The Fishing Industry in Quebec

Socio-Economic Profile 2004

Prepared by

Policy and Economic Branch

Quebec Region

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THE FISHING INDUSTRY IN QUEBEC
SOCIO-ECONOMIC PROFILE

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ACRONYMS

BAPAP: *Bureau d'accréditation des pêcheurs et aides-pêcheurs du Québec*
CRIQ: *Centre de recherche industriel du Québec*
DFO: Fisheries and Oceans Canada
DRPE: Policy and Economics Branch
HRSDC: Human Resources and Skills Development Canada
MAPAQ: *Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec*

ABBREVIATIONS

$M: million of dollars
$B: billion of dollars
$K: thousand of dollars

SYMBOLS

p: preliminary
no.: number

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Introduction

This study draws a portrait of the maritime sectors of Quebec, and more particularly, their fishing industry. First, an analysis of demographic and socio-economic trends is presented. Several variables make up this socio-economic portrait: population, level of education, participation rate, unemployment rate, composition of income, and sectors of economic activity. This analysis enables a clear understanding of the importance of the fishing industry for coastal communities in Quebec.

Secondly, the fish harvesting sector is described and analyzed through the many elements that define it. Landings, both in terms of volume and of value, are presented in a historical perspective. In order to reflect the harvest industry's current situation, the most recent fishing season was examined more closely. This section also contains information on the number of active fishermen, licences, the importance of certain species, and many other details, which provide a sound comprehension of this area of activity. A brief overview of the aquaculture industry is also presented.

Furthermore, information concerning the commercial fishing activities of aboriginal communities is analyzed. This allows us to note the increasing importance of this industry for these communities.

The subsequent section presents an analysis of the marine product processing sector. Among other data, information is provided on the composition and value of post-plant production, the number of jobs in this sector of the industry and the importance of certain species for this economic activity.

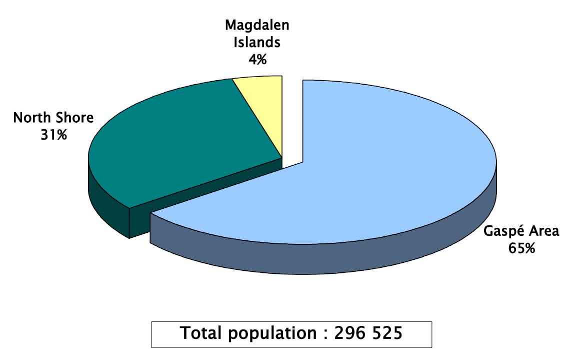
Finally, the last section introduces details relating to Quebec imports and exports of fish and seafood.

1. Socio-Economic Profile of the Maritime Sectors

1.1 Demographic Context

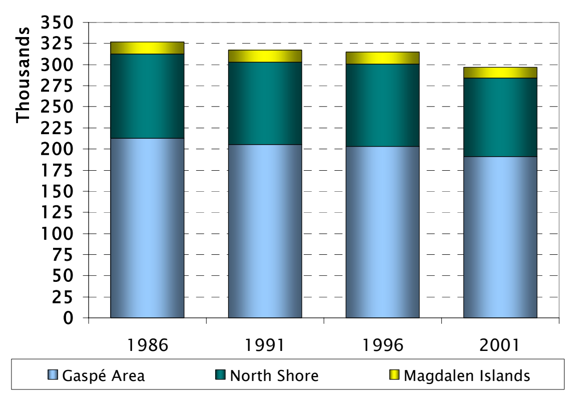
The population of the three main maritime sectors[1] of Quebec, the Gaspé Area, the North Shore and the Magdalen Islands, reached almost 300 000 people in 2001. In total, these three sectors make up slightly more than 4% of the total population of Quebec. The Gaspé Area is the most populated maritime sector, with 65% of the maritime sectors' population, that is, 191 300 inhabitants. The North Shore comes in second place with 92 600 inhabitants, 31% of the total. The Magdalen Islands is the least populated sector, with 12 600 inhabitants, 4% of the maritime sectors' population.

Graph 1: Distribution of the Population in the Maritime Sectors, 2001



Source: Statistics Canada, 2001 census, special compilations

Graph 2: Population Development in the Maritime Sectors, 1986 to 2001



Source: Statistics Canada, 2001 census, special compilations

While population growth in Quebec is tailing off[2], the maritime sectors are seeing their population decline every year. The population change in these sectors shows a downward trend, with a decrease of more than 9% between 1986 and 2001. The rate of this decline became more pronounced between 1996 and 2001, with a population decrease of almost 6% (30 400 inhabitants). During this period, the Magdalen Islands and the Gaspé Area suffered the largest decrease in population, 13.5% (2 000 inhabitants) and 10.3% (21 900 inhabitants) respectively. On the North Shore, population decrease reached 6.6%

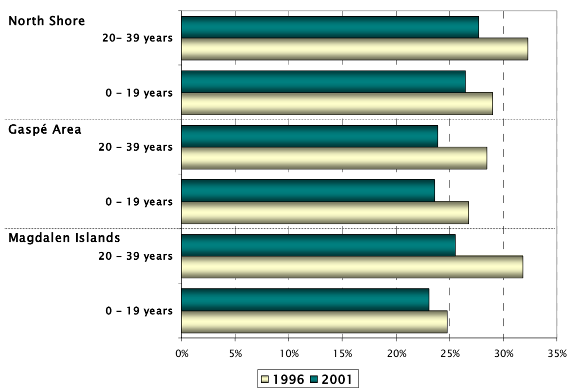
[1] The designation "maritime sector" used in the document refers to geographic regions defined by Fisheries and Oceans Canada. The main maritime sectors are: Gaspé, the North Shore, and the Magdalen Islands (see Appendix 1).

[2] Between 1996 and 2001, population growth in Quebec was 1.1%.

(6 600 inhabitants) during this same period. The population decline these maritime sectors are experiencing has an impact on the economy, since it leads to a decrease in the demand for goods and services. There are thus fewer consumers spending on goods and services in these sectors.

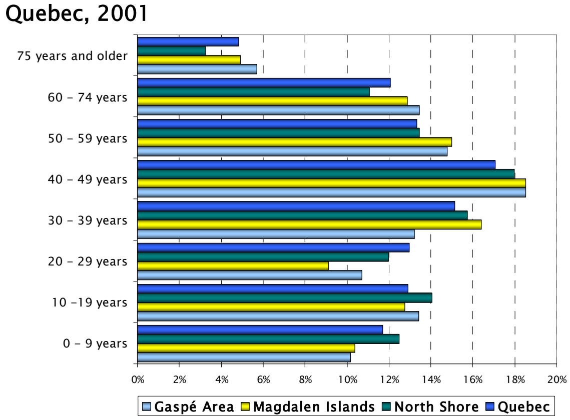
What is more, these changes in the population are not taking place in a uniform manner. In fact, by looking at the changes in the age pyramid for the maritime sectors, we notice the effect of the youth exodus and the growing proportion of people aged 40 and above. Between 1996 and 2001, the proportion of 20 to 39 year olds in the maritime sectors decreased. The most marked decline relates to the population aged between 30 and 34 years.

Graph 3: Evolution of the Age Pyramid (0-39 years) for the Maritime Sectors between 1996 and 2001



Source: Statistics Canada, 2001 census, special compilations

Graph 4: Age Pyramids for the Maritime Sectors and Quebec, 2001



Source: Statistics Canada, 2001 census, special compilations

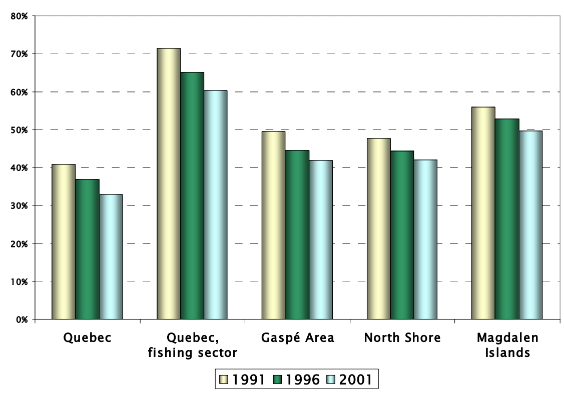
This crumbling of the base of the age pyramid is also apparent when comparing the overall situation in the province of Quebec with that of the maritime sectors. In the Gaspé Area and the Magdalen Islands, the proportion of young people is lower than in Quebec as a whole, and that of older people is higher. Conversely, the demographic portrait of the North Shore is closer to that of the province of Quebec than the other maritime sectors. In fact, we even observe a higher proportion of people aged between 0 and 39 years on the North Shore than in Quebec as a whole. The North Shore's economy, which is more diversified than in the other maritime sectors, accounts for this situation. Indeed, we note that the secondary sector (manufacturing and construction) is larger on the North Shore than in the other maritime sectors. The secondary sector employed 21% of workers in 2000, while this percentage was approximately 16% for the Gaspé Area and the Magdalen Islands.

1.2 Level of Education

The level of education in the maritime sectors has improved over the last ten years. While the proportion of the population with no degree is falling, an ever increasing proportion of the population holds a Bachelor's degree or higher.

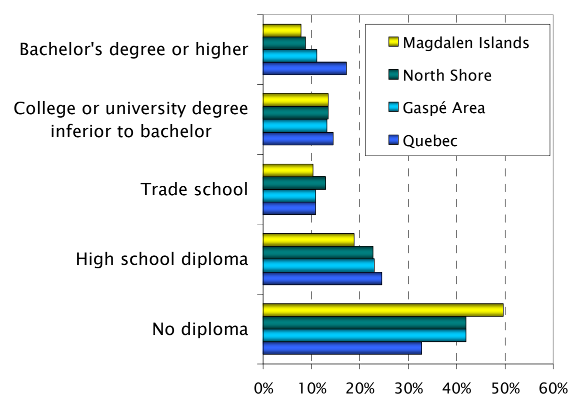
When comparing the different levels of education within the province of Quebec, the maritime sectors, and the fishing industry, significant disparities are apparent. The proportion of the population with no degree is higher in the maritime sectors and in the fishing industry. However, this proportion of non-graduates in the Quebec fishing industry as a whole is falling, as it dropped from 71.4% in 1991 to 60.2% in 2001.

Graph 5: Development of the Proportion of the Population with No Degree in the Maritime Sectors and Quebec, 1991 to 2001



Source: Statistics Canada, 2001 census, special compilations

Graph 6: Level of Education in the Maritime Sectors and in Quebec, 2001

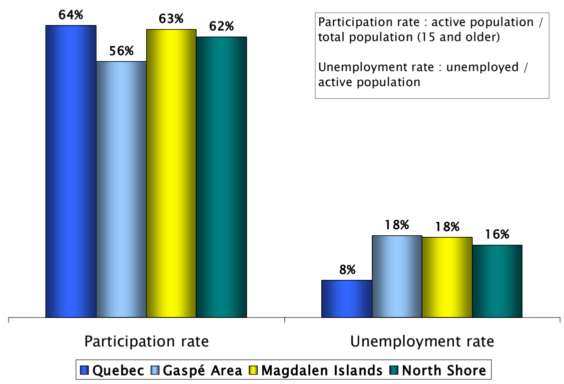


Source: Statistics Canada, 2001 census, special compilations

1.3 Participation Rate and Unemployment Rate

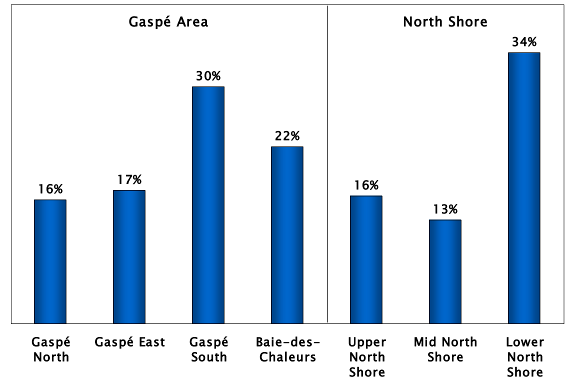
Unemployment rates in the maritime sectors are much higher than in Quebec as a whole. With an unemployment rate of 16% on the North Shore in 2001, the difference between this sector, and the province of Quebec is almost 8 percentage points. Furthermore, there are significant regional differences even within the North Shore and the Gaspé Area. The Lower North Shore sub-sector has the highest unemployment rate on the North Shore, 34%. This state of affairs reflects this sector's difficult economic situation, which relies almost entirely on fishing. In the Gaspé Area, the Gaspé South sub-sector shows the highest unemployment rate (30%), while the most populated sub-sector, Gaspé North, has the lowest rate of unemployment (16%).

Graph 7: Participation and Unemployment Rates in the Maritimes Sectors and in Quebec Province, 2001



Source: Statistics Canada, 2001 census, special compilations

Graph 8: Unemployment Rates for the Maritime Sub-Sectors of the Gaspé Area and the North Shore, 2001



Source: Statistics Canada, 2001 census, special compilations

Participation rate is also an important variable for characterizing the labour market. It expresses the proportion of the active population compared to the total population aged 15 years and older. This rate also shows the capacity of an economy to generate employment. It can be seen that the participation rates for the North Shore and the Magdalen Islands are close to the participation rate for the province of Quebec. This figure means that the active population makes up a large proportion of the total population aged 15 years and older. However, the development and the composition of income characterize the labour market more precisely.

1.4 Development and Composition of Income

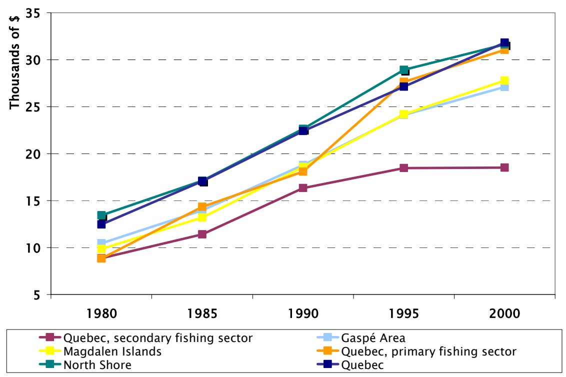
The average incomes for the populations of the Gaspé Area and the Magdalen Islands are lower than the Quebec average. In 2000, this difference in income reached 15% for the Gaspé Area and 13% for the Magdalen Islands. The average income for the North Shore's population, on the other hand, is close to the Quebec average. As far as the primary sector[3] of the fishing industry is concerned, it is interesting to note that the change in average income of the population working in this sector is picking up, compared to the Quebec average. Whereas the average income in this sector was markedly lower than the Quebec average in the 1980s and 1990s, it was at a comparable level in 2000. The growth of average income in the primary sector of the fishing industry was 72% between 1990 and 2000. The secondary sector[4] of the fishing industry does not display the same characteristics, and in 2000 it was well below the Quebec average.

[3] The primary fishing sector refers to the capture of fish resources.

[4] The secondary fishing sector refers to the processing of fish resources.

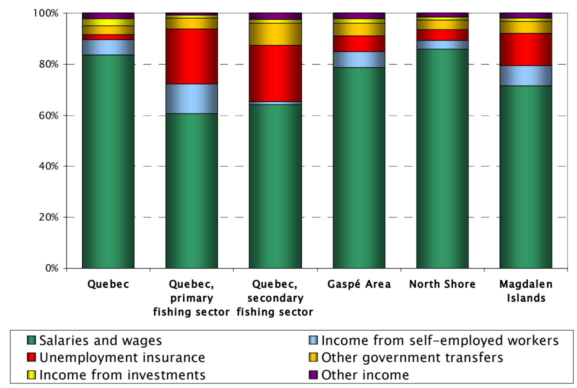
A larger proportion of the average income for the population of the maritime sectors comes from unemployment insurance. While income from unemployment insurance represented 2% of average income in 2000 for the province of Quebec, this percentage reached 4.4% for the North Shore, 6.3% in the Gaspé Area and 12.6% in the Magdalen Islands. Moreover, the proportion of average income from unemployment insurance is even greater for the primary and secondary sectors of the fishing industry (21% and 22% respectively).

Graph 9: Evolution of Average Income in Quebec, the Fishing Industry and the Maritime Sectors, 1980 to 2000



Source: Statistics Canada, 2001 census, special compilations

Graph 10: Composition of the Average Income for the Population of Quebec, in the Fishing Industry and the Maritime Sectors, 2000



Source: Statistics Canada, 2001 census, special compilations

Furthermore, a large proportion of the population working in the fishing industry has government transfer payments[5] as the main source of income. In the primary sector, this proportion is 29%, while it reaches 36% for the secondary sector. As a comparison, this percentage is 8% for Quebec as a whole.

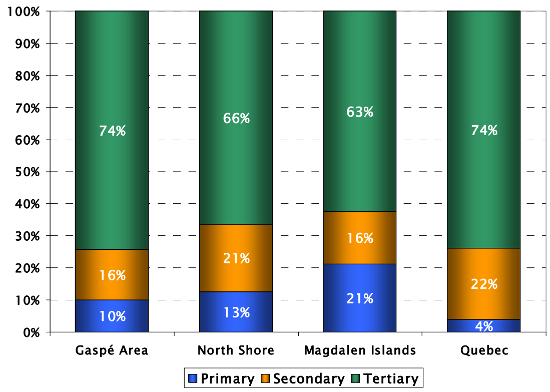
1.5 Sectors of Activity

In the maritime sectors, the primary sector generates between 10% and 21% of jobs, two to five times more than the proportion for the province of Quebec. The Magdalen Islands have the highest proportion of the active population attached to the primary sector (21%). The secondary sector generates a lower proportion of jobs in the Gaspé Area and in the Magdalen Islands than in Quebec as a whole. On the North Shore, the secondary sector generates a higher proportion of jobs than in the other maritime sectors. Moreover, this proportion is comparable to that for the whole of Quebec. The North Shore's economy is

[5] Government transfers: Income from all government transfers provided by federal, provincial, and municipal governments. The payment of transfers include Old Age Pension and Guaranteed Income Supplement, benefits from the Quebec Pension Plan or the Canada Pension Plan, unemployment insurance, family allowances, federal tax credits for children, and other income from public sources.

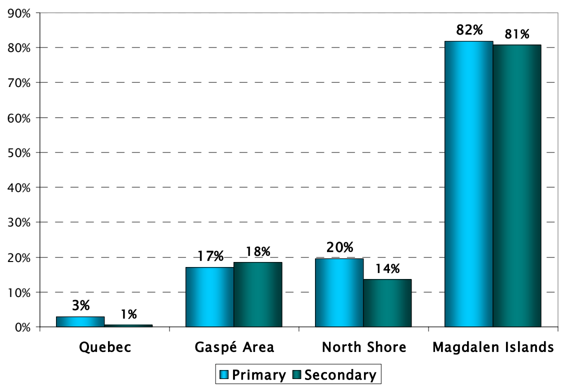
more diversified than in the other maritime sectors, and the wood manufacturing, paper manufacturing, and primary metal manufacturing (aluminum, iron ore) industries can all be found there.

Graph 11: Distribution of the Active Population According to Sector of Economic Activity and Maritime Sector, 2001



Source: Statistics Canada, 2001 census, special compilations

Graph 12: Proportion of the Population Aged 15 Years and Older in the Primary and Secondary Sectors of the Fishing Industry, 2001



Source: Statistics Canada, 2001 census, special compilations

The fishing industry is a major component of the Magdalen Island's economy. In fact, in both the primary and the secondary sectors, more than 80% of the population aged 15 years and older work in this industry. The fishing industry is also an important component of the economy of the North Shore and the Gaspé Area. However, sharp differences can be seen between the different sub-sectors on the North Shore and in the Gaspé Area. The Lower North Shore and Gaspé South show the most marked dependence on the fishing industry, since the majority of the population aged 15 years and older who work in the primary sector are attached to the fishing industry (82% and 67% respectively). For the secondary sector, these proportions reach 88% and 70% respectively.

In Quebec, 8 200 people worked in the primary sector of the fishing industry and the marine product processing sector in 2001. What is more, almost 90% of these workers (a total of 7 300 people) were to be found in the maritime sectors of the Gaspé Area (43%), the North Shore (24%) and the Magdalen Islands (23%).

Table 1: Population Aged 15 Years and Older Working in the Fishing Industry in Quebec and the Maritime Sectors, 2001

	Gaspé Area	North Shore	Magdalen Islands	Elsewhere in Quebec	Quebec
Primary Sector	1 620	965	1 020	245	3 850
Secondary Sector	1 925	1 020	755	660	4 360
Total	3 545	1 985	1 775	905	8 210

Source: Statistics Canada, 2001 census, special compilations

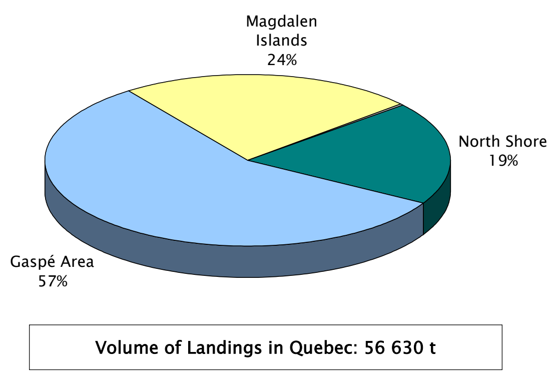
2. The Fishing Industry in Quebec: An Overview

2.1 Marine Fisheries

2.1.1. Evolution of Landings

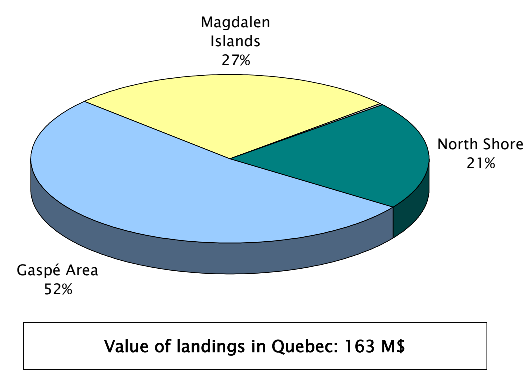
In Quebec in 2003, commercial fishing activities generated landings of 56 600 t, with a value of almost $163 M. These figures represent slightly less than 10% of commercial fishing activities in Atlantic Canada, and just under 8% of Canadian commercial fishing activities. On a provincial level, the Gaspé Area comes in first place, with more than half of the landings recorded in Quebec in 2003. The Magdalen Islands are in second place, with a quarter of total catches landed in Quebec, while catches landed on the North Shore comprised a fifth of the Quebec total.

Graph 13: Distribution of Landings in the Maritime Sectors of Quebec, in Volume, 2003p



Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

Graph 14: Distribution of Landings in the Maritime Sectors of Quebec, in Value, 2003p

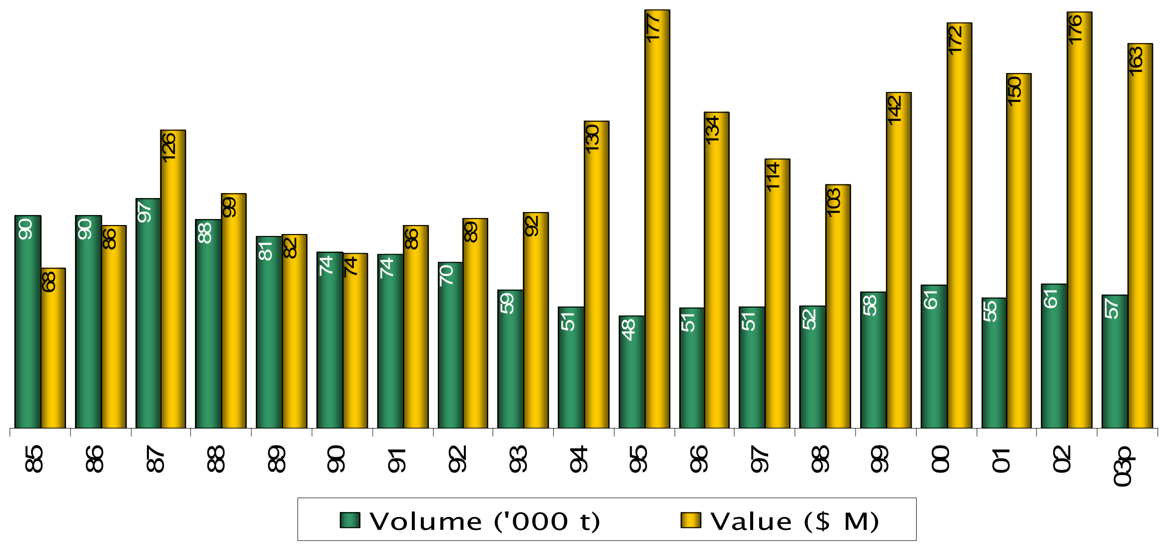


Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

In 2003, commercial fish landings were carried out in 120 fishing ports in Quebec. The most important ports in terms of volume are Rivière-au-Renard, Cap-aux-Meules and Grande-Entrée. The Port of Rivière-au-Renard is also the most important in Quebec in terms of landed value, followed by the Port of Sainte-Thérèse-de-Gaspé and the Port of Grande-Entrée.

Compared to all of the ports in Atlantic Canada, the Port of Rivière-au-Renard ranked 9th in 2002 in terms of volume, and 16th in terms of landed value. The ports of Sainte-Thérèse-de-Gaspé, Grande-Entrée and Cap-aux-Meules ranked between 38th and 48th in terms of volume, and between 22nd and 33rd in terms of landed value.

Graph 15: Evolution of Landings in the Fishing Industry in Quebec, 1985-2003p

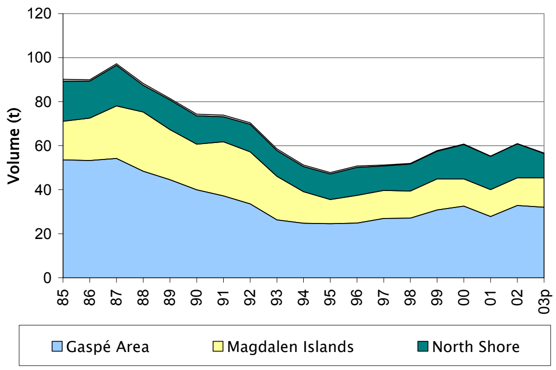


Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

In Quebec, the landed values achieved since 1999 are the highest in history, with the exception of the record attained in 1995. This record is due to an excellent year for snow crab fishing. In 2003, the total landed value of commercial fishing activities in Quebec reached $163 M. This constitutes the fourth best year in history. The high prices of snow crab and lobster, combined with high landed volumes for shrimp, explain these good figures. However, the value of landed catches decreased by 8% in 2003. The moratorium on cod and crab fishing in Area 13, as well as the decrease of snow crab quotas in certain fishing areas largely explains this reduction.

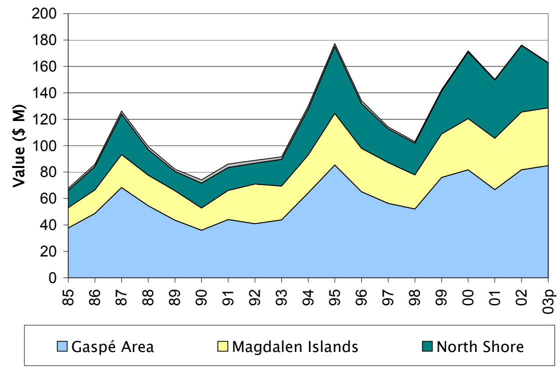
Since 1996, there has been a slight upward trend in landed volumes. This is largely attributable to the increase of shrimp and snow crab quotas. However, landed volumes remain lower than those achieved before the first groundfish moratoria were put into effect in the early 1990s. In 2003, landed catches in Quebec came to almost 57 000 t.

Graph 16: Evolution of Landings in Quebec by Maritime Sector, in Volume, 1985-2003



Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

Graph 17: Evolution of Landings in Quebec by Maritime Sector, in Value, 1985-2003



Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

In 2003, landed catches in the Gaspé Area totalled more than half the landed catches in Quebec. Although landed volumes in the Gaspé Area have fallen since the first moratorium on cod fishing, the landed values in this maritime sector are today hitting all-time highs.

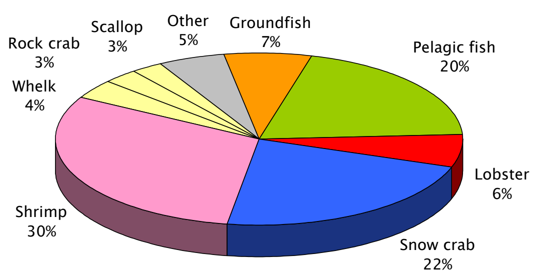
The situation is the same in the Magdalen Islands, where the value of landed catches reached record highs over the last few years, despite a significant drop in landed volumes just before the mid-1990s.

On the North Shore, the value of landed catches has also recently hit historical highs. This maritime sector has also been affected by the groundfish moratoria, but has not, however, experienced such a large decline in landed volumes.

2.1.2. Species Landed

In 2003, the main species landed in Quebec were shrimp, show crab, and lobster. Shrimp fishing constituted the main activity in terms of landed volumes, with landings of more than 17 000 t, 30% of commercial fishing activities in Quebec. Due to its lower price, this species has a lesser importance in the total value of landed catches in Quebec, with $23.4 M or 14% of the total value. Conversely, snow crab is the main species landed in Quebec in terms of value. In 2003, snow crab fishing activities generated landed catches of 12 500 t, with a value of $74.3 M. This catch represents 22% of total landed volumes and 46% of the total value of landed catches in Quebec. The fishing of lobster, the second most important species in Quebec in terms of landed value, generated landed catches of 3 500 t, with a value of $46.4 M. This corresponds to 6% of total landed volumes, but more importantly, almost 30% of the total value of commercial fishing in Quebec.

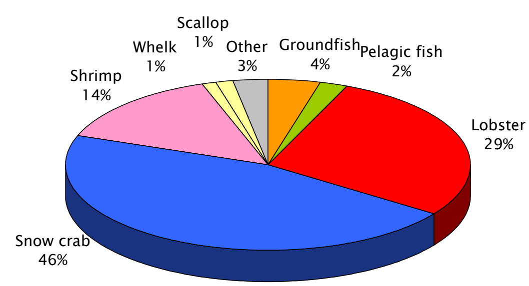
Graph 18: Breakdown of Species Landed, in Volume, Quebec, 2003p



Total Volume of Landings: 56 629 t

Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

Graph 19: Breakdown of Species Landed, in Value, Quebec, 2003p



Total Value of Landings: 162,8 M$

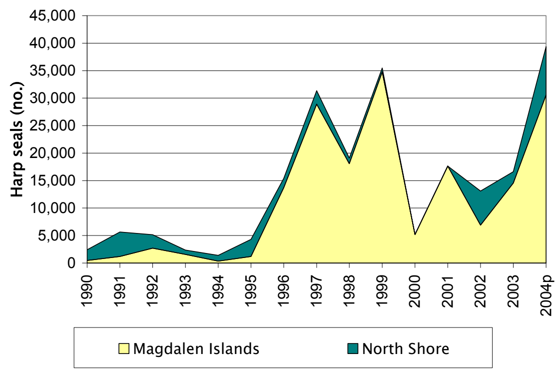
Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

Catches of pelagic fish, mostly herring and mackerel, make up almost a fifth of landed volumes in Quebec. On the other hand, due to their low unit value, these species only constitute 2% of the value of landed catches in Quebec. The fishing of groundfish, historically one of the main fishing activities in Quebec, made up less than a tenth of total landings in Quebec in 2003. The main landed species of groundfish is the Greenland halibut, with 70% of catches. Fishing of Canadian plaice and Atlantic halibut make up the majority of other groundfish catches.

Among the other important species subject to commercial fishing in Quebec, are whelk (2 000 t), rock crab (1 600 t) and scallop (1 400 t).

Seal hunting also constitutes an important economic activity for Quebec, generating more than $1.5 M of revenue in 2004. During this year, more than 39 000 harp seals were captured in Quebec. Harp seal catches vary considerably from year to year due to springtime ice conditions, which can be very different from one season to the next.

Graph 20: Evolution of the Catches of Harp Seals in Quebec, 1990-2004p

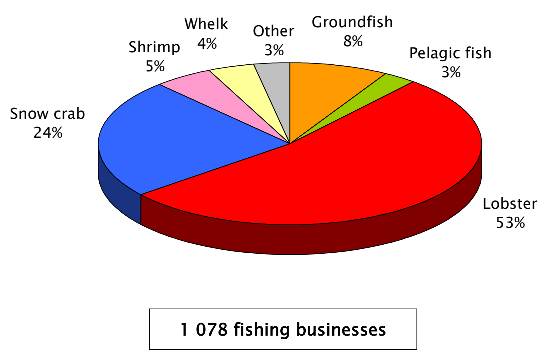


Source: Statistical Services, DFO, Ottawa and Quebec Region

2.1.3. Workforce

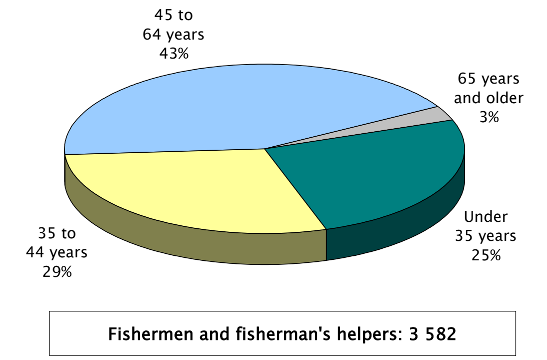
In 2003, there were 1 100 active commercial fishing businesses in Quebec. Of this number, 572 principally caught lobster, and 256 had snow crab fishing as their main activity. There were also 91 fishing businesses specialized in the fishing of groundfish, 55 in shrimp, 41 in whelk and 30 in pelagic fish.

Graph 21: Distribution of Fishing Businessess According to Main Species Landed, Quebec, 2003p



Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

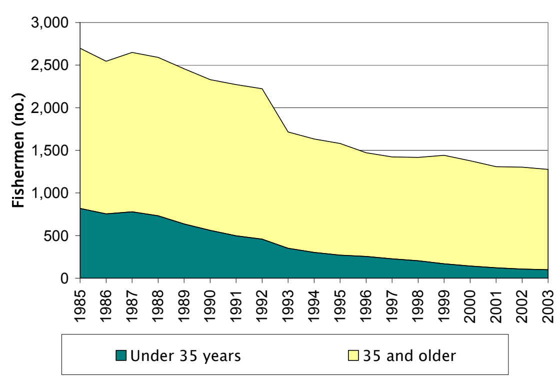
Graph 22: Distribution of Fishermen and Fisherman's Helpers According to Age, Quebec, 2003p



Source: Statistical Services, DFO, Quebec Region for fishermen, and BAPAP for fisherman's helpers.
Compilation: DRPE, DFO, Quebec Region.

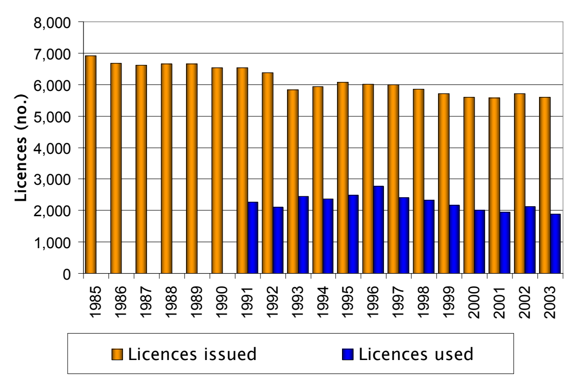
In 2003, Quebec had almost 3 600 fishermen and fisherman's helpers. A look at the distribution of fishermen according to age reveals that almost half of fishermen and fisherman's helpers are older than 45, 29% of fishermen and fisherman's helpers are aged between 35 and 44, and 23% are younger than 35. The number of participants younger than 35 has fallen from half of the entire population in 1985, to 25% in 2003.

Graph 23: Evolution of the Number of Fishermen According to Age, Quebec, 1985-2003p



Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

Graph 24: Evolution of the Number of Licences According to Status, Quebec, 1985-2003p

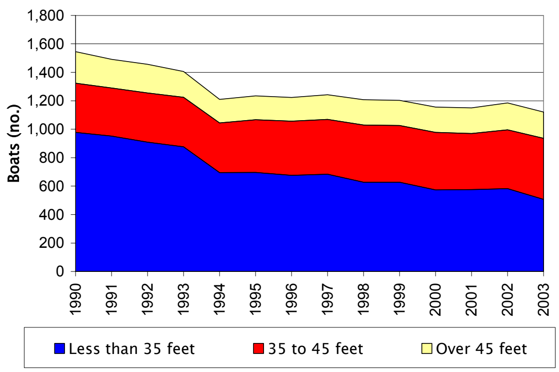


Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region
Note: The data for licences operating are not available before 1991.

Since 1985, the number of fishermen[6] in Quebec has fallen by more than half. In 2003, Quebec had almost 1 300 fishers. During this same period, the number of licences issued fell from 6 921 in 1985 to 5 603 in 2003, a drop of 19%. Nowadays, fishermen hold more fishing licences than in 1985. In fact, the average number of licences per fishermen was 2.5 in 1985, while in 2003 this average reached 4.4.

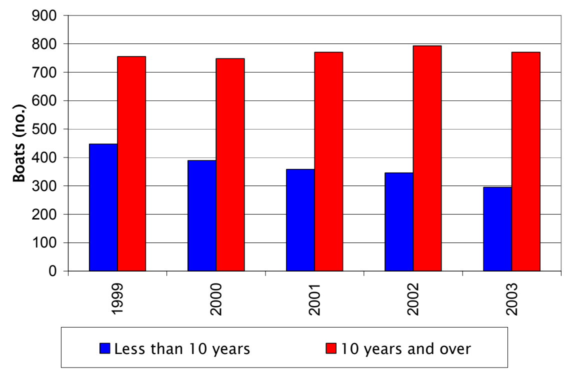
Year after year, a large proportion of fishing licences remain inactive. In 2003, only 34% of licences issued generated landings. This participation rate of licences issued has stayed more or less constant since the beginning of the 1990s, and is mainly a result of a low participation rate in pelagic fishing.

Graph 25: Evolution of the Number of Active Fishing Boats According to Size, Quebec, 1990-2003p



Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

Graph 26: Evolution of the Number of Active Fishing Boats According to Age, Quebec, 1999-2003p



Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

Since 1990, the number of boats used in commercial fishing in Quebec has not stopped falling. There were 1 545 active fishing boats in 1990. This number fell significantly during the years when there was a drastic drop in groundfish stocks. In 1994, the Quebec fishing fleet had slightly more than 1 200 boats, a decrease of more than 28% compared to 1990. During the following years, the Quebec fishing fleet downsized to a lesser extent. In 2003, Quebec had 1 120 active fishing boats, a decrease of almost 7% from 1994. The number of boats over 35 feet has risen by almost 20%. The decrease therefore comes mainly from the fleet of vessels less than 35 feet long. In 2003, 45% of boats were less than 35 feet long, 38% were between 35 and 45 feet long, and 16% of boats were over 45 feet long.

[6] The number of fishermen corresponds to the number of fishermen registered with the DFO. Not all these fishermen are necessarily active.

In terms of the age of boats used for commercial fishing, the number of boats less than 10 years old is decreasing, both in number and in relative proportion. The number of boats less than 10 years old made up 37% of the entire Quebec fleet in 1999, whereas today it makes up 28% of the fleet. This aging of the fleet could turn out to be less severe than the statistics show, because refittings (major restorations) can be carried out on a boat in order to increase its operating life. In this case, a boat's age remains high according to the statistics, despite its restoration.

2.1.4. Quebec First Nations

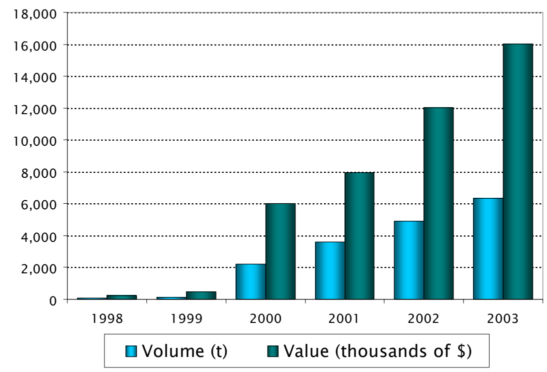
The region of Quebec has eleven First Nations active in commercial fishing, four of which are in the Gaspé Area and seven on the North Shore. The Gaspé Area First Nations began commercial fishing in 2000, mainly as a result of the enforcement of the Marshall decision, while the communities on the North Shore took up commercial fishing in 1996, main thanks to the Aboriginal Fisheries Strategy (AFS), which followed the Sparrow decision. This strategy aims to support aboriginal communities in the management of subsistence fisheries and to facilitate their access to commercial fishing.

In 2003, the Quebec First Nations used approximately 50 fishing boats and employed 225 fishermen and fisherman's helpers, spread almost equally between the North Shore and the Gaspé Area.

Between 1996 and 1999, the landed catches of the seven North Shore First Nations were made up principally of snow crab and represented a total annual income of less than $500 K, whereas the Gaspé Area First Nations had not yet started their commercial catches.

Income from fishing by aboriginal communities in Quebec has increased constantly since 1998, as the following graph shows. We can also see that catches landed by Quebec First Nations increased in size in 2000, with the start of commercial fishing activities by the Gaspé Area First Nations, and with a substantial increase in snow crab landings by the communities on the North Shore. Moreover, this enabled Quebec aboriginal communities to increase their income from commercial fishing by almost nine times between 1999 and 2000. In 2000, shrimp became the most important species in terms of landed volumes, while snow crab remains in first place in terms of landed value.

Graph 27: Evolution of Landings by Quebec First Nations, 1998-2003p



Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

Earnings from commercial fishing for the year 2001 increased by $2 M (33%) and continued to increase by $4.1 M (50%) during the 2002 fishing season. Snow crab and shrimp still dominate the landed catches, but these communities are showing a diversification of commercial fishing towards lobster, rock crab, scallop and soft shell clam.

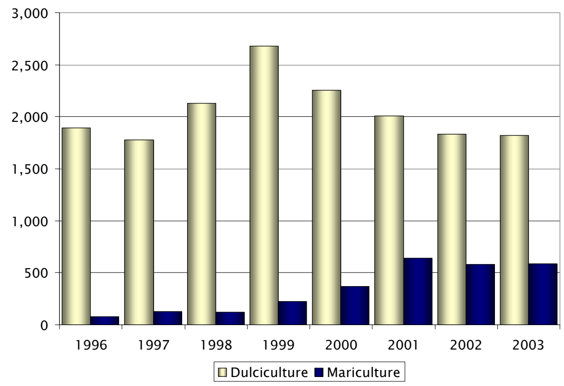
In 2003, landed catches rose by more than 30%, both in value and in volume, to total 6 300 t and more than $16 M. Snow crab remains the most lucrative species for these communities, with landed catches of $9.4 M, followed by shrimp with $5.1 M, lobster with $550 K and scallop with $359 K.

2.1.5. Aquaculture in Quebec

In 2003, Quebec aquaculture production reached almost 2 500 tons, with an estimated value of slightly over $16 M. Excluding production destined for stocking, which makes up two thirds of production in terms of value, this gives nearly 1 400 tons, worth a total of $5.3 M.

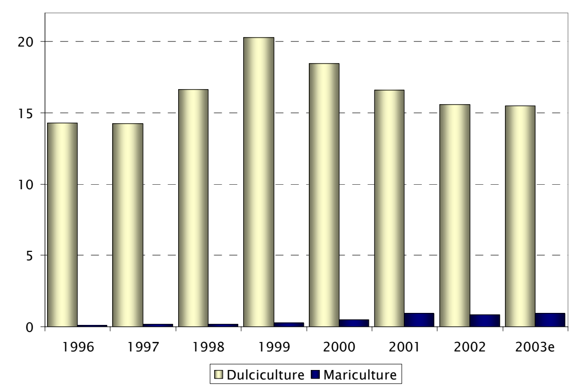
In Quebec, freshwater production is principally made up of the rearing of different species of salmonids, such as rainbow trout, brook trout, arctic char and lake trout, while mariculture (saltwater production) is mainly focused on mussels (65%), followed by scallops. Soft shell clams, sea urchins and oysters are among the emerging products. In 2003, production in Quebec was shared between 172 farmers (184 licences), of which 147 were freshwater and 25 saltwater. This distribution (freshwater/saltwater) is largely explained by the fact that commercial aquaculture in freshwater has been an active industry in Quebec for at least 30 years, while mariculture is a relatively new industry.

Graph 28: Aquaculture Production in Quebec, 1996-2003e (tons)



Source: MAPAQ

Graph 29: Value of Aquaculture Production in Quebec, 1996-2003e, Millions of $



Source: MAPAQ

However, freshwater aquaculture production has suffered a decline over recent years, as a result of the uncertainty provoked by the enforcement of new environmental standards concerning discharges from fish farming facilities. For this reason, an agreement could soon be reached between the *Ministère de l'environnement du Québec*, the *Association des aquaculteurs du Québec* (AAQ), and MAPAQ, concerning the implementation of a sustainable development strategy for freshwater aquaculture.

In 2002, less than 0.8% of the value of Canadian mariculture production came from Quebec. However, Quebec mariculture production is increasing rapidly, rising from 76 tons in 1996 to 587 tonnes in 2003, an annual growth of 40%. The value of Quebec mariculture production also increased, from approximately $100,000 to almost $1 M during the period from 1996 to 2003, while this industry employed approximately 150 people, primarily from May to November.

The number of mariculture licences rose from 27 in 1996 to 36 in 2003. These licences are issued to 25 businesses, which share approximately 18 000 hectares in the marine environment.

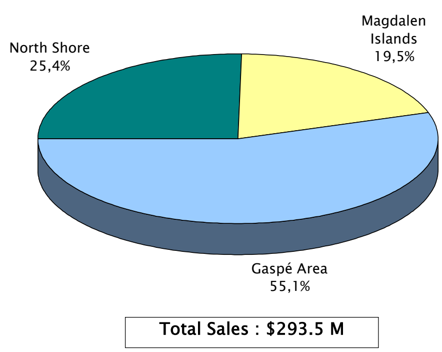
2.2 Processing of Fishery Resources

2.2.1. Evolution of Sales

The marine product processing[7] industry in Quebec consists of about a hundred businesses situated in the maritime sectors of the Gaspé Area, the Magdalen Islands and the North Shore. These firms generally buy their fish and seafood directly from the fishermen, to subsequently sell them on the local market or abroad. A large number of them carry out a primary processing (freezing, salting, cooking, packing, etc.) before selling their products. In 2002, sales for this industry came to $294 M, almost double the value of the landed catches, which were valued at $176 M the same year.

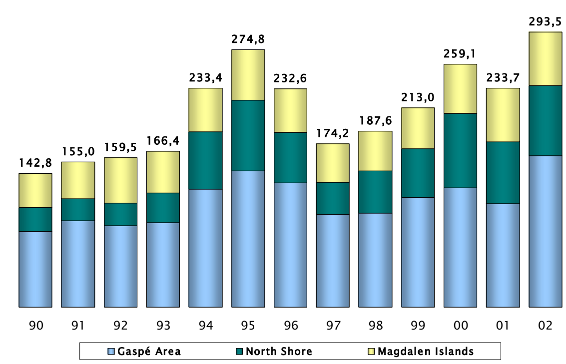
While 46.3% of Quebec fish and seafood catches are landed in the Gaspé Area, this sector accounts for almost 55.1% of all sales in the processing industry. The opposite is true on the North Shore and in the Magdalen Islands: the harvesting sector occupies a larger share than the processing sector. In fact, these two sectors represent 28.5% and 24.8% of landed catches respectively, while the share of sales by their processing businesses is 25.4% and 19.5% of total Quebec sales. A greater proximity to the principal markets, as well as the prominent market position occupied by the shrimp industry (the processing of shrimp generates a greater rise in value compared to other species) are some reasons that could explain the relative importance of the processing industry in the Gaspé Area compared to the other maritime sectors.

Graph 30: Distribution of Sales of Marine Products in the Maritime Sectors of Quebec, 2002



Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

Graph 31: Evolution of Sales for Processing Businesses in Quebec, 1990 to 2002



Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

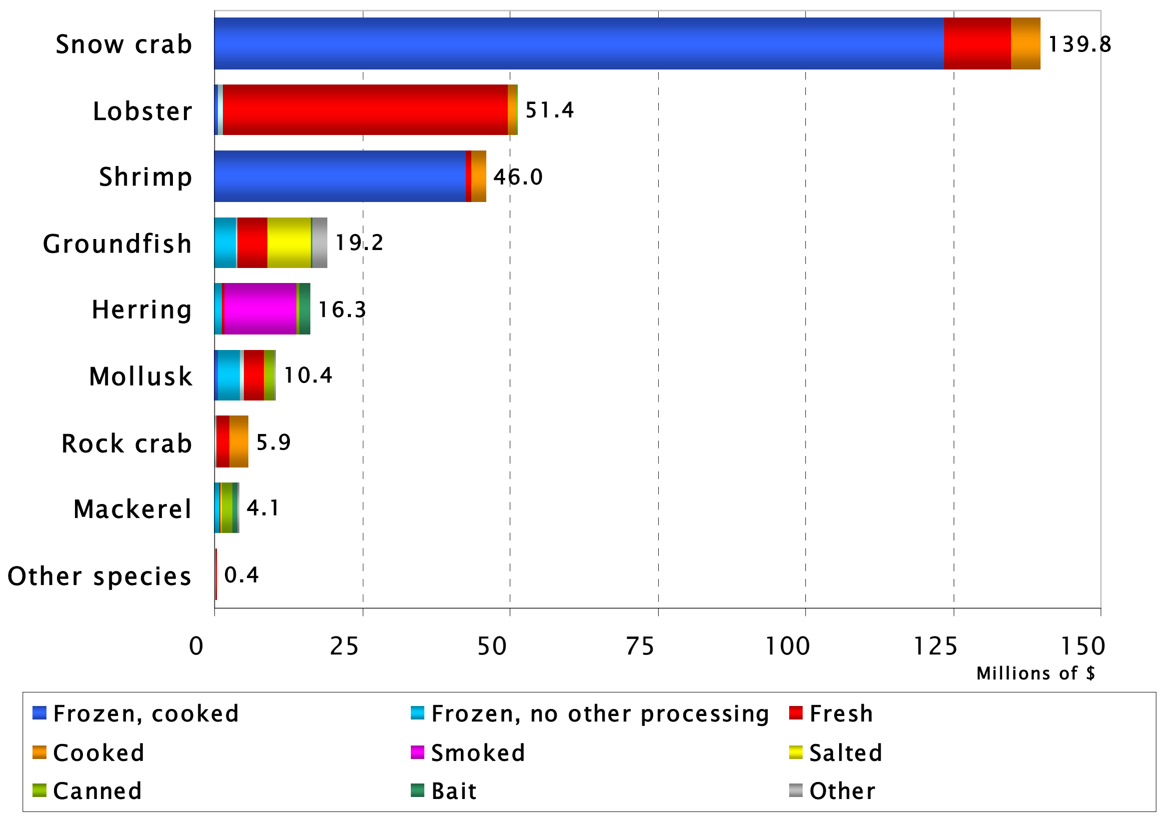
[7] The term "processing" refers to all the activities in the fishing industry's secondary and tertiary sectors.

Generally following the trends observed in the harvesting sector, sales of marine products in Quebec have undergone significant fluctuations during the last twelve years. In fact, after having virtually doubled between 1990 and 1995, rising from $143 M to $275 M, sales fell once again to $174 M in 1997, before subsequently rising and reaching a record $293 M in 2002. Snow crab, with a production that varied between $36 M and $151 M during these years, is to blame for the majority of these fluctuations. In comparison, sales of other species were relatively stable. However, the increase in the value of herring production could be emphasized, as it was exceptionally high in 2002, reaching almost $15 M, whereas the value of sales of this species had never risen above $4 M during the previous twenty years.

2.2.2. Species Sold

In 2002, the processing industry sold $140 M worth of snow crab in Quebec, which made it the primary processed species, followed by lobster ($51 M) and shrimp ($46 M).

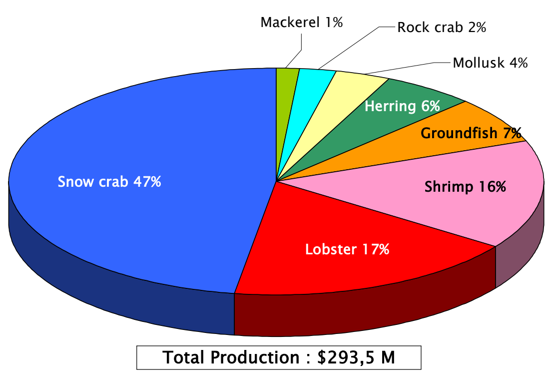
Graph 32: Value and Composition of Production in the Maritime Sectors of Quebec, 2002



Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

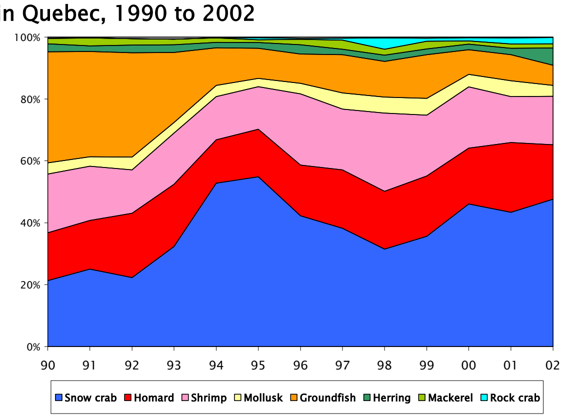
These three species together account for more than 80% of sales in the industry in Quebec. Snow crab and shrimp are mainly sold frozen and cooked, while more than 90% of lobster is sold fresh. In 2002, ten other species generated income of more than a million dollars: herring ($16.3 M), cod ($12.3 M), rock crab ($5.9 M), mackerel ($4.1M), Greenland halibut ($3.6 M), whelk ($3.5 M), scallop ($2.2 M), soft shell clam ($2.1 M), Atlantic surf clam ($1.6 M), and Atlantic halibut ($1.3 M). These ten species combined accounted for more than 18% of Quebec sales, that is, $52.9 M. Finally, more than 25 other species were processed and/or sold in Quebec in 2002, but their sales only brought in $3.3 M, barely more than 1% of total sales.

Graph 33: Value and Composition of Production in Quebec, 2002



Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

Graph 34: Composition of Species Sold, in % of Value, in Quebec, 1990 to 2002



Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

Between 1990 and 2002, the share of groundfish in total sales of marine products in Quebec fell significantly, from 36% to 7%. This decline only served to accentuate a trend that had already started in 1987, when the share of groundfish reached 44%. This decline in sales can be blamed on the fall in stocks, as well as on the moratoria brought into force at the beginning of the 1990s. Snow crab, whose share of total sales rose from 21% to 48% during the same period, made up for the decrease in sales of groundfish.

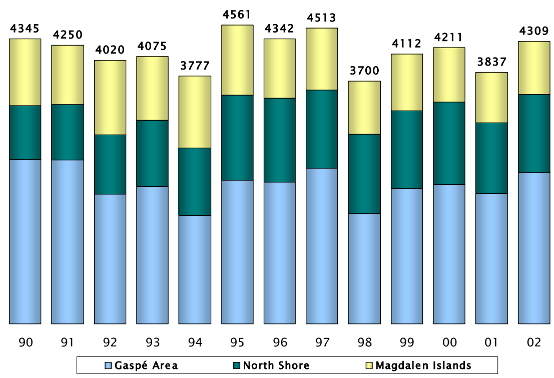
For their part, sales of shrimp, lobster, mollusks, and mackerel have not increased their relative proportion, despite in some cases having experienced significant increases in absolute terms.

2.2.3. Labour

In Quebec, the number of jobs in the marine product processing sector rose to 4 309 in 2002. Of this number, it is estimated that 1 860 were attributable to snow crab processing, 610 to shrimp, 480 to groundfish, 340 to herring, 330 to mollusks, 270 to mackerel, 250 to lobster, and 80 to rock crab.

However, significant fluctuations have occurred on an employment level in the processing sector over the last twelve years. Despite a general rise in the value of production during this period, there has not been a net upward or downward trend in the number of jobs in this industry in Quebec. It should be noted that statistics on the number of jobs indicate the maximum number of people employed during the course of a particular year, and that the majority of these jobs are seasonal.

Graph 35: Number of Jobs, Marine Product Processing Sector, Quebec, 1990 to 2002



Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

Table 2: Main Businesses in Quebec, Marine Products Processing Sector, 2002

BUSINESS NAME	COMMUNITY NAME	NUMBER OF JOBS	PRODUCTION
E. GAGNON & FILS	SAINTE-THÉRÈSE-DE-GASPÉ, GASPÉ-SUD	325 to 350	$10 to $25 M
UNIPECHES N.D.M.	PASBÉBIAC, BAIE-DES-CHALEURS	250 to 275	$10 to $25 M
CRUSTACES BAIE TRINITE	BAIE-TRINITÉ, HAUTE CÔTE-NORD	225 to 250	$10 to $25 M
LES FRUITS DE MER GASCONS	GASCONS, GASPÉ-SUD	225 to 250	$5 to $10 M
LES PÊCHERIES MARINARD	RIVIÈRE-AU-RENARD, GASPÉ-EST	200 to 225	$10 to $25 M
POISSONNERIE DU HAVRE 1997	HAVRE-SAINT-PIERRE, MOYENNE CÔTE-NORD	175 to 200	$10 to $25 M
PECHERIES NORPRO 2000	HAVRE-AUBERT, ÎLES-DE-LA-MADELEINE	150 to 175	$10 to $25 M
MADELIMER	GRANDE-ENTRÉE, ÎLES-DE-LA-MADELEINE	150 to 175	$5 to $10 M
POISSON SALE GASPÉSIEN	GRANDE-RIVIÈRE-OUEST, GASPÉ-SUD	150 to 175	Under $5 M
POSEIDON	LONGUE-POINTE-DE-MINGAN, MOYENNE CÔTE-NORD	125 to 150	$5 to $10 M
CREVETTES DU NORD ATLANTIQUE	L'ANSE-AU-GRIFFON, GASPÉ-EST	125 to 150	$10 to $25 M
LES PÊCHERIES GROS CAP	CAP-AUX-MEULES, ÎLES-DE-LA-MADELEINE	125 to 150	$10 to $25 M
94 OTHER BUSINESSES		2077	$140.7 M
TOTAL		**4,578**	**$657.5 M**

Sources: MAPAQ, CRIQ and DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

2.2.4. Businesses

In 2002, the marine product processing sector in the maritime sectors of Quebec was made up of 106 businesses spread across approximately 80 communities. The 12 main businesses (see Table 2) accounted for almost 80% of Quebec sales and 55% of jobs in the industry. These 12 businesses hire between 125 and 350 employees and all are equipped with processing facilities. Among the 94 other companies, 67 have 20 employees or less. These smaller companies have an average turnover of $550 K and specialize generally in sales, processing only a very small amount of the marine products they buy from fishermen. Between these two categories of companies, there are 27 companies that employ between 20 and 125 people, with an average turnover of $3.8 M. These companies' sales account for 16% of the total.

2.2.5. Outlook For 2003

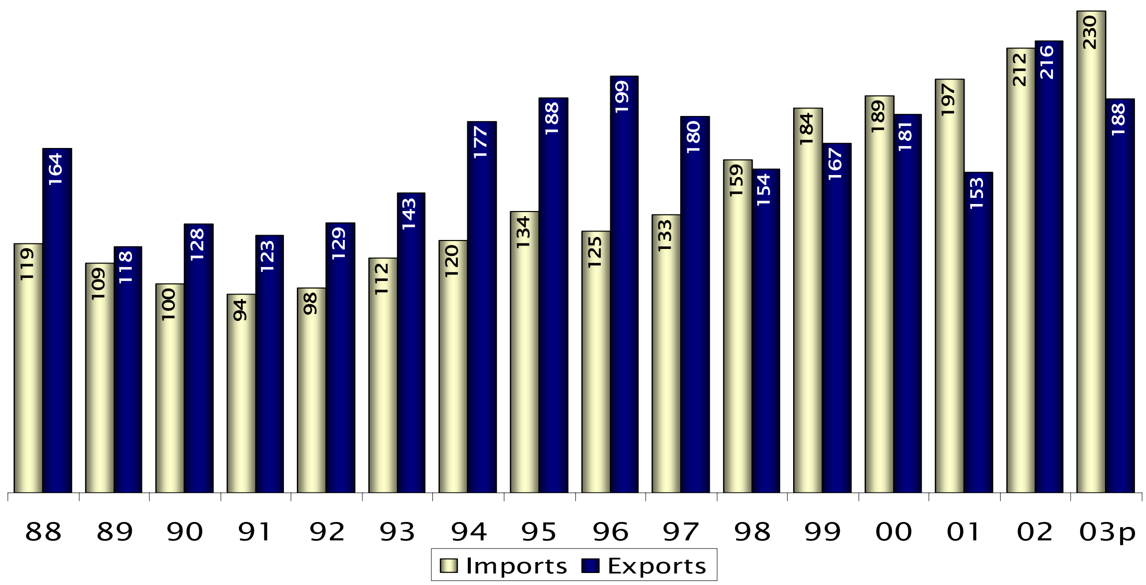
Although the data for the processing sector is not yet available for 2003, it is possible to make some estimates with the help of preliminary data on landed catches. These show us that the value of landed catches fell by 8% in Quebec in 2003 to settle at $156 M, and that this decline has not been uniform across the sectors. In fact, the fall in catches was concentrated on the North Shore, which suffered a plunge in landed catches of more than 30%. The decrease in the value of landed catches in the Magdalen Islands was only 4%, while in the Gaspé Area, the value of landed catches increased by 2%. As for the value of landed catches of the main species, snow crab decreased by 17% (primarily on the North Shore), lobster fell by 1% and shrimp rose by 6%. In light of this information, one must expect a decline in sales of marine products by Quebec businesses in 2003, centred on the North Shore and snow crab.

2.3 International Trade

2.3.1. Imports and Exports of Fish and Seafood

Quebec fish and seafood exports came to $188 M in 2003. After a record year of $216 M the previous year, Quebec exports suffered a decrease of 13% in 2003. This decline is largely due to snow crab exports, which fell significantly as a result of the lowering of crab quotas in several zones. Cod exports also suffered a significant fall following the moratorium imposed in 2003. Despite this moratorium, imported cod processing activities have been brought to Quebec, which explains, amongst other things, the $6 M of exports recorded in 2003.

Graph 36: Evolution of the International Trade of Fish and Seafood, Quebec, Millions of $, 1988-2003p



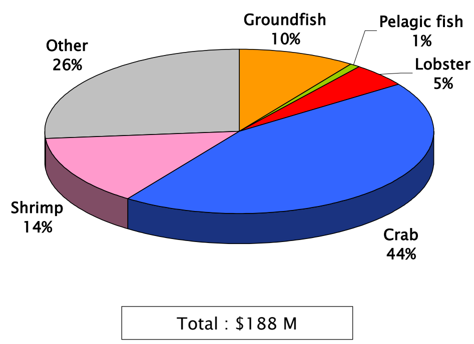
Source: Statistical Services, DFO, Quebec Region
Compilation: DRPE, DFO, Quebec Region

Although a fall in the level of exports was recorded in 2003, it is still a considerable performance bearing in mind that the average value of Quebec exports for the last fifteen years is $163 M.

As for Quebec imports of marine products, there has been a net upward trend since 1992. The value of imports reached a record $230 M in 2003. Furthermore, imports have exceeded exports since 1998, with the exception of 2002 when they were slightly lower. The Quebec balance of trade for fish and seafood has therefore been negative for the last six years, excluding 2002.

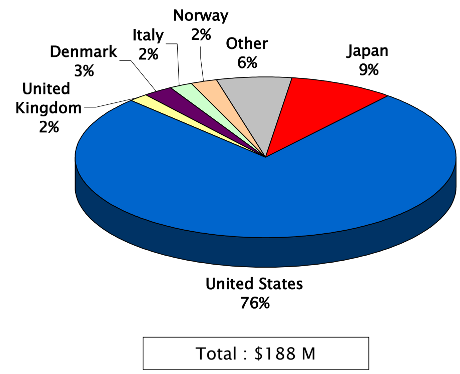
If we take a quick look at the breakdown of Quebec exports by species, we can see that snow crab is well in the lead, with 44% of Quebec's shipments abroad, which constitutes a value of $84 M. The second main species exported is shrimp, with a 14% share, that is, $26 M. Among the groundfish, which make up 10% of exports, cod exports are in 1st place.

Graph 37: Breakdown of Quebec Exports by Species, 2003p



Source: Statistics Canada
Compilation: DRPE, DFO, Quebec Region

Graph 38: Breakdown of Quebec Exports by Country, 2003p

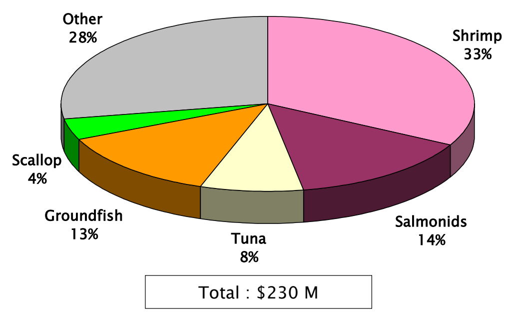


Source: Statistics Canada
Compilations: DRPE, DFO, Quebec Region

The majority of Quebec exports are destined for the American market. In fact, slightly more than three quarters of Quebec shipments, mostly comprised of crab, head towards our neighbour to the south. In 2nd place is Japan, which secures 9% of Quebec exports, worth $17 M, principally snow crab. Several European countries are also trading partners. With a share of 2 to 3%, the United Kingdom, Denmark and Norway buy mainly shrimp from Quebec, whereas Italy buys cod.

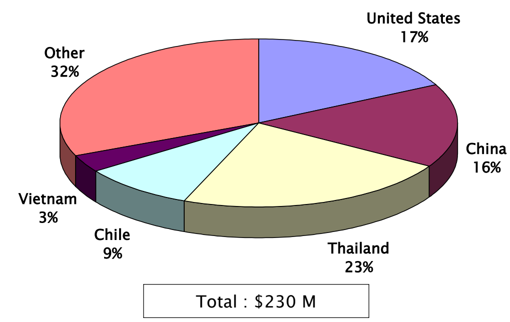
The breakdown of Quebec imports by species reveals a very different picture to that of exports. The primary species imported to Quebec is shrimp, which accounts for 33% of the total value. A close second, salmonids are also very popular in Quebec, with imports nearing $33 M in 2003. In third place, with a share of 13%, or $30 M, are groundfish, mainly pollock and plaice. Tuna and scallop are also imported to Quebec in large quantities.

Graph 39: Breakdown of Imports by Species, 2003p



Source: Statistics Canada
Compilation: DRPE, DFO, Quebec Region

Graph 40: Breakdown of Imports by Country, 2003p



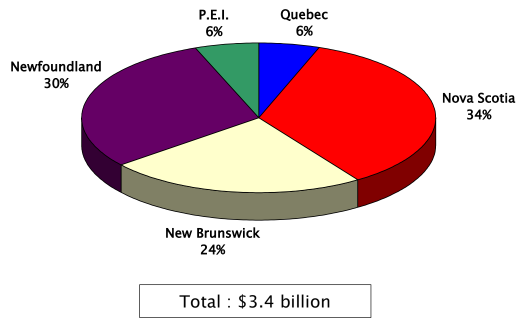
Source: Statistics Canada
Compilation: DRPE, DFO, Quebec Region

In 2003, our main trading partner for imports was Thailand, which sold more than $50 M worth of fish and seafood to Quebec. Shrimp was the main species dealt. In second place was the United States, which shipped $40 M worth of marine products to Quebec. Products from the United States are quite diversified. Quebec buys a large quantity of salmonids, pollock, shrimp, tuna and lobster from our American neighbours. China is also very involved in the trade of marine products with Quebec. Quebec imported $37 M worth of marine products, a quarter of which was shrimp.

2.3.2. Quebec and the Atlantic Provinces

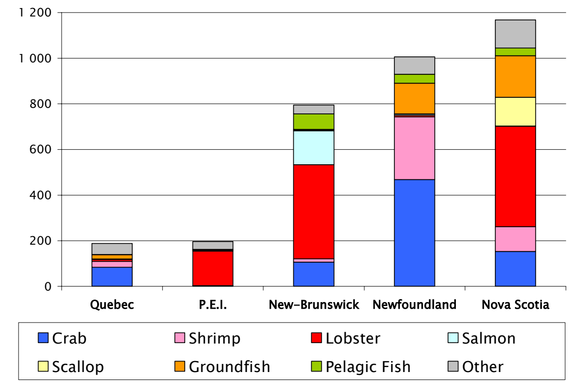
Exports by Quebec and the Atlantic provinces totalled $3.4 B in 2003. Of this figure, Quebec accounted for 6% of total exports. The principal exporting province is Nova Scotia, which shipped $1.2 B of marine products to international markets, approximately 40% of which was lobster. Newfoundland comes in 2nd place, with shipments totalling $1 B, consisting mainly of crab and shrimp. In 3rd place is New Brunswick, which recorded exports in the order of $800 M, half of which was lobster. This province also exports farmed salmon with a value of almost $150 M. Furthermore, it is the second largest salmon exporting province in Canada, the first being British Colombia. In second last position, Prince Edward Island recorded shipments outside of Canada in the order of $197 M. Lobster makes up nearly 80% of these exports. Prince Edward Island also exported mussels with a value of more than $20 M in 2003. Moreover, this province is the largest producer of cultured mussels in the country.

Graph 41: Quebec's and the Atlantic Provinces' Share of Exports, 2003p



Source: Statistics Canada
Compilation: DRPE, DFO, Quebec Region

Graph 42: Exports from Quebec and the Atlantic Provinces by Species, Millions of $, 2003p



Source: Statistics Canada
Compilation: DRPE, DFO, Quebec Region

SUMMARY AND CONCLUSION

The maritime sectors of Quebec have undergone significant changes over the last several years. From a demographic point of view, the Gaspé Area, the North Shore and the Magdalen Islands have suffered a significant decline in population. The Magdalen Islands experienced the largest drop in population (13.5%), followed by the Gaspé Area (10.3%) and the North Shore (6.6%). The structure of the population is also changing; there has been a significant fall in the number of young people, while the proportion of older people is higher. As in the province of Quebec, the population in the maritime sectors is aging.

The fishing industry remains a very important economic activity in the maritime sectors of Quebec. In 2001, just over 7 300 people worked in the primary and secondary sectors of the fishing industry in these sectors. The last census also shows the importance of fishing in the primary and secondary sectors of the maritime sectors' economy, particularly in the Magdalen Islands, Gaspé South and on the Lower North Shore. In fact, in Gaspé South, more than 65% of jobs in the primary and secondary sectors are related to the fishing industry, while this percentage reaches more than 80% for the Magdalen Islands and the Lower North Shore.

The fishing industry has undergone significant changes over the course of the last few years. Previously a very important component of landed catches, groundfish has given way to crustaceans. In 2003, landed catches in the order of $163 M were recorded in Quebec, of which almost half came from snow crab, nearly a third were attributable to lobster, and just over 10% were shrimp.

Almost 1 100 fishing companies were active in Quebec in 2003. The lobster fishing fleet is the largest. In fact, lobster was the principal species landed for more than half of the active businesses. Furthermore, almost 25% of businesses landed primarily snow crab, while nearly 10% of companies focused mainly on groundfish.

Processing plants in the maritime sectors recorded sales of almost $300 M in 2002, which constitutes a record year. As in the harvesting sector, crustaceans make up a large proportion of sales in the secondary sector of the fishing industry. In 2002, almost half of sales were attributable to snow crab. Sales of lobster and shrimp each made up nearly a fifth of overall sales in the maritime sectors.

On the market side, Quebec exported nearly $200 M of fish and seafood in 2003. The United States still remains the main trading partner, receiving more than three quarters of Quebec exports.

Although we have seen high levels in the value of landed catches and production in the last few years, this does not negate the fact that the maritime sectors are still faced with certain problems: a decline in population, a high unemployment rate, seasonal employment, restricted fishing of groundfish, and large fluctuations in processing jobs. There is, however, an emerging mariculture industry, and some development of new fishing activities, such as the fishing of rock crab, spider crab and whelk.

APPENDIX

MARITIME SECTORS IN QUEBEC