Costs and Earnings Study, 2004

Non-Traditional Crab Fishers

Quebec Region

Fisheries and Oceans Canada Policy and Economics Regional Branch Quebec Region

October 2006



COSTS AND EARNINGS STUDY, 2004

NON-TRADITIONAL CRAB FISHERS QUEBEC REGION

OCTOBER 2006

FISHERIES AND OCEANS CANADA

QUEBEC REGION

Published by:
Policy and Economics Regional Branch
Fisheries and Oceans Canada
Quebec City, QC G1K 7Y7

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DFO/2006-1139

ISSN 1910-7420

October 2006

Cette publication est aussi disponible en français.

Suggested citation:

Fisheries and Oceans Canada. "Costs and Earnings Study 2004 – Non-Traditional Crab Fishers, Quebec Region". Policy and Economics Regional Branch, Quebec 2006.

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ACRONYMS

MT: metric ton

PERB: Policy and Economics Regional Branch DFO: Department of Fisheries and Oceans

MI: Magdalen Islands

ABBREVIATIONS

\$M: millions of dollars

kg: kilogram

n.a.: not available

-: zero

EQUIVALENCIES

1 kg: 2.2046 pounds 1 foot: 0.3048 metre

(In this document, vessel length is in feet to facilitate understanding and ensure uniformity with similar studies that were previously published.)

Acknowledgements

We would like to thank all the fishers who participated in this study. Without their collaboration, this type of study could never have been completed. As such, we believe it is important to mention that the majority of the non-traditional crab fishers selected as part of this study willingly agreed to participate. In addition, we would like to thank the representatives of the fishers' associations for their collaboration.

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Summary

1. Industry Overview

Snow Crab Landings in Quebec

In 2004, Quebec snow crab landings amounted to 15,062 metric tonnes (MT) worth \$94.4M (Table 1).

Gaspe Area accounted for 57% of this total, followed by the North Shore (27%) and the Magdalen Islands (16%). Area 12 crab fishers were responsible for nearly 40% of snow crab landings in Quebec, and formed the largest fleet. For their part, Non-Traditional crab fishers accounted for approximately 13% of total snow crab landings in Quebec (Table 1).

Non-Traditional Crab Fishers Landings

In 2004, Non-Traditional crab fishers landings were valued at more that \$16.5M. The fishers caught 1,900 tonnes of snow crab worth \$12M, which made up more than 73% of their landings (Table 2).

In terms of value, total Non-Traditional crab fisher landings are chiefly concentrated in the Magdalen Islands (43%) and Gaspe Area (42%). The North Shore represented over 16% of total Non-Traditional crab fisher landings (Table 2).

Boats 35 feet to 44 feet, 11 inches were responsible for more than half (59%) of Quebec Non-Traditional crab fisher landings (69% in the Magdalen Islands). The situation was different in Gaspe Area, where boats 45 feet and longer were responsible for the majority of the landings (54%) (Table 3).

Non-Traditional Crab Fishers – Fleet Characteristics

For the purposes of this study, 115 Quebec Non-Traditional crab fishers were divided into nine different fleets based on their crab fishing zones, species landed, types of boats and fishing gear utilized, and their home bases.

Table 4 presents snow crab landings by sector for each of the fleets, and Table 5 presents snow crab landings by vessel length.

Table 4 shows that two fleets land their catch exclusively in the Magdalen Islands; one fleet lands its catch in Gaspe Area and another on the North Shore. The 4 other fleets land their catch in two different areas (Gaspe Area/MI or Gaspe Area/North Shore) (Table 4).

Table 5 provides a great deal of technical and economic data on the Non-Traditional crab fishing fleets such as the number of fishers, the length of the fishing season, as well as information on their boats (average age and length, and purchase price). Certain information, such as the asset values and loan balances are only available fleets that have sufficiently high response rates for the Survey of Vessels operations (Table 6).

Total income, and more particularly snow crab income, peaked in 2004 for Non-Traditional crab fishers. Table 6 indicates that total income for this group of fishers declined by 50% in 2005, diminishing from \$16.7M to \$8.6M. In 2002 and 2003, total Non-Traditional crab fishers income was \$11.2M and \$11.9M respectively (Table 7).

On average, Non-Traditional crab fishers generated average revenues of \$154,400 in 2004, of which \$113,000 were derived from snow crab landings. The main secondary species were Greenland halibut (\$18,100), cod (\$4,700), lobster (\$4,600) and Atlantic halibut (\$3,900). Non-Traditional crab fishers land over 13 different species, but most fishers catch between two and four species (69%) (Table 8).

Tables 8 to 13 present landing statistics by species for the main Non-Traditional crab fishing fleets. The tables show significant differences in the average value of the landings and composition of secondary species landed. The number of secondary species landed varies significantly from one fleet to another (Table 9 to Table 14).

More than half of Non-Traditional crab fishers (57%) spent less than 39 days at sea during

the 2004 season. Nearly a quarter spent 60 days or more at sea, and the others (approximately 20%) spent between 40 and 59 days at sea (Table 15).

Most Non-Traditional crab fishing boats have three to five crew members, including the captain. Here again, there are significant differences between individual fleets. For example, the fixed gear >45' fleet fish with four or five crew members, while other Non-Traditional crab fishing fleets usually have two or three crew members aboard (Table 15).

2. Costs and Earnings Study, 2004 – Methodology

Survey Sample

In the framework of the national costs and earnings study on fishing businesses in Canada, Quebec fleet samples were determined using landing data compiled by the DFO, Quebec Region's Statistics and Licensing Division. This database contains information on fishing effort, registered vessels and landings in terms of quantity and value. It also provides details on species landed and ports of landing used.

Quebec fishing businesses with landings worth over \$10,000 in 2004 comprised about sixty (60) different fleets, taking into account the main species landed, the landing area and, in certain cases, vessel length and fishing gear used. The national costs and earnings study targeted forty (40) of these fleets¹.

Calculations were made to determine a representative sample size for each fleet taking into account gaps between earnings and vessel length.

Data Collection

For each fleet, a certain number of fishers, more than the minimum required to obtain a

representative sample, were selected at random to take part in the study.

Researchers were hired to contact the Quebec fishers and fill out the questionnaire with them in person.

Table 20 shows that 69 Area 12A crab fishers were selected (out of a total of 115 fishers). Of these, 42 agreed to take part in the study and fully completed the questionnaire.

This report presents the results of 4 fleets non-traditional crab fishing fleets. There were not enough respondents from the 5 other fleets for the results to be published.

Questionnaire

The questionnaire (annex 2) was developed by Fisheries and Oceans Canada and used for all fleets in the Atlantic. In Quebec, interviews took place between January and September 2005.

The fishers who took part in the 2004 costs and earnings study did so on a voluntary basis. They were invited to supply information on the following subjects:

- Number of registered vessels
- Vessel characteristics
- Vessel acquisition cost
- Cost of the major modifications, additions or improvements used to calculate depreciation
- Information on the fishing effort and fishing income
- Operating expenses by category and vessel
- Other income (quota rental, alternative vessel use, government transfers)
- Long-term debt tied to fishing activities

Data Entry and Processing

The data were entered, checked, processed and analyzed during 2005 and 2006 by the Quebec Region's Policy and Economics Branch in collaboration with the National Office's Economic Analyses Directorate and the counterparts of the other DFO regions (Gulf, Newfoundland, Maritimes and Pacific).

¹ See the complete list of fleets in Annex 3.

Definitions

Following are the definitions of the technical terms used in this report:

- Snow crab fleets: groups of fishers with Gulf shrimp temporary allocations as their main source of fishing revenue. The fishing areas, secondary species landed, vessel length and type of fishing gear were the main factors used, among others, to differentiate the fleets. The fishers had to land for a minimum of \$10,000 to be selected for the study.
- <u>Days at sea</u>: number of days the fishing business spends at sea during the study period.
- <u>Fishing days</u>: days during which fishing gear was used to catch fish for sale during the study period.
- Number of trips: number of fishing trips made by the business during the study period.
- <u>Crew members</u>: number of employees, including the captain (owner or not) having worked on the vessel(s) during the study period.
- Operating expenses: expenses directly tied to fishing activities. A detailed list of expenses is found in question 7 of the questionnaire.
- <u>Depreciation</u>: reduction in the value of an asset by spreading its cost over a certain number of years.
- Gross profit margin: ratio that indicates how efficiently the business manages to sell its products at a profit. It is calculated in showing gross profit in fishing income percentage.
- Operating profit margin: ratio that helps measure profitability. It is calculated without taking into account interest expenses and taxes.
- Pretax profit margin: ratio that measures how much a business earns compared to its sales. It is calculated in showing net profit before tax, in percentage of fishing revenues.

3. Study Results

Operating Expenses

As for all fishing income, operating costs vary greatly from one fleet to another. In 2004, operating costs ranged from \$76,500 (Fixed gear <45' — Groundfish/Pelagic Fish) to \$237,400 (Mobile gear) (Table 16).

Salaries made up one of the major expenses, ranging from \$26,500 to \$72,300 and represented 22 to 38% of total expenses (Table 16).

Even exceeding the cost of salaries for some fleets, the cost of renting snow crab quotas represented a major expense for several Non-Traditional crab fishers. These quotas are often purchased from fishers who find it more profitable to rent part or all of their crab allocations, rather than catching it themselves. Average quota rental costs range from \$17,660 to \$119,820 depending on the fleet (22% to 50% of operating costs) (Table 16).

Finally, the order of importance of the other expenses varies significantly depending on the fleet. For Fixed Gear >45' fishers, salaries and quota rentals are followed by fuel, oil and grease costs, (\$9,700 - 5%) then by fishing gear costs (\$7,200 - 4%). For fixed-gear <45' fishers — Groundfish and pelagic fish - boat maintenance and repair costs (\$7,587 - 10%) come in third place, followed by fishing gear costs (\$5,350 - 7%) (Table 16).

Financial Performance

Depending on the fleet, Non-Traditional crab fisher's average gross profit ranged from \$45,300 to \$134,160 in 2004. The gross profit margin ranged from 31% to 37% (Table 17).

After taking depreciation into account, Non-Traditional crab fishing fleets had operating profits ranging from \$36,790 to \$107,450 and an operating profit margin ranging from 26% to 30% (Table 17).

Interest costs ranged from \$2,350 to \$11,560 and brought the pre-tax net profit below the \$100,000 mark for Magdalen Island Non-Traditional crab fishers using mobile gear (\$95,890). For Non-Traditional crab fishers using fixed gear, boats under 45' and having Groundfish/Pelagic Fish as secondary species, the pre-tax net profit was lower at \$32,490 (Table 17).

Cash Flow

Table 18 presents cash flow, which represents all the income derived directly or indirectly from fishing activities minus the total operating costs, interest costs and principal payments. Cash flow does not take depreciation into account.

In 2004, in addition to gross fishing income, non-Traditional crab fishers received employment insurance benefits ranging from \$11,280 to \$13,510. Certain fishers also received income from fishing quota rentals or alternative use of the boat. These sources of income are included in the "other income" section. Most Non-Traditional crab fishers received GST/QST refunds but these amounts were deducted from the declared expenses (Table 18).

Long-term Dept

Table 19 presents a summary of the long-term debt for each of the Non-Traditional fishing fleets. The average long-term debt at the beginning of 2004 ranged from \$26,460 to \$264,140 depending on the fleet. Average loan principal payments ranged from \$4,792 and \$15,190 and new debts incurred with financial institutions or other organizations in 2004 amounted to \$122,400 (Table 19).

4. Data Quality

This part of the report aims to illustrate the strengths and limitations of the data and how it can be efficiently used and analyzed. This can be especially important when making comparisons with data from different sources or drawing conclusions about costs or earnings evolution within a given period.

Data Validation

Several factors can affect the reliability of the study's data. For example, the respondents may have incorrectly interpreted the questions or mistakes may have been made during data entry.

In the data collection phase, however, efforts were made to keep this type of error to a minimum. This meant conducting a verification of the collected data and their coherence and following up with the respondents.

In fact, the data were validated by comparing certain gaps between the fleet average and by "crosschecking" with the researchers in order to detect and correct any inconsistencies.

Depreciation

We used a known method to calculate depreciation. Data supplied in questions 3 and 4 on vessel and vehicle acquisition costs as well as the costs of alterations, additions or major improvements were used for this purpose. Moreover, a section of the questionnaire deals specifically with depreciation amounts claimed on the fishers' 2004 income tax return (Question 11). However, most of the respondents from the Quebec Region did not complete this question.

Comparison with Other Data Sources

There may be variances between data drawn from this study and data from other sources. In that event, a case-by-case assessment must be made to have a good understanding of the differences.

5. References

Canada Revenue Agency, Fishing Income 2004, http://www.cra.gc.ca, November 2005.

Statistics Canada, Financial Performance Indicators for Canadian Business, 2003, Catalogue no. 61-224-XCB, Ottawa.

Statistics Canada, 1993, Survey Sampling: A Non-Mathematical Guide, Catalogue No. 12-602-XBF, Ottawa.

Statistical Tables

1. Population Data

Table 1: Snow crab landings by fleet and sector, Quebec, 2004

	Landings (kg) by sector							
Fleets	North Shore	Gaspe Area	Magdalen Islands	Total	Number of Fishers			
Snow Crab, Area 12	-	4,845,367	848,576	5,693,943	41			
Snow Crab, Area 12A	-	178,550	0	178,550	9			
Snow Crab, Area 12B	-	183,171	0	183,171	6			
Snow Crab, Area 12C	147,046	-	34,649	181,695	5			
Snow Crab, Area 12E	-	-	38,164	38,164	1			
Snow Crab, Area F	-	-	376,284	376,284	11			
Snow Crab, Area 14	387,060	-	-	387,060	19			
Snow Crab, Area 15	264,346	-	-	264,346	8			
Snow Crab, Area 16	1,956,419	-	-	1,956,419	36			
Snow Crab, Area 17	437,673	967,172	-	1,404,845	19			
Non-Traditional Crab Fishers	339,394	724,526	866,613	1,930,532	115			
Native Fishers	425,019	1,554,372	-	1,979,391	10			
Others	42,938	202,221	242,798	487,958	59			
Quebec Total	3,999,895	8,655,379	2,407,084	15,062,358	339			

Source : Fisheries and Oceans Canada, Statistics and Licensing Division, Quebec Region

Note: Non-traditional crab fishers are fishers benefiting from temporary snow crab allocations and for whom snow crab revenue is the main source of fish-based income. The "Others" category represents fishers benefiting from temporary allocations but for whom snow crab is temporary allocations but for whom snow crab is not the main source of fish-based income

Table 2: Total landings by sector, Non-Traditional Crab Fishers, 2004

	Quantity (kg)			Value (\$)			
Sectors	Snow Crab	All Species	Snow Crab %	Snow Crab	All Species	Snow Crab %	
North Shore	339,394	857,573	40%	1,804,029	2,727,294	66%	
Gaspe Area	724,526	1,954,585	37%	4,664,852	6,847,474	68%	
Magdalen Islands	866,613	2,205,052	39%	5,731,662	7,105,001	81%	
Quebec Total	1,930,532	5,017,210	38%	12,200,543	16,679,769	73%	

Table 3: Non-Traditional Crab Fishers - Snow crab landings by vessel length and sector, Quebec, 2004

	Landings (kg) by sector						
Vessel length (feet)	North Shore	Gaspe Area	Magdalen Islands	Quebec	(%)		
1' - 34'11"	24,441	149,156	44,813	218,410	11%		
35' - 39'11"	148,967	25,408	492,696	667,071	35%		
40' - 44'11"	120,353	190,433	170,276	481,061	25%		
45' - 49'11"	45,632	115,248	142,075	302,955	16%		
50' and over	-	244,281	16,753	261,034	14%		
All Vessels	339,394	724,526	866,613	1,930,532	100%		

Source: Fisheries and Oceans Canada, Statistics and Licensing Division, Quebec Region

Table 4: Non-Traditional Crab Fishers - Snow crab landings by fleet, Quebec, 2004

	Landings (kg) by sector						
Fleets	North Shore	Gaspe Area	Magdalen Islands	Total			
Area 12 and F, fixed gear <45', Rock Crab, MI	-	-	166,685	166,685			
Area 12 and F, fixed gear <45', Groundfish and pelagic fish	-	219,919	185,579	405,498			
Area 12 and F, mobile gear, MI	-	-	293,960	293,960			
Area 12 and F, Fixed Gear >45', Gaspe Area	-	335,271	-	335,271			
Area 12 and F, lobster	-	21,232	60,909	82,141			
Area 12 and F, scallops	-	42,581	42,737	85,319			
Area 12 and F, others	-	49,816	116,742	166,558			
Area 12c, 15 and 16a	312,006	-	-	312,006			
Area 17	27,388	55,706	-	83,094			
All Fleets	339,394	724,526	866,613	1,930,532			

Source: Fisheries and Oceans Canada, Statistics and Licensing Division, Quebec Region

Table 5: Non-Traditional Crab Fishers - Snow crab landings by fleet and vessel length, Quebec, 2004

	Landings (kg) by vessel length (feet)							
Fleet	1'-34'11"	35'-39'11"	40'-44'11"	45'-49'11"	50' and over	Total		
Area 12 and F, fixed gear <45', Rock Crab, MI	-	152,904	13,781	-	-	166,685		
Area 12 and F, fixed gear <45', Groundfish and pelagic fish	148,730	79,497	177,271	-	-	405,498		
Area 12 and F, mobile gear, MI	-	180,190	47,676	49,340	16,753	293,960		
Area 12 and F, Fixed Gear >45', Gaspe Area	-	-	-	140,807	194,465	335,271		
Area 12 and F, lobster	26,044	56,097	-	-	-	82,141		
Area 12 and F, scallops	-	-	85,319	-	-	85,319		
Area 12 and F, others	-	24,008	-	92,734	49,816	166,558		
Area 12c, 15 and 16a	19,670	139,495	110,729	42,111	-	312,006		
Area 17	23,966	34,879	14,384	9,864	-	83,094		
All Fleets	218,410	667,071	449,160	334,856	261,034	1,930,532		

Table 6: Technical and economic characteristics, Non-Traditional Crab Fleets, 2004

				Fleets					
			Areas 12	and F					
Description ¹	Fixed gear <45', Rock Crab, MI	Fixed gear <45', Groundfish and Pelagic Fish	Mobile gear, MI	Fixed Gear >45', Gaspe Area	Lobster	Scallop	Others	Areas 12c, 15 and 16a	Area 17
Number of fishers	7	24	8	15	6	3	3	35	14
Average vessel age	13	14	16	23	14	25	32	19	17
Average vessel length (feet)	39	38	47	55	37	45	51	41	38
Average days at sea	53	39	41	67	63	39	50	20	46
Average days fished	45	34	31	43	61	33	27	14	41
Average fishing trips	45	31	27	22	61	25	25	13	35
Crew size (including captain)	3.0	3.0	4.0	4.6	n.a.	n.a.	n.a.	n.a.	n.a.
Initial vessel acquisition cost (\$)	112,500	94,125	245,000	320,111	n.a.	n.a.	n.a.	n.a.	n.a.
Land asset acquisition cost (\$)	33,539	18,862	59,125	33,444	n.a.	n.a.	n.a.	n.a.	n.a.
Additions or major modifications (\$) Cumulative	13,010	32,489	141,750	113,500	n.a.	n.a.	n.a.	n.a.	n.a.
depreciation (\$)	26,982	32,972	93,101	98,066	n.a.	n.a.	n.a.	n.a.	n.a.
Total asset value (\$)	132,067	112,504	352,774	368,989	n.a.	n.a.	n.a.	n.a.	n.a.
Loan balance (\$)	41,329	52,721	267,600	51,193	n.a.	n.a.	n.a.	n.a.	n.a.
Debt/Asset Ratio	0.31	0.47	0.76	0.14	n.a.	n.a.	n.a.	n.a.	n.a.

^{1:} Data on the size of the crews, asset values and loan balances were obtained from the 2004 C&R sample

Source: Fisheries and Oceans Canada, Statistics and Licensing Division, Quebec Region. Survey of Vessel Operations, 2004

Table 7: Evolution of landed value, Non-Traditional Crab Fishers, 2002-2005

Quantity (kg)			Value (\$)			
Year	Snow Crab	All Species	Snow Crab %	Snow Crab	All Species	Snow Crab %
2002	1,671,312	4,447,745	38%	8,429,713	11,189,357	75%
2003	1,251,705	4,535,269	28%	8,066,420	11,854,482	68%
2004	1,930,532	5,017,210	38%	12,200,543	16,679,769	73%
2005	1,559,532	4,228,400	37%	5,422,523	8,604,664	63%

Table 8: Selected landing statistics, Non-Traditional Crab Fishers, 2004

Average Landings by Species	Quantity (kg)	Value (\$)	\$/kg
Snow Crab	17,875	112,968	6.32
Greenland Halibut	8,757	18,102	2.07
Cod	3,428	4,723	1.38
Lobster	354	4,605	13.01
Atlantic Halibut	684	3,902	5.71
Rock Crab	3,712	2,990	0.81
Whelks	2,552	2,304	0.90
Herring	4,051	946	0.23
Scallops	409	701	1.72
Yellowtail	872	632	0.72
Winter Flounder	723	601	0.83
American Plaice	684	517	0.76
Mackerel	1,209	506	0.42
Other species	1,146	945	0.82
All species	46,456	154,442	3.32

Number of species caught in 2004	Fleet breakdown	% Income from Snow crab	Other species
1	9%	100%	-
2	20%	86%	Lobster, Rock Crab, Greenland Halibut, Cod
3	22%	79%	Greenland Halibut, Rock Crab, Whelks
4	27%	65%	Greenland Halibut, Cod, Atlantic Halibut
5 and over	23%	61%	Greenland Halibut, Atlantic Halibut, Cod, Sole

Table 9: Selected landing statistics, Areas 12 and F, Non-Traditional Crab Fishers, Fixed Gear <45', Rock Crab, MI, 2004

Quantity (kg)	Value (\$)	\$/kg
23,812	157,491	6.61
45,029	34,929	0.78
11,648	10,272	0.88
11,653	2,656	0.23
3,369	3,085	0.92
95,511	208,432	2.18
	45,029 11,648 11,653 3,369	23,812 157,491 45,029 34,929 11,648 10,272 11,653 2,656 3,369 3,085

Number of species caught in 2004	Fleet breakdown	% Income from Snow crab	Other species
2	29%	79%	Rock Crab
3	43%	82%	Rock Crab, Herring, Cod
4	14%	46%	Whelks, Rock Crab, Queen Crab Rock Crab, Whelk, Scallop,
5	14%	79%	Queen Crab

Source: Fisheries and Oceans Canada, Statistics and Licensing Division, Quebec Region

Table 10 : Selected landing statistics, Areas 12 and F, Non-Traditional Crab Fishers, Fixed Gear <45', Groundfish and Pelagic Fish, 2004

Average landings, by species	Quantity (kg)	Value (\$)	\$/kg
Snow Crab	16,896	111,741	6.61
Greenland Halibut	6,292	12,750	2.03
Whelks	3,746	3,303	0.88
Rock Crab	3,010	2,715	0.90
Cod	1,957	2,504	1.28
Mackerel	4,442	1,744	0.39
Herring	7,604	1,664	0.22
Other Species	2,349	3,526	1.50
All Species	46,296	139,947	3.02

Number of species caught in 2004	Fleet breakdown	% Income from Snow crab	Other species
1	8%	100%	-
2	8%	75%	Greenland Halibut, Cod
3	25%	79%	Greenland Halibut, Whelk, Herring, Mackerel, Cod
4	33%	84%	Greenland Halibut, Herring, Mackerel
5 and over	21%	76%	Herring, Cod, Mackerel, Atlantic Halibut

Table 11: Selected landing statistics, Areas 12 and F, Non-Traditional Crab Fishers, Mobile Gear, MI

Average landings, by species	Quantity (kg)	Value (\$)	\$/kg
Snow Crab	36,745	24,027	6.61
Yellowtail	11,775	8,535	0.72
Winter flounder	7,689	6,271	0.82
American Plaice	8,123	6,072	0.75
Other Species	74,557	15,816	0.21
All species	138,889	279,721	2.01
Number of species caught in 2004 ¹	Fleet breakdown	% Income from Snow crab	Other species

Number of species caught in 2004¹Fleet breakdown% Income from Snow crabOther species2 or less38%97%ScallopYellowtail, Winter flounder,3 and over63%82%American Plaice

Source: Fisheries and Oceans Canada, Statistics and Licensing Division, Quebec Region

Table 12: Selected landing statistics, Areas 12 and F, Non-Traditional Crab Fishers, Fixed Gear >45', Gaspe Area

Average landings, by species	Quantity (kg)	Value (\$)	\$/kg
Snow crab	22,351	144,634	6.47
Greenland halibut	27,531	57,165	2.08
Atlantic halibut	3,901	22,308	5.72
Cod	13,164	19,294	1.47
Other species	642	439	0.68
All species	67,589	243,841	3.61

Number of species caught in 2004 ¹	Fleet breakdown	% Income from Snow crab	Other species
3 or less	13%	83%	Greenland halibut, cod
4	47%	68%	Greenland halibut, Atlantic halibut, cod
5 and over	40%	43%	Greenland halibut, Atlantic halibut, Cod, American plaice

Table 13: Selected landing statistics, Areas 12c, 15 and 16a, Non-Traditional Crab Fishers

Average landings, by species	Quantity (kg)	Value (\$)	\$/kg
Snow Crab	8,914	40,626	5.23
Greenland Halibut	7,946	16,335	2.06
Cod	1,815	2,298	1.27
Other Species	392	1,203	3.07
All Species	19,068	66,461	3.49

Number of species caught in 2004 ¹¹	Fleet breakdown	% Income from Snow crab	Other species
1	14%	100%	-
2	23%	94%	Cod, Greenland halibut.
3	26%	70%	Greenland halibut, cod, lobster, scallop.
4	29%	57%	Greenland halibut, cod, Atlantic halibut.
5	9%	56%	Greenland halibut, cod, Atlantic halibut, lobster.

Source: Fisheries and Oceans Canada, Statistics and Licensing Division, Quebec Region

Table 14: Selected landing statistics, Area 17, Non-Traditional Crab Fishers

Average landings, by species	Quantity (kg)	Value (\$)	\$/kg
Snow Crab	5,935	33,090	5.58
Greenland Halibut	7,392	15,675	2.12
Whelks	7,442	6,973	0.94
Other species	2,832	3,026	1.07
All Species	23,601	58,764	2.49

Number of species caught in 2004 ¹	Fleet breakdown	% Income from Snow crab	Other species
2	14%	66%	Rock Crab, Atlantic halibut
3	21%	57%	Greenland halibut, whelks, American plaice
4	36%	61%	Greenland halibut, whelks
_5	29%	49%	Greenland halibut, whelks, surf cam, sea urchins

Table 15: Fishing effort profile, Non-Traditional Crab Fishers, 2004

				Fleets				
		Areas	12 and F					
Total days at sea	Fixed Gear <45', Rock Crab, MI	Fixed Gear <45', Groundfish and Pelagic Fish	Mobile Gear, MI	Fixed Gear >45', Gaspe Area	Others	Areas 12c, 15, 16a	Area 17	Average
39 or less	29%	63%	63%	13%	25%	89%	50%	57%
40 - 49	29%	17%	0%	13%	8%	9%	14%	12%
50 - 59	0%	8%	25%	0%	33%	0%	7%	8%
60 and over	43%	13%	13%	73%	33%	3%	29%	23%
Total days fished								
39 or less	43%	71%	75%	47%	42%	97%	50%	69%
40 - 49	29%	17%	13%	27%	17%	3%	21%	15%
50 - 59	0%	4%	0%	13%	17%	0%	7%	5%
60 and over	29%	8%	13%	13%	25%	0%	21%	11%
Total fishing trips								
39 or less	43%	75%	63%	87%	50%	97%	57%	76%
40 - 49	29%	17%	13%	13%	8%	3%	21%	12%
50 - 59	0%	0%	13%	0%	17%	0%	7%	3%
60 and over	29%	8%	13%	0%	25%	0%	14%	9%
Average crew size ¹ (including the captain)								
2	0%	27%	0%	0%	n.a.	n.a.	n.a.	n.a.
3	100%	45%	25%	0%	n.a.	n.a.	n.a.	n.a.
4	0%	27%	50%	44%	n.a.	n.a.	n.a.	n.a.
5	0%	0%	25%	56%	n.a.	n.a.	n.a.	n.a.

^{1:} Data on the size of the crews were obtained from the 2004 C&R sample

2. Sample Data

Table 16: Operating and maintenance expenses, Non-Traditional Crab Fishers, 2004

		(\$)		
	Non-Tradition	al Crab Fishing Fleet	s - Areas 12	2 and F
Variable expenses	Fixed Gear <45', Rock Crab, MI	Fixed Gear <45', Groundfish and Pelagic Fish	Mobiles Gear, MI	Fixed Gear >45', Gaspe Area
Labour ¹	32,921	26,543	52,117	72,260
Fuel, oil and grease	6,848	3,909	13,619	9,717
Food	1,054	1,237	2,905	4,258
Bait	5,470	2,445	3,586	5,312
Ice and salt	422	269	375	730
Fishing gear	6,028	5,349	5,819	7,173
Dockside monitoring charges	873	1,041	2,720	2,877
Vessel repair and maintenance	3,344	7,589	8,753	6,621
At-sea-observer charges	462	800	1,113	2,058
Total variable expenses	57,423	49,183	91,006	111,006
Fixed expenses		(\$)		
Ship safety inspection fees (TC)	0	47	544	72
On-shore facilities maintenance costs	200	141	1,061	1,267
Federal port charges	400	309	1,827	435
Fishing license fees	735	1,424	2,265	5,106
Storage of boat and gear	238	547	750	1,125
Union or association dues	256	209	3,339	467
Marketing Board	0	128	1,525	1,504
Vessel insurance	2,041	1,913	5,919	6,436
Professional and administrative fees ²	529	1,118	1,541	3,537
Lease of quotas	46,712	17,664	119,819	54,650
Leasing and rental of vessel, nets and/or gear	2,000	532	0	0
Vehicle expenses for fishing	2,681	2,647	3,521	4,566
Municipal charges	1,048	106	217	152
Others ³	5,369	497	4,067	908
Total fixed expenses	62,209	27,284	146,394	80,224
Total operating and maintenance expenses	119,632	76,467	237,400	191,230

^{1:} Labour costs do not include the captain-owner's compensation

Source: Fisheries and Oceans Canada, Survey of Vessel Operations, 2004

^{2:} Administrative and legal fees include accounting costs

^{3:} Expenses listed under "other" may include expenses from other categories

Table 17: Financial performance, Non-Traditional Crab Fishers, 2004

		(\$)		
	Non-Traditio	nal Crab Fishing Fleet	ts - Areas 12 a	and F
	Fixed Gear <45', Rock Crab, MI	Fixed Gear <45', Groundfish and Pelagic Fish	Mobiles Gear, MI	Fixed Gear >45', Gaspe Area
Total fishing income	186,616	121,771	371,560	278,641
less: total operating expenses	119,632	76,467	237,400	191,230
Gross profit	66,984	45,303	134,159	87,411
less: depreciation	13,822	8,513	26,710	16,012
Operating profit	53,163	36,790	107,449	71,399
less: interest expenses	2,351	4,301	11,558	2,743
Net income before taxes	50,812	32,489	95,891	68,656
Gross profit margin ¹	36%	37%	36%	31%
Operating profit margin ¹	28%	30%	29%	26%
Pretax Profit Margin ¹	27%	27%	26%	25%

^{1: =} Profit / total fishing income

Source: Fisheries and Oceans Canada, Survey of Vessel Operations, 2004

Table 18: Cash flow, Non-Traditional Crab Fishers, 2004

		(\$)		
	Non-Traditio	nal Crab Fishing Fleet	s - Areas 12 a	and F
	Fixed Gear <45', Rock Crab, MI	Fixed Gear <45', Groundfish and Pelagic Fish	Mobiles Gear, MI	Fixed Gear >45', Gaspe Area
Total fishing income	186,616	121,771	371,560	278 641
Employment insurance income	13,508	11,376	11,276	11,356
Other incomes	851	868	3,044	278
less: total operating expenses	119,632	76,467	237,400	191,230
less: Interest expenses	2,351	4,301	11,558	2,743
less: principal payments	4,792	13,423	15,192	14,684
Cash flow	74,200	39,824	121,728	81 618

Source: Fisheries and Oceans Canada, Survey of Vessel Operations, 2004

Table 19: Long-Term debt, Non-Traditional Crab Fishers, 2004

		(\$)		
	Non-Traditio	nal Crab Fishing Flee	ets - Areas 12	and F
	Fixed Gear <45', Rock Crab, MI	Fixed Gear <45', Groundfish and Pelagic Fish	Mobiles Gear, MI	Fixed Gear >45', Gaspe Area
Long-Term debt at the beginning of 2004	46,121	26,462	264,141	59,210
New Long-Term debt incurred in 2004	red in 2004 0 39,682 18,6	18,652	6,667	
Principal payments	4,792	13,423	15,192	14,684
Long-Term debt at the end of 2004	41,329	52,721	267,600	51,193

Source: Fisheries and Oceans Canada, Survey of Vessel Operations, 2004

Table 20: Sampling results, Non-Traditional Crab Fishers, 2004

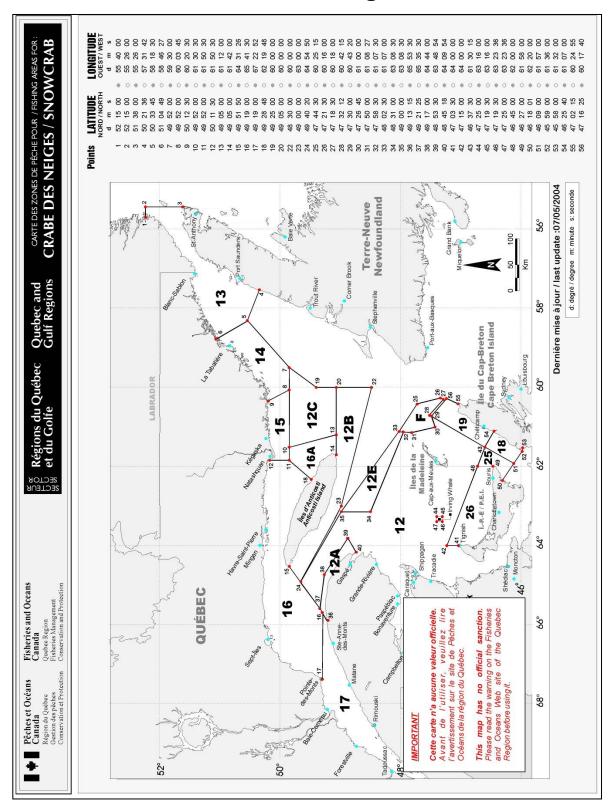
Fleet	Population	Preliminary sample	% of the fleet ¹	% in agreement ²	Final sample
Areas 12 and F, Fixed Gear <45', Rock Crab, MI	7	6	86%	83%	5
Areas 12 and F, Fixed Gear <45', Groundfish and Pelagic Fish	24	16	67%	69%	11
Areas 12 and F, Mobile Gear, MI	8	5	63%	80%	4
Areas 12 and F, Fixed Gear >45', Gaspe Area	15	12	80%	75%	9
Areas 12 and F, Lobster	6	2	33%	100%	2
Areas 12 and F, Scallops	3	3	100%	67%	2
Areas 12 and F, Others	3	0	0%	0%	0
Areas 12c, 15, 16A	35	17	49%	53%	9
Area 17	14	8	57%	0%	0
Total	115	69	60%	61%	42

^{1:} Percentage of fishers covered in the preliminary sample

Source: Fisheries and Oceans Canada, Survey of Vessel Operations, 2004

^{2:} Percentage of fishers agreeing to participate in the study

Annex 1: Fishing areas for Snow crab



Annex 2: Questionnaire

2004 SURVEY OF VESSEL OPERATIONS

Affix label here	FINAL INTERVIEW STATUS Complete Partial Refusal Unable to trace Unable to contact Other (specify)
	Respondent Identification
Name: _	
FIN:	
Address:	;
	# Street
	Box City/Town
	Province Postal Code
Tel: (L_	
(
(
Conf	fidential When Completed
Interviewers N	Name:
Date Complet	ed:
Information and Privacy Acts, all information	authority of the Fisheries Act, Section 61. As required by the Access to ation collected is CONFIDENTIAL and may only be used in a manner that a of individuals, whether through single requests for data or the combination of quests.

Data Collection Bank Number: DFO PPU 075

PERSONAL INTERVIEW

1)	For this survey, please report all information based on y	our fishing activity in 2004.
2)	How many registered vessels did you own in 2004?	

3a) Please provide the following information for any registered fishing vessels you owned in 2004 (rounded to the nearest dollar).

Characteristic	Vessel 1: CFV #	Vessel 2: CFV #	Vessel 3: CFV #
Year vessel was built			
Year vessel was acquired			
Vessel length (in feet/inches)	ft. in.	ft. in.	_ ft. in.
Hull type	O Wood	O Wood	O Wood
	O Fibreglass	O Fibreglass	O Fibreglass
	O Steel	O Steel	O Steel
	O Aluminum	O Aluminum	O Aluminum
	O Fibreglass/wood	O Fibreglass/wood	O Fibreglass/wood
	O Other (specify)	O Other (specify)	O Other (specify)
Were you the skipper on this	O Yes O No	O Yes O No	O Yes O No
vessel?	O Sometimes	O Sometimes	O Sometimes
Vessel Acquisition Costs			
Total cost of this vessel	\$ _	\$ _	\$ _
Electronic equipment	\$ _	\$ _	\$ _
Engine	\$ _	\$ _	\$ _
Nets/gear	\$ _	\$ _	\$ _
Deck equipment	\$ _	\$ _	\$ _
Hull	\$ _	\$ _	\$ _
Other costs (specify)			
	\$ _	\$ _	\$ _
	\$	\$ _	\$ _

3b) Please provide the following information for any additional fishing-related costs.

Item	Year	Acquisition Cost	Percent of Time Used for Fishing
Vehicle (1)		\$ _	%
Vehicle (2)		\$	_ %
Vehicle (3)		\$	_ %
Vehicle (4)		\$ _	%
On-Shore Facilities		\$ _	%

C o Des	cription		Vessel 1: CF	V #	Vessel 2: CF	V #	Vessel 3: CFV	V #
e e	_					_		_
			Amount (\$)	Year	Amount (\$)	Year	Amount (\$)	Y
								_
								_
								_
								_
								1-
								_
								T-
								_
								_
								_
								_
								_
								_
	Codes:	1	Engine (in the period	1989 to 20	004.) (15 years)]	
		2	Deck equipment (in t	he period 1	1989 to 2004.) (15 year riod 1999 to 2004) (5 y	rs)	1	
		3	Hull (in the period 19			years)	-	
		5	Other (in the period 1	989 to 200	04.)(15 years)		-	
(n 2004,)	which of the follow		Other (in the period I			ly)	J	
O Groui		erring	O Capelin	O Swo		Bluefin T	`una O Mackerel	
O Lobst		allop	O Snow/Queen		O Shrimp		O Seals	
		Р	= 5.10 W Queen		Similip			

4) Were any major alterations, additions or improvements, individually valued at over \$3,000, made to these vessels, the costs of which are

6) Provide the following information for each fishery (indicated in Q#5) that these vessels were involved in during 2004.

Characteristic	Fishery #1	Fishery #2	Fishery #3	Fishery #4	Fishery #5	Fishery #6
Fishery/Species						
CFV						
NAFO or Species Fishing Areas						
Gear Used						
Total Days at Sea						
Total number of days fished by this vessel						
Total number of weeks fished						
Total number of fishing trips made by this vessel						
Average crew size (including captain or skipper)						
Landings, in kg (include by-catch)						
Landed value						

7) In 2004, what were the operating expenses for your vessels (exclude charters, tours, etc. unless for fishing)? (your 2004 income tax report may assist you in completing this question). Do not include non-fishing financial information.

2004 OPERATING AND MAINTENANCE EXPENSES.

Expense		Vessel 1: CFV #	Vessel 2: CFV #	Vessel 3: CFV #	Total			
					(if details are missing)			
Labour Costs								
Amount paid to hired skipper (excluding owner)								
Amount paid to crew (excluding owner/hired skipper) net of crew contribution to operating expenses								
	er (specify)							
Exp	Expenses (Check all that apply)							
0	Fuel, oil and grease							
0	Food							
0	Bait							
0	Ice and salt							
0	Nets/gear (repair, replacement, etc.)							
0	Dockside monitoring charges							
0	Vessel repairs and maintenance (excl. information in Q.4)							
0	Transport Canada ship safety inspection fees							
0	On-shore facilities maintenance costs (excl. information in Q.4)							
0	Federal port charges (moorage, wharfage, etc.)							
0	At sea observer charges							
0	Fishing licence fees							
0	Storage of boat and gear							
0	Union or association dues (dues for crew not to be included							
	unless paid by the owner) Special agreements with							
0	Fisheries and Oceans Canada (e.g., joint project agreement)							
0	Marketing Board							
0	Vessel Insurance							
0	Accounting fees	<u> </u>	<u> </u>	<u> </u>	<u> </u>			
0	Professional and Administrative fees							
0	Lease of quotas							
0	Leasing and rental of vessel and/or nets/gear							
0	Vehicle expenses for fishing as claimed for income tax purposes (including insurance)							
0	Municipal charges such as property taxes, water, permits charged to the fish harvesting enterprise (do not include							
personal or house taxes) Other operating and maintenance expenses (e.g., other port charges, not including federal fees)								
	Other expenses (please specify)	penses (e.g., other port	charges, not including for	cuci ai ices)				
0	Other expenses (please specify)							
0								
0	Other expenses (please specify)							
0	Other expenses (please specify)							
Tot	al expenses for 2004							

8) Did the owner derive any revenues from the lease of quotas during your 2004 fishing season?

OTHER REVENUES

O Yes, revenues were:	O No reven	ues from the lease of quotas in	n the lease of quotas in 2004.				
9) Did the owner derive any revenues from the fexpenses (not given in question 7).	ify the gross revenues and						
O Yes Please continue	O No Go	O No Go to Question 10					
Please specify.	Revenues	Expense	es				
O Charter	\$ _ _	_ \$ _ _					
O Tour operation		_ \$ _	1 1				
O Lease		_ \$ _	1 1				
O Sentinel Fishery							
O Other (please specify)							
O Other (please specify)							
O Other (please specify)	\$ _ _ _	_ \$ _					
10) Did the owner receive any of the following government transfers relative to fishing operations in 2004 (e.g., workers compensation, disaster relief, etc.)? If so, how much?							
O Fishers Employment InsuranceTotal \$	OR Number	of weeks of benefits	at \$ per week				
O Other (please specify)							
	\$						
		\$					
		\$					
O No government transfer received in 2004.							
11) For the 2004 tax year, was depreciation claim	ad for:	Ном т	uch was claimed?				
			icii was ciaimeu :				
Vessels Nets / gear		s O → s O →	\$ _				
Electronic equipment		s O →	\$ _ \$ _				
Vehicles		s O →	\$				
On-shore facilities	s O →	\$ _					
Other fishing equipment							
TOTAL (only if no breakdown is given)	TOTAL (only if no breakdown is given)						
To The form, if no breakdown is given,		Ψ <u></u>					
12) The following questions deal with the <u>long-term</u> debt position associated with your fishing operations in 2004.							
	a) Banks, Trust Companies or Credit Unions	b) Other (Specify)	c) Other (Specify)				
a. At the beginning of 2004, what was the TOTAL DEBT to:	\$ _	\$ _	\$ _				
b. What was the new long-term debt incurred during 2004 to:	\$ _	\$ _	\$ _				
c. What was the total amount of principal payments made during 2004 to:	\$ _	\$ _	\$ _ _				
d. What was the total amount of interest payments made during 2004 to:	\$ _	\$ _	\$ _				
TOTAL (c + d) Ask if c and d are not known	\$	\$	\$				
Average rate of interest							
	%	%	%				

Annex 3: Costs and Earnings Study 2004, Targeted Quebec Fleets

Fleets	Data Availability ²	Study name
Whelk, Areas 5, 6 and 7	no	-
Rock crab, Gaspe Area	no	-
Snow crab, non-traditional, Areas 12C, 15, 16A	partial	Non-traditional Crab Fishers
Snow crab, non-traditional, Areas 12 and F, fixed gear < 45', rock crab, MI	yes	Non-traditional Crab Fishers
Snow crab, non-traditional, Areas 12 and F, fixed gear < 45', Groundfish and pelagic fish Snow crab, non-traditional, Areas 12 and F, mobile gear, MI	yes	Non-traditional Crab Fishers
Snow crab, non-traditional, Areas 12 and F, fixed gear	yes	
> 45'	yes	Non-traditional Crab Fishers
Snow crab, non-traditional, Areas 12 and F, lobster	partial	Non-traditional Crab Fishers
Snow crab, non-traditional, Areas 12 and F, scallop	partial	Non-traditional Crab Fishers
Snow crab, non-traditional, Area 17	partial	Non-traditional Crab Fishers
Snow crab, Area 12A	yes	Area 12A Crab Fishers
Snow crab, Area 12B	no	-
Snow crab, Area 12C	no	-
Snow crab, Area 14	yes	Lower North Shore Crab Fishers
Snow crab, Area 15	yes	Lower North Shore Crab Fishers
Shrimp, non-traditional	yes	Non-traditional Shrimp Fishers
Shrimp, Other	no	-
Shrimp, Group A	no	-
Greenland halibut < 45'	no	-
Herring, Gaspe Area/MI	no	-
Lobster, Sub-Areas 20A1-20A2	yes	Gaspe Area Lobster Fishers
Lobster, Sub-Areas 20A3-20A10	yes	Gaspe Area Lobster Fishers
Lobster, Sub-Areas 20B1-20B4	yes	Gaspe Area Lobster Fishers
Lobster, Sub-Areas 20B5-20B8	yes	Gaspe Area Lobster Fishers
Lobster, Area 15	no	-
Lobster, Area 16	no	-
Lobster, Area 17	yes	Anticosti Island Lobster Fishers
Lobster, Area 18	No	-
Lobster, Area 19	partial	Gaspe Area Lobster Fishers
Lobster, Area 21	yes	Gaspe Area Lobster Fishers
Lobster, Area 22, specialized	yes	Magdelan Islands Lobster Fishers
Lobster, Area 22, diversified	yes	Magdelan Islands Lobster Fishers
Mackerel, MI	no	-
Scallop, Area 19	no	-
Scallop, Area 20	no	-
Groundfish, < 35', North Shore	no	-
Groundfish, < 45', Gaspe Area	no	

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 $^{^{2}}$ Only fleets with a sufficient number of respondents to make up a representative sample that protects confidentiality are included in a publication.