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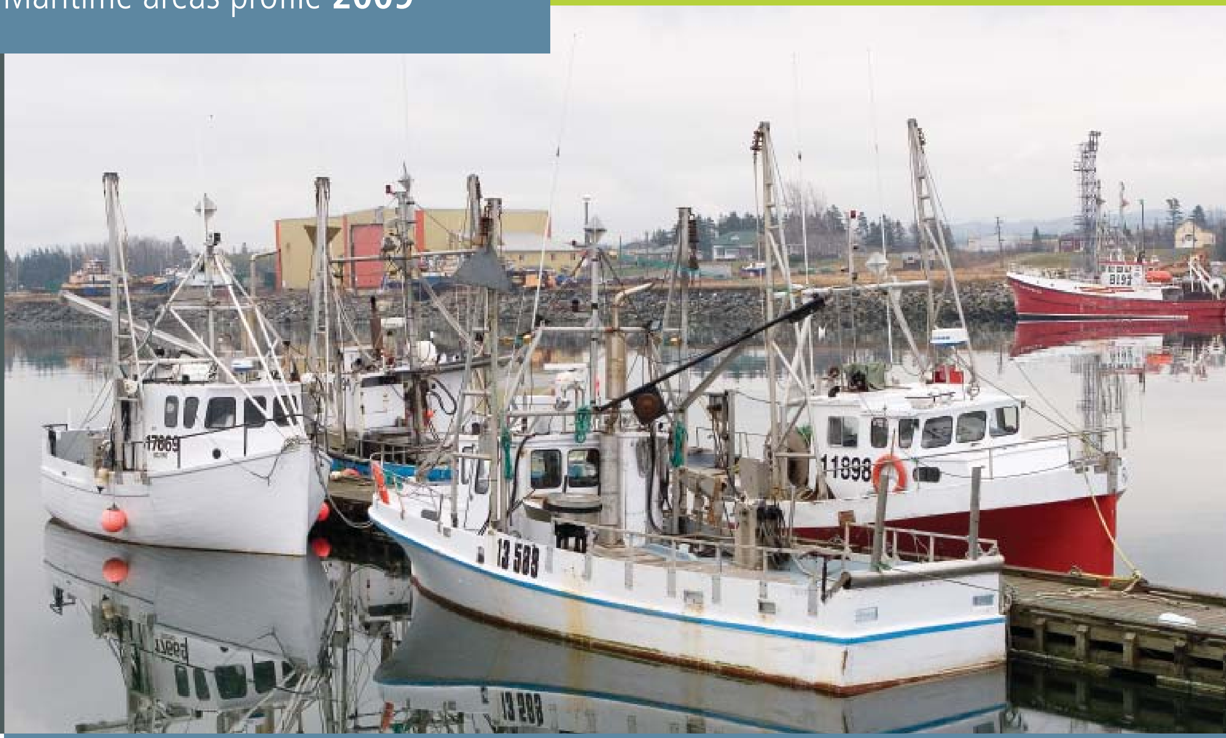
The Fishing Industry in Quebec

Maritime areas profile **2009**



Policy and Economics Branch

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Acronyms

PEB: Policy and Economics Branch
DFO: Fisheries and Oceans Canada
FHAMIS: Fish Habitat Management Information System
RCM: Regional County Municipality
SLD: Statistics and Licences Division

Symbols and abbreviations

$M: millions of dollars
p: preliminary
t: tonnes (metric tons)

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Introduction

This document presents a portrait of the fishing industry in the three maritime areas of Quebec: the Gaspe-Lower St. Lawrence, the North Shore and the Magdalen Islands. Each of these maritime areas is described in its own section.

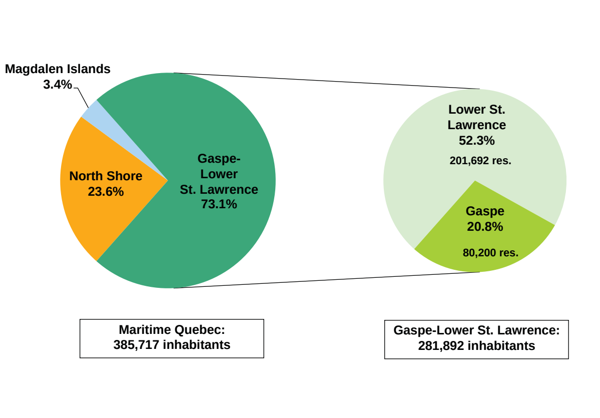
The first part of each section provides a brief look at the socio-economic and demographic context of the maritime area in question. The second part is devoted to the primary fisheries sector. Detailed information is provided on the evolution of captures, species landed (by regional county municipality (RCM), and fishing port), and the workforce (fishers, licences, boats, and fleets). Finally, the third part deals with marine resources processing, describing data on processing methods, the value of production, the number of jobs, and business profiles.

1 Gaspe-Lower St. Lawrence

1.1. Socio-economic profile

With a population of 282,000 in 2006, the Gaspe-Lower St. Lawrence area[1] accounted for 73% of the total population of maritime Quebec. Like the other maritime areas, but contrary to Quebec as a whole[2], the Gaspe-Lower St. Lawrence exhibited an 8.7% decrease in population between 1986 and 2006. The demographic weight of this maritime area, in relation to Quebec as a whole, decreased from 4.7% to 3.8% over the last twenty years.

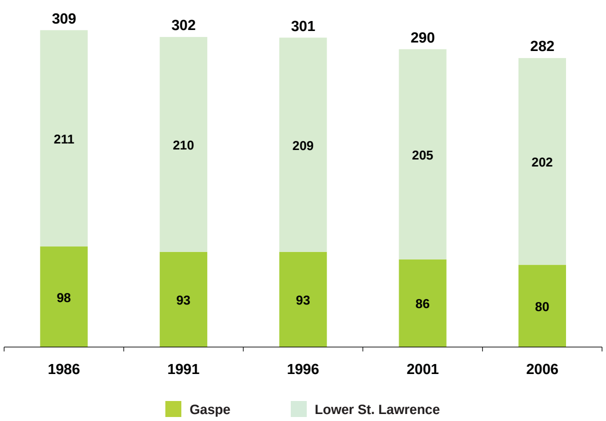
Graph 1: Distribution of the population in maritime Quebec and the Gaspe-Lower St. Lawrence area, 2006



Source: Statistics Canada

Graph 2: Evolution of the population of the Gaspe-Lower St. Lawrence area, 1986-2006

(thousands of residents)



Source: Institut de la statistique du Québec

The Gaspe sub-area showed the greatest decrease in population, going from 97,923 citizens in 1986 to 80,200 in 2006, a decline of 18.1%. During the same period, the population decrease in the Lower St. Lawrence was only 4.3%. In both Gaspe and the Lower St. Lawrence, the *Institut de la statistique* du Québec expects a population decrease of 1.3% over the next twenty-five years, a rate significantly slower than that observed over the last two decades.

Table 1 provides socio-economic data for the Gaspe-Lower St. Lawrence, by RCM. It shows that, despite its smaller population, Gaspe accounts for many more fishing-related jobs than the Lower St. Lawrence area (3,084 vs. 444). However, the socio-economic statistics for Gaspe are generally less positive. For example, the unemployment rate in Gaspe was 14.1% in 2009, compared to 9.7% in the Lower St. Lawrence area. The incidence of low-income families was also significantly higher, at 10.8% compared to 7.4%.

[1] The Gaspe-Lower St. Lawrence area corresponds to the administrative region of the Lower St. Lawrence joined with the Gaspe section of the Gaspe/Magdalen Islands administrative region.

[2] The population of Quebec increased by 13% between 1986 and 2006 from 6.5 to 7.4 million citizens.

Table 1: Socio-economic data for the Gaspe-Lower St. Lawrence area, by RCM

RCM name	Population (2008)	Demographic outlook (2006-2031)	Land value for single-family dwellings (2009)	Incidence of low-income families (2006)	Number of fishing-related jobs[3] (2007)	Unemployment rate (2009)
Avignon	15,302	12.1%	$80,113	13.3%	48	14,1 %[4]
Bonaventure	17,873	-0.6%	$78,018	8.9%	403	
La Côte-de-Gaspé	18,000	-7.7%	$88,312	7.1%	873	
La Haute-Gaspésie	12,175	-4.7%	$61,706	13.9%	340	
Le Rocher-Percé	18,192	-8.0%	$62,002	12.5%	1,420	
Gaspe	**82,082**	**-1.3%**	**ND**	**10.8%**	**3,084**	
Kamouraska	22,019	-5.1%	$95,355	6.7%	6	9,7 %
La Mitis	19,466	1.1%	$87,816	10.5%	11	
Matane	22,308	-4.3%	$86,197	8.3%	309	
Les Basques	9,335	-11.1%	$71,334	8.7%	18	
Rimouski-Neigette	54,165	2.5%	$137,836	5.6%	92	
Rivière-du-Loup	34,035	8.5%	$131,069	5.8%	8	
Non-maritime RCMs: Matapédia and Témiscouata	40,740	-9.5%	$71,468	9.2%	0	
Lower St. Lawrence	**202,068**	**-1.3%**		**7.4%**	**444**	
Gaspe-Lower St. Lawrence	**282,150**				**3,528**	

Source: Institut de la statistique du Québec

[3] The number of fishers and processing factory employees in 2007.

[4] Unemployement rate for the Gaspe-Area/Magdalen Islands administrative region.

Map 1: The Gaspe-Lower St. Lawrence area, showing sub-area and RCM limits

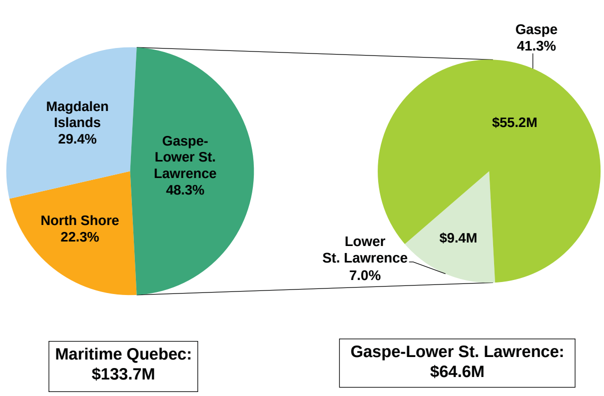
Source: FHAMIS, DFO, Quebec Region

1.2. The fishing industry

1.2.1. Evolution of landings

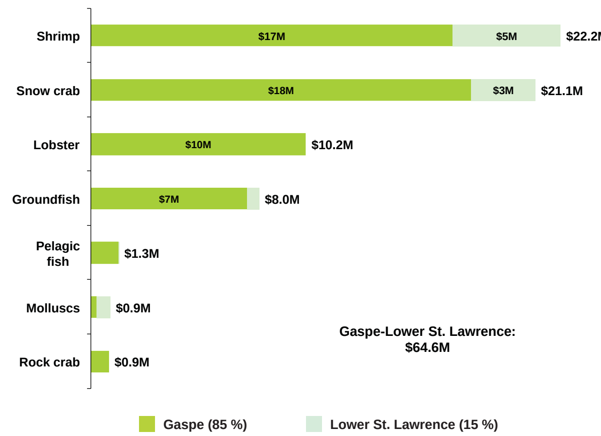
In 2008, the Gaspe-Lower St. Lawrence area landings totalled 34,201 tonnes, for a value of $64,6M.[5] This represented nearly two-thirds of the total landings in Quebec by quantity, and almost half (48.3%) by value. The Gaspe sub-area accounted for 85% of landings in the Gaspe-Lower St. Lawrence area.

Graph 3: Value of landings in maritime Quebec and the Gaspe-Lower St. Lawrence area, 2008



Source: SLD, DFO, Quebec Region

Graph 4: Value of landings in the Gaspe-Lower St. Lawrence area, by species and sub-area, 2008



Source: SLD, DFO, Quebec Region

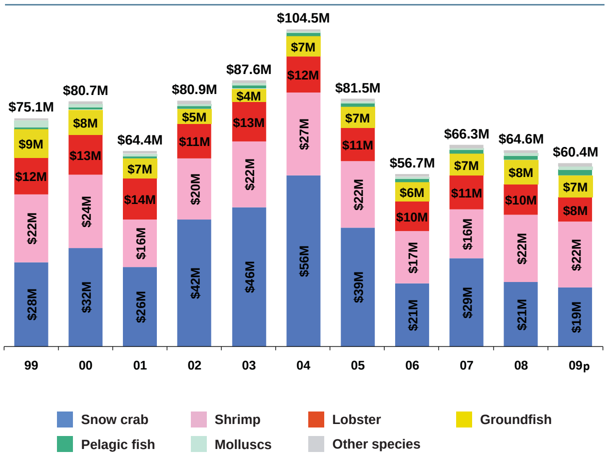
[5] This amount includes landings by fishers from outside of Quebec, which totalled $2.0M in 2008 (or 3.0%).

As in the other Quebec maritime areas, shrimp, snow crab, and lobster accounted for a large part (83%) of the Gaspe-Lower St. Lawrence landings. In 2008, shrimp was the most landed species in the area, with a value of $22.2M (87.7% of the total value for Quebec). This was slightly higher than the $21.1M total value for snow crab. Lobster was the third most important species landed, with a value of $10.2M. Unlike shrimp and snow crab, some of which are offloaded in the Lower St. Lawrence ports, lobster is landed exclusively in the Gaspe. Groundfish accounted for 12.4% of the total value, with landings totalling $8M. Lastly, pelagic fish, molluscs and rock crab represented less than 5% of the landing values, at $3.1M.

The evolution of landings in Gaspe-Lower St. Lawrence on Graphs 5 and 6 show that landing values grew significantly from 2001, to reach a still unequalled peak of $104.5M in 2004. Large catches of shrimp and snow crab, combined with the high price of lobster and snow crab, are responsible for the 2004 record. However, the price of these same crustaceans, now on the decline, also explains the decrease in landing value observed since 2005.

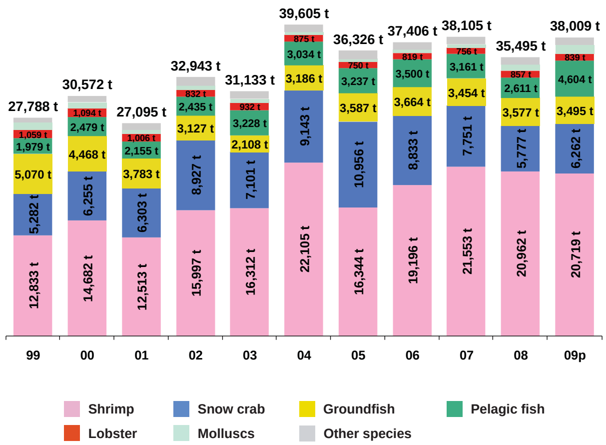
With respect to quantities landed, these increased noticeably from 27,788 to 39,605 tonnes (43%) between 1999 and 2004. The quantities then decreased by 10% over the next four years, with 35,495 tonnes landed in 2008. This change is explained by the large variations in shrimp and snow crab captures. For instance, shrimp landing quantities increased by 72% between 1999 and 2004, and have since remained relatively stable. Snow crab quantities also increased by 52% between 1999 and 2005, however, they then decreased by 47% from 2005 to 2008.

Graph 5: Value of landings in Gaspe-Lower St. Lawrence, by species, 1999-2009



Source: SLD, DFO, Quebec Region

Graph 6: Quantities landed in Gaspe-Lower St. Lawrence , by species, 1999-2009

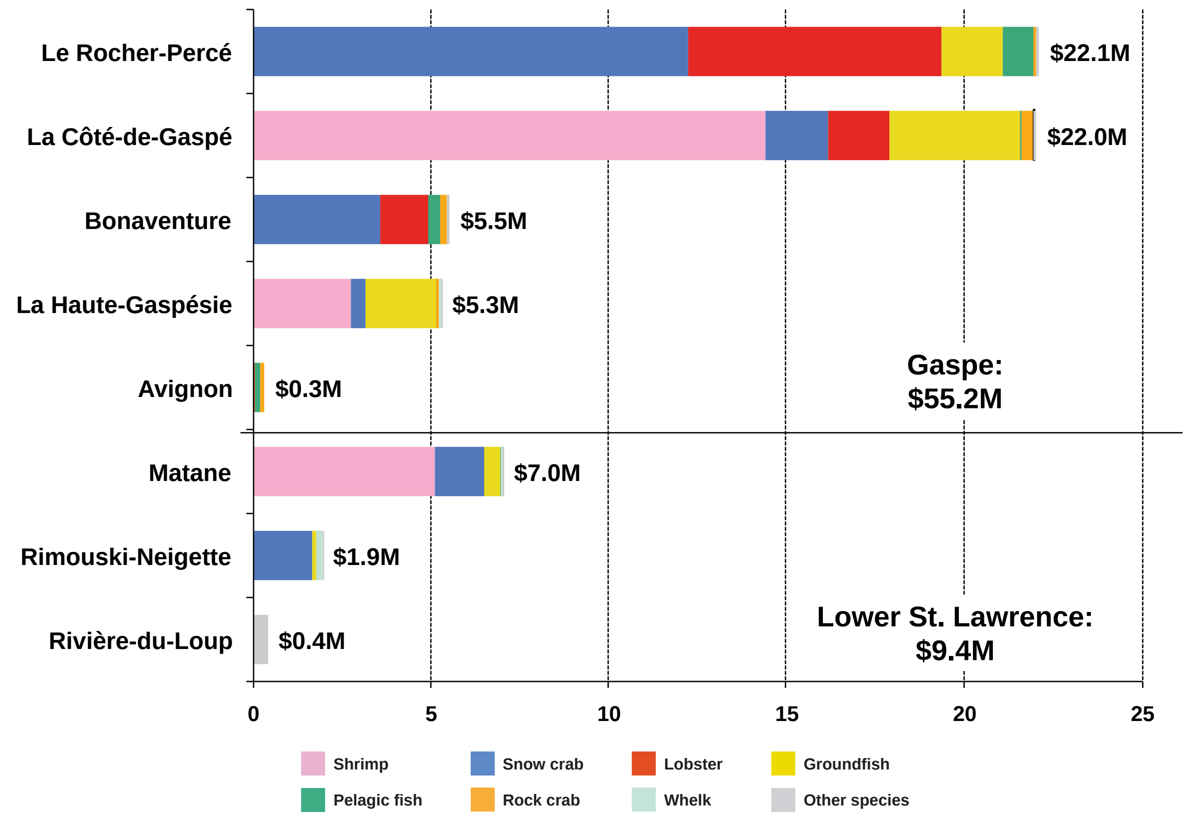


Source: SLD, DFO, Quebec Region

1.2.2. Landings by RCM and by fishing port

In 2008, the RCMs of Rocher-Percé and Côte-de-Gaspé, at the eastern point of Gaspe, were responsible for almost 70% of landings in the Gaspe-Lower St. Lawrence area. However, as illustrated in Graph 7, the profiles of landed species for these two RCMs vary greatly. In Rocher-Percé, snow crab and lobster are the most landed species; while on the Côte-de-Gaspé, shrimp and groundfish make up more than 80% of landings. Although their total landings are much lower, the RCMs of Matane (3rd) and La Haute-Gaspésie (5th) have profiles similar to the Côte-de-Gaspé, while the Bonaventure RCM (4th) looks more like Rocher-Percé with respect to landed species.

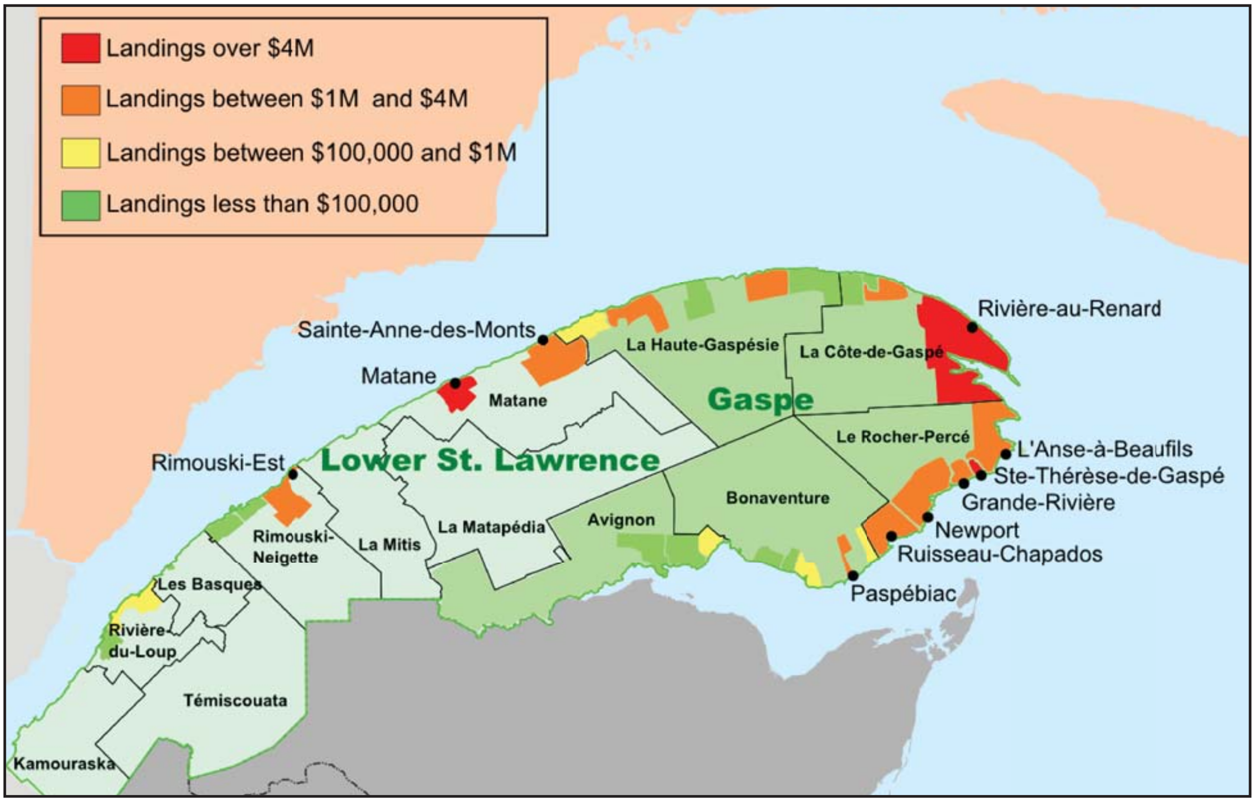
Graph 7: Value of landings in Gaspe-Lower St. Lawrence RCMs by species, 2008



Source: SLD, DFO, Quebec Region

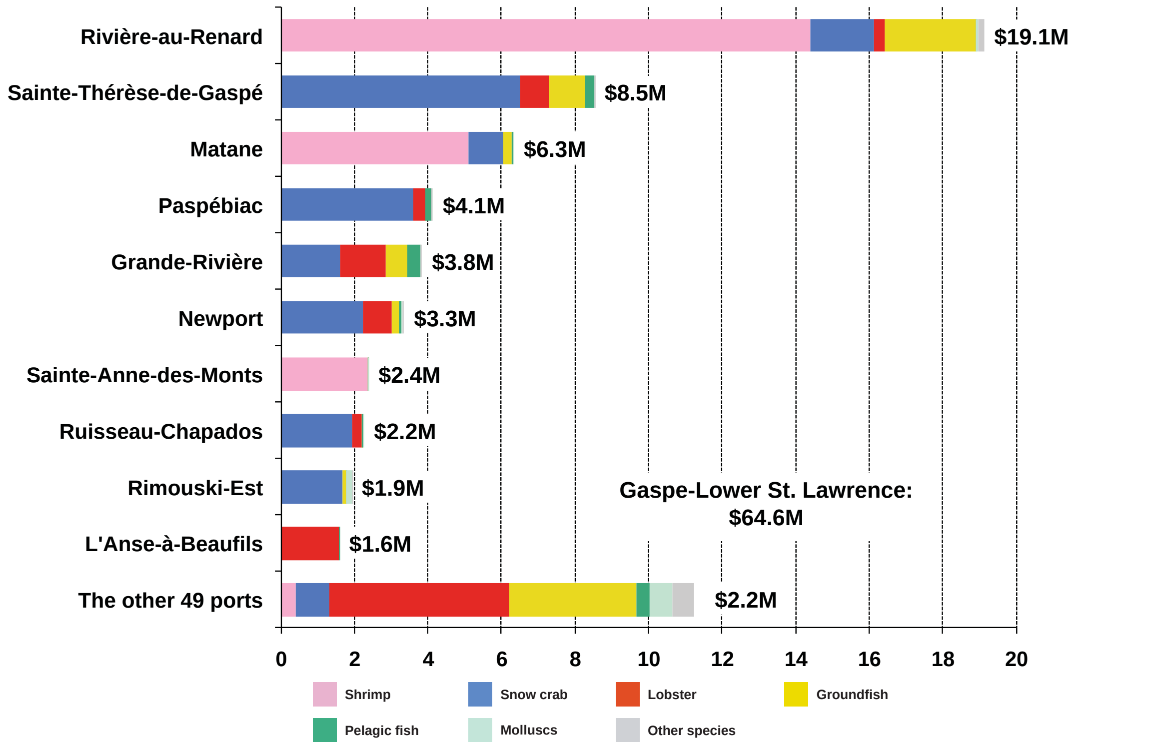
Landings in the Gaspe-Lower St. Lawrence were carried out at 59 different fishing ports. The 10 largest accounted for 82.7% of the landing values. In terms of both quantity and value, the ports of Rivière-au-Renard and Sainte-Thérèse-de-Gaspé were the primary regional ports. The Rivière-au-Renard port was also the most significant in Quebec, with landings valued at $19.1M, of which more than 75% were shrimp. In Sainte-Thérèse-de-Gaspé ($8.5M), the fourth most significant port in Quebec, snow crab was the main species landed.

Map 2: The 10 principal fishing ports in the Gaspe-Lower St. Lawrence area and value of landings by municipality, 2008



Source: FHAMIS and SLD, DFO, Quebec Region

Graph 8: Value of landings at the 10 principal fishing ports in the Gaspe-Lower St. Lawrence, by species, 2008



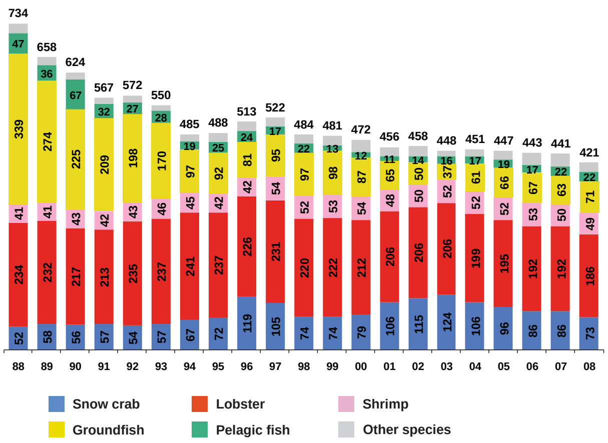
Source: SLD, DFO, Quebec Region

1.2.3. Workforce

As illustrated in Graph 9, the number of fishing businesses in the Gaspe-Lower St. Lawrence area has significantly decreased since 1988, dropping 42.6% from 734 to 421. Given the decrease in groundfish stocks and the implementation of moratoria at the start of the 1990s, it is not surprising that the number of specialized groundfishing businesses decreased the most during this period (-79%).

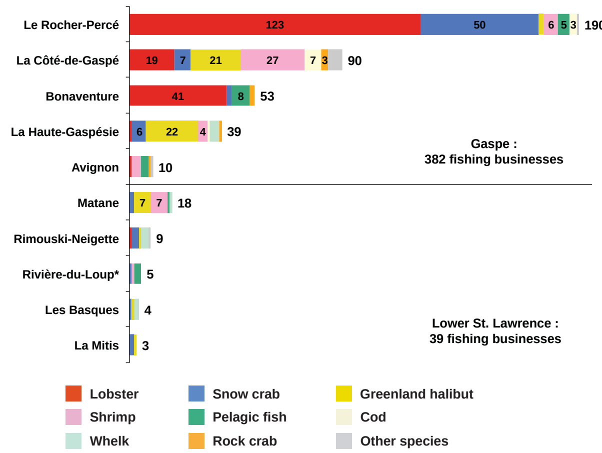
Furthermore, it can also be observed that the number of businesses that mainly land lobster has decreased significantly since 1994, declining from 241 to 186 (22.8%).

Graph 9: Number of active fishing businesses, by principal species landed, Gaspe-Lower St. Lawrence, 1988-2008



Source: SLD, DFO, Quebec Region

Graph 10: Number of fishing businesses, by main species landed and RCM, Gaspe-Lower St. Lawrence, 2008



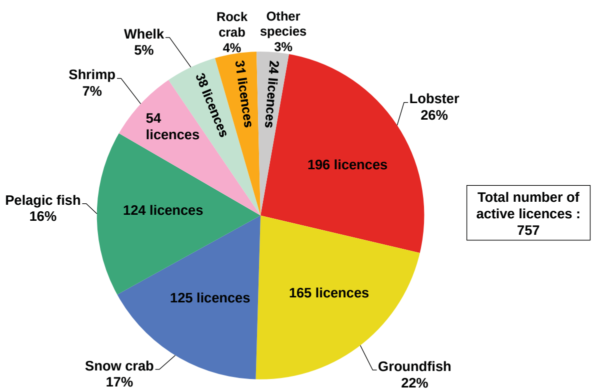
Source: SLD, DFO, Quebec Region

Nevertheless, almost half of the 421 active fishing businesses in the Gaspe-Lower St. Lawrence area mainly fished lobster in 2008 (186); however, this species represented less than 15% of landings. Conversely, shrimp fishing businesses numbered only 49, 11.6% of the total, but were responsible for 34.2% of the landed values. Similarly, although fishers for whom groundfish is the main landed species were almost as numerous as snow crab fishers (71 compared to 73), groundfish accounted for only 12.4% of landings, compared to 32.7% for snow crab.

Graph 10 shows the number of businesses, distributed by RCM. The Rocher-Percé RCM, where two-thirds of lobster businesses are located, includes almost half of the fishing businesses in the Gaspe-Lower St. Lawrence (190 out of 421, or 45.1%).

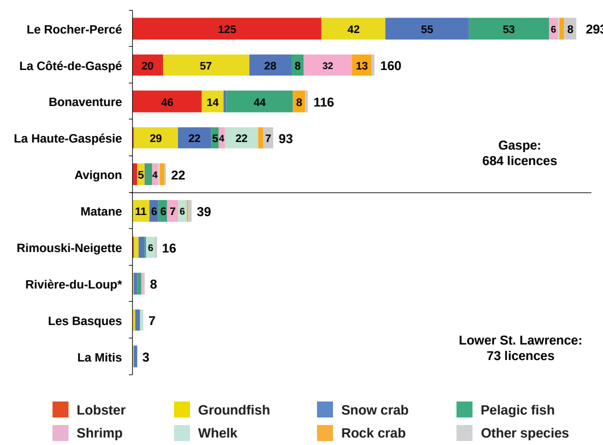
The distribution of the number of active licences by species presents a rather different picture. Firstly, the number of active licences is higher than the number of businesses, standing at 757 compared to 421. This signifies that in 2008, each business utilized, on average, 1.8 licences. Of particular note is the high number of pelagic fishing licences (124) compared to businesses specialized in this type of fishing (22). Similarly, almost 125 businesses captured some snow crab in 2008, but only 73 specialized in this species. This discrepancy is explained by the many small snow crab quotas that provide income support for fishers of groundfish and other less profitable species.

Graph 11: Number of active licences by species, Gaspe-Lower St. Lawrence, 2008



Source: SLD, DFO, Quebec Region

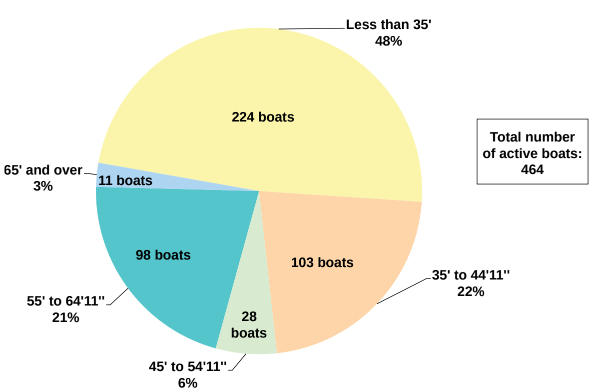
Graph 12: Number of active licences, by species and RCM, Gaspe-Lower St. Lawrence, 2008



Source: SLD, DFO, Quebec Region

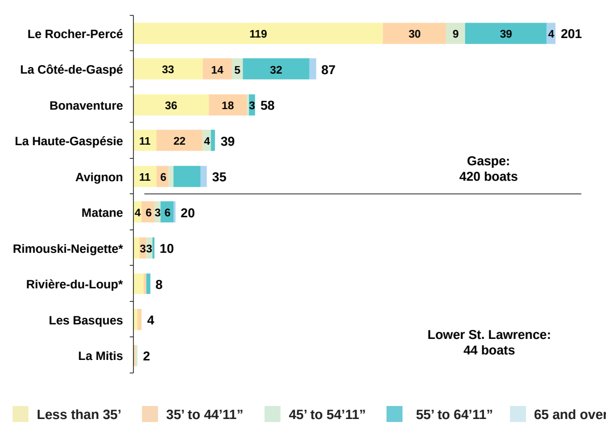
Graphs 13 and 14 illustrate the number of boats in the Gaspe-Lower St. Lawrence area. These show that, of 464 boats in 2008, almost half (49%) were less than 35 feet long. This is a much higher proportion than in Quebec as a whole (39%). Due to the importance of semi-offshore fishing in the area, boats 45 feet long or more were also well represented (29.5% compared to 16.4% for Quebec as a whole). Conversely, boats of medium size (between 35 and 45 feet) are significantly less popular in the Gaspe-Lower St. Lawrence compared to other maritime areas (22.2% in the Gaspe-Lower St. Lawrence area, versus 43.6% in Quebec as a whole).

Graph 13: Number of active fishing boats by length, Gaspe-Lower St. Lawrence, 2008



Source: SLD, DFO, Quebec Region

Graph 14: Number of active fishing boats, by length and RCM, Gaspe-Lower St. Lawrence, 2008

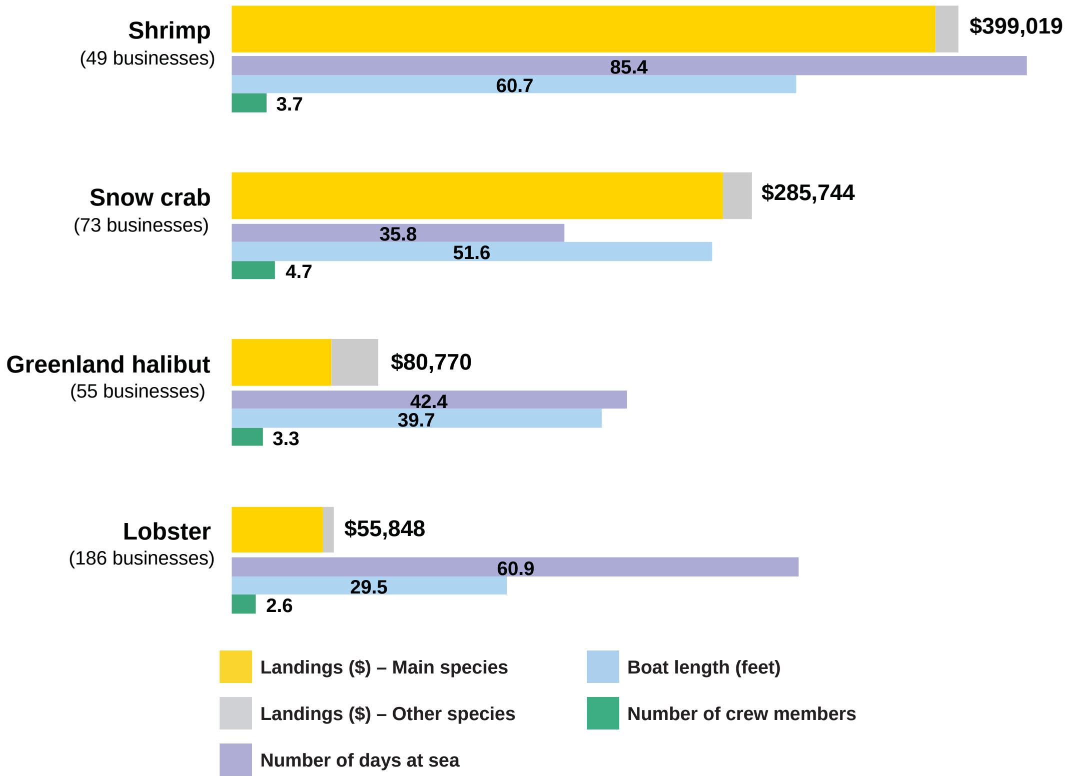


Source: SLD, DFO, Quebec Region

1.2.4. Fishing fleets

In 2008, 86% of the 421 Gaspe fishing businesses were included in one of the following four fleets[6]: shrimpers (49 businesses), crabbers (73 businesses), Greenland halibut fishers (55 businesses) and lobster fishers (186 businesses). Graph 15 illustrates several characteristics of these fleets. Shrimpers and crabbers have the highest average landings, generating, respectively, $399,019 and $285,744 in value per business. The lobster and Greenland halibut fishing fleets have more modest incomes, as well as smaller boats and crews[7].

Graph 15: Average characteristics of the main fishing fleets in the Gaspe-Lower St. Lawrence area, by main species landed, 2008



Source: SLD, DFO, Quebec Region

[6] A fleet is a group of fishers who fish the same principal species (by value). The shrimper and crabber fleets are relatively heterogeneous, since they include both fishers with very high individual quotas and those with small quotas.

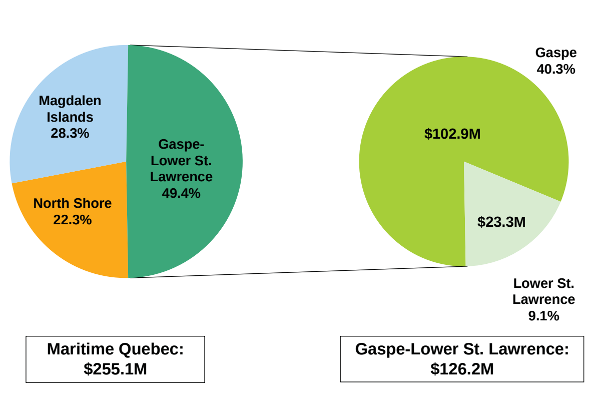
[7] The number of crew members includes the captain.

1.3. Processing of marine resources

1.3.1. Production value and number of jobs

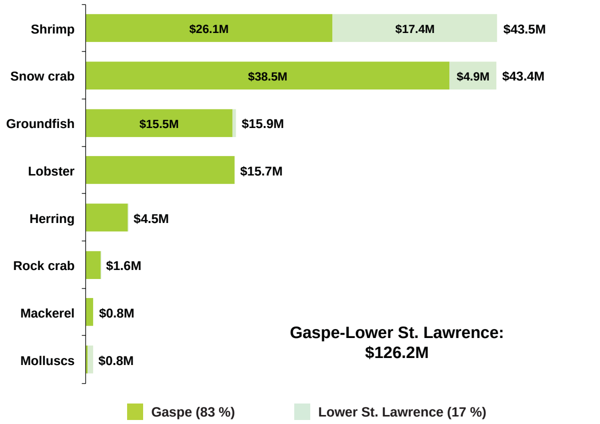
The marine resources processing industry in the Gaspe-Lower St. Lawrence area comprises approximately fifty businesses, which generally buy seafood directly from the fishers and then export or sell these products on the local, national or world market. Usually, these businesses carry out initial processing (freezing, marinating, cooking, packaging, etc.) before sale. In 2007, fish and seafood purchases by these businesses reached $66.3M, while their production was calculated at $126.2M, 52.6% of that for maritime Quebec. Their added value was thus estimated at $59.9M, the difference between the production and purchase values[8].

Graph 16: Production by marine resources processing businesses in maritime Quebec and the Gaspe-Lower St. Lawrence area, 2007



Source: SLD, DFO, Quebec Region

Graph 17: Production by marine resources processing businesses in the Gaspe-Lower St. Lawrence area, by species and sub-area, 2007



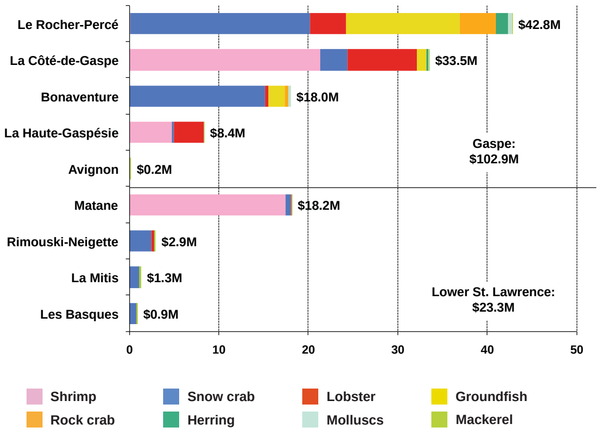
Source: SLD, DFO, Quebec Region

The main species in terms of production value was shrimp, which was sold for a total of $43.5M in 2007. For this species, the added value of processing was very high, at 169%, which signifies that the value of shrimp leaving the factory ($43.5M) was almost three times higher than on entry. For snow crab, the second most significant species with a total production of $43.4M, the added value of processing was far lower, at only 50%. Ranked third, groundfish had a production value reaching $15.9M, due to an added value of almost 100%. Lobster, the third most significant species in terms of landings, was the fourth most valuable after production ($15.7M), a result of the low added value of processing (40.2%).

In 2007, there were approximately 2,203 workers in the marine product processing industry in the Gaspe-Lower St. Lawrence area. Of this number it is estimated that 793 jobs were related to the processing and sale of snow crab, 596 to shrimp, 294 to groundfish, 215 to herring, 112 to lobster, and 96 to rock crab.

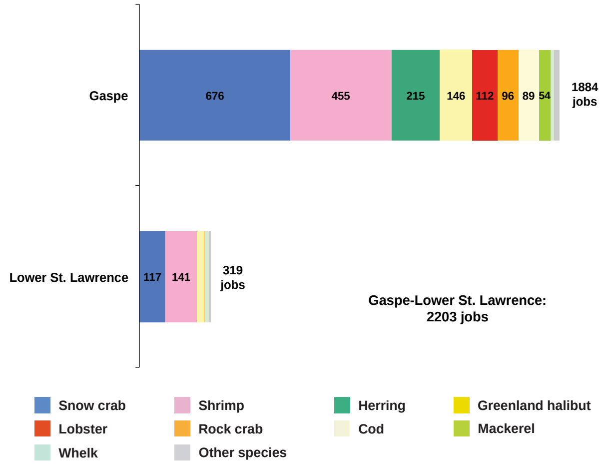
[8] To simplify analysis, we assumed that inputs are limited to seafood purchases, the value of which is generally equivalent to the value of landings.

Graph 18: Production by marine resources processing businesses in Gaspe-Lower St. Lawrence, by species and RCM, 2007



Source: SLD, DFO, Quebec Region

Graph 19: Number of jobs in the marine resources processing industry in Gaspe-Lower St. Lawrence, by species and sub-area, 2007

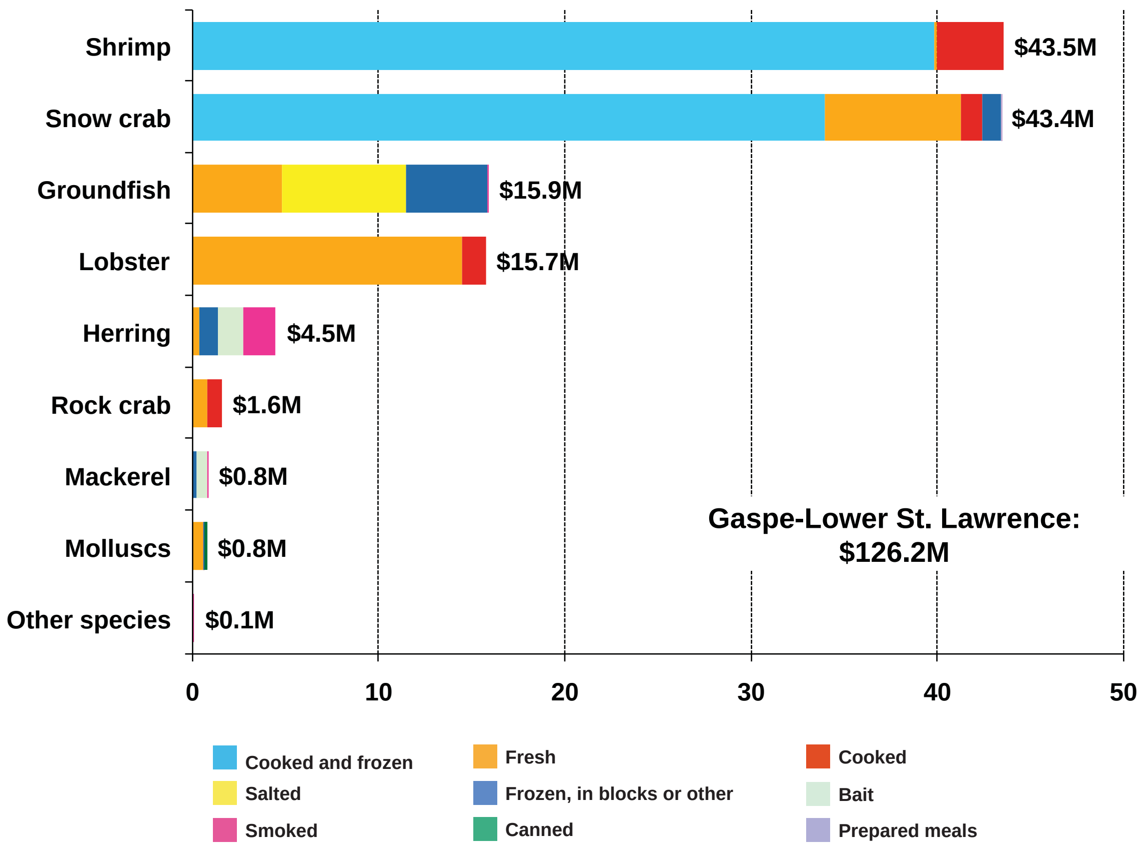


Source: SLD, DFO, Quebec Region

1.3.2. Types of processing

In 2007, the processing industry in the Gaspe-Lower St. Lawrence area produced shrimp to a total value of $43.5M, and snow crab products valued at $43.4M. These two species together accounted for almost 87% of production. As illustrated in Graph 20, most of the marine products were sold cooked and frozen (58.4%), or fresh (22.6%). Cooked dishes and canned goods, as well as smoked, salted, or marinated products represented only 6.8% of production.

Graph 20: Value and composition of production in Gaspe-Lower St. Lawrence, 2007



Source: SLD, DFO, Quebec Region

1.3.3. Businesses

Of the 56 businesses in the Gaspe-Lower St. Lawrence processing sector, the twelve principal businesses accounted for 81% of production and for approximately 79% of jobs in the industry. The following table provides basic information on these businesses.

Table 2: Principal marine resources processing businesses in the Gaspe-Lower St. Lawrence area in 2007

Name of buyer	Community	RCM	Sales figures	Number of jobs
E. Gagnon & Fils	Sainte-Thérèse-de-Gaspé	Le Rocher-Percé	$15M+	200-300
Les Fruits de Mer de l'Est du Québec	Matane	Matane	$15M +	200-300
Unipêche M.D.M.	Paspébiac	Bonaventure	$15M +	300+
Les Pêcheries Marinard	Rivière-au-Renard	La Côte-de-Gaspé	$10M-$15M	200-300
Crevettes du Nord Atlantique	L'Anse-au-Griffon	La Côte-de-Gaspé	$5M-$10M	100-200
Les Pêcheries Gaspésiennes	Rivière-au-Renard	La Côte-de-Gaspé	$5M-$10M	50-100
Crustacés de Malbaie	Saint-Georges-de-Malbaie	Le Rocher-Percé	$1M-$5M	10-50
Poissonnerie Cloridorme	Cloridorme	La Côte-de-Gaspé	$1M-$5M	10-50
Crustacés des Monts	Sainte-Anne-des-Monts	La Haute-Gaspésie	$1M-$5M	10-50
Poisson Salé Gaspésien	Grande-Rivière-Ouest	Le Rocher-Percé	$1M-$5M	100-200
Lelièvre, Lelièvre et Lemoignan	Sainte-Thérèse-de-Gaspé	Le Rocher-Percé	$1M-$5M	100-200
Le Marché Blais	Pabos Mills	Le Rocher-Percé	$1M-$5M	50-100
The other 44 businesses			**$23.9M**	**479**
TOTAL			**$126.2M**	**2,261**

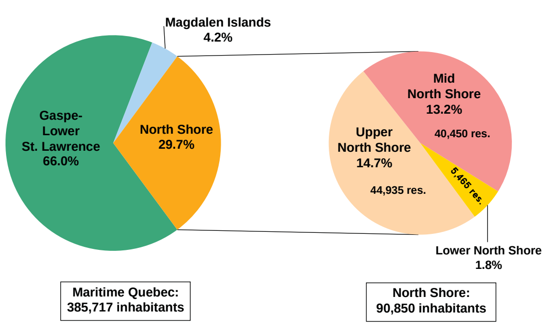
Source: SLD, DFO, Quebec Region

2 North Shore

2.1. Socio-economic profile

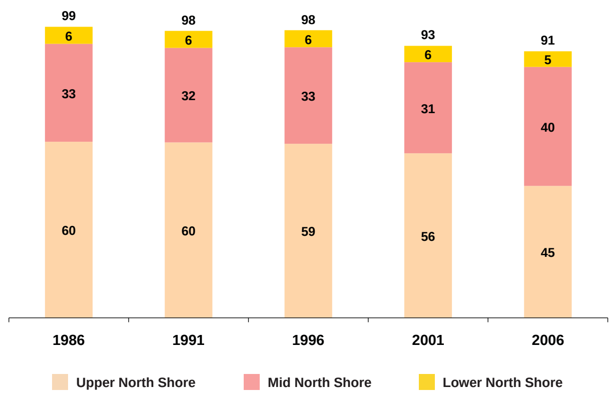
With 90,850 citizens in 2006, the North Shore accounted for 23.6% of the total population of maritime Quebec. Like the other maritime areas, but unlike Quebec as a whole,[9] the population of the North Shore decreased by 8.4% between 1986 and 2006. The demographic weight of this maritime area, in comparison to Quebec as a whole, consequently fell from 1.5% to 1.2% over the last twenty years.

Graph 21: Distribution of the population in maritime Quebec and the North Shore, 2006



Source: Statistics Canada

Graph 22: Evolution of the population on the North Shore, 1986-2006 (thousands of residents)



Source: Institut de la statistique du Québec

The Upper North Shore has shown the greatest decline in population since 1986, from 59,994 citizens in 1986 to 44,935 in 2006, a drop of 25.1%. Over the same period, the population of the Lower North Shore decreased by 8.3%, while that of the Mid North Shore increased by 21.6%. The *Institut de la statistique du Québec* predicts a demographic decline for all three sub-areas of the North Shore, but this decline is likely to be more significant for the Lower North Shore (-20%) and the Upper North Shore (-19.2%) than for the Mid North Shore (-3.0%).

Table 3 provides some socio-economic data for the North Shore, displayed by RCM. It can be seen that, despite a much smaller population, the Lower North Shore accounted for more jobs connected to the fishing industry (966) than the Upper (332) and Mid North Shore (821). However, socio-economic statistics were generally less favourable. For example, the number of low income families was significantly higher on the Lower North Shore (20.9%) than on the Upper (8.4%) and Mid North Shore (9.3%). It is presumed that the unemployment rate was also higher, although this data is not available for the separate RCMs.

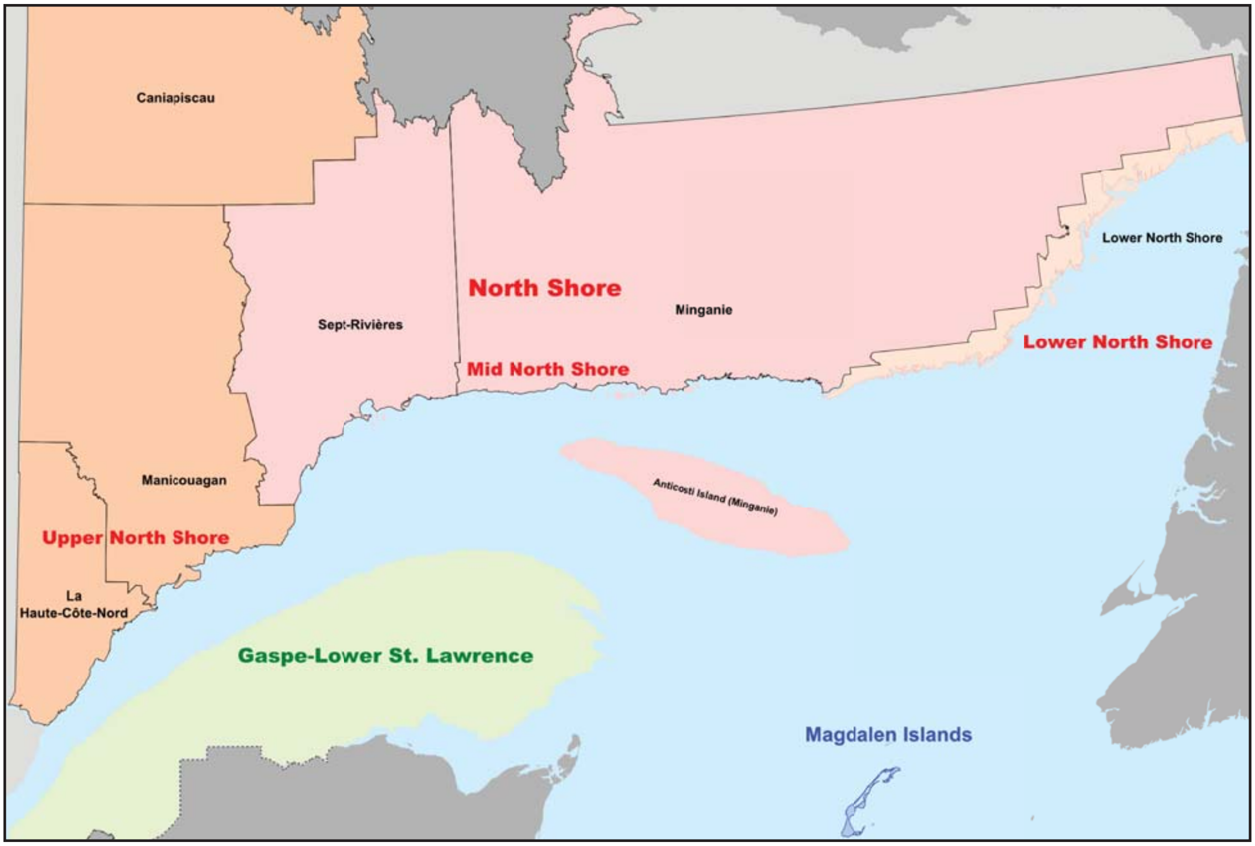
[9] The population of Quebec increased by 13% between 1986 and 2006, from 6.5 to 7.4 million citizens.

TABLE 3: Socio-economic data for the North Shore, by RCM

RCM name	Population (2009)	Demographic outlook (2006-2031)	Land value of single-family dwellings (2009)	Incidence of low-income families (2006)	Number of fishing-related jobs[10] (2007)	Unemployment rate (December 2009)
Haute-Côte-Nord	11,885	-18.4%	$75,464	7.2%	146	8,3 %
Manicouagan	32,379	-19.5%	$110,335	8.8%	186	
Upper North Shore	**44,264**	**-19.2%**		**8.4%**	**332**	
Sept-Rivières	35,488	-3.4%	$148,730	8.9%	252	
Minganie	6,398	-0.5%	$84,340	11.7%	569	
Mid North Shore	**41,886**	**-3.0%**		**9.3%**	**821**	
Lower North Shore	**5,412**	**-20.0%**	**$53,420**	**20.9%**	**966**	
North Shore	**91,562**	**-11.8%**		**9.5%**	**2,118**	**8,3 %**

Source: Institut de la statistique du Québec

MAP 3 : The North Shore area, showing sub-area and RCM limits



Source: FHAMIS, DFO, Quebec Region

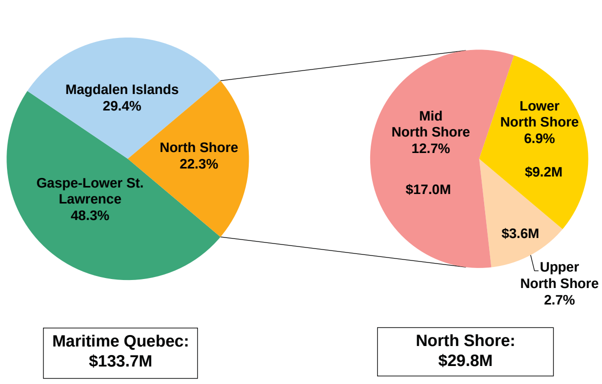
[10] The number of fishers and processing factory employees in 2007.

2.2. The fishing industry

2.2.1. Evolution of landings

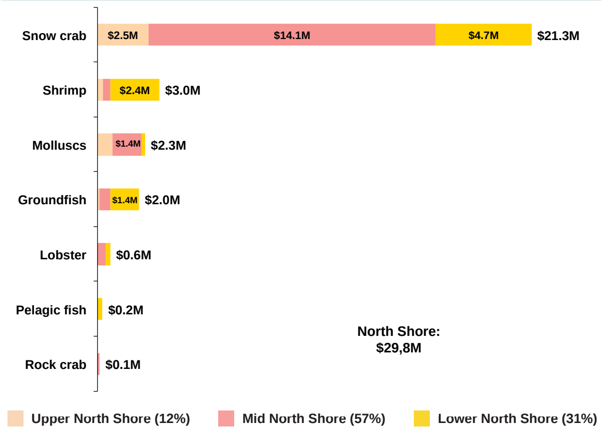
In 2008, landings on the North Shore reached 14,115 tonnes, valued at $29,8M.[11] This represented 23.4% of total landings in Quebec in terms of quantity, and 22.3% of total value. Together, the Mid North Shore and the Lower North Shore accounted for 88% of the landing values of the area with, respectively, 57% and 31% of landings.

Graph 23: Value of landings in maritime Quebec and the North Shore, 2008



Source: SLD, DFO, Quebec Region

Graph 24: Value of landings on the North Shore, by RCM, 2008



Source: SLD, DFO, Quebec Region

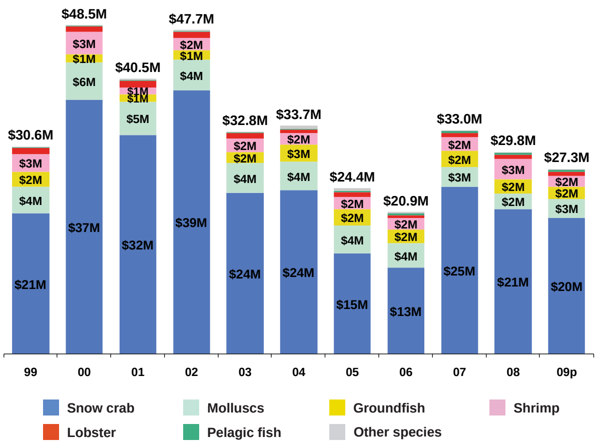
On the North Shore, snow crab alone accounted for 71.5% of the landed values in 2008. The second most important species, shrimp, only accounted for 10.1% of landings, and was landed mostly on the Lower North Shore. Molluscs such as scallops ($0.6M), Stimpson's surf clams ($0.5M), whelks ($0.5M), urchins[12] ($0.3M) and soft-shell clams ($0.3M) were landed mainly on the Mid and Upper North Shore. Groundfish, of which 90% were Greenland halibut and cod, was the fourth most significant group of species landed on the North Shore. They were primarily landed on the Lower and Mid North Shore. Other species, including lobster, pelagic fish and rock crab, were relatively marginal on the North Shore, accounting for only 3.3% of landings.

Graphs 25 and 26 illustrate the evolution of landings on the North Shore between 1999 and 2009. The value of landings dropped abruptly by more than 30% from 2002 to 2003, mostly caused by a decrease in the quantity of snow crab landed. Although the landed quantities of snow crab had already partially recovered by 2005, the decline in the price of this crustacean over the last few years has prevented the value of landings from attaining the 2003 level. Mollusc landing values have also significantly decreased by 46% since 2006, from $4.1M to $2.2M, caused mainly by a lower price for, and reduced landings of, scallop.

[11] This amount includes landings by fishers from outside of Quebec, which totalled $0.7M in 2008 (or 2.3%).

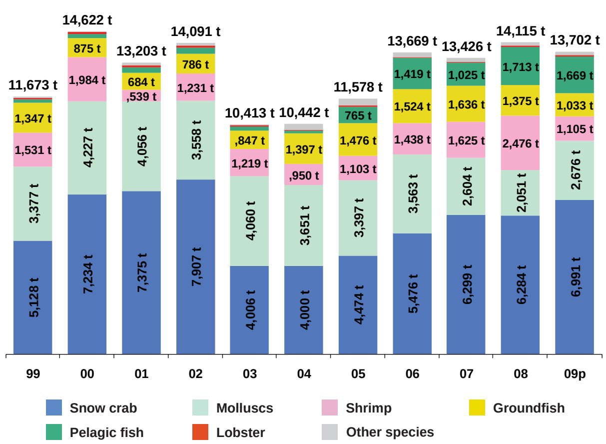
[12] Technically, the urchin is not a mollusc, but an invertebrate from the echinoderm family.

Graph 25: Value of landings in North Shore, by species, 1999-2009



Source: SLD, DFO, Quebec Region

Graph 26: Quantities landed in North Shore, by species, 1999-2009

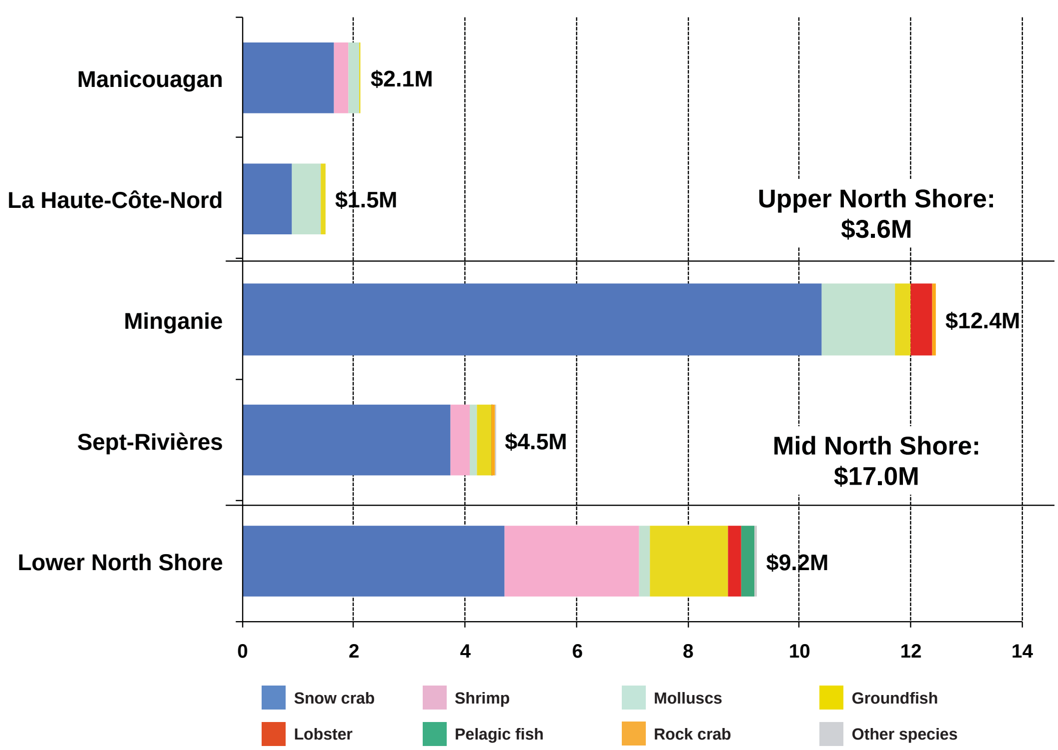


Source: SLD, DFO, Quebec Region

2.2.2. Landings by RCM and by fishing port

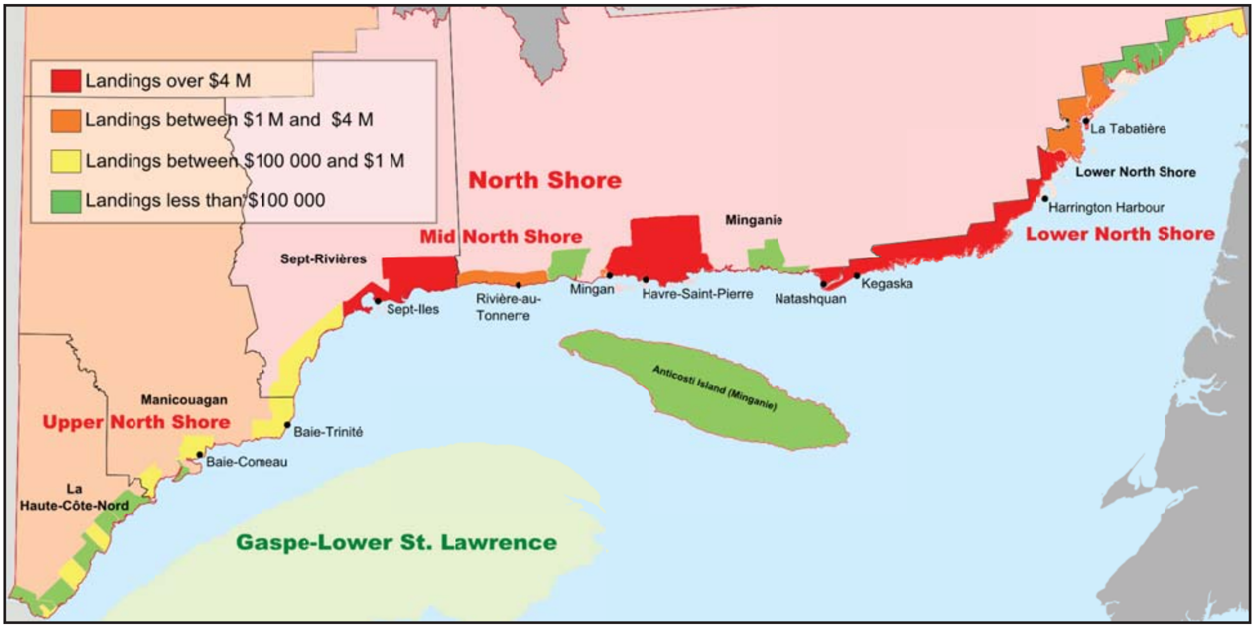
In 2008, the RCMs of Mingan and the Lower North Shore, in the eastern half of the North Shore, were responsible for more than 70% of the regional landings. However, as illustrated in Graph 27, the profiles of species landed in these two RCMs are very different. In Mingan, landings were made up of snow crab (85%), molluscs (10.6%) and Anticosti lobster (3.2%). The distribution of landed species on the Lower North Shore, however, was balanced between snow crab (50.9%), shrimp (26.3%), groundfish (15.2%), and some other species (7.6%). The Sept-Rivières RCM, where the Sept-Îles port accounted for 98% of RCM landings, was ranked third of the North Shore RCMs. Snow crab was the main landed species (82.2%), followed by shrimp (7.9%). Landings in the two RCMs on the Upper North Shore, Manicouagan and La Haute-Côte-Nord, had much lower landed values of, respectively, $2.1M and $1.5M. These landings were comprised of snow crab (69.5%), molluscs (20.2%) and shrimp (7.3%).

Graph 27: Value of landings in North Shore RCMs, by species, 2008



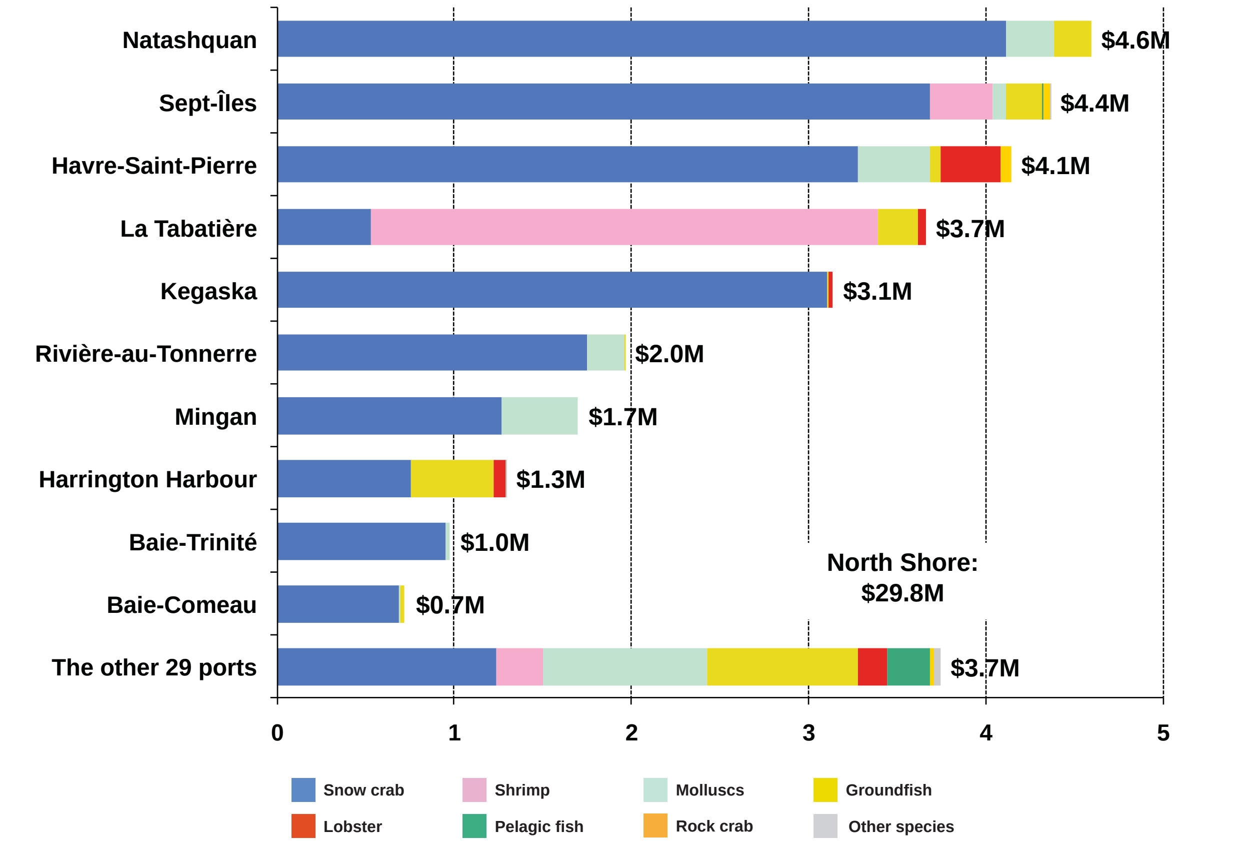
Source: SLD, DFO, Quebec Region

Map 4: The 10 principal fishing ports on the North Shore and value of landings by municipality, 2008



Source: SLD and FHAMIS, DFO, Quebec Region

Graph 28: Value of landings at the 10 principal fishing ports on the North Shore, by species, 2008



Source: SLD and FHAMIS, DFO, Quebec Region

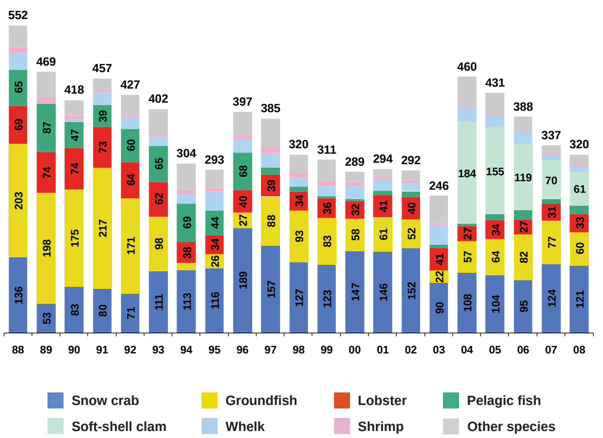
Landings on the North Shore were carried out in 39 fishing ports, the ten most significant of which accounted for 87% of the landing values. The four principal ports were those of Natashquan ($4.6M), Sept-Îles ($4.4M), Havre-Saint-Pierre ($4.1M) and La Tabatière ($3.7M).

In the ports of Natashquan, Sept-Îles and Havre-Saint-Pierre - which are ranked, respectively, sixth, seventh and eighth in importance at the provincial level - snow crab made up most of the landings; however in La Tabatière (thirteenth in Quebec), the major species landed was shrimp. More than 80% of shrimp landings in the North Shore were carried out in La Tabatière.

2.2.3. Workforce

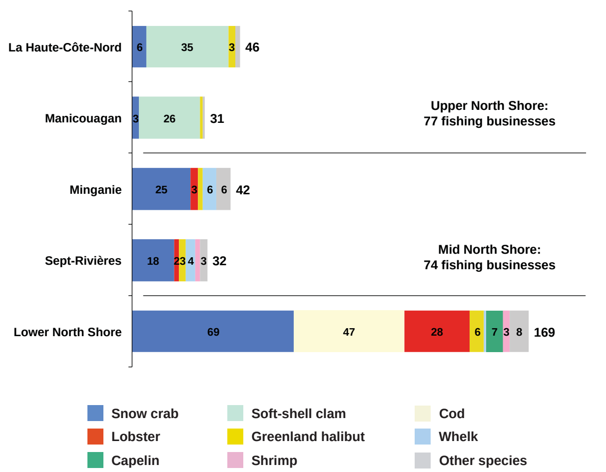
In 2008, there were 320 active fishing businesses on the North Shore, 232 fewer than in 1988. Given the decrease in groundfish stocks and the moratoria implemented at the start of the 1990s, it is not surprising that the numbers of specialized groundfish businesses decreased the most during this period, falling by 70% from 203 to 60. However, it should be noted that in 2004, Fisheries and Oceans Canada began requiring fishers to be licensed to gather soft-shell clams. The 184 soft-shell clam gatherers who obtained licences in 2004, explain why the number of fishing businesses in the North Shore jumped from 246 in 2003 to 460 in 2004. Subsequently, a large number of soft-shell clam gatherers ceased operations[13] between 2004 and 2008, which explains the decrease in the number of licences observed over this period.

Graph 29: Number of active fishing businesses, by principal species landed, North Shore, 1988-2008



Source: SLD, DFO, Quebec Region

Graph 30: Number of fishing businesses, by main species landed and RCM, North Shore, 2008



Source: SLD, DFO, Quebec Region

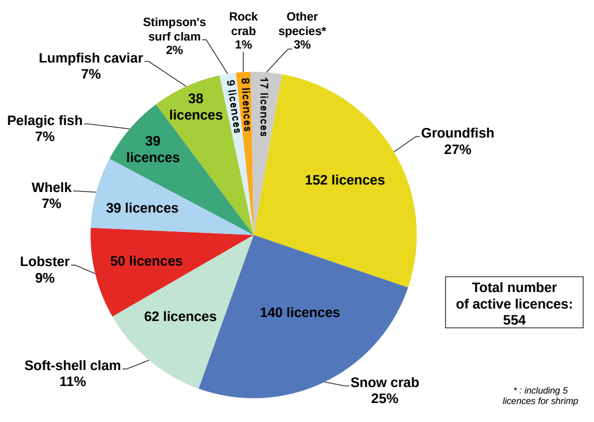
[13] The number of soft-shell clam gatherers decreased from 184 to 61 between 2004 and 2008, due to a decline in the price of this mollusc.

Soft-shell clam gatherers (61) were the second most numerous group of fishers after snow crab fishers (121), and were just ahead of groundfish fishers (60). The 33 lobster fishers were ranked fourth.

Although landing value was highest in Mid North Shore in 2008, the Lower North Shore had the largest number of fishing businesses, 169. Thus, 53% of the North Shore fishing businesses were located in the Lower North Shore, even though this sub-area only accounted for 31% of landing values.

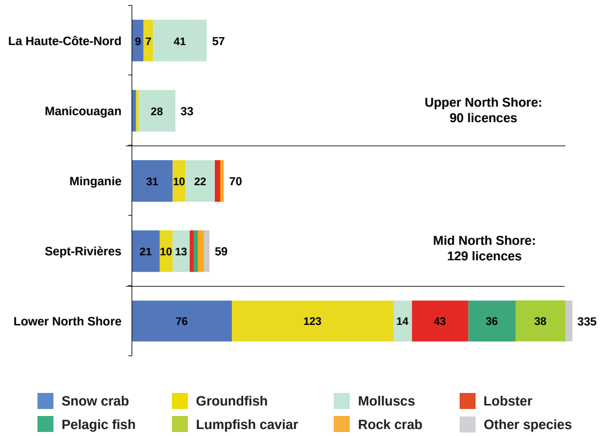
Graph 31 illustrates the distribution of the number of active licences, by species. It shows that the number of active licences is higher than the number of businesses (554 compared to 316). Thus, in 2008, each business on the North Shore utilized, on average, 1.8 licences. With respect to groundfish, however, the number of licences is particularly high (152) compared to the number of businesses specializing in this species (60).

Graph 31: Number of active licences by species, North Shore, 2008



Source: SLD, DFO, Quebec Region

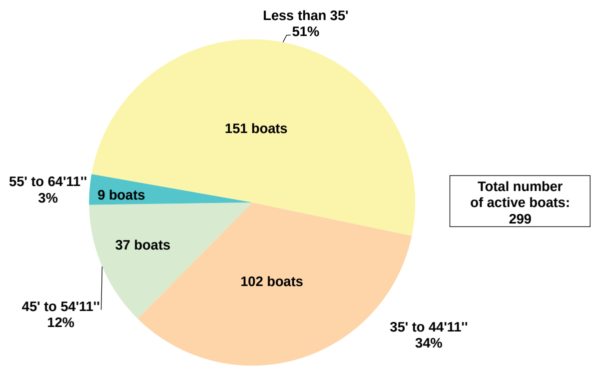
Graph 32: Number of active licences, by species and RCM, North Shore, 2008



Source: SLD, DFO, Quebec Region

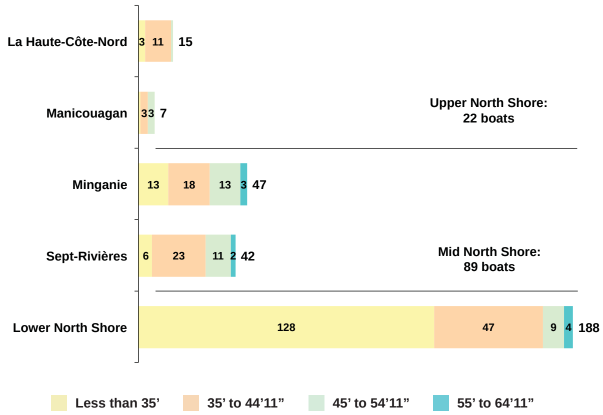
Graphs 33 and 34 illustrate the number of boats on the North Shore (299 in 2008), of which more than half (51%) were less than 35 feet long. This is a much higher proportion than in Quebec as a whole (39%). Conversely, medium sized boats (between 35 and 45 feet long) were less numerous on the North Shore than in other maritime areas (34.1% compared to 43.6% for Quebec as a whole).

Graph 33: Number of active fishing boats by length, North Shore, 2008



Source: SLD, DFO, Quebec Region

Graph 34: Number of active fishing boats, by length and RCM, North Shore, 2008

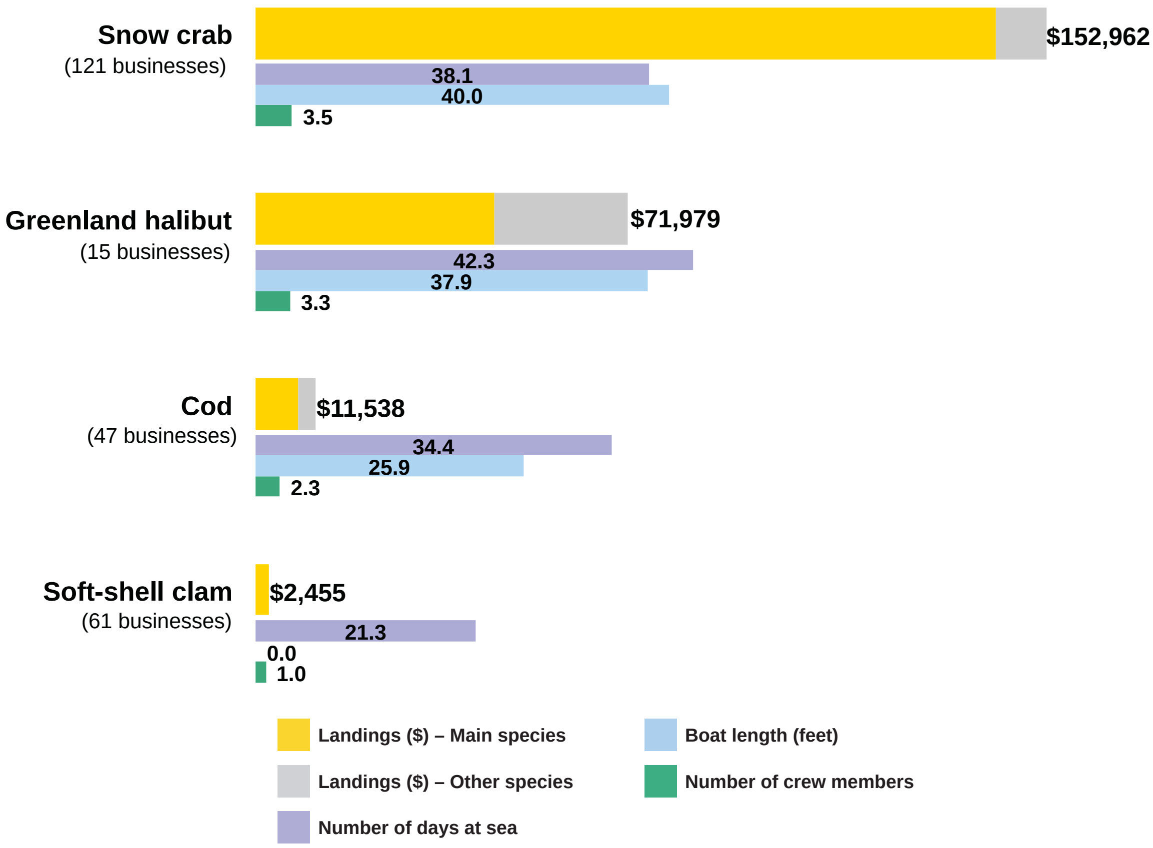


Source: SLD, DFO, Quebec Region

2.2.4. Fishing fleets

In 2008, almost 76% of the 320 fishing businesses on the North Shore were included in one of the following four fleets[14]: crabbers (121 businesses), Greenland halibut fishers (15 businesses), cod fishers (47 businesses) and soft-shell clam gatherers (61 businesses). Graph 35 illustrates the major characteristics of these fleets. Crabbers and Greenland halibut fishers have the highest average landing values of, respectively, $152,962 and $71,979. Cod fishers, with much lower incomes ($11,548), also have smaller boats and crews[15]. Soft-shell clam gatherers, however, did not use boats or crews. Their average income was calculated at $2,455 for 21.3 days of gathering, an average of $114 per day.

Graph 35 : Average characteristics of the main fishing fleets on the North Shore, by main species landed, 2008



Source: SLD, DFO, Quebec Region

[14] A fleet is a group of fishers who fish the same principal species (by value). Certain fleets, such as crabbers, are relatively heterogeneous.

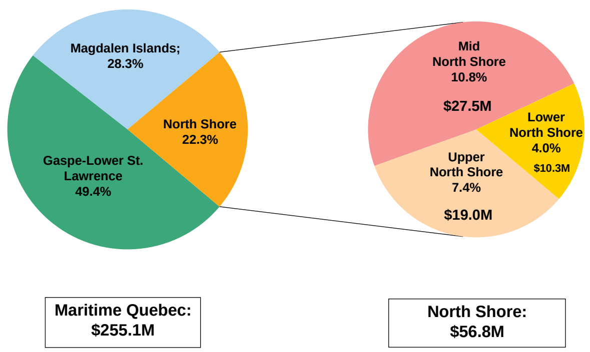
[15] The number of crew members includes the captain.

2.3. Processing of marine resources

2.3.1. Production value and number of jobs

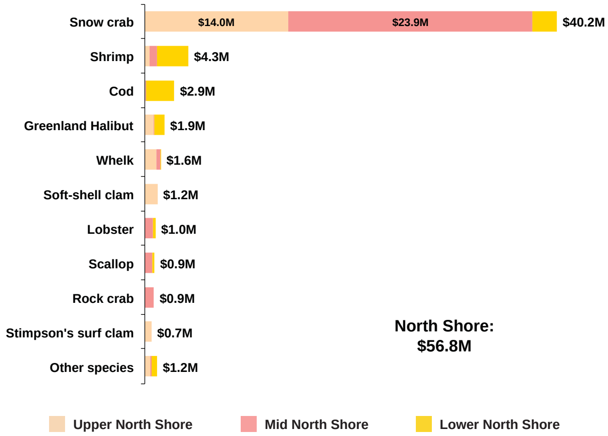
The marine resources processing industry on the North Shore consists of thirty businesses that generally buy fish and seafood directly from fishers, then export or sell these products on the local market. Most of the time, these businesses carry out initial processing (freezing, marinating, cooking, packaging, etc.) before sale. In 2007, fish and seafood purchases were $33.0M, while the value of production was calculated at $56.8M, 22.3% of the total for maritime Quebec. The added value was thus $23.8M, the difference between the production and purchase values.[16]

Graph 36: Production by marine resources processing businesses in maritime Quebec and on the North Shore, 2007



Source: SLD, DFO, Quebec Region

Graph 37: Production by marine resources processing businesses on the North Shore, by species and sub-area, 2007



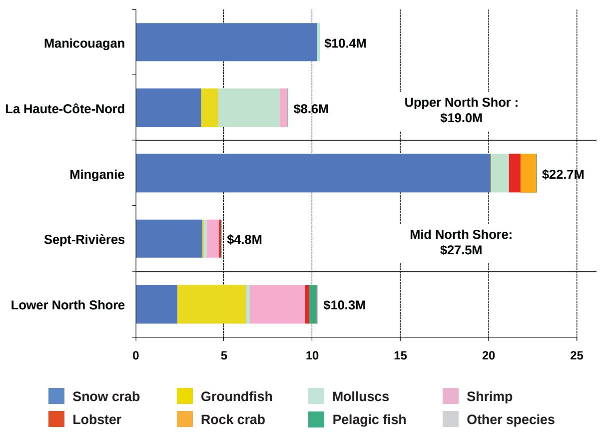
Source: SLD, DFO, Quebec Region

[16] To simplify analysis, we assumed that inputs are limited to seafood purchases, the value of which is generally equivalent to the value of landings.

In 2007, the production value of snow crab on the North Shore was $40.2M, accounting for almost 71% of total production in the area. Shrimp, processed mainly on the Lower North Shore, was the second-most produced species with a value of $4.3M (7.6%). Groundfish species - that is, cod and Greenland halibut - were third and fourth in terms of production, with respective values of $2.9M and $1.9M. The production value of molluscs, including whelks and soft-shell clams, was $4.4M. It was primarily concentrated in the RCMs of La Haute-Côte-Nord and Mingan.

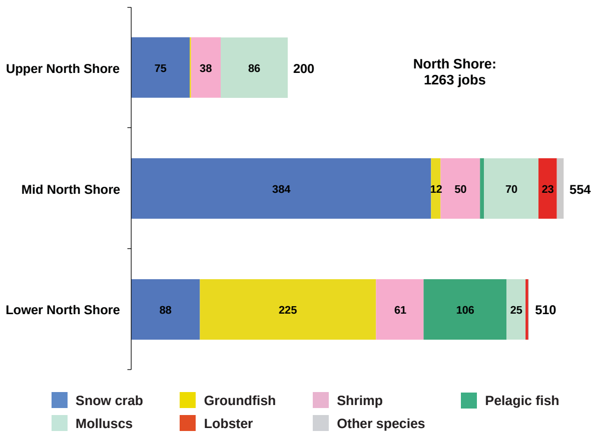
In 2007, there were approximately 1,263 workers in the North Shore marine resources processing industry, of which 554 were located on the Mid North Shore, 510 on the Lower North Shore and 200 on the Upper North Shore. Approximately 547 jobs were related to the processing and sale of snow crab, 237 to groundfish, 181 to molluscs, 149 to shrimp, and 107 to pelagic fish.

Graph 38: Production by marine resources processing businesses on the North Shore, by species and RCM, 2007



Source: SLD, DFO, Quebec Region

Graph 39: Number of jobs in the marine resources processing industry on the North Shore, by species and sub-area, 2007

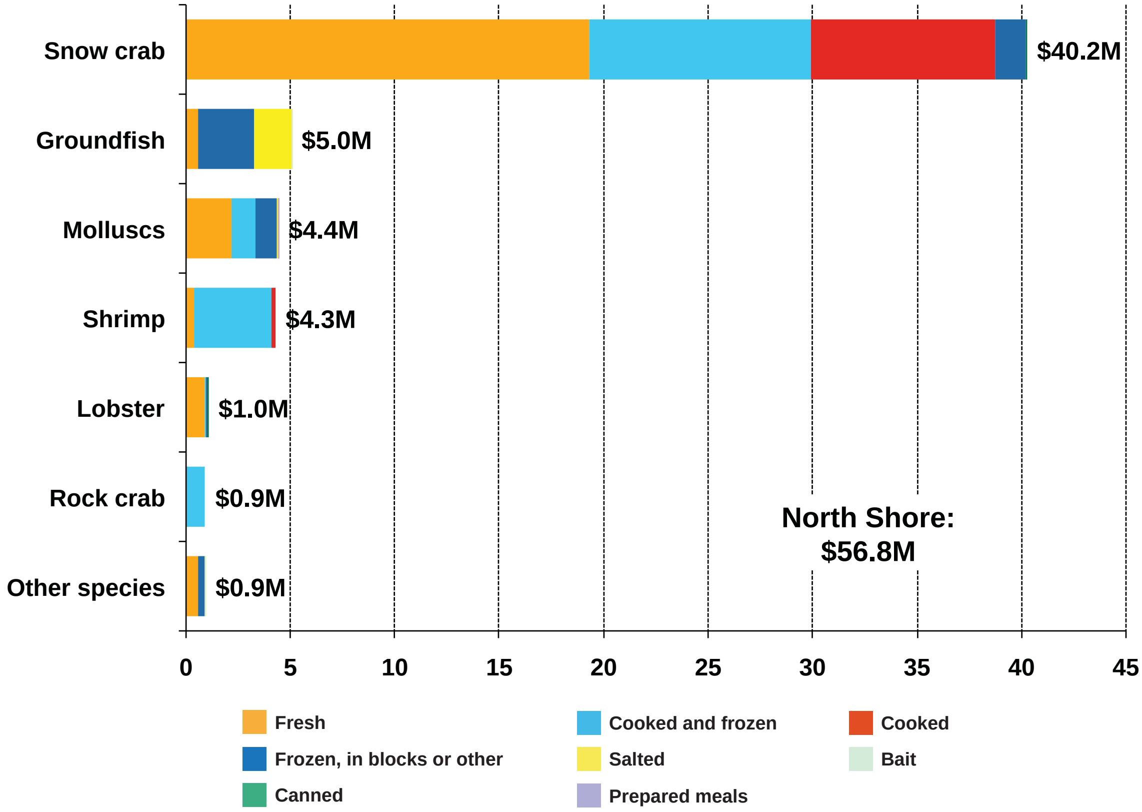


Source: SLD, DFO, Quebec Region

2.3.2. Types of processing

As illustrated in Graph 40, most marine products from factories on the North Shore - 71% of which are snow crab - are sold fresh (42.2%), frozen[17] (38.6%) or cooked (15.9%). Canned goods, as well as smoked, salted or marinated products, represent only 3.3% of production.

Graph 40: Value and composition of production on the North Shore, 2007



Source: SLD, DFO, Quebec Region

[17] Including cooked and frozen.

2.3.3. Businesses

Of the thirty processing businesses on the North Shore, the ten principal businesses accounted for 92% of production and for 77% of jobs in the industry. The following table provides basic information on these businesses.

Table 4: Principal marine resources processing businesses on the North Shore, 2007

Name of buyer	Community	RCM	Sales figures	Number of jobs
Poissonnerie du Havre	Havre-Saint-Pierre	Minganie	$10M-$15M	100-200
Poséidon	Longue-Pointe-de-Mingan	Minganie	$5M-$10M	50-100
Crustacés Baie-Trinité	Baie-Trinité	Manicouagan	$5M-$10M	100-200
Les Crabiers du Nord	Sainte-Anne-de-Portneuf	Haute-Côte-Nord	$5M-$10M	50-100
La Tabatière Seafood	La Tabatière	Lower North Shore	$5M-$10M	50-100
Groupe Umek	Sept-Îles	Sept-Rivières	$1M-$5M	50-100
LNS Community Seafood Coop	Harrington Harbour	Lower North Shore	$1M-$5M	10-50
Poissonnerie Laprise	Chute-aux-Outardes	Manicouagan	$1M-$5M	10-50
Blanc Sablon Seafood	Blanc-Sablon	Lower North Shore	$1M-$5M	200-300
Coquillages Nordiques	Forestville	Haute-Côte-Nord	$1M-$5M	1-50
The other 20 businesses			**$4.6M**	**289**
TOTAL			**$56.8M**	**1,263**

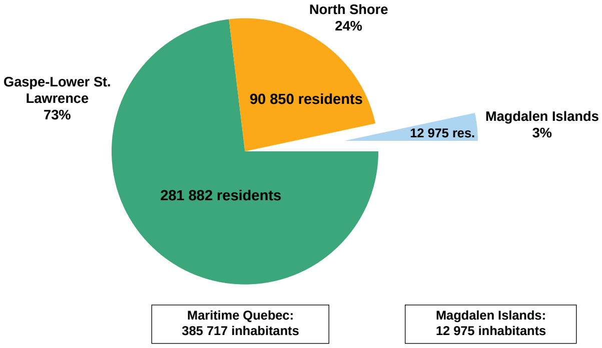
Source: SLD, DFO, Quebec Region

3 Magdalen Islands

3.1. Socio-economic profile

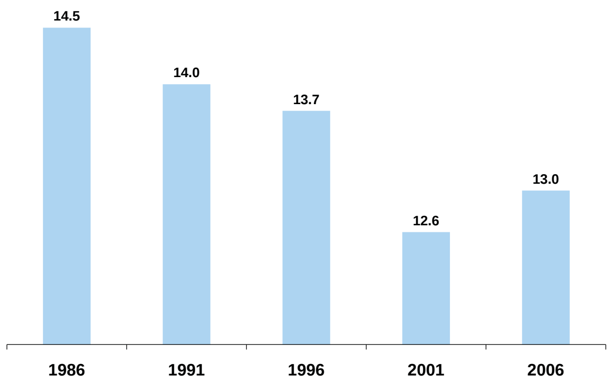
With 12,975 citizens in 2006, the Magdalen Islands accounted for 3.4% of the total population of maritime Quebec. Like other maritime areas, but unlike Quebec as a whole, the Magdalen Islands population decreased by 10.3% between 1986 and 2006. There was, however, a population increase between 2001 and 2006. Furthermore, the *Institut de la statistique du Québec* predicts demographic growth of 3.5% between 2006 and 2031.

Graph 41: Distribution of the population in maritime Quebec, 2006



Source: Statistics Canada

Graph 42: Evolution of the population of the Magdalen Islands, 1986-2006 (thousands of residents)



Source: Institut de la statistique du Québec

Table 5 below provides more detailed socio-economic data for the Magdalen Islands.

Table 5: Socio-economic data for the Magdalen Islands

	Population (2009)	Demographic outlook (2006-2031)	Land value of single-family dwellings (2009)	Incidence of low-income families (2006)	Number of fishing-related jobs (2007)	Unemployment rate (December 2009)
Magdalen Islands	13,047	3.5%	$101,909	4.0%	2,151	14.1%[19]

Source: Institut de la statistique du Québec

[18] The number of fishers and processing factory employees in 2007.

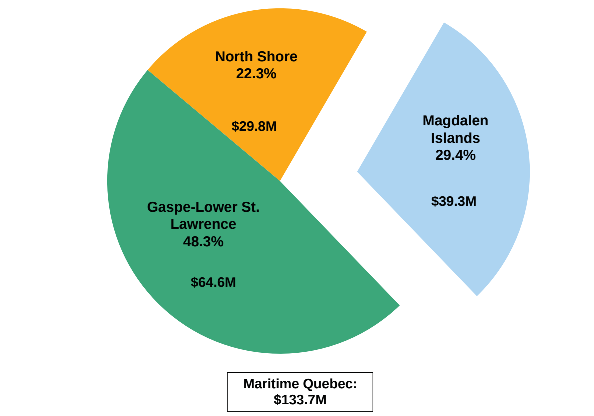
[19] Unemployement rate for the Gaspe-Area/Magdalen Islands administrative region.

3.2. The fishing industry

3.2.1. Evolution of landings

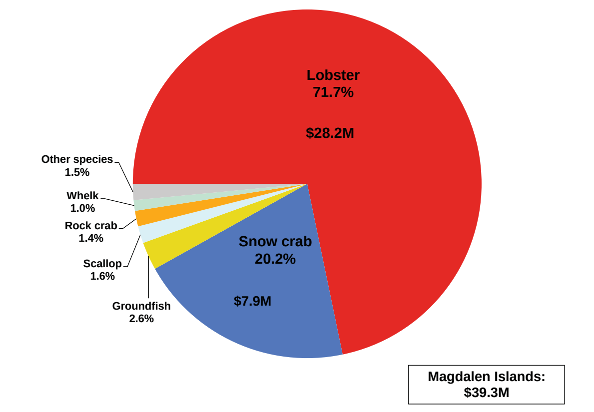
In 2008, landings in the Magdalen Islands were 7,758 tonnes, with a total value of $39.3M.[20] This represented 29.4% of the total landings in Quebec, in terms of value.

Graph 43: Value of landings in maritime Quebec and the Magdalen Islands, 2008



Source: SLD, DFO, Quebec Region

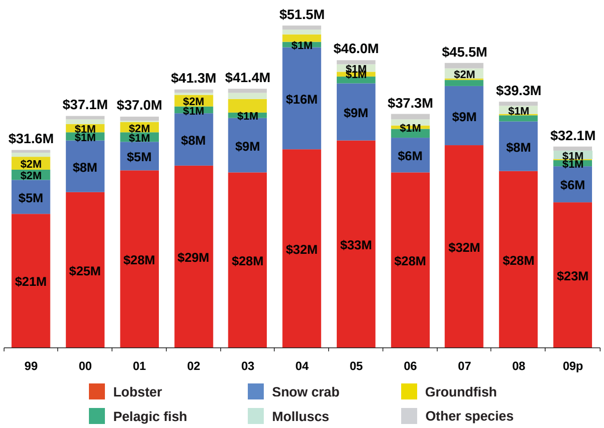
Graph 44: Breakdown of landed species by value, Magdalen Islands, 2008



Source: SLD, DFO, Quebec Region

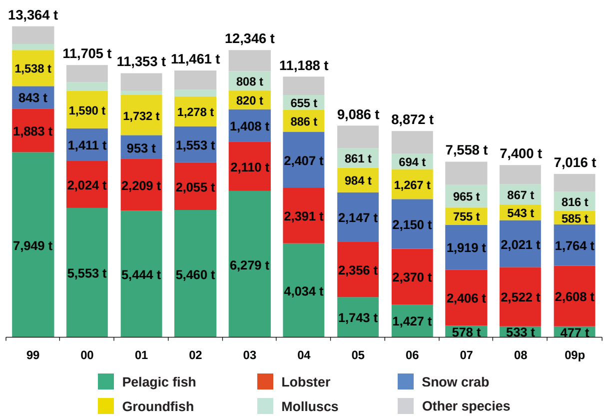
Lobster is the principal species landed in the Magdalen Islands. In 2008, the landed value of this crustacean was $28.2M, accounting for 71.7% of the total. The next most-common landed species, snow crab, had a far lower value of $7.9M, representing 20.2% of landings in the archipelago. Other species (groundfish, scallops, rock crab, etc.) were relatively marginal. Together they accounted for only 8.1% of the landing values, or $3.2M.

Graph 45: Value of landings in the Magdalen Islands, by species, 1999-2009



Source: SLD, DFO, Quebec Region

Graph 46: Quantities landed in the Magdalen Islands, by species, 1999-2009



Source: SLD, DFO, Quebec Region

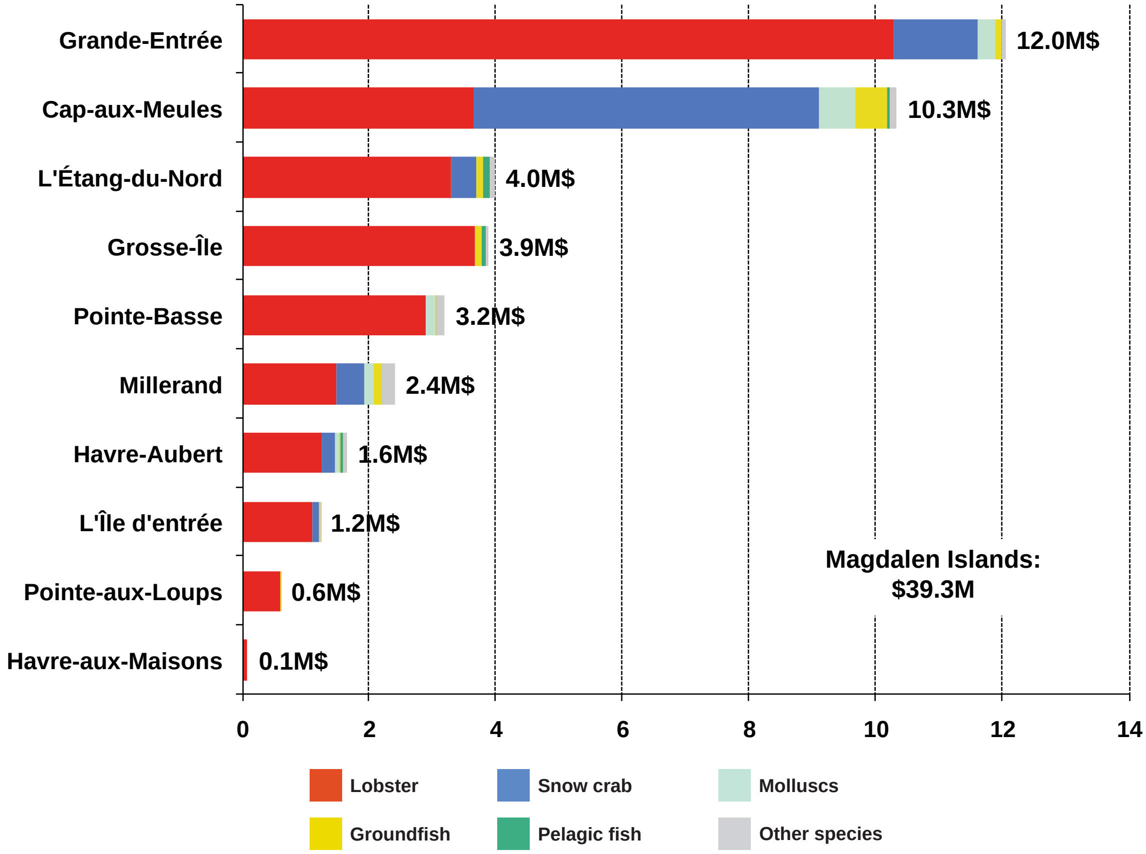
Observing the evolution of landings in the Magdalen Islands on Graphs 45 and 46, it can be seen that landing value grew significantly from 1999, due to higher prices for lobster and snow crab, and reached a still-unequalled peak of $51.5M in 2004. The price of these same crustaceans, now on the decline, also explains the drop in landing values observed since 2005.

[20] This amount includes landings by fishers from outside of Quebec, which totalled $1.2M in 2008 (or 3.1%).

3.2.2. Landings by fishing port

Landings in the Magdalen Islands were carried out at ten different fishing ports. Several of these were among the most significant ports in Quebec, in particular Grande-Entrée (second in Quebec) and Cap-aux-Meules (third in Quebec). The Cap-aux-Meules port received most of the landings of snow crab (69.0%), groundfish (48.9%) and molluscs (45.5%) in the Magdalen Islands. With this exception, lobster was the main landed species at all Magdalen Islands fishing ports; including at Grande-Entrée, which was the most significant port in Quebec in terms of lobster landings.

Graph 47: Value of landings at the 10 Magdalen Islands fishing ports, by species, 2008



Source: SLD, DFO, Quebec Region

Map 5 : The 10 fishing ports in the Magdalen Islands, 2008

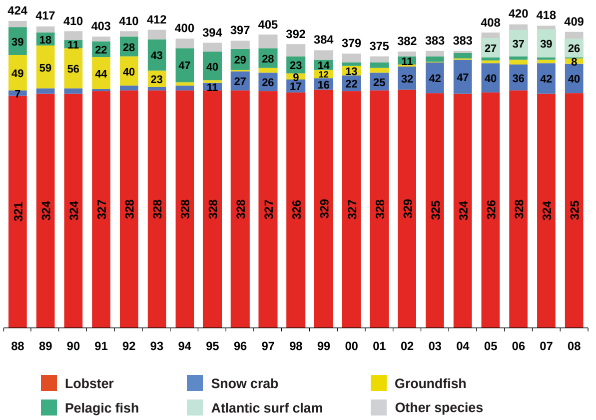
Source: SLD and FHAMIS, DFO, Quebec Region

3.2.3. Workforce and fishing fleet

In 2008, there were 409 active fishing businesses in the Magdalen Islands. Not surprisingly, businesses specializing in lobster were by far the most numerous (325), accounting for almost 80% of all fishing businesses in the archipelago. Among the 84 other businesses, 40 landed mainly snow crab, 25 captured Atlantic surf clam, and 8 fished groundfish.

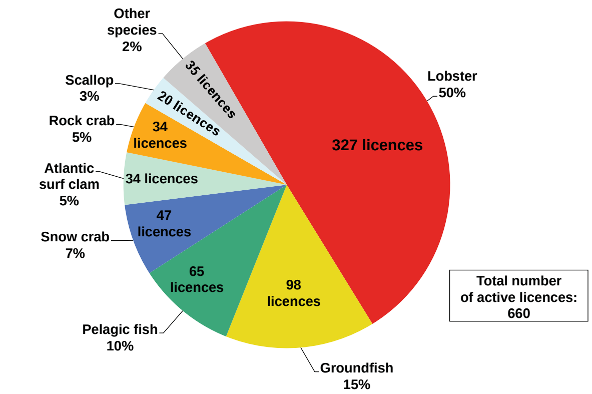
Graph 50 lists the number of boats in the Magdalen Islands by length. Of the 379 boats that were active in 2007, more than three quarters (76%) were between 35 and 45 feet in length, a much higher proportion than in Quebec as a whole (43.6%). Conversely, boats less than 35 feet long (18%), and more than 45 feet long (6%), were far less numerous than in Quebec as a whole.

Graph 48: Number of active fishing businesses, by principal landed species, Magdalen Islands, 1988-2008



Source: SLD, DFO, Quebec Region

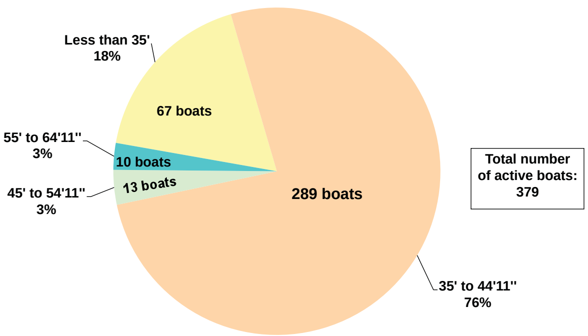
Graph 49: Number of active licences by species, Magdalen Islands, 2008



Source: SLD, DFO, Quebec Region

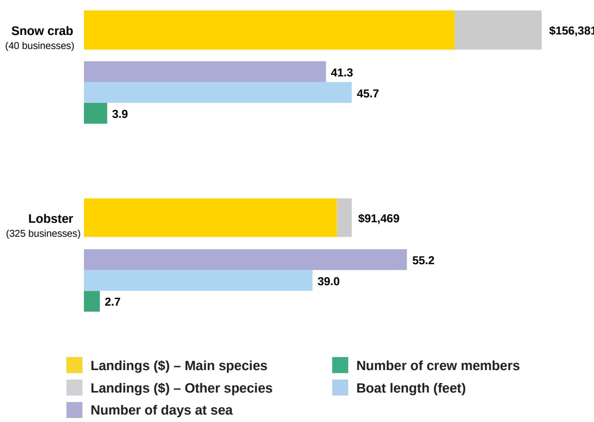
In 2008, almost 90% of the 409 Magdalen Islands fishing businesses principally landed lobster (325 businesses) or snow crab (40 businesses). Graph 51 illustrates several characteristics of these two fleets. The average fishing income for crabbers was noticeably higher than that of the lobster fishers ($156,381 vs. $91,469). Crabbers boats were also longer (45.7 feet vs. 39.0 feet), and supported on average more crew members[21] per business (3.9 vs. 2.7). Lobster fishers, however, spent, on average, more days at sea than crabbers (55 vs. 41).

Graph 50: Number of active fishing boats, by length, Magdalen Islands, 2008



Source: SLD, DFO, Quebec Region

Graph 51: Average characteristics of the main fishing fleets in the Magdalen Islands, by main species landed, 2008



Source: SLD, DFO, Quebec Region

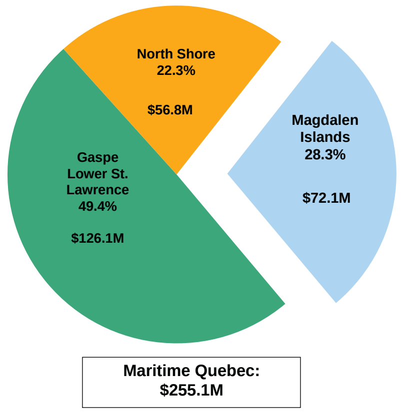
[21] The number of crew members includes the captain.

3.3. Processing of marine resources

3.3.1. Production value and number of jobs

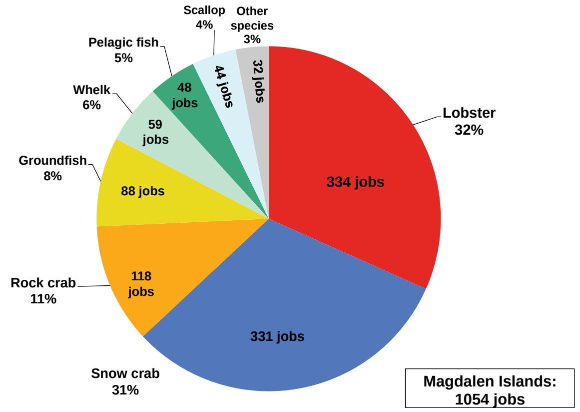
The marine resources processing industry[22] on the Magdalen Islands comprises 14 businesses, which generally buy fish and seafood directly from fishers, then export or sell these products on the local market. These businesses usually carry out initial processing (freezing, salting, cooking, packaging, etc.), before sale. In 2007, fish and seafood purchases for these businesses were $45.5M, while production was calculated at $72.1M, 28.3% of the total for maritime Quebec. The added value of production was thus $26.6M, equivalent to the difference between production and purchase values[23].

Graph 52: Production by marine resources processing businesses in maritime Quebec and the Magdalen Islands, 2007



Source: SLD, DFO, Quebec Region

Graph 53: Number of jobs in the marine resources processing industry in the Magdalen Islands, by species, 2007



Source: SLD, DFO, Quebec Region

In 2007, the production value of lobster in the Magdalen Islands reached $57.7M, and accounted for 80.0% of total production for the area. Snow crab was the next most important species, with a value of $8.7M (12.1%). Molluscs and rock crab were ranked third and fourth, with respective production values of $1.9M and $1.5M. The production value of the other species combined was $2.3M, representing only 3.2% of the total.

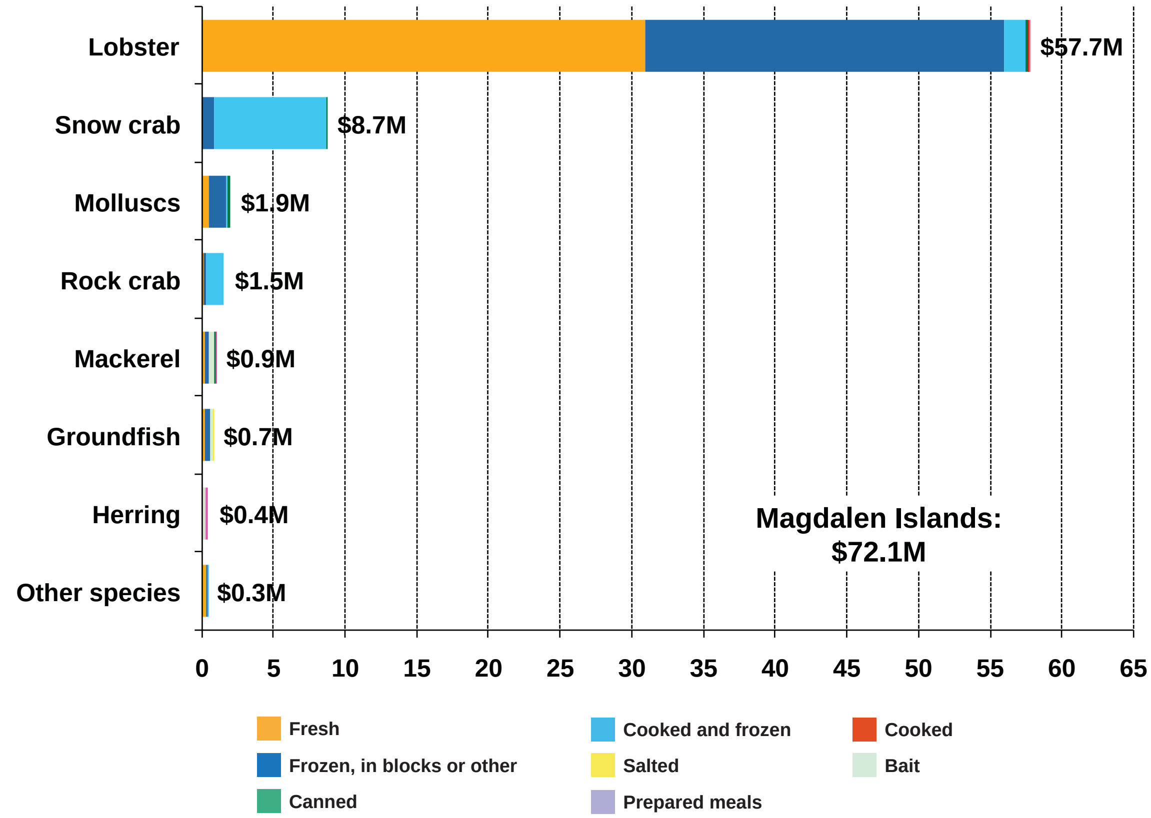
In 2007, there were approximately 1,054 workers in marine production businesses in the Magdalen Islands. Approximately 334 of these jobs were related to the processing and sale of lobster, 331 to snow crab, 118 to rock crab, 114 to molluscs, 88 to groundfish, and 48 to pelagic fish.

[22] Processing businesses herein considered are those that are both located in maritime regions, and purchase their marine products directly from fishers.

[23] To simplify analysis, we considered that inputs are limited to seafood purchases, the value of which is generally equivalent to landing value.

As illustrated in Graph 54, most of the marine products from the Magdalen Islands factories are sold frozen[24] (53.6%), or fresh (44.5%). Cooked dishes and canned goods, as well smoked, salted, or marinated products, represented less than 1% of the production.

Graph 54: Value and composition of production in the Magdalen Islands, 2007



Source: SLD, DFO, Quebec Region

24 Including cooked and frozen.

3.3.2. Businesses

Of the fourteen businesses in the Magdalen Islands marine resources processing industry, the seven principal businesses accounted for 91.7% of production and for 48% of jobs in the industry. The following table provides basic information on these businesses.

Table 6: Major marine resources processing businesses in the Magdalen Islands in 2007

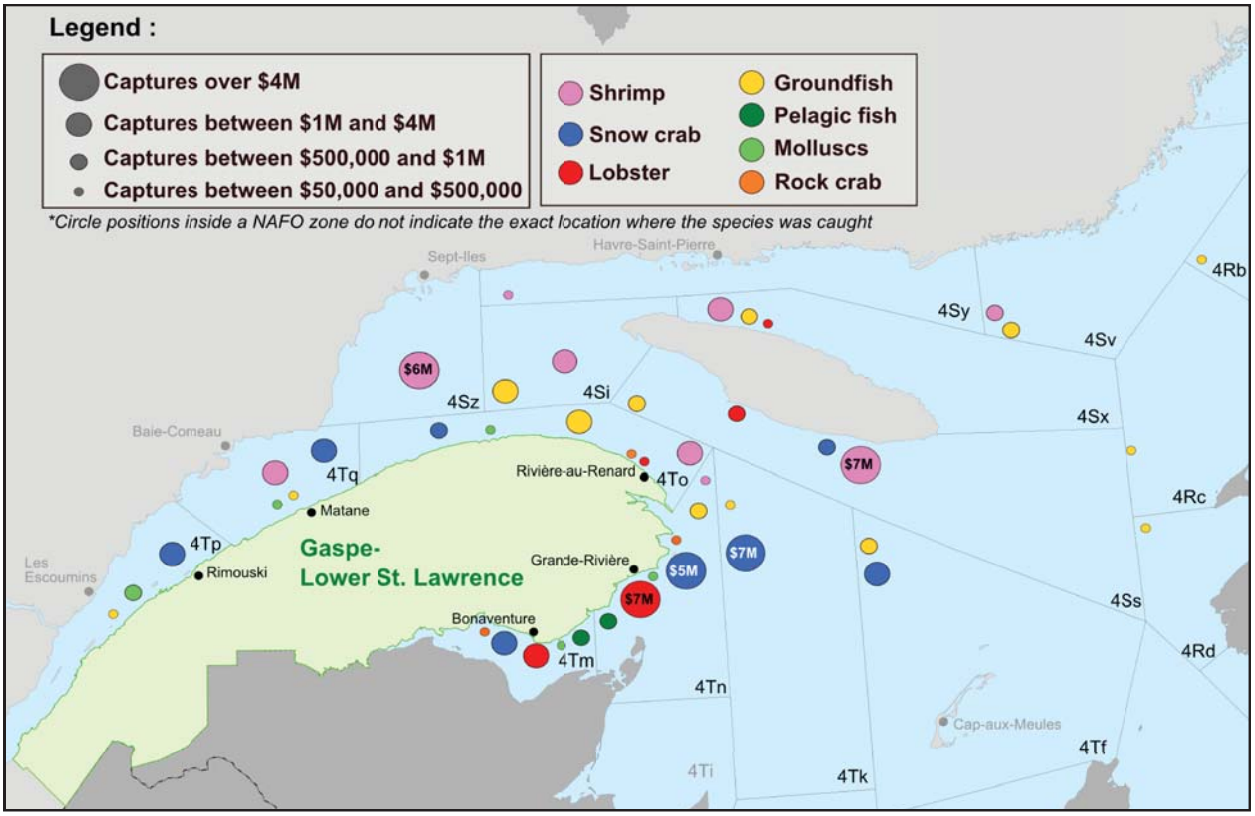
Name of buyer	Community	RCM	Sales figures	Number of jobs
Madelimer[25]	Grande-Entrée	Magdalen Islands	$15M+	300+
Les Pêcheries Gros-Cap[25]	Cap-aux-Meules	Magdalen Islands	$5M-$10M	100-200
Cape Dolphin Fisherman's Coop	Grosse-Île	Magdalen Islands	$5M-$10M	50-100
Pêcheries Norpro	Havre-Aubert	Magdalen Islands	$5M-$10M	100-200
Fruits de Mer Madeleine	L'Étang du Nord	Magdalen Islands	$1M-$5M	50-100
Homards des Îles Renaud	Havre-Aubert	Magdalen Islands	$1M-$5M	1-50
Poissons frais des Îles	Millerand	Magdalen Islands	$1M-$5M	1-50
The other 7 businesses			**$6.0M**	**548**
TOTAL			**$72.1M**	**1,054**

Source: SLD, DFO, Quebec Region

[25] In 2009, the Madelimer and Les Pêcheries Gros-Cap businesses merged to form the company Cap sur Mer.

Appendix– Maps of catches by Quebec fishers in NAFO[26] zones

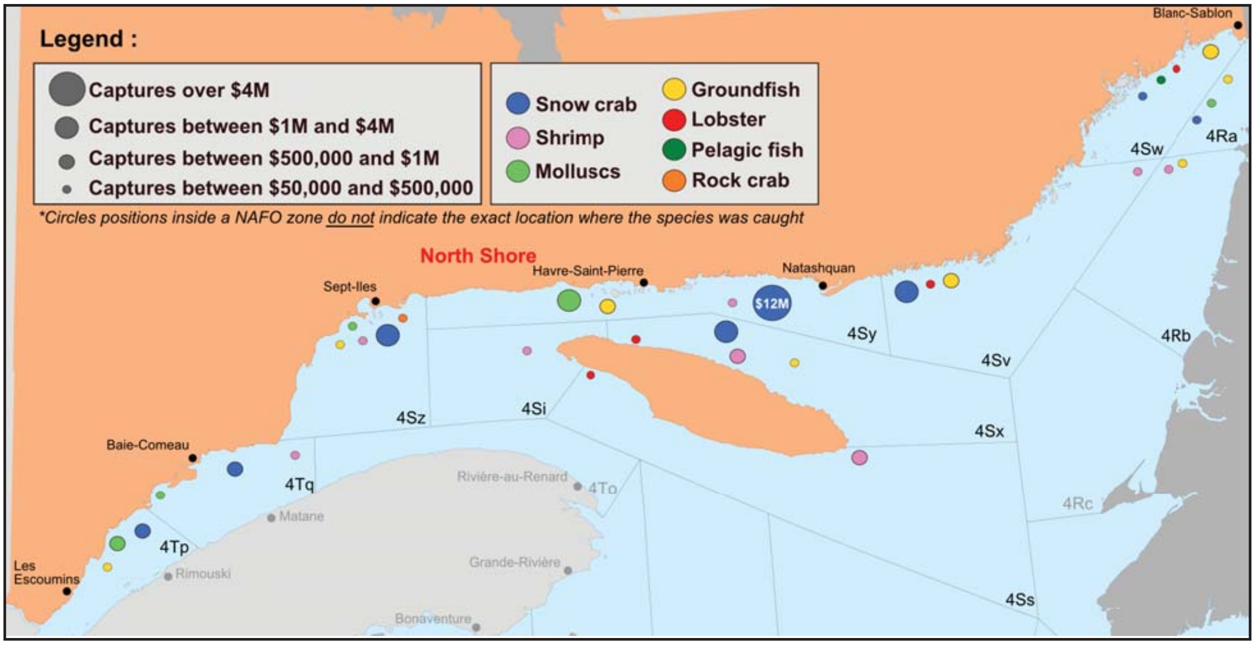
Map 6: Catches by Gaspe-Lower St-Lawrence area fishers, by NAFO zone



Source: SLD and FHAMIS, DFO, Quebec Region

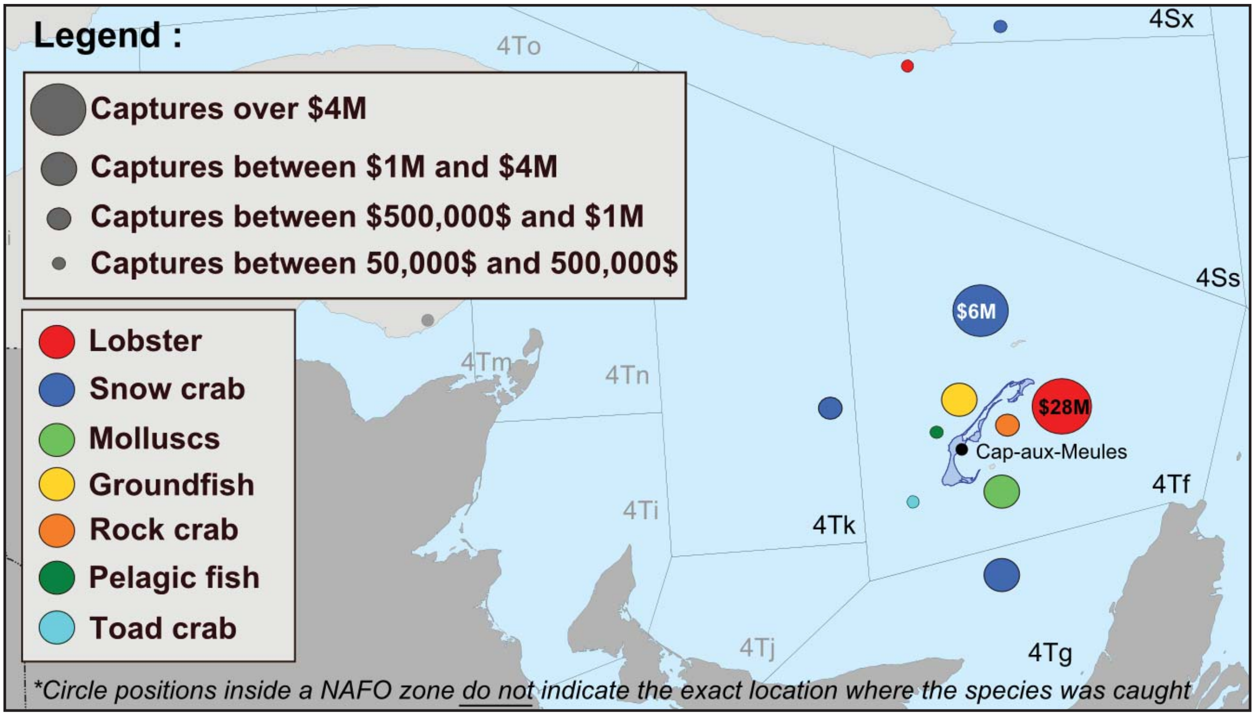
[26] NAFO is the acronym for Northwest Atlantic Fisheries Organization

Map 7: Catches by North Shore fishers, by NAFO zone



Source: SLD and FHAMIS, DFO, Quebec Region

Map 8: Catches by Magdalen Islands fishers, by NAFO zones



Source: SLD and FHAMIS, DFO, Quebec Region