastal communities the economic support that will assure their viability well into the future.



The Panel wishes to thank the following groups and individuals. Without their help and support, this report would not have been possible:

- The many members of the Lobster Industry who attended our meetings and/or provided written representations;
- The members of the Aboriginal Community for their participation and wise counsel;
- The Panel's Support Team: Secretariat - R.J. (Bob) Allain of OceanIQ Management Services and Robin Rodger of Market Research Associates; Provincial Representatives - Joanne Losier and Gilles Cormier from New Brunswick, Bob Creed and Dave McGuire from PEI, and Jonathan Lowe and Barry MacPhee from Nova Scotia;
- The Maritime Provinces Deputy Ministers of Fisheries: Richard Gallant PEI, Robert Rioux NB, and Rosalind Penfound and Paul LaFlèche who shared the NS DM's chair during our review. As well we thank senior officials Leo Muise (NS) and Hélène Bouchard and Louis Arsenault (NB) for their guidance and support.

As you read this report, we want to acknowledge that we have attempted to use plain language and to speak in terms familiar to the industry. As such, we will often speak in pounds of lobster or carapace sizes in inches. We will also use the term fishermen when talking about harvesters but wish to be clear that in so doing, we include the many women lobster licence holders who are actively participating in the fishery.

GT, JH, LC



Executive Summary

The Maritime Lobster Panel was engaged and directed by Maritime Fisheries Ministers to address a number of specific issues relating to industry pricing, viability thresholds, and marketing. This Panel was formed following a downturn in lobster prices in May 2013 which led fishermen in all three Maritime Provinces to take collective action and stop fishing in protest. The Panel consists of three independent persons, knowledgeable about the lobster industry, but not active industry participants.

Lobster in Atlantic Canada is a billion dollar industry with 90% of Canadian lobster landed in Nova Scotia, New Brunswick and PEI. It employs thousands of Maritimers and is the life-blood of hundreds of coastal communities. As a Maritime initiative, this report embraces the lobster fishery of the Maritime Provinces while considering the industry in Quebec, Newfoundland and Labrador and the State of Maine.

The Panel was asked to engage industry in their review process. They were also directed to consider recent major reports and studies on the industry. More than 50 meetings were held with almost 200 individuals and companies. As well, 30 written submissions and letters were received and numerous studies and reports were reviewed.

People came prepared with well thought out views and suggestions to put forward. We had good, productive exchanges and were told they considered the Panel's work to be important. The Panel also acknowledged the importance of the lobster fishery to Canada's Aboriginal peoples and communities and met with them to explain their mandate and discuss related industry issues.

Responses to the specific questions raised in the Panel's Terms of Reference were addressed and findings presented including: an explanation for the 2013 price drop; an analysis of the factors affecting lobster prices; the challenges in determining viability thresholds; the ability of various industry sectors to negatively impact wharf price; advice on marketing Canadian lobster; options for a formal system for establishing prices pre-season; and finally and most importantly, advice to stabilize and then increase the price paid to fishermen while taking into consideration the other players in the industry.

Throughout the Panel's discussions with industry, analyses of the many studies and reports available and our internal discussions and observations, we saw a distinct set of messages emerging. These messages portray an industry that has been struggling instead of cooperating, fishing for quantity instead of value, fighting over pennies and losing dollars and asking others to solve their problems.

Studies, reports and individuals were telling us that significant loss was occurring as a result of the way the industry interrelated across sectors and with governments, the way the fishery is being operated and how the industry is structured. One well-known economist talked about the industry being structured to "underperform," another spoke in terms such as "dysfunctional." Still others talked about the spiralling downward of prices as competitors struggled to outbid one another. In one case the Panel was told that the quantity of lobster lost to the Maine and Canadian lobster industry in recent years could be greater than the entire production of Australian rock lobster (essentially, the world's third largest lobster producer).



Regrettably, all this is not new. Problems with the industry such as we heard were described in reports written 10 years ago. Several recent reports have presented comprehensive analysis and advice for moving forward yet little change has been forthcoming.

The Panel takes the view that this industry needs to make wholesale changes. We have identified three broad areas needing attention. Industry Relationships; that is, how the many interconnecting players in the industry relate within their groups and across sectors: Industry Operations; that is, how the industry carries out the activities of fishing and buying / shipping / processing etc. and finally, Industry Structure; meaning how the industry is set up and where gaps exist that are contributing to value loss.

The panel presents 33 recommendations related to these three areas in this report. Many of these concepts are not new to the industry. Nevertheless, there remains much to do.

In the area of Relationships, the Panel's recommendations are presented in an attempt to shift from the lack of cooperation across sectors and governments to a new reality. One where industry organizations are renewed, modernized, coordinated and empowered, where Provincial governments support this adaptation, and where DFO clarifies expectations and requirements and begins to work within a proposed new framework.

In the area of Industry Operations, the Panel's recommendations are presented in an attempt to shift from the current practice of high volume fishing over short periods and its related consequences to one where the pace of harvesting is matched with the onshore capacity to deal with that harvest in a manner that provides the best chance for each lobster to achieve its fullest value potential. Essential to achieving this goal is the need to improve the quality of lobster entering the market place; and although quality improvements are being seen, there is a need to stress this area and as such, recommendations related to quality are also included.

In all, the Panel has presented 24 recommendations in the above two categories. However, these alone will not bring about the full scope of change required to recover the value being lost to the industry. Unless the industry's structure changes, these relationship and operational adjustments will be an improvement but will not go far enough within the context of the current industry model.

Therefore, the Panel is recommending modifications to how the industry is structured. We propose the creation of three major initiatives to be developed over the course of 2014 for implementation at the start of 2015. These initiatives are as follows:

The Panel recommends the establishment of an Independent Maritime Lobster Market Intelligence Institute.

The Panel recommends that industry and governments come together to develop and implement a Comprehensive Generic Marketing and Promotion Campaign for Canadian lobster.

Within the Maritime Provinces, the Panel recommends the development and implementation of a price-setting mechanism for determining price pre-season provided that such a mechanism is based in legislation, is not mandatory, but once engaged by a



particular fleet or group, the price negotiated becomes the minimum legal price that can be paid to that fleet or group.

To finance these initiatives, the panel provides the following recommendation for an industry levy.

The Panel recommends that a process be set up to collect an “Industry Levy” to support the above three recommendations for structural change. This levy to be in the amount of one cent to be paid by fishermen for each pound landed, and an additional one cent per pound landed, paid by onshore sectors.

These four recommendations form what the Panel considers a **Value Recovery Strategy**. We believe this Strategy is the key to achieving the final objective presented to the Panel by the Maritime Ministers of Fisheries, which was to provide advice to stabilize and then increase the price paid to fishermen while taking into consideration the other players in the industry.

The Panel also sets out an implementation framework for this Value Recovery Strategy with recommendations on a process for taking these proposals to industry for validation.

In concrete terms, the Panel sees no reason why the shore price for canners and markets cannot be at least \$4 and \$5 respectively with relative corresponding returns to the other onshore sectors. The only question is... *what is the industry willing to do to make this happen?*

We close our report with a call for leadership from politicians, government agencies and most importantly from the various industry sectors who spoke so passionately to us throughout this process.

Finally, in an attempt to promote a fuller understanding of this industry, we present an annex to our report, which describes in some detail the nature of the Maritime lobster industry. We encourage all readers to take the time to consider the entire report in order to fully appreciate this industry in all its fascinating complexity.



Part 1: The Maritime Lobster Panel

The Panel presents this report in the full context of the Atlantic Lobster fishery taking into consideration the numerous studies and other documents we reviewed and the extensive feedback we received from the many members of the industry we met during the course of our work.

To ensure our experience is shared with our respective Ministers, we include here a report in five distinct but interrelated sections which, we believe, will serve to inform anyone reading this document as to: the task required of the Panel; how we went about doing our work; our findings and recommendations; and the nature of our lobster industry.

1.1 Terms of Reference

Background:

During the spring of 2013 the price of lobster paid to fishermen in the Eastern Nova Scotia and Gulf of Saint Lawrence fisheries opened in the \$5.00 range and quickly dropped to the \$3.00 to \$4.25 range. Fishermen organized a protest and did not haul their traps for up to a week in an attempt to cause a price increase.

After meeting with fishermen's organizations and processors, the Ministers responsible for fisheries in Nova Scotia, New Brunswick, and Prince Edward Island established a panel to review what took place and to seek long-range solutions that would lead to a stable lobster industry.

Objectives:

The objectives of the panel were as follows:

- a) Using the literature and studies compiled since 2010 by the Lobster Council of Canada and others concerning lobster price, landings in Canada and Maine, and other factors, such as currency exchange factors, determine why the sudden drop in price took place and if the prices offered in the spring of 2013 are reflective of market conditions.
- b) Examine the various cost and revenue components of harvesters, buyers and processors operating in Nova Scotia, New Brunswick, and Prince Edward Island with a view to determining viability thresholds and determine to the extent possible the ability of any single sector of the industry to unduly influence the price paid at the wharf.
- c) Engage and consult with stakeholders on present market conditions and strategies and to address current issues. The consultation should consider all Canadian and US lobster (same species and markets) and separately examine the live trade and the processed lobster market as well as the product mix.
- d) Provide strategic advice to the provinces on marketing initiatives to increase the demand for Canadian lobster on a world-wide scale.



e) Recommend options for a formal system or systems where the industry would know the price that will be paid harvesters in advance of landing.

f) Respecting the principals of owner operator and fleet separation, provide advice on a reasonable course of action, governments and industry could take to stabilize then increase price paid to harvesters while protecting a fair return to the other business involved in the lobster value chain.

Membership Structure:

Memberships of the panel are:

Nova Scotia: John Hanlon

New Brunswick: Gilles Thériault

Prince Edward Island: Lewis Creed

The Provinces would provide secretariat services to the panel and the costs will be shared. An initial meeting of the panel with the Deputies of each Province would discuss and determine the nature of support and resources that will be required.

1.2 Engagement Principles

Given the significance of the lobster industry to the Maritime Provinces and the need to address critical issues within a short time frame, it was necessary for the Panel to be selective in how it would engage the many participants in the industry. To this end we committed to the following principles to guide us in meeting our assigned objectives.

1. The Panel would invite representatives of key recognized fishermen's organizations to meetings in their home province. The panel recommended that invitees take time to deliberate on meeting discussions and provide their views in writing.
2. The Panel would invite key lobster processors or processor organizations and/or buyers representatives to a meeting in their home province. The panel recommended that invitees take time to deliberate on meeting discussions and provide their views in writing.
3. The Panel would invite representatives of Maritime based First Nations involved in the lobster fishery to an exchange of ideas on relevant issues with the Panel.
4. Anyone not directly invited to a Panel meeting, but who wished to make a written submission relative to the work of the Panel, may do so in writing. Deadline for receiving all written submissions would be August 23rd. The Panel committed to reading all proposals and giving them due consideration in deliberations. Acknowledgement of submissions made would be included in the Panel's Final Report.
5. All Panel meetings would be open to invitees only.



1.3 Engagement

The Panel considers the “engagement phase” to be the most important component of our review. Fishermen and onshore sector members came to our meetings well prepared and willing to talk openly about their industry. Proceedings were always respectful and orderly. Issues were discussed thoughtfully and candidly.

Over 50 meetings in all were held with almost 200 individuals and companies; we also received 30 written submissions and letters. In the next section of our report we share some of the feedback we received during this engagement process. We hope in so doing to give the reader some feel as to the scope of issues addressed and the complexity of the relationships involved.



Part 2: What We Heard

As we mention above, the Panel's industry meeting process was extensive. We heard many diverse comments and interventions from across sectors. We wanted to provide a flavour of what the industry had to say to those not party to our discussions. These are presented here without judgment or criticism. We provide attribution only where it enhances the power of the statement. These comments are only part of what industry had to say to us and we want to be clear that all comments we heard have informed the Panel's thinking and subsequent recommendations.

2.1 Market Intelligence

We need to know what is happening in the marketplace.

We need communication and transparency - fishermen live on rumours.

My biggest beef is the misinformation that is out there in the lobster industry.

It is time that all participants accept that every lobster that comes out of the water is different. They all cannot be shipped live to China and they all should not be made into tails and meat. They have different yield rates, shell hardness and blood protein levels.

The industry requires an independent and confidential body to be established that will track catch and inventory data in a timely manner. This data must be available to key industry stakeholders so that timely and appropriate business decisions can be made.

2.2 Marketing

We don't market lobsters, we just sell them.

We need to be marketing lobster in Canada.

Low buying and volume selling at small margins is a road to destruction.

It comes back to fishermen to pay for this because fishermen benefit most from generic marketing.

Undercutting prices is a real issue in the Chinese market.

We need more consumer friendly lobster products.

If a levy is introduced for generic marketing, there has to be a business plan and accountability.

We need to continue to teach chefs how to prepare lobster.

China is a good market with real potential but it will take 10 years to develop.

Any business invests in marketing.

Lobsters are lean, green, clean protein.

We need to make lobster more appealing to the younger generation (use social media).



There are more opportunities in value-added and processed products.

The financial limitation of the processing plants to purchase raw material at the alarming rate of capture, then processing and maintaining inventories, is probably the biggest common denominator that causes instability in the market.

People need to remember that we are part of a food industry, not just a fishing industry.

As usual in Canada, the marketing of lobster falls to a mix of federal and provincial departments as well as the Lobster Council, some harvesting groups and individual companies. These efforts must be better coordinated.

An effective, well-financed and aggressive marketing strategy needs to be formulated nationally and internationally now! This should be done independent from buyers – they tend to want to protect their interests at the detriment of harvesters.

2.3 Quality

Competitiveness lowers ability to do the right thing.

We used to look for real good lobster, now we look for volume.

What we do must be enforceable; reversible; affect today's fleet; be even-handed across LFAs; and be least cost to the fleet.

We buy the “mystery crate of lobster,” not knowing what quality it contains.

Improve quality, reduce volumes, v-notch large females, return culls and shedders to the sea and allow full stacking of licences.

The entire industry would benefit greatly if there was an ability to separate catch based on quality grading standards, and reliable price differentiation for different standards of quality.

The best place to hold lobsters is on the bottom.

Lobsters should be handled like you would handle a fresh egg.

My buying station is more like a triage area due to poor quality.

Daily quota limits impacted quality; fishermen were holding lobsters under poor conditions.

Be careful when we talk about quality, it's another way for buyers to steal from us.

As we speak, fishermen are building cages to hold lobsters on the fishing grounds next year.

Less is more.

Vision: quality vs quantity

2.4 Management

Should have annual quota and no seasons.

Fishermen should be allowed to double up.



Lobster is a common property resource and DFO has a responsibility to manage it to the benefit of the Canadian People.

Why does the processing industry have no say in when the season opens?

We need a rationalization program again to remove more fishermen.

There is no appetite for a quota on lobster in our LFA. We have deep concerns that a quota on lobster will seriously jeopardize the owner-operator fishery, which is the lifeblood of our coastal communities.

Staggering the opening and closing dates would both mirror the migration pattern of lobster and spread out the catch. Such a move would likely improve the shore price for our fishermen.

It is concerning to us that we have been unable to make changes to our lobster season. Every proposal we have made to DFO to shift our season has been denied, usually due to political pressure from neighbouring districts. The role of government should be to facilitate conflict resolution not refuse to engage when there is a difference of opinion among districts.

Mechanisms must be put in place such that shore-side buyers with no long-term investment in the industry have no ability to erode long-term value for short-term gain.

We have the 'fly by night' buyers and the 'bargain basement' sellers entering and leaving the industry as they see fit for their own reasons without any care or concern for the coastal communities. As the saying goes - their office is the phone booth; their overhead is the light at the back of the truck. This needs to stop!

Harvester decisions on catches would be a preferred solution to government-imposed quotas. This will take significant dialogue and co-operation within the industry.

DFO consensus model does not work.

Do away with fleet separation and allocate quotas to the entrepreneurial stakeholders in the industry who are the backbone of dozens of small Atlantic Canadian communities.

Landings need to be controlled to feed the market at a rate the market can deal with them.

2.5 Communications/Organizations

It should be regulated by the provinces to force industry to sit down for discussions on price.

Change and stability at the wharf lies in the hands of the fishermen themselves. They can reduce their expenses by sharing one boat between two fishermen; secure economies of scale on buying fuel in bulk; and fishing and storing their own bait, plus importing bait.

Fishermen need to control all the activity on the wharf and handle the resource through the entire process until it reaches the receiving doors of the processing plants or other users of live lobster. This is where a relationship between harvesters and processors will start to emerge.



The value of the lobster resource requires that we cannot fail. Too many coastal communities depend on all of us. It is time for the real leaders to stand up and steer this industry towards a prosperous future.

There needs to be open discussion. Fishermen and buyers need to talk to one another and set a minimum price before the season.

Change has to happen and be fishermen driven; we need to bury grudges and take our heads out of the sand and lead the change! (fisherman).

There will always be a certain number who will disagree with whatever is proposed.

Lobster sector stakeholders must stop using the media to talk about shore prices and industry issues. Those conversations must be “in-house”. Processes must be developed to ensure that the information is shared internally within the sector only.

There is no buyers' organization and no restrictions on who can buy, and as a result, there is significant dumping of product onto the market during peak catches. Every province and every company wants to sell lobsters in their name by under-pricing the others.

Most participants understand the complexity surrounding all issues in the lobster sector. If we focus on understanding and education, discipline, marketing, and promotion; and in finding a way to formalize funding for these initiatives, we will see true progress in addressing these issues.

It would be naive in the highest degree to expect that industry wide co-operation and mutual trust might be the outcome of this panel's work - but it is a goal to be sought.

2.6 Carapace Size

Go to 3 1/4" and you can ship live to U.S. or produce bigger tails.

It is cheaper to process one large lobster than two small lobsters (processor)

Smaller canner lobster from the Maritimes are a problem for our industry. We are very concerned about the negative impact they have on the Quebec domestic lobster. (Province of Quebec and the Quebec Industry.)

Gradual minimal size increase for all of the Gulf; to achieve 77mm select size lobsters in the next 3 years - beginning in 2014. (MFU)

Do not make any recommendations to increase carapace size in LFA25 (PEIFA)

2.7 General

We could not run our plant without foreign workers.

To have a sustainable fishery, you need sustainable fishermen.

Dealers live in coastal communities and are invested in them.



We need an industry that will attract young people.

Weaker companies make it worse for fishermen - someone without working capital has to flip product for cash-flow

We have a price problem, not a resource problem.

All industry members must retain a fair return in this industry. The only sector that cannot use the shore price to adjust their losses are harvesters. This has to change!

For the first time ever, many (Eastern) NB lobster harvesters have reached the average lobster landings threshold of 15,000 to 20,000 lbs. where you could normally run a sustainable business, but prices are now at 1980 levels with 2013 business costs.

The industry thrived for many years on the US exchange but not anymore.

I never know how much I will have to buy from my fishermen (processor).

We were not ready for the highest catches in the world this year.

Prior to our spring season, two brokers from Canada dumped a large quantity of lobster on the Chinese market for between 1-2 dollars less than the actual price paid. We believe these actions were deliberate and calculated. Buyers say they are not involved in collusion, yet when the shore price is established in our area, they all pay the same price.

I have been in the fishing industry off and on since 1970. Nothing has changed since then. It has got to be the worst (expletive) job in the world today. After the season is over for 1 day, you cannot buy a lobster for under \$5 a pound. Funny, eh!

I have heard that a major U.S. company had a busy spring buying up licences and pounds down the South Shore. They have bought 11 licences in a few months. They operate their licences under a trust agreement in the person's name they bought it from, which is totally against the owner-operator policy. Why isn't DFO enforcing the policy?

It is the general consensus in the industry that shore price is determined by a small elite of larger brokers/processors who agree on a price and through their economic power essentially force other buyers to follow suit.

What gives these lobster buyers the right to control the prices as they are doing now?

Consolidation has meant fewer and fewer "real" buyers. Fewer real buyers means that "Mr. Big" is the only game in town and this leads to lower and lower prices to the fishermen. These low prices have been blamed on the recession, over supply of lobster, poor marketing, poor quality - anything but the monopoly of buying power.

A revision of the commissioned buyers' structure is required; the current structure is not conducive to extracting value for all parts of the supply chain.

Be the last group that studies the lobster industry.



Part 3: Panel's Findings and Analysis

3.1 Price Drop / Were 2013 Prices Reflective of Market?

Many industry members indicated to the Panel that the phenomenon of lower prices was not recent but in fact began in 2008 with the downturn in the world economy. Furthermore, many felt the timeline to the questions asked seemed to imply that the price drop was more of a Gulf Region issue (southern Gulf LFAs) and a processing issue.

The Panel acknowledges these comments and made it clear that it wanted and needed to look at “price drop” as it refers to the live market as much as for processed products. In this case, we also have to take into account the price drop in November and December of 2012 where a major fishery took place with only market size lobster fished but where more product ended up being sold both for the live market and the processed market.

Figure 1: Average Monthly Lobster Prices – Dec. 2012 to Oct. 2013



3.1.1 Context – Sudden Price Drop

In response to this specific question, the Panel was offered reasoning from several industry players as to how the situation with the shore price in the spring of 2013 came about. The following is an attempt to relay this explanation in point form:

- In 2011, the market for popsicle pack lobster was strong with prices rising through the season.
- The spring season in 2012 started slow due to poor weather, and as a result, the demand for lobster increased and the price went up to \$5.00 (over 20% increase).



- Due to the strong demand in 2011 for popsicles, the producers continued to pack this product in 2012.
- The Euro dropped 20% in value in 2012.
- The combination of the high price paid for product, and the lower Euro, meant producers were unable to sell at a profit so these lobsters were held in inventory.
- Canadian landings continued strong through the 2012 spring season and the price stayed up.
- The influx of Maine shedders (soft shell lobsters) to Canadian processors in PEI and New Brunswick started much earlier than usual with extraordinarily high landings and a much lower price. This, coupled with high landings in LFA 25, resulted in a price reduction which continued to be played out during the fall 2012.
- When the Southwest NS lobster fishery began, prices had already started to come down. As the fishery (usually a live market fishery) commenced, the volume of landings was extremely high. The inability of the onshore industry to handle the volumes being landed and the percentage of soft shell in the catch resulted in a high percentage of product going for processing, where the price had already been dragged down with the high volume of shedders from Maine and the high landings in LFA 25.
- Landings in Southwest NS remained high and continued to produce a large volume of hard-shelled lobster. Very strong landings of Maine hard-shelled lobster earlier in the fall further served to push the price down for this product.
- The situation was further complicated in that both market demand and price softened for other processed forms (i.e. frozen tails, claw and knuckle meat etc.) which also contributed to overall inventory holdings.
- Just before the start of the 2013 season, some inventory holders sold at “bargain” or “fire sale” prices, which tended to push the overall market price down even further.

Conclusion

As mentioned previously, the Panel met with many different players in the industry and all were asked to react to this question. We received several detailed and consistent explanations as to the course of events that impacted 2013 prices.

The factors as set out above were reviewed and have been shown to be credible. The descriptions of various interrelated scenarios are for the most part a matter of public record. The Panel believes this series of explanations represents a description, interpretation and rationale of events that provides a reasonable explanation of what happened to lobster prices in the spring of 2013.



3.1.2 Context - Were Prices Paid in 2013 Reflective of Market

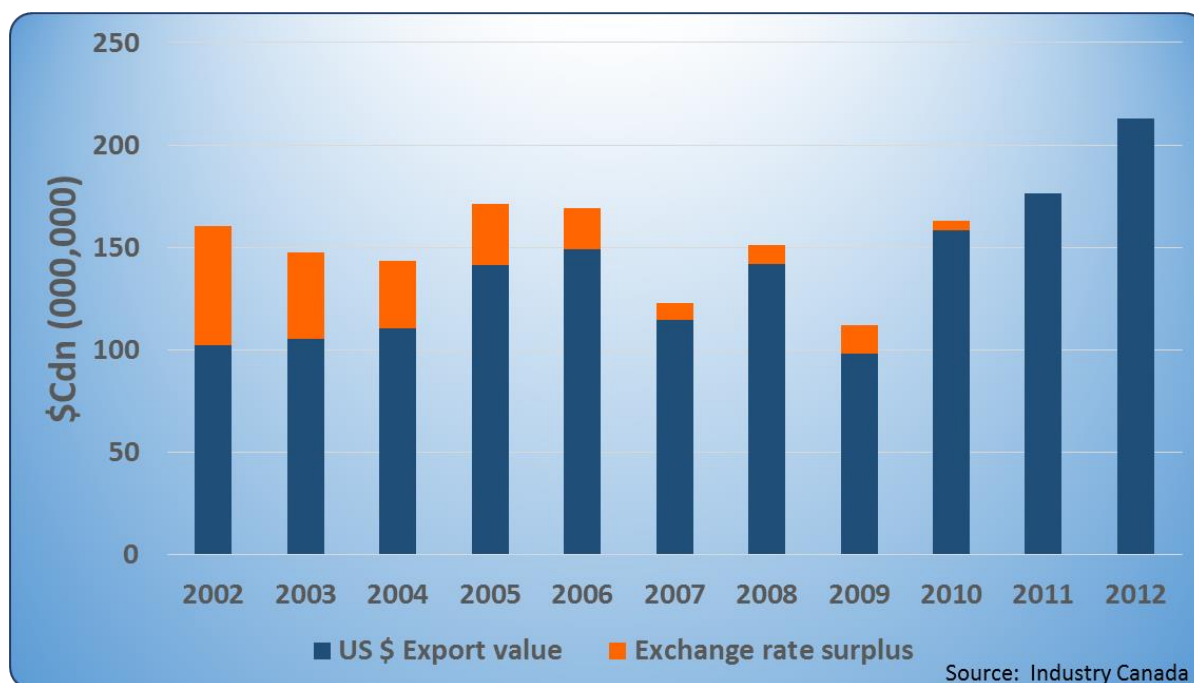
The following factors were considered in the analysis of the question: *were the prices paid in 2013 reflective of the market?*

- **Currency Exchange Rates**

One of the most important factors in determining the shore price paid in the Maritimes for lobster is the Canada / US currency exchange rate. To illustrate this in the current context; if we consider a \$3.50 price paid in 2013 in terms of the US exchange rate that existed in 2002, when the dollar was worth as low as \$0.65 US; this price would translate to \$5.38 a pound in Cdn dollars.

Exchange rates for other currencies are also a factor in this way; however, as at least 80% of Canadian lobster is sold to the US, this situation bears further examination. The following chart illustrates the historical Canada-US exchange rate differential impact on sales of live lobster to the US. In 2002, for example, Canada's live lobster exports to the US were valued at approximately \$US 265 million dollars. This was subsequently converted to approximately \$Cdn 415 million, a differential of more than \$Cdn 150 million dollars that the industry does not see today because of the relative parity in exchange rates. Similarly, an approximate \$Cdn 170 million in processed lobster was gained in 2002 that we don't see today (not shown).

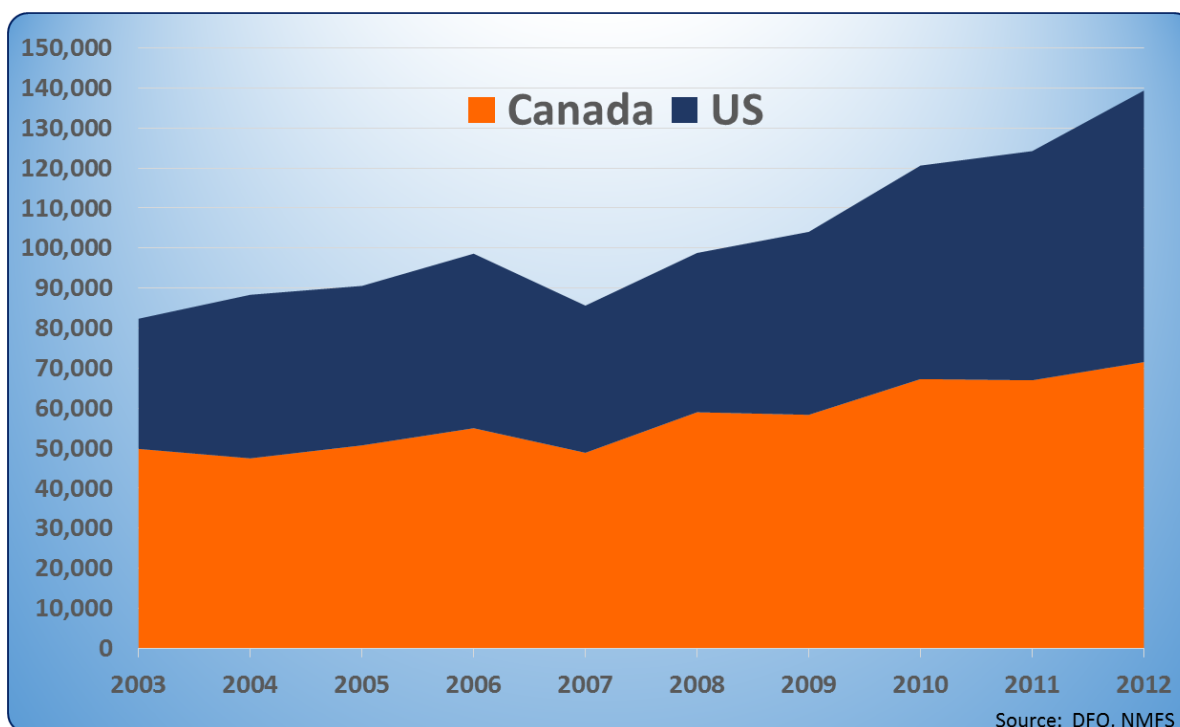
Figure 2: Exchange Rate Value on Export of Live Lobster to US



- **High Volume Catches and Peak Landings**

High volume landings in both Canada and the US are having significant impacts on prices in the world market. The fact that overall landings for *Homarus americanus* have increased from approximately 190 million pounds in 2007 to more than 300 million pounds in 2012 (a 63% increase) speaks for itself.

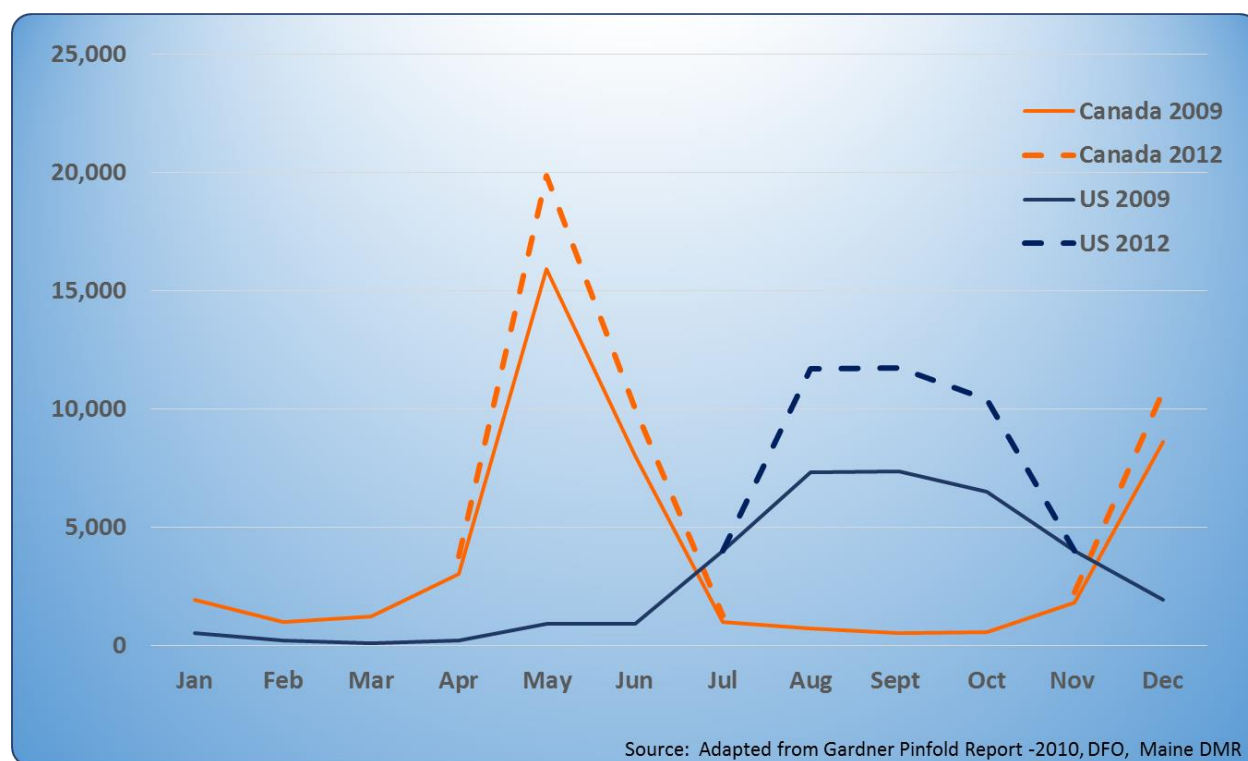
Figure 3: Total Landings in Canada and US (MT)



The impacts of this huge increase of lobster landings in the market place is further complicated by the rate of landings during the opening weeks in almost every lobster fishing area (LFA) in the Atlantic fishery. Three major landing peaks occur throughout the year corresponding to openings of major lobster fisheries. These take place (i) in late April and early May when the Gulf, Quebec and Newfoundland fisheries open, the Eastern Nova Scotia fishery is underway, and the Southwest NS and New Brunswick Bay of Fundy fisheries are still operating; (ii) in August to October when the Maine fishery typically begins to yield its highest abundance, and (iii) in late November and December with the opening of the Southwest NS lobster fishing areas, especially LFA 34.

The following chart reflects seasonal landings in the US and Canada in 2009 (solid line) and an estimate of the increase in landings in 2012 (broken line). Canada had increased landings of approximately 18% in 2012 over 2009, while the US had increased landings of 36% in 2012 over 2009, exasperating the peak landings that already occur in the May, August-September and December periods for the industry in 2012.



Figure 4: Seasonal Lobster Supply (MT) – 2009 and 2012 Projection

In recent years, landings during the opening weeks of the LFA 34 fishery were so high that in some cases the buyers could not handle the extreme volumes and so they simply shipped them ungraded for processing. The resulting price paid for these lobster did not reflect a live market price, which is typically higher. Furthermore, significant losses were also experienced due to the inability of the industry to properly handle so many lobsters over such a short period of time.

In the Gulf last spring, a similar situation took place with many LFAs experiencing landings so high that the buyers and processors were unable to properly handle the volumes. Processors spoke about having to dump everything they received into the quickest and easiest (and usually cheapest) product forms just to deal with supply. The inability to get best value for these lobster contributes to the value lost to the industry and to the lower prices paid to fishermen.

In an attempt to get control of this situation, fishermen were put on daily catch limits and / or were subjected to “no buying days”, a situation previously unheard of in many areas. Some fishermen began holding lobster by various means, often resulting a further diminishing of value through lower quality and further lost revenue.

- **Diminishing Processing Capacity**

The processing sector has been showing significant signs of struggle in recent years with the number of fully active processors dropping from over 40 in the early 2000’s to less than 20 in 2013. This diminishing of capacity results in critical slowdowns in the value chain as fewer processors try to keep up with supply, particularly during peak times.



The current situation leads the Panel to believe that despite some comments to the contrary, there are clear indications that this sector is operating on very narrow margins. The comment heard several times during our meetings warrants consideration. “If processors are making as much money as fishermen claim, why are so many of them going out of business?”

- **Cooperatives**

In attempting to determine whether or not the price paid in 2013 spring was reflective of the market, the Panel also focused on prices paid to fishermen by cooperatives that are owned and operated by fishermen. Direct comparisons were difficult in that in most cases, the cooperatives looked after their own buying stations, which meant that the “cost of buying” for these fishermen included only the actual costs and did not include the profits of a “commissioned buyer”. As well, one cooperative paid a base price during the season plus dividends later in the year that included profits from all species it handled. In this case, determining just the lobster price was difficult to achieve.

Nevertheless, the result of our findings was that on balance, and considering the differences, the price paid by cooperatives to their members was comparable with that paid to other fishermen in those areas.

- **Industry Structure Impacts**

In the Maritime Provinces, it is common practice that the shore price is not known until after the fishery starts. In some cases it can take as long as a week or 10 days before fishermen know what they will be paid for their catch. This lag time in setting the price gives the fisherman little choice but to set gear and fish in hopes of receiving a price that will cover costs plus provide some profit. However, once this decision is made, and the gear-up costs have been paid and traps are fishing, the fisherman has no way to “undo” these expenditures and must therefore keep fishing whatever the final price.

This age-old system results in an atmosphere where rumours dominate and mistrust is pervasive, usually leading to strained relationships across sectors that should be working together. As these relationships deteriorate, the public forum is engaged as a place to “air the laundry.” This public discourse usually relays images of a “fishery in crisis” that is often not accurate. The impact of such public debate can often be a further negative impact on Canadian lobster in the marketplace.



- **Blended Pricing**

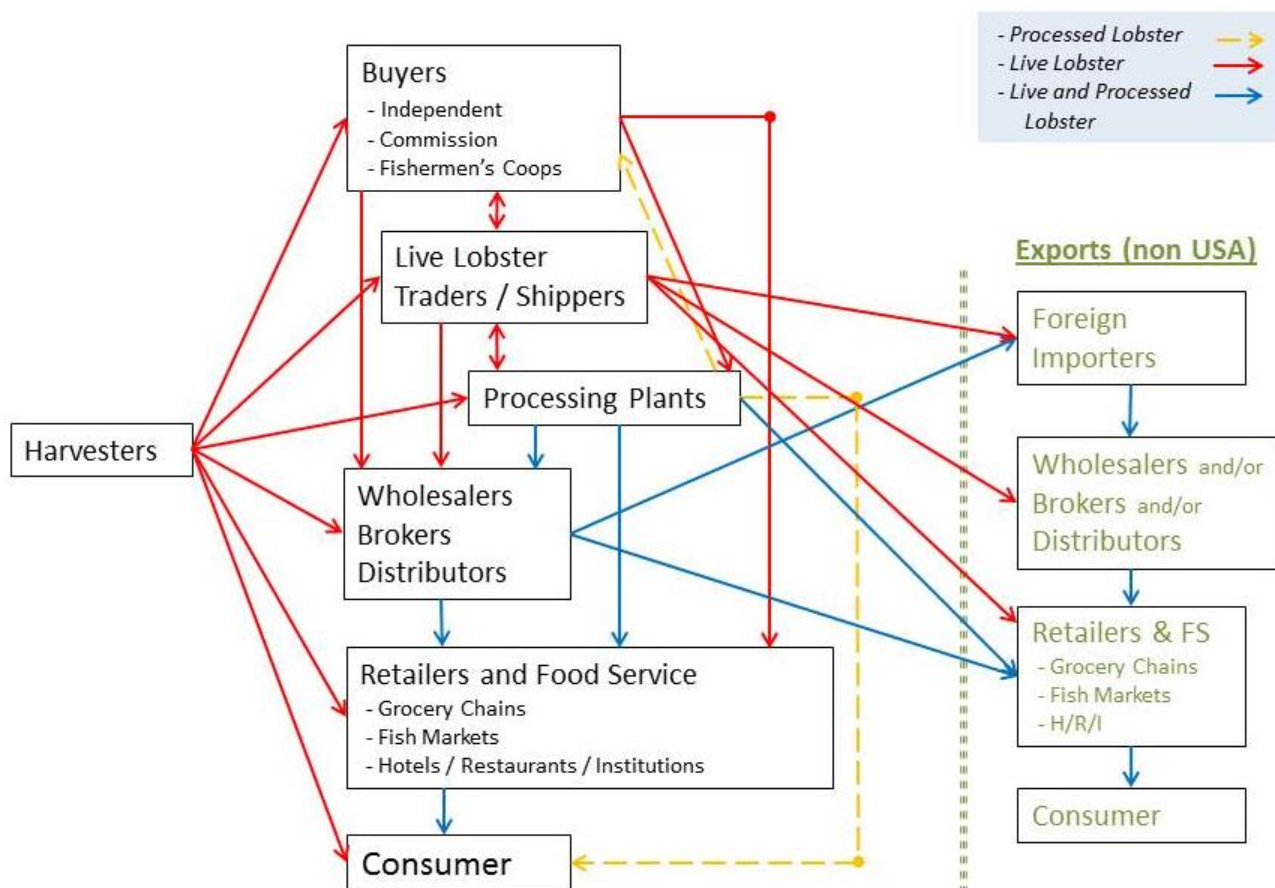
With some exceptions, Maritime fishermen are generally paid a blended price for lobster. This means that lesser value product forms, as well as the costs of loss in transportation and handling etc., are absorbed into the shore price. Even though a fisherman is bringing in top quality / top value product, he will be absorbing the cost of the lesser value lobster landed by others, along with the losses occurring elsewhere along the value chain. This model provides little incentive for fishermen to grade their catch, or even look after the quality of their catch, in a way that the optimum value for each lobster is achieved.

Whether the target market is live trade or a processed product, the outcome of this blended price is a mixed catch that must be handled several times throughout the value chain, resulting in even further quality degradation and lower value products from higher value potential lobster. This “crate run” or “mystery crate” business model unduly impacts the price of Maritime lobster and serves to devalue the industry overall. While many fishermen are working to improve the way they handle their catch, some others still believe that “if they are being paid garbage prices, they will bring in garbage.”



In an attempt to describe the complexity of the lobster “Value Chain” we provide a flow chart below that shows the many and varied players now operating in the industry and the various ways they interrelate. What is not obvious in the following chart, but bears mentioning, is that there is a cost associated with every transaction between players in the chain. For the most part these costs are relatively constant, with the exception of the price paid to fishermen. In some cases a lobster may pass through 6 or 7 steps from fisherman to consumer, with each step resulting in an addition to the final price.



Figure 5: Value Chain**Canadian Lobster Distribution Chain**

Source: New Brunswick Department of Agriculture, Aquaculture and Fisheries, 2013

• Conclusion

Overall, the shore price paid to Maritime Provinces' lobster fishermen in the spring of 2013 was reflective of the market conditions. (Currently, the state of the industry and how it operates leaves us with no way to determine if this price could have been somewhat different.)

Maritime lobster prices are the product of a number of factors related to how the lobster fishery is prosecuted, all of which are resulting in a price on the world market that is not truly reflective of the potential value of our lobster. Most importantly, the Panel wishes to express its strong view that IT DOESN'T HAVE TO BE THIS WAY!



3.2 Determine Viability / The Extent to which any sector can unduly influence Wharf Price

3.2.1 Context – Viability Thresholds

In attempting to determine viability thresholds, we found that the industry across the Maritimes cannot be described or costed in terms of one financial or business model. For example, some fishermen may have large investments for licences and boats totalling well in excess of a million dollars while others have a significantly smaller investment. Likewise, the potential catch in less productive LFA's might only be a fraction of that in an area such as LFA 34.

Fishermen are quick to adjust as the situation demands. If price goes down, they fish harder or revert to other species, or take up other work in the offseason. Recent lower prices and high landings have resulted in a movement to volume-based fishing to increase revenues, which is having an impact on the dynamics of the lobster industry and related markets. As volumes rise, prices go down and fishermen fish for more volume. Left uncontrolled, the capacity for the industry model to extract full value is compromised and a vicious cycle results, which drives the price even lower.

The on-shore sector is also home to many different scenarios in terms of financial or business models. The processing sector is home to multi-million dollar investments in modern production and handling systems which are a requirement to keep up with the newest market demands. As well, state of the art holding facilities across the Maritimes have been a significant new component of the modern fishery with the capacity to hold millions of pounds of live lobsters now in place.

Processors consistently talked about the difficulty in finding workers and many stated that without temporary foreign workers they would not be in business.

It seems clear nonetheless, that based on recent declines in the number of lobster processing operations in the Maritimes, the challenge to make a profit in this sector is not for the faint hearted. The unpredictability of overall supply and high landings over short periods result in an inability to get the best value from the product, and again, the price is impacted downward overall.

Saying a fisherman needs a certain minimum price per pound to be viable would not hold true across the industry, as it would depend on the situation of the individual enterprise. A fisherman who receives a \$3 price to catch 60,000 pounds of lobster might be quite profitable while a fisherman who gets a \$5 price to catch 10,000 pounds might not be. On the other hand, if the first fisherman has investments of a million dollars and the second fisherman owes nothing for his boat and licence, the second fisherman might be the more profitable one.

Of course it is possible to pick a number at which one could reasonably expect all harvesters would be viable, for example \$10 a pound is a nice round number that harvesters would readily support. But, to do this without considering the entire value chain would leave the other industry players to deal with a situation not even remotely related to reality and would therefore be irresponsible.



Nevertheless, the Panel has concerns that the importance of the cost of harvesting lobster is being sacrificed in the current pricing model. If such is the case, the industry cannot survive in the longer term. Despite the variety of financing scenarios described above, there are basic costs that all fishermen must deal with such as fuel, gear, bait, labour etc. These costs have increased significantly in recent years and in some cases are as much as five times what they were a decade ago. This additional cost places even greater demands on the fisherman to get a good price for the catch.

No player in the value chain, be it a buyer, processor, dealer, broker, wholesaler or retailer, should expect the primary producer to operate at a loss in order to provide them the product that they sell to realize their profit margin, no matter how narrow that margin might be. To this end, it is essential that those working in the industry begin to look at the cost of harvesting as a key consideration for determining final market value. As demonstrated earlier in the report, there can be many players taking a piece of the “lobster pie,” but unless the primary producer is viable, long-term prospects for everyone in the chain are grim.

Conclusion

When we look at the question of viability thresholds, the Panel believes that it is not possible to come up with a single (reasonable) shore price that would ensure viability for the harvesting sector, in all cases. Having said this, if prices were more stable, and we believe that they can be, then it is much easier to take measures to provide for viable operations for everyone. Furthermore the basic costs of harvesting lobster must be fully considered when determining a base price.

3.2.2 Context – The Extent to Which Any Sector Can Unduly Influence Wharf Price

To what extent can any single sector of the industry unduly influence wharf price? In our discussions with the representatives of the various industry sectors, the question of unduly influencing or manipulating wharf prices raised the ire of many. For some it was considered an insult and an accusation of wrongdoing and they responded by saying that there is “no conspiracy.” However, for others, it was considered a “fact” and they wanted the Panel to address it by whatever means were available to us.

It is inevitable during conflicts such as happened in the spring of 2013, that claims of improper actions are made and directed towards certain sectors of the industry. Claims such as “the buyers are price fixing”, or “the fishermen set the price,” or “the big brokers dump product on the market to deliberately lower the price before the season,” were all common accusations we heard.



Are buyers talking to one another with respect to the price of lobsters before and during the season? While there is considerable competition in this sector, we can only assume that they do talk about price amongst themselves. In any business you can expect competitors to talk about their industry's markets and pricing. That was essentially the response we were given when we put the question directly to the buyers we interviewed. It has also been pointed out that they talk to one another to distribute raw material to where capacity exists and to make sure all fishermen have a "home" for their lobsters.

The Panel was asked to imagine what it would be like to have 10 different shore prices on the same day at the same port. Ironically, if prices were different, all fishermen would demand that the same price be paid to them provided it is the highest one. This is only common sense. Any fisherman would want to be paid the highest price available. The problem is that all catches are not equal and some lobsters have a higher value potential than others. Should these lobster receive the same price?

Some of the fishermen we talked to bluntly stated that price fixing was occurring. These types of specific accusations were not something the Panel could deal with directly as our mandate did not include the authority to conduct the kind of forensic investigations that would be required to pursue allegations of this nature. What the Panel can conclude, however, is that the current pricing system (or rather the absence of a pricing system) does contribute to conditions that allow those who wish to operate in an inappropriate manner to do so with little chance of being held to account. What is also clear is that this "system" allows for speculation and fuels paranoia. Lack of an open process for price setting fosters rumours and mistrust, with little ability to find the "reality" in what is being tossed around. Both fishermen and the onshore sector talked about this spring being the most stressful they have experienced.

Prior to the Maritime Lobster Panel being established, the Province of PEI engaged the accounting firm of MRSB in Charlottetown (led by former PEI Auditor General Colin Younker) to look at the issue of lobster pricing from a detailed "financial information" perspective both from processors and buyers. The results of this study were not available at the time our report was finalized.

Establishing the shore price from a buyer's or processor's view is quite different than from a fisherman's. For them, determining a price is complicated at best but the traditional relationships they have with their fishermen further muddy these waters. Buyers talked about having to take "all" the lobster a fisherman lands no matter the rate, quantity or quality and the only differential paid is for markets and canners. One buyer talked about feeling he was "married" to his fishermen. Business plans can quickly go out the window when high volumes start to hit the wharves day after day.

Further compounding this problem of not knowing "how much" or "how much how fast", is the "price matching" that takes place among buyers.



When there were fewer lobsters and buyers were competing hard for product, fishermen held the strong hand in the game. Now that lobster are more plentiful the power or sway has moved to the other side of the table.

Again as mentioned before, fishermen are generally paid a blended price for lobster, which means the cost of lower value product forms and/or lower quality lobster, as well as loss in transportation and handling, are absorbed into the price. This “crate run” or “mystery crate” model unduly impacts the price of lobster and serves to devalue the industry overall.

Conclusions

The Panel has come to the conclusion it is quite possible for a single sector of the industry to unduly influence wharf price. Some brief examples of these activities are set out in point form below.

- Fishermen

Landing poor quality product, not grading for value, double hauling and or high volume of landings during peak fishing times.

- Buyers

Small players with little investment bump up prices to fill a niche market or flip on a tight margin. However, this usually results in price matching, which can drive the price to above what the market can absorb - the ultimate outcome is negative for everyone.

Any buyer who proclaims too early what he will pay risks losing his fisherman to another buyer who might offer 10 cents more.

Poor handling practices on-shore.

- Processors

Processing higher value lobster into lower value product forms.

Selling product at a low price in order to access cash because of limited lines of credit.

- Brokers

Selling inventoried product under cost because of financing pressures.

Pushing for lower prices to make product easier to sell.

So, mistrust between fishermen, buyers, processors, brokers and shippers is widespread. Relying on rumours or bickering in the public forum is counterproductive. Fishermen's organizations publicly proclaim prices that are in no way reflective of the actual situation. Buyers or processors complain in the press about gluts and inventories. These activities only serve to further drive prices down. While astute players in the market have instant access to what's going on and wait until they can buy at the lowest price possible; buyers / processors / shippers are unable to wait,



as they must pay fishermen weekly, or meet payrolls, or address lines of credit. For them, waiting is not an option.

At each meeting, the Panel talked about the need for market intelligence that could help alleviate the current situation by providing accurate, timely, official information on lobster markets. There was widespread agreement that this kind of information was crucial to the industry and should be available to all industry players. It is important however that this information be of high quality, relevant and meet the needs across all industry sectors.

What we describe is a reflection of the current state of the industry as it has evolved over many years of adjusting and reacting to different changes from all directions. Biological, social, financial, and economic perspectives come together and are reacted to independently instead of being addressed by the industry as a whole. The current lack of available official information on marketing conditions contributes to disarray and poor relationships, with the end result being an industry that is failing to work together to support the greater good for all participants. It is again the Panel's view that THINGS DO NOT HAVE TO BE THIS WAY!

3.3 Marketing

Provide information on current Canadian situation / and provide advice on marketing initiatives to increase demand for Canadian lobster worldwide

3.3.1 Current Canadian Situation relative to World Lobster Markets

In our industry discussions, we talked to many sectors about the current market climate for lobster in general and Canadian lobster in particular. Listed below are the various factors that play a role in influencing lobster prices according to the industry.

- High volume of landings in both Canada and the US.
- Value of Canadian dollar relative to other currencies; i.e., US, Euro, Yen.
- Overall continued poor economic performance in major markets.
- Lack of market discipline.
- The Canadian market needs to be explored.
- Lack of a coordinated marketing strategy for Canada.
- Funding to support marketing must be increased
- Quality standards and infrastructure needed.
- Air freight capacity is not adequate.
- Lack of coordination between and among, provinces, industry and the federal government.



- The Chinese restaurant industry has traditionally offered fresh fish or live trade; it is not equipped to handle frozen lobster products.
- The Chinese have little infrastructure to handle large quantities of live lobsters.
- The Chinese market has great potential but is very volatile.
- There have been a lot of trade missions to Asia.
- Trade missions that have been undertaken have received mixed support.
- Good potential for continued and further expansion in Asia.
- There has been considerable investment in the Asian market.
- Other areas with potential include Europe, India and South America.
- Current trade tariffs for lobster products in Europe could be lowered or perhaps eliminated with the recently signed (in principle) European Free Trade Agreement.
- Darden's has increased the minimum size of tails on their menu to 4 to 5 oz.
- Modern information technologies allow information to travel around the world in seconds.

3.3.2 Advice on Strategies for New Initiatives

Current Canadian and US landings for *Homarus americanus* in the 300 million pound range should be considered a good thing. While it is true that climate change, adapting species interactions and other unknown factors are impacting on lobster populations, this dramatic increase in total landings also demonstrates that successful conservation efforts are being made throughout the species range and that governments and the industry are managing lobsters in a prudent and sustainable way.

The question of how to best market this new volume of Canadian lobster is one of the most important elements we have considered in our deliberations. Clearly the easiest way to deal with basic supply and demand principles when you have more supply is to create more demand. That is easier said than done. Nevertheless, the Panel feels that in the world context, 300 million pounds of lobster, is not too much production; and with proper marketing initiatives and investment; good markets can be secured for this top-notch product.

Although it might seem simplistic to say, it cannot be understated that marketing is one of the most important tools available to product producers. We have all seen the success of major marketing initiatives such as generic marketing for eggs, milk, beef, or blueberries. One Super-Bowl ad spot costs in the millions of dollars because **MARKETING WORKS!**

To illustrate this statement, we share the following excerpts from the Seafood Value Chain Round-Table (SVCRT) Marketing Alliance Working Group, October, 2013; followed by an excerpt from a presentation entitled *Evaluating the Economic Benefits From the Canadian Beef Check-Off*, prepared by John Cranfield, March 17, 2013.



In evaluating the Alaska Seafood Marketing Institute (ASMI) & Norwegian Seafood Council (NSC) the following were noted:

- General feeling that ASMI & NSC are providing value for money
- Levy based system funded largely by industry
 - ASMI - \$0.5% - \$25 million budget
 - NSC - \$0.75% (\$0.25% processed) - \$72 million budget
- Public funds leveraged by industry levy
- ***Neither body received initial support from industry, but are now highly valued***
- Models focused around branding, promotion, intelligence, awareness and communication.
- Both jurisdictions have strong brand recognition

Economic Benefits from the Canadian Beef Check-Off

On average from 2005 to 2008, every check-off dollar invested in marketing and research activities earned \$9 for Canadian cattle producers.

Nevertheless, subsequent analysis showed there has been under-investment of check-off dollars in marketing and research.

Results show that investing one additional dollar in marketing and research activities yields anywhere between \$9 and \$15 in additional producer benefits.

Canada's Mussel Industry Council was another good example of the power of generic marketing in the local seafood industry. The Council was formed in 2009 as an association of producers and processors in the blue cultured mussel business in Prince Edward Island, Nova Scotia and Newfoundland and Labrador.

The purpose of the Council was to promote consumption of mussels throughout North America. A voluntary levy system that was set on a per pound basis has allowed the Council to leverage funding from the Federal and Provincial governments.

A multi-million dollar generic marketing campaign was carried out over four years. The results showed an increase in sales in PEI of 20% after a number of years of static growth while sales in Newfoundland and Labrador rose by 30%. As well the price to growers in PEI increased for the first time in many years. These results are even more impressive when the value of the Canadian currency increased by 25 points against the American dollar during this period.

Lobster Council of Canada

As the Panel conducted its meetings, the mandate of the Lobster Council of Canada (LCC) was raised whenever we talked about the issue of marketing. To better inform readers, we present here a brief summary of the steps that led to the establishment of the LCC, its mandate and



structure. This is followed by some discussion concerning what we heard regarding marketing and the LCC's role.

- In 2006, Agriculture and Agri-Food Canada (AAFC) funded a lobster benchmarking study at the request of the industry-led Seafood Value Chain Roundtable (SVCRT), which led to numerous industry recommendations to improve the sector's competitiveness, including the creation of a lobster marketing council. These recommendations were supported at a Lobster Industry Summit in 2007, which led to the creation of the Lobster Roundtable.
- DFO and the governments of the Quebec and the Atlantic Provinces were supportive of the establishment of the Canadian Lobster Council. A further report by the House of Commons Standing Committee on Fisheries and Oceans entitled: *The Canadian Lobster Fishery – Trapped in a Perfect Storm* recommended that both levels of government and industry encourage the creation of an Atlantic-wide multi-stakeholder marketing research and advertising council to promote Canadian lobster domestically and abroad
- The collaborative efforts of governments and leading lobster industry stakeholders ensured that the necessary funding and governance mechanisms were in place to address the industry's challenges and realities moving forward. The Lobster Council of Canada was formed in 2009-2010 and held its first Annual General Meeting in February, 2010.
- The Council's mandate is to enhance the value of the Canadian lobster sector in a sustainable fashion by addressing the issues of importance to the industry, including:
 - Strengthening the sector's competitive position and enhancing Canada's overall capacity to meet the changing demands of markets;
 - Improving market access through initiatives like sustainability certification, food safety, traceability, quality grading standards and branding;
 - Promoting all segments of the industry regionally, nationally and internationally with sound market research and market intelligence;
 - Communicating across all segments of the industry to create awareness and shared understanding, and build trust and confidence;
 - Communicating externally to customers to build the Canadian "brand"; and
 - Facilitating efforts to improve returns to the industry and the overall value-chain.
 - A 22-person Board of Directors consisting of representatives of First Nations (2), harvesters (10) and processors/live shippers (10) from across Atlantic Canada and Quebec meets regularly to guide the Council's strategic work plan and priorities. Representatives of both levels of government sit as *ex-officio* members. An annual general meeting provides the full membership with the opportunity to contribute to the Council's business and work planning processes.



Industry feedback was generally mixed regarding the LCC with many supporters fully onside with the work of the Council to date. Many were contributing both as active members as well as financially. Nonetheless, there were also a significant number of industry members across sectors that expressed concern that the Council has moved too far away from what they felt was its “intended mandate” of marketing and promotion and into other areas such as fisheries management where they should not be. As well, the constant struggle to find ongoing funding for the work of the Council is a source of frustration for many. It is consuming a significant portion of the time and resources that the Council should be spending on its core mandate.

The Panel also heard complaints that the Council did not yet have a detailed plan on how they were going to implement a marketing and promotion program. Concern was further expressed about accountability if a levy system was introduced; and, that not enough attention was paid to processed product in the Council’s work to date.

All this being said, the Panel considers that the work the LCC has been doing to be very important and feels they it is well positioned to continue these efforts. Marketing and promotion of Canadian lobster should be its primary focus and priority. To do this work, the LCC needs to be financially supported within a clearly established planning and accountability framework. The Panel believes that providing more clarity around the Council’s mandate and business-operating model would address many of the concerns heard during industry meetings.

In this section, we have attempted to deal with our Terms of Reference question that asked us to *“provide advice on marketing initiatives to increase demand for Canadian lobster worldwide.”* We wish to be clear that we do not believe this is something the Panel is positioned to respond to. Simply put, advice on marketing initiatives should come from experts in the field of marketing.

What we have done, however, is to set out this Panel’s very strong views about the need for a marketing and promotions campaign for Canadian lobster as well as the importance of generic marketing. Examples are provided where generic marketing has been used very successfully. We also talk about the Lobster Council of Canada, the work it has been doing and the importance of this work being continued and supported, albeit perhaps within a transparent planning and accountability structure.

The Panel’s message then, is that marketing is extremely important, that it works, and that the LCC is well positioned to move ahead with a Generic Marketing and Promotion Initiative, which must be properly guided, supported and financed.

3.4 Recommend options for formal system(s) for establishing price pre-season

The Panel received mixed views with respect to the issue of a formal mechanism for establishing price pre-season. For the most part, fishermen want to know the price they can expect to receive for their lobster prior to the start of the season. However, some feel such a process is not possible, or that a price set in this manner would forgo any possibility of benefitting from the wider market should it fluctuate upwards. Others feel that buyers would just push for the lowest possible price in their negotiations. As for major fishermen’s organizations, some supported the concept of a



price-setting mechanism and some did not. Clearly one of the reasons for skepticism was not having details of any kind to consider.

3.4.1 Gardner Pinfold Pricing Setting Examples

In the 2010 Gardner Pinfold Report, a number of price-setting models were described and analyzed - descriptions and analyses are presented here.

Contract or Collaboration

Groups of harvesters contract to supply all lobster to shippers and processors at an agreed opening price, with prices subject to adjustment based on shifts in market prices. Requires open books and transparency.

- Pros: Partnership not competition; Based on mutual gain; Individual harvesters, shippers and processors define the arrangements; Simulates integrated business; Requires transparency; Supports quality-based pricing; Supports production planning and marketing.
- Cons: Departure from competitive pricing; Cooperation difficult due to mistrust; Need to demonstrate mutual gain; Will take time to work out partnership arrangements; Requires “open books” by shippers and processors; Could be undermined by competition from volume buyers.

Final Offer Settlement

Parties obtain market information from independent third party and negotiate opening season price. Failure to reach agreement results in arbitration where each party submits a final offer and the arbitrator (individual or panel) selects one or the other, but nothing in between. Prices are adjusted as market conditions change.

- Pros: Structured approach with arbitration if needed; Interest-based; Detailed third party market information available to parties; Sets minimum prices; Product-specific pricing; Promotes quality-specific shore prices; Allows intra-season adjustments.
- Cons: Major shift in established price-setting method; Extended period needed to design/gain acceptance; Requires levy to pay for staff/market analysis; Requires on-going market and production data; Requires substantial industry buy-in for success.

Price to Market Formula

Parties develop a formula to share market price. Formula requires data on percentages of different products, market prices, yield/quality, exchange rates and shipping/ processing costs. Prices may be adjusted in season as factors in the formula change (e.g., exchange rates, product split, yield).

- Pros: Formula-based structured approach; Independent market information available to parties; All sectors gain insight into prices and cost factors; Product-specific pricing;



Promotes quality-specific shore prices; Allows intra-season adjustments; Should enhance trust between sectors.

- Cons: Major departure from current price formation; Extended period likely needed to develop area-specific pricing formula/gain acceptance; Requires on-going collection of market and production data (shore prices/rebates, market prices, product mix, exchange rates, yield, quality, production costs); May be difficult to accept area-specific prices based on yield and quality differences; May require cost recovery levy.

Auction

An open bidding process where both quantity and quality form the basis of the bid. Could be display or electronic auction conducted daily in major ports. Auction run by harvester/shipper/processor consortium.

- Pros: Open and transparent; Quality-based pricing provides quality incentives; Sensitive to shifts in market (real time prices); Can result in higher prices to harvester (cuts out buyer's commission); Limits ability of buyers to adjust the shore price; Better quality commands higher final market price.
- Cons: Harvesters resistance; Shore buyer resistance; Investment in holding facilities; Investment in training; Design/implementation; Extra work by harvester.

Collective Bargaining

Bargaining agents representing harvester unions and shippers/processors negotiate shore prices and other terms (e.g., quality standards, delivery schedules).

- Pros: Broad representation; Familiar approach; Flexibility for bargaining units; Agreements may cover more than price; Creates basis for industry organization.
- Cons: Reduces individuality; Unpopular in some areas; Takes time to organize; No guarantee of agreement; Requires professional staff/market analysis; Requires mechanism for periodic price adjustment.

3.4.2 Active Price-Setting Mechanisms

In addition to having the Gardner Pinfold study available to us, our discussions with industry provided us with the opportunity to actually delve into some active and operational price-setting models in use. As well, some key industry players presented us with proposals for other mechanisms to consider. We provide some of our findings below and link these to the Gardner Pinfold analysis where appropriate.

- **The Newfoundland and Labrador Price-Setting Mechanism**

The Province has a Fishing Industry Collective Bargaining Act (FICBA) that applies to fishers and processors. Lobster was added as a negotiated species in 2011. Parties negotiate a minimum



price and conditions of sale and, if an agreement is not reached, the matter goes before the Standing Fish Price Setting Panel (SFPSP).

The SFPSP's functions include facilitating collective bargaining and acting as an arbitration panel in setting minimum prices and the conditions of sale. Ultimately, the SFPSP will set minimum prices when parties are unwilling, or unable, to agree. The price mechanism is a price-to-market formula where a weekly harvester price formula is linked to the Urner Barry (UB) market price for 1¼ pound live lobster, FOB, New England (in \$Cdn.). A minimum price is set for a UB listing up to \$5.00 (which was \$3.25 in 2013); increasing to 70% of any incremental amount greater than \$5.00 Canadian, and 80% of any incremental amount greater than \$6.00 Canadian. Because most lobster is ungraded, the final price was also adjusted downward by 15 cents in 2013.

Example (Source: Newfoundland and Labrador Dept. of Fisheries and Aquaculture)

Market price = \$6.50 U.S.

7 Day Average Exchange Rate: \$1.00 U.S. = \$0.97 Cdn.

Canadian Market Price = \$6.50 x 0.97 = \$6.30 Cdn.

Minimum Lobster Price = \$3.25 + (0.70 x \$1.00) + (0.80 x \$0.30) = \$3.25 + .70 + .24 = \$4.19

The minimum price each week is based on the average of the UB listings on Thursday of that week and Tuesday of the following week, and applies retroactively to all sales from Sunday to Saturday, inclusive, payable no later than Thursday of the following week. For example, the price payable for landings in Week 1 (from Sunday to Saturday inclusive) is calculated based on the average of the Urner Barry listings for Thursday of Week 1 and Tuesday of Week 2, payable no later than Thursday of Week 2.

All Urner Barry listings are converted to Canadian dollars based on the average exchange rate for the seven-day period immediately preceding the Tuesday following the week in which the landings occurred, as per the Oanda website. Should Urner Barry provide a listing on Thursday in a particular week, or on the following Tuesday, but not both, that listing shall be used as the basis of the calculation. Should there be no Urner Barry listing provided on either a Thursday or the following Tuesday, the most recent prior Urner Barry listing shall be the basis of the calculation. In the event that Urner Barry provides a range of prices on a given day, the low end of the range shall be used as the price listing for the purposes of this Schedule. All prices are based on legal size lobster.

This model is a combination of the Collective Bargaining model, The Final Offer Settlement model and the Price to Market Formula.

- **The Magdalen Islands Price-Setting Mechanism**

Quebec's *Loi sur la mise en marché des produits agricoles, alimentaires et de la pêche* (LRQ, Chapitre M-35.1) (loosely translated as: An Act governing the marketing of Agricultural, Food and Fisheries Products) allows an association of fish harvesters to put in place a collective marketing regime for various fish products. A regime has been in place on the Magdalen Islands (LFA 22) since March 1991. The scheme, known as the "plan conjoint" or joint plan is administered by the "Office des pêcheurs de homard des îles-de-la-Madeleine" or the Magdalen Islands Lobster Fishermen's Board.



The Board consists of an executive council and 9 harvester representatives (from different harbours) who are mandated collectively to act on a wide range of sectoral activities, including orderly lobster harvesting; collaborating with buyers on market development, promotion and intelligence; negotiating prices with representatives of interested buyers and processors across the supply chain; and setting lobster handling and quality grading standards. The Board acts on behalf of all 325 lobster licence holders; all fishers are required to conform to the decisions, rules and undertakings established by the Board.

Who negotiates the shore price is delegated to a three-member committee consisting of 1 representative from the Board, 1 representative of the buyers/processors (usually from the *Association québécoise de l'industrie de la pêche*), and 1 representative from the provincial commission named in the legislation. Typically, the process works as follows:

Beginning on the second week of the season, and on every Monday during the fishing season, the two industry representatives confer in an effort to come to an agreement on what the weekly shore price will be;

If an agreement is not reached on a Monday, the shore price for the week (and the previous week if necessary) is set no later than the following Wednesday based on the average price received by the active buyers (usually three) that sold at the highest price the week before;

A buyer will pay a fishermen 75% of the price established by the price-setting committee when the price is less than or equal to \$3.00/lb. When the price is greater than \$3.00/lb, the fishermen will receive 90% of the incremental amount;

Every Tuesday and Thursday, the committee establishes a minimum “reference price,” which is used on the following Monday in setting the shore price for the week. (The reference price is formal-based using data from an accredited source); and

If the minimum shore price paid to fishermen is 10 cents/lb below the minimum reference price, the committee will adjust the price set at point 3 by no later than on Friday of each week.

This model is a combination of the Collective Bargaining model, The Final Offer Settlement model and the Price to Market Formula.

- **The PEI Potato Price Setting Mechanism**

The price-setting mechanism for processing potato contracts in Prince Edward Island is enabled by powers granted to the PEI Potato Board under the Natural Products Marketing Act. Under those powers, the PEI Potato Board passed a Board Order, which prescribes the contract negotiation process.

A Negotiating Committee, consisting of representatives of the PEI Potato Board and representatives of a processor, is mandated to negotiate the minimum contract price for processing potatoes, as well as other terms and conditions (quality parameters, etc.) that would apply to all contracts signed between an individual grower and a processor up to August 15th of the current crop year. Separate negotiating committees are established to develop the contracts for each processing company.



The Negotiating Committee is established by January 1st each year. The Committee, during negotiations, takes into account the prices or projected prices paid by competing processors in competing market areas, the projected quantity of production in PEI and in competing market areas, the average cost of production, prior contracts and other factors.

If, by the last Friday of March of each year, a contract has not been agreed upon, a mediation process begins to address the outstanding issues. The mediation takes place within one week of the last Friday in March, and can last for no longer than three days.

If the mediation is unsuccessful and the Negotiation Committee does not reach agreement on all terms and conditions by April 15th of each year, the process moves to binding arbitration. Final offer arbitration is used, whereby each party (the grower group and the processor) submits an offer and the arbitrator chooses one or the other. The timelines established in the Board Order are designed so that a contract has been determined prior to growers planting the crop.

This model is a combination of the Contract or Collaboration Model, the Final Offer Settlement Model and the Price to Market Formula.

Further to these, the Panel also had a presentation on an Auction model that, for the most part, fits the model described previously above. A major processor / live shipper also presented a price-setting mechanism to the Panel, which would fit well into the description of the Contract or Collaboration Model above.

Considerations and Conclusion

We took significant time to review these models and consider their suitability for possible use Maritime wide. Our review identified several key elements in each model. These include, but are not limited to:

- A link to the market place
- Decision-rules based
- Independent over-sight
- Legislatively based
- Flexible to market fluctuation throughout the season
- Shared risk
- Returns based on product value
- Well organized fishermen
- Organization representing buyers.

Whatever the model, for such a system to work, the industry needs access to independent, accurate, timely, and official marketing information. In fact, the lack of such information is a contributing factor to much of what ails the industry at this time. Gardner Pinfold identifies the need for such information in all but one of the models that was reviewed.



If we consider reaction to the price-setting models in operation in Atlantic Canada, Quebec and Newfoundland and Labrador, there are pros and cons to how these are operating and detractors and supporters on their use depending on where you are situated on the pricing question.

Nevertheless, price setting mechanisms have brought to the industry in these provinces a much-needed forum for formally looking at the question of price. The requirement to become better organized and informed about the marketplace is in itself a reason to have such a system. Furthermore, the ability to take such a divisive issue to an independent party is also a valuable change that should serve to improve relationships over time.

The Panel believes it is not only possible, but very important, that a price setting mechanism be developed and Implemented for the Maritime lobster fishery.

3.5 Provide Advice to Stabilize Price

3.5.1 Owner Operator and Fleet Separation

Before providing advice on actions that could be taken to stabilize and then increase the price paid to harvesters, the Panel wishes to provide comments regarding the Owner / Operator and Fleet Separation Policies which we were directed to “respect” in our Terms of Reference. As the Panel met with industry, this issue of DFO’s Owner / Operator and Fleet Separation Policies was raised on several fronts. Because it was mentioned in our Terms of Reference as being untouchable, it was seen by some onshore industry players as an indication that the Panel was deliberately being directed to support the inshore fishermen to the detriment of processors, buyers, shippers and others.

As we continued to meet with the various groups, there was a consistent and strong message from harvesters that these policies were still being undermined by controlling agreements or similar arrangements.

The Panel accepts the direction received from Ministers that these policies are supported by the three Maritime Provinces and that any recommendations we make must respect the underpinnings of the policies.

Furthermore, we collectively consider the Owner Operator and Fleet Separation Policies to be a cornerstone of the inshore lobster fleet and as such, diligent application and enforcement of these policies is fundamental to establishing and improving relationships across the lobster industry and to ensuring the long-term sustainability of many maritime coastal communities.



3.5.2 Provide advice on actions that could be taken to stabilize (then increase) the price paid to harvesters (while protecting fair return for other players)

Thus far in this report, the Panel has attempted to provide feedback relating directly to the questions posed in our Terms of Reference. Our comments, observations and conclusions are based on several sources. They flow from the significant industry engagement exercise we completed with the lobster industry across Atlantic Canada, Quebec and the State of Maine; a review of the many studies, reports, publications and submissions made available for our consideration; and finally from our own considerable years of experience working closely with the lobster industry from three unique perspectives.

What we heard from the industry since we began our meetings in July gives significant validation to much of the previous work that was carried out in respect to the lobster industry. We speak here of the many reports and studies we reviewed. This body of work looked to find solutions for the industry and consisted of studies and analysis that were much more comprehensive, in-depth and detailed than we could possibly achieve given our expertise, timeframes and mandate. Although this work spoke to the Panel in a somewhat different “language” than we heard from our industry meetings, the consistency of the messages we received from both processes is remarkable.

As a last message before moving to the recommendations section of the report, we wish to raise again this issue of “loss of value” occurring in the Maritime lobster industry. The fact that losses have been occurring has been documented many times in the reports and studies we reviewed, and mentioned again and again in the meetings we held. Losses can be traced to poor industry relationships, poor operating practices and an inadequate industry structure. Study after study points out that significant losses are a reality and with appropriate “**action**” these losses could be mitigated and value recovered. This move to **action** is what we are proposing; concrete steps that will signal to all that effective change is necessary and possible. Much of what will follow is not new to anyone who has tried to deal with this industry. What we are providing is a plausible way forward.

The Panel believes that taking the actions we propose will serve to stabilize and improve (i) prices paid to fishermen and (ii) the overall value of Canadian lobster to our economy.



Part 4: Panel's Recommendations

We have formed our recommendations for change in three key areas. First, Industry Relationships; that is, how the many interconnecting players in the industry relate within their groups and across sectors. Next we examined Industry Operations; that is, how the industry carries out the activities of fishing and buying / shipping / processing, etc. Finally, we examined Industry Structure, meaning how the industry is set up and where gaps exist that are contributing to value loss.

4.1 Relationships

A good part of what is wrong with the current state of the industry can be attributed to the way the various sectors relate to one another. Mistrust is everywhere; rumours, accusations, bullying and intimidation between individuals and organizations and within organizations are tactics in the way business is conducted. Government agencies are easy targets to blame for all the industry's ills, yet governments do little to clarify their roles and communicate how industry can best contribute to government policies and decision making. And as governments downsize, they reduce or eliminate funding, or download costs to the industry. There is little clarity around expectations on any front. A key contributing factor to this situation is the lack of strong and effective representative organizations across the sectors of the industry. Another factor is the way in which governments operate as they seek to determine what the industry's "position" is on a particular issue.

4.1.1 Organization

Are the claims the Panel heard about dysfunctional relationships across the industry factual or myth? Probably neither in every case; however, the point is that these claims are being made at all. The Panel suggests that the only way to counteract this perception that the industry is operating in an unproductive, or even destructive manner (whether real or imagined), is by strengthening the existing Industry Organizational Model.

Better organization will lead to exchanges based on facts instead of innuendo; a well-structured, well organized and well informed industry that constantly interrelates in a professional manner will go a long way towards clearly defining issues, finding solutions, and moving forward; it will make the industry more efficient and more viable.

The current level of "competition" between provinces and even between Canada and the US is not always helpful. As such, the lobster industry will not serve itself well if it only views issues and actions from a local or even a provincial standpoint. Whether from the processing or live



shipping sector, the present lobster industry is completely interconnected between provinces, as well as with the US industry; therefore, issues and measures also have to be addressed from this perspective. **The lobster industry is critically important to our provincial economies and rural communities and cannot afford to be as disorganized as it is presently seen to be.**

Fishermen Organizations

The Panel wishes to be clear that many fishermen's organization are already operating as fully responsible and democratic groups; doing excellent work on policy issues, conservation issues, doing enhancement, R&D and addressing social issues like fishermen's safety and health plans. Where these organizations exist, we commend them and call on all fishermen in the Maritimes who are not members in such an organization to join one.

That being said, all fishermen do not belong to such a fishermen's organization and in many cases these organizations are smaller in scope based on local geography or fishing area. Larger, province-wide fishermen's organizations do not exist in all provinces. As a result there is a significant fishermen's power base being lost in almost the same way as the value of the lobster they catch is being lost.

The collective efforts of fishermen to protest lobster prices in the spring of 2013 was an unusual example of the power fishermen can exert when they work together across provincial and / or fishing area boundaries towards a common goal. While some may say that their efforts were fruitless because they failed to immediately achieve a higher price; the fact is they were able to grasp the attention of the whole Atlantic community and gained the support of the three Maritime Fisheries Ministers who have asked this Panel to take a serious look at the industry and recommend real change.

Fishermen historically have struggled to deal with issues and problems in-house. As a result, it often becomes the case that others take on responsibility for making these decisions; and of course, the outcome is seldom in the fishermen's best interest. Governments, buyers, processors and others have a long history of taking advantage of the fact that fishermen cannot present a united position on key issues.

Dissention and conflict also falls well into the hands of a media who can prey on division to make headlines and news. This scenario does little to help the fishermen's image; neither is it necessarily the best approach to resolve issues.

The Panel feels that much of the organizational ineffectiveness being talked about can be traced to the traditional manner in which fishermen's organizations operate; where decisions are made based on consensus or by public voting. This model does not serve the industry well. Fishermen need to understand this and begin immediately to operate on more democratic principles where they move forward based on majority support for issues as determined by informed debate, careful consideration and voted on by secret ballot. While the Panel defends the right of any fisherman to stand up and speak to an issue, it also defends the right of a fishermen to sit quietly,



consider different viewpoints and make a private decision on an issue through secret ballot vote without fear of repercussion.

If a segment of a group within an organization fails to convince the majority on a certain position on an issue, too often, they tend to want to walk out and create a new group. The same thing happens when personalities clash or old disputes are allowed to override real issues. This constant splitting and fragmentation just creates more division.

We see this happening now in Nova Scotia where there are so many smaller fishermen's groups, too many fishermen that don't actively participate in any organization and no provincial organization to bring everyone together. Small splinter groups usually have little ability to fund the kind of professional support fishermen need to keep their organizations effective. Operating in a properly democratic fashion, communicating to members and other industry sectors, and facilitating work with governments and others is a difficult burden to take on without the capacity to do so.

Fishermen need to take a broader perspective, and find solutions that take the bigger picture into consideration. The Panel believes that better fishermen's organizations are the vehicle needed to move them in this direction.

Recommendation #1: The Panel recommends that fishermen come together and, where not already in place, establish and participate in well-organized, representative fishermen's organizations. These organizations should come together under a provincial organizational structure (similar to the way fishermen do in PEI). These provincial organizations should have the capacity to work together from an East Coast perspective and engage US counterparts to jointly address issues related to the entire lobster industry.

Processor / Dealer / Buyer Organizations

Changes in the evolution of the fishery model in recent years have had a significant impact on the overall importance of the processing industry to other sectors and other regions across the range of our lobster species. The relatively recent evolution in the movement of Maine shedders into the Maritimes for processing as well as the high volume of lobster being processed from what were formerly live market LFAs, signals a shift to an industry model that is now entirely interdependent. This along with the overall demographic shift away from eating something that you "actually kill in your own kitchen", further signals a new importance for the processing sector that many of the people we talked to saw as significant and positive for the entire industry.

As this new important era evolves further, it is important that the onshore lobster sector address the issue of organization as well. This is another area where lack of organization is contributing to lost value to the industry overall. **One of the big issues in this regard is the lack of discipline among the onshore players.** The hyper competitive nature of buyers, dealers and processor leads to discount selling, undercutting prices in the market, bumping prices up to fill niche markets all which serve to devalue the industry in the long term. The Panel calls for onshore players to get better organized in the same spirit as we do for the fishing sector.



To put it bluntly, this industry is too important not be structured properly! The processors / dealers / buyers need to have a strong voice in the same way fishermen do. Too many in this sector don't see the need to be organized and this makes for a weaker industry where individual action quite often undermines good development opportunities. We have already seen in our work how such actions are contributing to lost value across the industry.

Recommendation #2: As is the case for fishermen, The Panel recommends that, where not already in place, processors/dealers/buyers in the lobster industry establish, participate in, and pay into a provincial based organization. Again, these provincial organizations should have the capacity to work together from an East Coast perspective and engage US counterparts to jointly address issues related to the entire lobster industry. In the end, there is nothing to be gained by being disorganized.

Department of Fisheries and Oceans (DFO)

As the Federal Government department responsible for the orderly management of the lobster fishery, DFO plays a critical role in the industry. Very clearly, the department's key role is the conservation of the resource. The most important contribution DFO can make to the industry is healthy populations of lobster. Many have said during our meetings that this has been accomplished. DFO, with the help of the FRCC and strong support from the industry, has implemented key measures to increase the viability of lobster populations across the Maritimes. While climate conditions, shifting predator/prey relationships and other events have been cited as contributing factors, there can be no doubt that the combined efforts of DFO, the lobster industry and other stakeholder groups have been successful in achieving stability and growth in lobster resource abundance.

One of the things the Panel heard from fishermen throughout our discussions was their appreciation of DFO's efforts in support of reducing the number of lobster licences. The Atlantic Lobster Sustainability Measures Program (ASLM) provided funding, matched by comparable industry contributions, to achieve permanent reduction in effort levels in participating LFA's. This program contributed to an overall reduction of approximately 450 Class "A" lobster licences in Atlantic Canada and Quebec during its lifespan. Industry groups acknowledged this very valuable program and have expressed a view that this type of initiative continues to be both needed and supported by the industry.

Recommendation #3 The Panel recommends that DFO continue its efforts to work with fishermen to rationalize the fishing sector where warranted.

As noted, DFO has responsibilities for the orderly management of the fishery. However, the industry remains unclear as to what this responsibility entails or even how the industry must organize itself to contribute to, or influence, the decision-making processes which support DFO's responsibilities. There are many aspects of managing the lobster fishery that are presently impacting negatively on the industry and contributing to the losses being experienced that need to be addressed. The Panel is recommending the following relationship changes for consideration by DFO so as to more effectively engage the industry in support of a better management regime.



Recommendation #4: The Panel recommends that DFO move away from its present practice that requires consensus from the license holders in a LFA before change will be considered. A new policy needs to be developed to replace this “consensus” approach; one that will empower legitimate organizations to truly represent their membership. If there are requirements, with respect to operating and governance principles, that DFO needs fishermen’s organizations to meet in order to be considered “representative”, DFO must advise those organizations of such requirements as soon as possible.

Recommendation #5: The Panel recommends that DFO clarify and communicate “Change Guidelines” to the industry. These should include: how to apply to DFO to request a change to a management plan element; any deadline that must be met to ensure the proposed change can be implemented; what factors will be taken into account in support of a change; the types of changes that could be considered (or not); the level of support required from the LFA licence holders for DFO to consider it “supported” (i.e. is it 50% plus 1 of those who vote, or something different?).

DFO’s downloading of services to the industry has been ongoing for several years. When changes to services such as tag procurement and distribution or licensing were rolled out in 2012, little was done to provide capacity building for fishermen or aboriginal organizations to help them adapt to the new services and business model.

Recommendation #6: The Panel recommends that DFO look at what has been done thus far in this area as well with future initiatives, and seek to find opportunities to support legitimate fishermen’s organizations. For example, trap tag distribution could become the sole responsibility of such an organization. Providing this service would be a way to develop stronger links between an organization and its membership.

A billion dollar industry that cannot provide landing data until a year or more after the landings occurs is totally unacceptable in this age of instant data collection for almost every other product.

Recommendation #7: The Panel strongly recommends that DFO develop and implement a modern data collection system for catch and effort in the lobster fishery that is electronic, at point of sale, automatic and available in real time. Such a system has been called for repeatedly in recent major industry studies. While the Panel makes this recommendation to DFO, it must also express to fishermen and onshore sectors the importance of this requirement and calls on these sectors to step up and take on their share of the responsibility for implementing such a system.

Provinces

Provincial fisheries responsibilities cover a number of critical areas that contribute to the overall lobster industry. These include certification of organizations, regulations relative to dues collection, licensing of processors and buyers, industry training and development, financing and, of course, marketing. There are a number of key areas in which the Provinces “relate” to the industry that need improvement. To this end, the Panel makes the following recommendations for strengthening the relationship and improving the current situation.



The first area where provinces can improve relationships has been demonstrated by the very fact that this Panel has been brought together. The need for Provinces to work together is fundamental to the future success of the Lobster industry.

Earlier in our report we talked about the interrelationships of the various sectors of the lobster industry and how the evolution of the processing industry and the interdependence of the various LFA's has become a new reality. This, along with the fact that the Maritime Provinces represent 90% of Canada's lobster landings, demands that each province's contribution to the overall industry be coordinated with their neighbour provinces.

The area of legislation to support fishermen's organizations is one of particular concern to the Panel. While some provinces are fortunate to have single organizations representing their harvesting sector, the Province of Nova Scotia is home to a fragmented industry structure that has been struggling to evolve in recent years. Last year, the Provincial Minister announced the Fish Harvesters Organization Support Act (FHOSA). The stated purpose of FHOSA is to allow support for accredited organizations through registration and dues collection enforcement.

Recommendation #8: The Panel recommends that the Province of Nova Scotia use this new legislation to encourage and support fishermen's organizations to come together under one provincial umbrella in much the same way as the PEI Fishermen's Association has done in that province.

Notwithstanding the presence of single organizations representing PEI and eastern New Brunswick and considering the fragmentation that persists in Nova Scotia, there is an overarching need to build accountability back into how fishermen's organizations operate.

Recommendation #9: The Panel recommends that provinces work with local educational institutions and fishermen's organizations to develop, promote and implement a training course for executive members of provincially accredited fishermen's organizations.

All three Maritime Provinces are active in the area of lobster marketing. Different provinces allocate resources to different departments and often a province will have marketing initiatives going on in more than one department. The Panel has seen excellent examples of how the three provinces have coordinated their work in this area especially within the "Fisheries" departments. The Panel feels that it is vital that provinces work together on marketing lobster as a Canadian product and not from an individual provincial perspective.

Recommendation #10: The Panel recommends that the three Maritime Provinces explore the possibility of consolidating and redeploying the resources now available for lobster marketing to a new Joint Maritime Provinces Lobster Marketing Group which would be responsible for the coordination of joint lobster marketing and promotion on behalf of all three provinces.

Recommendation #11: The Panel recommends that each province examine the level of resources it currently spends on lobster marketing relative to that spent in other resource sectors.



As we spoke about marketing of lobster with the industry, a recurring point was raised about the need for work to be carried out on developing and promotion of new value added products for our lobster. Future generations are unlikely to enjoy lobster in the same way we do.

Recommendation #12: The Panel recommends that the Provinces work together, in collaboration with industry, to develop and promote new value-added lobster products targeted at the next generation of lobster consumers.

Industry Financing

During the course of our industry discussions, we were encouraged to talk to the banks if we wanted to better understand why certain business arrangements and dealings were what they were (i.e., low selling) or what the implications of financing were as they related to fish buyers, processors, shippers and others in the value chain. We did just that. In essence, the representatives of various financial institutions told us that they treat the fishing industry just like they would any other business client. They assess the risk of borrowing based on the particular characteristics of the company and how well it is positioned to deal with the challenges particular to that industry.

Challenges facing the onshore lobster sector can be daunting when meeting payrolls, paying fishermen, and managing lines of credit. When these are matched with the uncertainties of the market place (domestic or foreign) around issues of supply, pricing, seasonality and level of capitalization the need for investment and financial stability is evident.

4.2 Industry Operations

In an earlier section of our report, we talked about many of the issues in play regarding how the industry operates in today's lobster fishery. Volume-based fishing has become the norm with low prices driving fishermen to fish harder to make up for lost revenues by catching more. High landings are also coupled with intense fishery openings where catch rates are so high that the onshore industry cannot handle the volumes and losses pile up either at the processing plants or in some cases the landfill. A further victim of this race for the fish is overall quality. Lobster are often rushed into less expensive product forms or devalued due to poor handling at sea or on land.

In addressing these issues, the Panel provides the following recommendations for consideration by industry. These are not new to the industry and have been talked about in some cases for many years. For some, work is already underway toward building new models to better control supply or get optimal value for catches.

4.2.1 Managing Supply to Optimize Value

Recommendation #13: The Panel recommends that industry consider implementing substantial temporary trap reductions in the opening weeks of a season to reduce early supply spikes and ensure the volume of lobster can be landed and distributed based on best product match and highest quality. The Panel wishes to note that implementing this recommendation would also serve to reduce opening season safety concerns well known to the



industry. (For LFAs with shorter seasons, this could be considered in conjunction with longer seasons if directly related to the trap reduction so as to ensure overall effort levels are not changed. DFO could support this strategy by placing a limit on the number of trap hauls by any one licence holder to no more than one per day. (Black box monitoring could be used to monitor any requirement that would limit the number of trap hauls per day)

Recommendation #14: The Panel recommends that industry consider the use of daily quotas to control supply (if temporary trap reductions are not supported). The Panel sees this option as somewhat less effective than the previous recommendation as there have been some cases where fishermen have been holding lobster in less than ideal conditions, with the result being a further diminishing of quality and value

Recommendation #15: The Panel recommends, that where not already in place, industry consider designating a day per week or every 5th or 6th day as a “no haul” day to allow for product to be cleared from landing areas and processed to the optimum product form to ensure best possible price.

Recommendation #16: The Panel recommends that industry consider adjusting season openings based on the marketability of the resource. The Panel sees this recommendation coming on line as new technologies evolve that allow determination of lobster moulting stages at sea. (You don’t start picking strawberries when they’re not ripe.)

Recommendation #17: The Panel recommends that industry in each LFA consider having the opening day of the season on a consistent day as opposed to the same date each year. This should be done collectively by fishermen and processors to determine best possible days. (For example, the LFA 24 opening date could be the last Monday of April every year instead of the 30th of April every year. Or, LFA 25 could open the second Monday of August every year as opposed to the current fixed date). The Panel believes this change would allow better planning for both the harvesting and onshore industry sectors.

4.2.2 Individual Quotas

The Panel would be remiss if we did not raise this sensitive issue. We were advised by many of the fishermen that we talked to not to mention the “Q” word and some impassioned pleas were made suggesting that individual quotas in the lobster fishery would be the beginning of the end of the world as we know it. Nevertheless, we did hear from a surprising, albeit small, number in the fishing sector that it might be time to start looking at this tool as a potential method of controlling supply and providing more security and stability. For the processing sector, IQ’s in the lobster fishery have been supported for some time.

Nevertheless, we must acknowledge that any attempt to move to such a model would have to be fishermen driven and it is clear to the Panel that at the present time, there is no appetite from this sector for boat quotas in the lobster fishery.

Although the Panel is clearly not advocating such an approach, here are some pros and cons to consider in an IQ model:



Pros

- Seasons could be extended without having to worry about over exploitation
- Fishermen would be able to adjust their fishing operations to market conditions
- Fishermen would be able to leave shedders in the water without having to worry about total landings
- It would be easier for a fisherman to put a value on an enterprise

Cons

- At present there is no scientific information to determine biomass and establish an overall quota from which to determine individual quotas
- The high number of fishermen involved in the fishery makes it very difficult to reach agreement on IQs
- There is a risk of IQs turning into ITQs with concentration of quotas ending up in the hands of a few

4.2.3 Implementing a Quality Framework

As the Panel read the many reports made available to them and listened to fishermen, buyers, processors and others talk about the significant loss occurring in the industry for quality reasons, it seems clear that we must make recommendations on changes needed to address quality. Again some of these proposed changes are not new to the industry and in fact, recent improvements in quality are clearly being seen.

In many LFA's the condition of lobster taken is excellent, i.e. hard-shell, full-meat, fully intact lively animals. In other LFAs the catch can be more challenging to deal with. Variations depend on the location of the fishery, water temperatures, climate conditions at time of harvest, and the related issue of the moult stage of the lobster being caught. Even with the best conditioned lobster, there are challenges in getting the catch to the processor or consumer without condition deterioration. The more the lobster is handled the more likely the chance that it will suffer some degradation. Proper handling, storage and holding are crucial to maintaining top quality and achieving top value.

With the recent high landings being experienced, these challenges become even more complex. Industry members spoke of higher volumes of lobster being lost due to a number of factors. Very high catches mean fishermen have to deal with a larger number of lobster over a shorter period of time at sea. Recent boat quotas meant that some fishermen were having to hold excess lobsters in less than ideal conditions. In some cases there were so many lobsters being landed that a shortage of appropriate handling crates resulted. The onshore sector expressed similar challenges as holding facilities fill up quickly and plants reach maximum processing capacities but lobsters keep just coming.



The Maine Lobstermen's Community Alliance (MLCA) website addresses the question of loss due to quality or "shrinkage" stating: *"It is estimated that the Maine lobster industry alone loses about 20% of the product landed as a result of shrinkage"* the article goes on to say: *"The same is true for the Canadian Maritimes, which report an average shrinkage rate of 8-10%".*¹

As we talked to industry we heard many anecdotal reports across all sectors regarding loss due to "shrinkage." Many of the sources for these reports were not willing to be quoted due to a lack of concrete data as well as the sensitive nature of this aspect of the fishery. Nevertheless, the consistencies in the messages received by the Panel cannot be discounted.

Based on what we heard, it would seem that the 8% to 10% range of loss noted above might be conservative when considering recent peak landing situations in many LFAs. In LFA 34 for example, several sources talked of losses ranging in the millions of pounds during the opening weeks of the season in the past few years. One processor in New Brunswick talked about discarding more than 50,000 lbs. of lobster in the first three days of the LFA 25 season in 2012. Another plant manager talked of losing a whole day's catch due to unforeseen issues with his holding facility. Of course these are just a few examples; however, such stories were heard repeatedly. Overall, the Panel feels that the level of loss due to shrinkage is an area of considerable concern that can be addressed with a dedicated and coordinated industry effort.

This estimate of loss should be worrisome to everyone. If we consider only one half the above shrinkage estimates by the MLCA for Maine and the Maritimes; the resulting magnitude of loss in Canada and the US through damage, weak and dead lobster would be more than the total production of many of the world's lobster producers.

We are pleased to note that industry and government representatives are being proactive in dealing with this issue. We've seen greater attention paid recently to lobster handling and quality issues. In 2012, the NB Department of Agriculture, Aquaculture and Fisheries developed, and then partnered with, the LCC and Aquatic Sciences and Health Services to deliver a series of province-wide workshops on lobster handling and quality improvement for fishermen, buyers, processors and shippers. Some 34 sessions and 487 participants attended the workshops. A similar initiative was pursued in Nova Scotia by the Department of Fisheries and Aquaculture with 19 province-wide sessions and 437 industry participants in attendance. The Panel has been informed that the PEI Fishermen's Association is in the final planning stages for the delivery of similar sessions to Island industry participants this year.

The LCC has been proactive in addressing quality improvement issues as well. The Council's most recent initiative was to establish an industry and government working group on quality grading. The group has been mandated to: (i) develop a list of quality grading standards that can be used to evaluate lobster quality at first point of purchase, (ii) the standards must be practical and considered for use on wharves, on boats and in plants, and (iii) the standards must be

¹ <http://mlcalliance.org/2013/07/05/maine-lobstermens-community-alliance-getting-a-handle-on-lobster-quality/>



reasonable and be able to be agreed upon by harvesters, buyers, brokers/dealers and processors/shippers in a short time and with limited training.

While progress is being made, we believe that much more needs to be done. If we are to succeed in developing a Canadian Brand for “top quality lobster”, we will need to deliver on that claim by ensuring only the best lobster carry that brand.

The Panel makes the following recommendations for changes to improve the quality of lobster being landed in the Maritime Provinces.

Recommendation #18: The Panel recommends that the industry develop “industry grading standards” to define best option criteria for specific markets and have fishermen grade to those standards at sea (no more “Mystery Crates”). As noted, work in this area is currently underway through the Lobster Council of Canada.

Recommendation #19: The Panel recommends that the provinces introduce measures and provide resources to inspect and enforce where quality standards and grading requirements are not being respected.

At the present time, “market size” (3 3/16” or 81mm) is the only grading standard that results in a price differential paid on shore price. **The principle of paying a fisherman more money for a more valuable lobster is fully supported by the Panel;** however this practice needs to be expanded beyond just this arbitrary size based on industry practices dating back to the late 1980’s. Value can be determined not just by size of lobster but by many other variables as well. Condition, shell hardness, colour, meat yield, integrity of the animal etc. all contribute to the potential value of a lobster. Standards including the “market size” need to be developed based on concrete indicators, and grading to those standards needs to be practiced in the context of today’s industry.

Recommendation #20: The Panel recommends that the industry begin paying shore prices to fishermen that reflect the value and quality of the catch. This means the industry needs to ensure a differentiated pricing system that is geared to pay by product form and quality as defined through the implementation of standards and grading. These prices could be pre-negotiated by grade through a price-setting mechanism. Included in these grading standards must be a thorough analysis of the current use of the 3 3/16” or 81mm market size.

The Panel has been advised by some that consideration be given to doing away with the Canadian “market size” and that the US minimum size become the standard for paying a price differential. Where fishermen continue to fish smaller lobster e.g. less than 80mm, the Panel does not agree with this suggestion as it would only serve to devalue the lobster between 81mm and 82.5mm that would continue to be caught.

Where fishermen are already fishing larger lobster sizes, say, 80mm or greater, the Panel sees benefit in increasing the minimum legal size in these LFA’s to the US minimum size; even if that process must be done over a few years.



Recommendation #21: The Panel recommends that where the present minimum size of lobster is at or above 80 mm, those LFA's consider increasing the minimum legal size for their lobsters to the US minimum legal size of 82.5mm.

Recommendation #22: The Panel recommends that industry and the provinces work together to continue to develop and implement new technologies to reduce the number of times lobster are handled from the trap to the boat to the truck to the plant etc. (Think about “an egg carton approach”.) Critical to this work will be to ensure users of any new technology are properly trained in its use.

Recommendation #23: The Panel recommends quality training for all those in the value chain who handle lobster. (One processor used the analogy that we should be training people to treat our lobster like we were handling fresh eggs).

Recommendation #24: The Panel recommends that the LCC continue its work to develop traceability processes and that resulting processes be applied across all applicable sectors of the industry. This work should include a process by which live product can be traced through the value chain back to the originating fisherman; and for processed product, traced by production lot back to the originating wharf or harvester, if possible.

4.3 Industry Structure

We now come to the part in our report where we recommend changes to address the significant losses occurring in the Maritime lobster fishery because of how the industry is structured. One of the major reports we looked at talked about the industry being “structured to underperform”; others use the term “dysfunctional” while many talk about mistrust, lack of transparency, etc.

Many of these conditions are symptoms of the lack of critical information available to all sectors. Furthermore the “price taker” attitude in the industry plays into the hands of the end buyer who will wait while the supply chain contributors duke it out in public, blaming one another for the state of the industry all the while not even sitting down with one another to talk. Meanwhile the system implodes and another year is gone and the status quo lives on.

4.3.1 A Value Recovery Strategy

As we move to this last set of recommendations, we feel the need to express how extremely important it is that structural changes be made to this industry. The aforementioned recommendations are important in that relationships and operations are always important. We believe that what we have recommended thus far, if implemented, would go a long way to improving the lobster industry by today's standards. In fact after a few years of working together and improving quality, we fully believe the industry would find itself making the very changes we will propose next. If we wait however, the Panel believes significant opportunities will be lost.



The Panel cautions industry about becoming complacent or reluctant to make real change just because the price improves due to some fluctuation in availability or demand as the coming seasons unfold. You have all seen this happen before and it will happen again. Just as sure as the price will go up it will go down again under the current structure.

What follows is the Panel's **Value Recovery Strategy**. It includes what we consider to be the key recommendations required to bring about real change in the Maritime lobster industry; change that will provide a new information base for all players; a dynamic marketing and promotion initiative for Canadian lobster; a mechanism to bring fishermen and buyers / processors together to work out prices and; a means to pay for these new structural initiatives.

Following the recommendations we present an implementation schedule to guide decision makers in how best, in the Panel's view, to get these important concrete changes implemented and operating.

4.3.2 Independent Maritime Lobster Market Intelligence Institute

As we discussed previously, one of the recurring messages we received in carrying out our work was the need for accurate, timely, official information on lobster markets. There was wide spread agreement that this kind of information is crucial to the industry and should be available to all industry players. It is important however that this information be of high quality, relevant and meet the needs across all industry sectors. Therefore:

Recommendation #25: The Panel recommends the establishment of an Independent Maritime Lobster Market Intelligence Institute

The time allotted to our review did not allow for a more in-depth development of this concept. We recommend therefore, that an expert be engaged as soon as is practical to explore this proposal in detail and make comprehensive recommendations for design and set up of the proposed Institute. In support of this process, the Panel provides the following set of guidelines / conditions / activities that such a body must demonstrate in order to meet the market information needs of the industry.

- It must be independent from both government and industry;
- It must be initiated by the three Maritime Provinces as a joint program;
- It must be responsible, transparent, official;
- It must use modern technologies;
- It must provide information on a series of market related issues including: economies, trends, price relative to product form, inventories, etc.;
- It must use known and reliable market sources;



- It must respect confidentiality but be available to all value chain participants, including fishermen;
- It must provide advice on currency exchange rates and their impact on pricing on a regular basis;
- It must make “pronouncements” on the world lobster market on a regular basis;
- It must provide comments / information on a timetable that corresponds to key harvest seasons.

The Panel does not see this Market Intelligence Institute as something the LCC would provide; however, it could become industry led as the process matures.

(Funding issues will be dealt with in a subsequent recommendation)

4.3.3 Generic Marketing and Promotion Campaign

There has been much talk and debate in recent years about the need for a generic marketing campaign for Canadian lobster. The LCC was formed in 2009 with this goal in mind. Much of the important work it has done toward this goal is evolving; however the question of an ongoing funding source to actually implement such a campaign remains elusive. As mentioned, the Panel maintains that a major generic marketing initiative is required for Canadian lobster.

Recommendation #26: The Panel recommends that industry and governments come together to develop and implement a Comprehensive Generic Marketing and Promotion Campaign for Canadian lobster.

Given the extensive work already undertaken by the Lobster Council of Canada, The Panel recommends that the Council be asked to:

- Continue with developing a generic marketing campaign for Canadian lobster;
- Develop a Business Plan for the branding, marketing and promotion campaign;
- Develop and implement the campaign;
- Organize an Annual Marketing Conference each year of the program.

(Funding issues will be dealt with in a subsequent recommendation)

4.3.4 Price-Setting Mechanism

This is an issue the Panel was asked directly to provide advice on. The Panel is aware that much work has been done by other jurisdictions seeking stability on pricing in the lobster industry, especially in this era of high volume and low prices. Newfoundland and Labrador and Quebec have both supported “price setting mechanisms” through legislation and such systems are used in other industries in Canada and around the world.



As we mention earlier in this report, price-setting mechanisms have brought to the industry in these provinces a much-needed forum for formally looking at the question of price. The requirement to become better organized and informed about the marketplace is in itself a valid reason to have such a system. Furthermore, the ability to take a “no agreement” outcome to an independent party is a valuable change that should serve to improve relationships over time.

The question of whether or not we would recommend the use of a price-setting mechanism was an easy one. The difficult issue for the Panel has been how to pin down a particular model that we could recommend. With so many options in play, we have decided to leave the question of “which model to recommend” for further discussion.

The analysis we have provided earlier in section 3.4 gives a series of examples and identifies those key elements the Panel feels are essential to achieve an effective price setting mechanism for the lobster industry. Whether one of the existing models are chosen, or the elements from several are combined into a customized mechanism for the Maritimes; the Panel is convinced that a price-setting mechanism can work to bridge the gaps that have been highlighted previously in our report.

Recommendation #27: Within the Maritime Provinces, the Panel recommends the development and implementation of a price-setting mechanism for determining price pre-season provided that such a mechanism is based in legislation, is not mandatory, but once engaged by a particular fleet or group, the price negotiated becomes the minimum legal price that can be paid to that fleet or group.

As with recommendation # 25, the time allotted for our review did not allow for more complete development of this concept. We recommend therefore, that an expert be engaged as soon as is practical to explore price setting options in detail and make recommendations for a comprehensive proposal for consideration. Again, the Panel provides the following set of guidelines / conditions / activities that must be considered for a price-setting mechanism as this work unfolds.

- The Process should to be available to legitimate fishermen’s organizations who would apply to have the “price-setting mechanism” triggered;
- The “price-setting mechanism” must be applied by LFA within a province;
- The price-setting mechanism should not be mandatory; i.e. if the majority of fishermen in an LFA of a province do not wish to use the mechanism, they are free to make that choice;
- The information provided by the recommended Maritime Independent Market Intelligence Institute must be used to support and inform the price-setting mechanism process;
- Each Province shall provide notice to buyers licenced to buy in an LFA where the pricing mechanism has been triggered and buyers shall be invited to input to the process (published);
- Negotiation must establish a base price as well as a process to follow price (increases) and attribute (share) increases through clear decision rules;



- If a price is negotiated, that price must become the minimum any buyer can legally pay in the LFA (by province where applicable);
- An Independent Pricing Panel must be appointed and tasked with providing arbitration / conciliation services where negotiations are deadlocked; and
- The process must be available in advance of key lobster seasons.

Recommendation #28: That, in conjunction with recommendation #27, a Pilot Project be launched to explore the concept of an Auction Model for the live lobster industry. The Panel recommends this be developed where a price mechanism has been implemented and that the base price negotiated through that process would serve as the “reserve” Auction price.

(Funding issues will be dealt with in the next recommendation.)

4.3.5 Industry Levy

The Panel is proposing three key recommendations for structural change as critical elements of a Value Recovery Strategy for the Maritime lobster industry. The Panel feels these three new industry components will help to stabilize the industry and, along with the other recommendations we have made on Industry Relationships and Operations, should begin to address the losses that are presently being experienced; followed by value recovery in the longer term. The key to getting this “Price Improvement Strategy” implemented is to identify and source necessary funding, supported by an appropriate government framework to ensure those funds support a fair and well-managed program.

At the present time across Atlantic Canada, consideration is being given to an industry levy similar to that recently instituted in Maine. The Panel feels that such an incentive is sorely needed but it cannot happen without significant support. Not only from the industry, but all relevant levels of government. The Panel has heard a great deal about this issue and believes there is broad support for such a levy in principle.

Those opposed speak to a lack of details around what the levy would be used for, how it will be managed and accounted for; and finally, concerns that once it is in place, it will take on a life of its own. In attempting to address these kinds of concerns, the Panel has taken a look at the model recently set up in Maine and has considered some of the elements of that program as we formulated our recommendations.

Recommendation #29: The Panel recommends that a process be set up to collect an “Industry Levy” to support the above three recommendations for structural change. This Levy to be in the amount of one cent paid by fishermen for each pound landed, and an additional one cent per pound landed, paid by onshore sectors.



Again, the Panel provides the following set of guidelines / conditions / activities that must be considered in setting up the process to collect and disburse any funds associated with this levy.

- That the amount to be collected be 1 cent a pound from each harvester and 1 cent a pound from the “collective onshore value chain” of buyers, processors, shippers, brokers etc.;
- That the levy be collected by the “point of first sale buyer” and remitted to the province where the sale occurs;
- That each Province adapt their existing buyers’ licence to provide a legal basis for collection and remittance of the levy;
- That legislation amendments be made to support new buyers’ licence provisions, if necessary;
- 85% of the funds derived from the levy are to be directed to the marketing and promotion initiative of the LCC, with the remaining 15% to be directed to support the Lobster Market Intelligence Institute, the price-setting mechanism and to support administration costs to collect the levy; (Estimates at this time. Final detailed budgets subject to business planning processes)
- That the portion of the funds supporting the marketing and promotions campaign be allocated equally between live product and processed product lobster;
- That this levy and the other three initiatives recommended under the Value Recovery Strategy be subject to a sunset provision which would call for the levy and the Strategy elements it funds, to automatically cease after 5 years unless industry chooses to continue the strategy after an evaluation that would take place at the start of the 5th year of the program;
- That the levy amount would not increase for the duration of the 5-year program; and based on recent landing trends, should provide over \$2.5 million in each year of the program in support of the Value Recovery Strategy;
- The levy fund to be audited every year.

4.4 Recommendations for Value Recovery Strategy Implementation Framework

The Panel has presented a series of interrelated recommendations intended to address key challenges in the current industry model, which are resulting in a failure to optimize the potential value of the resource being harvested. These recommendations represent a significant realignment of the way the industry deals with price and market requirements. The Panel considers this to be a Value Recovery Strategy and we present it in this light.

Recommendation #30: That the provinces develop a framework to set out the specific details of this Value Recovery Strategy. This framework should establish clear principles



and guidelines including accountabilities around the levy consistent with the recommendations the Panel has provided.

One of the most challenging elements of the Panel's work on this project is the question of how to determine and validate industry support for our Value Recovery Strategy. Below we share some of the reasoning and the challenges we considered in developing recommendations on moving forward

Calls for industry-wide change have been made many times over the years however, seldom has any kind of real change been achieved. This could be attributed to the fragmentation and dissention across the industry or the jurisdictional challenges of dealing with the DFO and five provincial governments. Members of the Panel understand these complexities and know that unless we frame our proposals for moving ahead appropriately, they may never see the light of day.

Finding a way to have diverse industry components come together to provide feedback and or validate positions is a daunting task. The need for more effective organizations contributes to the complexity of the situation. There is currently no defined "process" for determining support across the full spectrum of the industry.

As stated previously, based on our industry talks, the Panel feels there is broad support in principle, for a levy. Those who were sceptical talked about the lack of details. i.e. what the levy would be used for? how it would be managed and accounted for? would it take on a life of its own? We feel we have addressed these concerns in our recommendations and that the package we propose will be widely supported. For this reason, our first consideration was to recommend to the Ministers to simply implement the Strategy and the Levy. Ideally this would be the quickest way to get things moving.

We have not made this our recommendation for two reasons. In talking with industry, we committed that they would have an opportunity for input before recommendations would be implemented. Furthermore, the complexities of three Provincial jurisdictions would likely result in each taking a different approach thus opening the door for the "process" to be called into question instead of the actual Strategy. This is a sure-fire way to bog down any good initiative.

Our final consideration was how to deal with the onshore industry. It is possible to have a vote by fishermen; however, with the onshore industry there is no basis to organize a vote. Our report recommends changes and actions to benefit all sectors of the industry and is not intended to help one group at the expense of another. In the same way that we indicate that DFO needs to give more consideration to processors / buyers / shippers when determining management options, we want to make sure that their views and concerns are taken into consideration.

Given all of the above, the Panel has formulated the following two recommendations on determining support and validating (where possible) the proposed Value Recovery Strategy.

Recommendation #31: That prior to taking the question of a levy to fishermen for validation, the Provinces should consult with fishermen and the on-shore industry sectors to ensure any issues they have that could be of significant impact are dealt with.



Recommendation #32: That the Provinces take the plan to fishermen in each province for their consideration. Fishermen should be asked to vote on whether or not they wish to support the Value Recovery Strategy (in its entirety). A 50% + 1 majority of those who vote should rule, with every licence holder required to pay the levy if passed. All three Provinces should carry out the vote coincidentally. The support of fishermen in all three provinces would result in the best chance of success and if this is the outcome, the Strategy should proceed. However, if the fishermen from only two of three provinces support the Strategy, they should also be given the option to proceed. Fishermen from the non-supporting province would, of course, not be party to the information available from the Institute nor would they have access to the price-setting mechanism.

Recommendation #33: The Panel recommends the following timetable for Implementation of the Value Recovery Strategy.

Within the first six months of 2014:

- Provincial Governments come together immediately to present the proposed plan as an integrated approach to the fishing industry along with a Strategic Plan which would include specific details on the three elements of the Value Recovery Strategy, including the levy that would give it financial support;
- Provincial Governments need to immediately begin the work necessary to ensure proper legislation is prepared and ready when industry decides to proceed with the approach;
- The potential to leverage other funding sources should be explored as early as possible and this information also shared with the industry;
- A marketing professional should be retained as soon as possible to engage the industry on the merits of a generic marketing and promotions campaign;
- Possible start-up funding sources (DFO, AAFC, Provinces) should be determined;
- Provinces consult with fishermen and on-shore industry sectors to ensure any issues they have that could be of significant impact are fully considered;
- The LCC, Provinces and industry organizations begin to communicate the concept to their members.

By August 2014:

- A vote of all lobster licence holders by province to be held to determine support or no support. 50% +1 of those who vote to be considered majority rule and new program will apply and be implemented as proposed for the entire Maritime industry;
- Engage an expert to lead the design and implementation of the Market Intelligence Institute;
- Engage an expert to lead the design and implementation of the price-setting mechanism.



By end of 2014

- Market Intelligence Institute members should be in place and tasked with developing a business plan;
- Institute to be operational and able to provide information on lobster markets.

Jan 1st 2015

- A. Begin collecting the levy;
- B. Price-setting mechanism becomes operational;
- C. Branding and marketing campaign underway.

Closing Comments**Leadership**

We were struck by the quality of the work that has been done by many over recent years in hopes of a better lobster industry. **Time and again however, experts have recommended changes and those changes have not come about.**

As perhaps an exaggerated illustration, we cite an excerpt from the section we have included on the Historical Perspectives which notes; in 1932 a report by the consulting firm Cockfield Brown and Company carried out a study and noted the need for “basic improvements in quality and marketing”... and “*more systematic collection of market information and better promotion.*”

The Maritime lobster Industry came to our Panel with a sense of frustration that we were just another group doing what so many had done before us; but also with a sense of cautious hope that we might find new direction for the industry.

What we found is an industry that has been challenged time and again to make important changes. Changes that would see its inherent value grow to full potential. For many reasons these changes have not been realized.

We repeat this challenge for change, but with the added message that the industry is itself “responsible” for seeing it through. To put it in concrete terms, the Panel sees no reason why the shore price for canners and markets cannot be at least \$4 and \$5 respectively with relative corresponding returns to the other onshore sectors. The only question is... *what is the industry willing to do to make this happen?*

As we close our report, the Panel calls for leadership from politicians, government agencies, fishermen and the on-shore lobster Industry. With leadership from across all sectors, real change is possible!



Part 5: Annexes / Bibliography



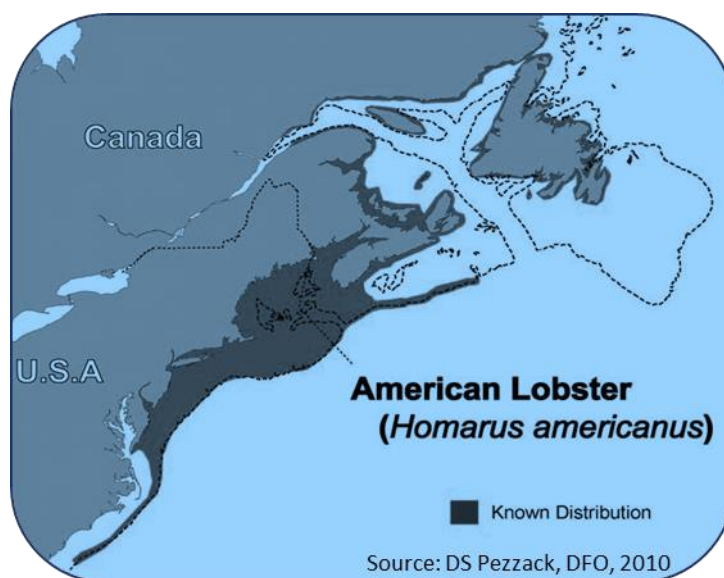
Annex 1 – The Lobster Industry

In this section of the report, we provide an overview of the different components of the Maritimes' lobster industry. Collectively, the components collaborate to move lobster from the fishermen's lobster trap to the consumer's table at home and abroad. A note to the reader – the use of the word 'lobster' can be confusing when it appears in literature that covers a wide range of lobster topics. We chose to use the following approved terminology for this report: market name – 'lobster'; scientific name – '*Homarus americanus*'; and common name – 'American lobster'.

A. Lobster Biology (*Homarus americanus*)

Homarus americanus, commonly known as American lobster, occurs only in the Northwest Atlantic Ocean along the Canadian and American coasts, from the Strait of Belle Isle between Labrador and Newfoundland to Cape Hatteras in North Carolina (see figure below).

Figure 6: Lobster Distribution ²



In Canada, American lobster is harvested in all five eastern provinces. It is particularly abundant in South West Nova Scotia and the Bay of Fundy and in southern part of the Gulf of St. Lawrence, close to Nova Scotia. In the United States, the species is most abundant in the Gulf of Maine.³

Adult American lobster prefer rocky habitat where they can hide from predators. They tend to stay close to the coast at depths less than 40 meters, although some are also found offshore at depths to 450 meters. In the spring, they move towards shallow waters to take advantage of the warmer water – to shed their shell ("moult"), reproduce and hatch eggs – and then migrate to deep waters in the winter to escape the turbulence. In comparison, young lobster generally stay close to the

² S. Coffen-Smout, D. Shervill, D. Sam, C. Denton and J. Tremblay. 2013. *Mapping Inshore Lobster Landings and Fishing Effort on a Maritimes Region Modified Grid System*. Can. Tech. Rep. Fish. Aquat. Sci. 3024

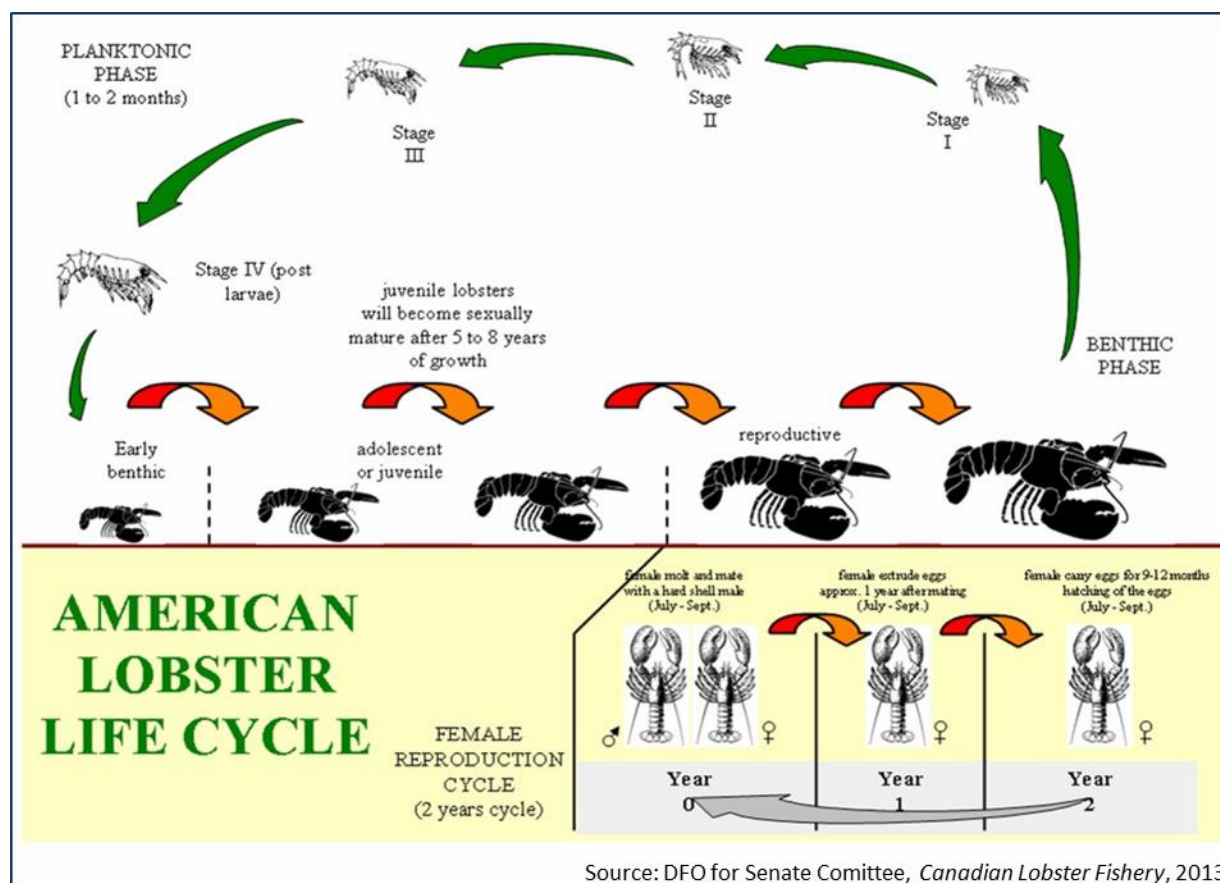
³ Fisheries and Oceans Canada, *Underwater World, North American Lobster*, Northwest Atlantic (accessed September 20, 2013)



coast at depths of less than 10 meters. They do not migrate to open water in winter; they remain hidden in their shelter during this season.⁴

The life cycle of the American lobster begins with the planktonic phase, following the hatching of the eggs (see figure below). During this phase, the larva is free-swimming on the ocean surface for one to two months, depending on environmental conditions, such as water temperature, currents and predation. Often it will travel hundreds of miles before settling. There, it will moult three times before entering the next step of life cycle – the benthic stage. At that stage, it resembles a miniature lobster (carapace length measuring less than 13 mm) and begins to search for shelter in a suitable habitat on the ocean bottom.

Figure 7: American Lobster Life Cycle⁵



During the benthic phase, the newly settled lobster progresses through several juvenile stages before reaching adulthood, which occurs after five to eight years depending on the region. During the first few years of benthic life, natural mortality is high due to predation. Mating occurs during the summer when the female has moulted and her carapace is still soft. The female lobster carries the eggs inside for about a year and then for another nine to 12 months externally under her tail ("berried female"). The number of eggs produced increases exponentially with size and multiple

⁴ St. Lawrence Global Observatory, *American Lobster*, [accessed September 20, 2013]

⁵ S. Coffen-Smout, D. Shervill, D. Sam, C. Denton and J. Tremblay. 2013. *Mapping Inshore Lobster Landings and Fishing Effort on a Maritimes Region Modified Grid System*. Can. Tech. Rep. Fish. Aquat. Sci. 3024



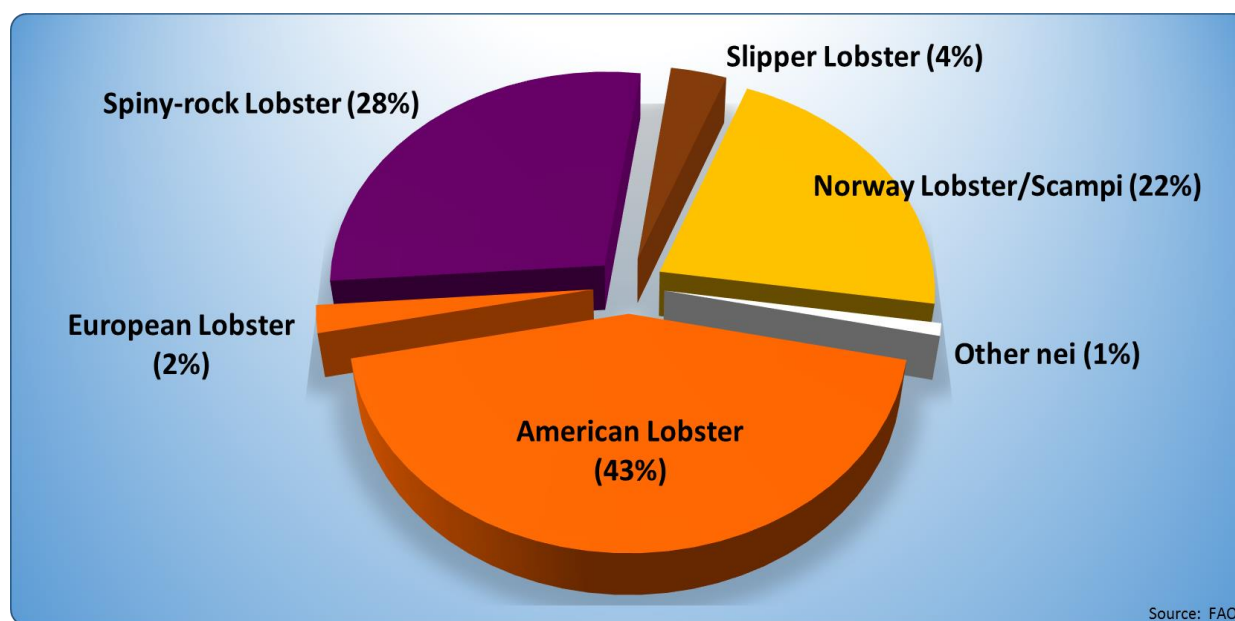
spawners produce eggs of higher quality than first-time spawners. Up to 50% of the eggs may be lost during the incubation period. These losses can be caused by disease, parasites, predation, or by harvesters repeatedly catching, handling, and then releasing egg-bearing females.⁶

As noted above, very young lobster moult 3 or 4 times a year. To grow, lobsters must shed their shell, a process that typically occurs in the summer. In the beginning, the new carapace is very soft. The lobster fills itself with water to make the hardening shell larger. After about a month, the new shell is as hard as the old one was. Older lobster moult less often. Once females begin reproducing, they moult only about once every two to three years.⁷ It is estimated that with each moult, the lobster will increase about 15% in length and 40% in weight. Male lobster mature at a smaller size than do females and growth/moult is greatly influenced by temperature. Lobster moult more often, grow more rapidly and reach sexual maturity sooner in warmer waters.

B. Overview of Worldwide Supply and Demand

There are many different species of lobsters found throughout the world; however, only a few are fished in significant quantities. Further, there are only two major species of large clawed lobsters, the American lobster (*Homarus americanus*) and the European lobster (*Homarus gammarus*). The latter is a close relative of the American lobster found in most of coastal Europe from Norway to Mediterranean countries, but it is not caught in large numbers, except around the British Isles where it supports a minor fishery.

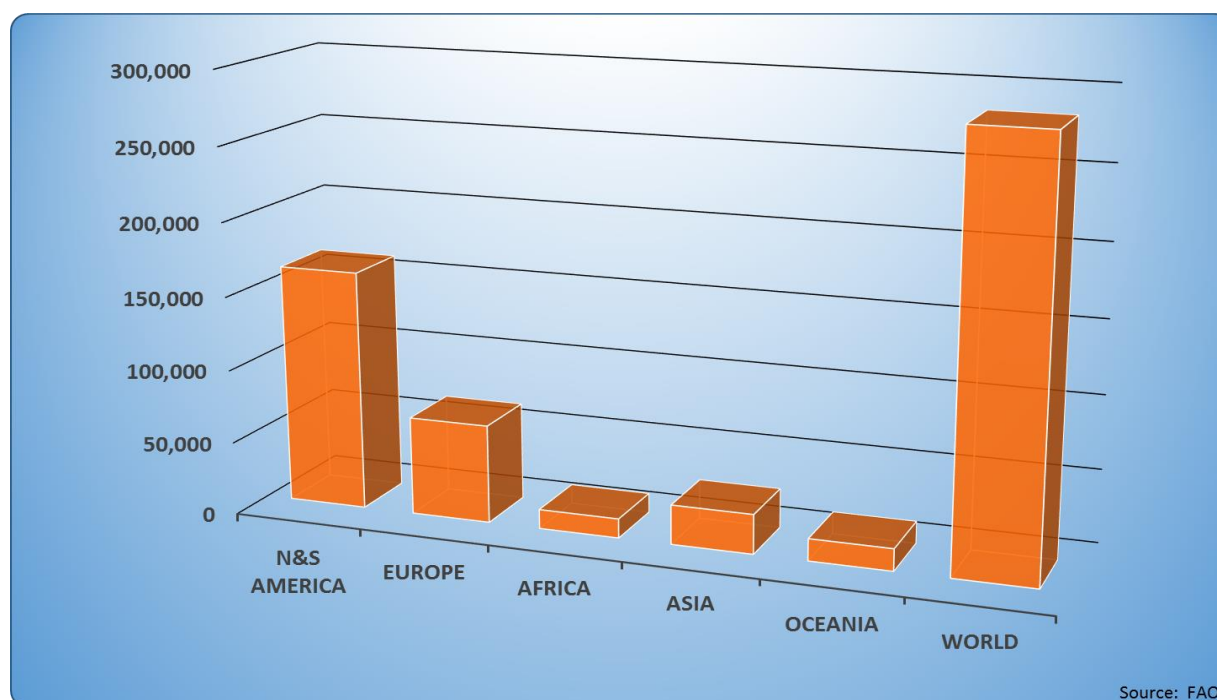
Figure 8: World Lobster Landings by Species – 2011



⁶ St. Lawrence Global Observatory, *op. cit.*

⁷ Fisheries and Oceans Canada, *Underwater World, North American Lobster, Northwest Atlantic* (accessed September 20, 2013)



Figure 9: World Lobster Landings by Region (MT) – 2011

North America is the world's leading commercial harvester of lobster species, accounting for about 43% of total landings in 2011, and remains the only source of American lobster. Canada and the United States share this resource, with Canada historically landing a larger portion of the share (about 54% in 2011).⁸ Together, Canada and the US account for more than 80% of domestic exports of lobster worldwide, in terms of quantity. The US leads Canada in exports of live lobster, but Canada is the largest worldwide exporter of processed lobster.⁹

However, when we peer below the surface, in 2012 we see that the US exported two-thirds of its live lobster to Canada and Canada exported 75% of its live lobster to the US. Much of the US live lobster exports to Canada are soft-shelled "moulters" or "shedders", processed and exported back to the US. In 2012, almost 100% of Canada's prepared/preserved lobster products were sold to the US along with 75% of its frozen lobster exports. Moreover, an unknown amount of Canada's live exports are repackaged in the US and exported elsewhere or directly re-exported.¹⁰ As well some processed product is exported elsewhere or directly re-exported.

Excluding cross-border trade, worldwide, the US exported double the amount of live lobster that Canada did in 2012 and 13 times the amount of prepared/preserved lobster (a product almost solely produced in Canada, at least until recently). Canada, however, sold 3 times as much frozen lobster products to world markets as the US. In some respects, the US is Canada's biggest distributor, as well as its largest market. Canada's strengths are in the quality of its lobster products for live shipments, and in its processing sector for unique frozen and prepared products.

⁸ FAO

⁹ UN Trade Data analysis

¹⁰ Industry Canada



C. Historical Perspectives – Industry and Fishery

In his well-researched book entitled *Managing Canada's Fisheries: from early days to the year 2000*¹¹, former DFO communications manager Joseph Gough noted that before Confederation, “research and management for the sea fisheries had remained almost non-existent. Now the rapid development of lobster canning on the Atlantic and salmon canning on the Pacific would change the picture. Plants were going up in an empty cove. It took only two decades for the lobster and salmon canning industries to go from zero to practically maximum production, bringing (with it) threats of overfishing and catch decline.”

Confederation Era

The years from 1867 to about 1880 saw the new Dominion with its newly-vested constitutional powers for “sea-coast and inland fisheries” set up strong fisheries legislation and a national administration under the Department of Marine and Fisheries. Extensive reports were commissioned; the department's 1868 annual report noted that the fisheries of the Maritimes were poorly managed and nearly exhausted. Canada's first Fisheries Act received royal assent on May 22, 1868 and included the power to make all and every regulation for better management and regulation of the sea-coast and inland fisheries.

Late 19th and early 20th Centuries

The Atlantic lobster fishery saw considerable growth between the 1870s and 1890s when the number of lobster factories in the Maritimes went from 60-odd to nearly 600, including about 100 in PEI. The first shipment of live lobster to the US is traced to the late 1870s. Additional fishing regulations soon followed: prohibitions against taking berried females, lobsters under one and one-quarter lbs., soft-shelled lobster (1873); a closed fishing season everywhere in the Maritimes during July and August (1874); and additional closed seasons (1887). A royal commission in 1898 resulted in the creation of six lobster districts, with longer fall and winter seasons in the south, shifting as the year advanced to shorter summer seasons in the north. Regulations also created various size limits that were smaller in the northern areas of the Maritimes than in the southern districts.

Despite these new regulations, Canadian landings kept dropping, from about 45,000 tonnes in 1890 to about 30,000 tonnes by 1909, at the same time that fishing effort was increasing because of more boats, better traps, and motorized boats working more ground. The government responded with more regulations, more science, more fish hatcheries (the first lobster hatchery in the Maritimes was built at Bay View, NB in 1891), and a host of roaming royal commissions which led to the introduction of hundreds of specific fishery regulations across the country. A table of the Fishery Laws of the Dominion published in the department's 1886 annual report listed the following closed seasons for lobster: Quebec – from August 20 to April 20; Nova Scotia – from August 1 to April 1 (west coast) and from August 20 to April 20 (north coast); New Brunswick –

¹¹ *Les Éditions du Septentrion*, 2006. Unless otherwise noted, much of the historical information presented in this section of the report is drawn from Gough's book



from August 1 to April 1 (south coast) and from August 20 to April 20 (north coast); and Prince Edward Island – from August 20 to April 20.

Further declines in the fisheries from 1890 to about 1920 resulted in the department creating dozens of additional royal commissions. Gough reported that the commission hearings were very much of the semi-grassroots approach where local people would have their say. While welcomed by the populace, the approach often gave rise to a hodgepodge of locally suggested regulations.

For the Maritimes and Quebec specifically, the 1867-1914 period saw important growth in the lobster fishery where factories sprouted in a new industrialism. The main fleet still consisted of many thousands of rowboats and open sailboats, operated by one man or a small crew, and hundreds of schooners, often family-owned. Soon after the turn of the century, the gas engine opened the small fishermen's way towards something better than a rowboat, and the "cape island" style boat made its first appearance in the fishery.

The War Years and the Great Depression

During the 1914-1945 period, the Atlantic fishery was described by Gough as being mainly a problem area, opened and closed by bursts of wartime prosperity. In times of war, seafood production increased significantly as the army and world markets that had lost supplies from Europe both required food. Other issues were prevalent, among these were that bait was frequently scarce, transportation costs of handling and delivering fish to the centres of consumption were high, domestic fish consumption was low compared to meats and poultry. To this list the department noted that fishermen lacked organization and did not have a high regard for regulations, government-industry co-operation was poor, and too little attention was paid to food quality and handling practices. The Great Depression of the 1930s was writ large for fishermen, especially in Atlantic Canada where few made comfortable money.

Two important events helped to clarify the federal authority in matters of the commercial fishery. First, in 1922, the province of Quebec was granted administrative (not constitutional) authority over fixed-gear fisheries in salt water, which it held until 1984 when the government acted unilaterally to rescind the administration arrangement; in 1928, the Supreme Court ruled that the federal government had no authority to require that canning operations pay an annual licence fee to the Crown and so vanished the federal power over plant licences.

In 1919, with the intent of improving enforcement and bringing a greater degree of order to the fishery, the department required lobster fishermen to be licensed, but did not restrict access to the fishery. The 1920s also gave rise to the establishment of a number of departmental Fisheries Experimental Stations along both coasts where work on processing and quality was conducted. Biological Stations had been previously set up at St. Andrews, NB and Nanaimo, BC and fisheries research publications began to emerge both nationally and internationally. The knowledge acquired and perfected would have a profound influence in later years on fisheries management and stock assessment activities.



Some statistical information on catches and values for the lobster fisheries of the Maritimes and Quebec was presented by Gough for the period from 1914 to 1945. Catches remained relatively stable averaging approximately 20,000 tonnes annually throughout the Depression and both World Wars. Landed values, however, were much more variable; reaching approximately \$8 million in 1919, then declining to about \$4 million at the beginning of the Depression and to \$3 million at the start of World War Two, and then rising steadily to more than \$10 million by the end of the Second World War.

The longstanding plight and documented struggles of many Maritime fishermen at the hands of companies and merchants were a major driving force behind the co-operative movement of the early 1920s led by Moses Coady, a priest and teacher at St. Francis-Xavier University. Early co-operatives were established at Little Dover, Nova Scotia, at Tignish, PEI and in northern New Brunswick. The movement accelerated after 1928 when nearly 150 fishermen's organization took shape. Some co-operatives survived, some failed. In 1930, the United Maritime Fishermen (UMF) was founded and for many years thereafter was to be a central educational body, amassing and distributing information on market conditions, fishing techniques, and co-operative organizations. The UMF would gradually consolidate and rationalize its operations over many decades, and by 1980 it had 8 plants, 20 sales offices and depots, and three large fishing vessels with 2,500 independent fishermen as members. Its demise came later in the 1980s with the crises in the Atlantic industry.

A 1932 report by the consulting firm Cockfield, Brown & Company had noted widespread quality problems and an unsatisfactory inspection system, which the industry itself wanted improved. The firm noted the need for basic improvements in quality and marketing, and control of over-exploitation. It further recommended a new conservation policy that restricted seasons, places, and licences; and more systematic collection of market information and better promotion.

The Age of Development, 1945 to 1968



Lobster fishing in the immediate post-war period remained a generally low-income proposition but was witness to a gradual spread of size limits throughout the Maritimes. In 1945, the department prohibited the use of boats and traps in more than one district. It also wanted to take a more strategic approach to the setting of fishing seasons based more on best catch rates, avoidance of soft-shell lobster, and competition with Maine, which seemed to have a productive fishery despite a year-round fishery. A team of six lobster biologists from the St. Andrews Biological Station set out to build the

evidence required to support their position. They studied the summer-time fishery of the Gulf of St. Lawrence because fishers there were taking too many small lobster from a conservation point of view, and the volumes were glutting the market and reducing prices. However, the department



feared that if it closed that season in favour of another, it would not be able to control the poachers. The biologists then turned to Nova Scotia. In southwest NS, with a December-May season, the fishery was best in the first three weeks then again in March and April. They promoted the idea of a spring fishery only on the grounds that it would reduce fishing pressure, yield bigger lobster and possibly increase the whole area's productivity. Fishermen scuttled the idea partly because the early winter fishery generated revenues in time for Christmas.

While the result saw no change in seasons, the biologists were successful in having a new regulation promulgated in 1949 that required minimum spacing between the two bottom laths on lobster traps to minimize the catching of small lobster.

Another disturbing problem was beginning to attract more and more of the department's attention. By 1966, it was getting worried about overcrowding in the lobster fleet and lobster fishermen were complaining about moonlighters who had no real attachment to the fishery by virtue of their employment in other sectors. In the period 1966-1968, the Minister and his successor announced a series of restrictive measures that eventually spanned all of the Maritimes. At the end of it all, every lobster boat had to be registered, each trap had to be tagged, and the operator and his helpers had to pay licence fees. A new class of lobster licences was created: Class A for fully-dependent fishermen and Class B for the less dependent. This class of licence was non-transferable. Most important, no one could get a licence unless he had held one the previous year.

Comprehensive Management Begins, 1969 to 1984

At the start of the 1968-1984 period, Gough reported that the Atlantic lobster fishery was large but in some respects languishing. After the bonanza landings of the late 1800s, lobster landings had never approached the same level. Limited entry and trap limits had come into place in the late 1960s, but the department's researchers remained concerned about conservation. The great majority of lobster were harvested before they ever had a chance to reproduce.

In 1968, Atlantic lobster generated landings in the Maritimes and Quebec worth \$24 million. Employment was high: a departmental study in 1974 found that 21,000 persons took part in the fishery, using about three million traps. The same study found that incomes were low. As of 1973, about two-thirds of lobster enterprises in the Maritimes grossed less than \$5,000 and nearly one-third landed less than \$1,000.

A Lobster Task Force was created in 1973 to examine and consult widely on the Maritime fishery. Its 1974 report called for more research, an advisory committee system, and lower trap limits. Instead of calling for a licence buy-back, the Task Force recommended that management committees and regulations provide for the cancellation of licences when fishermen retired and restricting new entrants to the fishery. Fishermen were provided with an opportunity to comment on the recommendations, and, in 1976, the department acted.

People with a short fishing history and other full-time jobs were issued Class C lobster licences which became non-transferable and would lapse after two years. Those with regular employment elsewhere, but more fishing history, could get a Class B licence, good for as long as they wanted



to fish, but the licence-holder could only fish 30% of the maximum number of traps allowed for his district, and the licence would be relinquished to the Crown when he died. Only those dependent on the lobster fishery could get a Class A licence and it was transferable.

The “A-B-C” licensing changes had a major impact when, in 1978, an estimated 2,100 Class C licences vanished. By that time, a complementary program was kicking in and focussed on a further fleet reduction through a buy-back of Class A licences. The then Fisheries Minister Roméo LeBlanc found funding for a Lobster Vessel Certificate Retirement Program that initially targeted the removal of 400 lobster licences in PEI, but was subsequently extended to NB and NS. All told, the licence buy-back retired nearly 1,600 licences at a cost of more than \$5 million. By 1983, the number of Maritimes lobster licences stood at about 6,400 compared to about 9,400 in the early 1970s.

A fleet reduction meant a net reduction in fishing effort and a greater share of the catch per fishermen. Changes in trap design and the introduction of wire traps in the early 1980s, coupled with better boats, were cited as reasons why lobster landings saw a significant increase during the decade.

The potential of an offshore lobster fishery on Georges Bank was studied in the late 1960s and a Canadian fishery began in 1971. Entry was initially restricted to NS swordfish fishermen who had been impacted by the introduction of US mercury regulations. Six former swordfish vessels had entered the fishery in 1972 and two more vessels were later admitted. After 1976, the fleet stayed frozen at eight vessels. The size of the vessels, the size and number of traps allowed, the size of lobster caught offshore – all were larger than in the inshore fishery. Fishing took place on Georges Bank and along the continental shelf south and west of Brown’s bank. Regulations confined the offshore fishery to defined areas more than 50 nautical miles from shore, and from 1976 made use of quotas and size limits. The resolution of the boundary dispute with the US in 1984 led to the introduction in 1985 of Enterprise Allocations among the participating vessels.

The 1968-1984 period also saw significant developments in the formation of fishermen’s organizations across Atlantic Canada and Quebec. At the political level, Minister LeBlanc championed the call in 1974 for fishermen to organize and provided federal funding to assist in launching many organizations. Over time, significant gains were made in almost all facets of the fisheries; some organizations won collective bargaining rights and improved social benefits for their members. More importantly perhaps, the organizations now had status at advisory committee meetings and other special venues which allowed them to contribute directly to the shaping of federal and provincial policies and programs that impacted the livelihoods of their members.

Making the New System Work 1984 to Present

Integrated Fisheries Management Plans were introduced in the 1990s and added new and more comprehensive dimensions to the approach to fisheries management by requiring that strategic long-term objectives for the fishery be developed, the precautionary approach be followed when setting harvest levels, further measures be taken to mitigate any harmful impacts to the environment and sensitive habitat, and species-at-risk be protected.



In the lobster fishery, Maritimes and Quebec catches grew from 26,000 tonnes in 1984 to 45,000 tonnes in 1991. Landings dropped in following years, significantly in some areas, but still amounted to 42,000 tonnes in 1999. Landed values shot up from \$139 million in 1984 to \$518 million in 1999.

DFO Science had no clear explanation for the catch increase, but continued to express concern that the great majority of lobster were still caught before they had a chance to reproduce at least once. While some southern Gulf Lobster Fishing Areas (LFAs) saw increases in their minimum carapace size limits, the more significant regulatory changes to occur in the 1980s and early 1990s were in respect to the mandatory use of escape vents to allow small lobster to escape, and the placement of biodegradable trap rings to mitigate the wasteful effects of ghost fishing.

In 1995, the Fisheries Resource Conservation Council (FRCC) released a report entitled *A Conservation Framework for Atlantic Lobster*. Well written and researched, it concluded that the fishery was operating at excessively high exploitation rates; harvesting primarily immature animals; and not allowing for adequate egg production (estimated to be as low as one to two percent of what might be expected in an unfished population). It recommended additional conservation measures, including raising size limits, buying back licences, closing some areas to fishing, reducing the trap limits, shortening the season, or V-notching female lobsters. Industry reactions to the recommendations were somewhat favourable in some areas, much less so in others. In 1997, DFO directed the industry to develop Conservation Harvest Plans that would lead to a doubling of egg production over the ensuing two to three years. Again, some lobster fishing areas made an effort to improve egg production (without necessarily doubling the level) while others adopted, over time, a suite of measures to improve the population structure of the resource.

Meanwhile, the eight-vessel offshore lobster fishery continued to prosper, so much so that the then Minister opted to add an additional four vessels to the fishery. Inshore fishermen assailed the move as detrimental to the inshore fishery and the Minister withdrew the permits while compensating financially those who had prepared to enter the fishery.

No single issue focussed the country's attention on the goings on in the Atlantic lobster fishery during this period than the decisions by the Supreme Court of Canada in two landmark aboriginal fisheries cases (there were others), known as *Sparrow* and *Marshall*. Hundreds of articles and some books have been written on the decisions, their implications, and how the native fishery was subsequently conducted and the rights accommodated. It is not the panel's intention to replicate that information in this report. We do, however, believe it to be important to provide some information further on in this Annex as regards to how the aboriginal communal commercial lobster fishery evolved following the *Marshall* decision in the hope that it will serve to inform the perspectives of readers.

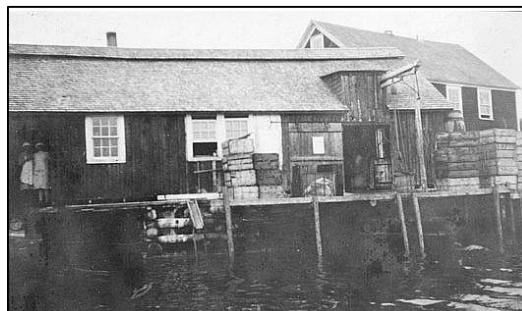
Processing Sector

Lobster processing has a very long history dating back to the 1830s when the first lobsters were canned. By the 1850s the invention of the stamped can had resulted in the packing of many foods in hermetically sealed tins that were shelf stable, and this opened up new market opportunities for lobster. The first Canadian lobster cannery was constructed in Eastern New Brunswick at the



mouth of the Miramichi River in about 1845. By 1872, there were between 40 and 50 lobster canneries in Canada and, by 1900, there were over 700 (as high as 900 reported). Canning lobster overcame some of the challenges of transporting lobster to market, resulting in the value of canned products surpassing the value of live shipments by the end of the century.

By the 1930s excessive fishing was putting pressure on lobster resources, resulting in consolidation and a severe reduction in the number of lobster canneries. This is when the Canadian government began the process of regulating the lobster fishery in an effort to protect the resource from overfishing.



Regulations in both the United States and Canada lead to where only a few lobster processing plants remained in New Brunswick and Prince Edward Island to process small “canner” lobster that could not be sold live to the US since they were considered undersize. Lobster processing continued in the form of canning “hot pack” lobster meat (using small canner lobster) until the 1970s when refrigeration was introduced. This “new” technology revolutionized the industry as lobster meat was now placed in cans and frozen in a new product called “cold pack” lobster. The quality of frozen lobster meat was much higher than hot pack meat resulting in increased demand for lobster meat. Refrigeration also permitted the development of other frozen lobster products and since the late 1970s, the vast majority of processed lobster products has been in frozen form.

Frozen lobsters in brine or “popsicle” lobsters were introduced to the European market in the 1970s. This is a retail product that consists of a whole cooked lobster in the shell that is individually frozen in a bag with brine added for protection. This became a popular product in Europe during the Christmas holidays. In the 1980s processors introduced frozen raw tails to the restaurant and food service market. This was a major development for lobster processors as it became a very popular and profitable product that was less labour intensive than lobster meat. This development opened up new markets in the United States away from the traditional “Boston” market.

The introduction of cryogenic freezing (quick freezing using nitrogen or carbon dioxide tunnel freezers) in the 1980s permitted the development of a range of new products to meet growing demand in the US (cruise ships, casinos, restaurants, etc.). This is when products such as a whole cooked lobsters in foodservice packs (dozen individually quick frozen (IQF) lobsters per box), IQF claws and arms in the shell, IQF cocktail claws and other innovative products were introduced and permitted an expansion to international markets.

During the 1990s lobster landings in North America increased dramatically to peak at near 100,000 tons and landings today remain at significantly high levels. This has demanded the lobster processing industry expand, innovate and develop to meet new challenges.

Lobster processing was, and remains, generally very labour intensive and processors normally have hundreds of employees working in their plants. Lobster processors therefore have always been very important economic engines for many small coastal communities and this remains true today.



D. Present Day Fisheries

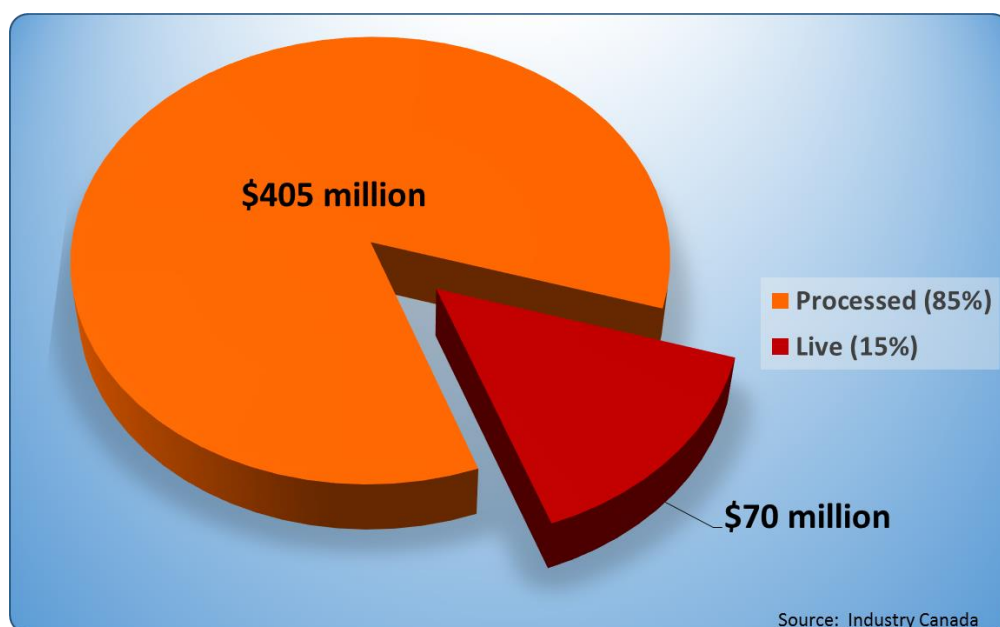
New Brunswick

Fishing

The lobster fishery encompasses 6 LFAs (23, 25, and 35 to 38); LFA 25 is shared with Prince Edward Island and Nova Scotia while LFA 35 is shared with Nova Scotia. Fishing seasons, landed volumes and management measures vary from LFA to LFA. In 2012, when compared with the other 4 eastern provinces, NB held approximately 16% of all Canadian lobster licences; accounted for approximately 18% of all landed tonnage by live weight; and generated approximately 16% of the fishery's total landed value (\$105.8 million out of \$664.2 million).

New Brunswick has grown to become Canada's largest fish and seafood exporters on the strength of its focus on new markets and innovation. In 2012, the province's fish and seafood exports were valued almost one billion dollars; lobster exports accounted for one-half of total exports at approximately \$475 million.

Figure 10: NB Lobster Exports – 2012 (\$475 million)



Processing Developments

The New Brunswick *Seafood Processing Act*¹² authorizes the licensing of owners/lessees of primary processing plants, of owners/lessees of live lobster holding facilities, and of fish purchasers. It also authorizes the certification and registration of owners/lessees of secondary processing plants as well as of purchasing agents.

¹² <http://www.gnb.ca/0062/PDF-acts/s-05-3.pdf>



Modifications to the Act came into effect on August 9, 2013. All fish buyers purchasing directly from fishers on the wharf are now required to have a fish-buying licence unless exempted under regulation. This will ensure that the highest quality standards will be met in the handling, holding and transporting of fish.

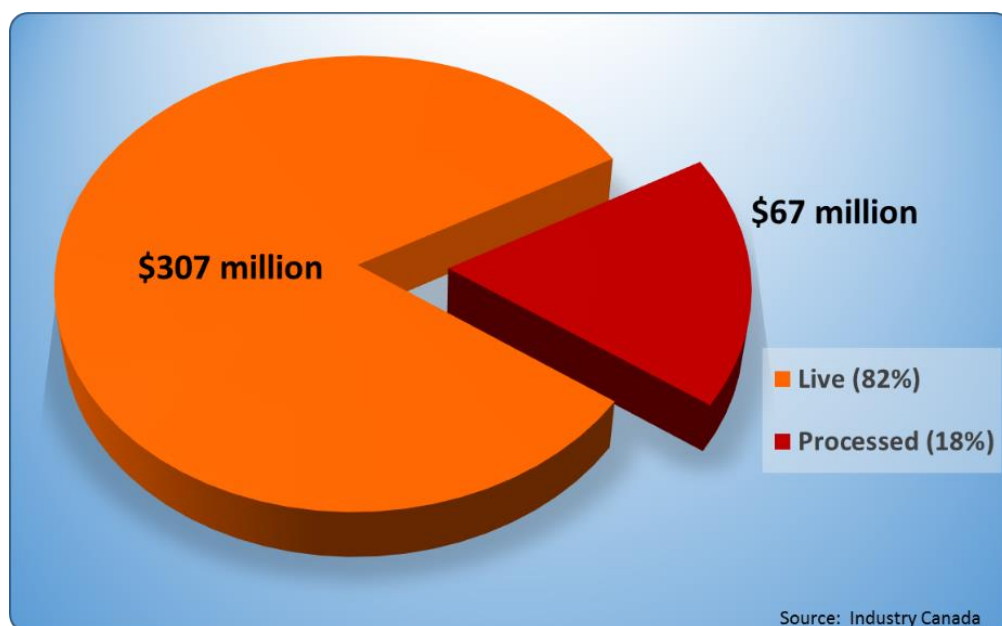
An additional amendment will come into effect on April 1, 2014. As of that date, every vehicle being used by a licensed fish buyer on a wharf to transport fish will be required to have at least one person present who has completed a mandatory fish handling/quality assurance course identified by the department.

Nova Scotia

Fishing

Nova Scotia is surrounded by 15 LFAs, including 13 inshore, one offshore and one closed area. Three LFAs (25,26a and 35) are shared with other provinces. While fishing seasons vary in times and durations, there is always at least one area open. The number of lobster licences represented approximately 35% of the total number of licences issued in 2012; accounted for approximately 57% of all landed tonnage by live weight; and generated approximately 58% of the fishery's total landed value (\$385 million out of \$664.2 million). Nova Scotia is Canada's premier live lobster exporter.

Figure 11: NS Lobster Exports – 2012 (\$374 million)



Processing

Fish and seafood processing within Nova Scotia is regulated through the *Fish Inspection Regulations* and the *Fish Buyers Licensing and Enforcement Regulations* under the *Fisheries and Coastal Resources Act*.¹³ The *Fish Inspection Regulations* require that before a processing plant can be licenced, it must meet certain requirements regarding facility design and construction as well as health and safety. Under the *Fish Buyers Licensing and Enforcement Regulations*, all fish buyers must also hold a valid licence. This also applies to processors (and designated agents) who own and maintain licensed processing facilities. Special conditions apply to individuals who wish to obtain a buyers licence for lobster.

According to Gardner Pinfold (2010)¹⁴, most plant ownership in the province falls into three categories: privately held with exclusive ownership by local interests, privately held in whole or in part by outside interests, and publicly held with substantial local control and management. Not all plants are engaged in lobster processing. While many do process lobster as defined by provincial legislation, others are engaged in shipping lobster (including sorting and packing), buying or selling (as intermediaries for processors or shippers), or servicing the wholesale-retail trade (in addition to conventional processing). The Nova Scotia Department of Fisheries estimates up to 8 companies processed lobster in Nova Scotia in 2012, but these may not all operate on a significant and/or regular basis.

Investment in holding capacity ranges from simple dry-land seawater tanks and tidal pounds to sophisticated controlled environment, continuous flow systems where lobster are held in individual compartments. Holding capacity has expanded in response to increased supply, and opportunities to time the market by withholding supply until market conditions are favourable.

Historically, the bulk of lobster landed annually in Nova Scotia was shipped for the live market. The proportion of lobster shipped in live form had declined from over 95% in 2000 to under 85% in 2006. Today, the situation has changed and an even higher percentage of landed product is being processed in the province and/or transported to other provinces (notably New Brunswick), especially when large volumes are landed in a short period of time.

Prince Edward Island

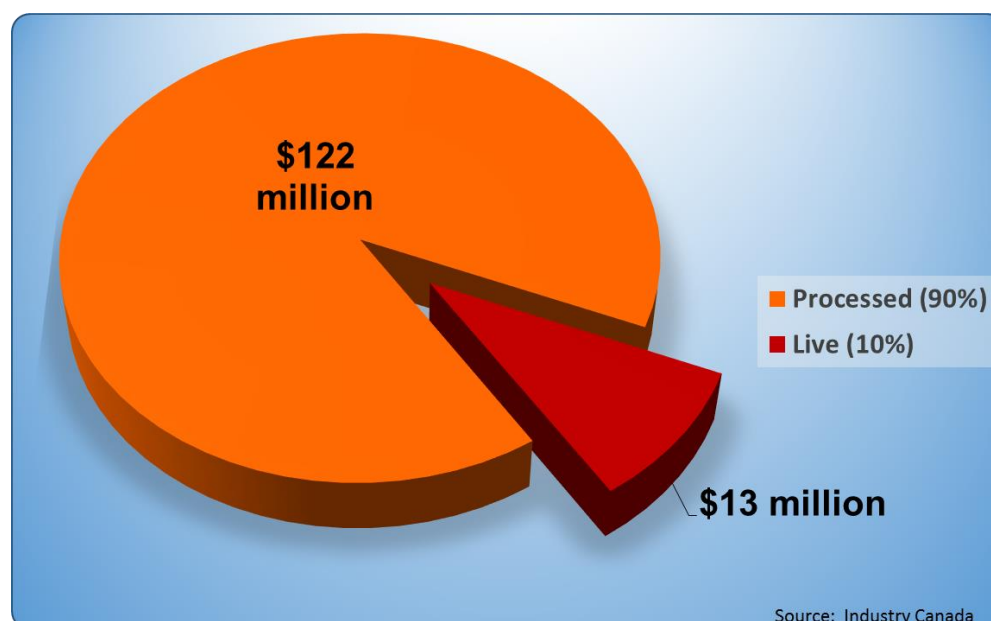
Fishing

By comparison, there are 3 LFAs in Prince Edward Island (24, 25 and 26a) and two fishing seasons. As previously mentioned, LFA 25 is shared with two other provinces, while 26a is shared with Nova Scotia. In 2012, harvesters in the province held approximately 14% of all lobster licences; landed approximately 17% of all tonnage by live weight; and almost 17% of total Canadian landed value (\$112.2 million of \$664.2 million).

¹³ <http://nslegislature.ca/legc/statutes/fishand.htm>

¹⁴ Gardner Pinfold et al. *A Long-term value strategy for the Canadian Lobster industry*, October, 2010.



Figure 12: PEI Lobster Exports – 2012 (\$135 million)

Processing

Prince Edward Island's regulatory framework dealing with fish and seafood processing and the administration of the provincial licensing activities are set out in two statutes – the *Fish Inspection Act*¹⁵ and the *Fisheries Act*.¹⁶ In the case of the former, the Lieutenant Governor in Council may for the purpose of regulating the marketing and processing of fish and the manufacture and marketing of containers, make regulations: prescribing the grades, quality, and standards of fish; respecting the processing, storing, grading, packaging, marking, transportation, marketing, and inspection of fish; respecting the quality and specifications for containers for fish, and the marking and inspection of such containers; and requiring and providing for the licensing of persons who either as principal or agent and who directly or indirectly or through the intervention of another person, collect fish for resale, excepting primary producers and retail stores, and prescribing and attaching conditions for the issue, suspension or cancellation of such licences

In the case of the latter, the Act provides for the administration of licences pertaining to fish and seafood processing, buying and peddling. Fish processing licences are divided into four categories: primary processing, secondary processing, lobster cook-room (limited to 144 square feet of processing area) and groundfish processing (limited to 750 square feet of processing area). In 2011, the Department of Fisheries, Aquaculture and Rural Development issued 46 primary processing licences, 5 secondary processing licences, and 14 lobster cook-room licences. Fish buying licences are issued on a species-per-buying-station basis. During the same 2011, the department issued 109 spring and 25 fall lobster buying licences. In addition, 53 fish peddling licences were issued to individuals and/or companies who peddle fish to consumers throughout Prince Edward Island.

¹⁵ <http://www.gov.pe.ca/law/statutes/pdf/f-13.pdf>

¹⁶ <http://www.gov.pe.ca/law/regulations/pdf/F&13-01G.pdf>



Other Lobster Fisheries Jurisdictions

Newfoundland Fishery

Harvesting

The province's lobster fishery is dispersed over a wide geographical area, resulting in some of the highest harvesting and transportation costs in the industry.

The province has 15 LFAs, but only 12 were fished in 2012. There is but one fishing season (spring to summer) and it varies slightly by area. The province held approximately 28% of all licences issued in Canada in 2012 and landed approximately 3% of total landings by live weight with a value of \$19.6 million, or 3% of total Canadian landed value.

About 2,600 lobster licences were issued and approximately 1,500 were active in 2012, fishing between 100 and 350 traps each, depending on the LFA. During 2012-2013, an estimated 200 lobster licences were retired under DFO's Atlantic Lobster Sustainability Measures Program.

Processing

The Newfoundland and Labrador Department of Fisheries and Aquaculture regulates the processing sector in the province in accordance with its constitutional authorities. The primary regulatory statute is the *Fish Inspection Act* (RSNL 1990, Chapter F-12).¹⁷ Which authorizes regulations in a variety of areas relating to the processing of fish including lobster.

The *Fish Processing Licensing Board Act* (SNL 2004, Chapter F-12.01)¹⁸ provides for the establishment of a five member board appointed by the Lieutenant-Governor in Council whose purpose is to: assess and make recommendations to the minister regarding, among other things, fish processing licensing applications. Information on the department's website indicates that, in 2012, 35 primary processing plants and 1 secondary processing plant were licensed to process lobster (only about 6 are active). Similarly, a total of 20 buyers were licenced to buy lobster.

Quebec Fishery

Harvesting

Quebec has 8 LFAs which encompass the four principle fishing areas: the Magdalen Islands (LFA 22), the Gaspé coast (LFA 19 to 21 with 27 sub-zones), Anticosti Island (LFA 17), and the North Shore (LFA 15, 16 and 18). The fishing seasons vary slightly and occur between April and August. The fishery has the highest minimum carapace size (82 mm and 83 mm depending on the area) of any inshore fishery in the Gulf of St. Lawrence. In July of 2013, the LFA 22 lobster fishery became the first inshore fishery in Canada to be certified as "well managed and sustainable" by the Marine Stewardship Council. While the province only holds about 7% of all lobster licences,

¹⁷ The act is available at: <http://www.assembly.nl.ca/Legislation/sr/statutes/f12.htm>

¹⁸ The act is available at: <http://www.assembly.nl.ca/legislation/sr/statutes/f12-01.htm>



its landings of 5.6% are almost twice the amount caught in Newfoundland and Labrador. Landed value totaling \$41.6 million represented approximately 6% of the national total for 2012.

An emphasis on effort reduction under the Atlantic Lobster Sustainability Measures Program since 2000 resulted in a permanent reduction in the number of lobster licences in the Gaspé LFA's from 219 to 173.

The majority of lobster is landed in the Magdalen Islands where 10 principal ports (out of the approximately 27 province-wide) are located. The 5 most active ports in Quebec, in terms of landed quantities, are all located on the island. Collectively, these ports accounted for almost 63% of all lobster landed in the province in 2010.¹⁹

Processing

Fish processing operations are regulated by the provincial government, much like in other provinces, with the exception of fish and seafood inspections of products that are shipped outside of the province. Processing licences are issued by the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation (MAPAQ) in accordance with Sections 10 and 11 of the *Food Products Act*. This act also specifies the requirements that fish and seafood processing establishments must respect when engaged in processing operations.

The *Seafood Processing Act* and related regulations establish the minimum primary processing requirements for fish and seafood that is landed in the province and destined for export outside the province. For processed lobster, the regulations require that it be cooked or frozen.

Lobster buyers are licensed under 1 of 4 categories: licensed processing plants that sell to the wholesale market; individuals who buy directly from fishermen and who are authorized to ship the lobster under certain conditions; retailers such as fish markets and restaurants; and individuals who purchase lobster for personal use.

In 2011, 15 of the 22 primary processing plants licensed to process lobster, reported lobster processing activity. Of those 15, more than half sold only on the domestic market.

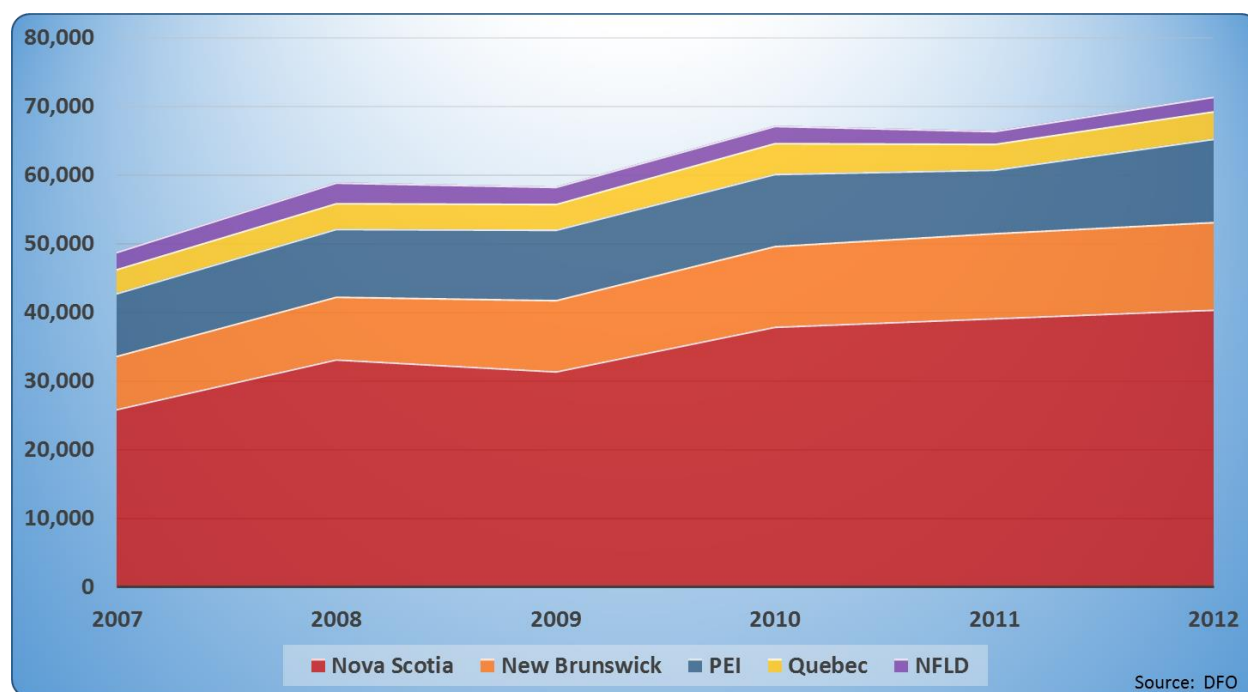
A variety of lobster products are marketed, including live lobster, whole cooked and frozen or refrigerated, frozen tails, frozen or refrigerated meat, frozen claws, canned lobster, and lobster paste. In 2011, the dominant products in terms of tonnage and value were (in order): live, fresh cooked, frozen meat, frozen tails, and frozen whole.²⁰

That same year, Quebec lobster exports totalled \$64 million of which almost all went to the US. While domestic, sales totalled \$55.4 million of which 74% was sold in Quebec and the rest in Atlantic Canada.

¹⁹ MAPAQ - *Monographie de l'industrie québécoise du homard d'Amérique* (2012)

²⁰ Ibid



Figure 13: Canada Lobster Landings by Province and Year

Maine Fishery

Given the prominence of the lobster fishery in Maine, particularly over events of the past 2 years, we have opted to devote considerable attention to it in our report in the hope that the information presented will provide the reader with a better understanding and appreciation of the fishery's characteristics and how it is managed.

General

The US lobster fishery is prosecuted across three distinct stock areas which reflect the regional differences in life history parameters: the Gulf of Maine (GOM), Georges Bank, and Southern New England. Each area has an inshore and offshore component to the fishery, with the inshore fishery dominating in the Gulf of Maine and Southern New England areas, and the offshore fishery dominating in the Georges Bank area. Of these, the Gulf of Maine supported the largest fishery, constituting an average of 76% of US landings between 1981 and 2007.

The GOM lobster fishery is primarily carried out by lobstermen from Maine, New Hampshire and Massachusetts. The fleet is comprised mainly of small vessels (22 to 42 feet) that make day trips in nearshore waters (less than 12 miles). The small-scale offshore fishery is comprised of larger boats that make multi-day trips.

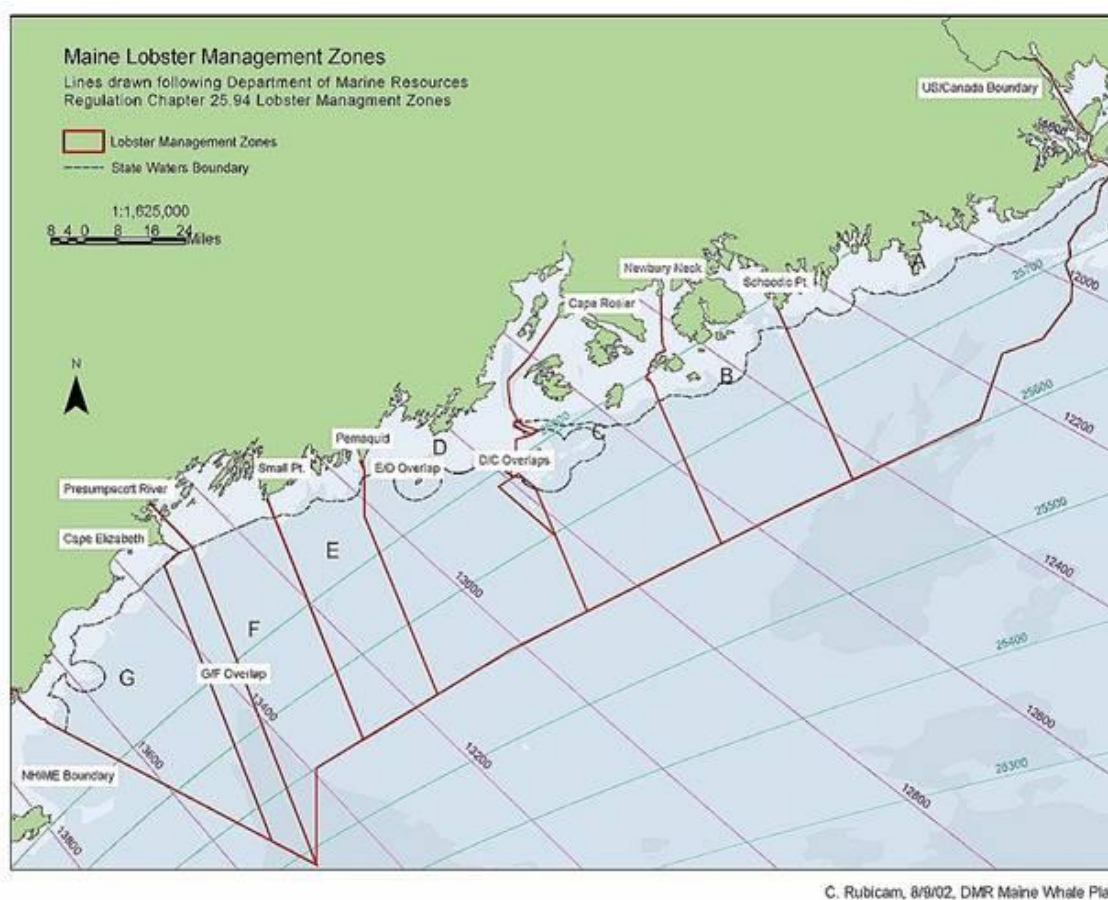


Jurisdictional and Regulatory Framework

The US's management unit for American lobster extends from Maine to North Carolina. The Atlantic States Marine Fisheries Commission (ASMFC), established in 1942, is responsible for promoting inter-state collaboration across a broad range of coastal fisheries programs including fisheries management, fisheries science, habitat conservation and law enforcement within each state's jurisdictions. The Commission manages the lobster fishery (and others) in state waters (up to 3 miles from shore) while the National Marine Fisheries Service (NMFS) manages the fishery (and others) in federal waters (between 3-200 miles from shore). Both organizations draw their authorities from the Atlantic Coast Fisheries Cooperative Management Act (1993) which charges all 15 Atlantic coastal states with implementing coastal fishery management plans. The primary regulatory instrument is known as the Interstate Fishery Management Plan for American Lobster.²¹ The ASMFC's current work is guided by a comprehensive Five-Year Strategic Plan (2009-2013).²²

Maine Lobster Management

Figure 14: Maine Fishing Zones



²¹ For more information, see www.asmfc.org

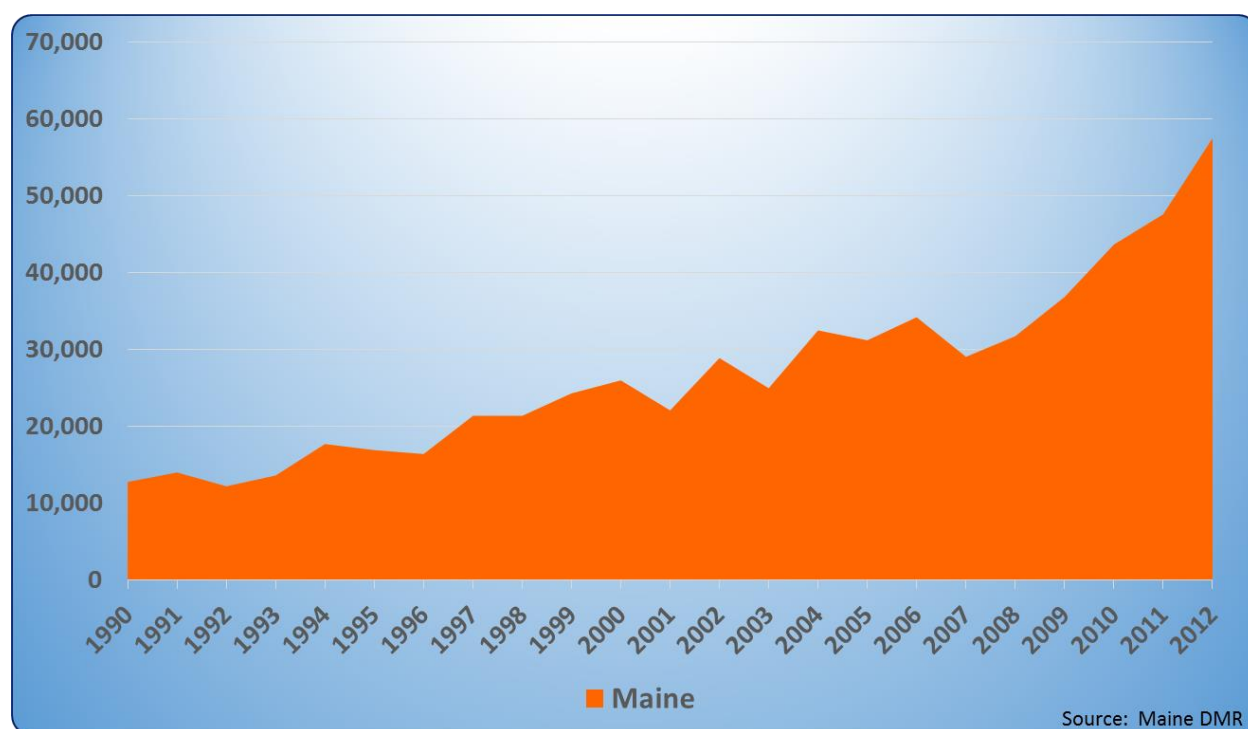
²² *Ibid*



The Department of Marine Resources is mandated by law to manage the state's commercial and anadromous fisheries resources, including responsibilities for licensing and enforcement, outreach, processing and sale of marine fish and shellfish, and aquaculture. An examination of state regulations for the lobster fishery²³ indicates a high degree of similarity with Canada's Atlantic Fishery Regulations (1985). Thus we found provisions related to closed fishing areas, the protection of juveniles and female lobster, trap limits specific to categories of licences, minimum and maximum carapace sizes, trap configuration and tagging, gear marking, V-notching of egg-bearing females prior to their release, escape vents and biodegradable panels.

For management purposes, the full range of the lobster fishery is subdivided into 7 Conservation Management Areas (CMAs) that cut across the 3 biological stock unit boundaries. Each CMA has a management team consisting of government and industry representatives charged with developing specific programs for the needs of their area.

Figure 15: Maine Lobster Landings



Preliminary estimates put Maine 2012 landings at almost 127 million pounds or about 84% of the US total landings of 152.5 million pounds. Landings in Maine are up almost 100% over mid-decade levels.

Lobster industry oversight and management of the commercial fisheries at the state level is attributed to 3 of 5 councils.²⁴ They are:

²³ For further information, refer to: <http://www.maine.gov/dmr/lawsandregs/regs/25.pdf>

²⁴ Details may be found at: <http://www.maine.gov/legislation>



- The Department of Marine Resources Advisory Council – consists of 16 multi-industry representatives including a few private individuals. As an advisory body, it is charged with reviewing the department's research plan and providing advice to the joint standing committee of the Legislature having jurisdiction over marine resources. It also had consent authority over all management regulations except those that emanate from the Lobster Policy Management Councils or those that concern public health.
- The Lobster Advisory Council – consists of 13 representatives from the harvesting sector and dealers and a member of the public. It is mandated to advise the Commissioner of the DMR on activities of the department; investigate problems affecting the fishery and make recommendations to the Commissioner and to the Marine Resources Advisory Council; review current research programs and plans and provide similar recommendations; and consider disputed issues brought to it by any of the local Lobster Management Policy Councils and make recommendations for resolving these issues to the Commissioner. It also has specific responsibilities related to advice concerning the expenditure of funds derived from licence fees.
- Lobster Policy Management Councils – there is a council for each of the lobster fishery's seven management areas. They provide advice on lobster management issues and propose management solutions. For example, the councils may propose to the Commissioner rules restricting lobster (and crab) licence holders that operate within their prescribed zone, and the time of day when lobster fishing may occur. Interestingly, the councils are chartered to execute referenda on specific fishing policies (trap limits, for example) and the Commissioner is obliged to promulgate successful referenda without alteration provided the proposal meets a "reasonableness" test.

As in Canada, there are also less formal advisory committees that are created to provide advice to DMR on specific issues of concern to the industry. Similarly, there are also industry-based organizations, like the Maine Lobstermen's Association who represent the interests of their membership on a geographical basis. The interests of offshore lobstermen are promoted by organizations like the Atlantic Offshore Fishermen's Association.

Statistical Information – Commercial Fishery

Commercial lobster landings from the Gulf of Maine (GOM) were stable between 1981 and 1989 averaging about 32 million pounds then increased dramatically from 1990 (about 42 million pounds) to 2000 (70 million pounds). Since 2000, Maine landings have generally been on an upward increase and have dramatically increased since 2007, more than doubling to 127 million pounds from 57.2 million pounds. The landed value of the fishery was \$US 340.5 million in 2012.

Overall, landings in Maine have more than quadrupled since 1990. Some of this increase may be attributed to warmer waters and Maine's policy of returning large lobsters, of both sexes, back to the water, as well as a lack of predation from larger fish.

Maine lobstermen are required by law to maintain a logbook record of their catch, and to provide fishery statistics to the Department of Marine Resources for onward analysis by appropriate state



or federal authority. Lobster landings information from dealers is compiled by the NMFS and was voluntary prior to 2004 but is now mandatory and a requirement for licence renewal.

Recreational Fishery

A regulated recreational lobster fishery in Maine was first introduced in 1996. A five-trap limit came into effect the following year. Rules that apply to the commercial fishery also apply to the recreational fishery. Landings are generally only a few percent of the state's total landings. In 2009 there were approximately 2,000 fishermen fishing with approximately 10,000 tags out of about 3.1 million tags issued, in total. The number of licences issued has grown steadily from 467 in 1997. Given the increase in participation, the Maine Lobster Advisory Council requested that a training program be developed for non-commercial harvesters.

A law was passed in 2002 requiring all applicants of non-commercial lobster (and crab) licences to take and successfully pass a 50-question exam on Maine's lobster laws and lobster biology. While licence holders are permitted to ship or transport their lobster catch, selling is prohibited. A maximum of two recreational licences are assigned to each vessel. In 2008, a mandatory harvester logbook program was initiated and applied to 10% of the harvesters in each Lobster Management Zone.

Licensing

There are many more categories of commercial lobster licences in Maine than in Canada. While the state-wide trap limit is 800 traps (it was 1,200 in the 1990s), some management zones have a lower limit. Similarly, the state has a graduated trap tag system which it applies to some licence holders. For 2012, DMR issued 5,083 Class 1 to 3 licences (the licence holder's age is considered), 281 Apprenticeship licences (not eligible to be issued trap tags), and 882 Student licences (maximum 150 trap limit).

A little information was sourced regarding the number of state licences issued for lobster processing facilities. In 2010, 5 plants were licenced; 11 in 2011; 16 in 2012; and 14 in 2013 as of October 4th.

As a final comment on this issue, it is interesting to note the Owner/Operator nature of the Maine inshore fleet. In this case there is no "transferability" or "reissuance" of licence and when a fisherman stops fishing, the licence remains dormant for a year and is then given to a qualified person on a waiting list. Hence, there is no way to access a licence, except through proscribed procedure.

E. Canadian Lobster Management Framework

Federal Government Role

DFO is the federal government department with the lead role in managing Canada's fisheries. It relies upon a number of acts and regulations for this purpose, including the *Fisheries Act*, the *Oceans Act* and the *Species-At-Risk Act*. These statutes are supported by a large number of federal regulations upon which departmental officials rely in their day-to-day work of managing the fisheries. Further guidance is provided by a wide range of strategic policy frameworks, plans,



and directives which shape the delivery of services and programs, and inform the department's decision-making and stakeholder engagement processes.

The most recent decade has seen tremendous change in how the department manages the commercial fisheries, including lobster. Many of the statutes, regulations and policy frameworks of the late 1990s have been revamped and modernized in response to the ever increasing demands of the commercial fisheries and of other imperatives such as environmental and habitat protection, sustainability, and endangered species.

DFO's *Sustainable Fisheries Framework*²⁵ (2007-08) embodies how the fisheries management regime for the commercial fisheries (and others) has been modernized and made more comprehensive. The Framework provides the basis for ensuring that Canadian fisheries are conducted in a manner which supports conservation and sustainable use. It incorporates existing fisheries management policies with new and evolving policies. The framework also includes tools to monitor and assess those initiatives geared towards ensuring an environmentally sustainable fishery, and identifies areas that may need improvement. Overall, the Sustainable Fisheries Framework provides the foundation of an ecosystem-based and precautionary approach to fisheries management in Canada.

One important component of the framework – the Precautionary Approach – will, in and of itself, significantly impact how Canada's commercial and aboriginal lobster fishery is managed in the future. Already in use, the approach requires that a harvest strategy be incorporated into respective fisheries management plans to keep the removal rate moderate when the stock status is healthy, to promote rebuilding when the stock status is low, and to ensure a low risk of serious or irreversible harm to the stock. It also requires a rebuilding plan when a stock reaches low levels.

The framework's impact on commercial lobster fishermen and the lobster resource has yet to be fully measured. It is the industry's general belief that both will benefit in a positive way.

The Canadian lobster industry is also moving to have various fisheries independently assessed to determine the degree to which they are sustainable and well-managed in accordance with internationally-accepted principles and criteria for sustainability.²⁶ Assessment work by an independent and accredited team of experts is scheduled to formally get underway this winter for the Maritime lobster fishing areas, and can take approximately 12-14 months to complete.

Management Measures - Inshore

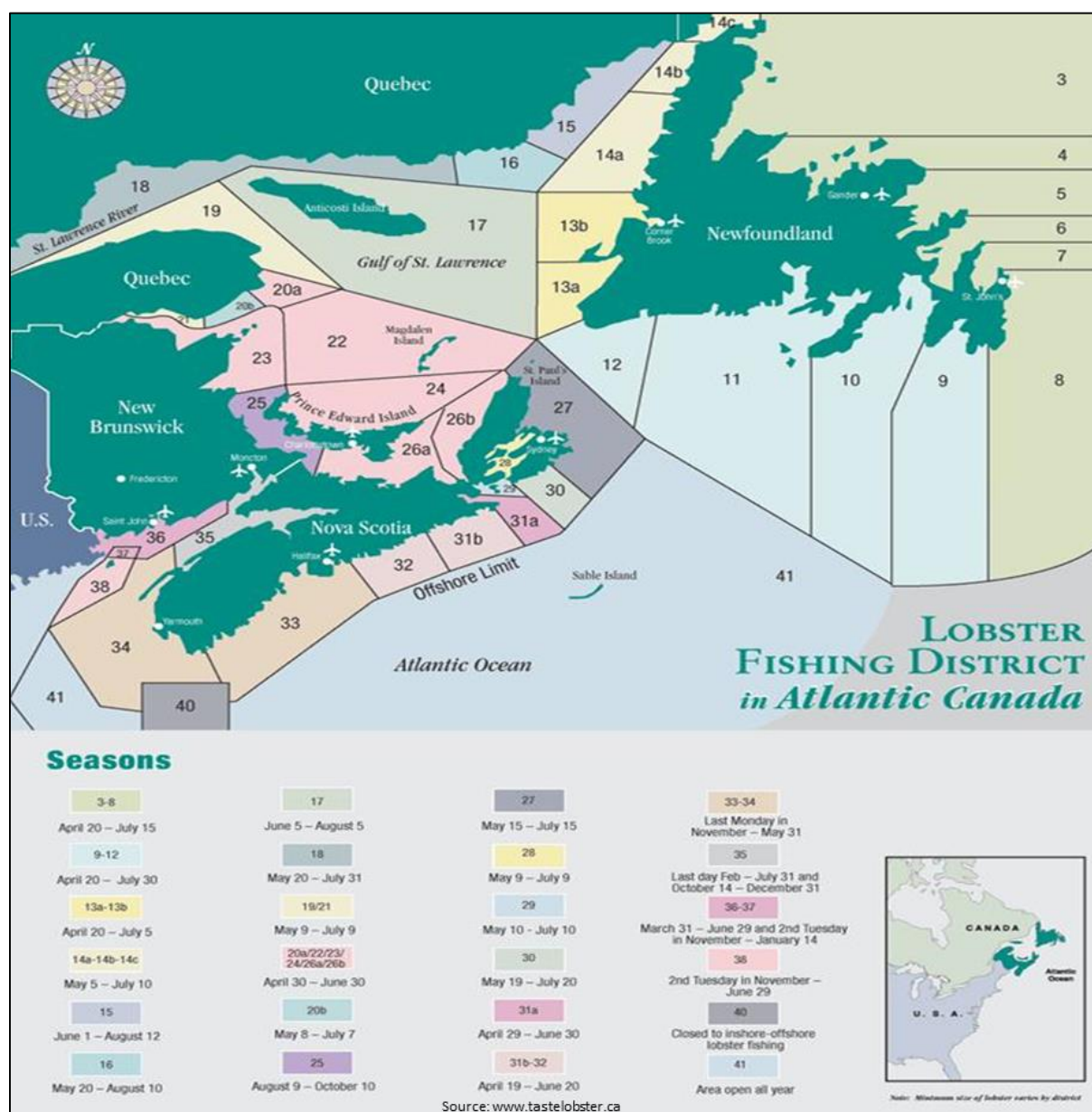
As described, the lobster fishery has one of the longest histories of fisheries regulations in Canada. Many of the management measures in place today date back over a century. DFO manages and regulates the lobster fishery in Canada. It manages 41 distinct Lobster Fishing Areas (LFAs) throughout Eastern Canada (see figure below – Lobster Fishing Areas in Canada): 39 inshore areas with small boat harvesters, one offshore area (LFA 41), and one closed area for conservation (LFA 40). Some of the inshore LFAs have been sub-divided as a result of requests from harvester organizations.

²⁵ Refer to DFO's website at <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/overview-cadre-eng.htm>

²⁶ Marine Stewardship Council at: www.msc.org



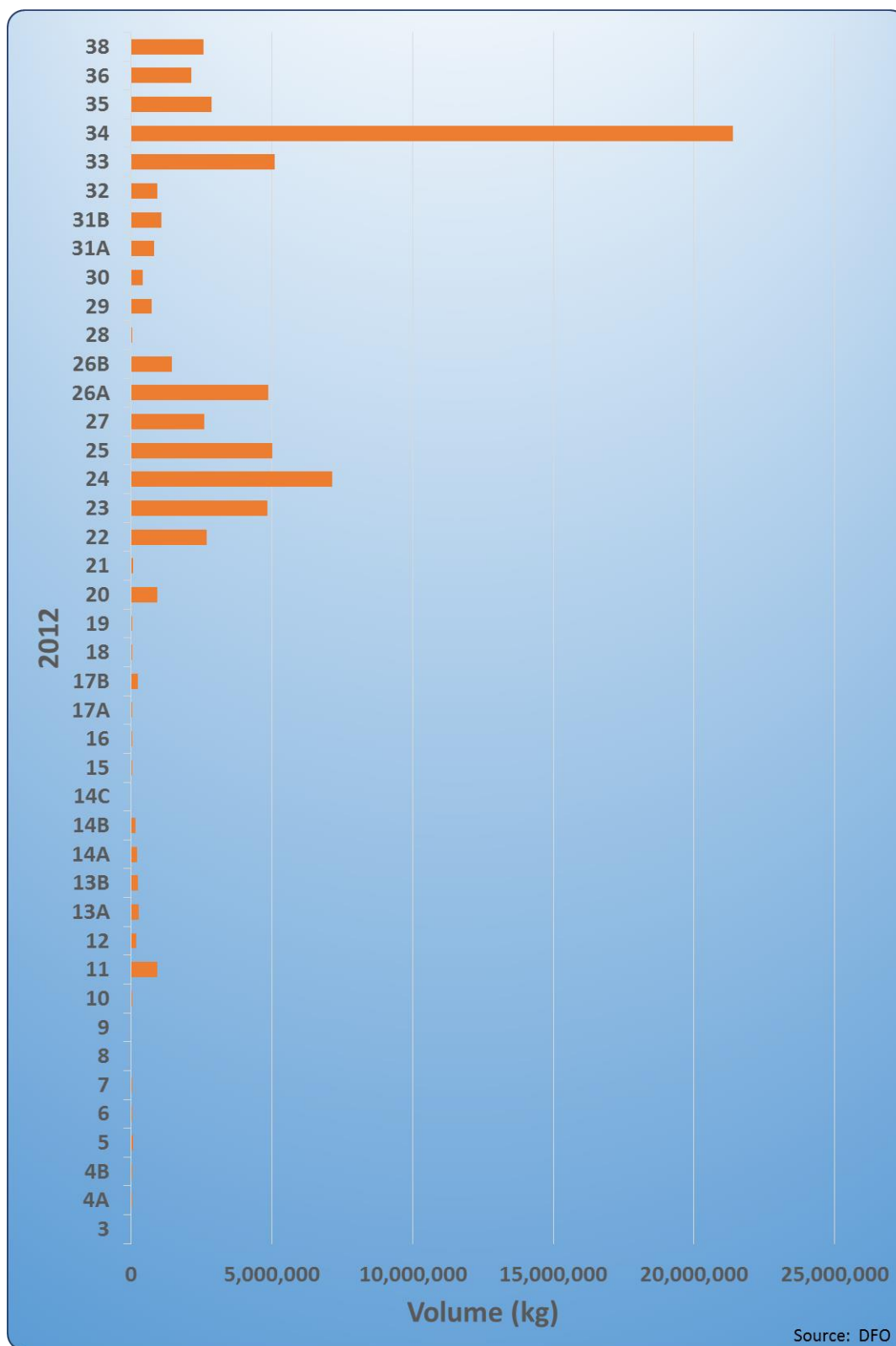
Figure 16: Lobster Fishing Areas (LFAs) in Canada



Management measures are tailored to the unique biological, economic and social requirements of each LFA and comprise what DFO calls an *Integrated Fisheries Management Plan (IFMP)*²⁷. Plans are developed for all major fisheries and have no specific end dates. They are supported by a multi-year cycle of scientific advice and regular monitoring to maintain a good level of knowledge and data. Where evergreen IFMPs are not in place, multi-year management plans are developed.

²⁷ Refer to DFO's website at <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/ifmp-gmp/guidance-guide/template-app-a-ann-modele-eng.htm>



Figure 17: Total Landings by LFA - Quebec and Maritimes, 2012

The lobster fishery is managed based largely on “input controls”, meaning that a limit is placed on fishing effort, and, in some LFAs, by escapement measures. Typical effort control measures include:

- A restriction on the number of licence holders;
- A limit on the number of traps that can be fished per licence holder;
- A defined fishing season per LFA; and
- Escape vents, and overall trap size.

A suite of other measures, designed to achieve conservation and sustainability goals, is also well established in all LFAs. These vary across the LFAs. Examples include:

- Protection of egg-bearing female lobster;
- Biodegradable panels and escape vents;
- Minimum carapace size (and maximum carapace size for females in some LFAs);
- Mandatory logbooks;
- Closed areas and closed times;
- Minimum number of traps per line;
- V-notching (of females); and
- Specifications relating to lobster trap configurations (maximum hoop size).

Management Measures - Offshore

Clearwater holds 100% of the Canadian offshore lobster harvesting licences.²⁸ The offshore lobster fishery operates 50 miles from the coast of Nova Scotia and DFO sets the total allowable catch (TAC) at 720 MT. In addition to quota controls, the offshore lobster fishery is subject to a series of other management measures. Lobsters under the minimum legal size of retention (82.5 mm carapace length) and berried (egg-bearing) females are returned. Large lobsters are voluntarily returned. Escape vents allow non-target species and juvenile lobster to escape and biodegradable panels mitigate the impact of ‘ghost’ fishing if gear is lost.

The offshore lobster fishery is conducted using rectangular wire coated lobster traps measuring 48” long, 16” wide and 11” tall. Traps are set in strings, or trawls, of 120-150 and are joined by a ground line approximately 14 fathoms apart. Traps are constructed in panels connected by biodegradable clips and all traps are fitted with escape vents for small lobsters. Strings are anchored at each end with a surface line attached to a buoy and high flyer. Vessels set about 30 strings at a time stretching about 1.2 miles with a 4-5 day soak time. Depths fished range from between 100 and 320 meters.²⁹

Panel’s note:

²⁸ <http://www.clearwater.ca/en/home/products/lobster/live/lobster/harvestprocessing.aspx>

²⁹ <http://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/north-west-atlantic/Eastern-Canada-offshore-lobster>



Management measures are but one component of the IFMP for a fishery. Readers who wish to know more about the content of the IFMP for the commercial lobster fishery in DFO's Maritimes Region, can find the full plan at: <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/ifmp-gmp/maritimes/insholob-2011-eng.htm>

An IFMP is currently being prepared for the lobster LFAs located in DFO's Gulf Region. In the interim, readers can access the full details of the current Conservation Harvest Plan at: <http://www.glf.dfo-mpo.gc.ca/Gulf/Lobster-Information/Lobster-Fisheries-Management/2011-Lobster-Management-Measures>).

Aboriginal Communities

First Nations and Aboriginal Councils are active participants in the lobster fisheries of the Maritimes Provinces. Information provided to us indicates that First Nations collectively hold 201 communal commercial lobster licences for the LFAs of the southern Gulf and 105 licences for the LFAs located in eastern Nova Scotia and the Bay of Fundy. The Aboriginal Councils collectively have 16 and 14 communal commercial lobster licences for the LFAs of the southern Gulf and eastern Nova Scotia/Bay of Fundy respectively.

Communal Food, Social and Ceremonial Fishery

In 1990, the Supreme Court of Canada issued a landmark ruling in the *Sparrow* decision. This decision found that the Musqueam First Nation in British Columbia had an Aboriginal right to fish for food, social and ceremonial purposes. The Supreme Court found that where an Aboriginal group has a right to fish for food, social and ceremonial purposes, it takes priority, after conservation, over other uses of the resource. The Supreme Court also indicated the importance of consulting with Aboriginal groups when their fishing rights might be affected.

In response to this decision, and to provide stable fishery management, the Federal Government launched the Aboriginal Fisheries Strategy (AFS) in June, 1992. The AFS was applicable where DFO managed the fishery and where land claims settlements had not already put a fisheries management regime in place.

The AFS was of assistance in managing the fishery in a manner consistent with the *Sparrow* decision and subsequent Supreme Court of Canada decisions.

The AFS sought to provide for the effective management and regulation of fishing by Aboriginal groups through the negotiation of mutually acceptable and time-limited fisheries agreements between DFO and Aboriginal groups. Where agreement was not reached with an Aboriginal group, the department's approach was to review the consultations with the group and the Minister of Fisheries and Oceans issued a communal fishing licence to the group that contained provisions the Minister believed were consistent with the *Sparrow* decision and subsequent Supreme Court of Canada decisions. The licence allowed the Aboriginal group to fish for food, social and ceremonial purposes. Where an agreement was reached with an Aboriginal group, the Minister of Fisheries and Oceans issued a licence to the group that reflected the agreement reached.



The AFS also included an initiative to facilitate opportunities for eligible Aboriginal groups to achieve increased access to the commercial fishery. Known as the Allocation Transfer Program (ATP), it provided for the voluntary retirement of licences from the commercial fishery and their subsequent re-issuance to Aboriginal groups as communal commercial licences. Since 1994-95, when the ATP was first launched, approximately 900 commercial licences were issued to Aboriginal groups across Canada.

Communal Commercial Fishery

Enhanced Mi'kmaq and Maliseet access to the commercial fisheries received a significant boost with the Supreme Court of Canada's decision in *R v. Marshall* (1999). The decision affirmed a communal/treaty right to hunt, fish and gather in pursuit of a "moderate livelihood" arising out of the Peace and Friendship Treaties of 1760 and 1761. The decision affected 34 MMFNs located in New Brunswick, Nova Scotia, Prince Edward Island and the Gaspé area of Quebec.

The Federal Government responded by implementing the *Marshall Response Initiative* (MRI) which had at its principle objective to negotiate an interim Fisheries Agreement that provided First Nations with access to a range of commercial fisheries by means of licences, including a combination of vessels, gear and equipment, capacity building, training and infrastructure. Interim agreements were successfully negotiated with 32 of 34 First Nations. From 2002 to 2007, the Federal Government invested almost \$600 million in the MRI which provided 1,300 communal commercial licences and some 520 fishing enterprises to MMFNs.

It is important to note that their involvement with, and contributions to, the commercial fishery extends well beyond merely participating in the harvesting sector. Some First Nations have acquired processing facilities and are pursuing opportunities involving the marketing of their products internationally in addition to offering expanded employment opportunities to their community members. Native bureaucracies have evolved considerably over the past decade and have reached a point where technical staff are quite capable of effectively managing demanding projects and programs, participating in fisheries advisory processes, and stewardship and co-management arrangements on an equal footing with other industry stakeholders.

Duty of the Crown to Consult and Accommodate

While the Panel cannot predict which of its recommendations the federal and provincial departments of fisheries will accept and implement, it is important to acknowledge that the Crown³⁰ has a specific legal obligation to consult and, if appropriate, accommodate, when it contemplates conduct that might adversely impact Aboriginal or treaty rights (established or potential) of the Aboriginal peoples of Canada, recognized in section 35 of the *Constitution Act* 1982.

The common law duty to consult was framed and interpreted through a number of judicial decisions by the Supreme Court of Canada in *R v. Haida*, *R v. Taku River*, *R v. Mikisew Cree* and *R v. Little Salmon/Carmacks* cases. The Panel understands that the legal duty to consult may be triggered by a federal or provincial approval, licence, permit or by any large or small size project

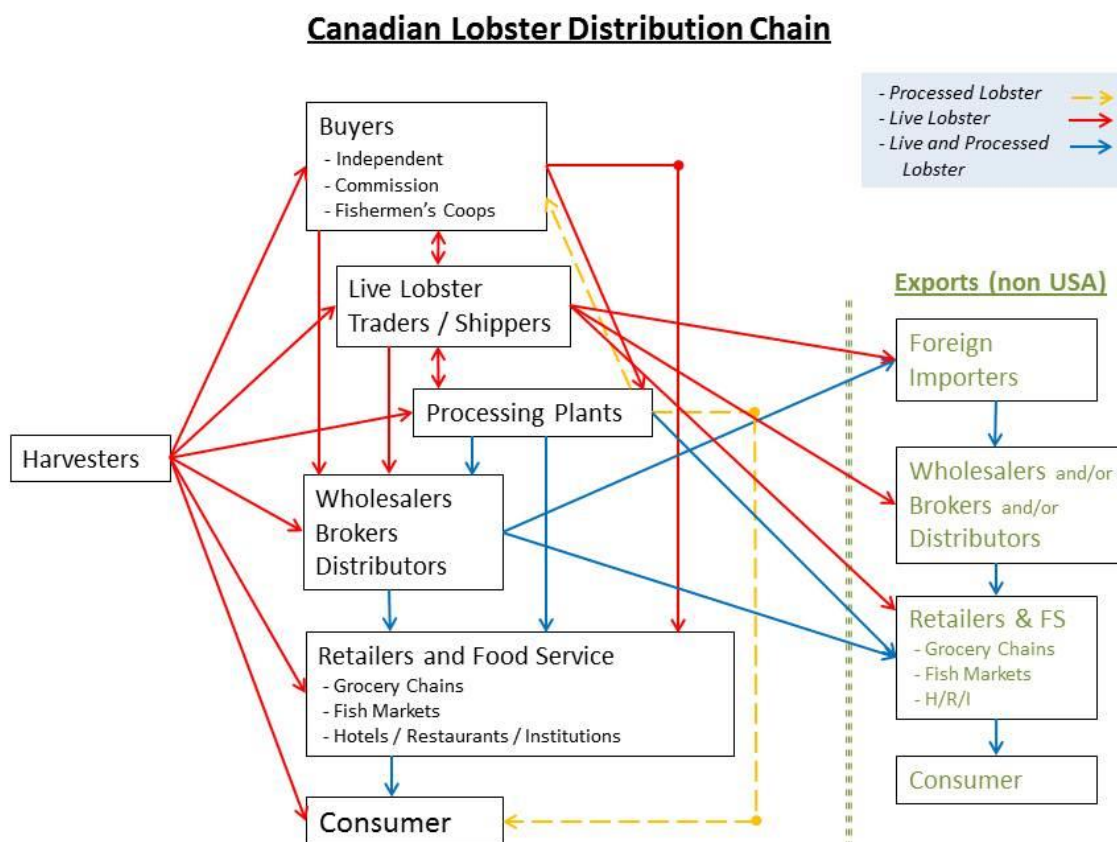
³⁰ Crown refers to all government departments, ministries, agencies, other Crown entities to the extent possible as prescribed by the mandating legislation for such entities, and includes all government employees that are doing the work of the Government.



or activity that could adversely impact established or potential Aboriginal and Treaty rights. The Panel makes no determination here whether any of its recommendations, if accepted and implemented, would trigger the Crown's legal obligation toward Aboriginal groups

F. Value Chain

Figure 18: Value Chain



Source: New Brunswick Department of Agriculture, Aquaculture and Fisheries, 2013

In Canada, the process by which lobster moves from the ocean floor to the end consumer – commonly referred to as product flow or supply chain – is generally not well appreciated by the average person who purchases the product from the retail or food service components of the industry. Those who buy directly from the fishermen, or from the back of a truck, generally have an easier time of understanding who is involved and what role they play in the supply chain. The figure above illustrates the typical supply chain network for Canadian lobster.

Gardner Pinfold (2010)³¹ concluded that the distribution process does not always work smoothly; there can be problems at every stage. Sometimes quality is not as high as it should be because harvesters had failed to handle lobster properly on their vessels, or because they held lobster for

³¹ Gardner Pinfold et al., *From Trap to Table - A Long Term Value Strategy for the Canadian Lobster Industry*, October 2010, p 29



too long in inadequate facilities. Early season gluts make it difficult for processors to handle all of the raw material that comes ashore at one time. Shippers in the live trade are often unable to provide a satisfactory level of certainty or stability (with respect to price, quality and quantity) that customers need and expect. Timing can also be critical in the live trade. As risk increases, importers, retailers and restaurants either refuse to carry lobster, or end up paying less for it.

In this section of our report, we describe who the players are and the interrelationships which typically comprise the lobster industry in the Maritime Provinces. The structure is somewhat fluid as business arrangements and networking opportunities evolve in keeping with developments in the industry as a whole.

Harvesters (Fishermen)

The Maritime lobster fishery consists of approximately 6,300 licensed lobster fishermen, and there were another approximately 2,600 licences issued in Newfoundland and Labrador and 600 in Quebec in 2012. Fishermen fish within a defined area and season. Landings vary considerably from one lobster area to the next based on a number of factors: length of season, productivity of the grounds fished, weather, performance of the vessel and traps used, and how much effort is put into the operations.

How the harvesting sector interacts with government is crucial to building and sustaining a positive and supportive fishery framework and business environment. There are no shortages of government policies and requirements in play or under consideration, which places a heavy burden on the internal capacities of organizations to both adequately consult their membership, shape their positions, and interact with government.

In the Maritimes, while most fishermen act individually when selling their catches at the wharf, they often act collectively by networking amongst themselves in the interest of receiving the highest possible price. The number of available buyers (usually the first point of contact) for their product varies from harbour to harbour and is subject to obtaining permission from the Harbour Authorities, which manage most offloading locations.

Buyers

Buyers represent the first point of entry to the market. Typically, they operate independent businesses for which they receive a commission. Some buyers provide services to fishermen such as bait, ice, offloading, financing etc.; some of these services are included in the commission and for others, additional charges are applied. Buyers depend almost entirely on “their” fishermen for their supply of lobster and, understandably, business relationships are developed along the way. Some buyers may only be present on one wharf in a given region for a specific season; others may operate from several wharves, or several regions including other provinces. Failure to meet a competitor’s price means losing the harvester’s supply for the fishing season.

Buyers are required to obtain an annual Buyer’s Licence from the province in which they operate, pay the required licence fee, and follow the conditions that are stipulated on their licence. In some cases, depending on the province, buyers may be required to meet certain pre-requisites before an application is considered. Once a licence is issued, buyer non-conformance may result in the



suspension of privileges, licence revocation or non-renewal, and/or charges in the case of serious breaches. There were more than 200 licensed buyers for the three Maritime Provinces in 2012.

Live Lobster Traders / Shippers

The majority of live lobster traders and shippers based in the Maritimes today no longer engage in buying directly from fishermen as this side of the business is now commonly handled by the buyer who is paid a commission as described above.

The number of shippers / traders of live lobster in the Maritimes is likely in the hundreds. An exact number is not easily obtained as a provincial operating licence is not currently required when shipping live lobster.

Processing Plants

Processors are required to meet a significant number of regulatory requirements and standards established and administered by all three level of government before they can conduct business. As with live shippers and traders, few processors buy their raw material directly from fishermen anymore and prefer to pay commissioned buyers to do this work.

The number of primary and secondary plants licenced to process lobster in the Maritimes does not reflect the numbers that are actually active in exporting substantial volumes of processed product. Most of the processing activity is limited to about a dozen plants in New Brunswick, half dozen in PEI and a few in Nova Scotia.

It is important to note that a number of companies operate in both the live and processed sectors, and varying business models and cost structures are common to this sector of the industry.

Wholesalers / Brokers / Distributors

The vast majority of processors and live shippers / traders do not have a corporate presence outside the Maritimes when selling on the international market. The services they need to get their product to market requires specialized knowledge and experience that independent brokers or distributors, either in Canada or in the importing foreign country or region, can provide. Thus their role in the supply chain is to acquire product or arrange transactions and move product efficiently from processor/live shipper to retailers and food service firms. Transactions are frequently at arms-length and benefit from stable business relationships and arrangements that are built up over a period of years.

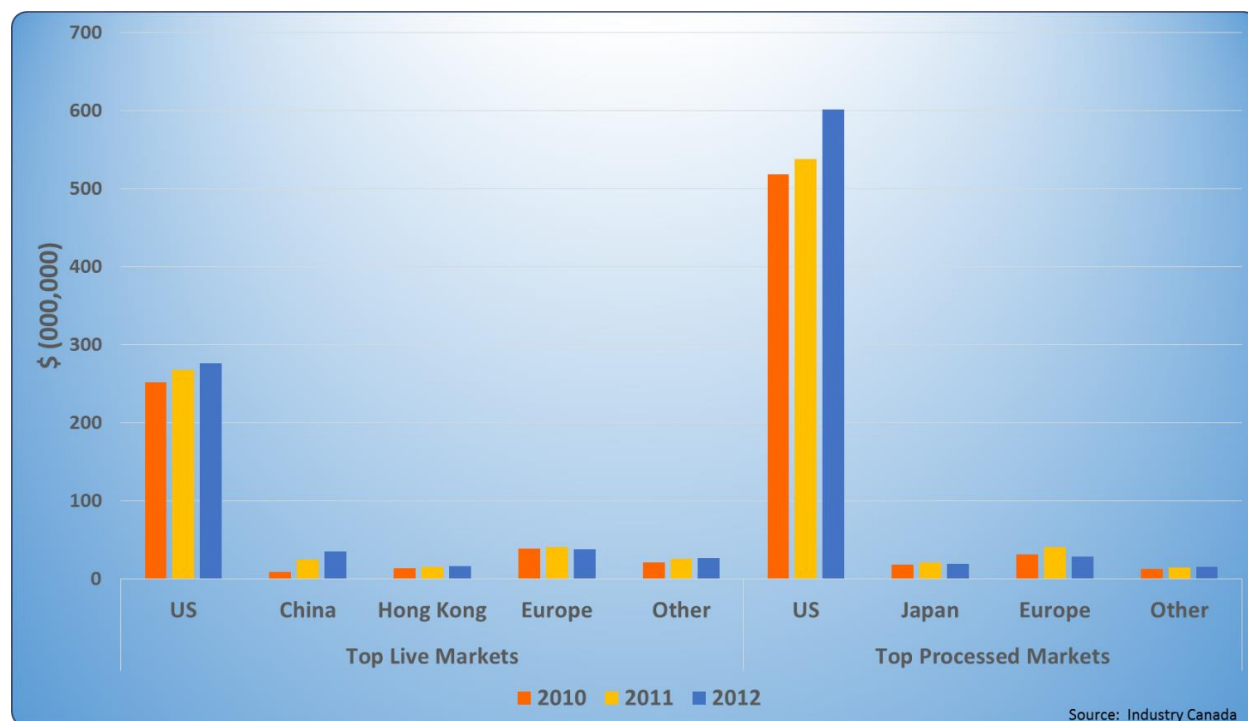
Retail and Food Service

The retail segment includes large grocery chains, independent grocers and fish markets. Of late, a growing number of large companies in the retail sector have established fish and seafood sustainability standards and buying practices that serve to reassure their customers that the supply is safe and sourced from a sustainable fishery. Most products sold to this sector are processed in various forms. The food service segment consists of such players as restaurants (especially chains), various institutional purchasers, hotels, casinos, cruise lines, etc.



G. Marketing

Figure 19: Canadian Top Export Markets by Product Form



Domestic and Foreign

The Canadian lobster industry sells lobster in three main categories: live, frozen and prepared/preserved. Lobster is considered “processed” when it is sold in a form other than live. **In recent years, over half of the landed volume of Canadian lobster has been processed.**

Currently, it is estimated that 50 to 55% of the more than 300 million pounds of lobster landed in North America is processed into various products. Canada is the leading lobster processing nation in the world with approximately 150 million pounds of lobster processed each year. New Brunswick is the leading lobster processing province followed by Prince Edward Island, producing about half as much as New Brunswick. Maritime processors source their lobster from all lobster fishing areas in Canada and the United States in order to meet market needs for processed lobster.

Canada’s largest lobster market is the United States for both live and processed product. Current indications are that 3 out of 4 lobsters are consumed out of the home. The bulk of processed lobster goes to the food service industry as opposed to the retail sector. The Eastern Regions of the country drive over half the consumption of live lobster sold at grocery outlets and over half of this lobster is sold in promotional campaigns. Peak sales occur around Valentine’s Day, Mother’s Day and Christmas / New Years.



The live lobster market commands different prices depending on the size of the lobster being sold. Live lobster are normally size graded as follows: Mixed (450-650 g); Chix or 1 lb (450-550 g); Quarters or 1 1/4 lb (550-650 g); Halves or 1 1/2 lb (650-775 g); 1 3/4 lb to 2 lb (775-900 g); 2 – 2 1/2 lb (900 g to 1 kg); 3 to 4 lb – SM Jumbo (1.36 to 1.82 kg); 4 to 6 lb – MD Jumbo (1.82 to 2.73 kg); 6 to 10 lb – LG Jumbo (4.50 kg).

The processed market is very diversified and currently consists of over 50 different product forms, including:

- Frozen Whole Lobster (vacuum pack, bulk pack, netted, cooked in brine)
- Frozen Lobster Tails (raw or blanched)
- Frozen Lobster Meat (cooked, blanched, raw)
- Frozen Split Lobster
- Frozen Cocktail Claws
- Frozen Scored Claws and Arms
- Frozen Culls

Other lobster products include:

- Lobster Bodies and Shells
- Lobster Tomalley
- Lobster Roe or Caviar
- Lobster Stock
- Lobster Meal
- Lobster Butter
- Lobster Oil
- Lobster Pâté
- Lobsterine

Export Markets

Figure 20: NB Lobster Exports – Top Markets

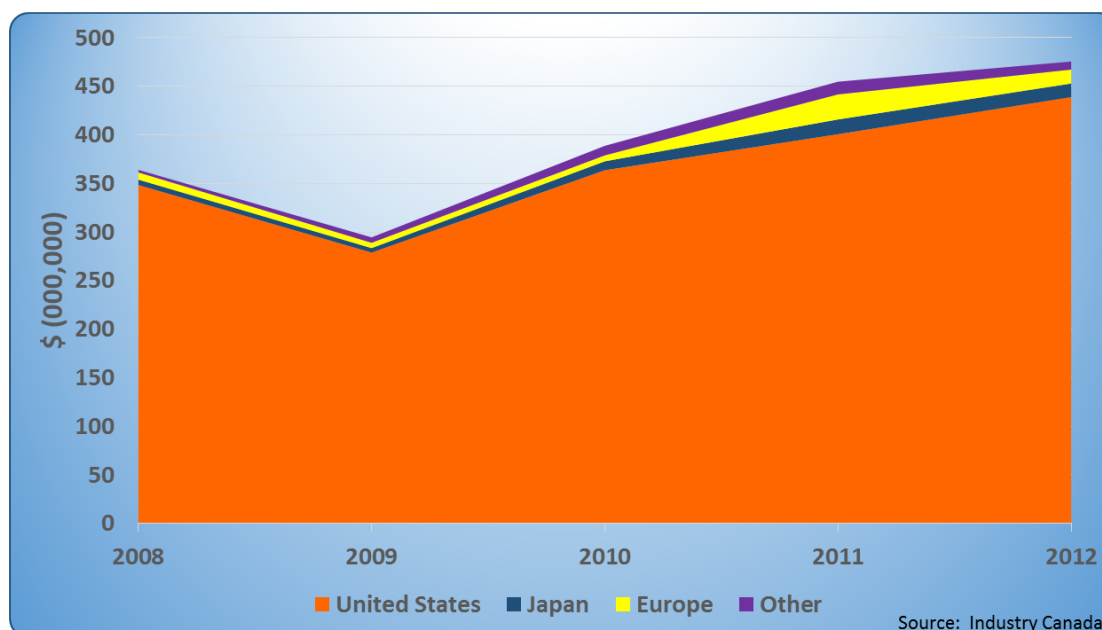
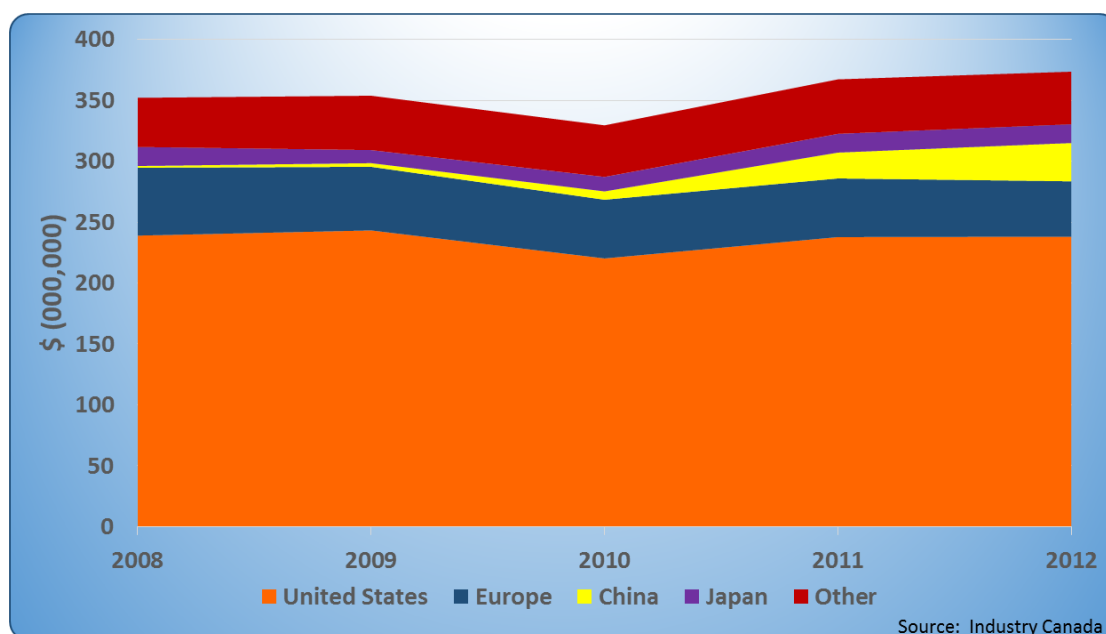
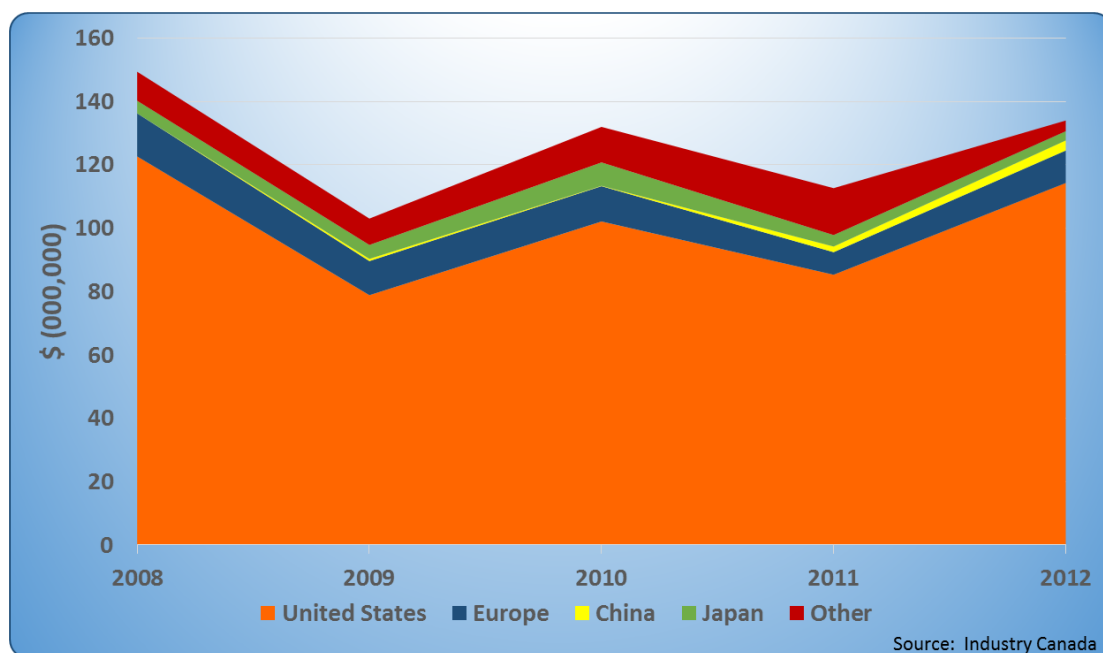


Figure 21: NS Lobster Exports – Top Markets*Figure 22: PEI Lobster Exports – Top Markets*

Recent Marketing Initiatives

All three Maritime Provinces are actively engaged in fish and seafood market development and promotion, both at home and abroad. Provincial departments frequently partner with departments and agencies of the federal government³² to make best use of funding dollars and technical expertise. Partnerships have also been established between both levels of government and key industry stakeholders and organizations including the Lobster Council of Canada. As well, a significant number of Federal-Provincial-Industry roundtables and working groups assist in developing the lobster fishing industry's strategic marketing initiatives and evaluating new market opportunities. Collectively, these arrangements are vital tools in Canada's goal of attracting new lobster markets and extracting maximum value from them.

As Atlantic Canada's and Quebec's leading fish and seafood export product, Canadian lobster is acknowledged as a prized commodity and highly valued in the market place. The Panel is not surprised to see that over the course of the past 3 to 5 years, increasing attention has been paid to marketing and promoting Canadian lobster abroad. Domestically, we note that alliances have been developed with leading Canadian lobster retailers aimed at promoting the product's nutritional value, its high quality, and sustainability.

Examples of the various inter-governmental partnerships that are active include:

- International Business Development Agreement (committee consisting of representatives from ACOA and the four Atlantic Provinces)
- Federal-Provincial Market Development Council (committee consisting on representatives of AAFC, FATDC and the four Atlantic Provinces)
- Pan-Atlantic Seafood, Agri-Food and Beverage Planning Group (committee and specific sub-committees consisting of representatives of ACOA, AAFC and the four Atlantic Provinces).



Within the Maritime Provinces, government departments and the lobster industry combine their efforts to promote and develop lobster markets in a variety of ways, including:

- seafood product development and market promotions

³² Principally Agriculture and Agri-Food Canada; the Atlantic Canada Opportunities Agency; Foreign Affairs, Trade and Development Canada; and Export Development Canada



- market research and business analysis
- partnering with other provincial and federal government departments
- market diversification
- research and market intelligence
- hosting seafood buyer missions
- market development missions in Asia and Europe

Trade and media missions (to foreign countries and those hosted by Canada), trade shows, focused educational programming, chefs and culinary schools activities and other venues are also an integral component for promoting lobster products domestically and abroad.

These have been well-publicized on various web-sites and featured in a number of trade magazines and other print media. The strategic value and importance of these venues to government's and industry's objectives suggest that they will continue to be pursued well into the future. For example, we note the following venues:

- Americas Food and Beverage Show, Miami, October
- China Fisheries and Seafood Trade Show, November
- TASTE of Canada, Chicago, February
- Seafood Expo North America, Boston, March
- SIAL Canada, Montreal / Toronto, April
- Seafood Expo Global, Brussels, May
- Seafood Barcelona, October
- Hong Kong, Asian Seafood Show, September



Annex 2 – Background on the Maritime Lobster Panel

A. Lobster Panel Member Profiles

Mr. Gilles Thériault is a native of Baie-St.-Anne, NB and is a well known fisheries consultant in Canada. This reputation has been earned through his involvement as a fishing industry representative and for the past 25 years as an independent fisheries consultant. As founder and president of GTA Consultants Inc. in 1987, Mr. Thériault has much experience in project management having managed more than 500 projects. These projects include program evaluations, economic impact studies, feasibility and marketing studies, communication plans and fisheries development and resource management projects including First Nations participation in the commercial fisheries, including the comprehensive threat process with the Innu of Quebec.

He has worked in over 30 countries on fisheries related matters. He is especially knowledgeable of the East Coast fishing industry. He has spent his entire career dealing with fisheries resource management programs and policies. He has been an industry representative on delegations representing Canada both at bilateral negotiations (with the EC, Japan, Russia, Poland, Cuba) and in multilateral negotiations within organizations such as the North West Atlantic Fisheries Organization, and has served as a negotiator and mediator in various situations of conflict associated with the fishery.

He has participated in several international trade missions including three Team Canada trade missions accompanied by the Prime Minister of Canada and the Provincial Premiers.

Mr. John Hanlon is a native of Canso, NS with over 40 years work experience including work in the Canso inshore and offshore fishery; community and fisheries law enforcement; operational program management and administration; and public policy development. A former police constable for the City of Halifax, Mr. Hanlon worked for over 30 years with the federal Department of Fisheries and Oceans in various operational and managerial capacities, including Fishery Officer and Fisheries Enforcement Supervisor; Fisheries Resource Manager; Area Director (Gulf NS and briefly, PEI); DFO Senior Officer, Disclosure (Ottawa); and Director of Special Projects (Ottawa).

During his DFO career, Mr. Hanlon worked on major initiatives which resulted in important departmental plans and policies for the Eastern Canadian Fisheries, including: *The Commercial Fisheries Licensing Policy for Eastern Canada (1996)*; the original *Area 19 Snow Crab Co-Management Arrangements 1996-2001 and 2001/02*; and *A Policy Framework for the Management of Fisheries on Canada's Atlantic Coast (2004)*. As Director of Special Projects, he was responsible for the development of a strategy to *Preserve the Independence of the Inshore Fishery in Canada's Atlantic Fishery (PIIFCAF)*.

Since retirement, he has undertaken limited consulting work including the coordinating and editing of *"A Brief History of the Gulf Lobster Fishery"* for DFO's Gulf Region.

Mr. Lewis (Lewie) Creed is a native of PEI and a graduate of the University of Prince Edward Island and has many years of experience working in the fishing industry. Over a 35 year career



with the PEI Department of Fisheries and Aquaculture, he served in many progressively more responsible capacities and in 1998, was appointed Assistant Deputy Minister of Fisheries, Aquaculture and Tourism. He was appointed Deputy Minister of the PEI Department of Fisheries, Aquaculture and Environment in 2000. He also served a one-year term as Deputy Minister of the PEI Department of Environment and Energy.

Mr. Creed has extensive experience working on boards and committees, having served as Chair of the Deputy Ministers Committee of the Canadian Council of Ministers of Environment, President of the PEI Energy Corporation; he also served on the Board of Directors of Island Investment Development Inc., the PEI Food Technology Centre and PEI Food Trust. He currently serves as independent chair of the PEI Aquaculture Leasing Management Board which provides policy direction to the Aquaculture Leasing Program as well as President and Chairman of the Board of Directors of the PEI Atlantic Shrimp Corporation which is a not-for-profit company that manages Prince Edward Island's allocation of northern shrimp

Since retiring from government, he has operated his own consulting business (L Creed Consulting) and has worked on fisheries projects for the federal and provincial governments and fisheries organizations.

B. Reports, Studies and Presentations Consulted³³

Pricing

Magdalen Islands – Shore Price-Setting Plan

Éditeur officiel du Québec – Plan conjoint des pêcheurs de homards des Îles-de-la-Madeleine, septembre 2013

Flett, K. – *Forward, Futures and Options – An Innovative Exchange for Direct Market Access and Secure Vessel/Buyer Negotiations*, 2012

MacPherson, M. and F. Reinhardt – *Establishing a Lobster Price determination Model for Lobster Fishing Area (LFA) 34*

Régis des marchés agricoles et alimentaires – Évaluation périodiques des interventions de l'Office des pêcheurs de homard des Îles-de-la-Madeleine, mai 2012

Sackton, J. – *Review of Lobster Markets and Prices – Presentation to Halifax Lobster Roundtable*, February 2009

Seafood Auction House – PowerPoint presentation

Surowiecki, J. *The New Yorker Magazine – Lobster Pricing*, August 13, 2013

³³ The panel has amassed an extensive list of reports, studies, statistics and presentations in support of its work; only those documents which the panel deemed to be current and relevant to its mandate are listed here.



Verge, B. – *Navigator Magazine*, Vol.16, No.09 – *The Price of Fish*, September 2013

Markets/Marketing/Branding

Bonnell, C. – *Marketing Alliance Working Group Presentation*, June 2013

DFO Gulf Region – *Lobster Market Analysis*, May 2010

Gardner Pinfold Consulting Economists Ltd. – *Final Report: Canadian Fish and Seafood Branding*, December 2010

Sackton, J. – *Lobster Market Outlook*, April, 2013

Sackton, J. – *Lobster in Global Markets: Current Market Outlook*, April 2010

Sackton, J. – *Lobster Market Outlook for 2011*, March 2011

Sackton, J. – *PEI Lobsters in Global Markets: Issues with Carapace Size*, February 27, 2010

Salmon, R. – *The Effectiveness of Generic Marketing*, March 2000

Shuve, H. – *Canadian Lobster: Understanding EU Consumer Markets*, November 2011

Industry Generally

Alaska Seafood Annual Report, 2013

Fisheries Resource Conservation Council – *Sustainability Framework for Atlantic Lobster*, July 2007

Gardner, M. – *Canada-US Lobster Industry: Structure and Performance*, September 2010

Gardner Pinfold Consulting Economists Ltd. – *Benchmarking Study on Canadian Lobster*, March 2006

Gardner Pinfold et al. – *From Trap to Table: A Long term Value Strategy for the Canadian Lobster Industry: Final Report*, October 2010

Gisslasson, G.S. et al – *Canadian Seafood Benchmarking Study – Final Report*, February 2013

Gulf of Maine Research Institute – *An Independent Evaluation of the Maine Lobster Limited Entry Licensing System for Lobster and Crab*, November 2012

James, M. and B. Turris – *Report on Access to Capital in the Commercial Tidal Waters Commercial Fishing Industry*, May 2010

Lobster Council of Canada – *Collaboration and Investment*, March 2013

Marriott, H. – *Building an Integrated Plan for the Canadian Lobster Industry (Draft)*, October 2012



MRSB Consulting et al. – *PEI Lobster Industry: Strategic Importance, Economic relevance, and Uniqueness of PEI's Canner Product*, May 2013

Moseley Group, *Maine Lobster Industry Strategic Plan*, June 2009

Senate of Canada – *The Lobster Fishery: Staying the Course, Report of the Senate Standing Committee on Fisheries and Oceans*, May 2013

World Bank and FAO of the UN – *The Sunken Billions: The Economic Justification for Fisheries Reform*, 2009

C. Industry Engagement

Formal Meetings Held³⁴

July 4th

- Lobster Council of Canada (3)

July 8th

- Cape Bald Packers (1); Shediac Lobster Shop (2); Captain Dan's (1); Westmorland Fisheries (1); Pier 99 Products Ltd. (1)

July 9th

- Seafood 2000 Ltd. (2); BJ Marketing and Trading (1); Savage Harbour Fisheries (1); PEI Fishermen's Association (3); Southern Kings and Queens Fishermen's Association (4); Prince County Fishermen's Association (3); Eastern Kings Fishermen's Association (1); North Shore Fishermen's Association (2); Annandale Fisheries (2)

July 10th

- Alberton Fisheries Ltd. (3); PEI Seafood Processors Association/Acadian Fishermen's Co-op (1); Whitecap (1)

July 16th

- NS Fish Packers Association (2); Woods Harbour Lobster (1); Ocean Pride Fisheries (1); Simply Fresh Seafoods (1); James Mood Fisheries (1); Wedgeport Lobster (1); Riverside Lobster Company (1); LFA 34 Lobster Management (12); Maritime Fishermen's Union (1)

³⁴ Only the organizations with whom the panel met are included in the listing (no-shows and no-responses have not been listed). The number of meeting participants is bracketed.



July 17th

- Tangier Lobster Co. (1); RI Smith Lobster Co. Ltd. (1); Fishermen's Market International Inc. (1); Clearwater Seafoods (3)

July 18th

- LFA 27 Management Board (5); LFA 28/29/30 (3); Richmond Co. Inshore Fishermen's Association (2); Guysborough Co. Inshore Fishermen's Association (2); Eastern Shore Protective Fishermen's Association (3); Arisaig Fisheries (2012) Ltd./Lobster World (1); Aquashell Holdings (1); North of Smokey Fishermen's Association (2); Gulf NS Fishermen's Coalition (3); Gulf NS Bonafide Fishermen's Organization (2)

July 30th

- Fundy North Fishermen's Association (16); Grand Manan Fishermen's Association (2); Benson Lobster Co. Ltd. (2)

July 31st

- Raymond O'Neill & Son Fisheries (1); Pêcheries GEM (1); Union des pêcheurs des Maritimes (8)

August 1st

- Trico Seafoods Inc (1); Unic Marketing (1); Northumberland Fishermen's Association (1); Alma Fishermen's Association (2)

August 13th

- Native Council of Nova Scotia (2); Native Council of PEI (1); NB Aboriginal Peoples Council (3); Maritime Aboriginal Aquatic Resources Secretariat (3);
- Abegweit First Nation (1); Oromocto First Nation (2); Membertou First Nation (1); Tobique First Nation (3); Shubenacadie First Nation (1); Esgenoopetitj First Nation (2); Pictou Landing First Nation (4); Mi'gmaq Confederacy of PEI (1); Unama'ki Institute of Natural Resources (1); Aboriginal Policy Congress of First Nations Chiefs Secretariat (2); Maliseet Nation Conservation Council (2); North Shore Mi'gmaq District Council AAROM (1); Mi'kmaw Conservation Group (1)

August 14th

- Victoria Co-Operative Fisheries (1); Orion Seafoods (1)

August 21st

- By-The-Water Lobster/South Shore Seafoods (1); Tignish Fisheries Co-Op/Royal Star Foods (1); MRSB Consulting (1)



August 22nd

- Roger Simon (1); Aquatic Science and Health Services (1)

August 23rd

- Newfoundland and Labrador Department of Fisheries and Aquaculture (3)

August 26th

- Fish, Food and Allied Workers Union (2); Association québécoise de l'industrie de la pêche (1); Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (1)

August 28th

- East Coast Seafoods (1)

August 29th

- Maine Department of Marine Resources (2)

September 12th

- Maine Lobstermen's Association (1)

September 23rd

- Regroupement des pêcheurs professionnels du sud de la Gaspésie (1)

September 24th

- Department of Fisheries and Oceans: Gulf Region (5); Maritimes Region (4); Ottawa (4)

September 25th

- Financial Services Sector: Royal Bank (1); Toronto-Dominion (1); Bank of Montreal (1); Caisses-Populaires (1); Omista Credit Union (1); Export Development Corporation (1)

Submissions - Organizations and Companies

- 1) Alma Fishermen's Association
- 2) Annandale Fisheries
- 3) Clearwater Seafoods Limited Partnership
- 4) Fishermen's Premium Atlantic Lobster
- 5) Fundy North Fishermen's Association
- 6) Grand Manan Fishermen's Association Inc.
- 7) Gulf Nova Scotia Fishermen's Coalition
- 8) Gulf Nova Scotia Bonafide Fishermen's Organization
- 9) KMI Seafoods
- 10) LFA 27 Management Board



- 11) LFA 34 Lobster Management Board
- 12) Lobster Council of Canada
- 13) Maritime Fishermen's Union – Local 6 Cape Breton
- 14) Membertou First Nation
- 15) Mi'kmaq Confederacy of PEI
- 16) North of Smokey - Inverness South Fishermen's Association
- 17) NS Fish Packers Association
- 18) Paturel International/East Coast Seafoods
- 19) PEI Fishermen's Association
- 20) Richmond County Inshore Fishermen's Association
- 21) Savage Harbour Fisheries Services Inc
- 22) Tangier Lobster Company
- 23) Unic Marketing
- 24) Union des pêcheurs des Maritimes – Nouveau-Brunswick

Submissions – Individuals

- Allan Adams - Cape George, NS
- Cyril Dicks, LFA 27, NS
- Leith Jollimore, PEI
- Mildred Newell - Arcadia, NS
- Grant Rankin - Pictou, NS
- Beverly Young Robarts, Advocate Hbr., NS
- Bradley Small - Grand Manan, NB

D. Photographic Credits

“Lobster cars at Clarke’s Harbour” (no NSIS 10499); NS Archives, no date provided. Page 60

“Lobster factory at Dingwall” (no. NSIS 107CB); NS Archives, no date provided. Page 64

“Lobster promotion at Fisheries Trade Show;” Lobster Council of Canada. Page 88

“Rustico Fishers;” PEI Department of Tourism. Page 15

