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REPORT ON THE SNOW CRAB INDUSTRY IN THE ATLANTIC PROVINCES AND IN QUEBEC

Report of the Standing Committee on Fisheries and Oceans

**Rodney Weston, M.P.
Chair**

OCTOBER 2011

41st PARLIAMENT, 1st SESSION

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THE STANDING COMMITTEE ON FISHERIES AND OCEANS

has the honour to present its

FIRST REPORT

Pursuant to its mandate under Standing Order 108(2), the Committee has studied the Snow crab industry in Atlantic Canada and Quebec and has agreed to report the following:

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REPORT ON THE SNOW CRAB INDUSTRY IN THE ATLANTIC PROVINCES AND IN QUEBEC

Introduction

Snow crab is by far the most important species of crab in Eastern Canada and it is harvested by fishermen from Quebec and the Atlantic Provinces. Major fishing areas for snow crab include the eastern coast of Newfoundland and the Gulf of St. Lawrence. Snow crab is currently one of the most lucrative fisheries in Eastern Canada. In 2008, the landed value of snow crab for the entire Atlantic region was \$356 million, second only to lobster (\$600 million) and well ahead of shrimp (\$258 million).¹

On April 28, 2010, the House of Commons Standing Committee on Fisheries and Oceans (the Committee) agreed to undertake a study of the snow crab industry in Atlantic Canada and Quebec by calling to appear on May 12, 2010, the Minister of Fisheries and Oceans with the appropriate departmental officials, Fisheries and Oceans Canada (DFO) scientists and science advisors. The Committee also decided to hold hearings on the East Coast from May 25 to 28, 2010 in order to hear from representatives of communities, representatives of corporate, traditional and Aboriginal fleets, as well as representatives of the processing sector. Finally, the Committee agreed to report on its findings to the House. The Committee's study was triggered by concerns expressed about the impact of DFO's decision to cut snow crab harvest in the southern Gulf of St. Lawrence from 20,900 tonnes in 2009 to 7,700 tonnes in 2010, as well as the difficulties experienced by the sector in many snow crab fishing areas.

The Committee held hearings in Grande-Rivière (Québec), Deer Lake (Newfoundland and Labrador), Sydney (Nova Scotia), and Moncton (New Brunswick). The Committee also visited two snow crab processing facilities in Ste-Thérèse-de-Gaspé (Québec: E. Gagnon & Fils) and Louisbourg (Nova Scotia: A&L Seafood). Additional hearings were held in Ottawa with officials from DFO. Finally, the Committee reconvened in the fall of 2010 to consider additional evidence and present a report on the snow crab industry to the House of Commons.

Throughout its hearings, the Committee learned about issues in common to all regions and snow crab fishing areas, but also matters specific to each region.

Common issues include the management of the snow crab fishery, and more specifically, DFO's fisheries management decision-making process, the use of available scientific advice, and the timing and the manner of communicating these decisions. In fact, many of the comments we heard could apply to many other fisheries on all coasts of Canada. In all regions, we also heard concerns about harvesting capacity, the need

1 Fisheries and Oceans Canada, *2008 Value of Atlantic Coast Commercial Landings*, available at <http://www.dfo-mpo.gc.ca/stats/commercial/land-debarq/sea-maritimes/s2008av-eng.htm>, accessed October 21, 2010.

for some form of rationalization, and the current conditions for welcoming new and younger entrants into the fishery.

Other issues were specific to individual regions. In Newfoundland and Labrador, the Committee heard concerns about the price received by fishermen for their catch and how the price is set. A number of comments were made about the relationship between the harvesting and processing sectors, and the level of vertical integration in the fishery. Some witnesses pointed out that alternative models for the industry existed. In Cape Breton our hearings were mostly focused on resource sharing arrangements among traditional and Aboriginal fleets, and core company quota holders. We heard divergent views on ministerial decisions made with respect to these sharing arrangements. Sharing arrangements were also an important topic of discussion at hearings in Moncton.

Both in Moncton and in Grande-Rivière the focus of the hearings was the impact of DFO's decision to cut by 63% the amount of snow crab available for harvest in 2010. Witnesses from all groups offered compelling evidence of the hardship that this decision brought to their communities. Numerous suggestions were made to alleviate the impact of difficult fisheries management decisions such as this one.

The Committee is pleased to present its report in which it makes recommendations to the federal government, and particularly to DFO. These recommendations are based on what Committee members have heard during this study, as well as on their own analysis of the situation.

Background

Snow Crab Biology

Snow crab (*Chionoecetes opilio*) is a crustacean like lobster and shrimp. Snow crab typically lives in cold waters on sandy or muddy bottoms. While it generally prefers relatively deep water, it can also be found in shallow areas. In the Northwest Atlantic, snow crab can be found from Greenland to the Gulf of Maine. Elsewhere in the world, snow crab is found in the Bering Sea, the Arctic Ocean and the Sea of Japan.

Snow crab is sexually dimorphic: at maturity, there is an important difference in size between the males and the females. The male weighs up to 1.35 kilograms, with a carapace ranging from 4 to 16 centimetres wide, and a leg span of 90 centimetres. The female is smaller and weighs less than 0.5 kilograms. The female's carapace does not often grow beyond 9.5 centimetres, and its leg span is about 38 centimetres.²

After hatching of the eggs, snow crab goes through a planktonic larval stage in open waters. Immature crabs then sink to the bottom of the ocean for a benthic phase

2 Fisheries and Oceans Canada, *Underwater World: Snow Crab*, available at <http://www.dfo-mpo.gc.ca/Science/publications/uww-msm/articles/snowcrab-crabedesneiges-eng.html>, accessed October 21, 2010.

that will last between seven and fifteen years. Growth of snow crab happens through a process of annual moults during which the animal's shell is shed. The male's terminal moult (there are up to thirteen moults) occurs between four and eleven years of age. In the case of females, the terminal moult occurs between the ages of four and six years. Females generally become sexually mature at that time. Following the moult, the snow crab's new shell requires time to harden, usually eight to ten months. These crabs are also known as soft-shell or white crabs.

Natural mortality of snow crab includes predation. Known predators are halibut, skates, cod, seal and American plaice. Smaller crabs and newly moulted soft-shell crabs are particularly vulnerable to predation. Some believed that the decline of populations of groundfish has had a positive effect on the abundance of snow crab. However, the recent years' increase in the resident population of grey seals in the Gulf of St. Lawrence is a cause of concern for the snow crab stock status, particularly at times when the stock is at the bottom of the abundance cycle.

The Committee recommends:

Recommendation 1

That the Department of Fisheries and Oceans immediately put into place a plan, based on scientific evidence, to mitigate the impact of the rapidly growing population of grey seals on the snow crab resource in the Gulf of St. Lawrence, including the targeted removal of grey seals.

Description of the fishery

The snow crab fishery targets only the adult hard-shelled males with a carapace width of 9.5 centimetres or more. Harvested males have undergone their terminal moult. The landing of females is strictly prohibited. The abundance of the snow crab's harvestable biomass is characterized by its cyclical nature with periods of high and low abundance due to such factors as environmental change, stock structure, and changes in predator-prey numbers. Since 1988, two periods of abundance followed by declines have been observed.

The snow crab fishery uses large traps (conical, pyramidal or rectangular) that are baited with herring, mackerel or squid. Management of the fisheries is based on quotas and effort controls such as the number of licences, restrictions in the number of traps with prescribed size and mesh opening, and seasons. In some areas, there are also prescribed trip limits. The fishery has 100% dock-side monitoring and some level of at-sea observer coverage. The size of the vessels in the snow crab fishery varies depending on whether the fishery is inshore, mid-shore or offshore. Upon harvesting, the snow crab is kept on ice in the vessel's holding tank. Some vessels are equipped with saltwater circulation systems (RSW or refrigerated sea water) that allow longer trips at sea while maintaining the quality of the crabs until processing.

The bulk of the Atlantic snow crab harvest is landed in Newfoundland and Labrador. The other important area is the southern Gulf of St. Lawrence. The fishery on the Scotian Shelf is third in terms of quantity landed. According to DFO, there were over

750 crab licences in the Maritimes and Quebec in 2009, compared to approximately 500 in 1992. In Newfoundland and Labrador, the level rose from approximately 750 in 1992 to a current level of over 3,400.³ On the Scotian Shelf of Nova Scotia, there were a total of 202 crab licences in 2008. Statistics on landings and value of landings for 2003 to 2009 are presented in Tables 1 and 2 below.

**Table 1—Snow Crab Fishery in Atlantic Canada and Quebec, 2003-2009
Landings per DFO Region and per Year**

DFO Region	2003	2004	2005	2006	2007	2008	2009
	(metric tonnes)						
Maritimes*	10,779	9,924	8,149	5,343	5,396	8,869	11,219
Gulf	15,158	22,485	27,023	21,531	19,932	18,527	16,871
Quebec	12,606	15,289	16,219	15,270	14,736	13,463	15,018
Newfoundland and Labrador	58,355	55,656	43,957	47,238	50,208	52,748	53,446
Total	96,898	103,354	95,348	89,382	90,272	93,607	96,554

* Formerly Scotia-Fundy

Source: DFO Statistics (Commercial Fisheries, Seafisheries, Landings; and Year-End Quota Report for 2009).

**Table 2—Snow Crab Fishery in Atlantic Canada and Quebec, 2003-2009
Value of Landings per DFO Region and per Year**

DFO Region	2003	2004	2005	2006	2007	2008	2009
	(thousand dollars)						
Maritimes*	71,732	65,633	34,642	15,232	24,436	40,622	n/a
Gulf	99,071	148,668	120,743	59,898	100,927	85,596	n/a
Quebec	79,387	98,134	61,960	38,936	62,966	50,447	n/a
Newfoundland and Labrador	263,583	300,577	140,252	101,000	177,456	179,513	n/a
Total	513,773	613,012	357,597	215,066	365,785	356,178	n/a

* Formerly Scotia-Fundy

Source: DFO Statistics (Commercial Fisheries, Seafisheries, Landings).

The fishing seasons in the various crab fishing areas run from spring to fall (see Table 3). In many areas, the opening and the closing of the season are planned in part to not interfere with the moulting period of juveniles, as well as with the mating season. Matching the fishing season with critical periods of the snow crab life cycle helps to protect recruitment and enhance sustainability. Late starting snow crab seasons can result in a higher risk of catching soft shell crab, one of the most serious conservation

3 David Bevan, *Brief*, June 7, 2010.

issues in the fishery.⁴ In practice, the fishing season can be quite short. For example in the southern Gulf of St. Lawrence, 80% of the total allowable catch (TAC) for area 12 had been harvested in the first six weeks in 2009 and in the first four weeks in 2010. For area 19, it took three weeks to harvest 80% of the TAC in 2009, and only one week in 2010.

Table 3—Snow Crab Seasons

Region	Area	Opening	Closing
Newfoundland and Labrador	2J (North)	June 15	August 30
Newfoundland and Labrador	2J (South)	May 1	July 15
Newfoundland and Labrador	3K (3A)	April 1	July 7
Newfoundland and Labrador	3K (3B, 3C, 3BC)	April 1	June 30
Newfoundland and Labrador	3K (3D)	April 1	June 15
Newfoundland and Labrador	3K (4)	April 1	June 10
Newfoundland and Labrador	3LNO	April 1	July 31
Newfoundland and Labrador	3Ps	April 1	May 31
Newfoundland and Labrador	3Ps (10A)	April 1	June 30
Newfoundland and Labrador	4R3Pn	April 1	June 30
Southern Gulf of St. Lawrence	12, 18, 25, and 26	April 16	July 18
Quebec (North Shore)	14	April 18	July 24
Quebec (North Shore)	15	April 5	July 12
Quebec (North Shore)	16 (group A)	April 5	July 10
Quebec (North Shore)	16 (group B)	April 12	July 10
Quebec (St. Lawrence Estuary)	17	March 30	June 21
South-East Nova Scotia	23 and 24	April 7	September 30

Source: DFO, Fisheries Management Decisions.

Development of the snow crab fishery

The snow crab fishery in eastern Canada began in 1960 with incidental by-catches by groundfish druggers near Gaspé, Quebec.⁵ Its development was slow until the 1980s, when it began expanding rapidly to become one of the largest fisheries in Canada in terms of landings and landed value.

Throughout the Atlantic region, landings started to drop in the mid to late 1980s, causing widespread concern. As a result, fishermen and DFO started to take interest in resource conservation, and focus effort on snow crab research, management, and

4 Fisheries Resource Conservation Council, *A Strategic Conservation Framework for Atlantic Snow Crab*, 2005, available at <http://www.frcc.ca/2005/snowcrab.pdf>, accessed October 22, 2010.

5 Fisheries and Oceans Canada, *Assessment of Nova Scotia (4VWX) Snow Crab*, DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2009/053, 2009, available at http://www.dfo-mpo.gc.ca/csas-sccs/publications/saras/2009/2009_053-eng.htm, accessed October 22, 2010.

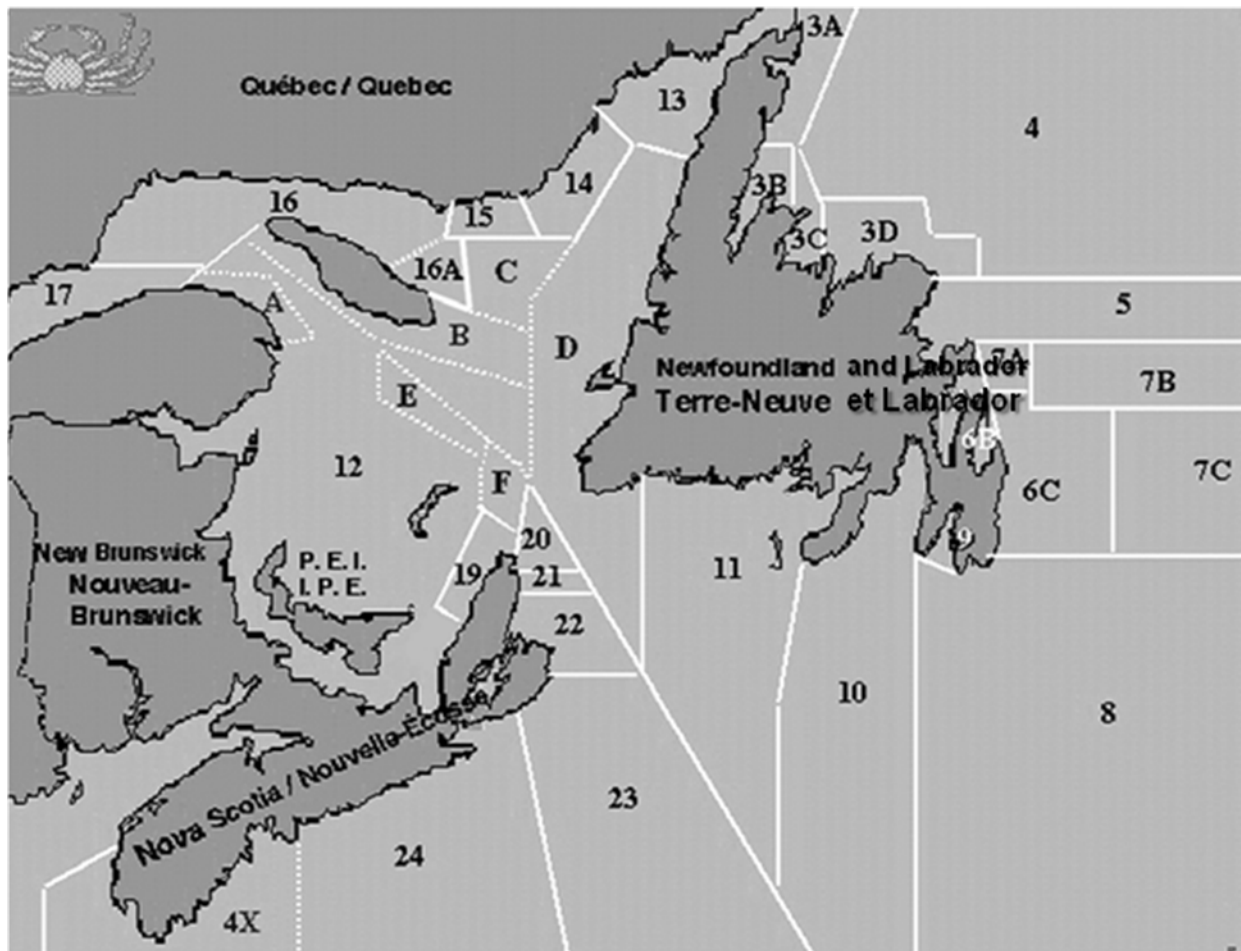
enforcement in the fishery. Individual boat quotas were introduced, and co-management agreements were concluded between DFO and some fleets. According to the Fisheries Resource Conservation Council: “These initiatives improved the management of the fishery and provided the opportunity for harvesters to be directly involved in conserving the resource.”⁶

Until the mid-nineties, the fishery in the Gulf of St. Lawrence was exploited by 130 mid-shore fish harvesters from New Brunswick, Québec and Nova Scotia. These fishermen are often referred to as the traditional fleet. Following the imposition of groundfish moratoria in the early 1990s, and in part due to pressure from inshore fishermen to share more of the resource, temporary crab allocations were made to non-traditional crab harvesters. Allocations were also provided to the First Nations in response to the Marshall Supreme Court decision. One rationale for DFO’s decision to provide a portion of the TAC to groundfish-dependant fishermen was to reduce effort in the lobster and groundfish fisheries. The fishing organizations involved in administering this new access proposed to use a rotation of access among fishermen. In 2003, the new access to the non-traditional crabbers was divided according to traditional shares. Today’s current sharing arrangements have been stabilized (by DFO), and roughly 70% of the allowable catch is allocated to the traditional fleet, and 15% to each of the First Nations and for new access. The allocation of the new access TAC is roughly the same as in 2003, with the exception of the NB fishermen’s share which has decreased in favour of the PEI fishermen.

Most of the southern Gulf coincides with Crab Fishing Area (CFA) 12. The area encompasses most of the southern Gulf of St. Lawrence, taking in an area bounded by the Gaspé peninsula to the northwest, New Brunswick to the southwest and Cape Breton to the southeast. The area described also includes CFA 19 along the north-western coast of Cape Breton. Exploratory areas 12E and 12F in the northeast of Area 12 are managed separately. CFAs 18, 25 and 26 became part of CFA 12 to form a single management zone. It should be noted, however, that the *Atlantic Fishery Regulations* (1985) made under the *Fisheries Act* have not been amended to reflect this change. Figure 1 shows a map of the crab fishing areas in the southern Gulf of St. Lawrence.

6 Fisheries Resource Conservation Council, *A Strategic Conservation Framework for Atlantic Snow Crab*, 2005, available at <http://www.frcc.ca/2005/snowcrab.pdf>, accessed October 22, 2010.

Figure 1—Map of the crab fishing areas in the Atlantic provinces and in Québec



Source: Fisheries Resource Conservation Council, *A Strategic Conservation Framework for Atlantic Snow Crab*, 2005.

In Newfoundland and Labrador, the fishery began in 1968 in Trinity Bay, initially as a gillnet by-catch. In the beginning, it was limited to Northwest Atlantic Fisheries Organisation (NAFO) Divisions 3KL, where the resource declined through the mid-eighties. Around the same period, new fisheries opened up in NAFO 2J, 3Ps, 4R and offshore 3K. Much like in the Gulf, there was an expansion in the fishery and access was provided to fishermen facing declining incomes in the groundfish fishery in the late 1980s.⁷ Today, there are several fleet sectors, and the majority of the snow crab licences are in the inshore. Management of the snow crab fishery in the region uses crab fishing areas (see Figure 1), but for reporting purposes, the fishery currently uses NAFO statistical areas 2J, 3K, 3Ps, 3L, 4R3Pn, and 3LNO.

⁷ Gardner Pinfold Consulting Economists Limited, *Overview of the Atlantic Snow Crab Industry*, submitted to Fisheries and Oceans Canada and the Atlantic Council of Fisheries and Aquaculture Ministers, June 2006, p. 71.

In Nova Scotia, the snow crab fishery has been in existence since the early 1970s. The stock is exploited over the whole extent of the Scotian Shelf (the area off the west coast of Cape Breton Island is included in the southern Gulf of St. Lawrence). For the Maritimes, the management areas are the northeast area of Nova Scotia (N-ENS) which corresponds to CFA 20-22, the southeast area of Nova Scotia (S-ENS) which encompasses to CFA 23 and 24, and NAFO statistical area 4X (see Figure 1). No fisheries management decisions have been made, nor have any landings been reported for the latter area in recent years.⁸

Assessment of the snow crab biomass

Resource status is evaluated based on trends in fishery catch per unit of effort (CPUE), exploitable biomass indices, recruitment prospects, and mortality indices. According to DFO, the annual snow crab harvest is managed on the basis of total allowable catches, which are established each spring for each of the many snow crab fishing areas. In the southern Gulf of St. Lawrence and in eastern Nova Scotia, biomass levels are estimated annually from specifically designed trawl surveys after the closing of the fishing season. In other regions, this method is not possible because of the physical characteristics of the ocean bottom. In Newfoundland and Labrador, post-season trap surveys involving harvesters are conducted. In addition, data on the fishery is generated from catch rates which are obtained from the harvesters' log records.⁹

Using all these sources of data, DFO scientists prepare annual stock assessment reports in which they estimate key indicators of the health of the commercial crab population including: fishing effort (usually measured as the number of trap hauls in a defined period), catch per unit of effort (kg caught trap-haul or CPUE), stock abundance (total exploitable biomass), and recruitment trends (estimates of the number of crabs approaching or reaching minimum legal size and therefore eligible to be fished).¹⁰ Various catch options are also analyzed and discussed.

Pricing and marketing of snow crab

The snow crab industry relies on two markets: the United States and Japan. According to DFO, the Canadian fishery provides about half of the world supply of snow crab, most (70%) being exported to the United States.¹¹ Over the years, frozen leg

8 Fisheries and Oceans Canada, *Assessment of Newfoundland and Labrador Snow Crab*, DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2009/045, 2009, available at http://www.dfo-mpo.gc.ca/csas-sccs/publications/sar-as/2009/2009_045-eng.htm, accessed October 22, 2010. Fisheries and Oceans Canada, *Assessment of Nova Scotia (4VWX) Snow Crab*, DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2009/053, 2009, available at http://www.dfo-mpo.gc.ca/csas-sccs/publications/sar-as/2009/2009_053-eng.htm, accessed October 22, 2010. Fisheries and Oceans Canada, *Assessment of snow crab in the southern Gulf of St. Lawrence (Areas 12, 19, 12E and 12F)*, DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2010/015 available at http://www.dfo-mpo.gc.ca/csas-sccs/publications/sar-as/2010/2010_015-eng.htm, accessed October 22, 2010.

9 David Bevan, *Brief*, June 7, 2010.

10 Gardner Pinfold Consulting Economists Limited (2006), p. 5.

11 David Bevan, *Brief*, June 7, 2010.

sections have virtually replaced frozen shelled and cooked meat as the snow crab product processed in Atlantic Canada.

The prices received by harvesters and processors are dictated by the major markets outside Canada, and are therefore contingent on the economic conditions in these countries, as well as the currency exchange rates.

There is no single price for crab. Size, quality and colour are important factors in determining snow crab prices. Larger leg sections (eight to ten ounces) will get 40 to 50 cents more per pound than five to eight ounce sections. Smaller sections (four ounce) are usually heavily discounted.¹² Upon landing, a boat load of snow crab may contain a mixture of all different sizes.

In 2009, harvesters received between \$1.30 and \$1.75 per pound for their product upon landing.

In the Maritimes and in Quebec, harvesters negotiate directly with buyers or processors. The situation is different in Newfoundland and Labrador, where a minimum shore price is established through a formal process. Most years, parties failed to agree on a price, and the matter was referred to a Special Standing Fish Price Setting Panel.¹³ Until a few years ago, a formula was used to adjust prices throughout the season based on several factors, including currency exchange rates and market prices in the U.S. and Japan.¹⁴

The Committee learned that the crab harvested in different regions of the East Coast actually go to different markets. The crab from the Gulf is destined to high-end Japanese companies. The majority of Newfoundland and Labrador's crab is bought by the Japanese to be reprocessed in China. Consequently, there are very different prices for those two products, the highest-value product being the gas-frozen sections in luxury packaging.¹⁵ The colour of the product also has an impact. According to Mr. Phil Barnes, the Japanese customers "eat with their eyes; [...] it's colour, red, red, red, and the gulf crab is far superior in colour to our crab here in Newfoundland."¹⁶

The Committee notes that matters related to the regulations of the price and the conditions of sale of fish are under provincial jurisdiction, and therefore the federal government has a limited role to play.

12 John Sackton, *Committee Evidence*, May 26, 2010.

13 Gardner Pinfold Consulting Economists Limited (2006).

14 *Ibid.*, and John Sackton, *Committee Evidence*, May 26, 2010.

15 John Sackton, *Committee Evidence*, May 26, 2010, 1110.

16 Phil Barnes, *Committee Evidence*, May 26, 2010, 1120.

The 2010 management decision for the southern Gulf of St. Lawrence

Shortly before the beginning of the 2010 fishing season in the southern Gulf of St. Lawrence, DFO announced a TAC of 7,700 metric tonnes of snow crab for the areas 12, 18, 25 and 26.¹⁷ This constituted a reduction of 63% over the previous year's TAC. While a reduction in the TAC for 2010 was expected, its magnitude surprised most witnesses heard by the Committee. In addition, the timing of the decision and its announcement prevented most involved in the fishery from adapting their plans for the upcoming fishing season.

Area 19 fishermen off the north-western coast of Cape Breton saw a reduction of 44% of their TAC in 2010, after having already accepted a 19% drop the previous year.

Applying the precautionary approach to the management of the snow crab fishery

For the first time in 2010, the management of the snow crab fishery for the southern Gulf of St. Lawrence incorporated a precautionary approach. The precautionary approach is defined in a DFO policy document as “being cautious when scientific information is uncertain, unreliable or inadequate and not using the absence of adequate scientific information as a reason to postpone or fail to take action to avoid serious harm to the resource.”¹⁸ It is generally accepted that the precautionary approach is less stringent in its application than the precautionary principle. While the department had indicated its wish to apply a precautionary approach to the country's fisheries management for a few years, a relevant decision-making framework was only completed in April 2009. The precautionary approach was applied to snow crab fishery management plans in accordance with this framework, and it would appear that the fishery is one of the first to benefit from the incorporation of this approach.

The decision-making framework incorporating the precautionary approach provides guidelines on how to define the reference points to dictate whether the snow crab population is at a healthy level, at a level where caution is recommended, or in a critical situation. These reference points are defined in a separate DFO report which determined that the snow crab population in the southern Gulf of St. Lawrence is considered healthy when the commercial biomass is above 34,000 tonnes, which

17 Even though CFAs 18, 25 and 26 became part of CFA 12 to form a single management zone, DFO still refers to the four areas when releasing information about their management.

18 Fisheries and Oceans Canada, *A fishery decision-making framework incorporating the Precautionary Approach*, available at <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/precaution-eng.htm>, accessed November 5, 2010.

corresponds to 40% of the maximum biomass over the 1997 to 2008 period. The stock is considered to be in a cautious zone below that threshold.¹⁹

The decision-making framework dictates that an exploitation rate of no more than 40% be used when the biomass is at a healthy level.²⁰ In the cautious zone, the exploitation rate would be reduced proportionally to the severity of the situation. In 2010, the commercial biomass in CFA 12 was 22,100 tonnes, placing the stock in the cautious zone. Consequently, the TAC was set at 7,700 tonnes, corresponding to an exploitation rate of 35% in accordance with the precautionary approach (see Figure 3). The Committee notes that in 2002 and 2009 the exploitation rates were 54% and 47% respectively (see Figure 3). If an exploitation rate of 40% (in accordance with the precautionary approach) had been used for these two years instead, the TAC and the landings would thus have been much lower than they actually were.

DFO's David Bevan told the Committee that clearly the "estimated biomass for the 2010 fishery has decreased compared to 2009" and the stock was now in the cautious zone, and consequently the department "had to take a cautious approach to avoid going into the critical zone."²¹ These more stringent management measures could avoid extending the current period of low biomass. In addition, the adoption of the precautionary approach for the snow crab fishery would fulfill some of the eco-certification guidelines and confer a competitive market advantage.

Setting the exploitation rate at 40% of the commercial biomass appears to be somewhat arbitrary. The rate of 40% corresponds to the average exploitation rate over the 1998-2009 fishing period.²² It ignores the much lower exploitation rates of years prior. Committee members fail to understand how this would be compatible with the conservation of the resource and the application of the precautionary approach.

Scientific stock assessment and the management of the fishery

Controversies around the calculation of biomass are a critical issue in the assessment and management of the fishery. In the most recent years, the scientific advice pertaining to snow crab in the southern Gulf of St. Lawrence has reflected the fact that the resource was heading for a low in its abundance cycle. DFO's Stock Assessment Reports clearly indicated a negative trend in the commercial biomass of

19 Fisheries and Oceans Canada, *Reference points consistent with the precautionary approach for snow crab in the southern Gulf of St. Lawrence*, DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2010/014, 2010, available at http://www.dfo-mpo.gc.ca/csas-sccs/publications/sar-as/2010/2010_014-eng.htm, accessed October 22, 2010. Fisheries and Oceans Canada, *Assessment of snow crab in the southern Gulf of St. Lawrence (Areas 12, 19, 12E and 12F)*, DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2010/015 available at http://www.dfo-mpo.gc.ca/csas-sccs/publications/sar-as/2010/2010_015-eng.htm, accessed October 22, 2010.

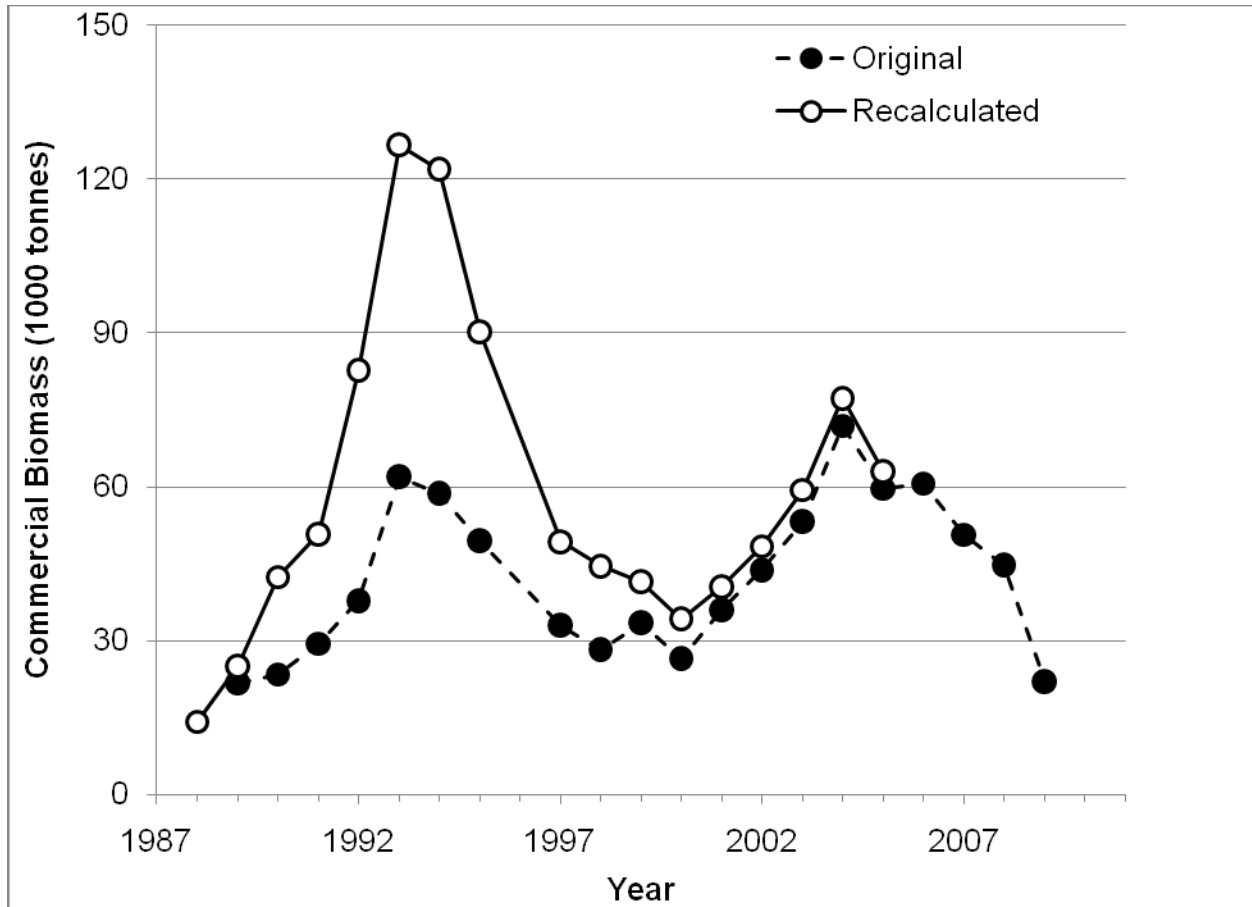
20 Ibid.

21 David Bevan, *Committee Evidence*, June 7, 2010.

22 Fisheries and Oceans Canada, *Reference points consistent with the precautionary approach for snow crab in the southern Gulf of St. Lawrence*, DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2010/014, 2010, available at http://www.dfo-mpo.gc.ca/csas-sccs/publications/sar-as/2010/2010_014-eng.htm, accessed October 22, 2010. p. 6.

snow crab as shown in Figure 2. In 2004, at the highest point of the current cycle, the commercial biomass in area 12 was estimated at 77,300 tonnes. In 2007 and 2008, the biomass had decreased by 35% and 42% respectively.²³

Figure 2—Yearly trend in the exploitable commercial biomass of snow crab in the southern Gulf of St. Lawrence



The previous abundance cycle for the snow crab in the southern Gulf of St. Lawrence peaked at 126,700 tonnes in 1993 on a recalculated basis. During that abundance cycle, the exploitation rates were set between 15% and 31% of the commercial biomass.²⁴ The Committee notes that since then, the exploitation rates have increased, reaching peaks first in 2002 and then in 2009 (see Figure 3). Except for

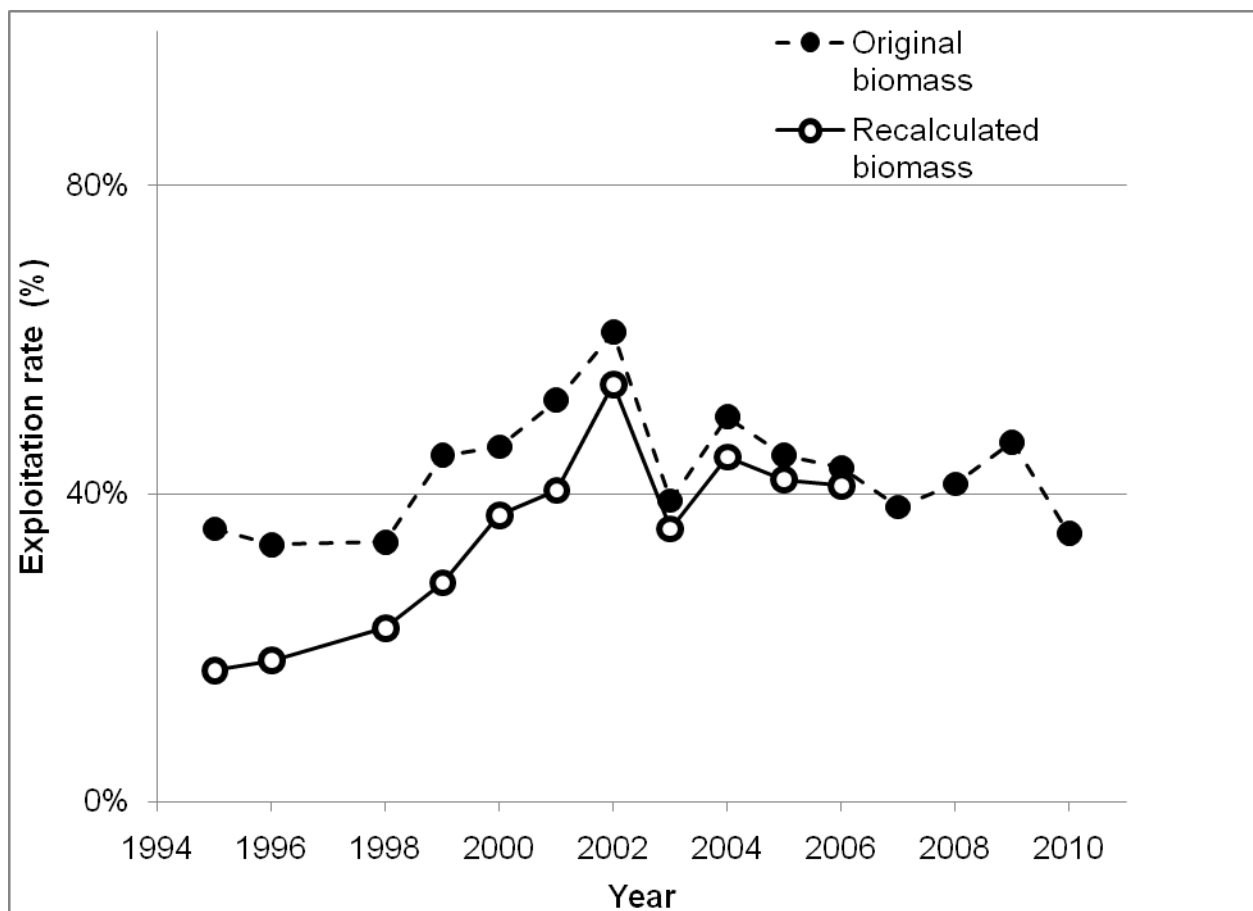
23 Fisheries and Oceans Canada, *Assessment of snow crab in the southern Gulf of St. Lawrence (Areas 12, 19, 12E and 12F)*, DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2010/015 available at http://www.dfo-mpo.gc.ca/csas-sccs/publications/sar-as/2010/2010_015-eng.htm, accessed October 22, 2010.

24 For the period between 1990 and 1999. Fisheries and Oceans Canada, *Assessment of snow crab in the southern Gulf of St. Lawrence (Areas 12, 19, 12E and 12F)*, DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2010/015 available at http://www.dfo-mpo.gc.ca/csas-sccs/publications/sar-as/2010/2010_015-eng.htm, accessed October 22, 2010, p. 11.

these two years, the TAC has closely matched the trend in the commercial biomass, including in 2010.

It is important to note that the recalculated numbers presented by DFO for the estimated exploitable commercial biomass of snow crab in the southern Gulf of St. Lawrence for 1989 to 2005 are different than those published at the time of the surveys (see the original versus the recalculated biomasses in Figure 2). On average, over the period for which the adjustment has been done, the commercial biomass was about 50% higher than what was originally estimated. More importantly, at the peak of the abundance cycle in 1993, the recalculated biomass was a little more than twice what was estimated then. The consequences of the recalculation and the underestimation of the biomass at the time are important. For example, the exploitation rate which was originally 35% in 1995 has now been revised to be 17% (see Figure 3 for a comparison of the exploitation rates using the original and the recalculated biomasses). Yet, the biomass still dropped to an estimated 34,000 tonnes in 2000.

Figure 3—Exploitation rates of snow crab in the southern Gulf of St. Lawrence using the original and the recalculated estimates of the commercial biomass



Several witnesses talked about the recalculation of DFO's biomass data, noting that the department had changed its methodology for the fall survey in the southern Gulf

of St. Lawrence. The new numbers were characterized as not believable.²⁵ However, Mr. Marc Lanteigne from DFO explained why a recalculation was needed:

Over the years we've refined the tool to assess the biomass. At the beginning of this survey, in 1988, there were about 150 stations throughout the southern Gulf. Science was focusing the survey on the fishing grounds at that time, and the fishing areas were smaller than the entire southern gulf. We continued that methodology until roughly the late 1990s. At one point, we started to increase the number of stations as the fishery was expanding into the margin areas of the fishing ground. In 2010 there are 350 stations, so we are covering a lot more area.

The point the stakeholders are making is probably that in 2005 we had what we called a scientific framework, through which we reviewed the recipe that we used to do the stock assessment. At that time, the scientific experts around the table came to the conclusion that starting in 2005 we were covering all the areas for snow crab in the southern gulf. So we do sample the 35,000 square kilometres of the areas in which you can find snow crab. As a matter of fact, since 1999 we have had 35,000 square kilometres of coverage in the southern gulf, but prior to that the coverage was about 25,000 square kilometres. This is the difference.

At that time we decided to do some back-calculations. If we wanted to make a comparable biomass estimate from the present to the past, we had to do a back-calculation from 1988 until 1998 for a comparable biomass. It's probably this element the stakeholders are talking about when they say that science has changed its methodology. The methodology has not exactly changed, but there has been an adjustment. When this happened, somebody estimated the number of crabs in areas that we did not survey. It was the best estimate to be comparable with the present. So it did not change the quality of the survey from 1999 until now.²⁶

Following its hearings, the Committee had concerns over the validity and accuracy of DFO's recalculation of the estimated commercial biomass in the southern Gulf of St. Lawrence. The Committee therefore requested additional information from the department. In response, DFO informed the Committee that while there was not an external peer-review performed specifically on the recalculation methodology, they conducted a Science Regional Advisory Process (RAP) meeting²⁷ where external scientists and fishing industry participants were invited. From the information provided by the department, it would appear that during the 2007 RAP meeting, a scientific committee expressed concerns relating to the modifications made in the methodology used for estimating the abundance of snow crab over the years. The modifications identified as sources of concern included changes in survey vessels, adding and repositioning sampling stations and increasing the survey surface.²⁸

25 Joel Gionet, *Committee Evidence*, May 28, 2010.

26 Marc Lanteigne, *Committee Evidence*, June 7, 2010, 1545.

27 RAP meetings are part of DFO's normal decision-making and stakeholder consultation activities with respect to the management of the snow crab fishery.

28 Fisheries and Oceans Canada, *Assessment of Snow Crab in the Southern Gulf of St. Lawrence (Areas 12, E and F)*, DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2007/021, 2007, available at http://www.dfo-mpo.gc.ca/csas/Csas/status/2007/SAR-AS2007_021_E.pdf, accessed January 6, 2011, p. 21.

Following the RAP meeting, DFO undertook a review of the effects of these modifications on the snow crab abundance time series.²⁹ The results of the review were presented at the 2008 RAP meeting.³⁰ The conclusions on issues that were reviewed were accepted by the participants at the meeting. The issue of the changes in survey vessels could, however, not be addressed during the investigation without a comparative survey. It was therefore assumed that all survey vessels used over the years had identical catch rates. DFO also informed the Committee that an assessment framework workshop was conducted for snow crab in 2006 to address issues raised in regards to the technical details of survey design and post-survey treatment of the data.³¹

Assuming that the recalculation of the exploitable commercial biomass between 1989 and 2005 is valid and correct, the Committee notes a worrisome trend in the snow crab biomass. Despite exploitation rates between 15% and 31% of the commercial biomass, which are well below the current average of 40%, the peak of the biomass in the current cycle has decreased by almost 50,000 tonnes or 39% from the peak of the previous cycle. Harvesting snow crab at an exploitation rate of 40% may therefore not be a sustainable approach to maintain a healthy stock for future generations. It would be reasonable to argue that the commercial snow crab biomass in the southern Gulf had been overfished during the last abundance cycle between 2003 and 2009 compared to the previous cycle between 1995 and 2002. The Committee notes with surprise that not many, if any, of the witnesses commented on this during the hearings.

Not everyone in the industry believed that the stock assessment data used to justify fisheries management decisions is correct. Mr. Joel Gionet, president of the Association des crabiers acadiens and a crab fisherman since 1983, expressed doubts about DFO's assessment of the snow crab stock in the Gulf, noting that estimating the exploitable biomass has to be complemented by an estimation of "who's entering the fishery and what the new recruitment will be for the following year." According to Mr. Gionet, DFO estimated the new recruitment in 2009 at "43 or 47 million specimens." In 2010, the scientists modified their estimation, "pre-recruits from [2009] no longer represent[ing] 47 million specimens, but only 31 million."³² Mr. Gionet noted that this is

29 Moriyasu, M., Wade, E., Hébert, M. and Biron, M., *Review of the survey and analytical protocols used for estimating abundance indices of southern Gulf of St. Lawrence snow crab from 1988 to 2006*, DFO Can. Sci. Advis. Sec. Res. Doc. 2008/069, 2008, available at http://www.dfo-mpo.gc.ca/csas-sccs/publications/resdocs-docrech/2008/2008_069-eng.htm, accessed January 6, 2011, p. 39.

30 Fisheries and Oceans Canada, *Assessment of Snow Crab in the Southern Gulf of St. Lawrence (Areas 12, E and F)*, DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2008/006, 2008, available at http://www.dfo-mpo.gc.ca/csas-sccs/publications/sar-as/2008/2008_006-eng.htm, accessed January 6, 2011, p. 18.

31 Fisheries and Oceans Canada, *Proceedings of the assessment framework workshop on the southern Gulf of St. Lawrence snow crab (Area 12, E, F and 19)*, Gulf Advisory Process, October 11-14, 2005. Can. Sci. Advis. Sec. Proceed. Ser. 2006/042, 2006, available at http://www.dfo-mpo.gc.ca/csas/Csas/Proceedings/2006/PRO2006_042_E.pdf, accessed January 6, 2011, p. iv + 55.

32 Joel Gionet, *Committee Evidence*, May 28, 2010, 1125.

typical of “what’s happening on the scientists’ side. The figures change every month or every six months.”³³

Mr. Robert Haché of the Association des crabiers acadiens pointed out that the group he represents does not have “the same fears about the crab stocks in the southern gulf” as the departmental scientists. He said:

We’ve been monitoring this fishery for many years. Until the mid-1990s, the crab harvests were consistent with the analysis done by the department’s trawl survey. Then the scientists came to see us to say that the situation regarding stocks looked a certain way for the following year. That was consistent with what our fishermen themselves had forecast.

I don’t know what’s happened in the past few years, [...] but there is a complete contradiction between the stock assessment by the scientists and what we’re seeing in the fishing industry.³⁴

[...]

The best example happened last year. The snow crab stock behaves weirdly from time to time. That happened in 2001 and again last year. The crab stock was scattered. It was scattered in small groups across the southern gulf. That made it a very interesting stock, but extremely hard to fish [...] because the southern gulf is big.

[...]

Last year, the fishermen noted that the harvest was tough. The fishermen in Quebec, in Gaspésie, and the fishermen back home had trouble harvesting crab.

[...]

We have a scientific advisor [who] told us that we could have very good commercial biomass, but very bad fishable biomass. That’s apparently because of the way the crab is distributed in the water, as a result of cold currents and so on.

[...]

Last year, when [the DFO scientists] did the survey, they did it with their trawl in the same scattered biomass. So they found less crab, just as the crab fisherman had found less.³⁵

In 2009, DFO scientists wrote that “the rate of decline of the commercial biomass after 2008 [would] depend on the exploitation rate, higher exploitation rates [resulting] in more rapid declines.”³⁶ They added that there was a 46% probability that a catch of

33 Ibid.

34 Robert Haché, *Committee Evidence*, May 28, 2010, 0945.

35 Ibid, 0950.

36 Fisheries and Oceans Canada, *Assessment of snow crab in the southern Gulf of St. Lawrence (Areas 12, 19, 12E and 12F)*, DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2009/006, 2009, available at http://www.dfo-mpo.gc.ca/csas-sccs/publications/sar-as/2009/2009_006-eng.htm, accessed October 22, 2010, p. 16.

20,000 tonnes in 2009 could result in a decline in the biomass of greater than 25%.³⁷ Lower catches were expected to result in a less significant decline and with lower probability. Yet, the TAC for the 2009 fishing season remained unchanged from the previous year at 20,900 tonnes, an exploitation rate of 47%. In comparison, the exploitation rate in 2005 when the commercial biomass was at its highest was 41%. Not so surprisingly, after the 2009 fishing season, the biomass was estimated at 22,100 tonnes, the lowest level since 1988 and a decline of 51% from the biomass estimated the year before.

The advice from DFO scientists for the 2009 fishing season was unambiguous. While it was understood that the snow crab stock in the southern Gulf of St. Lawrence was on a predicted downward trend, maintaining the TAC at or above 20,000 tonnes could steepen the decline, and in fact, it was what was observed in the fall survey of 2009. Based in part on a different interpretation of the scientific data, some in the industry had, however, argued that the stock could withstand another year with harvesting at 20,900 tonnes.³⁸ At the time, the Minister cautioned that the choice of this option may result in the need for deeper cuts in the TAC for subsequent years.³⁹

The Committee is not aware of all of the advice that the Minister received before she made the decision to authorize a TAC of 20,900 tonnes in 2009. The Committee notes that, according to Mr. Bevan, the Minister's decision was made in the absence of a formal framework to guide the application of the precautionary approach to the fishery,⁴⁰ even though the elementary principle of precaution has always existed. In retrospect, the 2009 decision, which according to some witnesses was made against the principle of conservation as it did not reflect the advice of DFO scientists, forced the Minister to rectify the situation with a major cut in the TAC in 2010.

The Committee recommends:

Recommendation 2

That all of Fisheries and Oceans Canada's future fisheries management decisions be based on the precautionary approach when a formal decision-making framework exists, and that in the absence of such a framework, decisions be based on the elementary principle of precaution.

37 Ibid., p. 17.

38 Joel Gionet, *Committee Evidence*, May 28, 2010, 19:11:25. Traditional crab fishermen in the Southern Gulf of St. Lawrence also argued that in order to have access to 13,000 tonnes which represented their economic viability threshold, an overall TAC of 20,900 tonnes was needed.

39 Fisheries and Oceans Canada, 2009 Snow Crab Management for Crab Fishing Areas 12, 18, 25 and 26 in the Southern Gulf of the St. Lawrence, News release, Ottawa, April 30, 2009, <http://www.dfo-mpo.gc.ca/media/npress-communique/2009/hq-ac09-eng.htm>, accessed February 9, 2011.

40 David Bevan, *Committee Evidence*, November 25, 2010.

Given the fisheries management decisions in 2009 and 2010, and concerns about the scientific assessment of the snow crab stock in the Gulf of St. Lawrence, several witnesses expressed the need for some form of inquiry into DFO's management practices. For example, associations representing the traditional crab fishermen in CFA 12 informed the Committee that they would be submitting a request to the Office of the Auditor General of Canada (OAG) for an investigation into the snow crab stock assessment and fishery management in the southern Gulf of St. Lawrence. The group asked that the Committee support this initiative.⁴¹

According to Mr. Daniel Desbois who represents traditional crab fishermen in CFA 12, DFO's management practices "raise a great many questions as to whether the resource is being managed in the public interest and in a manner that is consistent with new departmental policies and the principles laid out in the *Fisheries Act* and the *Oceans Act*."⁴² Since the group argued that the investigation was needed because DFO's management was contrary to the principles of sustainable fishery,⁴³ the Committee would submit that the Commissioner of the Environment and Sustainable Development (CESD), which is part of the OAG, is the best suited to investigate these matters. Indeed, the CESD's role is to provide "parliamentarians with objective, independent analysis and recommendations on the federal government's efforts to protect the environment and foster sustainable development."⁴⁴ In fact, the CESD has investigated DFO's performance on numerous occasions, the last time in May 2009, when he reported about the protection of fish habitat mandated under the *Fisheries Act*. In addition, the CESD last reported on fisheries management matters in 2004. In the event that the Auditor General decides to examine the snow crab stock assessment process and fishery management in the southern Gulf of St. Lawrence at the request of the CFA 12 traditional crab fishermen, the Committee is of the view that the CESD is the most appropriate body within his office to conduct this review. Such a review would be welcomed by the Committee.

Other witnesses recommended a less specific examination of the management of the snow crab fishery. Problems with the scientific process and assessment of the snow crab stocks, survey methodology, the fairness of the process, and DFO's actions in general were all identified as matters for either an investigation or a task force.

41 Robert Haché, *Committee Evidence*, May 28, 2010.

42 Daniel Desbois, *Committee Evidence*, May 25, 2010, 1005.

43 Jean Lanteigne, *Committee Evidence*, May 28, 2010.

44 Office of the Auditor General of Canada, *Commissioner of the Environment and Sustainable Development*, http://www.oag-bvg.gc.ca/internet/English/cesd_fs_e_921.html, accessed November 11, 2010.

The Committee recommends:

Recommendation 3

That the Minister of Fisheries and Oceans strike a task force consisting of independent experts to conduct an objective review of the snow crab stock assessment process and the management of the fishery in the southern Gulf of St. Lawrence. The task force should report publicly and to the Minister within a year of its formation.

Management of Area 19 snow crab fishery

The management of the fishery in CFA 19 in the Gulf is unique. The fishery was the first in Atlantic Canada to adopt individual quotas as a management tool. The snow crab fishery in this area is managed through the *Area 19 Snow Crab Integrated Fisheries Management Plan for 2005-2013*. The plan is the result of a long history of shared management between the snow crab fishermen and DFO. The Area 19 Snow Crab Fisherman's Association and DFO began discussing the concept of partnering in 1995, as a way to give fishermen a greater responsibility in the management of their fishery. The concept was also viewed as a means to provide a more stable climate for long-term business planning. As a result, from 1996 to 2001 the Area 19 co-management arrangement served as the basis for the management of the fishery. It was the first of its kind with inshore fishermen in Canada, and would eventually serve as a model for others. The integrated fishery management plan was renewed in 2001 and revised in 2005.

In terms of assessment of the snow crab biomass, a unique situation prevails in CFA 19 as per the co-management arrangement between DFO and the Area 19 Snow Crab Fishermen's Association. For a few years, a spring trawl survey has been performed just prior to the opening of the fishing season. It is believed that the results from this survey would "be more reliable measures of the commercial biomass index prior to the season in Area 19."⁴⁵ Other means of estimating the biomass level for CFA 19 would tend to underestimate that level, presumably due to the existence of seasonal migration after the post season survey and before the following fishing season.⁴⁶

For reasons of which the Committee is unaware, the CFA 19 spring survey was not conducted in 2010. The fishermen's association pressured DFO and even offered to pay for the entire survey, but to no avail. Moreover, the department decided unilaterally, despite the terms of the co-management agreement, to only allow an exploitation rate of 35% of the resource in 2010, the same rate given to CFA 12. After some negotiations with the association, the rate was increased to 40%. The Committee acknowledges that, as DFO is moving towards the application of a precautionary approach to the

45 Fisheries and Oceans Canada, *Area 19 Snow Crab Integrated Fisheries Management Plan for 2005-2013*, available at <http://www.glf.dfo-mpo.gc.ca/folios/00161/docs/ns-snowcrab-area19-2005-2013-eng.pdf>, accessed October 22, 2010.

46 Ibid.

management of the fishery, the snow crab stock in the southern Gulf of St. Lawrence is assessed and managed as one single biological unit.

According to Mr. Basil MacLean of the Area 19 Snow Crab Fishermen's Association, the 2010 fishery season lasted 8 days, and by the fifth day, 94% of the TAC had been harvested.⁴⁷ As far as the association is concerned, "there are some fences that DFO needs to mend with [CFA] 19. We need to go back to a co-management fishery instead of the DFO "dictatorship" that was implemented in 2010."⁴⁸

The Committee recommends:

Recommendation 4

That Fisheries and Oceans Canada continue discussions with the Area 19 Snow Crab Fishermen's Association to develop an updated co-management plan that recognizes the investments made by the Area 19 Snow Crab fisherman in the belief that the terms of the original co-management plan would be adhered to until its expiration in 2013. An updated co-management plan should also respect the principles of the Area 19 Snow Crab Integrated Fisheries Management Plan for 2005-2013 and the Precautionary Approach Decision-making Framework that was introduced in 2010.

Decision-making process, stakeholder consultation and timing of communicating the decisions

Many witnesses said that DFO's decision-making process was very slow and characterized by late announcements. Witnesses also felt that when bad news was expected, there were little or no consultations with the fishermen. One dockhand reminded the Committee that when quotas are announced 72 hours before going to fish, there is no time to turn around and find another seasonal working job.⁴⁹

The decision-making process for fisheries management is lengthy and complex. The full process was explained to the Committee by both DFO officials and fishermen. The scientific advice, which is one of the elements considered in making fisheries management decisions, is based on a scientific analysis of the data gathered from the information provided throughout the season by fishermen, the trawl surveys, as well as others sources of data. This process is usually completed in February, a full six months after the fishing season has ended in most areas. All stakeholders are then invited by DFO to attend a joint meeting of DFO and the industry to discuss plans for the upcoming season. This RAP meeting includes a peer-review evaluation and a public discussion of the scientific advice. One objective of this public process is to establish

47 Basil MacLean, *Brief*, September 30, 2010.

48 *Ibid.*

49 Ronald Hunt, *Committee Evidence*, May 25, 2010.

the stock status report. The minutes of this meeting are prepared by regional DFO staff and forwarded to Ottawa for review and consideration by senior staff.

An advisory committee meets in March to discuss the stock status and to provide advice on the management of the fishery (e.g.: TAC, conservation measures). The advisory committee is involved in the preparation of a decision memorandum to the Minister which reflects the scientific advice, discussions between scientists and managers, as well as comments from the various regions engaged in the fishery. The memo to the Minister is prepared by the departmental staff at the advisory committee. It takes a couple of weeks to complete and then reaches the office of the Minister by early April. The ministerial decision is made based on options and recommendations drafted by senior departmental staff, as well as key points from the minutes of the RAP meeting. Press announcements of the fishing plan are then prepared and released. This usually happens only a few days prior to the beginning of the fishing season in mid-to-late April, two months after the meeting with the stakeholders.

While the department is analyzing data from the survey, there is a perception from some fishermen that they are left in the dark between the end of the survey in late September or early October, and February when preliminary data is released. Mr. Joel Gionet explained:

Starting in late September, mum's the word: no one's allowed to know anything. The department tells us that the figures haven't been compiled and the work isn't complete. It continues that way into October, November, December and January—we're not allowed to know anything. In February, the department publishes a first preliminary document with figures. It's only preliminary. That continues until the meeting of the advisory committee, which usually meets in mid- or late March.⁵⁰

Among the other complaints about this decision-making process was the matter of access to documentation and transparency. For example, Mr. Douglas Cameron of the P.E.I. Snow Crab Fishermen pointed out that the industry “does not get a copy of the minutes of the February meeting until at least six to eight weeks following the Minister’s announcement of the New Year’s fishing plan which means that industry does not get a copy until late into the fishing season... that works out that participants do not get Minutes until four/five months after the February meeting ...that is, until fully two months after the Minister has been provided highlights.”⁵¹ In addition, the fishermen do not get a copy of the options and recommendations presented to the Minister. Mr. Cameron suggested that the RAP meeting be co-chaired by DFO and the industry, and that the minutes of the meeting as well as the options and recommendations to be presented to the Minister, be forwarded and signed by the co-chairs.

Mr. Bernie MacDonald of Cape Breton expressed frustrations about the amount of time spent in advisory meetings, particularly when there is no way to know exactly

50 Joel Gionet, *Committee Evidence*, May 28, 2010, 1130.

51 Douglas Cameron, *Brief*, June 30, 2010.

what the Minister is getting to read. He added that “the advisory board should be [directly] involved in writing the briefing notes to the Minister, and then, when the Minister makes a decision, we know she made her decision on the facts she read.”⁵² Mr. Earle McCurdy of the Fish, Food and Allied Workers of Newfoundland and Labrador ventured a solution to the problem:

The final work on evaluating fish stocks always takes up most of the off-season to get it all done. It’s hard to get final numbers, exact quota numbers, but I think there could be a higher level of openness in terms of communicating trends or directions ahead of time and some indication of what might be coming, even if the exact numbers aren’t known. You might not know exactly what kind of quota is coming at you, but at least directionally are you going to be up or down? If it’s going to be up, is it going to be significant? If it’s going to be down, is it going to be significant?

I think there’s room for at least getting that notice out early. It’s pretty tough if a week or two before you’re supposed to start fishing you find out all of sudden whether it’s 13.5% or thereabouts that our 3K fleet got or 63% that the gulf fleet got. To get that virtually on the eve of the season is.... There’s no good time to get it, but at least you can do the best you can to prepare for it with a bit more notice.⁵³

The matter of the late announcement of fishing plans is not new. In its 2003 report on various Atlantic fisheries issues, the Committee devoted a whole section to the problem, and made two recommendations to the department. The problem, which appeared to be getting worse at the time of the report, could be viewed as “symptomatic of the overly centralized, hierarchical control structure within DFO”, wrote the Committee.⁵⁴

With regard to the current advisory process, Mr. O’neil Cloutier, a fisherman from the Gulf representing the Regroupement des pêcheurs professionnels du sud de la Gaspésie pointed out that he no longer attends advisory committee meetings because he feels that often one fleet has control over the agenda and the decisions made by the committee.⁵⁵

The Committee recommends:

Recommendation 5

That Fisheries and Oceans Canada review its fisheries management decision-making processes and timelines to ensure that (a) all fleets have meaningful input in the advice prepared for the Minister, (b) the processes are more transparent, and (c) the final decision is made and communicated to all parties involved, including the processing sector, at least 30 days before the fishing season is set to begin.

52 Bernie MacDonald, *Committee Evidence*, May 27, 2010, 0915.

53 Earle McCurdy, *Committee Evidence*, May 26, 2010, 1130.

54 House of Commons Standing Committee on Fisheries and Oceans, *Atlantic Fisheries Issues: May 2003*, Ottawa, 2003, p. 45.

55 O’neil Cloutier, *Committee Evidence*, May 25, 2010.

Resource sharing arrangements

Both in Moncton and in Cape Breton, an important topic of discussion was resource sharing arrangements. In most cases, the controversy around these arrangements involved opposing interests of crab fishermen who had been in the fishery, often since the beginning, and those of new entrants or fishermen who had specialized in a different fishery, and who had been provided an opportunity to fish snow crab. Historically, DFO has used the snow crab resource to compensate the loss of fishing opportunities for fishermen affected by the collapse of their fisheries. This was done in the Gulf of St. Lawrence, in Newfoundland and Labrador, and in Nova Scotia. With time, temporary allocations have slowly become a given, and DFO decided to stabilize and make permanent this new access. The sharp increase in the number of licences for each region where snow crab is harvested between 1985 and 2005 illustrates well what happened in this fishery (see Table 4).

Table 4—Number of snow crab fishery licences per region in 1992 and 2010.

	Number of licence holders			Quota (kg) per licence holder	
	1992	2010	% increase	1992	2010
Newfoundland and Labrador Region	750	3,446	359%	9,900	16,000
Maritimes Region					
CFA 20-22	61	78	28%	7,400**	7,000
CFA 23-24	43	115	167%	31,000**	114,000
Southern Gulf of St. Lawrence					
CFA 12 (incl. 18, 25 and 26)*	190	277	46%	67,000	28,000
CFA 19	74	160	116%	23,000	8,500
CFA 12E and 12F	0	26	n/a	n/a	19,000
Northern Gulf of St. Lawrence and Estuary					
CFA 12A, 12B, 12C and 13-17	136	395	190%	38,000	21,000

Source: Fisheries and Oceans Canada, Information provided to the Committee, 13 December 2010.

* In 1992, the management regime for CFA 12 crab did not include CFAs 18, 25 and 26

** Landings were used instead of quotas

The traditional crab fishermen contend that they have developed the fishery, invested millions of dollars in scientific research activities, conservation and stock management practices, and went through the ups and the downs of the abundance cycles. In the southern Gulf of St. Lawrence, the Association des crabiers acadiens have often in the past objected to permanent sharing. In their view, granting permanent share of snow crab in CFA 12 to the non-traditional fishermen would permanently increase the number of participants in the snow crab fishery, which in turn would have a disastrous effect on the stock, because the natural abundance cycle of the resource

was not taken into account. Moreover, they suggested that in years of low biomass, new participants would have insufficient quota to be profitable and would therefore pressure the Minister to maintain quotas at excessive levels.⁵⁶

Today, the associations representing the traditional crab fishermen in CFA 12 recommend that a minimum allocation be set aside for them. This minimum allocation would be equivalent to the smallest allocation that they have received since new access was granted for the first time in 1995. Their proposal also includes the institution of the “last in first out” (LIFO) rule whereby they would receive the entirety of the TAC when it is set below a predetermined threshold. Non-traditional crab fishermen would therefore have no access to the fishery during those years. The traditional crab fishermen point out that their proposal would not apply to First Nations because of the constitutional protection afforded to Aboriginal and treaty rights. First Nations would therefore see their 15% allocation of the TAC maintained.⁵⁷ It should be noted that First Nations obtained snow crab licences through voluntary licence retirement programs in the aftermath of the Marshall decision, and they can thus be considered as part of the traditional fleet. Mr. Robert Haché of the Association des crabiers acadiens, explained the principle behind their proposal:

[LIFO] is a very easy principle, and it is within the policy framework of the Atlantic Fishery within the department. You can establish a process, a schedule, whereby the last people who come into the fishery are welcome in the fishery when the commercial biomass can sustain them, and at a certain threshold—it could be economic, it could be a biomass threshold, or it could be in conjunction with the precautionary approach system—they are asked to leave the fishery. You have to make sure that you do not destroy the fishery in an effort to save another one.⁵⁸

Associations representing non-traditional fishermen, like the Maritimes Fishermen’s Union (MFU), argued that permanent sharing of the snow crab resource is not a conservation issue, but it is about equity and sharing. According to Mr. Christian Brun from the MFU, the idea that the decline in the snow crab biomass was caused by too many fishermen or traps at sea is a myth. “The total crab fishing fleet consists of approximately 400 boats, [...] by comparison, the lobster fleet in the southern gulf [has] nearly 4,000 boats,” he said. “The lobster fleet currently has 10 times as many fishermen and 27.5 times as many traps as the snow crab fleet.”⁵⁹

The debate about resource sharing has a definite effect on resource allocation and the relative weight of each group in influencing the Minister’s decisions. With respect to the establishment of TAC in the southern Gulf of St. Lawrence in recent years, the MFU official stated the following:

56 House of Commons Standing Committee on Fisheries and Oceans, *Atlantic Fisheries Issues*: May 2003, Ottawa, 2003, p. 45.

57 Robert Haché (for the presidents of the traditional crab fishers’ associations for area 12), *Brief*, August 26, 2010.

58 Robert Haché, *Committee Evidence*, May 28, 2010, 1010.

59 Christian Brun, *Committee Evidence*, May 28, 2010, 1205.

[I]n view of the cyclical behaviour of snow crab, scientists began to present evidence of biomass decline already in 2006, for the Gulf of St. Lawrence. In 2007, scientists were also recommending lowering the overall quota. In the wake of those recommendations, MFU recommended a cut to the overall snow crab quota. In 2008, MFU recommended a 20% reduction in the quota allocated to the fishery.

In 2009, the industry in general disregarded the advice of the scientists, and the traditional fishermen even intensified the political lobbying in Ottawa to preserve the status quo. In 2010, the Minister had the courage to accept the opinion of the department's scientists and cut the quota by 63%. In our view, the rate of landings in the Bay of Chaleur during the 2010 season seems to show that the Minister was right.⁶⁰

Other groups have made similar observations. Mr. Marc Diotte of the Association des morutiers traditionnels de la Gaspésie said:

I have participated in the crab stock peer review in each of the last 10 years. [I]n the last four years, biologists were recommending a 10% cut in the TAC in order to maintain a small crab stock for future years. [...] That recommendation was rejected by the industry in each of the last four years. Even last year, at an advisory committee meeting, [we were told] that we would feel the impact and it would hurt. If we had accepted the 10% cut in the TAC in these last four years, it is possible that we would not be going through what we are now this year.

This year, the scientific reports were taken into consideration by the Minister's office. As I mentioned earlier, the problem is that biologists are hired by the Department and prepare reports, but ultimately, the Department pays no attention to what they say. So, the industry carried on regardless. No cuts were made to the TAC in the last four years, and that is why we have ended up with such a significant cut this year.⁶¹

In Nova Scotia, the Committee heard that the dispute between the fleets involved in the snow crab fishery on the Scotian Shelf revolved around the interpretation of the long-term sharing arrangement. In 2005, a long-term sharing arrangement introduced permanent access for all participants in CFAs 20 to 24. Previous arrangements were designed to not compromise the viability of traditional licence holders, while trying to accommodate the needs of economically affected communities. The 2005 arrangement was based on the recommendations of an *Advisory Panel on Access and Allocation for the Eastern Nova Scotia Snow Crab Fishery*.⁶² The respective shares of the TAC for each fleet were to be maintained at a given level until the TAC increased above a threshold of 9,700 tonnes. The Committee understands that this threshold was crossed in 2009, and that a disagreement arose as to how to interpret the rules for distributing the TAC. DFO's 2007-2011 Snow Crab Integrated Fishery Management Plan for areas 20-24 stated that "[w]hen the TAC reaches 9,700mt the distribution of quota will be calculated as follows. The permanent licences existing prior to 2005 will equally share 50% of the TAC and all licences converted to permanent status in 2005 will share the

60 ibid.

61 Marc Diotte, *Committee Evidence*, May 25, 2010, 1155.

62 See Michael Gardner and co-authors, *Advisory Panel on Access and Allocation for the Eastern Nova Scotia Snow Crab Fishery*, Report to the Hon. Geoff Reagan, Minister of Fisheries and Oceans, February 2005, p. 28.

remaining 50%.”⁶³ Ultimately, the department distributed the quota equally among all licences which, in the view of representatives of CORE company licence holders (the post-2005 licence holders), benefited the traditional licence holders. Ms. Norma Richardson of the Eastern Shore Fishermen’s Protective Association could not understand the rationale for this “unfair and arbitrary decision made in 2009 [that] negatively affect[ed] over 600 inshore fishermen of eastern Nova Scotia.”⁶⁴

While the Committee understands the frustrations of all those involved in these sharing arrangements, it is not in a position to play a role of arbitration or mediation with respect to ministerial decisions in those matters. This is even more so with respect to decisions regarding granting of individual licences.

The Committee also heard about matters related to a ministerial decision with respect to granting a licence to one individual involved in the exploratory snow crab fishery.

The current act regulating fisheries gives the Minister of Fisheries and Oceans absolute discretion in licensing and related matters. The *Fisheries Act* does not provide the legal framework to limit this ministerial discretionary power, but over the years licensing policies have been developed to provide directions and guidelines for its exercise. Nevertheless, one could argue that the Minister’s decisions are potentially susceptible to considerations other than those related to basic resource management principles such as the conservation of the resource. The Committee believes that these situations in the snow crab fishery illustrate the urgent need for policies to guide access and allocation of snow crab fisheries resources. Some past attempts held promise, and were even useful in the drafting of Bill C-32, a bill to replace the current *Fisheries Act*. For example, the Independent Panel on Access Criteria (IPAC) was established by the Minister of Fisheries and Oceans in 2002 as an expert panel to provide recommendations regarding access decisions. IPAC recommended that all access decisions be based on three explicit overarching principles: 1) conservation of the resource; 2) recognition of Aboriginal and treaty rights; and, 3) equity. Other key governing principles were discussed, which included adjacency and historic dependence and economic viability. Clear and consistent principles such as these should be taken into consideration for the negotiation and the interpretation of sharing arrangements.

These situations also illustrate the necessity for arbitration and mediation mechanisms to help settle disputes between fleets or licence holders. One witness, Mr. Daniel Landry of the Association des pêcheurs professionnels membres d’équipages, suggested that “[t]here should be neutral committees to hear the complaints of fishermen, scientists and managers. There should also be management

63 Fisheries and Oceans Canada, *Eastern Nova Scotia Snow Crab Integrated Fishery Management Plan - Crab Fishing Areas 20 – 24, 2007-2011*, Scotia-Fundy Sector, Maritimes Region, p. 41.

64 Norma Richardson, *Committee Evidence*, May 27, 2010, 0840.

umpires along the way to determine whether the interests of all parties are being met.”⁶⁵ The Committee notes that a fisheries tribunal such as the one that would have been established by Bill C-32 could play an arbitration role without the influence or pressure from outside interference. It would have thus been necessary to expand the role given to the fisheries tribunal by the bill beyond being just empowered to deal with fisheries violations as well as licensing appeals.

The Committee recommends:

Recommendation 6

That Fisheries and Oceans Canada initiate discussions with all snow crab fleets on the principles and mechanisms to be used for adjusting allocations throughout the abundance cycle of the resource to ensure the long-term viability of all fleets.

Recommendation 7

That Fisheries and Oceans Canada review its current approach to resolving disputes between fleets or licence holders, identify successful models for resource allocation agreements among stakeholders, and determine whether these models can be applied to the management of snow crab.

Recommendation 8

That the Government of Canada table in the House of Commons a bill to renew the *Fisheries Act* that would: (a) provide guiding principles and fisheries objectives for long-term sustainable fishery harvests and a viable fishing industry, (b) provide criteria and establish processes on which access and allocation decisions would be made, and (c) require transparency in all decisions made by the Minister of Fisheries and Oceans under the Act.

Impacts of the management decision for the southern Gulf of St. Lawrence

DFO did not believe that measures to alleviate the impact of the 2010 management decision for the southern Gulf of St. Lawrence on all those concerned were needed. In fact, a DFO official told the Committee that the cyclical nature of the snow crab fishery was predictable, and that the average earnings in the fishery were fairly good over the course of a cycle. The official added that the department “[didn’t] think taxpayers should take care of subsidizing the fishery over the low part of the cycle when there are going to be good profits ahead and they have had good profits in the past.”⁶⁶

65 Daniel Landry, *Committee Evidence*, May 28, 2010, 1220.

66 David Bevan, *Committee Evidence*, May 28, 2010, 0825.

The Committee heard witnesses from all groups about the hardship that the DFO's snow crab decision brought to their communities. Deckhands and processing plant workers alike pointed out that they would not be able to qualify for employment insurance benefits in 2010. These people, who only worked four or five weeks before in the crab industry, would now find themselves reduced to only two weeks of work, according to Mr. Gérard-Raymond Blais of the regional municipality of Bonaventure in the Gaspé peninsula.⁶⁷

Some fishermen indicated that, because of the financial obligations they are facing already, they could not afford a low income year. Mr. O'neil Cloutier told the Committee that "crab is being used to make payments on boats that have become incredibly large and super efficient. And that is unfortunate. It means that there have to be fairly high crab quotas year after year."⁶⁸ Mr. Cloutier concluded that as a result, the manager of the resource is pressured to keep the quotas high despite scientific evidence to the contrary.

The communities that are affected by this DFO's fisheries management decision have already had their share of economic hardship. For example, a region such as the Gaspé Peninsula, whose economy depends on three main sectors: tourism, forestry, and fisheries, has had to live through numerous announcements of plant closures, layoffs and moratoria in recent history. As a result, the atmosphere is already gloomy, and public health issues are emerging with all the associated costs. According to Mr. Gérard-Raymond Blais: "[T]he job losses, the uncertainty and the insecurity all affect people's health. [...] Drug addiction in Gaspésie is more and more common as a result of these job losses and sudden drops in income from one day to the next."⁶⁹

First Nations communities are also affected by the federal government's decision. The economic and social impact of the drastic reduction in fishing opportunities will be severe. The way of life of Aboriginal people will be directly and negatively affected. In the community of Listuguj, it is expected that many fishermen jobs will be lost, and families will find themselves in financial turmoil. The government thus jeopardizes the investments it is making on a regular basis in these communities with respect to housing, education, and health. According to Mr. Jeff Basque, representing the Listuguj Mi'gmaq government, by making this decision, and in the manner that it was made, the federal government has failed to uphold its fiduciary obligations to the First Nations of the Gulf of St. Lawrence.⁷⁰

While the 2010 fishing season is over, and the Committee believes it is too late for immediate measures, some solutions to mitigate the short-term effects of a resource management decision such as the one made by the Minister of Fisheries and Oceans in 2010 have been brought forward by witnesses. The federal government should take

67 Gérard-Raymond Blais, *Committee Evidence*, May 25, 2010, 0955.

68 O'neil Cloutier, *Committee Evidence*, May 25, 2010, 1205.

69 Gérard-Raymond Blais, *Committee Evidence*, May 25, 2010, 0955.

70 Jeff Basque, *Committee Evidence*, May 28, 2010, 0905.

stock in the comments and suggestions heard during our hearings, and plan accordingly in the future. Witnesses suggested that the government should intervene on three levels: measures for fishermen and deckhands, measures for plant workers, and measures for the fishing communities. For example, Mr. Léo Lelièvre and Mr. Gaétan Cousineau suggested a reduction in the number of hours needed to qualify for employment insurance for fishermen and plant workers affected negatively by fisheries management decisions.⁷¹ Mr. Lelièvre also suggested some kind of tax deduction for residents of remote and devitalized fishing communities.⁷² Finally, Mr. Jean Lanteigne proposed that the licence fees for crab fishermen directly affected by fisheries management decisions be reimbursed to help with reducing their operating costs.⁷³ According to DFO, all user fees, including the licence fees, represented 4.9% of the total landed value in the CFA 12 snow crab fishery in 2005.⁷⁴

Overcapacity in the fishery

In its 2005 report, the Fisheries Resource Conservation Council (FRCC) argued that the snow crab harvesting and processing capacity should better match the productive capacity of the resource in the Atlantic region.⁷⁵ The FRCC recommended a cap on the number of participants in the snow crab fishery. This ministerial advisory body also recommended that “DFO work with various fleet sectors to develop effective mechanisms on a fleet-by-fleet, area-by-area basis to reduce fishing capacity.”⁷⁶

The apparent overcapacity in the industry is the result of the considerable expansion of the snow crab fishery which coincided with the collapse of groundfish stocks in the early 1990s. It has been argued that the snow crab resource was used to compensate for losses in fishing opportunities in other sectors. It would therefore appear that the conservation of the resource was trumped by socioeconomic considerations at the time. Table 4 illustrate the expansion of the snow crab fishery throughout the Atlantic region between 1985 and 2005.

It would appear that the findings of the FRCC in 2005 would not be that different today. The number of snow crab fishery licences has not dropped significantly in the last five years; the stock in the southern Gulf of St. Lawrence, which was considered healthy in 2005, experienced in 2009 the biggest yearly decline since the biomass has been surveyed; and on a longer-term scale, the peak of the commercial exploitable biomass in 2004 was 39% lower than the peak of the previous abundance cycle of the resource in 1993 (after DFO’s recalculation of the biomass data; see Figure 2).

71 Léo Lelièvre and Gaétan Cousineau, *Committee Evidence*, May 25, 2010.

72 Léo Lelièvre, *Committee Evidence*, May 25, 2010

73 Jean Lanteigne, *Committee Evidence*, May 28, 2010.

74 Fisheries and Oceans Canada, Information provided to the Committee, December 13, 2010.

75 Fisheries Resource Conservation Council, *A Strategic Conservation Framework for Atlantic Snow Crab*, 2005, available at <http://www.frcc.ca/2005/snowcrab.pdf>, accessed October 22, 2010.

76 *Ibid*, p 32.

From the fisherman's perspective, more and more of those involved in the fishery experience difficulties in making a decent living from harvesting the resource. Many witnesses confirmed that there were too many fishermen in their areas to make a living out of the amount of snow crab available for harvest. Some others said that there were too many traps, and the level of harvest of white crab was too high. Mr. Christian Brun summed it up: "If we withdraw licences and have conservation measures, we have a better chance of achieving a long-term effect. As regards the fishermen's economy, you reduce the number of fishermen. This improves the economic pie for those remaining."⁷⁷

As with any rationalization in the harvesting sector⁷⁸, it always come back to how much it will cost and who will pay for it. For Mr. Earle McCurdy, it is pretty simple:

It will not happen without the conscious effort and contribution of the two levels of government to really [have] a rationalization and a rebirth. [...] A public sector investment would allow for an orderly transition of [older...] licence-holders, and allow them to leave.

Either we'll have an organized licensed buyout program in some fashion, or a rationalization program with shared industry and public funds to execute it in some kind of an organized manner, or we'll have rationalization by bankruptcy. The choice is as blunt as that, where people will be forced out of business because the bills are stacking up and the revenue is not matching that.⁷⁹

The Committee faced a similar situation in 2009 when it studied the Canadian lobster fishery. In the end, the Committee recommended a concerted effort of all levels of government in supporting the industry's desire to rationalize.

The Committee recommends:

Recommendation 9

That the Government of Canada, in collaboration with the governments of the Atlantic Provinces and Québec, support an industry-led rationalization plan for the snow crab fishery (publicly funded where appropriate) that must take into account regional needs and requirements.

Intergenerational transfer of the fishing effort

While a reduction of the harvesting effort in the snow crab fishery is needed in Atlantic Canada and Quebec, there are fears that the rationalization may ultimately occur by attrition of a workforce that is aging and for which there is little rejuvenation. This is a broader issue that does not solely apply to the snow crab fishery, or even to

77 Christian Brun, *Committee Evidence*, May 28, 2010, 1215.

78 Rationalization can be defined as a reduction of the fishing effort by mechanisms such as licence retirement, phased trap reduction, or trap-systems transfer.

79 Earle McCurdy, *Committee Evidence*, May 26, 2010, 1005 and 1045.

just the harvesting sector. Witnesses were concerned that when and if fish stocks rebound, fishermen, plant workers and the supporting communities will not be there to harvest and transform the resource.

There are a number of reasons to explain the shortage of younger fishermen in the industry, most having to do with access to capital. According to Mr. Earle McCurdy, a number of young people are interested in being involved in the fishery sector, but currently older people are moving out in greater numbers. As the baby boom generation is exiting the fishery sector, a younger generation faces a situation where there is “an excessive amount of debt, a high cost of acquiring licences, [and] no proper financing mechanism” to ensure a proper transition.⁸⁰

There are, however, circumstances that can play a positive role in an orderly transition between generations in the fishery sector. For example, some Atlantic provinces, such as Nova Scotia, have loan boards with programs targeting younger fishermen.⁸¹ There is also the 2008 Supreme Court decision in the case of *Saulnier v The Royal Bank*, which resulted in fishing licences or quota being used for securing loans.⁸² The Committee believes that there could be other solutions to ensure proper intergenerational transfer of the fishing effort. The implementation of one or more of these solutions, depending on the specific context of the various fishing areas, will, according to witnesses, require the concerted efforts and commitment from all stakeholders, including all levels of government.

The Committee recommends:

Recommendation 10

That the Government of Canada, in collaboration with the governments of the Atlantic Provinces and Québec, taking into account any rationalization plan for the snow crab fishery, develop a strategic plan for the intergenerational transfer in the fishing industry. Among other things, the plan could discuss: (a) loan programs for new fishermen, (b) independent financing and the use of licences as collateral, and (c) new rules that would allow fishermen to better manage investments in their enterprises.

Processing and marketing of snow crab

During its trip to the East Coast, the Committee visited two processing plants in Quebec and in Nova Scotia. Committee members witnessed remarkable installations and operations, but were struck by the difficult working conditions. Overall, the

80 Ibid., 1115.

81 Trevor Decker, *Committee Evidence*, May 26, 2010.

82 Fisheries and Oceans Canada, *Background—Implications of the Saulnier decision for DFO Licensing Policies*, available at <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/saulnier/index-eng.htm>, accessed November 24, 2010.

Committee heard of the difficulty that the processing sector has to plan ahead because of the nature of the resource, and the timing and the duration of its availability. It is important to note that the processing sector and the issuing of processing licences are matters of provincial jurisdiction, therefore this Committee has little say in the matter. However, in the course of this study, it became clear that fisheries management decisions made at the federal level, such as the 2010 decision for the southern Gulf of St. Lawrence, had an impact on the processing sector. Matters related to the timing and the length of the federal decision-making process discussed elsewhere in this report, have some bearing on the capacity of businesses involved in processing to plan ahead. Moreover, federal efforts to rationalize the fishery at the harvesting level would require consultation with the provinces to allow for adjustments in their processing capacity.

According to the 2006 *Overview of the Atlantic Snow Crab Industry* prepared by the firm Gardner Pinfold, the snow crab processing capacity in the Atlantic provinces and in Quebec consisted of 83 active plants in 2005-2006. The largest number of plants was in Newfoundland and Labrador. It was also in that province that there was the largest expansion in the processing capacity between the early 1990s to 2003.⁸³ The Honourable Clyde Jackman, provincial Minister of Fisheries and Aquaculture confirmed:

Spurred by the tremendous increase in the crab harvesting capacity, which served to exacerbate the seasonality of crab landings, as well as the lack of recovery of groundfish, additional snow crab processing licences were issued in Newfoundland and Labrador. During the mid- to late 1990s, the number of snow crab processing licences more than doubled, ultimately peaking at 41 active plants. During the period from 1998 to 2003, it became increasingly clear to the provincial government that overcapacity in the crab sector could erode the industry's viability in the future even though good contribution margins in both the harvesting and processing sectors were still possible, largely as a result of the relatively weak Canadian dollar.⁸⁴

The Gardner Pinfold study notes that the processing sector is characterized by a short and intense season during which the processing sector has to generate several hundred million dollars in cash to pay for the raw material. The study also described some of the challenges that the sector faces.⁸⁵ These include:

- The sector produces essentially only one type of product: crab sections.
- The employment in the crab processing sector lasts 6 to 10 weeks per year. It is therefore difficult to attract and retain workers. In addition, like in the harvesting sector, the average age of plant workers is increasing. It should be noted that the number of people employed in the snow crab

83 Gardner Pinfold Consulting Economists Limited, *Overview of the Atlantic Snow Crab Industry*, submitted to Fisheries and Oceans Canada and the Atlantic Council of Fisheries and Aquaculture Ministers, June 2006, p. 42.

84 Clyde Jackman, *Committee Evidence*, May 26, 2010, 1155.

85 Gardner Pinfold Consulting Economists Limited, *Overview of the Atlantic Snow Crab Industry*, submitted to Fisheries and Oceans Canada and the Atlantic Council of Fisheries and Aquaculture Ministers, June 2006, p. 54.

processing sector on the East Coast was estimated at between 7,400 and 9,000.

- Processing plants have little or no control over the timing and rate of supply of raw material.
- There are restrictions on the inter-provincial trade of the raw material.
- Each province has either built or adjusted their processing capacity to meet the seasonal peak of harvest. Changes in harvesting over the years as well as adjustments to fishing areas have contributed to overcapacity in the processing sector.

There have been efforts to rationalize the crab processing capacity in recent years. For example in Newfoundland and Labrador in 2004, the provincial government released a new fish processing licensing policy according to which, in the case of snow crab, no new processing licences would be considered until a resource threshold was achieved. Also, licences for fish processing facilities that had been inactive for two consecutive years would be permanently cancelled. As a result, in 2009 there were 33 active snow crab plants, a significant decline from the 41 active licences in 2002. Given the current market conditions, an even more aggressive approach may be required.⁸⁶

According to Mr. Jackman, it is clear that the processing sector rationalization cannot be achieved without a concurrent reduction of harvesting sector capacity. He added:

A more orderly landing pattern brought about by major harvesting sector capacity reductions will facilitate associated reductions in processing capacity. The mechanisms to bring about this harvesting sector rationalization, and whether they will be self-financing or require government intervention, have not yet been determined. However, it is possible that these capacity reductions may be very costly, and to the extent that the fishing industry cannot self-finance the process, demands will be placed on governments to assist.⁸⁷

Snow crab processing goes hand in hand with the marketing of the products. Snow crab product marketing mostly targets markets outside Canada. Canada snow crab supplies two-thirds of the world market. In the last four years (2006 to 2009), Canada exported almost \$2 billion in snow crab. A little more than half of that was exported from Newfoundland and Labrador. The United States is the dominant market, taking 73% of the Canadian production in those four years.⁸⁸ The rest is sent directly to Japan, or indirectly via re-export through China where meat is extracted for the sushi

86 Clyde Jackman, *Committee Evidence*, May 26, 2010.

87 *Ibid.*, 1210.

88 Agriculture and Agri-Food Canada. Agri-Food Trade Service—Canadian Lobster and Snow Crab, available at <http://www.ats.agr.gc.ca/pro/5322-eng.htm>, accessed December 1, 2010.

market.⁸⁹ According to the 2006 Gardner Pinfold study, the sector's dependence on a single market (which is narrow, commodity-based and price sensitive) places the processors in a vulnerable situation. Because of the short harvesting season, the processing overcapacity, and the cash flow pressures, processors have "little or no opportunity for market or product development, or to hold supply in inventory in an effort to secure better prices."⁹⁰ Large importers and distributors understand and exploit this situation. Seeing this and the lack of formal marketing processes with respect to snow crab, one witness suggested the development of an Atlantic Canadian crab council where the federal government and the provinces would work together to develop the markets that are available to the Canadian snow crab industry.⁹¹ The Committee agrees.

The Committee recommends:

Recommendation 11

That the Government of Canada, in partnership with the governments of the Atlantic provinces and Québec and industry representatives, encourage the promotion of snow crab domestically and abroad, through the creation of an Atlantic-wide multi-stakeholder marketing research and advertising council and/or through an already existing body serving a similar purpose.

Conclusion

The Committee embarked on this study shortly after the announcement of the decision of the Minister of Fisheries and Oceans to severely cut the snow crab TAC in the southern Gulf of St. Lawrence. The study included a visit of the Committee to the East Coast in late May 2010, which coincided in some regions with the snow crab fishing season.

During our trip, fishermen, processors and other interest groups told us of their frustrations with DFO's fisheries management decision-making process, particularly with respect to the timeliness of these decisions that so deeply affect their businesses. Many witnesses questioned the treatment of scientific advice within the department. Some even expressed doubts about the validity of the methodology used to derive this advice. On the other hand, the Committee heard from departmental officials who explained and defended their processes and methodologies, and described the often difficult environment in which they have to sustainably manage the resource.

89 Gardner Pinfold Consulting Economists Limited, *Overview of the Atlantic Snow Crab Industry*, submitted to Fisheries and Oceans Canada and the Atlantic Council of Fisheries and Aquaculture Ministers, June 2006, p. 54.

90 Ibid.

91 Trevor Decker, *Committee Evidence*, May 26, 2010.

Adding to the complexity of the situation, the snow crab resource is harvested by several different fleets. Some fishermen have been involved since the beginning of the fishery, and have greatly contributed to its development. Others were given access in compensation for the loss of opportunities in their original fishery, or because of their involvement in an exploratory snow crab harvest. As a result, resource sharing arrangements were put in place, and the interpretation of these arrangements is now the source of conflicts between the fleets, and between DFO and the associations representing the fishermen. In addition, the situation has contributed to increasing the harvesting capacity, to the point where, the majority will say, there is a need for some form of rationalization.

The Committee believes that the TAC reduction in 2010 would likely have been smaller than 63% if the Minister had accepted the advice of her department to reduce the TAC in 2009 instead of maintaining it at the 2008 level. In retrospect, the 2009 decision was considered by some not to be a prudent one with respect to the sustainability of the fishery. Therefore, the Committee wholeheartedly welcomes the application of the precautionary approach to this fishery. That said, the impacts of the 2010 decision, and more broadly of DFO's management of the snow crab resource in recent years, on fishermen, the industry, and communities were far from being negligible. Even though the biology of the snow crab is well known, and a decline in the harvestable resource was expected, it is important to find a better way to prepare for and mitigate the impact of the ups and downs of this cyclical resource on all stakeholders.

For many of these matters, the Committee is recommending actions for the Government of Canada to take. These actions are not immediate remedies for the pain caused to fishermen and their communities. They are, rather, tools and ideas to improve the management of this fishery and to more adequately prepare snow crab dependent communities for the inevitable fluctuations in the snow crab populations.

LIST OF RECOMMENDATIONS

Recommendation 1

That the Department of Fisheries and Oceans immediately put into place a plan, based on scientific evidence, to mitigate the impact of the rapidly growing population of grey seals on the snow crab resource in the Gulf of St. Lawrence, including the targeted removal of grey seals. 3

Recommendation 2

That all of Fisheries and Oceans Canada’s future fisheries management decisions be based on the precautionary approach when a formal decision-making framework exists, and that in the absence of such a framework, decisions be based on the elementary principle of precaution..... 17

Recommendation 3

That the Minister of Fisheries and Oceans strike a task force consisting of independent experts to conduct an objective review of the snow crab stock assessment process and the management of the fishery in the southern Gulf of St. Lawrence. The task force should report publicly and to the Minister within a year of its formation..... 19

Recommendation 4

That Fisheries and Oceans Canada continue discussions with the Area 19 Snow Crab Fishermen’s Association to develop an updated co-management plan that recognizes the investments made by the Area 19 Snow Crab fisherman in the belief that the terms of the original co-management plan would be adhered to until its expiration in 2013. An updated co-management plan should also respect the principles of the Area 19 Snow Crab Integrated Fisheries Management Plan for 2005-2013 and the Precautionary Approach Decision-making Framework that was introduced in 2010..... 20

Recommendation 5

That Fisheries and Oceans Canada review its fisheries management decision-making processes and timelines to ensure that (a) all fleets have meaningful input in the advice prepared for the Minister, (b) the processes are more transparent, and (c) the final decision is made and communicated to all parties involved, including the processing sector, at least 30 days before the fishing season is set to begin. 22

Recommendation 6

That Fisheries and Oceans Canada initiate discussions with all snow crab fleets on the principles and mechanisms to be used for adjusting allocations throughout the abundance cycle of the resource to ensure the long-term viability of all fleets. 27

Recommendation 7

That Fisheries and Oceans Canada review its current approach to resolving disputes between fleets or licence holders, identify successful models for resource allocation agreements among stakeholders, and determine whether these models can be applied to the management of snow crab..... 27

Recommendation 8

That the Government of Canada table in the House of Commons a bill to renew the *Fisheries Act* that would: (a) provide guiding principles and fisheries objectives for long-term sustainable fishery harvests and a viable fishing industry, (b) provide criteria and establish processes on which access and allocation decisions would be made, and (c) require transparency in all decisions made by the Minister of Fisheries and Oceans under the Act. 27

Recommendation 9

That the Government of Canada, in collaboration with the governments of the Atlantic Provinces and Québec, support an industry-led rationalization plan for the snow crab fishery (publicly funded where appropriate) that must take into account regional needs and requirements. 30

Recommendation 10

That the Government of Canada, in collaboration with the governments of the Atlantic Provinces and Québec, taking into account any rationalization plan for the snow crab fishery, develop a strategic plan for the intergenerational transfer in the fishing industry. Among other things, the plan could discuss: (a) loan programs for new fishermen, (b) independent financing and the use of licences as collateral, and (c) new rules that would allow fishermen to better manage investments in their enterprises..... 31

Recommendation 11

That the Government of Canada, in partnership with the governments of the Atlantic provinces and Québec and industry representatives, encourage the promotion of snow crab domestically and abroad, through the creation of an Atlantic-wide multi-stakeholder marketing research and advertising council and/or through an already existing body serving a similar purpose..... 34

APPENDIX A LIST OF WITNESSES

Organizations and Individuals	Date	Meeting
<p>As an individual Ronald Hunt, Dockhand</p> <p>Association des crabiers gaspésiens inc. Daniel Desbois, President</p> <p>Association des membres d'équipages des crabiers de la Gaspésie Wilfrid Leblanc, President Lorenzo Méthot, Secretary</p> <p>Association des morutiers traditionnels de la Gaspésie Marc Diotte, Representative</p> <p>Conférence régionale des élu(e)s Gaspésie-Îles-de-la-Madeleine Gilbert Scantland, General Director</p> <p>Listuguj Mi'gmaq Government Delphine Metallic, Assistant Director Natural Resources</p> <p>Mouvement Action-Chômage Pabok Inc. Gaétan Cousineau, Coordinator</p> <p>Municipalité régionale de comté de Bonaventure Gérard-Raymond Blais, Representative</p> <p>Municipalité régionale de comté du Rocher Percé Léo Lelièvre, Acting Reeve</p> <p>Regroupement des pêcheurs professionnels du sud de la Gaspésie O'neil Cloutier, Director</p> <p>Unipêche M.D.M. Ltée Linda Delarosbil, Plant Workers Representative Mireille Langlois, Plant Workers Representative</p>	2010/05/25	16
<p>As an individual Clarence Andrews, Fisherman John Sackton, President Seafood.com News Leo Seymour, Fisherman Lyndon Small</p>	2010/05/26	17

Organizations and Individuals	Date	Meeting
<p>As an individual Ray Wimbleton, Fisherman</p> <p>Fish, Food and Allied Workers Earle McCurdy, President</p> <p>Fogo Island Co-Operative Society Ltd. Phil Barnes, General Manager</p> <p>Government of Newfoundland and Labrador Hon. Clyde Jackman, Minister of Fisheries and Aquaculture David Lewis, Assistant Deputy Minister Department of Fisheries and Aquaculture</p> <p>TriNav Group of Companies Trevor Decker, Director TriNav Marine Brokerage Inc.</p>	2010/05/26	17
<p>Area 23 Snow Crab Fishermen's Association Fred Kennedy, Consultant Gordon MacDonald, President and Managing Director</p> <p>Eastern Shore Fishermen's Protective Association Nellie Baker Stevens, Coordinator Norma Richardson, President</p> <p>Eskasoni First Nation Leonard Denny, Chief Executive Officer Crane Cove Seafoods</p> <p>Gardner Pinfold Consulting Economists Ltd. Michael Gardner, President</p> <p>Government of Nova Scotia Greg Roach, Assistant Deputy Minister Department of Fisheries and Aquaculture</p> <p>Multi-species Crab License Holders Josephine Kennedy, Representative Eastern Nova Scotia Crab Fishing Area 23 Clarence Sehl, Representative Eastern Nova Scotia Crab Fishing Area 23, Bay Boy Fisheries</p> <p>Port Morien, False Bay Fishermen's Association Bernie MacDonald, President</p> <p>Unama'ki Institute of Natural Resources Hubert Nicholas, Commercial Fisheries Liaison Coordinator</p>	2010/05/27	18

Organizations and Individuals	Date	Meeting
<p>As an individual Serge Blanchard Marius Duguay</p>	2010/05/28	19
<p>As an individual Joel Gionet Aurèle Godin Donald Haché Frank Hennessey Hubert Noël</p>		
<p>Area 19 Snow Crab Fisherman's Association Basil MacLean, President</p>		
<p>Association des crabiers acadiens Robert Haché, Representative</p>		
<p>Association des pêcheurs professionnels membres d'équipages Daniel Landry, Fisheries Advisor</p>		
<p>Department of Fisheries and Oceans David Bevan, Senior Assistant Deputy Minister Ecosystems and Fisheries Management Marc Lanteigne, Manager Aquatic Resources Division, Gulf Region Mikio Moriyasu, Head Snow Crab Section, Gulf Region Joan P Reid, Area Chief Conservation and Protection, Maritimes Region</p>		
<p>Fédération régionale acadienne des pêcheurs professionnels Jean Lanteigne, Director General</p>		
<p>Government of New Brunswick Hon. Rick Doucet, Minister of Fisheries Jim McKay, Deputy Minister Department of Fisheries</p>		
<p>Listuguj Mi'gmaq Government Jeff Basque, Senior Negotiator</p>		
<p>Maritime Fishermen's Union Christian Brun, Director General Réginald Comeau, Gulf Coordinator</p>		

Organizations and Individuals	Date	Meeting
<p>P.E.I. Snow Crab Fishermen Inc. Doug Cameron, Executive Director</p>		
<p>As an individual John Angel Tim Rhyno</p>	2010/06/02	21
<p>Department of Fisheries and Oceans David Bevan, Senior Assistant Deputy Minister Ecosystems and Fisheries Management Marc Lanteigne, Manager Aquatic Resources Division, Gulf Region Sylvain Paradis, Director General Ecosystems Sciences</p>	2010/06/07	22

APPENDIX B LIST OF BRIEFS

Organizations and individuals

Area 23 Snow Crab Fishermen's Association

Association des crabiers acadiens

Association of Seafood Producers

Department of Fisheries and Oceans

Eastern Shore Fishermen's Protective Association

Government of New Brunswick

Government of Nova Scotia

Maritime Fishermen's Union

Municipalité des Îles-de-la-Madeleine

P.E.I. Snow Crab Fishermen Inc.

Rhyno, Tim

Small, Lyndsay

Traditional Fishermen from Area 12 in the Southern Gulf of St-Lawrence

REQUEST FOR GOVERNMENT RESPONSE

Pursuant to Standing Order 109, the Committee requests that the government table a comprehensive response to this Report.

A copy of the relevant Minutes of Proceedings ([Meetings Nos.16, 17, 18, 19, 21 and 22](#)) of the 3rd Session of 40th Parliament and ([Meetings Nos. 4, 5 and 6](#)) of the 1st Session of the 41st Parliament is tabled.

Respectfully submitted,

Rodney Weston, MP

Chair

