REPORT ON NEW BRUNSWICK'S SNOW CRAB INDUSTRY

November 2007

« *Au mât, hissons les voiles…* »

By GTA Fisheries Consultants Inc.

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Acknowledgments

When I was asked to prepare this report, I was immediately struck by both the scope and the complexity of the issue. However, knowing that I would have the opportunity to meet a great many of the stakeholders in this industry only increased my enthusiasm. I would like to sincerely thank all those who took the time to share their experiences. What I learned was often beyond the scope of the three points that I have been asked to address. All my life, I have been in awe of how warm the people in this industry are whenever I meet them in a more personal context.

The truth of the matter is that anything to do with fisheries can be complicated. Gathering all the information and data would have been impossible without the indispensable cooperation of many people from various provincial and federal departments. I would particularly like to mention the tremendous assistance of Mario Gaudet and his entire team from the New Brunswick Department of Fisheries. The same goes for Michel Audet and his team from the DFO, including Manon Mallet who, among other things, kindly agreed to review this report. I would like to thank Nicole Savoie, Byron James, Jim Jones, Yvon Chiasson and Bernard Thériault from the Premier's Office for their suggestions and contributions. I would like to thank the Honourable Rick Doucet, New Brunswick Minister of Fisheries, for his confidence in me. I hope he will not be disappointed.

I would like to specifically mention the excellent work and contribution of my colleague, Joanne Losier, without whom this report would not have seen the light of day.

Lastly, I would like to thank my wife, Louiselle Cimon, for her patience and moral support during the long days and sometimes long nights I spent preparing this report.

Gilles Thériault
GTA Fisheries Consultants Inc.

1. Introduction

The New Brunswick Minister of Fisheries asked me to focus on three specific issues related to the snow crab industry in our province.

My tasks were:

1) To take a closer look at the emerging trend of: increasing quantities of snow crab caught by our fishers are processed out of province, and to recommend incentives that would see our plants processing as much of the snow crab catch as possible;
2) To analyze the weekly rate of snow crab landings and suggest ways for plants to process the crab under optimum conditions;
3) To address the problems created by an unstable supply of snow crab to processing plants and make recommendations for ensuring a more stable supply.

To do this, I wanted to meet with a great many processors, fishers and their representatives, Aboriginal communities, plant workers and their representatives, representatives of various coastal communities, former industry stakeholders still interested in the subject, as well as representatives from the Government of New Brunswick and the Department of Fisheries and Oceans Canada. Unfortunately, I did not manage to meet with all the people I had hoped to see, as my list was too long. Having said that, I was welcomed with open arms by all the stakeholders I did see. They all agreed that the study was needed and did not hesitate to share their concerns, opinions and suggestions.

I also looked at what is happening elsewhere in the fishing industry, both here in the Atlantic provinces and other parts of the world.

I wanted to place our snow crab industry in the context of worldwide crab production and international markets. I examined prices, from the market value to the price paid to the fishers. I looked closely at the situation of plant workers, which, to my mind, is one of the key issues facing New Brunswick's East Coast fisheries.

I also wanted to put the issue in context, as well as share the comments of the people I met and my own personal observations. In conclusion, I will conclude by offering a vision for the future of our industry and a series of recommendations that, I am confident, will contribute to strengthening and developing our industry. My only hope is that you will take the time to examine this document closely, reflect on it seriously and then offer constructive comments.

2. Description of the Snow Crab Industry in New Brunswick

2.1. Snow crab processing

2.1.1. Brief history

Snow crab processing plants did not begin to appear until the late 1960s. At that time, there were a few plants on the Acadian Peninsula and the Gagnon family plant in southeast New Brunswick. It is thanks to such entrepreneurs as Basile Roussel of Le Goulet and Edmond Gagnon of Grand-Barachois, to name but two, that the province has become a leader in snow crab marketing. Until the early 1980s, almost all the plants were owned by Acadian entrepreneurs. The late 1980s saw the beginning of seminal but somewhat controversial changes. Many traditional crab fishers got together to acquire seafood processing plants. At one point, traditional crab fishers owned 80% of the active crab processing plants. These new acquisitions were opposed by independent owners who argued that it was neither fair nor reasonable for fishers who had quotas to take over crab processing plants when independent owners could not hold crab quotas.

Since 2000, most traditional crab fishers have divested themselves of their interest in the plants, selling them to new entrepreneurs. Currently, one-third of active snow crab processing plants are partially owned by traditional crab fishers. This change has led to an influx of entrepreneurs from outside the province and outside the country.

2.1.2. Number and location

There are currently 22 licensed snow crab processing plants in New Brunswick. Of the 22, only 12 were active in 2007. Of the 12, 9 are located on the Acadian Peninsula; the other 3 are located in the southeast of the province.[1]

Figure 1: Location of fish processing plants in New Brunswick

The above map shows the location of all seafood processing plants in New Brunswick.

2.1.3. Processing capacity

According to data on the 2007 snow crab processing season, processing capacity that provides superior quality is approximately 760,000 pounds per day – i.e., 345,455 kg or 345 tonnes, for the 12 active plants in NB. These data were collected by the Department of Fisheries from the 12 plants active in 2007. This figure represents the total quantity that these plants estimate to be their "normal" processing capacity, based on current processing conditions at the plants and considering available manpower and the type of processing currently being done to meet market requirements.[2]

From the point of view of optimal processing for the current market, based on 2007 landings that amounted to a little more than 12,000 tonnes (New Brunswick gets 55.2% of the Gulf quota, which amounted to 23,207 tonnes in 2007), this corresponds to 34.5 processing days, basically 7 weeks of 5 working days per week. If the work weeks were extended to 6 days, it would take approximately

[1] According to information received from the New Brunswick Department of Fisheries on October 23, 2007
[2] According to information received from the New Brunswick Department of Fisheries on October 18, 2007

6 weeks to process 12,000 tonnes of snow crab. At 7 days per week, it would take 5 weeks to process the entire quota.

Remember that there are 22 seafood processing plants in New Brunswick licensed to process snow crab. Each time one or more plants "use" their licence to process crab, these figures change.

2.1.4. Various types of companies

In New Brunswick, there are four main types of snow crab processing companies:

1. Plants owned by fishers -- i.e.:
    - groups of fishers who have formed cooperatives,
    - groups of fishers who have established a corporation, with or without other shareholders
2. Plants owned by large companies
    - owners may own several large plants here and elsewhere
3. Plants owned by independent operators
    - owners are individuals or groups of shareholders
4. Plants under foreign control
    - owners live outside the country.

2.1.5. Types of processing

Almost all the snow crab processed in the Gulf of St Lawrence region ends up being frozen. In 2005, for example, 94% of the crab was frozen — mostly in sections but a good portion was sold whole in the shell. Only 6% of the crab was sold fresh and a very small part was processed into fish meal.

Importers for the Japanese market have different processing and quality requirements than importers for the American market. Japanese importers have developed a more specialized product classification grid with a higher expectation of perfection; product appearance is more important, to the point where all sections must appear identical. For this type of processing, the crab sections are frozen using carbon dioxide (CO_2) (they go through a tunnel where the gas is applied under pressure). The crab is then covered with a glaze that will maintain quality for several months. However, this process is more expensive and requires more attention than freezing in brine, the process of choice for exports to the United States.

2.2. The fishers

2.2.1. Brief history

When snow crab fishing began in the mid-1960s, it was accessible to all fishers who were interested. Because the price at the time was only a few cents per pound, few participated on a steady basis. For those who persevered, the DFO

limited licences and in the 70's with support of the province, they developed a new specialized fleet for snow crab fishing, commonly known as the traditional crab fishing fleet.

Since the 1990s, in the light of this fleet's success and the problems experienced in the groundfish fisheries and many inshore fisheries, many fishers organizations in New Brunswick, Quebec, Prince Edward Island and Nova Scotia have advocated for a share of this lucrative fishery from the DFO. In 1995, the DFO introduced a weighted, temporary sharing formula, giving a certain number of additional groundfish and inshore fishers access to snow crab fishing.

In 1999, the Supreme Court of Canada ruled that the Passamaquoddy, Mi'kmaq, and Maliseet First Nations had effectively signed treaties with the British Crown (the government of the day) in 1754, 1759 and 1760 that granted these First Nations the right to practice commercial fishing (among other things) for subsistence purposes. The Supreme Court decided that the Government of Canada should respect and acknowledge a present-day application of these treaties (taking into account changes in the fishing industry). That is why fishing licences for snow crab (as well as lobster, shrimp and many others) were issued to the First Nations. The First Nations of New Brunswick, Quebec, Nova Scotia and Prince Edward Island currently receive approximately 15% of the snow crab quota in the southern Gulf of St Lawrence.

In 2003, the then Minister of Fisheries and Oceans announced that, under certain conditions, new entrants since 1995 would have a more permanent access in the snow crab fishery, -- a controversial move (we have only to recall the Shippagan riots).

Today, the snow crab fishers from New Brunswick fishing in the southern Gulf of St Lawrence share the "provincial" quota as follows: traditional crab fishers, 71.35%, First Nations, 15.75%, and the "new access" fleet, 12.90%.

Fishing territory

Snow crab (*Chionoecetes opilio*) has been commercially fished in the southern Gulf of St Lawrence since the mid-1960s. There are four individually managed crab fishing areas, Area 12 (figure 2) being the largest in terms of landings, area and number of fishers. In Area 12 (which includes CFAs 18, 25 and 26), E and F, the fishing season usually starts in April or May, as soon as the Gulf is free of ice, and lasts for about 10 to 12 weeks.[3]

[3] DFO 2007. Assessment of snow crab in the southern Gulf of St. Lawrence (Areas 12, E and F). DFO Can. Science Adv. Secretariat, Sci. Opinion. 2007/021, page 1.

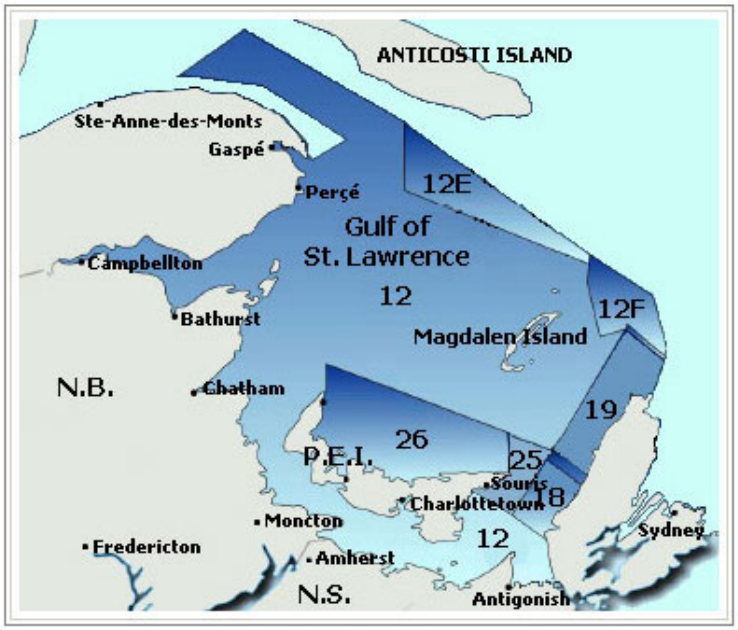


Figure 2 : Snow Crab Fishing Area 12 in the Southern Gulf of St. Lawrence

2.2.2. Categories and numbers of fishers

Statistics on the activities of the fleet in CFA 12 based in New Brunswick are shown in the following table. The traditional fleet consists of 76 boats.

The complexity of the agreements on resource allocation somewhat complicates the calculation of the number of boats in the new entrants and First Nations fleets. The inshore fishers receive a quota that is managed by the MFU. Depending on the value of the crab and the quantity available, the number of inshore boats fishing the MFU quota may vary from year to year. The same goes for the First Nations. In 2007, for example, 46 boats fished the MFU quota, 6 groundfish fishing boats fished their crab quota and 50 boats fished the First Nations quota.

Snow crab fishing generates jobs and provides income for approximately 700 people. Of this number, 340 skippers and crew members are part of the traditional fleet. Add to that approximately the same number of people who are part of the inshore and First Nations fleets.

Figure 3: Profile of the New Brunswick Snow Crab Fishing Fleet (Area 12), 2005

	Traditional	Non traditional *	First Nations **	Area E
Licence holders (#)	76	8	7	6
Quota (tonnes)	13,044	2,024	2,772	280
Quota/licence (kg)	171,632	253,000	396,000	46,667
Season Start Date:	April 30	April 30	April 30	April 30
Season End Date:	July 15:	July 15:	July 15:	July 15:
Maximum number of traps (#)	150	150	150	75
Crew (including boat skipper)	4-5	3-4	3-4	3-4

* This allocation is shared between the MFU (1 licence) and holders of ground fishery licences (7) and redistributed among their members.

** Communal licences

Source: DFO, Gulf Region

2.2.3. Number of traps

Fishers in the traditional, non-traditional and First Nations fleets who have a quota of 50 tonnes or more are allowed a maximum of 150 traps per boat. Fishers with a quota under 50 tonnes are allowed a maximum of 75 traps per boat. All traditional crab fishers are allowed a maximum of 150 traps per boat, while most Aboriginals and non-traditional fishers are allowed a maximum of 75 traps per boat.

In 2007, there were approximately 38,000 traps in the waters of the southern Gulf of St Lawrence during the crab fishing season.

2.2.4. Seasons

In the southern Gulf of St Lawrence, the start of the fishing season is based on the recommendations of the Ice Committee. It usually runs somewhere between April 15 and 30 to July 15, although it may sometimes be delayed due to ice in the Gulf.

2.2.5. Quotas and catches

Quotas

Before 1995, snow crab was fished entirely by the traditional crab fishing fleet. Today, the quota is shared between this fleet, the First Nations fleet and the inshore and groundfish fleets (called the new entrants fleet).

In New Brunswick in 2007, the quota was divided as follows: traditional crab fishers, 71.35%, First Nations, 15.75%, the new access fleet, 12.90%.

Year	Traditional Fleet (tonnes)	New Entrants Fleet (tonnes)	First Nations Fleet (tonnes)
1999	6,273	0	0
2000	7,477	0	425
2001	6,898	658	475
2002	10,696	1,036	838
2003	6,893	1,226	1,263
2004	10,465	1,772	2,137
2005	12,715	2,025	2,772
2006	9,800	1,773	2,164
2007	9,146	1,654	2,019

Figure 4: Total snow crab landings in New Brunswick by fleet, 1999 to 2007

The following figure shows New Brunswick snow crab quota changes by fleet since 1999, based on data from Figure 4:

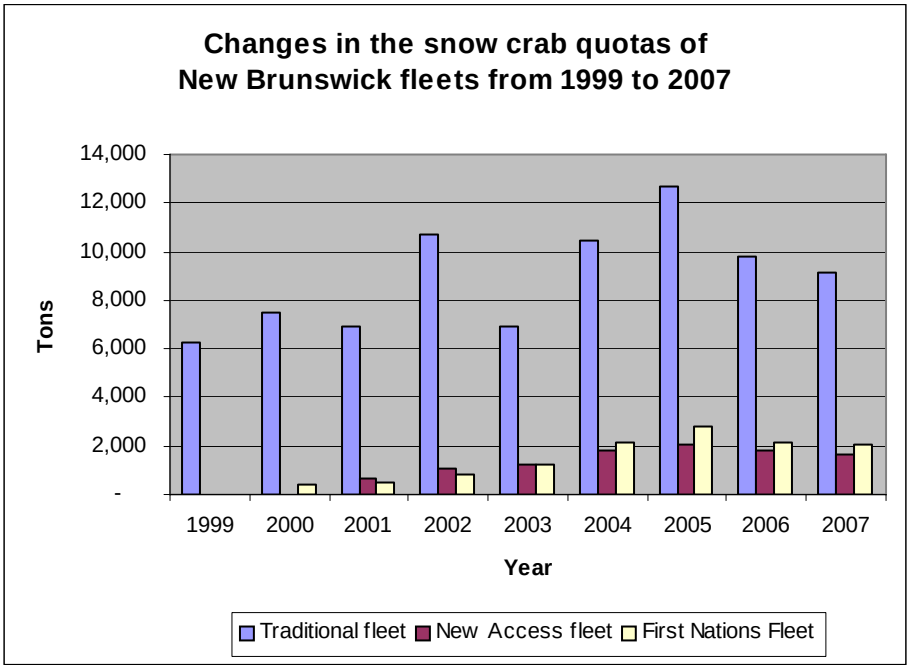


Figure 5: Crab quotas of New Brunswick fleets since 1999.

Catches

In Area 12, snow crab fishing has undergone rapid growth since 1966, and the annual catch reached a peak of 31,500 tonnes in 1982. Annual catches subsequently remained around 25,000 tonnes until 1986, and then dropped to approximately 12,000 tonnes in 1987-1988. In 1989, the fishery was closed early due to a rapid drop in catch per unit effort (CPUE) and an increasing incidence of soft-shelled males among the catches. At the time of the closure, the catch totalled 6,950 tonnes. In 1990, the quota was set at 7,000 tonnes. Catches gradually increased to 19,944 tonnes on a quota of 20,000 tonnes in 1995, before gradually dropping to 11,136 tonnes in 1998. They have since increased to 32,336 tonnes in 2005, a record year 23 years after the 1982 peak, then dropped again by 20% to 25,869 tonnes in 2006.[4]

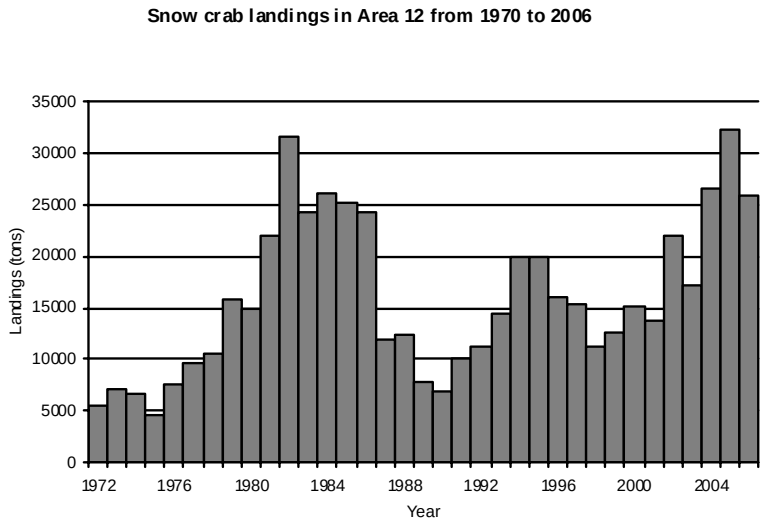


Figure 6: Changes in snow crab landings in Area 12 since 1970.

2.2.6. Landing rates

The following table gives an annual overview of the relative rate of snow crab landings since 1999.[5]

[4] DFO, 2007. Assessment of snow crab in the southern Gulf of St Lawrence (areas 12, E and F). op.cit., page 1.
[5] These data were provided to us by the New Brunswick Department of Fisheries.

Figure 7: Weekly Landings (tonnes) of all NB Fleets									
Year/Week	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**
1*	148	18	1	10	97	49	65	-	-
2	2,942	882	3,307	2,105	2,857	2,110	2,099	1,390	1,451
3	2,638	3,143	2,226	2,666	2,358	1,686	1,674	1,327	1,186
4	2,125	2,602	2,442	2,436	2,117	1,424	1,512	823	1,068
5	1,119	2,068	1,627	2,604	1,329	1,343	1,107	815	983
6	695	1,607	2,512	1,492	504	1,232	720	792	884
7	729	1,600	2,192	1,115	112	1,115	456	800	819
8	n.a.	1,025	1,607	1,105	11	945	229	836	688
9	n.a.	446	1,150	603		776	133	479	372
10	n.a.	171	339	248		647	34	443	102
11	n.a.	51	123	34		561	1	291	
12		38	23	2		342		251	
13		9				154		139	
14						71		89	
15						34		25	
16						25			
TOTAL	10,396	13,660	17,549	14,420	9,385	12,514	8,030	8,500	7,553
N.B Quota	**12,819**	**13,737**	**17,512**	**14,374**	**9,382**	**12,570**	**8,031**	**7,902**	**6,273**
*Week 1 ends on the first Sunday									

It is easy to see the fleet can catch its quota in a very short period. We have only to look at 2003 when, after 3 weeks of fishing, fleets had already landed 73% of the quota, and over 92% after 4 weeks. Another example: a fisher caught his entire quota in only 11 days in 2007.

It could be argued, then, that plant processing capacity is the factor that in some way limits fisher landing rates. However, nothing prevents processors from buying more than their capacity and then transferring the excess to other plants that they own, which could be located outside the province. In other cases, plants with a surplus could resell the crab, either inside or outside the province. We can conclude, that the processing capacity of NB plants is not enough, in and of itself, to impact the weekly volume of landings.

Reviewing the weekly landings of the last 5 seasons in the preceding table, we note that most of the quota was caught after four weeks of fishing.

Year	2007	2006	2005	2004	2003
Total for weeks 1 to 4	8,824	8,695	9,602	9,811	8,661

In 2007, 69% of the quota was landed after 4 weeks; in 2006, 63.45%; in 2005, 54.7%; in 2004, 68% and, in 2003, 92%.

At the end of the day, it is clear that, historically, catches are larger at the start of the season. That stands to reason. Whether this is a problem or not is what we will analyze in this report.

2.3. Processing plant employees

2.3.1. Brief history

The history of fish processing plant workers has been fairly turbulent. Their situation and working conditions have always been regrettable, in spite of the laudable efforts of many people to improve their lot. We cannot discuss the history of plant workers without mentioning Mathilda Blanchard, who spent almost her entire life defending their interests.

On the Acadian Peninsula, most of the workers are unionized. This is not the case for workers in the southeast: they have never had an organization to defend their interests, with the exception of committees here and there that only existed for the time it took to settle a specific issue. With or without a union, the wages of processing plant workers have stayed the same – ie, very low. It has always been difficult for them to take action (like work stoppages) to demand higher wages and better working conditions because processing is seasonal and they depend on these few weeks of work to qualify for employment insurance.

2.3.2. Numbers

For several years now, the New Brunswick Department of Post-Secondary Education, Training and Labour has kept a register of fish processing plant workers on the Acadian Peninsula. The register basically provides a profile of the manpower in this sector and it is updated every year. Unfortunately, this document only includes workers on the Peninsula, so there is no similar information available for workers at processing plants in the southeastern region of the province.

The 2006 register of fish processing plant workers on the Acadian Peninsula listed 2,695 people -- 1,650 women and 1,045 men. The average age was 46.[6]

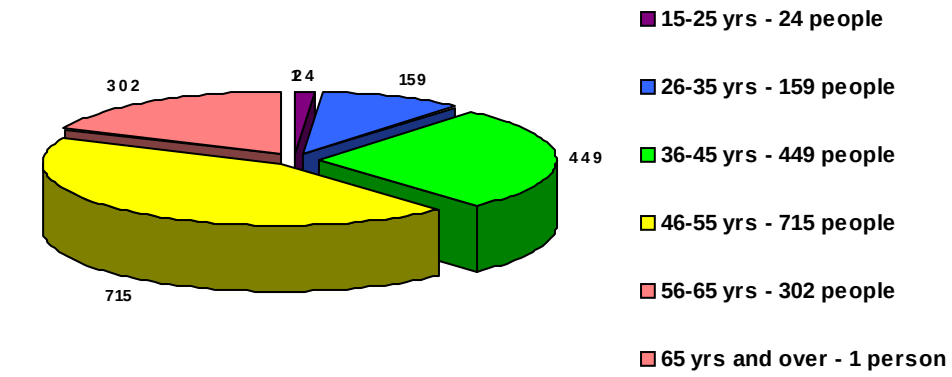
According to data from the New Brunswick Department of Fisheries, there were nearly 2,000 people employed at snow crab processing plants during the 2007 season.[7]

[6] New Brunswick Department of Post-Secondary Education, Training and Labour, Register of fish processing plant workers on the Acadian Peninsula, 2006 Edition, Caraquet, New Brunswick, November 2006, p. 11.
[7] The data were provided to us by the New Brunswick Department of Fisheries.

2.3.3. Average age

In 2006, the register contained 1,650 women, whose average age was 47. The following diagram shows the distribution of these plant employees by age.

Figure 8 : Distribution of female plant employees by age, 2006.



In 2006, the register contained 1,045 men, whose average age was 45. The following figure shows the distribution of these plant employees by age.

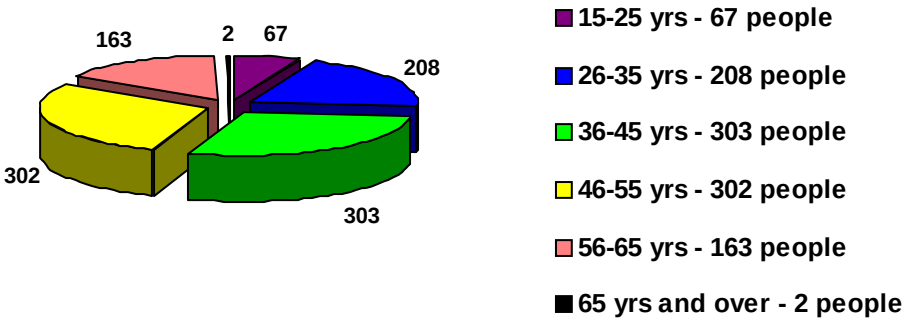


Figure 9: Distribution of male plant employees by age, 2006.

2.3.4. Wages

According to the data provided by the New Brunswick Department of Post-Secondary Education, Training and Labour, the hourly wage of employees varies from minimum wage to $10.00, including 4% holiday pay, although at most of the plants, the hourly wage exceeds $9.00. The annual wage of these plant employees varies between $4,000 and $6,000, including the time spent processing herring.

2.3.5. Working conditions

As well as a wage rate that remains fairly low, the plant workers are faced with other unenviable working conditions. For these workers, the instability of the annual supply to the plants translates into precarious employment: Will they have a job? If so, for how long? The uncertainty regarding the length of employment naturally leads to uncertainty regarding employment insurance benefits.

The frantic landing rate at the start of the season led to well publicized consequences for the plant workers. Work weeks of up to 100 hours lead to exhaustion, health problems, etc.

It is also well known that the repetitive nature of their work and the damp working environment expose them to such health conditions as joint problems and respiratory problems, to name just a couple. In addition, the lack of employee benefits, such as sick days, puts them in an untenable position in case of illness.

2.3.6. Employment insurance issue

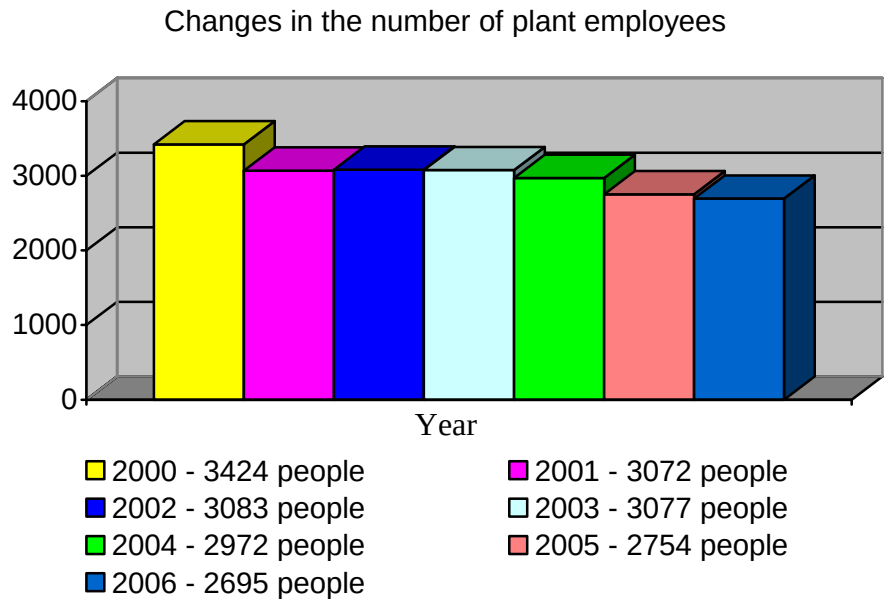
For most of the plant workers, the objective each year is to work at least enough weeks to qualify for employment insurance benefits. For plant workers on the Acadian Peninsula, the average number of weeks of work varies from 6 to 12 weeks annually, if these employees do not go to work at plants in southeastern NB (those who go to work at these plants obviously end up working more weeks). In light of these facts, it is easy to understand why they seek to augment their income with employment insurance benefits. For these workers, the average number of weeks of regular unemployment varies between 26 and 34 weeks annually. These are general data, taking into consideration the large number of people concerned, their different situations and the difficulty of calculating averages.[8]

It should be noted that most of the plants that process snow crab in the spring, also process herring in late summer, early fall. This represents a few additional weeks, which helps them to accumulate enough weeks of work to qualify for employment insurance.

2.3.7. Declining labour force

It is not a myth that the number of plant workers is diminishing, certainly on the Acadian Peninsula. Between 2000 and 2006, the total number of fish processing plant employees on the Acadian Peninsula declined by 21.3%. Between 2000 and 2003, the industry lost more than 10% of its employees. Between 2003 and 2006, the exit rate increased even more: in that period, the industry lost over 12% of its employees. Every three years, 10% of the employees leave the industry. The following table clearly shows this trend.

[8] Data provided by the New Brunswick Department of Post-Secondary Education, Training and Labour on October 19, 2007.


Changes in the number of plant employees
4000
3000
2000
1000
0
Year
2000 - 3424 people
2001 - 3072 people
2002 - 3083 people
2003 - 3077 people
2004 - 2972 people
2005 - 2754 people
2006 - 2695 people

3. Background

We often hear comments such as "*fisheries issues are very complicated*". This is undoubtedly how the people who are not involved in this sector see it. Also, we get the impression that the sector is in constant turmoil; there always appears to be a problem somewhere -- discontent, even quarrels, between various stakeholders, between fishers, between fishers and the government, between plant workers and processors, between plant workers and the government, not to mention Aboriginal demands. It must be said that the current context is not an easy one. This is the case in the snow crab, lobster, herring, shrimp and groundfish industries, our main fields of activity. Still, we have recently noticed a growing willingness to make changes, to work together to explore ways of enabling the whole industry to become more stable and more economically viable. Never the less, the current context of the snow crab industry needs to be closely examined so that we can understand the challenges we must face.

3.1. Processing plants

3.1.1. Production overcapacity (based on the current landing situation)

In New Brunswick, there are 22 fish processing plants with licences to process snow crab.Of this number, 12 plants are active.[9]This does not mean that the others cannot become active if they can find fishers who are prepared to sell them their snow crab catches.If all of the licensed plants processed the daily quantities of snow crab that they are capable of processing, the province would be able to process many times the quotas held by NB fishers.

Some claim that there is no crab processing overcapacity during times of heavy landings and that, in some weeks, they cannot process all the crab they have. This situation is possible, but the problem is more likely the result of poor planning of landings, which we will discuss later.

It is not logical or economically viable to have a permanent infrastructure or processing capacity based on a few weeks of heavy catches when, during the rest of the crab fishing season, we operate well below existing processing capacity. In NB, there is definitely an overcapacity for processing snow crab. This overcapacity is the cause of viability problems and destabilizing competition in the industry.

3.1.2. Uncertain supply

As well as having a processing overcapacity, very few of these plants have an assurance, from one season to the next, that they will in fact be able to obtain snow crab. Among the fishers, this problem was resolved several years ago by granting individual quotas. This means that a crab fisher does not have to be

[9] Based on information received from Mario Gaudet of the New Brunswick Department of Fisheries, October 17, 2007.

worried about the landings of the others because his share of the overall quota is assured. In the processing industry, there is no assurance of supply from one year to the next. Also, due to the huge processing overcapacity, there is fierce competition to acquire the fishers' catches. Needless to say, it is fairly difficult to invest in the development of value-added products when it is not known from one year to the next whether it will be possible to acquire raw material.

3.1.3. Overconcentration of landings at the start of the season

Generally speaking, fishers are able to catch their quota very quickly. Reference is often made to the fisher who, during the 2007 season, caught his entire quota in less than two weeks (11 days, to be exact). Despite the fact that this fisher is the exception and not the rule, the data clearly show that most of the fishers' catches are made during the first weeks of fishing — we will show this later, with figures to support it.

3.1.4. Dependence on the American Market

In the past few years, there have been some significant changes in the marketing of snow crab processed in New Brunswick. For many years, a large majority of NB snow crab went to the Japanese market. In the early 2000s, sales began to shift increasingly toward the American market, on which the industry has now become very dependent. This change was not by choice -- the Japanese market was able to obtain enormous quantities elsewhere (from Russia, for example) at markedly lower prices. That said, the industry is currently very dependent on the American market for the sale of its snow crab production, although smaller amounts are still sold to Japan and elsewhere. Being quasi-dependent on a single market puts the industry in a vulnerable position. The situation is made more tenuous by the fact that, in the United States, snow crab is being increasingly considered a commodity, making it therefore very price-sensitive. We will discuss this more fully in Chapter 5, which deals with the snow crab market.

3.1.5. Rise in value of the dollar

The value of the Canadian dollar in relation to the currency of our foreign buyers has historically played in favour of the snow crab export industry. The meteoric rise in value of the Canadian dollar in relation to the American dollar will cause a substantial decrease in income from the sale of Canadian snow crab on the American market, on which the industry has become very dependent. We will come back to this.

3.1.6. Diminishing resource (based on the biological cycle of the snow crab)

We know enough about the history of the snow crab biomass to recognize that its overall reproduction is cyclical in nature; this means that there are years when the biomass gradually increases to reach a peak and then gradually bottoms out over a

period of 4 to 5 years, before resuming the upward cycle. This cyclical phenomenon is natural and not necessarily an indication of resource overexploitation. Over the past few years, the biomass reached its cyclical peak, with record landings in 2005, and began its down slide in 2006. Over the next few years, we can expect a significant decrease in landings before the cycle resumes its upward trend. This will undoubtedly present other important new challenges over the next few years.

3.1.7. Small margin between the cost of the raw material and the market value of the product (many plants are in a precarious financial position)

Given the processors' overcapacity and the fishers' ability to switch buyers from one season to the next, or even during a single season, it is obvious that demand clearly exceeds supply. This situation puts the fishers in a good position to obtain a better price. Due to the fierce competition for raw material, many processors argue that the margin between the cost of the raw material and the market value of the product is very small. They say that, because of this small margin, they are obliged to pay their employees markedly lower wages and limit the investments they can make in modernization, research, and the development of value-added products.

3.1.8. Last-minute announcement of the fishing plan

Every spring, the snow crab fishing plan announcement is always awaited with great anticipation by the industry. Even if, in general, we have a fairly good idea of what the quotas and other regulations will be, the Minister always has some discretionary power, which often prompts political lobbying of and by politicians up to the announcement of the fishing plan. Some people have the impression that this lobbying may unduly influence the Minister's decisions. Because these announcements are most often made on the eve of the season opening, there is always uncertainty about the fishing plan.

3.2. Processing plant workers

Workers in the NB fishing industry have been in the headlines frequently these past few years and there are many who are critical of their working conditions. The workers' complaints have often been related to snow crab processing. It is important to point out that, overall, the plant employees, who are mostly women, are the most disadvantaged of all stakeholders in the fishing industry.

3.2.1. Very few weeks of work

Firstly, it is well known that their work is seasonal. Also, in the past, their employment period was often so short that many of them had difficulty accumulating enough weeks and hours of work to qualify for the employment

insurance. Hence the creation of the famous *Solidarity Fund* and the province's well-known job creation programs, both of which received millions of dollars.

3.2.2. Very low wages

Although a large part of the plant workers in NB are unionized (especially on the Acadian Peninsula), they are still among the lowest paid workers in the natural resources sector. Many are critical of the fact that an industry like the fishing industry, which generates a total production worth over one billion dollars in New Brunswick (in 2005)[10], pays its employees a seasonal wage between $4,000 and $6,000 annually.

For the snow crab processing industry, the wage bill represents between 6% and 9% of production costs. Yet, in other natural resource processing sectors, this percentage is more in the neighbourhood of 30% to 40%…[11]

3.2.3. Breakneck pace of work at the start of the season

Furthermore, due to the nature and scheduling of snow crab landings, the weekly work varies enormously during the fishing season. For example, depending on landings, the workers may have 100-hour work weeks, followed by 20-hour work weeks. Some people claim that nothing can be done about it because that is the nature of the fishing industry. Others say that it is possible to have more balance in the number of hours that employees work per week. Having said that, it is in fact not always possible to manage the landings due to weather conditions, the limited fishing season, product availability, etc.

3.2.4. Absolute uncertainty from one season to the next

Uncertainty regarding the quantities of crab that a processing plant will receive each season and each year means that workers never know what to expect from one year to the next. It is not known whether any one plant will hire 50, 100 or over 200 workers in the spring, because this decision depends on the number of fishers who agree to sell their catches to that plant that year. Hence there is perpetual uncertainty for workers about whether they will be able to work and for how many weeks.

3.2.5. Dependence on employment insurance

The employment insurance program was designed to ensure a certain amount of income for a certain number of weeks, in case of job loss. Unfortunately for employees in the NB fishing industry (in particular on the Acadian Peninsula),

[10] New Brunswick Department of Fisheries, Profile of the fishing industry in New Brunswick, Supplement to the Report of the Stakeholders Action Groups, September 30, 2007.
[11] Based on data provided by the New Brunswick Department of Fisheries, October 2007.

they usually spend much more time unemployed than they do working in the processing plants. The result is workers who often work every season only to qualify for employment insurance benefits, as the income from employment insurance is higher than their income from plant work. This fact alone creates a whole dynamic that provokes controversy. Many claim that, during the processing season, some workers do not want to go back to work if they already have enough weeks of work to qualify for employment insurance benefits.

3.2.6. Constant decline in the number of plant employees

In the past, when there was not enough work in the fish processing plants for everyone who wanted to work there, the situation is very different today. With demographic changes, the creation of a certain number of new jobs in rural settings and the attraction of better paying jobs in other provinces, there are fewer and fewer employees available to work in the fish processing industry.

3.3. Fisher-owners

3.3.1. Resource in decline for the next few years

We know that the abundance of snow crab will be declining for the next few years, possibly bottoming out towards 2011. This will require significant adjustments on the part of the fleets. Once again, it may become difficult for the fleets to agree on changes to be implemented. This could once again constitute a source of conflict.

3.3.2. Uncertain prices and lack of reliable information on market conditions

Fishers who are owners of companies in the crab industry have to operate year after year in a climate of uncertainty. For example, they never know from one year to the next what the price of crab will be. They have often experienced substantial income fluctuations from one year to the next without always receiving an explanation for these changes or even without knowing whether the reasons given were valid. Generally speaking, fishers are not well informed about the market conditions that affect the price of crab and are never certain the price they receive accurately reflects market conditions.

3.3.3. Uncertainty and controversy regarding resource allocation

The issue of resource allocation remains a source of conflict and instability for fishers. Because fishers have rarely agreed among themselves in the past about the portion of the resources to be allocated to one group or the other, it is the Minister of Fisheries and Oceans Canada who settles these issues. Because of the Federal Minister's prerogative, there is enormous political pressure on him year after year to allocate more resources to one group or the other for various reasons.

This very political method of resource allocation is a persistent cause of instability for fishing businesses and a frequent source of conflict and mistrust among the different groups of fishers.

For some species, like snow crab, the status of their biomass and the quantity that can be fished from one year to the next (without compromising it) are cyclical in nature. These cycles represent a challenge, because the total allowable catch (TAC) can vary by 50% or more, depending on whether it is the upside or the downside of the cycle. When the total allowable catch is rising, there is enormous pressure to make way for more fishers. Conversely, when the cycle is falling, there are often too many fishers and so there is pressure to reduce the number of stakeholders.

3.3.4. Last-minute announcement of annual fishing plan

Every year, the fishers complain about the fact that the snow crab fishing plan is announced at the very last minute. When you know about the political pressures on the Minister over issues related to the fishing plan, it is fairly normal to be on high alert until the season opens. In fact, no one knows for sure what to expect, even if many may have a good idea of the level of the quota.

3.4. Crew members

When we refer to the conditions of fishers, we think too often about fishers who have their own businesses, including their own boats. This means that we tend to ignore the working conditions of the majority of fishers. In fact, most fishers do not own a boat or a business, they are employees of the fisher-owners.

3.4.1. Less pay

Until a few years ago, crew members used to receive a share of the value of the catch taken by the fishing business. As in the case of plant workers, employment insurance has now become a predominant source of income for crew members. Many industry stakeholders tell us that a significant portion of crew members are now dependent on employment insurance. Instead of receiving a share of the value of the catch as wages, as was historically the case, they must now accept a fixed wage that allows them to qualify for employment insurance, even if the benefits provide less income than the catch value sharing formula. Most crew members now no longer earn a living based on the value of the catch, but based on their qualification for employment insurance benefits. Gone are the years when all crew members would have good years when the fishing was good and the price made it worthwhile.

3.4.2. Less numerous

Like plant workers, crew members are becoming and will continue to become less numerous. Many go to work out of province because they can make a better living. Rare are the young people who, given the choice, opt for a career as a crew member on a boat, where you work to qualify for employment insurance benefits. We are already seeing a shortage of crew members; this situation will undoubtedly deteriorate fairly quickly in the next few years.

3.4.3. Lack the financial means to become a skipper-owner

In the past, many fishers were interested in being part of a fishing crew in order to learn the trade and subsequently invest in their own business. Today, the price of a business is so high that it has become very difficult for crew members to finance the purchase of a fishing business.

3.5. Communities

3.5.1. The snow crab industry generates a significant number of jobs

When people say that the fishing industry is important to many of our communities, what exactly does that mean? First, it is necessary to understand that there are over 4,000 fishers in the fleets along the east coast of New Brunswick (from Dalhousie to Cap Tourmentin) who depend on fishing for their livelihood. In addition, another 4,000 or so people work in the seafood processing plants[12]. Nor can we ignore the contribution of companies that supply goods and services, such as shipbuilders, suppliers of associated services like training, those who repair and sell marine and fishing equipment, who manufacture and sell packaging, who sell fuel, etc.

3.5.2. Snow crab: important economic asset for the regions

As illustrated by the following table, snow crab fishing brings in hundreds of millions of dollars annually to our communities, the amounts varying depending on allocated catches, landings and market values. Therefore all public and private stakeholders must clearly understand that the health of our fishing industry is of paramount importance to many of our coastal communities.

[12] Based on information received from the New Brunswick Department of Fisheries, October 2007.

3.5.3. Dilemma of rural communities: how to increase profits from natural resources

The other side of the coin is that a large majority of the stakeholders in the fishing industry – ie, most of the fishers who are crew members and the plant workers -- basically work to have enough weeks to qualify for employment insurance. In actual fact, these people have very low incomes. Is it enough to convince the next generation to continue to work in the fishing industry? Do we want to encourage the next generation to remain in the fishing industry? Should we perhaps encourage them to work in other fields instead? Does the current situation in the fishing industry really represent the best that this industry can offer our children?

3.5.4. Demographic changes = other types of jobs?

Does the future of our communities inevitably involve a large number of poorly paid jobs and a heavy dependence on employment insurance? Would the communities be better served by fewer jobs that pay more, so that those who have jobs would be able to earn a better living and be less dependent on employment insurance?

3.6. The Federal Government (Department of Fisheries and Oceans)

3.6.1. Difficulty managing joint ownership when the stakeholders do not agree on resource allocation

The marine products found along our coasts and in our oceans belong to all Canadians. The Government of Canada, through the Department of Fisheries and Oceans (DFO), is mandated to manage this resource to ensure preservation and continuing reproduction. Resource preservation and conservation are essential to the country's economic well-being. Resource preservation and conservation are just as important to those who have the privilege of catching this resource with a view to earning a viable living.

The DFO has been criticized in the past for the way it has managed fisheries. Historically, the fishing industry has ensured the survival of our coastal communities. Stakeholders did not earn much, but fishing created a lot of jobs and the issue of overexploitating the resource never came up. Since the 1960s, our ability to take increasingly large catches has resulted in several crises where the Federal Government, through the DFO, has had to intervene, with varying degrees of success, to try to avoid a catastrophe.

With increasing catch sizes came the attempt to regulate effort using all sorts of restrictive measures. In many cases, mechanisms were introduced to reduce effort level – eg: the creation of individual transferable quotas.

Furthermore, the decision to add new fishing licences, made during a period of resource abundance, raised questions about plans for dealing with the expected decline of the resource over the next few years.

3.6.2. Difficulty reconciling fishing plans with the rigid positions of interest groups

One of the most difficult problems to resolve is catch management in relation to fishing overcapacity. We must acknowledge that, since the time of Roméo LeBlanc, the DFO has put a great deal of effort into consulting fishers and involving them in the decision-making process, especially with regard to resource management and access to the resource. Unfortunately (though not for lack of encouragement), fishers have not yet managed to agree on a sharing formula, with each of the fleets continually arguing for greater access to the available resource. As a result, all parties have orchestrated many political lobbying campaigns to try to influence the Minister.

This lack of agreement, against a background of perpetual discord, has led to quarrels between groups of fishers, which has made and continues to make the DFO's job of managing the fisheries extremely difficult.

It has become difficult to reconcile fishing plans with the rigid positions of interest groups that do not agree among themselves.

3.6.3. Difficulty reconciling catch management for conservation purposes with processing plant requirements and market realities

It should be mentioned that the DFO has had a great deal of difficulty reconciling resource management for conservation and sustainability purposes with the commercial realities of the industry – ie, market requirements. In the past, commercial considerations have, unfortunately, been frequently disregarded by concentrating only on conservation and protection measures.

3.6.4. Difficulty reconciling scientific research needs, conservation and protection needs AND the costs associated with these activities

The other major problem, which arose as a result of modernization and increased catch capacity , is the lack of scientific data needed to measure the extent of fishing effort the resource can bear. In order to determine what quantities can be fished, we must know how much there is of the resource, whether the resource depends on other species to reproduce and what the optimum climatic and environmental conditions for its reproduction and survival are.

With current technologies, it is still easier to quantify our trees than our marine species. We can see the trees and they do not move. This is not the case with marine species. Our marine scientists have accomplished a great deal since the 1960s, but the requirements and the associated cost are huge. We do not yet have all the knowledge or data we need to do a complete analysis of the appropriate

catch rates for all of the species. These catch rates are obviously necessary in order to avoid overfishing and unduly disrupting the marine food chain.

3.6.5. Difficulty reconciling the requirements of the provinces

For a long time, the province of Quebec wanted to have full jurisdiction over fisheries management. Then it was Newfoundland and Labrador, and now all the provinces want a say in fisheries management. In principle, this is a good thing, as long everyone acts in the common interest and not in the interest of a single province or at the expense of fishers from any province. Unfortunately, we often have situations where the objective appears to be "let's rob Peter to pay Paul". Under these circumstances, more provincial participation tends to further complicate the DFO's fishery management decisions.

3.6.6. Difficulty reconciling the interests and regulations of the various Departments and Agencies responsible for fisheries, oceans, processing, the environment and economic development

Lastly, it is clearer and clearer that the management of fisheries and oceans is not solely the responsibility of the DFO; it also involves numerous other departments, such as the Department of Transportation (navigation and seaports, safety at sea), the Department of the Environment (pollution and endangered species), Human Resources and Social Development Canada (training and employment insurance), the Department of Indian and Northern Affairs Canada, the Canadian Food Inspection Agency and Health Canada, as well as departments and agencies responsible for economic development: the Atlantic Canada Opportunities Agency (ACOA), Industry Canada (investment and international trade) and the Department of Foreign Affairs and International Trade (international trade agreements, offshore fishing, maritime conflicts, international laws, eg: the law of the sea). This whole network of stakeholders requires increasing coordination and action by all parties.

In the end, this means that for the DFO to function smoothly and effectively, positive contributions are required from many stakeholders, starting with the groups of fishers and their representatives.

3.7. The Government of New Brunswick (Department of Fisheries)

Some people claim that the fisheries portfolio in New Brunswick has been rather neglected in the past few years, that amalgamating the Department with the Department of Agriculture reduced the fisheries division to second string on the agro-food industry team. We note that the province is making an effort to focus more attention on the fisheries portfolio, mainly by creating a new Department of Fisheries (the separation is not yet complete), and to bring all the players back to the table by holding a Fisheries Summit and creating a provincial round table are two recent examples.

That said, the province and the NB Department of Fisheries also have their limits in terms of their ability to intervene, even in their jurisdictions, such as fish processing, employee working conditions, training, law on the associations of stakeholders (unionization, etc), and the marketing and promotion of marine products.

3.7.1. Provincial differences regarding resource allocation

Most of the time, it is essential that provinces have the same approach for certain portfolios to move forward. This is not the case with many issues in the fisheries sector. Differences between provinces with regard to fisheries, frequently limit the options available to the New Brunswick Department of Fisheries.

3.7.2. Provincial differences regarding protectionist measures

The issue of what can be described as “provincial protectionism” is a good example of this. The provinces of Newfoundland and Labrador, and Quebec have taken steps to prevent their resource from being sold outside their provinces. These measures are obviously inconsistent with free trade and the free flow of goods. Worse yet, they do not serve the interests of any company that must survive and trade on the world market. Once again, when everyone is going in different directions, relationships become complicated and companies are prevented from being more competitive on the international market.

3.7.3. Difficulty reconciling plant working conditions and competition from processing plants in other provinces

First among these limiting factors are the other provinces. In many cases, what might appear to be a simple measure within one's jurisdiction may have disastrous consequences if the other provinces do not follow. For example, if we decided to double the minimum wage for plant workers and the neighbouring provinces did not, it would have damaging repercussions: it would mean that the snow crab processors in those provinces would be able to pay more for crab because their processing costs are lower compared to New Brunswick processors. It also follows that our fishers will then want to sell more of their crab outside NB because they can get a better price for it…

3.7.4. Difficulty improving the working conditions of employees when catches are federally regulated

There are, naturally, differences among the provinces, but there is also a long tradition, in relations with the Federal Government of blaming the other party for one's own misfortunes. This tendency is prevalent among the provinces (undoubtedly part of our “Canadian Federalism”), but sometimes the Federal Government blames the provinces. In the case of fisheries, the need to blame someone else applies to the Federal and Provincial Governments equally.

3.7.5. Difficulty reconciling the interests and regulations of the various Departments and Agencies responsible for fisheries, oceans, processing, the environment, labour, training and economic development (Department of Labour, Department of the Environment, Community College of NB, etc)

Finally, as with the Federal Government, the various provincial departments and agencies must cooperate more closely with the NB Department of Fisheries.

At the risk of appearing pessimistic, I must point out that conditions are not usually favourable, which makes the job of the NB Department of Fisheries much more onerous and complicated than it would appear at first glance.

4. Global Context of the Snow Crab Fishery in the Southern Gulf of St Lawrence

4.1. Crab species and catches around the world

Many crab species are fished around the world. There are two main categories of crabs: the brachyura and the anomura.

The suborder brachyura includes four categories: the swimming crab, the queen crab and the rock crab, and a fourth category that includes several types of crabs that are called “other indeterminate species”.

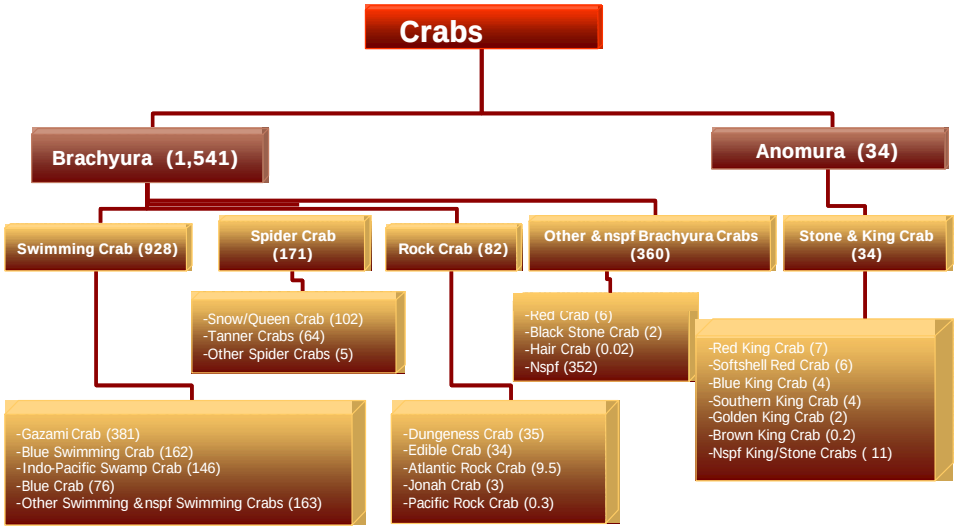
The snow crab is a type of queen crab. The snow crab fished in Atlantic Canada is of type *Chionoecetes opilio.* It is also called queen crab. A related species, *Chionoecetes bairdi*, is also known as tanner crab. The *c. opilio* and *c. bairdi* are sometimes interchanged – ie, one is taken for the other and vice versa.

Of the two suborders of crab, the brachyura is the most fished. In fact, in 2005, landings of 1.5 million metric tonnes of this family were recorded, while only 34,000 metric tonnes were recorded for the anomura, which includes the king crab. Among the brachyura, the swimming crab represents the highest proportion of landings, with 928,000 tonnes. However, this crab is only fished and consumed in China. Next come the "other indeterminate species", with 360,000 tonnes fished in 2005. The queen crab follows with 171,000 tonnes and, finally, the rock crab with 82,000 tonnes.

Of the total queen crab catch, snow crab accounts for 102,000 tonnes, the *c. bairdi* for 64,000 tonnes and the other species for 5,000 tonnes.

Leaving aside the swimming crab, which goes only to the Chinese market, the queen crab represents 28% of the crab fished worldwide. According to FAO data for 2005, snow crab accounts for 60% of the queen crab catch.

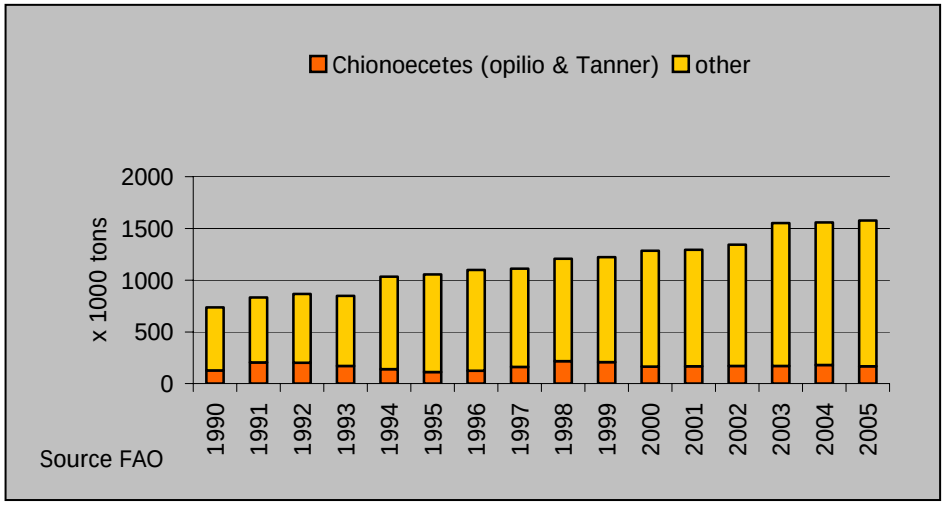
Figure 11: Commercially Landed Crab Species (Volume Landed in 2005 (X 1000 mt)



Source: FAO

Catches of queen crab (*c. opilio* and others) have remained relatively stable since 1990, while catches of other species of crab (all types combined) have more than doubled since 1990. The following chart shows the increase in catches, in metric tonnes.

Figure 12: Global Crab Fishery: snow crab in relation to other species of crab



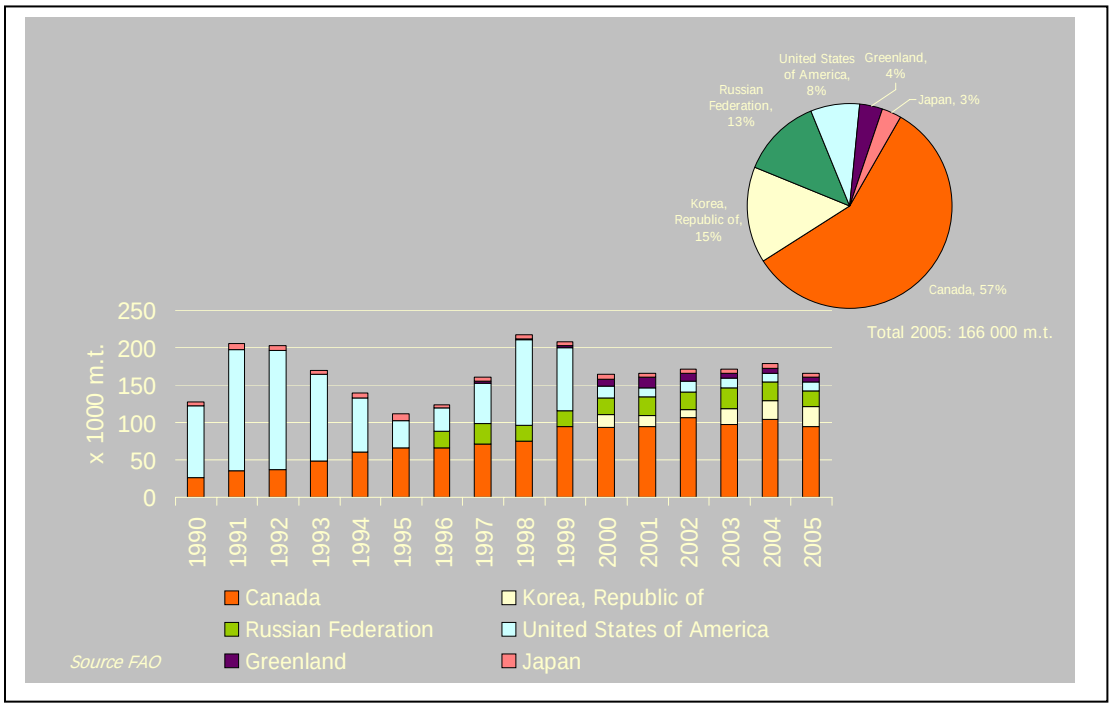
4.2. Position of Canadian snow crab compared to snow crab production elsewhere

Snow crab has traditionally been fished mainly in Alaska and Atlantic Canada. Until the end of the 1990s, this market was affected by the high abundance of Alaskan snow crab. Possibly due to overfishing, Alaskan catches have dropped drastically since 2000, making way for Atlantic snow crab. In 2005, for example, Canada was responsible for 57% of world snow crab landings.

Since 1996, however, we have noted a gradual increase in snow crab catches from Russia. This increase is a determining factor on the market, especially since certain sources say that actual landings are much higher than Russia's official figures. It is said that much of this crab is moved through the Republic of Korea.

Since 2000, with the drastic decrease in crab landings in Alaska, we note an increase in Russian and Korean landings (of Russian origin, some say).

Figure 13: World landings of snow crab and *c. bairdi* crab



The case of Russia

According to FAO figures for 2005, landings in Russia and Korea represented 28% of queen crab landings. However, king crab catches from the Kamchatka Peninsula are the subject of all sorts of speculation. According to some sources:

- In 2002, actual catches were three times the allowable limit
- In 2003, they were four times higher
- In 2004, they were four and a half times higher (according to *Pacific Scientific Fisheries & Oceanographic Research Institute*, as reported by *Seafood.com News* on July 21, 2005)
- In 2006, it was reported that crab landings at Kamchatka were 6.4 times the allowable limit (according to *Seafood.com* on September 5, 2007).

Some claim that these figures are exaggerated. Even if they are exaggerated, there are sufficient grounds to believe that serious overfishing is taking place in that region.

Russia has taken some steps to counteract illegal fishing.Briefly:

- In 2000, Russia asked Japan for help
- The first concrete action was taken in 2002:
    - Only authorized boats can land their catches in Japan
    - Ban on foreign fishing in the Far East
- Another important measure in 2007:
    - Embargo on Russian landings of crab from outside Russia
- Since 2005, threats of a crab fishing embargo have been hanging over the Kamchatka fishery.

That said, there is no evidence that anyone has taken control over this fishery. Of the three major snow crab fisheries -- Atlantic Canada, Alaska and Russia -- it is unquestionably the Russian fishery that is the most problematic and whose future is most uncertain. This could impact the demand for Canadian snow crab, particularly on the Japanese market.

Queen crab fishing seasons around the world

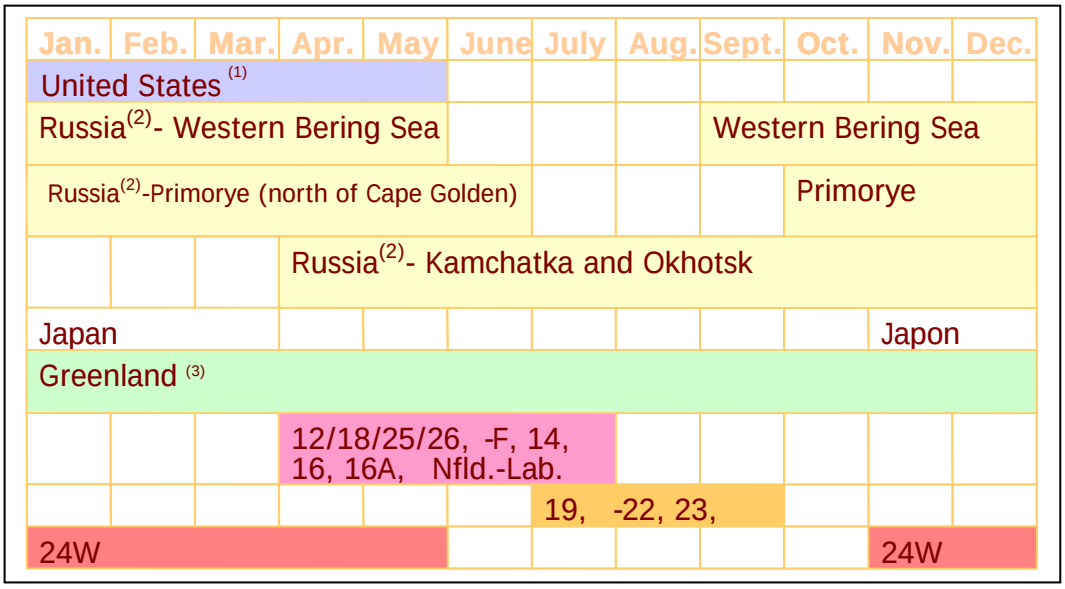
All snow crab fisheries are governed by a quota system and adhere to a specific annual fishing schedule.

Thus, the official snow crab fishing season in Alaska is from October 15 to May 15. In fact, it usually takes place from January to May because the fishers have agreed to delay the start date. In Russia, in the western Bering Sea, it is open all year except June to August. In the Primorye, north of Cape Golden, it closes only July to September, while in Kamchatka and the Sea of Okhotsk, the season opens in April. Note that fishing seasons in Russia are apparently not respected.

In Japan, crab fishing takes place from November to the end of March. In Greenland, it is open season all year but, in the most northerly region, ice conditions prevent fishing December to April.

As for the Canadian fishery, the season in the southern Gulf of St Lawrence and in Newfoundland and Labrador opens in April and closes at the end of July, although the season is sometimes delayed because of ice in the Gulf. In Areas 19 to 23 (near Nova Scotia), the fishery is open July to September, while in Area 24W (southwest of Nova Scotia), it is open November to May.

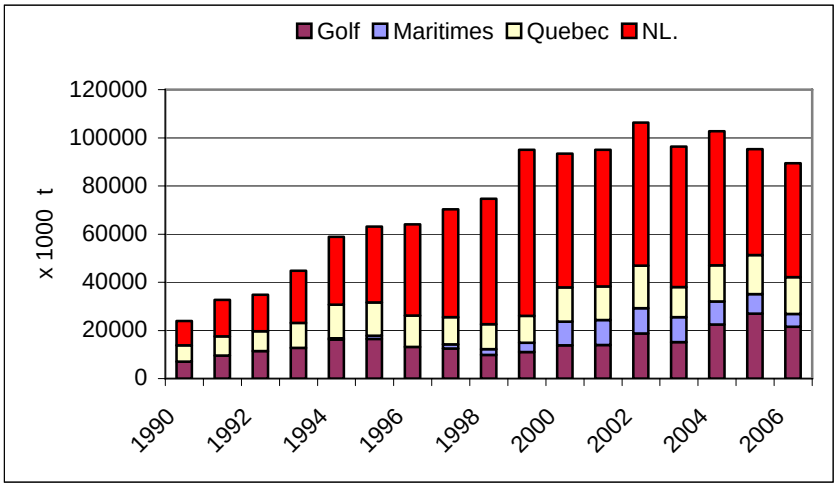
Figure 14: Approximate Schedule of the Snow Crab Industry



4.3. Southern Gulf of St Lawrence snow crab production compared with Canadian snow crab production

At the start of the 1990s, snow crab production in the southern Gulf of St Lawrence (which includes New Brunswick, part of Quebec, Prince Edward Island and part of Nova Scotia) accounted for the majority of snow crab landings in Atlantic Canada. There has since been a major increase in snow crab landings in Newfoundland. Since the 1990s, there has been rather limited fishing on the Atlantic side of Nova Scotia. Today, Newfoundland and Labrador account for the bulk of snow crab landings.

Figure 15: Canadian snow crab landings according to the DFO's administrative regions



Up to 1990, snow crab was fished mainly in the southern Gulf. Landings in Newfoundland and Labrador have become increasingly important, especially since the 1990s. Prior to this, crab from the southern Gulf was sold mostly to Japan; now it goes mainly to the American market, as does crab from Newfoundland and Labrador. We therefore cannot ignore the penetration of Newfoundland and Labrador crab into the market.

The following figure illustrates the increase of Newfoundland and Labrador crab landings since 1979. Until 1992, the landings never exceeded 20,000 tonnes. After 1993, landings increased continually until they reached a peak of nearly 70,000 tonnes in 1999. Since then, annual landings have ranged from around 55,000 tonnes to a little more than 40,000 tonnes in 2005 and 2006. This industry's growth was directly related to the collapse of cod and groundfish stocks that completely upset the fishing industry in Newfoundland and Labrador in 1992. To compensate for the consequences of closing these fisheries, a large number of licences to fish crab and other crustaceans were issued.

Figure 16: Snow crab landings in Newfoundland and Labrador – 1979-2006

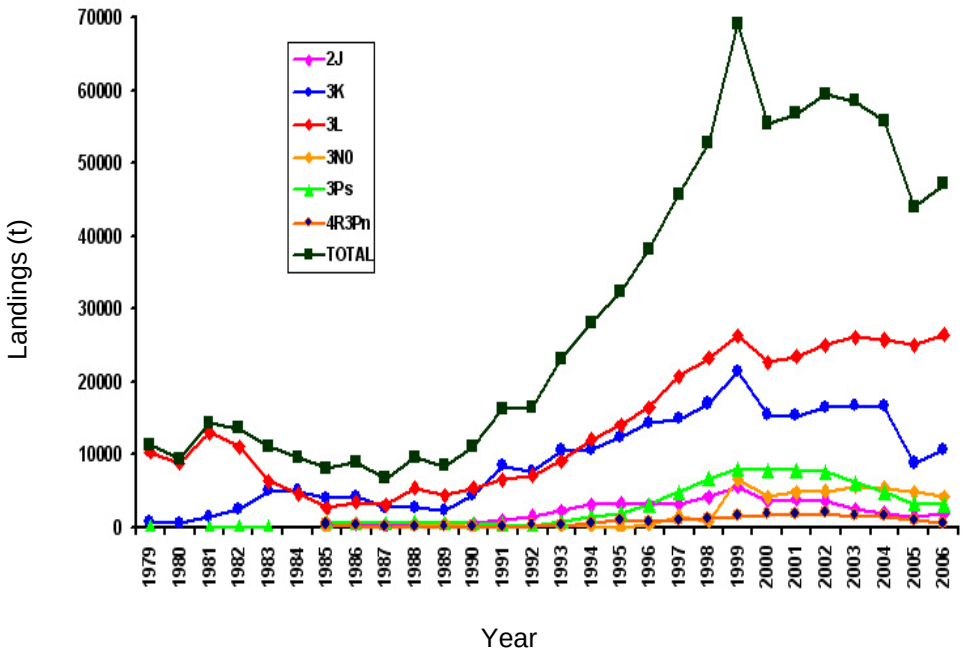


Figure __: Trends related to total landings and by NAFO Division.

5. Snow Crab Markets

5.1. Main snow crab markets

Almost all of the snow crab production in Atlantic Canada is exported. Historically, this industry has been based on two markets: the United States and Japan. Both markets levelled off in 2005, after a three-year price boom. The combination of price resistance from the food services industry and retail sales, new sources of supply for snow crab (ie, Russia) AND the availability of other crab species on the US market contributed to a drop in the price of snow crab.[13]

The demand for snow crab

World markets consumed approximately 150,000 tonnes (live weight equivalent) of snow crab in 2005, for a market value of approximately US$670 million (according to export prices). In 2005, the United States and Japan shared approximately 96% of the world market.[14]

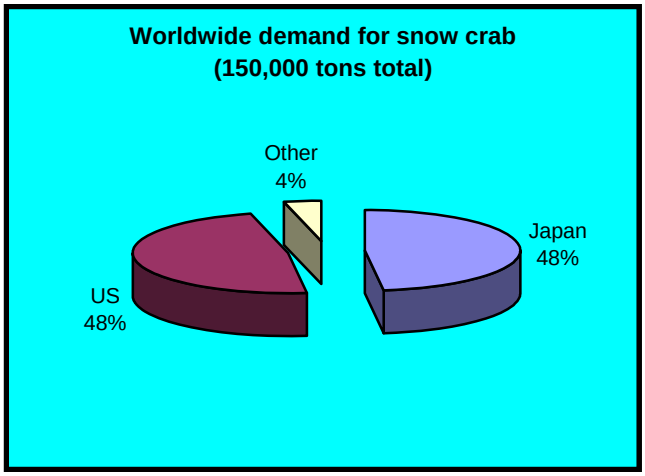


Figure 17: Snow crab markets in 2005

In the United States, snow crab is essentially a commodity, ending up in the mid- to low-end of the food services and retail segments. The Japanese market targets the mid- to high-end of the range.

Brief overview of the US market

Crab sections account for 95% of exports to the United States. In recent years, more than 98% of Canadian exports (by volume) to the US have been in the form of frozen sections. Some meat extraction may occur in the US, but relative production costs make this an unattractive business.

The food services sector consists of three main components: mid-priced restaurants (eg: Red Lobster), low-priced Asian restaurants and buffets, and casinos. All of these outlets are very price-sensitive; if prices go up, they will quickly replace crab with substitutes. In 2004 and 2005, other crab species (such as Dungeness and

[13] Gardner Pinfold, *Overview of the Atlantic Snow Crab Industry*, June 2006, p.12.
[14] Ibid., p. 11.

Angalatus) were used as substitutes (possibly because of large catches in the US), although Jonah crab and rock crab were used in some applications.

The retail sales sector tends to use crab as a promotional item (loss leader), contenting themselves with narrower profit margins. Promotions are only possible when crab falls below a certain price (US$3.50 is cited as the maximum, which makes it possible for retailers to sell at or below $4.99 a pound, which is considered to be the ceiling price). The prevailing market opinion is that it is difficult to interest retailers in crab when the wholesale price exceeds US$3.50 a pound — as it did in 2004, resulting in a sharp decrease in demand and prices, which carried over into 2005.[15]

Brief overview of the Japanese market

The Japanese market is more diversified than the American market, in terms of product form and use. Crab is sold live, frozen whole, in sections frozen in brine and gas, and as crabmeat for the sushi market. Canadian exports to Japan are usually in the form of frozen sections, with meat extraction taking place at plants in China or other Asian countries. Some of the Japanese companies that import Canadian crab also own such plants.

The food services sector consists of two main components: vacation and luxury restaurants (many of these are in Hokkaido in the north, where there is a relatively small Japanese crab industry) that serve whole crab or crab sections, and sushi restaurants that serve crabmeat. This market segment represents a generally higher-end market compared with the food services sector in the US. Japanese importers are consequently prepared to pay higher prices for the crab.

The retail sector consists primarily of department stores, with demand reaching a peak during gift-giving seasons. Some observers report that demand is beginning to extend beyond these seasons, with prices stabilizing as a consequence.

The value of Canadian snow crab on the world market

Despite increases since 1990, Canadian snow crab landings do not appear to impact the world market price (the world price is on the decline).In fact, when the landings increased, the price also increased, which indicates, at the very least, that there are products competing with Canadian crab on the market.

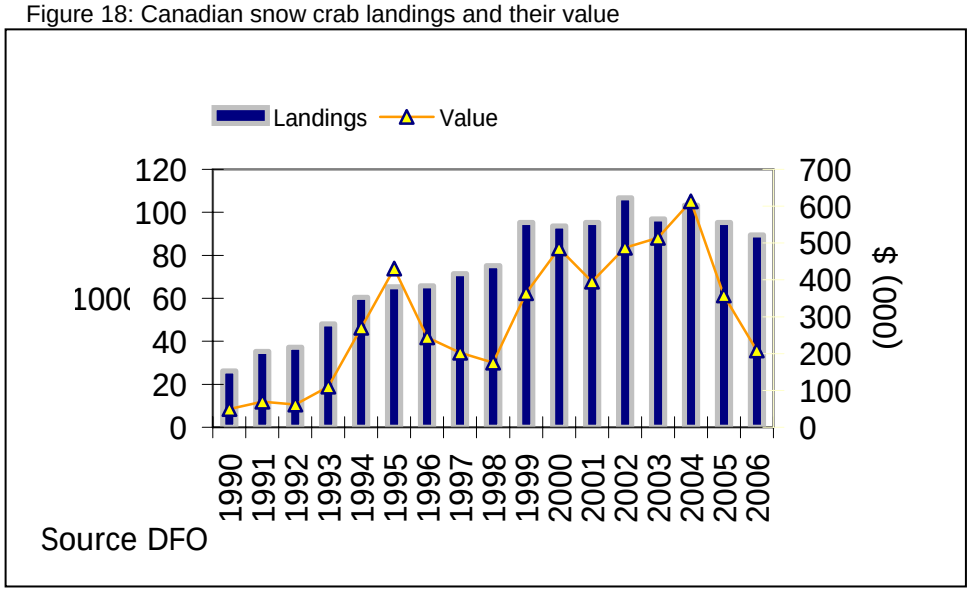
For example, from 1998 to 2004, landings and prices both increased. The start of this period appeared to coincide with the decline of crab fishing in Alaska. Alaskan crab catches reached their lowest levels in 2000.

Furthermore, from 2004 to 2006, prices dropped while landings remained relatively stable. During this same period, crab landings increased in Russia and Korea. This

[15] Ibid. p.14.

increase, which some believe was even greater than reported, definitely affected the Japanese market, and partly explains the price drop.

Figure 18: Canadian snow crab landings and their value



5.2. Market developments and changes

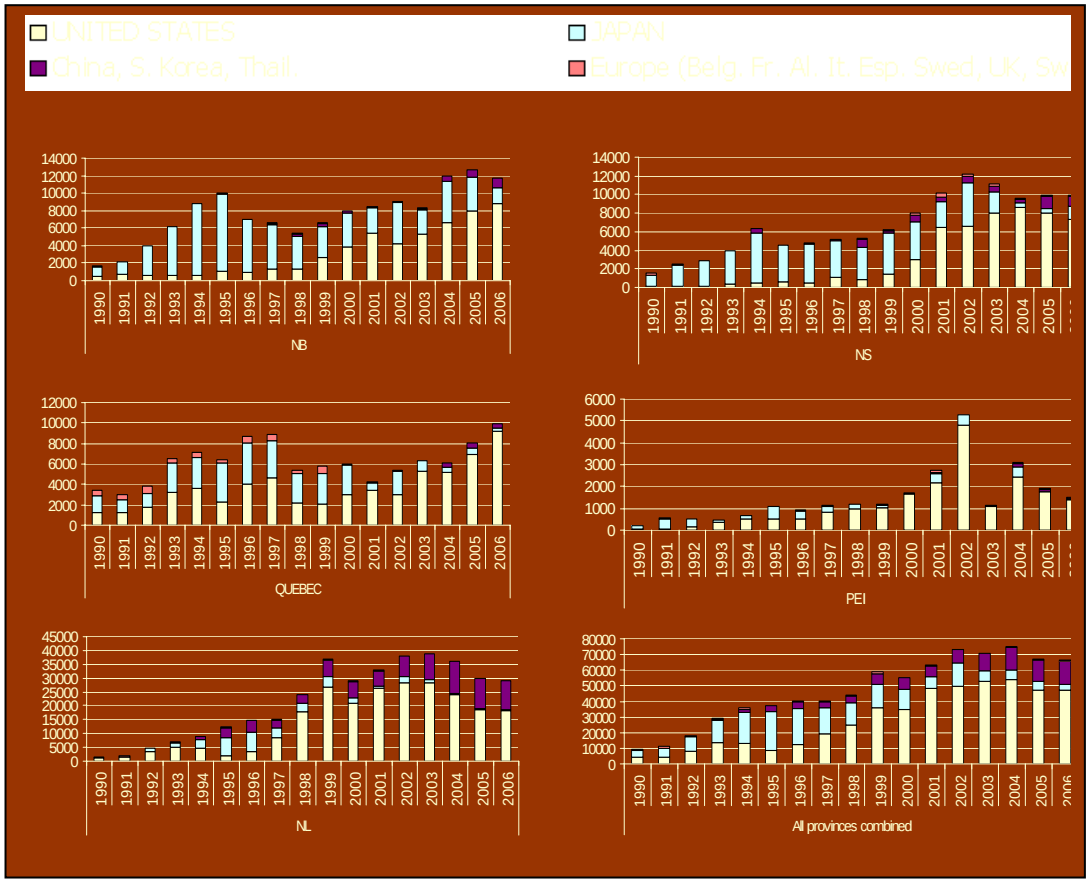
The Gulf of St Lawrence snow crab market underwent a major change toward the end of the 1990s and the beginning of the next decade. Historically, snow crab was sold to Japan. Starting in 2001, the market definitely shifted to the US.

Canadian snow crab exports

To the end of the 1990s, New Brunswick snow crab was sold mainly to the Japanese market. Since then, we have seen a shift to the US market. The same is true for Nova Scotia, Prince Edward Island and Quebec. In other words, exports of all St Lawrence crab have shifted from Japan to the United States.

As Newfoundland and Labrador crab is headed for the same markets as southern Gulf of St Lawrence crab, you might think that the increase in catches since 1990 would have had a significant effect on the markets. In actuality, Newfoundland and Labrador crab has more or less taken the place of Alaskan crab on the world market. Crab from Newfoundland and Labrador is sold mainly to the US market -- except for the past few years, when a fairly large quantity has been exported to China for processing. It is then sent to the US and Japanese markets.

Figure 19: Canadian snow crab exports (t)



In 1995, less than 3,000 tonnes were exported to the United States and more than 25,000 tonnes were exported to Japan. In 2005, it was the reverse. More than 40,000 tonnes were exported to the US market, with less than 8,000 tonnes going to Japan.

Figure 20: Major competitors for US markets: US imports

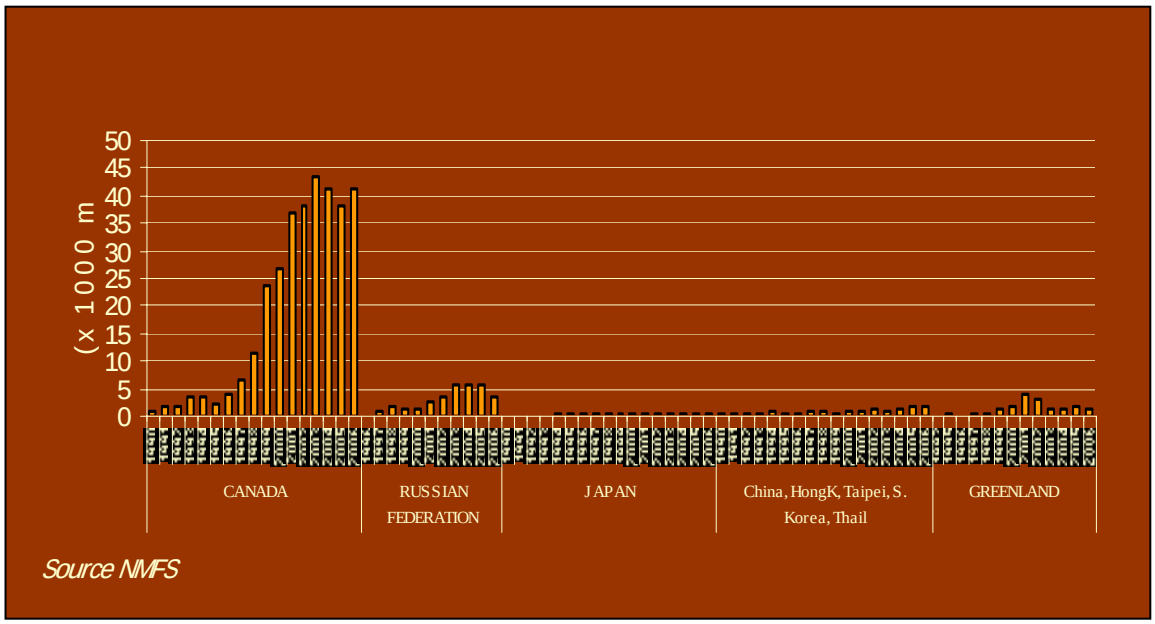
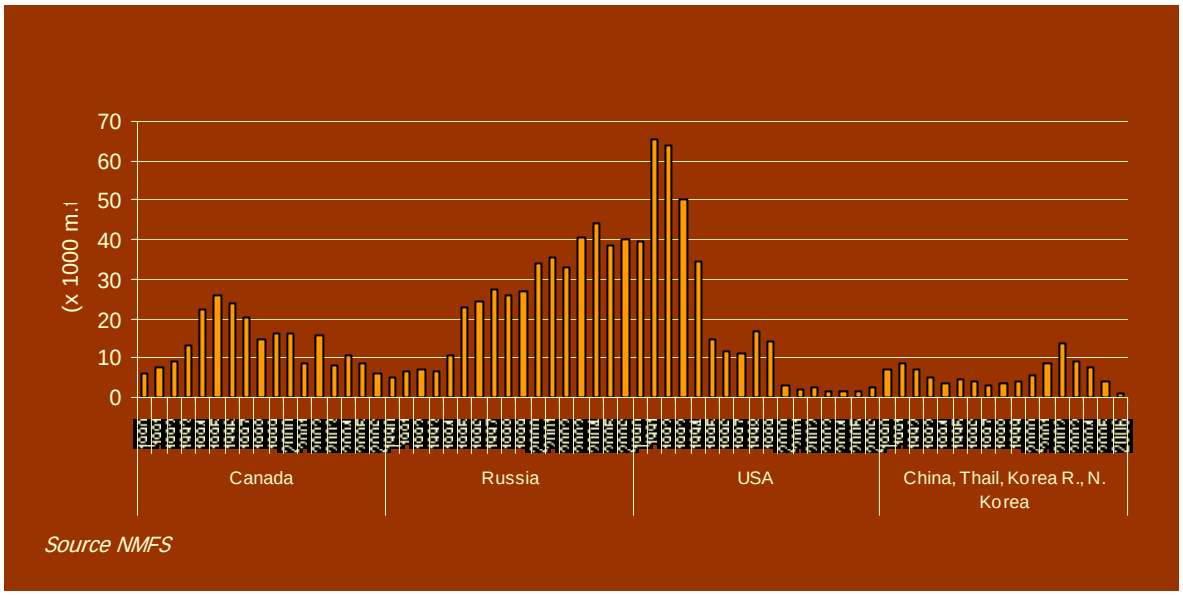
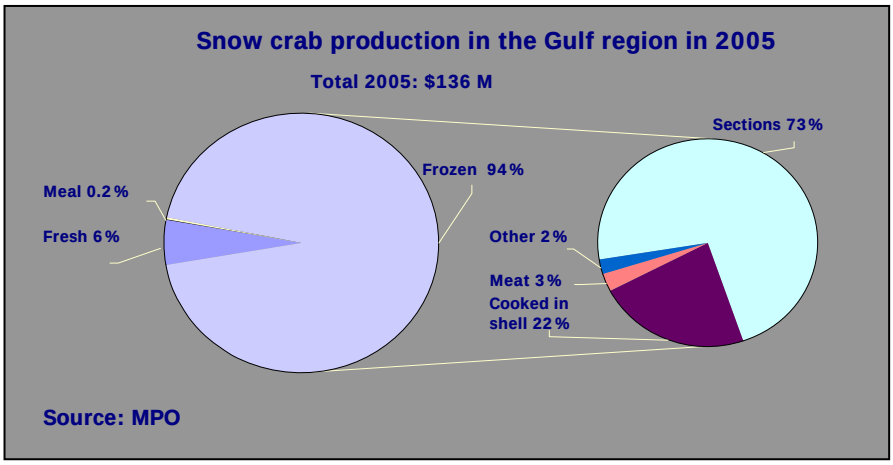


Figure 21: Major competitors for Japan markets: Japan imports



Almost all the snow crab caught and processed in the Gulf of St Lawrence ends up frozen. In 2005, for example, 94% of the crab was frozen — the majority of it in sections; however, a certain percentage was sold whole in the shell and then frozen. Only 6% of the crab was sold fresh and a very small amount was processed into fish meal.

Figure 22: Snow crab production in the Gulf region in 2005



Market for frozen Canadian snow crab

According to 2005 data, Canadian snow crab is headed mainly to the US market -- 71%, in fact. Thus, 80% of the snow crab imported by the US comes from Canada. The rest of the Canadian production is exported to China and Thailand (17%) to be processed and then most of it is sold to Japan, while nearly 10% is exported directly to Japan.

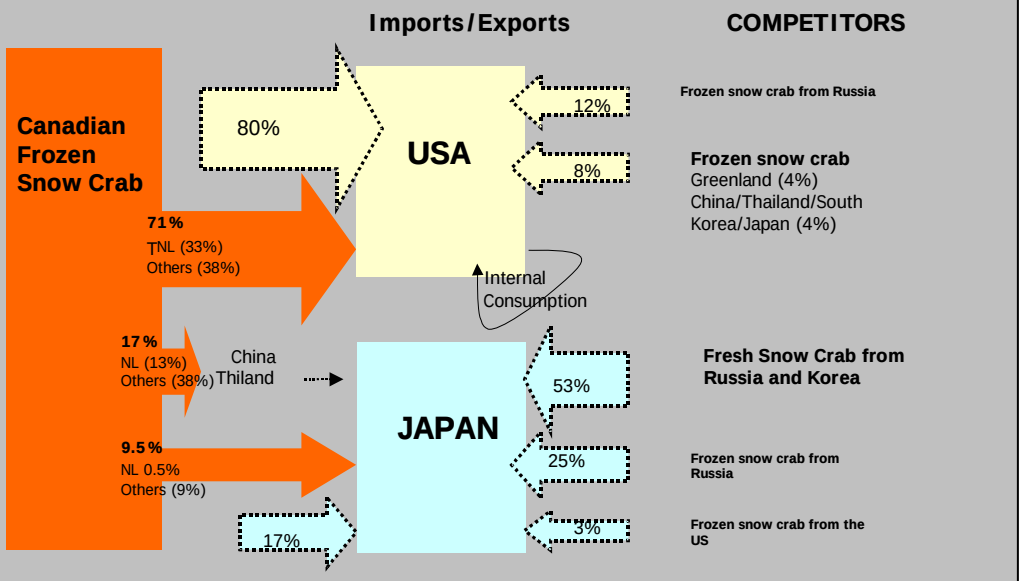
On the US market, products competing with Canadian snow crab are frozen snow crab from Russia (12% of US imports), and frozen snow crab from Asia and Greenland (8% of US imports).

Competition on the Japanese market comes from:

- fresh snow crab from Russia and Korea (53% of Japanese imports)
- frozen crab from Russia makes up 25% of Japanese imports
- frozen crab from the United States makes up 3% of Japanese imports

The following table illustrates the relationships between the products competing with Canadian snow crab on the international market.

Figure 23: Market for frozen Canadian snow crab in 2005



Legend:

% of the volume of Canadian snow crab EXPORTS

% of the volume of snow crab IMPORTS

Source: DFO, NMFS, Japan Customs

6. Prices

6.1. Changes in price

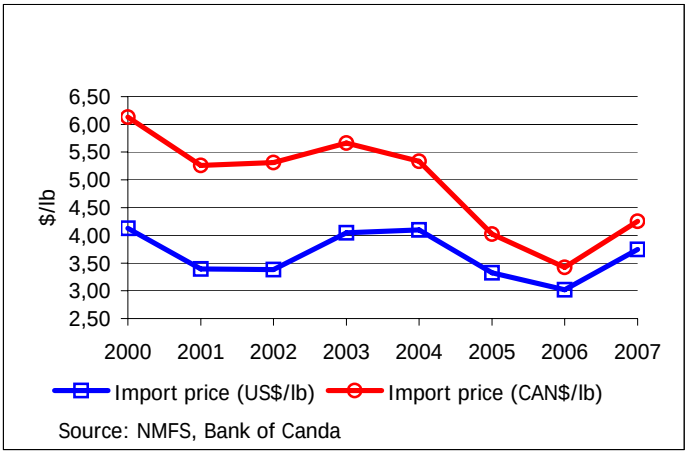
It is well known, on the one hand, that the price of crab generally increases when inventories are low, and demand from Japan and the US is high. On the other hand, prices drop when the wholesale price exceeds what consumers are prepared to pay, which increases inventories of unsold crab. It is also known that a decrease in the overall supply to a market will cause increased competition for a product that is in short supply, which will lead to an increase in price, and vice versa. For example, when prices increased in 2004 to reach record highs, this created increases in inventories, which then caused market prices to drop in 2005 and 2006. In the same way, the large influx of low-priced, live Russian crab into the Japanese market has made it more difficult for Canadian processors to remain competitive (the Japanese prefer fresh crab).

Furthermore, the variation in the currency exchange rate affects the value of exported products, even if this variation has little effect on the market prices of products.

The effect of the declining US dollar

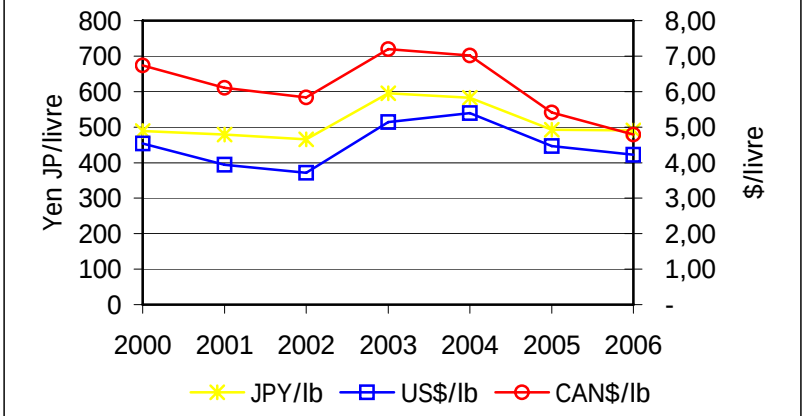
The table opposite shows that, since 2000, the value of Canadian crab products exported to the United States has been gradually approaching the value of these products in US dollars. In the end analysis, this means that, since 2000, Canadian processors have been receiving less money for their exports.

Figure 24: Value of snow crab imports to the United States in US$ and in CAN$



The same trend can be observed with exports to Japan, although the difference for exporters since 2000 has been less than in the US market.

Figure 25: Value of snow crab imports in yen, US$ and CAN$



Source: Japan Customs, Banque du Canada

Based on the following table, it can be concluded that the product that generated CAN$1 in January 2000 only generated CAN$0.72 in July 2007. The slide continued, reaching CAN$0.67 at the end of October. The decline in the value of the US dollar alone has meant a 25% decrease in the value of crab. There are, however, other factors that affect the price of crab, such as supply, demand, quality, the type of production, etc.

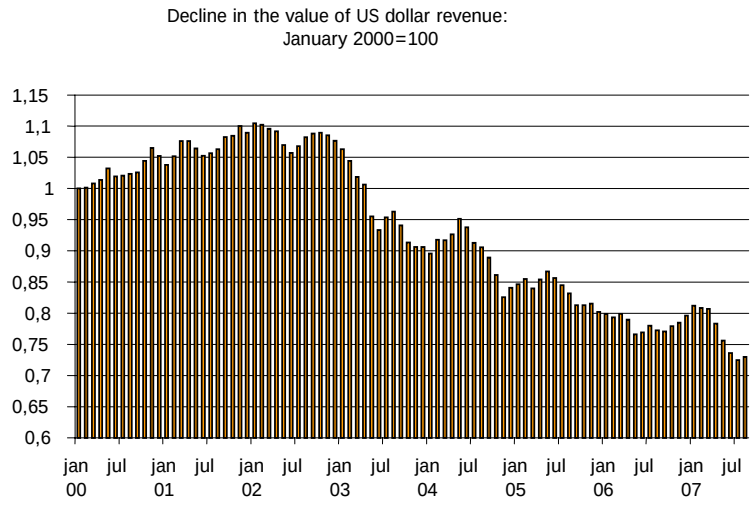


Figure 26: Decline in the value of the US dollar since January 2000

In conclusion, the gradual decrease in the value of the American dollar since 2000 has had a negative effect on prices in the snow crab processing industry in Atlantic Canada, including the price paid to fishers.

Price changes in relation to catches around the world

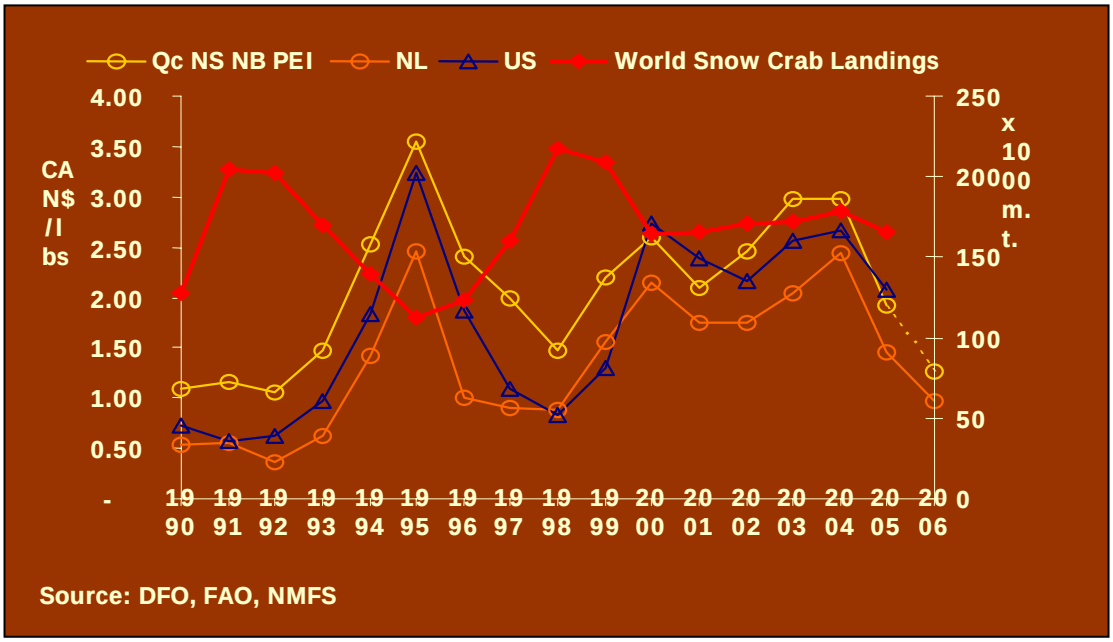
The price paid to fishers for snow crab has fluctuated several times since the 1990s. The price fluctuations usually depend on snow crab production around the world, which appears to be in line with the principle of supply and demand. Starting in 2005, the situation changed. Until then, the price followed the principle of supply and demand -- in other words, the price decreased when there was a lot of crab on the market and increased when landings decreased.

Starting in 2005, there was a decline in landings AND a decline in the price, which does not appear normal. One possible explanation: If the data regarding the Russian landings were not accurate, as many observers claim, and the landings were in fact higher than reported, it would then be normal for the price to be lower.

Furthermore, it has been observed that fishers from the southern Gulf of St Lawrence have always received more for their crab than fishers from Newfoundland and Labrador, and the United States. The exception observed during 2000 and 2001 was probably due to the new scarcity of Alaskan crab, which increased the price on the Alaskan market.

It should be noted that the data in the following figure are provincial averages, all fleets taken together.

Figure 27: Snow crab landed price versus world landings



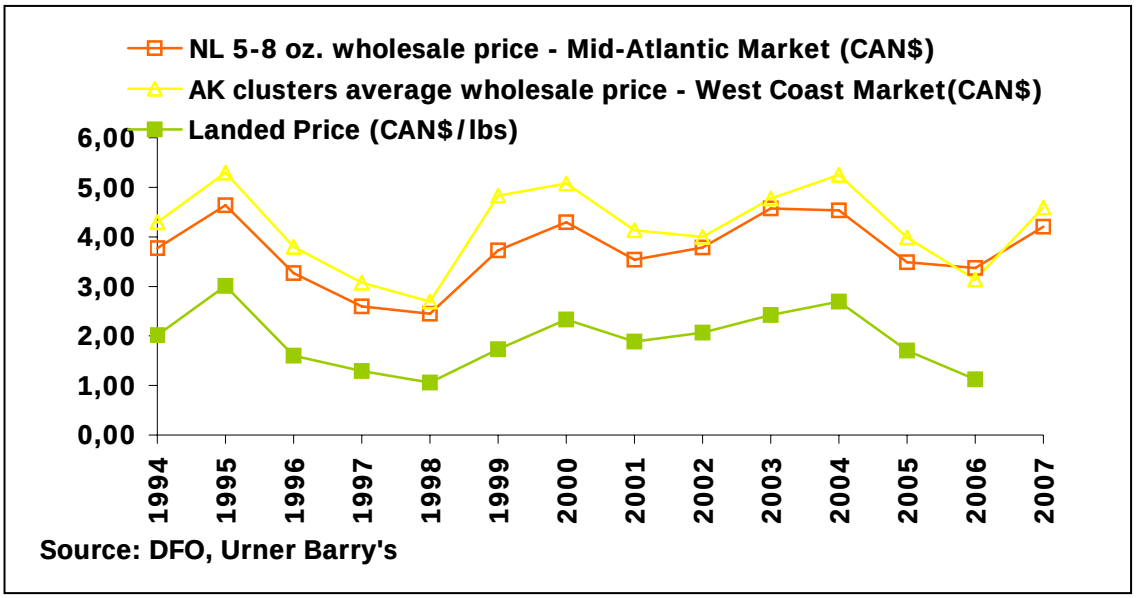
6.2. Comparison of the price paid to fishers with the market value of the product

Here is an overview of the price variations on North American markets since 1994. On the East Coast, wholesale prices varied from CAN$3.50 to $4.50. The price of Alaskan crab fluctuated from about CAN$3 to more than $5 a pound.

It should be noted that wholesale prices are for only one category of crab and that the landing price is a weighted average obtained by fishers from NB, NS, QC, PE and NL.

In general, the price paid to fishers reflected the market price, except in 2006. The landed value of crab decreased then, as did the market value of Alaskan crab. However, the market value of Newfoundland and Labrador crab did not follow, remaining practically stable. In principle, this price stability should have been reflected in the price paid to fishers; instead, they received less than in 2005. In 2004, however, the price paid to fishers increased, as did the price in Alaska, while the NL 5-8 oz wholesale price decreased.

Figure 28: Snow crab landed price versus wholesale price



6.3. Comparison of prices paid to fishers

The prices that the various fishers receive have often been varied and ambiguous. For example, Newfoundland and Labrador snow crab goes to the same market as Gulf snow crab: the US market. Yet, Newfoundland and Labrador fishers have always received less for their crab than Gulf fishers. However, prices in the Gulf also vary. Inshore New Brunswick fishers receive from 10 to 40 cents less a pound than traditional crab fishers for the same product. Prices also vary between plants, which means that traditional crab fishers do not all receive the same price. We have seen fishers sell their catch out of province to get a better price.

The reasons for these variations in price are not clear. They are often attributed to quality issues, although quality as such has never been clearly defined.

For years now, New Brunswick fishers have received approximately 48 to 60% more than Newfoundland and Labrador fishers. In 2006, however, the difference was only 31%, as the following figure shows. This difference may explain the preceding figure: the increase in NL prices and the decrease in prices paid to fishers.

Figure 29: Comparison of the price per pound for snow crab paid to fishermen of the various fleets, by region*

Year	Newfoundland and Labrador	New Brunswick	Inshore N.B. minimum price	Inshore N.B. maximum price	Gulf N.S. (CFA 18 & 19)	Magdalen Islands, Quebec	Gaspé (CFA 12)
2002	$1,73	$2,70	$2,25	$2,50	$2,78	$2,44	$2,30
2003	$2,03	$3,00	$2,65	$2,70	$3,07	$2,83	$2,94
2004	$2,11	$3,30		$3,00	$3,00	$3,08	$3,03
2005	$1,24	$2,00		$1,75	$2,06	$1,94	$1,99
2006	$0,95	$1,25		$1,10	$1,36	$1,25	$1,32
2007	$ 1,50	$ 2,40		$ 2,00	$ 2,25	$ 2,16	$ 1,75

*** Prices for the year 2007 are preliminary; adjustments may be made over the next few months.**

The data regarding the price paid to Newfoundland and Labrador crab fishers come from the Association des crabiers acadiens and the Crabiers du nord-est[16]; the Maritime Fishermen's Union – Opilio provided us with the prices paid to New Brunswick crab fishers; and the DFO -- Gulf region, provided prices for crab fishing Areas 18 and 19 in the Nova Scotia region of the Gulf. Information regarding the prices paid on the Gaspé Peninsula and the Magdalen Islands were provided by the DFO -- Quebec region.[17]

The prices paid to fishers do not include any other products or services, such as ice, traps and bait.

[16] Association des crabiers acadiens and Crabiers du nord-est, information sheet, September 2007.
[17] Statistics and Licensing Division, DFO -- Quebec region, October 2007.

7. What is happening elsewhere

A large number of initiatives have been advanced around the world with a view to making adjustments at various levels of the fishing industry. There have been innumerable rationalization programs in the fishing industry, in which governments have spent a lot of money to reduce the fleets and modernize the industry's processing sector.

One such program is the huge effort deployed by the European Community to rationalize fishing fleets all over Europe. Valuable lessons can be drawn from many of these rationalization projects, whether they were implemented in Canada or elsewhere.

Many formulas for sharing and allocating resources have seen the light of day in the past few decades. Many countries, from our American neighbours to far-flung Australia and New Zealand, have undertaken a redistribution of resources in the hope of managing them in a more rational and more economically profitable manner.

In Atlantic Canada, Newfoundland and Labrador, and Quebec have been the most active promoters of improvements to the system for allocating resources among processors. They have also tried to develop mechanisms for determining the prices to be paid to fishers.

These provinces have also taken measures to restrict direct sales of their fishers' catches out of province.

Mechanisms for determining prices to be paid to fishers

There are many mechanisms for determining the prices that fishers should receive for their products.

a) Sale at auction

Sale at auction is undoubtedly the most widespread system around the world. It is used in the United States, Europe, Asia and elsewhere.

Such a system has never existed in Atlantic Canada. Studies were, however, carried out in the late 1970s, early 1980s. The last study on this subject was done in 1986 by Peat Marwick and Partners. These early studies concluded that such a system is not really practicable in our context -- except for the last one done in 1986, which concluded that such a system might work in the New Brunswick snow crab industry. That was more than 20 years ago.

In fact, Newfoundland and Labrador have recently been leaning towards this approach. Newfoundland and Labrador's Minister of Fisheries went to Norway this year to study their auction system. Since then, the government of Newfoundland and Labrador has decided to invest $1.5 million over the next three (3) years to implement an auction system.

b) Collective bargaining
One does not have to go to far to find a mechanism that uses collective bargaining as a method for setting prices. This approach has never inspired anyone, and has not found any takers in the Maritime provinces, even though it has been used in Newfoundland and Labrador for more than 30 years.

c) The binding arbitration system
In many countries as well as here in Canada, there are various models for setting prices through binding arbitration. This is the case for lobster fishers on the Magdalen Islands, for certain fisheries in Alaska, and in other countries. Attempts were made to use such a system to set the price to be paid Newfoundland and Labrador fishers for snow crab. The experiment failed for various reasons. According to some sources, the failure was due, among other things, to a hasty implementation, lack of preparation and information.

d) Marketing boards
There are many models of marketing boards as a way of setting prices to producers and structuring the marketing of products. This is the prevalent formula in the agricultural industry, and it could be used as a model for improving our price setting mechanism.

e) Resource distribution mechanisms
In recent years, many countries (including Canada) have set up various resource distribution systems. This issue has been dealt with in another chapter. I just want to note here that there are numerous formulas in many countries for allocating, sharing and exploiting the resource.

f) Mechanisms for preventing the sale of fresh fish outside its territory.
Here again, there are many examples and different approaches, from the tariffs imposed by many countries to provincial regulations, such as in Newfoundland and Labrador, and Quebec. Once again, this issue has been dealt with in another chapter.

Many models deserve more indepth study, particularly if industry stakeholders want to further explore all the options for modernizing our fishing industry.

Apart from loans and subsidies for modernizing the fishing fleet, New Brunswick has not been very active in modernizing and restructuring the provincial fishing industry.

We need only look around us to realize that it is probably time to act. Non-interventionism is no longer an option, if we want our industry to become self-sufficient like the rest of the province.

8. What the stakeholders say

This chapter is devoted to the results of interviews the consultant conducted with various stakeholders in the Atlantic snow crab industry. In preparing for this report, the consultant personally met with representatives of the traditional crab fishers, the inshore fishers, owners of processing plants, plant employees, as well as other people who are familiar with the industry.

The following sections relate what these stakeholders said. The comments are organized by theme, with a minimum of formatting. Some comments may appear blunt but they are the impressions and statements as reported to us and we feel it is important to convey them as they were presented to us. We cannot, however, confirm their veracity but we feel it is important to reflect what the stakeholders said as faithfully as possible.

About selling crab outside New Brunswick

- Under some circumstances, you can't penalize fishers who land their catch outside NB if the crab is processed in NB; for example, crab landed at Cheticamp and transported to NB.
- For fishers who have to fish in Area E, which is right next to the Magdalen Islands, it is closer and more economical for them to land their catch in Quebec than to come back to New Brunswick, if they get the same price.
- We need to start a moral persuasion campaign to stop fishers from selling elsewhere. In actual fact, 80% of the fishers would collaborate; it's only a small group of fishers, about 20%, who would do as they please.
- We have to improve relations between the personnel from the NB Department of Fisheries and fishers on an individual and collective basis. This also applies to the DFO. A partnership approach should be developed.
- We let companies from Newfoundland and Labrador in but, over there, you have to be from that province to have a licence to buy crab.
- The cost of transporting crab landed on the Magdalen Islands to New Brunswick should be subsidized.
- Under the current law, it is impossible to legislate the place where fish is landed. Would it be possible to have an agreement between NB and the federal government on landing?
- We can't prevent processing elsewhere, it's not legal under the law.
- We have to make fishers land their crab in their respective provinces, according to their percentage of the quota.
- We should consider the possibility of offering a tax credit for landings delivered and processed in NB.
- We could introduce an export tax for products taken out of the province.

- Inshore fishers have a policy of not selling their crab out of province.
- Sales outside NB are a serious problem that will only get worse. The plants have to band together to handle it.
- We have to encourage NB fishers who land their catches out of province for various reasons to sell their catches to processors in NB.
- Education, especially in social economics, is very important. We need to highlight the positive effects, especially in sectors of the economy ($s generated) and the well-being of the community.
- Newfoundland and Labrador, and Quebec have restrictions on landings outside their province by their fishers. We have to do the same thing here also.
- We all have to recognize that we all have obligations to our communities. This should be part of our management plans.
- Traditional crab fishers are ready to sit down with crab processors and discuss issues like this one, but the processors refuse to meet with them.
- We have to develop partnership arrangements between fishers and producers.
- They say that, in 2006, 7 million pounds of crab were sold outside NB.
- Plants should make a social contribution; for example, when a plant has too much crab to process on its hands, it should try to sell it in the province instead of elsewhere.

About price

- Establish a system for providing information about market conditions.
- It is very important to have a base price from the start.
- We should look to an auction system as a supply source.
- Under an auction system, can we and do we want to force crab fishers who are also plant owners to sell to other plants?
- We need a "pricing board."
- We have to give processors a chance to "get in the game" as regards price. Crabber processors have control over the entire supply issue.
- There should be firm sales contracts between processors and fishers.
- In 2006, the data show that several processors showed bad faith when establishing prices.
- Most of the industry is too oriented towards the traditional market. There is one that has a different approach, that is why it can pay fishers more.
- Last spring, in the Magdalen Islands, the Quebec government paid a portion of the salaries of employees at a plant that burned down. The plant took this money to increase the price paid to the fishers.

- There is a price difference between Gulf crab and Newfoundland crab. Gulf crab is better quality because Newfoundland crab lives in the mud and so doesn't look as good.
- There are too many processors; this is causing price wars.

About processing

- The province should require a minimum number of processing weeks per year to obtain a processing licence.
- One of the problems with being able to operate over a longer season is that several fishing seasons occur at the same time (eg: lobster and crab on the Acadian Peninsula).
- Increase our investment in research and development.
- Get rid of "peddlers." Only plants should be able to buy crab from fishers.
- The cost of processing licences should be considerably reduced and the cost of purchasing licences considerably increased. This way buyers who are also processors wouldn't be spending more for a licence. But the higher price would also reduce the number of buyer who aren't processors.
- This isn't a processing industry, it's a packing industry.
- Purchasing licences should be attached to plants that process seafood products.
- More emphasis should be put on value and less on volume.
- We should contemplate a merger of processors (joint venture) for value-added processing.
- There are other examples, like herring: In the Japanese roe sector, people are afraid to do more processing. As regards roe for the US market, the brine freezer system is expensive. In fact, all value-added products should be frozen.
- There is more future in the US market than in the Japanese market, as the Japanese market requires more processing and more labour and thus costs more.
- To invest in and carry out value-added processing requires a guaranteed supply.
- Good quantities of products are required to penetrate a market. You don't sell a container at a time of value-added products. You start with small quantities and you are often limited to small quantities in niche markets.
- We need to develop an industrial kitchen design (for example, in Quebec).
- Produce something other than crab or fish: as each plant has a relatively large freezing and handling capacity, it might be a good idea to look to the agricultural sectors or the berry production sector.

About marketing crab

- There should be a collective agency for promotion and sales.
- A closer analysis of the Japanese culture and market should be carried out; also an analysis of the changes in sales to the US and Japanese markets. At the beginning, we sold all our crab to the Japanese market. Now it's the opposite.
- NB crab has lost its place on the Japanese market, partially because of Russia, but also because of the decline in the quality of the crab we exported there.
- We could reclaim the Japanese market, but we'd have to clean up the industry.

About the situation in the processing industry

- The large majority of traditional crab fishers have now abandoned the interests they had in the crab plants on the Acadian Peninsula. This has seriously destabilized supplies to these plants. These plants, including large plants located off the Peninsiula, must now compete with each other each year to ensure their supplies from a much larger number of independent clients (traditional crab fishers, First Nations, fishermen's associations, lobster fishers and cod fishers).
- Set up a rationalization program.
- There should be an association of processors and, if the majority join, everyone should pay dues (as is the case for the Maritime Fishermen's Union).
- There is a "culture of unemployment": we have to look into it.
- The labour problem is going to get worse. The average age of plant workers is 60, and there is no one to replace them.
- Succession planning is also a problem for plant management: the average age is 60 and older.
- There should be fewer crab processing plants with fewer employees who are better paid. A plant built 40 years ago is no longer the plant for today. You only have to look at what's happening in Europe. In 20 years, there should be no more than four or five plants.
- There should be a moratorium on the number of fish processing licences in NB.
- The snow crab industry is not operating at its full potential because processors have limited ways of planning and negotiating marketing agreements with their clients, which would help increase prices. We are unable to maximize market forces because we cannot control the market (supply is too rapid). Decisions regarding production are made according to supply conditions instead of market demands.
- The province should work with fewer plants and issue processing licences that allow the processing of any seafood product. However, this licence should be issued with other conditions related to:
    - production
    - the quantity to be processed

    - support for workers
- Our plants aren't mechanized enough. There should be a training program so that workers can operate more sophisticated machines.
- The plants have cashflow problems.
- In northeastern NB, several plants have gone bankrupt and several others are having problems. Some plants are too old and not modern enough.
- They should buy the licences from the plants that are having difficulty.
- A problem is emerging: plants closing and changing owners. There will be no place left for Acadians, we'll have to talk to the owner in English.
- You have to have vision. The plant appropriation process is in motion, and we have no control over it.
- The traditional Acadian industry is being hit on two fronts (by outsiders):
  a) Foreign producers (from outside Canada)
  b) Big producers from outside the province.
- Some claim that plant *XYZ* (fictitious name) is run by organized crime.
- There are very few plants that make money on a regular basis.
- There is a practice of laundering money and cash in the industry, which is ignored.
- Some plants "give" unemployment stamps.
- It is difficult to compete with some other plants. For example, plant *ABC* (fictitious name) doesn't want to make money here (so as not to pay income tax). They do their real processing and make their real money somewhere else.
- We shouldn't decide who is going to disappear; we should just let them die a natural death.
- There are four categories of processors:
  1. plants owned by fishers
  2. plants owned by big companies
  3. independent operators
  4. companies controlled by outsiders
- Don't forget what happened to Nickerson; the same thing can happen to a new group that wants to act like lord and master.
- We have to invest in the industry without eliminating competition.
- Allow processing of species other than crab.
- We need a diversification program for the plants.

About the relationship between processing plants and fishers

- According to plant owners, traditional crab fishers hold the big end of the stick. You can't impoverish a sector and have a strong industry. The difference between the value of crab at export and its value on landing should be researched. There is not enough difference. The crab fishers have undermined the processing sector. There should be a better balance between fishing and processing.
- There should be a better structure for representing crab fishers, inshore fishers and processors.
- All the plants should have an equal chance to get fish.
- Entreprise Péninsule tried to bring the industry together, but the crab fishers refused to participate. The traditional crab fishers oppose any effort to consolidate if they don't have control (over price).
- There is an extreme structure in the crab industry: poor versus rich.
- The midshore fishers have an attitude problem (lord and master).
- Plants and fishers have to show greater social responsibility.
- Traditional crab fishers think that the Francophone media, in particular Acadie Nouvelle and Radio-Canada, are biased and are exaggerating the crab crisis. That puts a lot of pressure on the fishers.
- You can't count on the processors to have the right information about the price offered to fishers. There were some attempts at price fixing between the processors.
- In Newfoundland and Labrador, they legislated processing: can we do the same thing here?
- Crab fishers make too much money now that deck hands are on a fixed wage.
- Right now it appears that the fishers make all the decisions.

About the quality of southern Gulf crab

- When there are too many landings at the same time, this definitely affects the quality of the product.
- When there are a lot of landings, the plants operate with two shifts. This affects quality, because employees don't have the time to clean the plant and it gets dirty. One long shift isn't the solution either, even if you have time to clean.
- Everyone knows that the best snow crab comes from the Gulf. There is no valid explanation for the drop in quality.

About fishing fleets

- There should be a program to buy back fishing licences. Crab fishers ask a price that is double the value of the crab licence. To refinance the fleet, a system should be set up – eg: a plan whereby crew members can buy a licence together.
- There should be provincial conditions attached to licences to keep the fleet in NB.
- A program for transferring fishing licences with landing conditions for new licence holders should be considered.
- Any financial support whatsoever from the province to processors or fishers should have conditions regarding landing and processing in NB.

About impediments to extending the processing period

- There are biological impediments: the season can't be extended.
- The fishing season should be opened as soon as possible to eliminate any potential risk of moult (white crab).
- In 2003, even when the start of the fishing season was delayed, for well known reasons, there was no problem with white crab.
- The white crab issue should be clarified with the scientific support of Mykio Moriasu (DFO).
- If the season is extended over too long a period, the plants pay more in operating costs.

About plant employee working conditions

- In the crab processing industry, the employee payroll represents approximately 10% of the cost of production. In the traditional processing sector, the average is closer to 30 to 40%.
- The Department of Labour should legislate the maximum number of days and hours that employees can work at the plants.
- Some plants guarantee unemployment to their employees.
- If employees are well treated, they will perform well.
- Some years, for example in 2005, some employees worked 100 hours a week, 12 hours a day, and sometimes more.
- For plant employees, the annual maximum wage is $7000. The average is closer to $3500. The hourly wage should be at least $12 to $13 an hour.
- Employee wages are absurd. They can't strike. There should be binding arbitration.

- It is clear that, eventually, employees and crew members will have to be brought in from other countries.
- In some cases, people on welfare are better off than plant workers.
- The fishing industry has never looked after plant workers.
- A mechanism should be developed that makes employers accountable for their employees.
- Sunday work should be done away with by controlling landings.
- In the crab industry, the employees are the most vulnerable. The province should regulate their working conditions better.
- There are too many plant employees.
- Employees should be have more vocational training.
- Fishers should be given 10 to 15 cents less a pound to pay $11 to $14 an hour to plant employees.
- The law should limit the work week to 6 days, maximum 12 hours a day.
- Catches from traditional crab fishing boats represent work for 20 plant workers.
- A 60-hour work week is a good week for plant workers.
- Unemployment should be improved to adapt it to the plants. The calculation according to the unemployment rate means that, if it drops in the region, incomes decrease.
- In our plant, cafeteria profits are used to help the families of employees in distress.

About the fishing plan

- It is absurd to announce the fishing plans so late. They should come out much earlier.
- The fishing plan should be depoliticized.
- If we want fishing plans to be a stabilizing element, they should include plant workers.

About the supply and distribution of the crab quota

- Plant workers should have some control over distribution, as is the case in Alaska.
- A guaranteed supply is fundamental. Currently, the situation in the fishing industry is very precarious. The owners are very nervous. The employability situation should be improved.

- Plant employees should have management rights over 40% of the quota.
- The key: a stable supply.
- Each plant could be given a quota.
- We should consider other systems for distributing the raw material: for example, in Alaska, it's one-third to the plants, one-third to the fishers and one-third to the community. The timing has never been better to make changes to distribution. Another sharing formula: 20% plants, 10% employees, 70% fishers.
- Stabilizing prices to plants should be accompanied by a mechanism to make prices competitive.
- Our plant owns a boat with its own quota. We could handle four or five boats.
- The resource does not belong to fishers but to everyone.
- No one has control over the crab fishers or the landings. There is a lot of infighting at the Pèse-Pêche company.
- Cancelling allocations to traditional crab fishers has had the direct effect of significantly reducing the possibility of extending the duration of employment at the plants supplied by these fishers. For example, plants that were unable, at the end of the season, to recover the allocations that were transferred to other crab fishers had to shorten work periods at their plants by an average of 3 weeks. This supply shortage has recurred each year since 2003.

About landing rates

- Landings should be limited to 20 to 25,000 pounds and a maximum of two trips to sea each week.
- Consider the possibility of setting traps in the water progressively at the beginning of the season, to avoid a glut.
- It is not necessary for all the boats to go out on the same day, even the first week of the fishing season.
- There is definitely a processing overcapacity. There should be a schedule for fishers and their landings.
- Based on the number of traps set by traditional fishers who are subject to quotas, allow temporary fishers a number of traps depending on the quantity to be caught.
- Continue and promote the practice of scheduled and controlled landings.
- A financial or tax incentive is needed to extend work weeks beyond a certain number of weeks (6 or 7, for example) and set up various levels for

those who achieve longer periods. In order for this point to work, landings with minimum/maximum quantities must be ensured.

- It's criminal to see a fisher land his entire quota in 11 days.
- Alternative fishing methods could also be considered, such as fishing in groups, for example, one boat could fish the quotas for three boats.
- Crab fishing could last seven (7) weeks if landings were arranged more equally each week.
- Fishing effort and harvesting capacity must be reduced in order to space out landings, especially at the start of the season.
- Inshore fishers agree with the idea of a law limiting landings, including inshore fishers. They are ready to collaborate with the government and the processors to settle this issue.
- In 2006, 70% of the crab was landed during the first three weeks of the season.
- If the inshore fishers went out late, this would prevent certain gluts.
- Now there are too many traps in the sea during crab fishing season. In 1990, there were 18,560 but, in 2004, there were approximately 38,163.
- There are also too many boats: there were 130 during the fishing season in 1990. During the fishing season in 2004, this number had gone up to approximately 398.

And the rest…

- It is important to understand the reasons behind all these problems:
    - Since they have had to share the quota, the crab fishers have had an unbelievably aggressive attitude.
    - They want to destabilize the industry to show that sharing is a mistake.
    - The associations have no control over their members, so it does no good making agreements with the associations. Voluntary agreements will never be respected. The only way to get around it: make each fisher sign an individual agreement.
    - The crab fishers are encouraging chaos, and the federal and provincial departments don't see it.
    - There were problems before the sharing, including selling crab outside NB.
- Since 1997, the crab fishers' attitude has been to make more money regardless of quality, because they have to share the resource.
- There is anarchy in the industry. The industry has to learn to discipline itself.
- We have to take the politics out of fishing.

- There should be more transparency in the industry.
- There should be a master plan for the entire industry.
- We need to develop an overview of the industry and not be afraid of developing a future vision for the industry.
- A lot of people are making recommendations based only on their own interests and not on the good of the entire industry and the community.
- The solidarity fund is a historical fact that can't be ignored, no one can erase it.
- What the crab fishers are doing to claim money from the solidarity fund is awful. The fishers weren't forced to contribute to it. They did it to protect their own interests.
- The solidarity fund was the best system for protecting plant workers. They weren't forced to go somewhere else to get enough work to qualify.
- We need to keep the report from the NB Self-Sufficiency Task Force and examine the section that deals with self-sufficiency in the fishing industry.
- We need to see Maurice Beaudin's documents on processing and the fishery situation on the Acadian Peninsula.
- The province must ensure that it keeps all the fishery accesses that it has and from which it benefits.

9. Consultant's Observations

Further to a number of discussions with representatives from the snow crab industry, the New Brunswick Fisheries Department, the Department of Fisheries and Oceans, communities and other provinces, and after having examined what is being done elsewhere, I feel it is obvious that our snow crab industry, like the entire fishing industry, needs a good dose of change and modernization.

In this chapter, I wanted to present my personal observations. I know certain parties feel I am biased because, early on in my career (sadly, more than 35 years ago!) I wanted to give inshore fishers a strong voice—much like my good friend, Gastien Godin, did for their midshore counterparts. It has already been more than 20 years since I left the Maritime Fishermen's Union to devote my time to the overall fishing situation in my province, my country and the world at large. I am passionate about commercial fishing and will be keenly interested in this field as long as I live.

Others claim the reason I have been asked to conduct fishery-related studies and analyses and make recommendations is related to political affiliations. However, these individuals cannot erase (1) my 35 years of hard work, deliberations and passion for the subject; (2) the fact that I have worked on more than 500 related projects; and (3) the fact that I have worked in upwards of 30 countries around the world.

I do not expect that my report and observations will bring about a consensus. To those who disagree with my analyses, opinions or recommendations, the only thing I ask is that you not express that disagreement by accusing me of bias or political partisanship: criticize my ideas because you are convinced that something better can be done and put your own ideas forward. This is how we will promote our cause and this is what I encourage you to do.

9.1. The situation is serious

I feel the entire crab industry is in very precarious state. We are at a point where, if the province is to regain its reputation, the cooperation of all parties involved is essential. If we are to rally -- that is, if we want to take back our leadership role and once again stand at the forefront of an industry that New Brunswick pioneered, where we started from nothing not so long ago (the late 1960s) compared to other fisheries and where our production had a market value greater than $800 million -- all stakeholders will have to put their shoulders to the wheel.

9.2. The industry is in a precarious state

I believe our situation is precarious indeed, because our plants do only a minimum of processing and no value is added. Furthermore, we have become dependent on a single market (the United States). Other factors are also threatening the industry: the high value of the Canadian dollar, which will affect the value of our product;

increasing labour shortages; and the resource itself, which will be on the decline for the next few years -- we must hit the bottom of the biological cycle before climbing back up.

9.3. Chaos in price setting

I feel there is too much chaos and confusion involved in setting the prices paid to fishers. It is extremely difficult for fishers to get accurate information on the price they receive for crab. The price paid in 2006 by processors is, without a doubt, a prime example of this state of affairs. To my mind, the prices paid to fishers did not reflect market realities as much as they might have reflected the profits made (or not made) the previous year. In addition, there is no independent structure to provide fishers with relevant information on whether or not prices offered are a fair reflection of market conditions. I understand very well why fishers are suspicious about the prices offered by processors.

9.4. Mistrust and lack of cooperation

I deplore the long-time mistrust and lack of cooperation in stakeholder relations:

- between fishers

  I have observed for too long the mistrust, animosity, lack of respect (sometimes even hatred) and lack of cooperation between the various fishing fleets and the organizations that represent them. I know something about this and, occasionally, feel I am somewhat responsible, when I look back at my exit from the MFU more than 20 years ago.

  Regardless, we must find a way to bury the hatchet. This is 2007 and the real competition is on the world market, not between fishing fleets. We need close cooperation between all fishery organizations and between all fishers and processing plant owners, if we are to regain our cutting-edge leadership position and obtain the maximum value for our crab, so everyone comes out a winner.

- between processors

  There is also a flagrant lack of cooperation between processors. They do not trust each other and waste a lot of time in mutual disparagement. The fact that, today, there is no professional association for processors is the most blatant example of how relations have deteriorated. I am not talking here about trying to get together to pay the lowest possible price to fishers, as the fishers often suspect. If this is indeed what is going on, they do not succeed very often, as is attested by the fluctuations in the prices paid to the fishers!

  Rather, what I am advocating is the development of joint strategies for making our industry more competitive on the international market, and strategies and measures for diversifying our markets and adding value to our product. Snow crab producers are not as numerous as you might think. World production is fairly limited and the number of producing countries can be counted on one hand. Moreover, crab is a true luxury product that could be sold almost exclusively on the high-end market, if we all got behind it.

- between fishers and processors

  There must be more cooperation between processors and fishers. It is only on rare occasions that fishers and processors sit down at the same table to discuss matters of common interest, unless it is at forums organized by the government. The two groups need to meet regularly to discuss such issues as product quality, market requirements, market conditions, catch rates, industry promotion, sustainability and ecology, to name a few. All these issues -- and many others, as well -- are of common interest, and a forum will need to be organized where fishers and processors can meet on a regular, ongoing basis and deal with these highly important matters, if we are going to obtain a better market price and a higher price for fishers. There are so many issues of mutual interest; we must overcome mistrust and we must talk:

- fishers with plant workers

  Some fishers say that the situation of plant workers does not concern them, that the problem must be settled between plant employees and owners. First, I must say that this attitude does not reflect the opinion of most fishers. Many fishers, whether traditional crabbers, inshore fishers, etc, deplore the plant workers situation.

  It would be useful for workers and fishers to meet twice a year, before and after the fishing season, to discuss landings and impacts on their respective situations. I am referring here to representatives from each processing plant and all fishers involved in crab fishing -- ie, traditional crabbers, inshore fishers, groundfishers and Aboriginals.

- processors with plant workers

  Here again, there is no forum where employee and management representatives from each processing plant can meet annually to discuss subjects of common interest, such as: training needs, health and safety issues, quality control matters, Canadian Food Inspection Agency requirements and working conditions. Naturally, there are exchanges between plant owners and their employees; I'm talking about discussions of a collective nature. This will undoubtedly enhance professionalism in labour relations and help to improve working conditions and increase productivity.

- the industry with the government

  An attitude of mistrust and lack of confidence toward the various government levels exists throughout the entire industry. This is occasionally manifested by demonstrations, often by outrageous public statements, and increasingly by lawsuits and other forms of legal challenges. In turn when treated so disrespectfully, public service employees are naturally not very sympathetic or open to industry demands. This attitude is extremely unhealthy: all parties must learn to disagree in a climate of mutual respect. I do not believe that government employees, any more than fishers and their representatives, are dishonest (although, as in any organization, some are more competent than others). Everyone must learn to work together again, in an atmosphere of

professionalism, mutual respect and good will.

- different government levels

  An egregious lack of cooperation between government levels is too frequently observed. I have been working closely with the federal and provincial departments for several years; it is still commonplace for them to blame one another, mistrust one another and criticize one another continually behind the scenes, while at public meetings extolling their cooperation and mutual respect. The last straw came when the government of Prince Edward Island got caught up in a never-ending cycle of lawsuits against the Department of Fisheries and Oceans. There must be more mutual respect, more trust and more determination to achieve interprovincial and provincial-federal cooperation if stakeholders want to improve the fate of the fishing industry.

9.5. Debate over who should get a quota to manage

The question of who should be given a crab quota generates a lot of discussion. “Everyone and his dog”, as the expression goes, wants a crab quota. Processing plant owners who are not fishers have always claimed it is unfair for fishers with a crab quota to own a plant but a plant owner cannot hold a crab quota.

Plant workers, too, want some degree of control over quotas, wishing to ensure that processing is done in their region and not elsewhere, whether inside or outside the province.

Some parties feel there is considerable merit in the concept of a community quota as a means of ensuring a fair and structured allocation of the benefits of the resource.

Crew members want to be able to access a portion of the quotas, so as to ensure a more viable fishing future.

It is well documented that, everywhere in the world, different resource sharing formulas are being implemented; after all, resources belong to everyone.

However, I feel it would be premature, at this stage, to consider other forms of sharing than those being used presently, even if there may be considerable merit in other formulas for allocating the common property represented by our fishery resource.

First, it could be stated that approximately 25% of snow crab is already being allocated in the form of a community quota. Allocations granted to the First Nations are clearly communal, in the words of the Supreme Court of Canada, and comply with the treaties signed between the First Nations and the Crown some 250 years ago. Furthermore, inshore fishers, via their organization, the Maritime Fishermen's Union, have elected to divide their allocation based on a community of interest, so that each community decides what it wants to do with the earnings from its share of that allocation. For example, some communities of interest have reduced the number of lobster licences started lobster enhancement

programs, and implemented other major economic and social programs. Groundfishers, for their part, have elected to convert their allocations into individual quotas. In my view, each option has its own merits, depending on the circumstances involved.

I feel it is possible to respond to the legitimate concerns of processing plant owners, plant workers, crew members and communities without granting them snow crab quotas.

My recommendations address these concerns, among others.

9.6. Deplorable plant working conditions

In this report, I have described the situation of processing plant workers. It is embarrassing for an industry that wants to be seen as modern, fair and equitable to place workers in such a position -- terrible wages, minimum number of work weeks, very little job security, no pension or benefits programs and inconsistent working hours – these are just a few of the problems... I must point out that most of these jobs are held by women who, once again, are the victims of an injustice. During my meetings with processors, a number of plant managers and owners said that, even though they sympathize with plant workers, individually they do not have the means of rectifying matters. However, as things now stand, there will not be a new generation of local labour to work in our plants—this is obvious. I would find if deplorable if, in response, it was suggested we turn to the Third-World countries for cheap labour in order to offset such an employee shortage. The solution undoubtledly lies in modernizing our industry, with the end result that workers, although less numerous, would be more specialized, be paid decent wages, and work more weeks than they draw employment insurance. This is not “dreaming in Technicolor”, but a social objective that must be met.

9.7. Culture of unemployment

Our fishing industry depends, first and foremost, on a crutch called employment insurance. In actual fact, this is a form of subsidy that provides cheap labour, since no one would agree to work under such circumstances, certainly not without the possibility of EI benefits as income. I have already mentioned that plant workers and crew members now work mainly to quality for EI, and spend much more time on EI than they do working. I must stress that this is also often the case for many fishers who own their own businesses.

We must acknowledge that the fishing industry is far from self-sufficient; on the contrary, it is totally dependent on employment insurance.

In my opinion, with this dependence, a “culture of unemployment” has developed over the years. This means agreeing to work for less, in less than ideal conditions, provided one qualifies for EI. Once on EI, people are less motivated to go back to work under such conditions, as it is easier to stay at home. We even hear about individuals who “buy their stamps” -- i.e., who pay a certain amount to a plant to

report having employed them and paid them a given sum, just so they can qualify for EI. This constitutes fraud, pure and simple, but these are exceptional cases; however, this anecdote shows to what extent the industry has become reliant on EI. It does not mean that people are lazy and do not want to work, but rather that the system is rife with flaws and it is time to restructure the fishing industry.

9.8. Problems of governance

I feel a modern fishing industry must be properly structured and each component must have its own representative association. There are serious shortcomings in industry governance. First, only half the workers are organized into unions and similar associations. There should be a structure in place that represents all industry workers.

Processors no longer have their own trade association, which is totally ridiculous. All seafood processors must once again organize themselves into a trade association that includes a division or subgroup for crab processors. If we intend to be competitive on the world market, this move is indispensable.

New Brunswick's traditional crab fishers are divided into three or four associations, but they should really be under the same roof.

Aboriginals do not have any structure allowing them to work together.

Groundfishers who have become crab fishers constitute another small group.

Under provincial legislation, inshore fishers are all members of the same organization but they still have not learned, even after 30 years of existence, that, in a democracy, majority rules.

Something that might appear inconceivable under the circumstances, but is nonetheless necessary if we wish to break the cycle of mistrust and discord: in a modern, competitive industry, the ideal would be an association of fishers -- inshore, midshore, Aboriginal and crew members. A commission uniting fishers, seafood processing workers and plant owners is also needed. Everyone would benefit.

9.9. The image of fishers

Unfortunately, the popular image of fishers is not one of a group of professionals making an important contribution to their community. Nor is it one of professionals working together because they know that this is the most effective way to ensure cost-effectiveness and remain competitive with a product intended for export to the world market.

The traditional view of poor fishers struggling to earn an honourable living and feed their families, disappeared long ago.

Indeed, the image of the fisher has become tarnished. People tend to see fishers as a group of mavericks who are never content, who are always arguing among

themselves, who are perpetually railing against the government, who make either lots of money in a short time or not much money at all and who are for the part unemployed and receiving as much EI as possible. They think all fishers drive big expensive trucks or 4x4s and have campers they take to go on holiday or to go hunting.

I am just saying out loud what I and many others are continually hearing on the street and in the coffee shops.

While this image is not an accurate reflection of the real situation, it does enormous harm to the fishers' cause.

I have worked closely with New Brunswick fishers all my life, and I have met extraordinary individuals -- whether midshore fishers, inshore fishers, traditional crab fishers or lobster fishers. I know many who work very hard and others who are talented entrepreneurs devoted to the conservation, protection and advancement of their industry for the well-being of everyone, not only themselves. I know so many who are strongly attached to their community, who want the fishing industry to benefit the entire community, who deplore the conditions of plant employees and who are what I call “good people”. As I see it, this is a truer picture of the great majority of fishers.

Personally, I feel that fishers' organizations, without exception (both the MFU and crab fishers' associations alike), have some serious thinking to do about how they promote their cause. Airing dirty laundry in public is not in anyone's best interest. Bad-mouthing government employees is not necessarily the best way to get what you want, whether in Fredericton or Ottawa. Fishers' organizations are generally not very involved in community activities.

Unfortunately, there are too many politicians who are no longer sympathetic to the fishers' cause, except for those who depend on their votes to get elected. As we know, they are only a small minority of the elected representatives!

Fishers and their organizations should take a good look at themselves and reflect seriously on whether they want to continue in the same vein or rethink their approach.

9.10. Public perception of the industry

The perception of the fishing industry is far from that of a well-structured, stable industry with the wind in its sails, modernizing itself to face the new realities and opportunities of world markets.

On the contrary, public perception is of an industry in perpetual crisis that does not pay its employees well. If it is not herring, it is lobster; if not lobster, it is crab, and so on and so forth.

Plants are changing ownership at a rate never before seen. For the past ten years, plant turnover has been extremely high, doubtless reflecting the general instability.

An indepth analysis of the future of the processing industry is necessary. We must determine what the industry needs to become stable, not only to remain competitive on the markets but especially to become a leader in product innovation and enhancement, so that everyone benefits: fishers, plant employees and plant owners.

9.11. My conclusions

I have not shared the above observations merely to pour out my heart or vent my frustration -- far from it. I am convinced that profound changes are needed in New Brunswick's east coast fishing industry. I also feel we must face the facts if we are to adequately meet the challenges involved, and, with a clear vision in mind, make the necessary changes.

I know most of the fishing industry stakeholders, as well as the federal and provincial representatives that work with the industry. I know both groups have the potential, the ability and the leadership to make such changes.

I am extremely pleased by the province's initiative to gather all stakeholders around the same table to examine our industry's problems. I am also pleased with the attitude, determination and commitment shown by the industry with respect to this initiative, which involves everyone working together to make the necessary adjustments.

I feel the government of New Brunswick has a crucial role to play here, as it must lead the way in this effort to transform and modernize of our industry. This indispensable modernization will allow us to:

- break the cycle of dependence on employment insurance
- provide better working conditions and decent wages
- resume our leadership position in the fishing industry
- add more value to our seafood products with a view to enabling our fishers to earn a better living and making our industry self-sufficient.

The object of my comments is to encourage all snow crab industry stakeholders to reflect on the industry's situation. We can then, as a group, examine these recommendations, which propose changes I feel are necessary in order to stabilize the snow crab industry. The objective is to create a win-win situation.

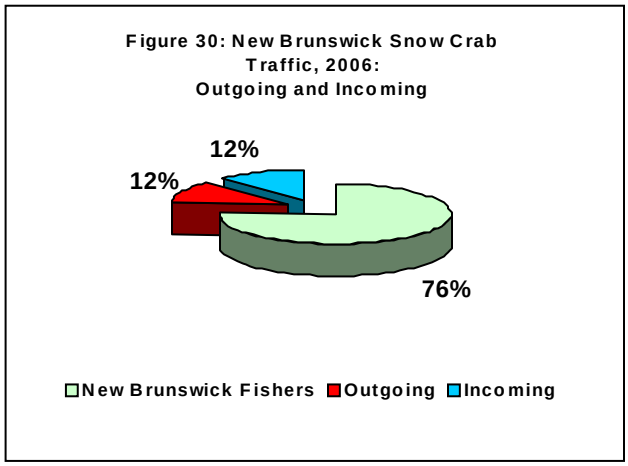
10. Analysis and Description of the Three Issues

10.1. Snow crab caught by NB fishers and processed out of province

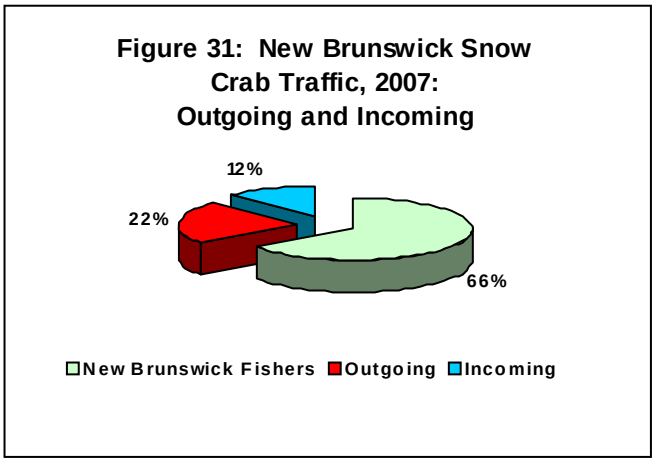
Given that New Brunswick snow crab processors are pioneers in this industry, they have practically always processed slightly more crab than is landed by the province's fishers. Our processors then sought out crab from Quebec, Prince Edward Island and Nova Scotia. Some quickly understood they would do well to set up operations in Quebec if they hoped to continue to do business with that province. As for Prince Edward Island, because its fishers were not landing crab in sufficiently large numbers to justify the construction of plants, New Brunswick processors continued to import crab from PEI, and Nova Scotia, to process here.

For some years now, unfortunately, the reverse has occurred. More crab is leaving New Brunswick to be processed elsewhere – eg: Quebec and Nova Scotia -- than is being imported from the other provinces.

In 2006, New Brunswick processors imported 4,786,376 pounds (12% of the total) of live snow crab to be processed here. The same year, 4,664,594 pounds of crab from New Brunswick (12% of the total) was taken to other provinces for processing. Figure 30 shows these percentages.



This trend continued in 2007, as illustrated by Figure 31. This year, a total of 7,791,663 pounds of New Brunswick snow crab (22% of the total) was processed out of province; whereas, only 4,322,962 pounds of crab (12% of the total) from other provinces was processed here.



What can be done, and what should be done, to rectify the situation and ensure that, in coming years, the production of New Brunswick fishers is processed in this province?

To counter this new phenomenon, many parties have suggested the government of New Brunswick intervene and pass regulations preventing snow crab caught by New Brunswick fishers from being sold out of province.

Industry stakeholders have repeatedly asked the provincial government to take the same action as Quebec, and Newfoundland and Labrador, to prevent the their fishers' catches from being sold elsewhere.

Before determining which regulatory measure should be imposed, however, we will need to reflect on whether it is in the interest of New Brunswick to take this road at all.

Remember that, since the industry was launched, we have always imported more live snow crab for processing here than we have exported. This is also the case for herring and, more particularly, lobster.

The solution does not lie in the creation of interprovincial barriers. We cannot and should not prevent the free flow of our products. If we opt for this approach, we will encourage all the other provinces to do likewise and, when push comes to shove, New Brunswick's fishing industry will lose out.

Instead, we must make room for competition and facilitate the free flow of goods. The solution lies in being competitive rather than in creating barriers.

We need to understand that some of our fishers land their crab out of province because their fishing grounds are closer to ports in other provinces. They can still sell their catch to a New Brunswick processor, who picks it up and transports it to New Brunswick for processing. Under these circumstances, a provincial regulation preventing our fishers from landing their catches out of province would be neither productive nor desirable.

Other fishers sell their products elsewhere because it pays better. Would this free competition among the plants of different provinces not encourage our processors to be more competitive? And is this not a good thing?

Even if our fishers sold all their landings in New Brunswick, nothing would stop our plant owners from having part of their production processed out of province, especially if they also own plans in other provinces.

If we want to ensure that New Brunswick crab is processed here, while maintaining the option of bringing crab from elsewhere, we can take measurers that will produce these results.

To begin with, we must do what it takes to be among the most competitive. Our industry was a pioneer in the field of snow crab processing. By renewing itself, it will be capable of competing with any snow crab processor in Atlantic Canada.

The very first step is this: processors and fishers must talk. Processors have to tell fishers: “If you can get a better price out of province, we won't expect you to

agree to a lower price from us." If fishers and processors talk more, they may reach an agreement whereby fishers, even if they can get a better price elsewhere, will allow New Brunswick processors to bring their prices in line with prices outside the province.

Processors must also talk more among themselves to deal with matters of common interest, whence the need for a trade association. Processors must undertake to (1) process in NB the products they purchase in NB and (2), in the event that, for whatever reason, they have a surplus, offer that surplus first to other NB processors before offering it to a plant outside the province.

The province still has a role to play, however. The government of New Brunswick, via the Departments of Fisheries and Intergovernmental Affairs, must negotiate with the other provinces to develop agreements regarding the free flow of goods and products. Certain specific agreements already exist, but the snow crab producing provinces -- ie, Newfoundland and Labrador, Quebec, Prince Edward Island, Nova Scotia and New Brunswick -- must get together and sign a protocol promoting the free flow of goods and eliminating unfair competition.

To ensure that New Brunswick processors are able to take full advantage of the snow crab in the southern Gulf of St Lawrence, there must be:

1. healthy competitiveness
2. cooperation among processors
3. cooperation between fishers and processors
4. a government that is proactive in its dealings with the other crab producing provinces.

10.2. Catch rates

Regarding landing rates, it has been shown that fishers are able to catch their quota of snow crab very quickly and that, in fact, it is daily processing capacity that limits landings. Data also show that, after four weeks of fishing, fishers have usually caught between 60 and 70% of their quota.

The great majority of processors also told us that, during the first few weeks of fishing, the high rate of weekly landings often has an impact on the quality of the product they are able to process. It goes without saying that poorer quality will, sooner or later, adversely affect prices.

In a previous chapter, we showed that, for the 12 New Brunswick processing plants active in 2007, the ideal production level was 345 tonnes per day. Multiplied by six days of production per week, this figure means that no more than 2,070 tonnes of crab should be processed every week.

It must be understood that, depending on quotas, at this rate, crab landings should be spread over after six or seven weeks of fishing. It would be totally inappropriate to extend the season merely to enable people to qualify for EI benefits. Processors must have the capacity to be competitive on world markets; we would not be helping them one iota by extending the processing season solely for that reason.

As things now stand, with the type of processing being done, the ideal season is six to seven weeks. However, if processors had markets for other types of product or produced value-added products, the processing period might have to be extended.

Extending the season, especially when biomass is declining, may also cause white crab problems: for example, prolonging the season to 10 weeks when biomass is at its lowest might lead to problems.

Nevertheless, with the suggested weekly limits, quotas will be caught more rapidly in years where the total allowable catch (TAC) is at its lowest.

To keep the landing rate at the optimum level of 2,070 tonnes, weekly landings should therefore not exceed 1,476 tonnes, given the fact that traditional crab fishers catch 71.3% of New Brunswick's total quota. By the same token, new entrants and First Nations fleets should not land more than 594 tonnes per week.

Looking at the data for 2006 landings, we see that they exceeded the 2,070-tonne threshold only during the first three weeks of the season. The first week, 3,073 tonnes were landed; the second, 2,717 tonnes, and the third, 2,231 tonnes.

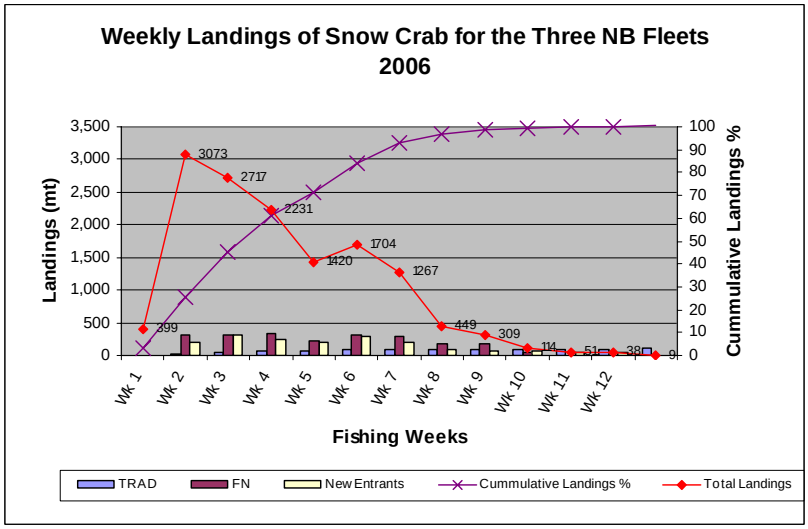


Figure 33: 2006 New Brunswick Snow Crab Landings

In 2007, landings exceeded the threshold only in the first two weeks. The first week, 2,802 tonnes of snow crab were landed; the second week, 2,707, and the third week, 2,072 tonnes (the threshold rate).

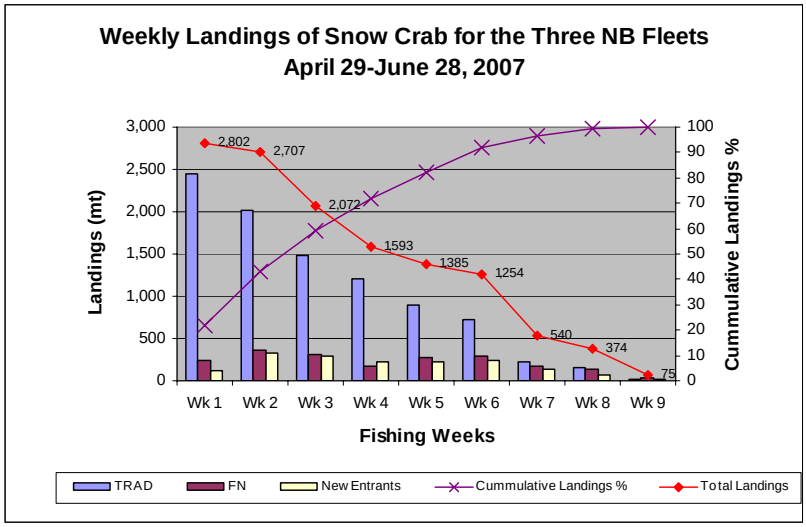


Figure 34: 2007 New Brunswick Snow Crab Landings

According to these figures, by limiting weekly landings to 2,070 tonnes during the first three weeks -- ie, around 1,500 tonnes (rounded out) per week for traditional crab fishers, and approximately 600 tonnes (rounded out) for new entrants and First Nations fleets, the problem of accelerated catch rates during the first few weeks would be solved, and processing would occur under better conditions.

In addition to a in better quality product, this balance would also enable plant employees to work more "normal" hours (more balanced from week to week) during the snow crab fishing season.

A landing limit for traditional crab fishers of 1,476 tonnes per week represents 19.4 tonnes for each of the 76 licence holders in this fleet. Dividing this amount by the number of trips made per week, we arrive at a figure of 9.7 tonnes, or 21,402 pounds, for each of the two weekly trips allowed. There is no need to be this precise; traditional crab fishers and processors would merely have to agree on a round number.

If new entrants (in the industry since 1995) and First Nations fleets were to fish using vessels under 45 feet in length only, landings would be limited to around 10,000 pounds per week, and the 594-tonne level would not be exceeded. There might be a few exceptions among the First Nations fishers, some of whom use larger vessels, but it would be relatively simple to make the necessary adjustments.

Now that we have a good idea of the quantities represented by the weekly landing limits for the various fleets, how do we go about ensuring that EVERYONE abides by those weekly limits?

Should Fisheries and Oceans Canada restrict the number of vessel trips and the landings per trip in order to reach the new objectives of its "Ocean to Plate" policy?[18] With this policy, the Department hopes to offer consumers the best possible products, caught under conditions that best ensure sustainable fishing and a superior product.

As we know, snow crab fishing in the southern Gulf of St Lawrence is practised, not only by New Brunswick fishers, but also by fishers from Quebec, Prince Edward Island and Nova Scotia. It would be inappropriate for the DFO to impose a limit on New Brunswick fishers without doing the same for fishers from these other provinces.

Accordingly, if the Department of Fisheries and Oceans were to limit weekly snow crab landings, it would have to do it for the entire Gulf; otherwise, there could be a destabilizing effect on the New Brunswick processing industry. If processors from another province completed production long before New Brunswick processors, they would be tempted to get their raw material from our fishers, as the price paid for the accessible surplus could be higher than the price paid by New Brunswick processors, who would not yet have reached maximum production levels.

To determine weekly landings in the other provinces, an analysis like this one would be required.

The fact is, however, that, if the DFO imposed a limit on landings, it would not necessarily put an end to snow crab surpluses landed at certain plants. Despite the fact that the weekly catch per fisher would be limited, processors' ability to buy (excess) crab would not necessarily be reduced. They could still purchase more crab than they can optimally process, which would again lead to a glut and

[18] Fisheries and Oceans Canada, *Ocean to Plate Approach to Commercial Fisheries and Aquaculture*, April 2007.

adversely affect the quality of the final product. At least, no one could blame the fishers!

It is fairly obvious that, initially, the problem of excessive snow crab landings during the first few weeks of the season must be solved by a closer cooperation and agreement between processors and fishers. If they failed to cooperate or come to an agreement, the DFO should take whatever steps are necessary to regulate crab catches by fleet and by province.

Subsequently, in the spirit of determination and cooperation being demonstrated, all processors must meet to determine the maximum number of landings they need. They should then get together with representatives of the fishers to establish a weekly catch protocol that would ensure a balance between processing requirements and the limit acceptable to the fishers. These meetings should take place annually, as the situation may change, depending on the markets and the types of processing being done. If this measure were implemented, each fisher would have to sign an individual compliance undertaking.

10.3. New Brunswick snow crab processing plants: no guaranteed supply

Of the three issues I was asked to study, the New Brunswick snow crab industry's lack of a stable supply of raw material is undoubtedly the most complex and the most significant. To ensure our industry has a future, it is vital that this issue be resolved. To this end, many of our operating methods will have to be drastically changed.

Processors have repeatedly expressed their frustration with the fact that, while fishers have an individual quota that ensures them a share of the total allocated catch (TAC), they themselves have no guaranteed supply (unless plant owners are also fishers with their own quotas).

For years, processors have been demanding their own quota, so as to be ensured of a minimum supply.

In their view, it is extremely difficult to invest in plant improvements without knowing from year to year whether there will be crab to process or how many fishers will agree to sell them their crab. This very real situation is exceedingly problematic and must be dealt with.

New Brunswick is presently slipping from the top ranks of Canada's snow crab industry (Quebec and the Atlantic provinces are the country's snow crab producers), and the lack of a stable supply is one of the factors.

Every year, many fishers go from one plant to another. This to-and-fro explains why some plants suddenly find themselves with several suppliers and, as a result, more crab than they can handle. Such situations have sometimes caused losses, forced the sale of surpluses to other plants and doubtless adversely affected the quality of the final product.

Losing “their fishers” causes plants a great deal of concern. Although they do everything to keep the fishers, they do not always succeed. From time to time, plants are forced to cease operations entirely because of a lack of raw material. In some cases, they are forced to pay prices for their crabs that bear absolutely no relation to market realities.

Processors cannot provide their clients with a guaranteed supply because occasionally, at the height of the season, fishers change plants and the number of fishers who agree to sell them crab is sometimes not known until the last minute.

This situation has serious repercussions on the entire industry. Among other things, it limits:

- financial arrangements (lines of credit), as the plants still do not have a guaranteed supply
- research and development:
- new product development and further processing options
- identification of new markets.

With these restrictions on development opportunities, processors are not able to increase the market value of their crab. The consequence of this forced stagnation is a negative impact on the prices that fishers can get, especially over the medium and long term.

Fishers would also benefit if plant owners could develop the snow crab processing sector to a greater extent.

As we know, there are 22 plants in New Brunswick with a licence to process snow crab. In 2006, however, just 15 of these actually processed this raw material. In 2007, there were only 12. How many will still be active in 2008? We hear about major players who want to become active while there are rumours that several plants are currently not very sound financially and could close or be sold. One way or another, instability reigns.

All this to say that, for most snow crab processing plants, the outlook is not rosy. At this time, the industry is certainly in no position to take its place at the forefront of the international snow crab scene.

And yet, our snow crab is an excellent product and superior in quality to most other species of crab sold around the world.

According to some, the market should be left to take its normal course; in other words, “to the victor go the spoils”. The strongest will survive, and the weak will disappear. However, the history of the fishing industry has taught us that this approach is not always as effective as popular wisdom would have us believe. Look at the large fishing companies that wiped out numerous smaller ventures only to end up seeking government financing to save themselves from bankruptcy. Since the 1970s, we have had *Fisheries Products International* in Newfoundland and Labrador, *National Sea Products* in Nova Scotia, the Nickerson empire in Cape Breton, and *Polar Foods* in Prince Edward Island, to name only a few. New Brunswick does not really need to join this list!

Do planned restructuring and the related investment not have greater merit than the “to the victor go the spoils” approach, where those victors start out as lord and master, and ending up begging the government to save them from financial disaster?

Should processing plants be given snow crab quotas? The answer, for now, is no.

Over the past few years, resource sharing has given rise to its share of conflicts; no one wants all that to start again.

Are there other ways of guaranteeing plants a more stable supply without using the quota system? The answer to *this* question is yes.

If governments, processors, workers, fishers and coastal communities all recognized that the snow crab industry would benefit from a system that guarantees plants a supply of raw-material, this goal could be reached without a need for a quota system, even if other countries have gone this route.

What is important is ensuring a balance between a guaranteed supply for the

plants and a healthy degree of competition, which ensures that fishers will get the best possible price for their product. You cannot have one without the other. If the plants were given quotas, the fishers would lose out, without a doubt. A balance must be found. We have to rethink the relationship between fishers and processors. We have to redefine the way plants are supplied and the way prices paid to fishers are determined.

This process must take place in a climate of mutual respect and trust. The government of New Brunswick can take the reins here and use its influence to encourage all parties to rally round and discuss the issue of a stable supply of snow crab for the processing plants.

I therefore suggest that the government of New Brunswick work together with the snow crab industry to develop a mechanism whereby 50% of NB fishers catch is allocated to our processing plants.

The plants would divide this 50% in the same way as traditional crabbers, shrimpers and groundfishers have succeeded in sharing the resource - i.e., by establishing a system of individual quotas and a system of individual transferable quotas. If fishers have managed to find a way to divide up their quotas, there is no reason processors should not be able to do the same.

In short, this means fishers would have 50% of their catches distributed to the plants according to a sharing formula established by the processors themselves.

In exchange for their crab, fishers would receive a guaranteed base price, which would be established before the season opened.

This price would be based on all the data needed for determining a base price that reflects market realities. This information would be prepared and put at the disposal of all parties by an independent institution. With this information in hand, fishers and processors would meet to establish a floor price. If they fail, a third party would be appointed to recommend a floor price.

As regards the other 50% of the quota (the fishers' share), I suggest it be sold at auction.

The issue of selling seafood products at auction has come up frequently and has always been rejected out of hand. Objections have been based on the view that auctions are a European approach and does not reflect conditions here; in Europe, the fishers' products are often sold fresh on the market; whereas, on this side of the Atlantic, the products must be processed and sold frozen.

However, auctions exist, not only in Europe but indeed around the world. If this system has worked for such a long time and survived all sorts of societal change, it must surely have a number of advantages. There is no way you are going to convince me that the way we now determine prices paid to fishers is the best available.

I suggest that we prepare a detailed plan based on our own realities, which would allow fishers to sell 50% of their quota at auction (the other 50% to be sold at the floor price mentioned above). An industry-wide committee that would include

government representatives should be appointed in the near future to develop such a system.

The bottom line is that fishers and processors will have to be given the opportunity to approve or reject this system. A majority of processors and a majority of fishers would have to endorse the approach before it can be implemented.

However, before they accept or reject the system, the two groups must be given the opportunity to study the option indepth, and to see and understand how it would work. Once the plan is ready, the industry will approve or reject it. The industry will have the last word, for better or worse.

11. A Future Vision for the Industry

New Brunswick's fishing industry needs a vision to shape its future initiatives, programs and investments.

If I were asked for my vision, I would say that we must rethink our approach to processing and harvesting. Currently, we are “packers” rather than “processors”. If there is value to be added or further processing to be done, it is certainly not being done here.

With a few exceptions, our processing plants are old. They are scattered here and there, and most of them are not strategically located where they would minimize transportation from dock to plant. We have far too many plants and most of them operate for periods that are too short.

As I see it, we should begin renewing the processing industry by building new plants and modernizing plants that can be saved. This would be done on the basis of a rationalization plan, phased in over several years, whereby plants that cannot be saved would be eliminated using a buyout program that will allow owners to close up shop with dignity.

The new plants, some located in the northeast and others in the southeast, would rank among the most modern in the world. They would be multipurpose and able to adapt rapidly to changing conditions in the global market. Naturally, these plants would seek to be operational year-round, processing local and imported commercially fished and farmed products. The fact is that these plants will never see the light of day if they cannot operate a minimum of 6 months per year.

The new plants would be able to process a number of products in a much less labour-intensive manner. Employees would be specialized, professional and more productive; they would also have job security and they would never have to worry about working enough weeks to qualify for employment insurance.

Finished product prices would be among the highest in the world, especially for snow crab and lobster. These products should be the most sought after in the world, especially by high-end restaurants.

This modernization of the process would go hand in hand with an entirely new approach to harvesting. The whole issue of how we harvest ocean resources must be rethought. We have to rebuild our fishing fleet, substantially reducing the number of vessels and fishers. The harvesting aspect would be restructured along the same lines as the processing aspect - i.e., using a rationalization plan and a buyback program that would enable fishers to leave with dignity.

The new fleet would be multipurpose harvesting as many species as possible between ice periods. There would be an overall harvesting strategy, rather than by

catch or by species, which would maximize the use of existing vessels and minimizing the number of vessels required. If you think about it, it is ridiculous to have a vessel worth a million dollars or more spend 7 or 8 weeks fishing for crab and then 44 or 45 weeks in dry-dock. It is equally absurd to have an inshore vessel costing up to $200,000 fish for lobster for 10 weeks and then spend the rest of the year “parked” beside its owner's home.

This is 2007 -- there must be a more efficient way to harvest our resources. This separation between inshore and midshore fishers has been with us long enough. It has run its course. These concepts must go and we must have a single fleet. No more rivalries about who can catch the largest share.

There will be fewer fishers, but those who remain will be able to go to sea longer and make a much better living. In this scenario, too, EI will take a back seat.

Rome was not built in a day. This reform would be phased in pursuant to New Brunswick's self-sufficiency objectives.

My Vision

A reduced, ultramodern processing industry with a highly productive and well paid professional workforce; a new and reduced ultramodern fishing fleet capable of multispecies fishing.

12. Recommendations

I was asked to deal with three relatively specific issues pertaining to New Brunswick's snow crab industry. I found that I could not deal with these specific issues without analyzing the operation of our east coast fishing industry in a much broader context. As a result, I have some recommendations of a more general nature to make before I make my recommendations pertaining to the three specific issues.

These general recommendations should be studied in more depth, perhaps in another context. The specific recommendations are more pressing. We are running out of time and have to act now.

I would also like to stress that my recommendations are based on a deep respect for all fishers, processors, workers and government representatives who will be called on to work closely together to implement these recommendations and ultimately further our industry's cause.

In order for us to change course, I am advocating an approach based on discussion, cooperation and the voluntary participation of all industry and government stakeholders. Fishers and their spokespersons, plant owners and workers, government ministers and employees: everyone must contribute. We have work to do to put the industry back on track.

My recommendations are based on the firm belief that all stakeholders are capable of working together to innovate, promote and bolster our snow crab industry. Lastly, my recommendations are aimed at creating a win-win situation – no more robbing Peter to pay Paul!

a) General recommendations

12.1. Considering that numerous processing infrastructures are operated only a few weeks per year, which wastes valuable resources, that the province require a minimum number of processing weeks annually for renewing a processing licence. This requirement will be phased in over a certain number of years. Accordingly, any processing plant that does not operate at least 15 weeks per year in 5 years would not have its licence renewed. Subsequently, any plant that does not operate at least 25 weeks per year in 10 years would not have its licence renewed.

12.2. Considering that many NB seafood processing plants are in a precarious state in view of their advanced age and even obsolescence in some cases, that the government of New Brunswick develop an industry rationalization program.

12.3. That the government of New Brunswick introduce a bill to encourage a processors' association. As in the case of inshore fishers, this bill should require that, if the majority of processors are in favour of such an association, all processors, without exception, will have to pay the required dues.

12.4. That the determination of the length of the fishing season take into account the biological cycle of the snow crab and market requirements. By the same token, the number of processing weeks should be linked to optimum processing capacity rather than employment insurance considerations.

12.5. That all processors collectively undertake to increase the minimum plant employee wage to $12.00 an hour. Even if this measure is not sufficient to remedy current working conditions, it is still a step in the right direction.

12.6. That the province set up a mechanism whereby fishers automatically have a legal lien on the assets of the plant to which they have sold crab, up to the amount owed to them by that plant – ie, fishers would be considered secured creditors under the *Bankruptcy Act*.

12.7. With a view to promoting an ongoing dialogue, that plant workers and fishers meet annually to discuss landings, impacts on their respective situations, as well as any other matters of mutual interest.

12.8. That a forum be established where processors and fishers have an opportunity to meet on a regular, ongoing basis to discuss matters of mutual interest, such as world markets and quality issues, etc.

12.9. That a forum be established where labour and management representatives from each processing plant would meet annually to discuss matters of mutual interest.

b) Specific recommendations

1. Snow crab caught by New Brunswick fishers and processed out of province

12.10. Since it is neither possible nor desirable to prevent fishers from selling their crab catches out of province when they can obtain a better price, that fishers undertake to give New Brunswick processors the opportunity to meet or exceed that price, before they avail themselves of this option. Such an undertaking would be an agreement in due form, signed by processors and fishers (all fishers and all processors signing individually).

12.11. That the province of New Brunswick open talks to establish a non-interference agreement between the Atlantic provinces and Quebec relative to the prices paid to fishers (including the subsidies of all kinds affecting the processing plants). In the alternative, this agreement would stipulate that the province in question would have to inform the other signatory provinces.

12.12. That the provincial government and the crab industry, including fishers' associations, launch an information campaign to encourage fishers to sell their catches in New Brunswick. This campaign would set out the positive effects of the industry on New Brunswick (employment, economy, etc.).

12.13. That all NB crab processors sign a memorandum of understanding whereby they agree to offer their crab surplus (where applicable) to other NB plants before having it processed out of province.

2. Catch rates

12.14. That fishers and processors meet before the end of January each year and sign a landing schedule protocol, which would have to be ratified by all fishers and processors before the end of February.

12.15. If processors and fishers cannot agree on a protocol, that the Department of Fisheries and Oceans regulate landings for all of CFA 12, and include these regulations in its annual fishing plan.

12.16. That landings be limited to a maximum of two trips per week, for midshore and new access fleets alike.

12.17. That weekly landings be limited to 10,000 pounds for fishers with a limit of 75 traps, and from 40,000 to 50,000 pounds for fishers with a limit of 150 traps.

12.18. That the establishment of a “first trip” schedule be considered. Fishers could take turns from year to year. If need be, another option would be to limit the number of traps being used during the first few weeks of fishing.

3. No guaranteed supply for plants

12.19. That an independent institution (for example, the Coastal Zone Research Institute) or any other agency be mandated to publish, twice a month, a newsletter on market conditions and other factors likely to affect the base price paid to fishers. This newsletter could act as a starting point for suggesting a reference (base) price that processors should be able to pay for the raw material. The newsletter should be published from the beginning of March to the end of October.

12.20. That fishers, processors and governments sign a memorandum of understanding on the topics to be included in this biweekly publication – eg: currency exchange rates, world crab inventory, prices and quantities of crab species competing with the snow crab, labour and transportation costs, and any thing else this group feels will provide a more accurate indication of the snow crab base price.

12.21. That this same institution or agency publish, twice a year, a newsletter on the crab industry and its importance to the region. The newsletter would deal, in particular, with production and prices in other countries, changing market conditions, and any other information likely to affect New Brunswick's crab industry. These general publications should come out at the beginning of February and the beginning of September of each year.

12.22. I recommend that the federal government, the provincial government, fishers and processors contribute equally to funding these newsletters, about $100,000 annually.

12.23. That, in the light of all this information, a meeting between fishers and processors to determine the season opening floor price be held in early April of every year.

12.24. In the event such negotiations do not succeed, that the New Brunswick Department of Fisheries appoint a third party (mediator) to determine the floor price. The related costs would be covered equally by processors and fishers.

12.25. That 50% of the crab catch be distributed to the processors based on historical shares, and that the other 50% be sold at auction.

12.26. That a task force composed of representatives of the New Brunswick Department of Fisheries, the DFO and processors be established to determine a formula for sharing this quota.

12.27. After this formula has been determined, plants will have to agree to pay fishers the established floor price to qualify for their share.

12.28. That any plants that do not pay the full floor price for all the crab sold by fishers on a weekly basis stand to lose their crab allocations the following year.

12.29. That steps be taken by early January 2008 to establish a government-industry committee that would be in charge of developing an auction system. Beginning with the 2009 season, this fair and structured mechanism would be used to sell the undistributed 50% of the New Brunswick crab fishers' quota.

12.30. The committee will also develop voting procedure for determining the level of support for the auction system (ie, what represents a majority of the fishers and a majority of the processors), and submit its report before the end of June 2008.

12.31. Before being implemented, the recommended system will have to be approved by a majority of fishers and processors. The industry will have to provide comments on the report by the end of September 2008 for the system to be implemented for the 2009 season.

12.32. That the provincial government, fishers and processors contribute equally to fund the work of the committee, an estimated total of $150,000.

12.33. Some comments regarding this system:

- Half the crab could be auctioned off before the season opens, and the other half, four weeks after the season opens. Crab would be sold by an agent representing all fishers and all fishers will receive the average price.
- An auction system similar to eBay might be considered – ie, an Internet-based system with a protected ID for each bidder. Crab would be auctioned off in 500,000-pound lots. An auction session would last half a day. The price paid to the fishers would be equal to the average price obtained for all the crab sold at all the sessions (*the price could take quality into consideration*).

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