



---

# **Costs and Earnings Study, 2004**

Lower North Shore Crab Fishers  
Quebec Region

---

**Fisheries and Oceans Canada  
Policy and Economics Regional Branch  
Quebec Region**

**October 2006**



***COSTS AND EARNINGS STUDY, 2004***  
***LOWER NORTH SHORE 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**

**©Her Majesty the Queen in Right of Canada**

**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 – Lower North Shore Crab Fishers, Quebec Region". Policy and Economics Regional Branch, Quebec, 2006.

# Production Team

## **Supervised by**

Julie Lavallée, Chief, Economic Analysis  
RPEB, DFO, Quebec Region

## **Writing**

Ali Magassouba, Economist and Study Coordinator  
RPEB, DFO, Quebec Region

## **Collaborators**

Élisabeth Koulouris, Economist, RPEB, DFO, Quebec Region  
Thomas Larouche, Economist, RPEB, DFO, Quebec Region  
Frédéric Lessard, Economist, RPEB, DFO, Quebec Region  
Martial Ménard, Economist, RPEB, DFO, Quebec Region

## **Text Editing**

Agnès Samputu, Acting Administrative Assistant  
RPEB, DFO, Quebec Region

## **ACRONYMS**

MT: Metric ton  
PEB: 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 of the fishers who took part in this study. Without their collaboration, this study would not have been possible. As such, we feel that it is important to mention that most Lower North Shore crab fishers who were selected for this study voluntarily agreed to participate. We would also like to thank the fishers' association representatives for their collaboration.

# Table of Contents

<b>SUMMARY</b> .....	<b>1</b>
<b>1. INDUSTRY OVERVIEW</b> .....	<b>1</b>
<i>Snow Crab Landings in Quebec</i> .....	<i>1</i>
<i>Lower North Shore Crab Fishers – Landings and Fleet Characteristics</i> .....	<i>1</i>
<b>2. COSTS AND EARNINGS STUDY, 2004 – METHODOLOGY</b> .....	<b>1</b>
<i>Survey Sample</i> .....	<i>1</i>
<i>Data Collection</i> .....	<i>2</i>
<i>Questionnaire</i> .....	<i>2</i>
<i>Data Entry and Processing</i> .....	<i>2</i>
<i>Definitions</i> .....	<i>2</i>
<b>3. STUDY RESULTS</b> .....	<b>3</b>
<i>Operating Expenses</i> .....	<i>3</i>
<i>Financial Performance</i> .....	<i>3</i>
<i>Cash Flow</i> .....	<i>3</i>
<i>Long-term Debt</i> .....	<i>3</i>
<b>4. DATA QUALITY</b> .....	<b>4</b>
<i>Data Validation</i> .....	<i>4</i>
<i>Depreciation</i> .....	<i>4</i>
<i>Comparison with Other Data Sources</i> .....	<i>4</i>
<b>5. REFERENCES</b> .....	<b>4</b>
<b>STATISTICAL TABLES</b> .....	<b>5</b>
<b>1. POPULATION DATA</b> .....	<b>5</b>
<b>2. SAMPLE DATA</b> .....	<b>10</b>
<b>ANNEX 1: FISHING AREAS FOR SNOWCRAB</b> .....	<b>13</b>
<b>ANNEX 2: QUESTIONNAIRE</b> .....	<b>15</b>
<b>ANNEX 3: COSTS AND EARNINGS STUDY 2004, TARGETED QUEBEC FLEETS</b> .....	<b>21</b>

## List of Tables

TABLE 1: SNOW CRAB LANDINGS, BY FLEET AND BY SECTOR, QUEBEC, 2004.....	5
TABLE 2: SNOW CRAB LANDINGS, BY VESSEL LENGTH AND SECTORS, QUEBEC, 2004.....	5
TABLE 3: LOWER NORTH SHORE CRAB FISHERS, LANDINGS OF SNOW CRAB AND OTHER SPECIES, BY FLEET, 2004 .....	6
TABLE 4: LOWER NORTH SHORE CRAB FISHERS - SNOW CRAB LANDINGS, BY VESSEL LENGTH AND BY FLEET, 2004 .....	6
TABLE 5: TECHNICAL AND ECONOMIC CHARACTERISTICS, LOWER NORTH SHORE CRAB FISHERS, 2004.....	6
TABLE 6: EVOLUTION OF LANDED VALUE, LOWER NORTH SHORE CRAB FISHERS, 2002-2005 .....	7
TABLE 7: SELECTED LANDING STATISTICS, LOWER NORTH SHORE CRAB FISHERS, 2004 .	7
TABLE 8: SELECTED LANDING STATISTICS, AREA 14 CRAB FISHERS, 2004 .....	8
TABLE 9: SELECTED LANDING STATISTICS, AREA 15 CRAB FISHERS, 2004 .....	8
TABLE 10: FISHING EFFORT PROFILE, LOWER NORTH SHORE CRAB FISHERS, 2004.....	9
TABLE 11: OPERATING AND MAINTENANCE EXPENSES, LOWER NORTH SHORE CRAB FISHERS, 2004.....	10
TABLE 12: FINANCIAL PERFORMANCE, LOWER NORTH SHORE CRAB FISHERS, 2004.....	11
TABLE 13: CASH FLOW, LOWER NORTH SHORE CRAB FISHERS, 2004 .....	11
TABLE 14: LONG-TERM DEBT, LOWER NORTH SHORE CRAB FISHERS, 2004 .....	12
TABLE 15: SAMPLING RESULTS, LOWER NORTH SHORE CRAB FISHERS, 2004.....	12



# 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).

Gaspé 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. On the other hand, Lower North Shore crab fishers (Area 14 and 15) only accounted for approximately 4% of total snow crab landings in Quebec (Table 1).

We observed significant differences in vessel length in the various areas. For example, vessels under 45 feet in length caught approximately 61% of the Lower North Shore snow crab, whereas they only landed 14% and 43% of the crab in Gaspé Area and the Magdalen Islands. On the other hand, 55 feet long or more vessels accounted for 61% of landings in Gaspé Area, compared to 1% and 46% on the North Shore and Magdalen Islands respectively (Table 2).

### Lower North Shore Crab Fishers – Landings and Fleet Characteristics

In 2004, Lower North Shore crab fishers<sup>1</sup> achieved total landings worth nearly \$3.8M. 650 tons of snow crab catches worth \$3.3M made up over 86% of the value of these landings (Table 3).

Lower North Shore crab fishers mainly use vessels between 35 feet and 39 feet, 11 inches for their catch. These boats account for 36% of total landings, followed by boats between 40 feet and 44 feet, 11 inches (27%), boats under 35 feet (22%) and finally boats between 45 feet and 49 feet, 11 inches (14%) (Table 4).

---

<sup>1</sup> Fishers who mainly land snow crab and who fish in area 14 or 15.

For the purposes of this study, the 26 Lower North Shore crab fishers are presented by fishing area. Area 14 and 15 crab fishers make up two distinct fleets. Table 5 presents the main characteristics of these two Lower North Shore fleets such as the number of fishers, the length and age of the vessels, the average crew size and their asset value.

On average, Lower North Shore crab fishers generated incomes of \$145,886 in 2004, of which \$125,571 was snow crab revenue. The other species caught by Lower North Shore crab fishers are, in order of importance, Greenland halibut, Atlantic halibut, Stimpson surf clam and cod. (Table 7).

Less than a third (31%) of Lower North Shore crab fishers only caught snow crab while the other fishers caught two (23%), three (27%) or four (26%) difference species (Table 7).

Tables 8 and 9 present the landings by species of Area 14 and Area 15 crab fishers respectively. The Area 14 crab fishers' income is not as high but is more diversified than that of the Area 15 crab fishers.

Nearly a third of Lower North Shore crab fishers (31%) spent less than 20 days at sea during the 2004 season. Nearly 27% spent between 20 and 24 days at sea and 27% were out between 25 and 29 days. Over half the Lower North Shore crab fishers (58%) made less than 20 trips (Table 8).

Lower North Shore crab fishing boats had three to five crew members (including the skipper). About half the Area 14 crab fishers had three crew members while other businesses had four (40%) or five (10%) crew members. In Area 15, half the businesses had four crew members and the other half had five.

## 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 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 fleets<sup>2</sup>.

Calculations were made to determine a representative sample size for each fleet, including Lower North Shore two crab fishing fleets, 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 15 shows that the 26 Lower North Shore crab fishers were selected. Of these, 13 agreed to take part in the study and fully completed the questionnaire.

## 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 main 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 Economic Analyses Directorate in headquarters and their counterparts in the other DFO regions (Gulf, Newfoundland, Maritimes and Pacific).

## Definitions

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

- Snow crab fleet: group of fishers who mainly land snow crab and who fish in the same area or sub-area. The fishers had to land for a minimum value of \$10,000 to be selected for the study.
- Days at sea: number of days the fishing business spends at sea during the study period.
- Fishing days: 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.
- Crew members: number of employees, including the captain (owner or not) working on the vessel(s) during the study period.
- Operating expenses: expenses directly tied to fishing activities. A detailed list of

<sup>2</sup> See the complete list of fleets in Annex 3.

expenses is found in question 7 of the questionnaire.

- **Depreciation:** 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 percentage of fishing revenues.
- **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

Operating expenses vary significantly between Area 14 and Area 15 crab fishers. In 2004, operating expenses for Area 14 crab fishers amounted to \$73,030 while those for Area 15 crab fishers were \$122,380 (Table 11).

Salaries made up the main expense for both Area 14 and Area 15 crab fishers. Salaries represented 50% (\$36,410) and 75% (\$91,210) of their total costs respectively (Table 11).

Lagging far behind salaries, other major expenses vary from fleet to fleet. For Area 14 crab fishers, the second highest expense was fuel costs (\$6,540) followed by maintenance and repair costs (\$6,415), vessel insurance (\$4,128) and fishing gear (\$4,010). For Area 15 crab fishers, maintenance and repair (\$4,665) constituted the second largest expense, followed by fishing gear (\$4,240), fuel (\$3,600) and fishing licence fees (\$3,266) (Table 11).

#### Financial Performance

In 2004, the average gross profit was \$78,410 for Area 14 crab fishers and \$62,890 Area 15 crab fishers. Operating profits, which take into account the depreciation, were \$67,460 and \$51,510 for Area 14 and Area 15 crab fishers respectively. The gross profit and operating profit margins were 52% and 45% for Area 14 crab fishers and 34% and 28% for Area 15 crab fishers (Table 12).

Interest costs ranged from \$2,796 to \$2,946 and brought the net income before taxes below the \$50,000 mark for Area 15 crab fishers (\$48,710) whereas they amounted to \$64,510 for Area 14 crab fishers.

#### Cash Flow

Table 13 presents cash flow, which represents all the income derived directly or indirectly from fishing activities minus the total operating costs, interest costs and loan reimbursements. Cash flow do not take depreciation into account.

In 2004, in addition to gross fishing income, Lower North Shore crab fishers received employment insurance benefits ranging from \$9,000 to \$12,750 on average. 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. Finally, most Lower North Shore crab fishers receive GST/QST refunds but these amounts were deducted from the declared expenses (Table 13).

#### Long-term Debt

Table 14 presents a summary of the debt load of the two Lower North Shore crab fishers fleets. It provides information on the average debt load at the beginning of 2004, new debts incurred in 2004, the average reimbursements made during the year and the end-of-year debt load. Data from this table show that, on average, Area 15 crab fishers carry a heavier debt load than Area 14 crab fishers. The debt load is largely attributable to loans made during 2004 (Table 14).

## 4. Data Quality

This part of the report aims to illustrate the strengths and limitations of the data and how they 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 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 errors 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 by sector, Quebec, 2004**

Landings (kg) by sector					
Fleets	North Shore	Gaspé 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
<b>Snow Crab, Area 14</b>	<b>387,060</b>	-	-	<b>387,060</b>	<b>19</b>
<b>Snow Crab, Area 15</b>	<b>264,346</b>	-	-	<b>264,346</b>	<b>8</b>
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
<b>Quebec Total</b>	<b>3,999,895</b>	<b>8,655,379</b>	<b>2,407,084</b>	<b>15,062,358</b>	<b>339</b>

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 not the main source of fish-based income

**Table 2: Snow Crab landings, by vessel length and sectors, Quebec, 2004**

Landings (kg) by sector				
Vessel length (feet)	North Shore	Gaspé Area	Magdalen Islands	Quebec
1' - 34'11"	175,644	356,685	44,813	577,142
35' - 44'11"	2,274,487	895,700	1,006,475	4,176,662
45' - 54'11"	1,502,640	2,110,026	224,939	3,837,605
55' - 64'11"	47,124	4,875,375	1,130,857	6,053,356
65' and over	-	417,593	-	417,593
<b>All vessels</b>	<b>3,999,895</b>	<b>8,655,379</b>	<b>2,407,084</b>	<b>15,062,358</b>

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

**Table 3: Lower North Shore Crab Fishers, Landings of snow crab and other species, by fleet, 2004**

Fleets	Quantity (kg)			Value (\$)		
	Snow crab	All species	Snow crab %	Snow crab	All species	Snow crab %
Area 14	387,060	623,348	62%	1,961,490	2,458,368	80%
Area 15	264,346	304,639	87%	1,303,351	1,334,677	98%
<b>All Fleets</b>	<b>651,406</b>	<b>927,987</b>	<b>70%</b>	<b>3,264,841</b>	<b>3,793,045</b>	<b>86%</b>

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

**Table 4: Lower North Shore Crab Fishers - Snow crab landings, by vessel length and by fleet, 2004**

Vessel length (feet)	Landings (kg) by fleet			
	Area 14	Area 15	Total	(%)
1' - 34'11"	37,390	108,978	146,368	22%
35' - 39'11"	149,823	82,657	232,480	36%
40' - 44'11"	106,152	72,711	178,863	27%
45' - 49'11"	93,696	-	93,696	14%
<b>All Fleets</b>	<b>387,060</b>	<b>264,346</b>	<b>651,406</b>	<b>100%</b>

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

**Table 5: Technical and economic characteristics, Lower North Shore Crab Fishers, 2004**

Description <sup>1</sup>	Fleets	
	Area 14	Area 15
Number of fishers	19	8
Average vessel age	17	21
Average vessel length (feet)	42	39
Average days at sea	25	20
Average days fished	20	19
Average fishing trips	19	19
Crew size (including captain)	3.4	4.5
Initial vessel acquisition cost (\$)	136,814	132,150
Land asset acquisition cost (\$)	12,149	9,950
Additions or major modifications (\$)	55,972	87,274
Cumulative depreciation (\$)	80,501	56,382
Total asset value (\$)	124,434	172,992
Loan balance (\$)	47,534	210,373
<b>Debt/Asset Ratio</b>	<b>0.38</b>	<b>1.22</b>

1: Data on the size of the crews, asset values and loan balances come from the 2004 C&amp;E sample

Source: Fisheries and Oceans Canada, Statistics and Licensing Division, Quebec Region, Vessel Operation Survey, 2004

**Table 6: Evolution of landed value, Lower North Shore Crab Fishers, 2002-2005**

Year	Average fishing income (\$)	
	Area 14	Area 15
2002	154,663	231,739
2003	121,683	215,886
<b>2004</b>	<b>144,610</b>	<b>166,835</b>
2005	78,235	144,068

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

**Table 7: Selected landing statistics, Lower North Shore Crab Fishers, 2004**

Average landings by species	Quantity (kg)	Value (\$)	\$/kg
Snow crab	25,054	125,571	5.01
Greenland halibut	8,265	16,880	2.04
Atlantic halibut	287	1,479	5.16
Stimpson surf clam	1,431	1,041	0.73
Cod	623	859	1.38
Other species	655	915	1.40
<b>All species</b>	<b>35,692</b>	<b>145,886</b>	<b>4.09</b>

Number of species caught in 2004 <sup>1</sup>	Fleet breakdown	% Income from snow crab	Other species
1	31%	100%	-
2	23%	96%	Stimpson surf clam, Greenland halibut, cod
3	27%	74%	Greenland halibut, cod, Atlantic halibut
4	19%	68%	Greenland halibut, Atlantic halibut, cod

1: Species whose landing value is greater than or equal to \$100

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

**Table 8: Selected landing statistics, Area 14 Crab Fishers, 2004**

<b>Average landings, by species</b>	<b>Quantity (kg)</b>	<b>Value (\$)</b>	<b>\$/kg</b>
Snow crab	22,768	115,382	5.07
Greenland halibut	12,640	25,815	2.04
Atlantic halibut	439	2,263	5.16
Other species	820	1,151	1.40
<b>All Species</b>	<b>36,668</b>	<b>144,610</b>	<b>3.94</b>

<b>Number of species caught in 2004<sup>1</sup></b>	<b>Fleet breakdown</b>	<b>% Income from snow crab</b>	<b>Other species</b>
1	26%	100%	-
2	11%	94%	Greenland halibut, lobster
3	37%	74%	Greenland halibut, Atlantic halibut, cod
4	26%	68%	Greenland halibut, Atlantic halibut, cod

1: Species whose landing value is greater than or equal to \$100

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

**Table 9: Selected landing statistics, Area 15 Crab Fishers, 2004**

<b>Average landings, by species</b>	<b>Quantity (kg)</b>	<b>Value (\$)</b>	<b>\$/kg</b>
Snow crab	37,764	162,919	4.31
Stimpson surf clam	5,316	3,384	0.64
Other species	441	532	1.21
<b>All species</b>	<b>43,520</b>	<b>166,835</b>	<b>3.83</b>

<b>Number of species caught in 2004<sup>1</sup></b>	<b>Fleet breakdown</b>	<b>% Income from snow crab</b>	<b>Other species</b>
1	43%	100%	-
2	57%	96%	Stimpson surf clam

1: Species whose landing value is greater than or equal to \$100

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



**Table 10: Fishing effort profile, Lower North Shore Crab Fishers, 2004**

<b>Fleets - Distribution</b>			
	<b>Crab Fishers, Area 14</b>	<b>Crab Fishers, Area 15</b>	<b>Lower North Shore Crab Fishers</b>
<b>Total days at sea</b>			
1 - 19	26%	43%	31%
20 - 24	21%	43%	27%
25 - 29	32%	14%	27%
30 and over	21%	0%	15%
<b>Total days fished</b>			
1 - 19	47%	71%	54%
20 - 24	26%	14%	23%
25 - 29	21%	14%	19%
30 and over	5%	0%	4%
<b>Total fishing trips</b>			
1 - 19	53%	71%	58%
20 - 24	21%	14%	19%
25 - 29	21%	14%	19%
30 and over	5%	0%	4%
<b>Average crew size<sup>1</sup> (including the captain)</b>			
3	50%	0%	36%
4	40%	50%	43%
5	10%	50%	21%

1: Crew size data is taken from the 2004 C&E sample

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

## 2. Sample Data

**Table 11: Operating and maintenance expenses, Lower North Shore Crab Fishers, 2004**

Variable expenses	Crab Fishers, Area 14		Crab Fishers, Area 15	
	(\$)	% of total expenses	(\$)	% of total expenses
Labour <sup>1</sup>	36,417	49.9%	91,206	74.5%
Fuel, oil and grease	6,537	9.0%	3,602	2.9%
Food	2,323	3.2%	2,206	1.8%
Bait	1,652	2.3%	1,395	1.1%
Ice and salt	0	0.0%	0	0.0%
Fishing gear	4,008	5.5%	4,241	3.5%
Dockside monitoring charges	1,927	2.6%	1,379	1.1%
Vessel repair and maintenance	6,415	8.8%	4,665	3.8%
At-sea-observer charges	583	0.8%	1,519	1.2%
<b>Total variable expenses</b>	<b>59,862</b>	<b>82.0%</b>	<b>110,214</b>	<b>90.1%</b>
<b>Fixed expenses</b>				
Ship safety inspection fees (TC)	35	0.0%	0	0.0%
On-shore facilities maintenance costs	56	0.1%	700	0.6%
Federal port charges	10	0.0%	20	0.0%
Fishing license fees	1,397	1.9%	3,266	2.7%
Storage of boat and gear	689	0.9%	275	0.2%
Union or association dues	297	0.4%	225	0.2%
Joint venture	169	0.2%	0	0.0%
Vessel insurance	4,128	5.7%	2,699	2.2%
Professional and administrative fees <sup>2</sup>	1,395	1.9%	2 317	1.9%
Lease of quotas	182	0.2%	0	0.0%
Leasing and rental of vessel, nets and/or gear	0	0.0%	0	0.0%
Vehicle expenses for fishing	767	1.0%	586	0.5%
Municipal charges	161	0.2%	0	0.0%
Other <sup>3</sup>	3,885	5.3%	2,076	1.7%
<b>Total fixed expenses</b>	<b>13,171</b>	<b>18.0%</b>	<b>12,162</b>	<b>9.9%</b>
<b>Total operating and maintenance expenses</b>	<b>73,034</b>	<b>100.0%</b>	<b>122,376</b>	<b>100.0%</b>

1: Labour expenses do not include the captain/owner's salary

2: Administrative and legal fees include accounting fees

3: Expenses listed as "other" can include expenses from the other categories

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

**Table 12: Financial performance, Lower North Shore Crab Fishers, 2004**

	(\$)	
	Area 14	Area 15
Total fishing revenues	151,446	185,273
less: total operating expenses	73,034	122,376
Gross profit	78,412	62,897
less: depreciation	11,006	11,387
Net operating profit	67,406	51,510
less: interest expenses	2,946	2,796
Net income before taxes	64,460	48,714
<b>Gross profit margin<sup>1</sup></b>	<b>52%</b>	<b>34%</b>
<b>Operating profit margin<sup>1</sup></b>	<b>45%</b>	<b>28%</b>
<b>Pretax profit margin<sup>1</sup></b>	<b>43%</b>	<b>26%</b>

1: = Gross or net operating profit before taxes / total fishing income

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

**Table 13: Cash flow, Lower North Shore Crab Fishers, 2004**

	(\$)	
	Area 14	Area 15
Total fishing income	151,446	185,273
Employment insurance income	12,752	9,003
Other income	4,677	5,000
less: total operating expenses	73,034	122,376
less: interest expenses	2,946	2,796
less: principal payments	7,513	10,346
<b>Cash flow</b>	<b>85,382</b>	<b>63,758</b>

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

**Table 14: Long-Term debt, Lower North Shore Crab Fishers, 2004**

	(\$)	
	Area 14	Area 15
Long-Term debt at the beginning of 2004	55,047	6,719
New Long-Term debt incurred in 2004	0	214,000
Principal payments	7,513	10,346
<b>Long-Term debt at the end of 2004</b>	<b>47,534</b>	<b>210,373</b>

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

**Table 15: Sampling results, Lower North Shore Crab Fishers, 2004**

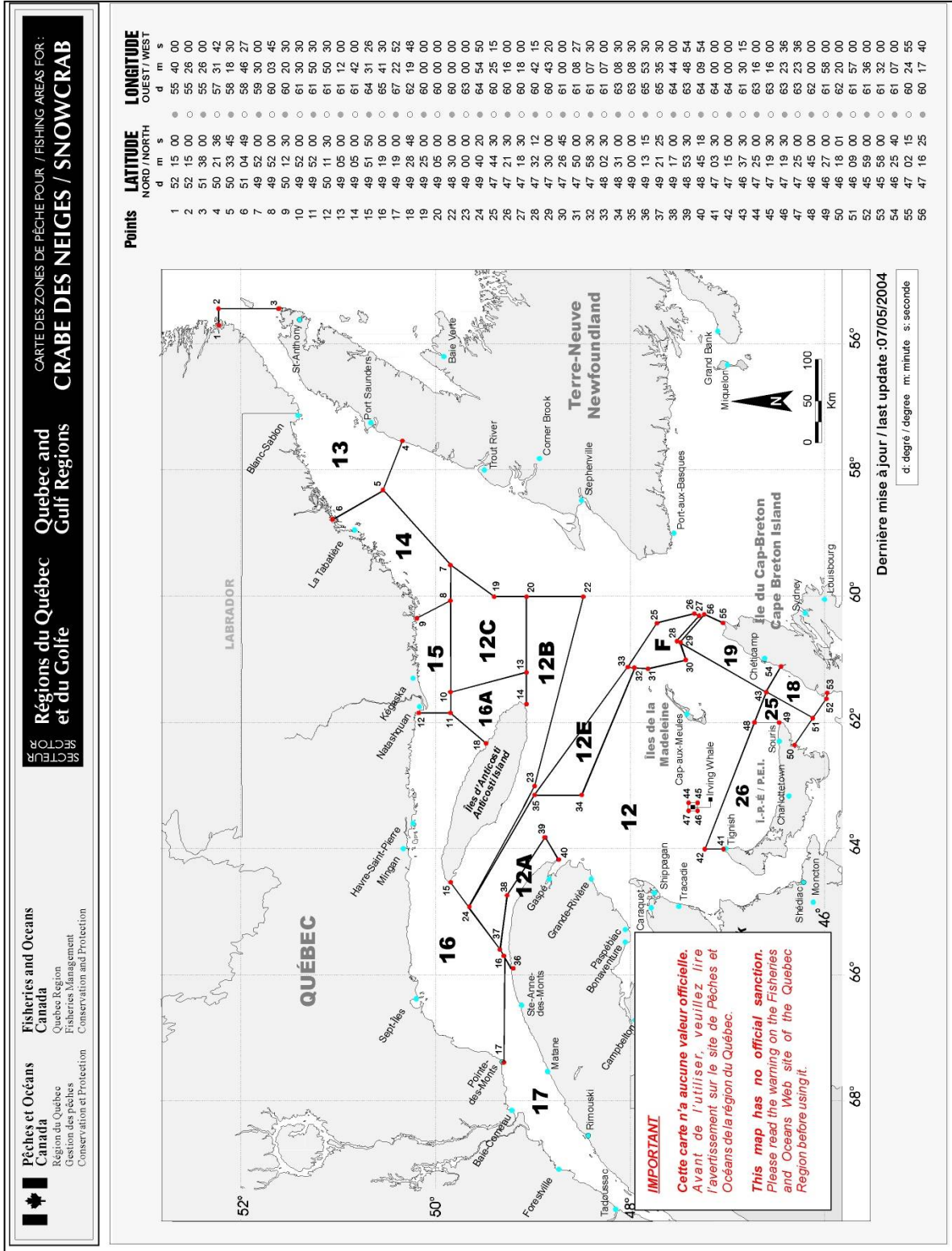
Fleet	Population	Preliminary sample	% of the fleet <sup>1</sup>	% in agreement <sup>2</sup>	Final sample
Area 14	19	19	100%	47%	9
Area 15	7	7	100%	57%	4
<b>Total</b>	<b>26</b>	<b>26</b>	<b>100%</b>	<b>52%</b>	<b>13</b>

1: Percentage of fishers included in the preliminary sample

2: Percentage of fishers who agreed to take part in the study

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

# Annex 1: Fishing areas for Snowcrab





# 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: (\_\_\_\_) \_\_\_\_\_

(\_\_\_\_) \_\_\_\_\_

(\_\_\_\_) \_\_\_\_\_

### Confidential When Completed

Interviewers Name: \_\_\_\_\_

Date Completed: \_\_\_\_\_

This survey is being conducted under the authority of the Fisheries Act, Section 61. As required by the Access to Information and Privacy Acts, all information collected is CONFIDENTIAL and may only be used in a manner that will in no way allow for the identification of individuals, whether through single requests for data or the combination of information gathered through multiple requests.

*Data Collection Bank Number: DFO PPU 075*

## PERSONAL INTERVIEW

- 1) For this survey, please report all information based on your 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	<input type="radio"/> Wood <input type="radio"/> Fibreglass <input type="radio"/> Steel <input type="radio"/> Aluminum <input type="radio"/> Fibreglass/wood <input type="radio"/> Other (specify) _____	<input type="radio"/> Wood <input type="radio"/> Fibreglass <input type="radio"/> Steel <input type="radio"/> Aluminum <input type="radio"/> Fibreglass/wood <input type="radio"/> Other (specify) _____	<input type="radio"/> Wood <input type="radio"/> Fibreglass <input type="radio"/> Steel <input type="radio"/> Aluminum <input type="radio"/> Fibreglass/wood <input type="radio"/> Other (specify) _____
Were you the skipper on this vessel?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Sometimes	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Sometimes	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Sometimes
<b>Vessel Acquisition Costs</b>			
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	_ _ _ _	\$ _ _ _ _ _ _ _ _	_ _ _  %





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

**OTHER REVENUES**

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

Yes, revenues were: \$ \_\_\_\_\_  No revenues from the lease of quotas in 2004.

9) Did the owner derive any revenues from the following alternative uses of fishing vessels in 2004? If so, specify the gross revenues and expenses (not given in question 7).

Yes Please continue  No Go to Question 10

Please specify.	Revenues	Expenses
<input type="radio"/> Charter.....	\$ _____	\$ _____
<input type="radio"/> Tour operation.....	\$ _____	\$ _____
<input type="radio"/> Lease.....	\$ _____	\$ _____
<input type="radio"/> Sentinel Fishery.....	\$ _____	\$ _____
<input type="radio"/> Other (please specify) _____	\$ _____	\$ _____
<input type="radio"/> Other (please specify) _____	\$ _____	\$ _____
<input type="radio"/> 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?

Fishers Employment Insurance.....Total \$ \_\_\_\_\_ **OR** Number of weeks of benefits \_\_\_\_\_ at \$ \_\_\_\_\_ per week

Other (please specify)  
 \_\_\_\_\_ \$ \_\_\_\_\_  
 \_\_\_\_\_ \$ \_\_\_\_\_  
 \_\_\_\_\_ \$ \_\_\_\_\_

No government transfer received in 2004.

11) For the 2004 tax year, was depreciation claimed for:

How much was claimed?

Vessels .....	No <input type="radio"/> Yes <input type="radio"/>	→ \$ _____
Nets / gear .....	No <input type="radio"/> Yes <input type="radio"/>	→ \$ _____
Electronic equipment .....	No <input type="radio"/> Yes <input type="radio"/>	→ \$ _____
Vehicles .....	No <input type="radio"/> Yes <input type="radio"/>	→ \$ _____
On-shore facilities.....	No <input type="radio"/> Yes <input type="radio"/>	→ \$ _____
Other fishing equipment .....	No <input type="radio"/> Yes <input type="radio"/>	→ \$ _____
<b>TOTAL (only if no breakdown is given) .....</b>		<b>→ \$ _____</b>

12) The following questions deal with the long-term 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:	\$ _____	\$ _____	\$ _____
<b>TOTAL (c + d)</b>	\$ _____	\$ _____	\$ _____
<b>Ask if c and d are not known</b>			
Average rate of interest	_____ %	_____ %	_____ %
Average period of repayment	_____ years	_____ years	_____ years

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

Fleet	Data Availability <sup>3</sup>	Study Title
Whelk, Areas 5, 6 and 7	No	-
Rock Crab, Gaspé Area	No	-
Snow Crab, Non-Traditional Crab Fishers, Areas 12C, 15, 16A	Partial	Non-Traditional Crab Fishers
Snow Crab, Non-Traditional Crab Fishers, Areas 12 and F, Fixed Gear < 45', Rock Crab, MI	Yes	Non-Traditional Crab Fishers
Snow Crab, Non-Traditional Crab Fishers, Areas 12 and F, Fixed Gear < 45', Groundfish And pelagic fish	Yes	Non-Traditional Crab Fishers
Snow Crab, Non-Traditional Crab Fishers, Areas 12 and F, Mobile Gear, MI	Yes	Non-Traditional Crab Fishers
Snow Crab, Non-Traditional Crab Fishers, Areas 12 and F, Long Liners	Yes	Non-Traditional Crab Fishers
Snow Crab, Non-Traditional Crab Fishers, Areas 12 and F, Lobster	Partial	Non-Traditional Crab Fishers
Snow Crab, Non-Traditional Crab Fishers, Areas 12 and F, Scallops	Partial	Non-Traditional Crab Fishers
Snow Crab, Non-Traditional Crab Fishers, 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 Shrimp Fishers	Yes	Non-Traditional Shrimp Fishers
Shrimp, Others	No	-
Shrimp, Group A	No	-
Greenland Halibut, < 45'	No	-
Herring, Gaspé Area/MI	No	-
Lobster, Sub-Areas 20A1-20A2	Yes	Gaspé Area Lobster Fishers
Lobster, Sub-Areas 20A3-20A10	Yes	Gaspé Area Lobster Fishers
Lobster, Sub-Areas 20B1-20B4	Yes	Gaspé Area Lobster Fishers
Lobster, Sub-Areas 20B5-20B8	Yes	Gaspé 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	Gaspé Area Lobster Fishers
Lobster, Area 21	Yes	Gaspé Area Lobster Fishers
Lobster, Area 22, Specialized	Yes	Magdalen Island Lobster Fishers
Lobster, Area 22, Diversified	Yes	Magdalen Island Lobster Fishers
Mackerel, MI	No	-
Scallops, Area 19	No	-
Scallops, Area 20	No	-
Groundfish, < 35', North Shore	No	-
Groundfish, < 45', Gaspé Area	No	-

<sup>3</sup> Only fleets with sufficient numbers of respondents to constitute a representative sample complying with confidentiality regulations are published.