



Fisheries and Oceans
Canada

Pêches et Océans
Canada

CANADIAN FISHERIES STATISTICS 2005

ECONOMIC ANALYSIS AND STATISTICS
POLICY SECTOR
OTTAWA



Canada 

Published by:

Statistical Services
Economic Analysis and Statistics
Policy Sector
Fisheries and Oceans Canada
Ottawa, Ontario
K1A 0E6

© Her Majesty the Queen in Right of Canada, 2007

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission from Licence Services, Public Works and Government Services Canada, Ottawa, Ontario, Canada K1A 0S5 or at Copyright.Droitdauteur@communications.gc.ca.

Catalogue number: Fs1-9/2005

ISBN 978-0-662-05087-2

DFO/2007-1356

This publication should be quoted as follows: DFO, 2007, Canadian Fisheries Statistics 2005.
Ottawa: Fisheries and Oceans Canada.



Printed on recycled paper



Preface

The annual statistical snapshot Canadian Fisheries Statistics (formerly entitled Annual Statistical Review of Canadian Fisheries) is an overview of the structure, evolution and value of the fishing industry in Canada and the place this industry occupies in Canada and in the world. This 2005 edition provides statistics for 2003 to 2005, inclusive. Additional detailed tables on Canadian fisheries are included in a CD-ROM accompanying this publication.

The Canadian fisheries covered in this report include commercial marine and freshwater fisheries, as well as aquaculture. For information on recreational fisheries in Canada, please refer to the Statistical Services website at http://www.dfo-mpo.gc.ca/communic/statistics/recreational/index_e.htm.

This publication is available on the Statistical Services website, in html and pdf, at http://www.dfo-mpo.gc.ca/communic/statistics/publications/trade/index_e.htm.

Acknowledgments

This report was prepared by Thomas Larouche in cooperation with Lewis Sonsini and Yves Gagnon, from Statistical Services, and under the supervision of Rowena Orok, Chief, Statistical Services, Economic Analysis and Statistics, Policy Sector.

We would like to thank the following regional and headquarters staff, from Statistical, Licensing and Policy & Economics Units for their excellent collaboration in the preparation of this publication:

Central and Arctic: Tyler Jivan

Newfoundland and Labrador: Regional Licencing Unit, Fisheries and Aquaculture Management Branch, St. John's and Anne Marie Russell, Sandra Savory

Québec: Édith Lachance, Julie Aucoin

Gulf: Monique Niles, Michel Bourque

Maritimes: Elaine Walker, Paulette Gardner

Pacific: Rae Dalgarno, Laurie Biagini, Maria Poon, Harvey Eng

Ottawa: Jennifer Mousseau, Michelle Fougère, Neville Johnson, Tim Hsu



Methodology and data sources

Data on marine fisheries are provided by the DFO statistical units in the Maritimes, Gulf, Quebec, Newfoundland and Labrador and Pacific Regions, and are then integrated at the Ottawa headquarters office. Data on freshwater fisheries are provided by the DFO Central and Arctic regional office while aquaculture data is obtained from Statistics Canada.

The primary classification system used in this publication for fisheries is the FAO's "International Standard Statistical Classification of Aquatic Animals and Plants" (ISSCAAP)¹. ISSCAAP divides commercial species in groups based on their characteristics related to taxonomy, ecology and economics. Note that the volume of landings is always reported in terms of live weight.

The source for Canadian imports and exports data is Statistics Canada, International Trade Division. Re-exports are not included in export figures.

Note that figures in the detailed tables may not add up to the totals due to rounding, confidential data or, in certain instances, differences in the estimation methods.

Symbols and abbreviations

t	metric tonnes
,000t	thousands of metric tonnes
\$	Canadian dollar
\$m	millions of Canadian dollars
\$bn	billions of Canadian dollars
'	foot
"	inch
DFO	Fisheries and Oceans Canada
NAFO	Northwest Atlantic Fisheries Organization
FAO	Food and Agriculture Organization of the United Nations
Atl.	Atlantic
Pac.	Pacific
NAICS	North American Industrial Classification System
#	number
IQ	individual quota
..	not available (n/a)
...	not applicable
x	confidential data
-	zero (0)

¹ Latest version: FAO, 2001. Report of the nineteenth session of the Coordinating Working Party on Fishery Statistics (Nouméa, New Caledonia, July 10-13 2001). *FAO Fisheries Report*, No. 656.

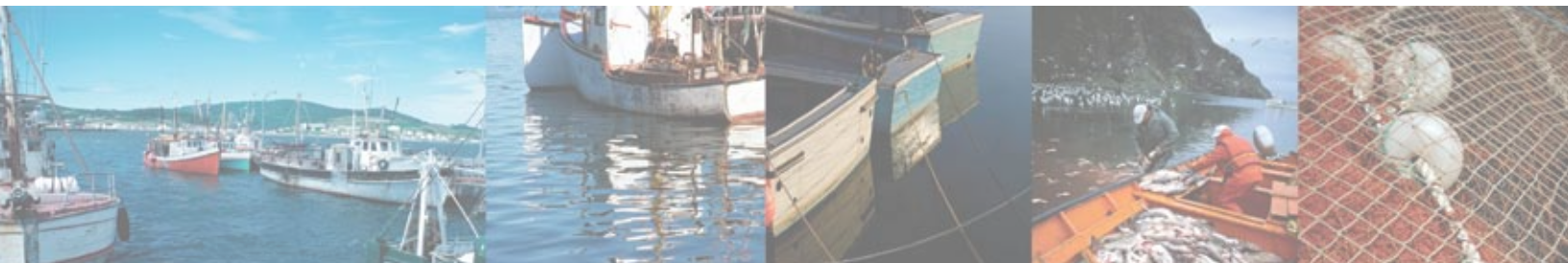


Table of Contents

1	Fisheries and the Canadian economy	1
1.1	Gross value	1
1.2	Employment and GDP by industry	1
2	Canada's position among the world's fisheries	2
2.1	Harvesting	2
2.2	Aquaculture	2
2.3	International trade	3
2.4	Demand	4
3	Commercial fisheries and aquaculture.....	5
3.1	Commercial marine fisheries.....	5
3.1.1	Provinces.....	6
3.1.2	NAFO areas, Atlantic Canada	6
3.1.3	Months of activity in Atlantic Canada.....	7
3.1.4	Fishing gear.....	7
3.1.5	Vessels.....	7
3.2	Commercial freshwater fisheries	8
3.3	Aquaculture	9
4	International trade.....	10
4.1	Exports	10
4.2	Imports	12
5	Appendix I: Overview of the main fishing fleets in Canada.....	13
6	Appendix II: Landings tables, marine fisheries	20
7	Appendix III: Map of NAFO fishing areas.....	23



List of tables on the CD-ROM

Years covered: 2003, 2004 and 2005

Section 1 - Fisheries and the Canadian economy

- 1.1.1 Contribution of fisheries to the gross domestic product by industry sector and province
- 1.1.2 Fishing-related employment by industry and province
- 1.1.3 Per capita annual consumption of seafood and meat, selected countries
- 1.2.1 Commercial marine fisheries, number of core and non-core enterprises, by province, Atlantic Region
- 1.2.2 Number of licences by major marine fisheries, Atlantic Region
- 1.2.3 Number of licences by major marine fisheries, Pacific Region
- 1.2.4 Number of registered fishing vessels by vessel length, province and region

Section 2 - Canada's position among the world's fisheries

- 2.1.1 Landed volume of world marine and freshwater fisheries by top 30 countries
- 2.2.1 Volume of world aquaculture production by top 30 countries
- 2.2.2 Volume of world aquaculture production by ISSCAAP groups and major country groups
- 2.3.1 Value of world seafood exports by top 30 countries
- 2.3.2 Value of world seafood imports by top 30 countries
- 2.3.3 Value of world seafood exports by ISSCAAP groups and major country groups
- 2.3.4 Value of world seafood imports by ISSCAAP groups and major country groups

Section 3 - Commercial fisheries and aquaculture

- 3.1.1 Landed value by species, commercial marine fisheries, Canada
- 3.1.2 Landed volume by species, commercial marine fisheries, Canada
- 3.1.3 Landed price by species, commercial marine fisheries, Canada
- 3.1.4 Landed value by province and species
- 3.1.5 Landed volume by province and species
- 3.1.6 Landed price by province and species



Section 3 - Commercial fisheries and aquaculture (continued)

- 3.1.7 Landed value by gear type
- 3.1.8 Landed volume by gear type
- 3.1.9 Landed value by vessel length
- 3.1.10 Landed volume by vessel length
- 3.1.11 Landed value by province, species and gear type
- 3.1.12 Landed volume by province, species and gear type
- 3.1.13 Landed volume and value by species and vessel length
- 3.1.14 Landed volume and value by ports of landing
- 3.1.15 Number of active vessels by length, province and region
- 3.1.16 Average value of landings by vessel length, province and region
- 3.2.1 Freshwater fisheries landed volume and value by species and province
- 3.3.1 Value and volume of Canadian aquaculture production

Section 4 - International Trade (fish and seafood products)

- 4.1.1 Canadian exports by top 30 countries of destination, fish and seafood products
- 4.1.2 Canadian imports by top 30 countries of origin, fish and seafood products
- 4.1.3 Canadian exports by fishery product groups, fish and seafood products
- 4.1.4 Canadian imports by fishery product groups, fish and seafood products
- 4.1.5 Canadian exports by province / territory and top 5 species, fish and seafood products
- 4.1.6 Canadian imports by province / territory and top 5 species, fish and seafood products
- 4.1.7 Canadian exports by province / territory and top 5 countries of destination, fish and seafood products
- 4.1.8 Canadian imports by province / territory and top 5 countries of origin, fish and seafood products
- 4.1.9 Canadian exports by province / territory and top 15 fishery product groups, fish and seafood products
- 4.1.10 Canadian imports by province / territory and top 15 fishery product groups, fish and seafood products



1 Fisheries and the Canadian economy

CD - Section 1: 1.1.1 - 1.1.3, 1.2.1 - 1.2.4

1.1 Gross value

Total landings from marine commercial fishing have reached a value of \$2.1bn (1.1 million tonnes) in 2005. This translates into a \$164m (-7%) decrease compared to 2004, owing mainly to the snow crab price drop as well as lower prices for scallop, salmon, and Pacific Dungeness crab. As for the value of freshwater fisheries, it has increased slightly with a total value of \$66m in 2005, 4% more than in 2004.

Overall, aquaculture production fared better than the commercial fisheries. In 2005, the value of aquaculture production increased by \$190m to reach a total of \$715m, which means 36% more than in 2004. This is mainly due to an increase in the price of farmed salmon, which rose in value by \$1.52/kg (+38%) as opposed to a 2% increase in production volume.

The gross revenue of the fish and seafood processing industry reached \$4.05bn in 2005, 7% less than 2004. The strong Canadian dollar in relation to the US dollar was one of the principal reasons that revenues fell, as nearly 53%² of Canadian seafood production was exported to the U.S. in 2005.

Table 1.1: Value of the commercial fisheries, aquaculture and processing in Canada, 2003-2005

Industry	Production value ⁴ (\$m)			% change 2004-05
	2003	2004	2005	
Marine fisheries ¹	2,272	2,262	2,098	-7%
Freshwater fisheries ¹	72	64	66	3%
Aquaculture ²	591	527	715	36%
Fish processing ³	4,699	4,374	4,049	-7%

¹Landed value. Source: DFO, Economic Analysis and Statistics.

²Production value. Source: Statistics Canada, 2006, Aquaculture Statistics 2005, Catalogue no. 23-222-XIE.

³Source: Statistics Canada, Annual Survey of Manufactures and Logging, Table 301-0006, "Seafood product preparation and packaging" category. Total revenues of this sector include costs of purchasing the raw material from fish harvesters, a total cost figure close to the landed value of marine fisheries. Note that the added value from the processing sector in 2005 was estimated at \$1,049m by Statistics Canada.

⁴To avoid double-counting, one should not add gross revenues of the four sectors shown in this table.

²Based on an estimate of 85% of the total value of Canadian production exported (source: Agriculture and Agri-Food Canada (AAFC), "Canada's Fish and Seafood Industry", 2006.)

1.2 Employment and GDP by industry

In 2005, employment in the commercial fishing and aquaculture industries has declined slightly as compared to 2004. The harvesting sector of the commercial fishing industry employed 52,805 fish harvesters and crew members, 965 less than in 2004 (-2%). The aquaculture industry itself employed 3,920 people, approximately 2% less than in 2004.

In 2005, the fish processing industry employed 29,342 workers, 2,862 less than in 2004. This represents a decrease of 9%, which is greater than the decrease in the number of workers employed in the harvesting and aquaculture sectors between 2004 and 2005.

Table 1.2: Employment by industry, Canada, 2003-2005

Industry	Employment estimates (number of persons)			
	2003	2004	2005	% change 2004-05
Marine and fresh-water fisheries ¹	55,033	53,770	52,805	-2%
Aquaculture ²	4,005	3,985	3,920	-2%
Fish processing ³	35,185	32,204	29,342	-9%
Total	94,223	89,959	86,067	-4%

¹Number of fish harvesters and crew.

Source: DFO, Regional Statistical Units.

²Source: Statistics Canada, Aquaculture Value Added Statistics.

³Source: Statistics Canada, Annual Survey of Manufactures and Logging, Table 301-0006, "Seafood product preparation and packaging" category, Total number of employees, direct and indirect labour (persons).

By way of comparison, the gross domestic product (GDP) in the agriculture industry has increased by 2.7% in 2005 with a performance similar to that of the Canadian economy as a whole. However, the harvesting and processing sectors have shown a reverse trend with negative growth rates of the fishing industry of -10.5% and -3.1% respectively.

Table 1.3: Gross Domestic Product (GDP) at basic prices, by industry¹, 2003-2005

Industry	GDP, millions of chained 2002 dollars ²			
	2003	2004	2005	% change 2004-05
Agriculture, forestry, fishing and hunting	25,478	27,685	28,437	2.7%
Fishing, hunting and trapping ³	1,138	1,175	1,052	-10.5%
Fish processing ⁴	1,018	1,020	988	-3.1%
All industries	1,091,378	1,126,802	1,160,024	2.9%

¹NAICS for the industries shown in this table are 11, 114 and 3117.

Source: Statistics Canada, Table 399-0025.

²Note that chained dollars allow to calculate growth rates, but not the contribution of each industry to the total Canadian GDP, as aggregates are not equal to the sum of their components. For more information on chained dollars, please refer to <http://www.statcan.ca/english/nea-cen/faq/gdp.htm>.

³The contribution of fishing to the GDP of this category is estimated at 90% by Statistics Canada.

⁴Category "Seafood product preparation and packaging" (NAICS 3117).

2 Canada's position among the world's fisheries

CD - Section 2: 2.1.1, 2.2.1 - 2.2.2, 2.3.1 - 2.3.4

2.1 Harvesting

Based on data of the Food and Agriculture Organization of the United Nations (FAO), Canada ranked 19th in terms of the total volume of fish landings in 2005 (1% of the world total). This represents a drop of one position compared to 2004, when Canada was ranked in 18th place. The top three countries with respect to total fish landings were China, Peru and the U.S. respectively, which had cumulated over one third of worldwide catches in 2005.

As opposed to the world's overall aquaculture production which has continued to increase, global fish landings have effectively decreased by 1% in 2005 as compared to the previous year.

Table 2.1: Total landings by country, marine and freshwater fisheries, ranked by volume in 2005 (,000 t)

Rank	Country	Volume of Landings (,000 t)			% change 2004-05
		2003	2004	2005	
1	China ¹	17,211	17,440	17,525	0%
2	Peru	6,094	9,612	9,394	-2%
3	United States	4,989	4,995	4,925	-1%
4	Chile	3,922	5,309	4,740	-11%
5	Indonesia	4,692	4,651	4,389	-6%
6	Japan	4,784	4,428	4,179	-6%
7	India	3,721	3,391	3,481	3%
8	Russia	3,321	3,000	3,241	8%
9	Thailand	2,850	2,840	2,599	-8%
10	Norway	2,702	2,673	2,547	-5%
...					
19	Canada ²	1,131	1,193	1,102	-8%
-	Other countries	36,221	36,211	36,450	1%
Total		91,636	95,743	94,572	-1%

¹Includes Hong Kong and Macao.

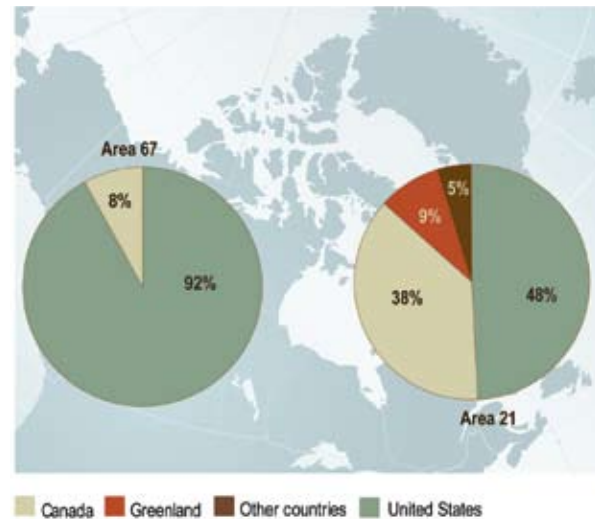
²Canadian figures may not match exactly those found in Section 3 due to different data sources.

Source: FAO, FishStat Plus, Capture Production.

Canadian fish harvesters operate in FAO³ fishing areas 21 and 67. Area 21 covers the northwest portion of the Atlantic Ocean, while area 67 covers the northeast part of the Pacific Ocean; i.e., both oceans that border Canada to the east and to the west. In 2005, landings

have attained 5.4 million tonnes in these two areas, including 1.1 million tonnes in Canada (20% of total). Most landings took place in the U.S. for a total of 4 million tonnes, which represents 75% of the overall landings in these two areas. Total catches in the northwest Pacific and northeast Atlantic represented close to 6% of worldwide catches in 2005.

Figure 2.1: Total catches on the Atlantic and Pacific coasts of Canada and the United States (FAO areas 21 and 67), by country, 2005



Source: FAO, FishStat Plus, Capture Production.

On average, the United States had close to half of total catches in the northwest Atlantic between 2003 and 2005, compared to 38% for Canada. In terms of volume, Canada ranked first at the beginning of the 1990's: catches by Canadian fish harvesters at that time represented 42% of total catches (average for 1988-1990), as compared to 40% for American fish harvesters. It should be noted that following the collapse of Atlantic cod stocks at the beginning of the 1990's, the total landings in the northwest Atlantic have decreased by nearly 30%.

2.2 Aquaculture

As a result of aquaculture production that amounted to about 154 thousand tonnes in 2005, Canada was 23rd in the world in terms of volume and 20th in terms of value. China ranked first in aquaculture production, as it did with respect to marine fisheries. In 2005, the total volume of commercial aquaculture in China has reached 43.3 million tonnes (valued at US\$40bn), which represents more than the two thirds of the total worldwide aquaculture production.

³A map of the different fishing areas is available on the FAO Web site at www.fao.org/fi/.

As opposed to marine fisheries, the worldwide aquaculture production has had a strong growth of 14% in terms of volume since 2003. Several countries, including Indonesia, the Philippines and Vietnam had growth rates exceeding 30% during that period. In comparison, the Canadian aquaculture production has increased only by 2% between 2003 and 2005.

Table 2.2: Major world aquaculture producers, ranked by volume of aquaculture production in 2005 (,000t)

Rank	Country	Aquaculture Production (,000 t)			% change 2004-05
		2003	2004	2005	
1	China ¹	38,690	41,332	43,274	5%
2	India	2,313	2,799	2,842	2%
3	Indonesia	1,229	1,469	2,124	45%
4	Philippines	1,449	1,717	1,896	10%
5	Vietnam	968	1,229	1,467	19%
6	Japan	1,302	1,261	1,254	-1%
7	Thailand	1,064	1,260	1,144	-9%
8	South Korea	840	953	1,057	11%
9	Bangladesh	857	915	882	-4%
10	Chile	603	685	714	4%
...					
23	Canada²	151	145	154	6%
-	Other countries	5,746	6,106	6,151	1%
Total		55,211	59,870	62,959	5%

¹Includes Hong Kong and Macao.

²Canadian figures may not match exactly those found in Section 3 due to different data sources.

Source: FAO, FishStat Plus, Aquaculture Production Quantities.

2.3 International trade

Since 2004, Canada has ranked 6th worldwide among seafood exporting countries in terms of total export value, behind the United States and Denmark, among others. This represents a drop in rank given that in 2003, Canada was 5th, just ahead of Denmark. China has remained the top seafood exporting country between 2003 and 2005, with a 10% share of exports for these products in 2005, which is twice as much as the Canadian share. However, the Chinese share of world exports is considerably less than its share of the global aquaculture production value (51%) and of its percentage of global fishing volume (19%), which can be explained by the fact that a major part of the Chinese production goes to the domestic market.

As opposed to this, Canada exports a larger share of its catches and its aquaculture production, estimated at 85%⁴ (by value).

⁴Source: Agriculture and Agri-Food Canada (AAFC), "Canada's Fish and Seafood Industry", 2006.

This partly explains why even though Canada's fishing and aquaculture production barely represent 1% of the worldwide total, Canadian exports amount to 5% of worldwide exports of fish and seafood.

The situation in the seafood trade sector has evolved considerably during the last decade. In 1990, Canada and the United States were respectively 2nd and 1st in terms of seafood export value. Beginning in 1991, the gradual decrease in groundfish catches until the collapse of Atlantic cod stocks in 1992 and the increased aquaculture production in Asian countries caused Canada to slip from 2nd to 7th place for exporters in 1993. Since then, the increase in the price of crustaceans has allowed Canada to regain a few places in recent years.

Table 2.3: Major world seafood exporters, ranked by total value of exports in 2005 (millions of US\$)

Rank	Country	Exports Value ¹ , Millions of US\$			% change 2004-05
		2003	2004	2005	
1	China ²	5,792	7,211	8,072	12%
2	Norway	3,669	4,171	4,922	18%
3	Thailand	3,920	4,053	4,474	10%
4	United States	3,458	3,911	4,287	10%
5	Denmark	3,228	3,577	3,695	3%
6	Canada³	3,318	3,507	3,615	3%
7	Chile	2,195	2,547	3,043	19%
8	Netherlands	2,196	2,468	2,838	15%
9	Vietnam	2,205	2,409	2,747	14%
10	Spain	2,242	2,582	2,603	1%
-	Other countries	32,352	36,054	39,060	8%
Total		64,574	72,490	79,355	9%

¹Includes re-exports.

²Includes Hong Kong and Macao.

³Canadian figures may not match exactly those found in Section 4 due to different data sources.

Source: FAO, FishStat Plus, Fisheries Commodities Production and Trade.

Table 2.4 on the following page shows the main Canadian fish and seafood exports worldwide by product group in 2005. It can be noticed that Canada has a major share of worldwide exports of some products, such as lobster (57% of worldwide exports of this species are Canadian products), frozen crab (44%), fish livers and roes (37%), smoked herring (64%), Greenland, Atlantic and Pacific halibut (14%) and fresh haddock (15%).

Table 2.4: Canada's share of world seafood exports, by product exported in 2005 (millions of US\$)

Product ¹	Exports Value ² , Millions of US\$		
	Canada 2005 ³	% of Canadian exports	% of World exports
Lobster , live, frozen or preserved	819	23%	57%
Crabs , whether in shell or not, frozen	477	13%	44%
Salmon , fresh, frozen or preserved	444	12%	10%
Shrimp , frozen or preserved	400	11%	3%
Fish fillets , fresh or frozen	321	9%	3%
Sea urchins and other molluscs , fresh or frozen	136	4%	10%
Scallop , fresh or frozen	92	3%	12%
Greenland, Atlantic and Pacific halibut , fresh or frozen	79	2%	14%
Fish livers and roes , dried, smoked, salted or in brine	73	2%	37%
Mackerel (Scomber spp.), frozen	57	2%	6%
Hake , frozen	33	1%	9%
Haddock , fresh or chilled	22	1%	15%
Herring , including fillets, smoked	21	1%	64%
Other	642	18%	1%
Total	3,615	100%	5%

¹Products grouped according to HS categories.

²Includes re-exports.

³Canadian figures may not match exactly those found in Section 4 due to different data sources.

Source: FAO, FishStat Plus, Fisheries Commodities Production and Trade.

Canada's imports of fish and seafood are well below its exports as it was only the 12th worldwide importer of these products in 2005. This is actually higher than in 2004, when it was in 13th place. Japan and the United States were the two major fish and seafood importers during that same year and they imported more than 30% of the worldwide volume for this market.

Table 2.5: Major world seafood importers, ranked by value of imports in 2005 (millions of US\$)

Rank	Country	Imports Value, Millions of US\$			
		2003	2004	2005	% change 2004-05
1	Japan	12,624	14,830	14,729	-1%
2	United States	11,758	12,079	12,090	0%
3	Spain	4,919	5,239	5,649	8%
4	France	3,803	4,217	4,604	9%
5	Italy	3,571	3,919	4,241	8%
6	China ¹	4,228	5,125	5,966	16%
7	Germany	2,658	2,831	3,263	15%
8	United Kingdom	2,536	2,843	3,209	13%
9	Denmark	2,185	2,369	2,627	11%
10	South Korea	1,958	2,259	2,382	5%
...					
12	Canada²	1,450	1,568	1,691	8%
-	Other countries	16,675	19,184	22,177	16%
Total		68,365	76,462	82,628	8%

¹Includes Hong Kong and Macao.

²Canadian figures may not match exactly those found in Section 4 due to different data sources.

Source: FAO, FishStat Plus, Fisheries Commodities Production and Trade.

2.4 Demand

Based on FAO data, annual seafood consumption in Canada amounted to 23.1 kg per person in 2005. This is modest when compared to major Canadian seafood export destinations such as Japan, France, Iceland and Norway. The Canadian consumption of fish and seafood is similar to that of its main trade partner, the United States, where the consumption per capita was 23.8 kg in 2005.

Table 2.6: Per capita annual consumption of seafood and meat, Canada and selected countries, 2005

Country	Annual consumption per capita (kg), 2005				Total
	Seafood ¹	Bovine meat	Pork	Chicken, Turkey	
Iceland	91.4	11.7	18.7	20.0	141.8
Japan	64.9	6.5	13.0	14.8	99.2
Norway	47.4	18.5	30.3	12.5	108.7
France	33.5	16.6	29.6	20.2	99.9
China	25.9	6.6	38.1	8.0	78.6
United States	23.8	22.6	17.4	52.4	116.3
Canada	23.1	15.9	27.3	36.4	102.8
United Kingdom	20.0	17.2	20.3	29.8	87.4
Russian Fed.	17.3	16.0	7.9	17.3	58.6
Germany	14.3	12.6	47.5	13.4	87.8

¹Sum of "fish" and "aquatic products, other" categories.

Source: FAOSTAT, Statistics division, FAO. Data copied: November 14, 2007, <http://faostat.fao.org>.

3 Commercial fisheries and aquaculture⁵

CD - Section 3: 3.1.1 - 3.1.16, 3.2.1, 3.3.1

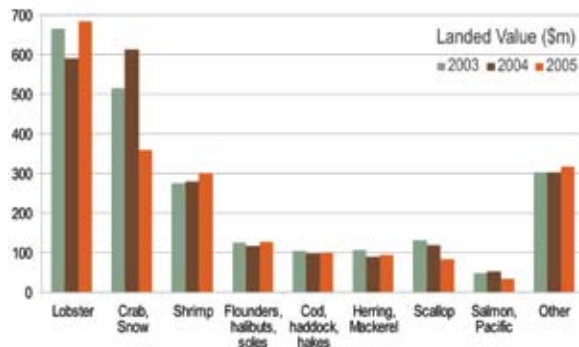
3.1 Commercial marine fisheries

CD - Section 3: 3.1.1 - 3.1.16

The commercial fishing industry underwent a period of transformation after Atlantic cod stocks collapsed in 1992, and following the subsequent moratorium on this species in several areas of Atlantic Canada. In the early 1990's, groundfish (particularly Atlantic cod) played a major role in the fish harvesting and processing sectors, but over time the dominance of groundfish decreased. In 2005, groundfish as a whole represented less than 11% of the total landed value of marine commercial fishing in Canada.

Crustaceans have replaced groundfish as the main species harvested in Atlantic Canada and due to their relatively high value, the total landed value increased. In 2005, the landed value of crustaceans represented close to 66% of the total landed value in Canada. However, in terms of volume landed, groundfish dominated over crustaceans, as the latter, while accounting for the two-thirds of total Canadian landed value, represented only 30% of the total volume of landings in 2005.

Figure 3.1: Total landed value, main commercial marine species, Canada, 2003-2005



Source: DFO, Economic Analysis and Statistics.

The most important crustaceans are lobster, snow crab and shrimp. Together, these species represented about 65% of the total landed value for marine species in Canada between 2003 and 2005.

The landed value of snow crab saw a sharp decrease of 41% in 2005, down to a total of \$359m. This represents a loss of \$254m compared to the record value of \$613m reached in 2004. The main cause of this decline was the

decreasing snow crab price that began at the end of the 2004 fishing season, a result of a substitution effect in the American market in response to the peak prices of the 2004 season. This price decrease has been drastic as in 2004 the average price of snow crab was \$5.93/kg, while in 2005 it decreased to \$3.76/kg.

In 2005, lobster outperformed snow crab. The average landed price for lobster increased by 9% to reach \$13.52/kg during that year. Since the total volume of lobster landings also increased, the total value of this species amounted to nearly \$700m in 2005, about \$100m more than in 2004.

The landed volume of scallop continued to decrease in 2005. In 2003, the total Canadian landings of scallop reached 94,000 tonnes. In 2005, the total landings decreased by almost 40% to 57,000 tonnes. As scallop prices have remained relatively unchanged between 2003 and 2005, the total landed value of scallops has dropped to \$82m in 2005, a decrease of \$49m compared to 2003.

Between 2004 and 2005, other commercial marine species in Canada have seen major increases in landed value. This includes shrimp⁶ (+\$20m), Pacific halibut (+\$11m), sablefish (+\$10m), mackerel (+\$8m) and haddock (+\$7m). In 2005, noticeable reductions in landed value took place in some fisheries such as Pacific Dungeness crab (-\$19m), Pacific salmon (-\$19m) and Pacific herring (-\$8m).

Details of the landed volume, value and price evolution for the main marine species landed in Canada between 2003 and 2005 are presented in Appendix II, Tables 6.1 to 6.3. An overview of the main fishing fleets in Canada is also presented in Appendix I, Tables 5.1 to 5.6.

⁵ All values and prices in this section are in Canadian dollars.

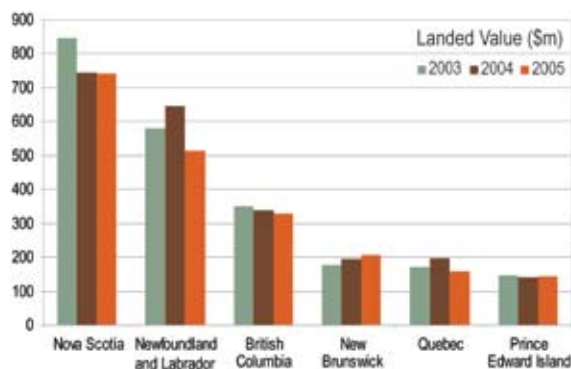
⁶ The "shrimp" category includes all of the shrimp species commercially fished in Canada, i.e. the *Pandalus borealis* and *Jordani* on the Atlantic coast and the seven species (including pink and coonstripe shrimp) fished on the Pacific coast.

3.1.1 Provinces

Marine commercial fishing is concentrated in six of the thirteen Canadian provinces and territories. Nova Scotia, Newfoundland and Labrador and British Columbia are the three provinces where fishing has the greatest value, followed by New Brunswick, Quebec and Prince Edward Island. British Columbia and New Brunswick also enjoy a major aquaculture production.

In 2005, 26% (291,000 t) of the total volume of marine fisheries in Canada was landed in Nova Scotia, for a total of \$742m, or 35% of the total Canadian landed value. This level is similar to that of 2004, when total landings in Nova Scotia attained 332,000 t for a value of \$744m or 33% of the total landed value in Canada.

Figure 3.2: Total landed value, marine fisheries, by province, Canada, 2003-2005



Source: DFO, Economic Analysis and Statistics.

As is the case in Nova Scotia, the total landed volume in Newfoundland and Labrador has remained stable. The total landed volume in this province has reached 357,000 t in 2005, similar to 2004. However, given the decline in the price of snow crab, the total value has fallen to \$515m, which represents a 20% decrease compared to 2004. Newfoundland and Labrador's share in the total landings in Canada decreased consequently by 4% during that same period, from 29% of the total landed value in Canada in 2004 to 25% in 2005.

British Columbia ranked third in terms of landings, as it contributed 16% of the total fishing value in Canada in 2005, for a total of \$329m (231,000 t). The total landed volume in British Columbia increased by 17% in 2005 over 2004, but due to the low price of important species such as Dungeness crab, salmon and Pacific herring in 2005, the total value of these landings was slightly less than in 2004.

New Brunswick and Quebec are in fourth and fifth places respectively. In 2005, the landed value in New Brunswick was \$208m, with Quebec at \$160m. Landings in these two provinces represent 16% of the total landed value in Canada. However, Quebec has suffered a sharp

decrease of 20% in the value of its landings between 2004 and 2005 while in New Brunswick, this value has increased by 7% during that same period.

Prince Edward Island is in sixth place regarding the volume and value of fishing in Canada. In 2005, 7% or \$144m of the total value of catches in Canadian waters was landed in Prince Edward Island.

3.1.2 NAFO areas, Atlantic Canada

Between 2003 and 2005, the southern part of the Gulf of St. Lawrence was the most important NAFO fishing area in terms of landed value in Canada. The presence of large stocks of lobster and snow crab partly explains the high value of fishing in this area. The northeastern part of Newfoundland and the southern Scotian shelf have also been highly productive areas during this period, contributing over half of the total landed value of marine species on the Canadian Atlantic coast. In 2004 and 2005, these three areas combined represented 65% of the total landed volume and 76% of the total landed value in Atlantic Canada.

Table 3.1: Total landed value by NAFO⁷ areas, marine fisheries, Atlantic Canada, 2003-2005

Groups	NAFO Areas	Landed Value (\$m)			% of Total (2005)
		2003	2004	2005	
Southern Gulf of St. Lawrence	4T, 4VN	509	549	513	29%
Southern Scotian Shelf	4X, 5Y, 6D, 6E	489	440	469	27%
North-Eastern Newfoundland	2J, 3K, 3L	360	408	314	18%
Southern Newfoundland	3Ps, 3MNO	137	130	107	6%
Northern Scotian Shelf	4W, 4VS	128	123	106	6%
Northern Gulf of St. Lawrence	4R, 4S, 3Pn	98	109	100	6%
Northern Labrador and Baffin Island	2G, 2H, 0A, 0B, 1B	96	96	92	5%
Georges Bank	5Ze	94	62	59	3%
Other	-	11	11	9	0%
Total		1,921	1,928	1,768	100%

Source: DFO, Economic Analysis and Statistics.

⁷NAFO stands for "Northwest Atlantic Fisheries Organization". A map of NAFO areas is available in Appendix III, showing the groupings of Table 3.1.

3.1.3 Months of activity in Atlantic Canada

On the Atlantic coast of Canada, most landings took place between May and October (78% of landings in 2005). However, it is in May and June that landings had the greatest value. In 2005, landings during these two months have reached a value of approximately \$775m, which is slightly less than half the total landed value of that year on the Canadian Atlantic coast.

In general, the volume of fish landed between October and March is low in New Brunswick, Prince Edward Island and Quebec. In Newfoundland and Labrador, fish landings are spread over the whole year, with a higher value during the months of May to July. The volume of landings is high throughout the year in Nova Scotia, while their value is higher between the months of May and July and in December.

Table 3.2: Total landed value by month, marine fisheries, Atlantic Canada, 2005

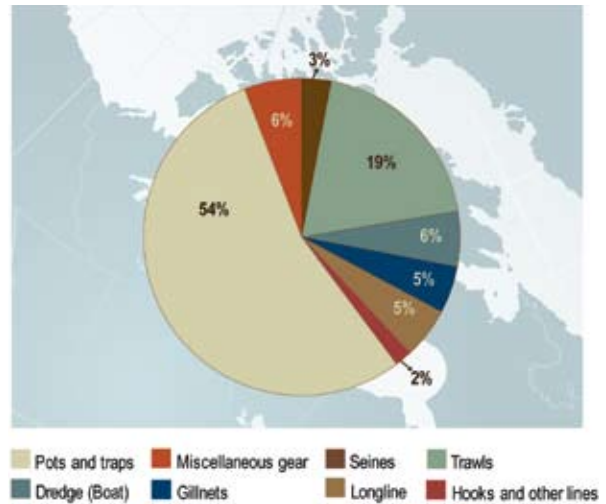
Months	Landed Value (\$m)					Total
	NS	NB	PEI	Que	NL	
January	42	2	-	6	16	66
February	29	2	-	-	16	48
March	29	2	-	-	19	51
April	52	2	-	14	34	102
May	135	72	62	64	78	410
June	92	58	50	49	116	364
July	62	6	3	15	90	175
August	53	19	13	5	47	138
September	36	13	11	3	27	89
October	32	5	4	2	32	75
November	43	18	1	1	24	86
December	139	7	-	-	17	164
Total	742	208	144	159	515	1,768

Source: DFO, Economic Analysis and Statistics.

3.1.4 Fishing gear

In 2005, nearly 54% of the marine fishing value in Canada came from species that were caught using traps, such as snow crab and lobster. In terms of value, trawling contributed to 19% of total catches in Canada, but 35% in terms of volume, since the market price of trawled species, such as groundfish and shrimp, are typically less than that of species caught using a trap, such a crab and lobster.

Figure 3.3: Total landed value by fishing gear type, marine fisheries, Canada, 2005



Source: DFO, Economic Analysis and Statistics.

3.1.5 Vessels

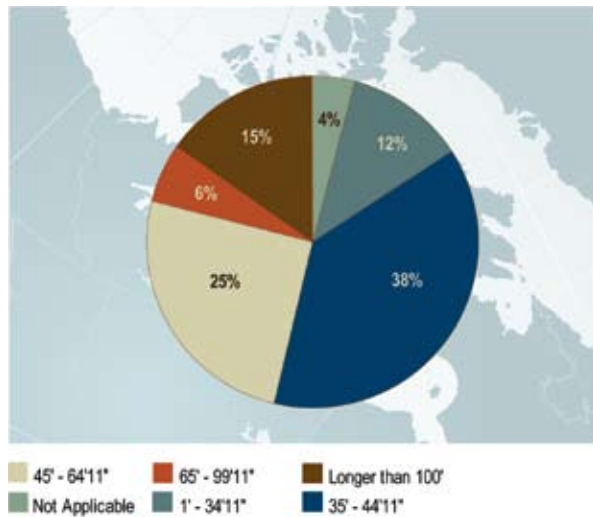
In 2005, there were 16,547 “active” vessels in Canada. A fishing vessel is considered active if at least one instance of fish landings is recorded during the year. This number has decreased slightly compared to 2004, when the number of active vessels amounted to 16,590.

The great majority (90%) of these vessels are inshore fishing vessels less than 45’ in length. However, while midshore and offshore fishing vessels (more than 45’ in length) represented less than 12% of all active fishing vessels in Canada, they registered more than 46% of the total Canadian landed value in 2005.

Table 3.3: Number of active fishing vessels by length group, 2003-2005

Vessel length	Number of Active Vessels ¹			% of Total (2005)
	2003	2004	2005	
1' - 34'11"	7,729	8,046	7,946	48%
35' - 44'11"	6,856	7,064	6,771	41%
45' - 64'11"	1,482	1,324	1,573	10%
65' - 99'11"	210	215	214	1%
More than 100'	92	83	78	0%
Total	16,242	16,590	16,547	100%

¹Vessel for which at least one landing is registered in a given year.
Source: DFO, Economic Analysis and Statistics.

Figure 3.4: Total landed value by boat length, marine fisheries, Canada, 2005

Source: DFO, Economic Analysis and Statistics.

The average landed value per fishing vessel was \$104,114 in Canada in 2005, 24% less than the average landed value in 2004. Among the main commercial species, landings of northern shrimp (*Pandalus Borealis*) and Pacific halibut had the highest value in 2005, reaching on average \$544,000 and \$179,000 respectively per vessel. The average landed value of lobster and Atlantic cod per vessel was much lower, although the total fleet was very large (13,000 vessels).

Table 3.4: Number of active vessels and average landed value of selected marine species by vessel, Canada, 2005

Selected species	Number of active vessels and average value of landings per vessel ¹		
	# active vessels	Average value as % of total vessels	Average value of landings by vessel (\$) ²
Snow crab	3,274	20%	109,534
Lobster	8,835	53%	77,418
Shrimp, p. borealis ³	463	3%	544,040
Scallops	672	4%	51,420
Dungeness crab	231	1%	121,152
Pacific halibut	271	2%	178,797
Greenland halibut	867	5%	46,123
Herring, Atlantic	1,784	11%	21,839
Atlantic cod	4,735	29%	7,184
Total	16,547	100%	104,114

¹There is no direct link between the value of landings and the net income by vessel since operating costs vary from one fishery to another.

²Calculated by dividing the total landed value for each species listed by the number of vessels which registered at least one landing of that species. Note that some vessels may have landed more than one of the species listed in the table and hence, the categories presented are not mutually exclusive.

³This species represented more than 90% of the total value of shrimp landings in Canada in 2005.

Source: DFO, Economic Analysis and Statistics.

In 2005, 39% of the total active fishing vessels in Canada landed fish in Newfoundland and Labrador (6,380 vessels). Nova Scotia came second with 3,982 vessels, about 24% of the Canadian total. Since 2004, the number of active vessels in New Brunswick and British Columbia has decreased, while it increased in the four other fishing provinces.

Table 3.5: Number of active fishing vessels by province of landing, Canada, 2003-2005

Province	Number of Active Vessels ¹			% du total (2005)
	2003	2004	2005	
Nova Scotia	3,910	3,910	3,982	24%
New Brunswick	1,942	1,957	1,934	12%
Prince Edward Island	1,357	1,415	1,418	9%
Quebec	1,179	1,232	1,252	8%
Newfoundland and Labrador	5,948	6,225	6,380	39%
British Columbia	2,441	2,402	2,164	13%
Total²	16,242	16,590	16,547	100%

¹Vessels for which at least one landing is registered in a given year.

²The sum of rows may differ from the total as some vessels land in more than one province. Those vessels are counted only once in the Canadian total.

Source: DFO, Economic Analysis and Statistics.

3.2 Commercial freshwater fisheries

CD - Section 3: 3.2.1

In Canada, freshwater commercial fishing primarily takes place in Lakes Winnipeg, Cedar, Manitoba, Winnipegosis and Great Slave. This fishing activity is relatively modest when compared to the commercial fishing of marine species. In 2005, it amounted to only 3% of the commercial fishing value in Canada.

The landed volume of freshwater species has decreased by 4,000 tonnes (-11%) in 2005 compared to the previous year, for a total of 32,000 tonnes. However, the increased price of some species has resulted in a total landed value of \$66m, \$2.2m (4%) more than in 2004.

The main freshwater species fished commercially in Canada are pickerel, perch and whitefish. Landings of these three species represented close to 84% of total landings of freshwater species in Canada in 2005.

Table 3.6: Total landed value by species, commercial freshwater fisheries, Canada, 2003-2005

Species	Landed value (\$,000)			% change 2004-2005
	2003	2004	2005	
Pickereel	29,059	26,130	31,521	21%
Perch	14,443	13,429	14,973	11%
Whitefish	12,877	10,790	8,786	-19%
Smelt	1,785	3,121	1,678	-46%
White bass	2,666	2,562	2,316	-10%
Sauger	2,580	1,866	1,018	-46%
Pike	1,589	1,203	855	-29%
Sucker (mullet)	1,205	756	793	5%
Lake trout	620	586	486	-17%
Other	4,684	3,351	3,609	8%
Total	71,504	63,794	66,035	4%

Source: DFO, Central and Arctic, Policy Sector.

Freshwater commercial fishing is the most important in Ontario and Manitoba, with respective landed values of \$35m and \$23m in 2005. In 2005, fish landings in these two provinces represented 88% of the overall landed value of freshwater commercial species in Canada.

Table 3.7: Total landed value by province, commercial freshwater species, Canada, 2003-2005

Provinces	Landed value (\$,000)			% change 2004-2005
	2003	2004	2005	
Ontario	31,782	29,513	35,133	19%
Manitoba	27,245	24,655	22,683	-8%
Saskatchewan	4,346	2,985	2,830	-5%
Quebec	2,930	2,977	2,134	-28%
Alberta	3,034	2,249	2,032	-10%
Northwest Territories	1,231	1,009	817	-19%
New Brunswick	936	406	406	0%
Total	71,504	63,794	66,035	4%

Source: DFO, Central and Arctic, Policy Sector.

3.3 Aquaculture

CD - Section 3: 3.3.1

Overall aquaculture production has reached a total value of \$715m in Canada in 2005, close to \$190m more than in 2004 (+36%). This high value can be attributed to a marked increase in the price of salmon, which rose from \$4.00/kg in 2004 to \$5.52/kg in 2005.

The aquaculture production value of mussels and oysters has remained relatively stable between 2004 and 2005, while that of trout production has decreased by 5%. Meanwhile, the value of clam production has increased nearly by 20% in 2005, due to a higher production volume.

Table 3.8: Value of aquaculture production by major species, Canada, 2003-2005

Major species	Value of aquaculture production (\$,000)			% change 2004-2005
	2003	2004	2005	
Salmon	441,471	387,038	543,634	40%
Mussels	30,929	32,761	33,168	1%
Trout	25,714	22,086	21,070	-5%
Oysters	19,208	16,207	16,095	-1%
Clams	7,903	7,052	8,378	19%
Other	65,759	61,418	92,762	51%
Total Canada*	590,984	526,562	715,107	36%

Source: Statistics Canada, 2006, Aquaculture Statistics 2005, Catalogue no. 23-222-XIE.

*Totals exclude confidential data.

British Columbia and New Brunswick dominate Canadian aquaculture production, particularly in salmon, which is concentrated in these two provinces. In 2005, the production value of salmon exceeded 75% of the total aquaculture production value in Canada.

Table 3.9: Value of aquaculture production by province and species, Canada, 2005

Province	Value of aquaculture production in 2005 (\$,000)				
	Salmon	Mussels	Trout	Other	Total
British Columbia	318,634	278	673	17,325	336,910
New Brunswick	225,000	550	3,000	1,950	230,500
Prince Edward Island	x	21,400	x	7,400	28,800
Newfoundland and Labrador	x	6,900	0	26,600	33,500
Nova Scotia	x	3,060	0	37,358	40,418
Ontario	0	0	15,500	0	15,500
Quebec	0	980	1,854	9,716	12,550
Other	0	0	43	16,886	16,929
Total Canada*	543,634	33,168	21,070	117,235	715,107

Source: Statistics Canada, 2006, Aquaculture Statistics 2005, Catalogue no. 23-222-XIE.

*Totals exclude confidential data.

4 International trade

CD - Section 4: 4.1.1 - 4.1.10

4.1 Exports

Canadian exports of marine, freshwater and aquaculture fish products have reached a total value of \$4.31 billion in 2005, which is \$143m less than in 2004. This is mainly attributable to decreases in the price of snow crab, scallop and Pacific Dungeness crab. The most important Canadian exports in 2005 were lobster, snow crab, shrimp and farmed salmon, which combined represented more than half of the total value of Canadian seafood exports during the year.

Table 4.1: Total value of Canadian seafood exports by species, 2003-2005

Species	Export Value (\$m)			% change 04-05
	2003	2004	2005	
Groundfish	513	481	476	-1%
Cod, Haddock	190	154	126	-18%
Halibuts, Flounders	115	95	62	-35%
Hake	25	59	69	17%
Greenland Turbot	44	39	61	55%
Other	138	134	158	18%
Pelagic fish	904	912	1,014	11%
Herring, Mackerel	234	241	280	16%
Salmon, Farmed	487	423	485	15%
Salmon, Pacific (wild)	125	151	157	4%
Tuna	24	39	31	-21%
Other	33	59	62	5%
Shellfish	2,703	2,653	2,423	-9%
Lobster	1,030	952	992	4%
Crab, snow	680	659	488	-26%
Crab, other	182	266	159	-40%
Shrimp	472	438	478	9%
Scallop	133	131	108	-18%
Clams	109	109	99	-9%
Other	98	97	99	2%
Other marine species	273	276	274	-1%
Freshwater fish	139	132	124	-6%
Perch	24	26	25	-2%
Pickerel	37	37	37	-2%
Other	78	68	62	-9%
Total	4,532	4,455	4,312	-3%

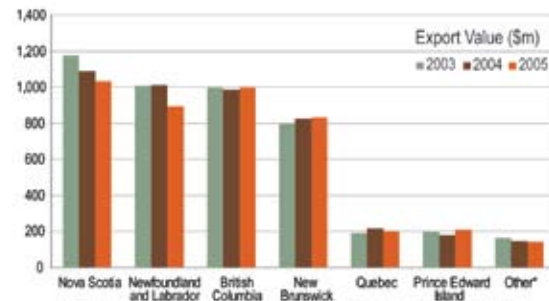
Source: Statistics Canada, International Trade Division.

In 2005, some species have witnessed a good year in terms of export values. Among these, mackerel exports have increased by \$35m (+81%) since 2004, due to a higher price in 2005. Greenland turbot, aquaculture salmon and lobster exports have increased by \$22m (+55%), \$65m (+15%) and \$40m (+4%), respectively.

On the other hand, snow crab exports decreased by \$171m (-26%), due to a market price that dropped to an average of \$9.08/kg in 2005 after having exceeded \$12/kg⁸ in 2003-2004. Rock crab and Pacific Dungeness crab have followed a similar trend with a \$104m (-40%) decrease compared to 2004. Finally, Pacific halibut and scallop also had a poor year in 2005, with exports decreasing by \$40m (-40%) and \$23m (-18%), respectively.

The provinces of Nova Scotia, British Columbia, Newfoundland and Labrador and New Brunswick were the main exporters of seafood in Canada in 2005. Each of those provinces' seafood exports value exceeded \$800m, and together, they amounted to 87% of the total value of Canadian seafood exports in 2005.

Figure 4.1: Total value of Canadian seafood exports by province, 2003-2005

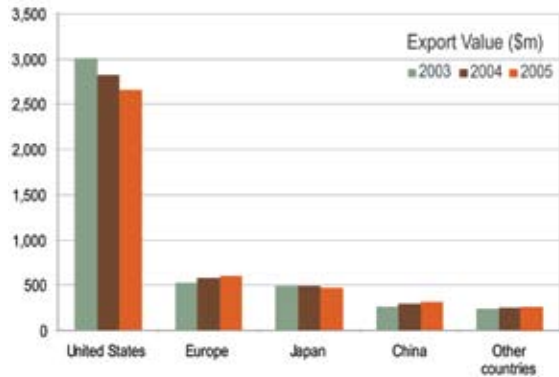


*Ontario, Manitoba, Saskatchewan, Alberta, Northwest Territories, Yukon, Nunavut.
Source: Statistics Canada, International Trade Division.

The main markets for Canadian fish and seafood are the United States, Japan and European countries. The United States remains the largest among these markets. Between 2003 and 2005, the US market has absorbed on average two thirds of Canadian sea product exports (in terms of value). The European market (mainly the United Kingdom and Denmark) came second with 14% of the export value, followed by Japan with 11%. Finally, 9% of Canadian exports of fish and seafood went to China in 2005.

⁸Prices were obtained by dividing the value of Canadian snow crab exports by their volume.

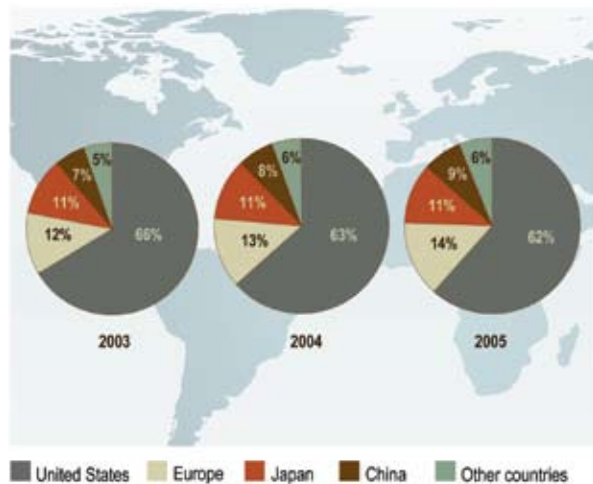
Figure 4.2: Total value of Canadian seafood exports by major markets, 2003-2005



Source: Statistics Canada, International Trade Division.

Sockeye, Pink and Chum salmon exports from British Columbia and northern shrimp, spiny dogfish and mackerel exports from the Atlantic provinces mainly went to the European market in 2005. As for the US market, it absorbed most Canadian exports of lobster, farmed salmon, Chinook and Coho salmon, scallop, snow crab, redfish and most groundfish, except for hake. Finally, Japan was the main destination for herring, sea urchin, albacore tuna, Pacific Dungeness crab and sablefish.

Figure 4.3: Share (%) of the value of Canadian exports by major markets, 2003-2005.



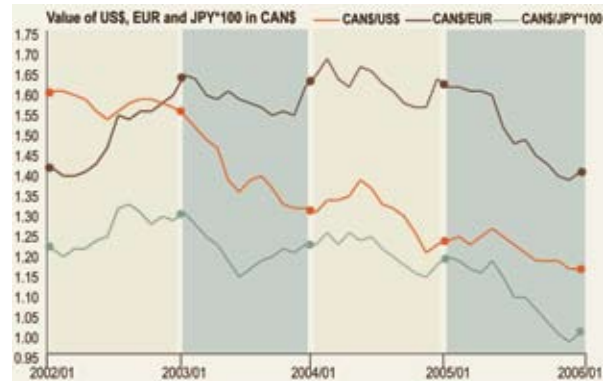
Source: Statistics Canada, International Trade Division.

Between 2003 and 2005, the share of the total export value of Canadian fish and seafood destined for the United States decreased from 66% to 62%, while that of Canadian exports to Europe has risen from 12% in 2003 to 14% in 2005.

One of the more probable causes of this decrease of Canadian seafood exports to the United States is the exchange rate, since over the past three years; the US dollar has greatly depreciated as compared to the Canadian dollar. In January 2003, Canadian exporters netted 1.54 Canadian dollars per U.S. dollar; while in

December 2005, they received only 1.16 Canadian dollars, which represents a 25% loss. By way of comparison, the value of the Euro has remained more stable as compared to the Canadian dollar. This development made the European market more attractive to Canadian exporters, and partly explains the increase in exports to this market between 2003 and 2005.

Figure 4.4: Movement of exchange rates between the Canadian dollar and the US dollar, the Euro and the Japanese Yen, 2002/01-2006/01



Source: Bank of Canada.

4.2 Imports

Canadian imports of marine, freshwater and aquaculture products have reached a total value of \$2.07 bn in 2005, which represents a slight increase of \$17m (+1%) compared to 2004. The main imported species were shrimp, lobster, tuna, salmon, cod and haddock. Together, these species represented more than half the total value of Canadian fish imports in 2005.

Table 4.2: Total value of Canadian seafood imports, fish and seafood products, by species, 2003-2005

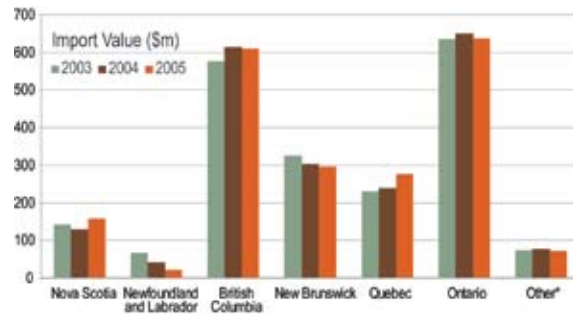
Species	Import Value (\$m)			% change 04-05
	2003	2004	2005	
Groundfish	359	322	284	-12%
Cod, Haddock	163	139	109	-22%
Halibut	93	83	84	1%
Other	103	100	92	-8%
Pelagic fish	375	404	386	-4%
Herring, Mackerel	34	32	31	-3%
Salmon, Farmed	34	36	28	-21%
Salmon, Pacific	166	180	171	-5%
Tuna	123	140	138	-1%
Other	18	16	18	10%
Shellfish	871	887	907	2%
Lobster	225	206	215	4%
Crab, snow	2	10	2	-82%
Crab, other	48	51	72	40%
Shrimp	390	409	391	-4%
Scallop	50	42	60	45%
Clams	35	44	38	-12%
Other	120	125	128	3%
Other marine species	372	370	409	11%
Freshwater fish	70	72	85	17%
Total	2,047	2,055	2,071	1%

Source: Statistics Canada, International Trade Division.

The import value of scallop, lobster and king crab has increased by \$51m in 2005, while that of farmed salmon, cod and shrimp has decreased by \$66m.

The provinces of Ontario, British Columbia, New Brunswick and Quebec were the main importers of seafood in Canada in 2005. Together, they accounted for 88 % of the total value of Canadian seafood imports in 2005.

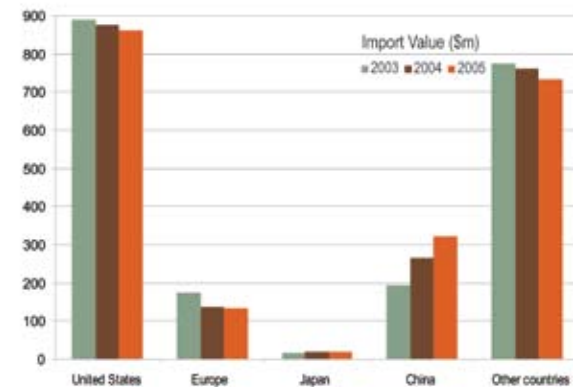
Figure 4.5: Total value of Canadian seafood imports by province, 2003-2005



*Prince Edward Island, Manitoba, Saskatchewan, Alberta, Yukon.
Source: Statistics Canada, International Trade Division.

Slightly more than 40% of the total value of Canadian imports of fish and seafood came from the United States in 2005, for a total of \$862m. China came second with 16% of the total import value, followed by Thailand with 12%, and then Vietnam and Chile with 4% each.

Figure 4.6: Total value of Canadian seafood imports by major markets, 2003-2005



Source: Statistics Canada, International Trade Division.

5 Appendix I: Overview of the main fishing fleets in Canada

Notes regarding all tables:

1. The overview of marine commercial fishing fleets is presented for all six administrative regions of DFO. Graph 5.1 below presents a subdivision of Canada showing DFO administrative regions.
2. A “fish harvester” is defined here as the holder of one or more fishing licenses who was active in 2005, i.e. who landed at least 1kg of marine or freshwater species during the year. Fleets are in general mutually exclusive; however it is possible that some fish harvesters are counted against more than one fleet.

Figure 5.1: DFO administrative regions



Source: DFO, Economic Analysis and Statistics.

Table 5.1: Overview of main fleets, DFO Maritimes Region (Southern New Brunswick and Nova Scotia except Northumberland Strait)

Fishing Fleet	Fishing Method	Management Method	Vessel Length	Number of Fish Harvesters	Main (directed) Species	Landed Value in 2005 (\$m)
Multispecies Non-Vessel	Rakes, Tongs	Competitive	Non-Vessel	331	Clams	\$3m
Multispecies Inshore	Drag, Trawl, Traps, Gillnet, Longline, Seine	Competitive, Trap Limits, IQ	< 65'	3,308	Lobster, Groundfish, Snowcrab, Scallop, Swordfish, Herring, Sea Urchins, Shrimp, Tuna, Mackerel	\$542m
Multispecies Midwater	Trawl, Gillnet	Competitive, IQ	65' - 100'	5	Groundfish	\$21m
Multispecies Offshore	Drag, Trawl, Traps	IQ, Trap Limits	> 100'	19	Scallop, Shrimp, Clams, Lobster, Groundfish	\$104m
Aboriginal Bands	Drag, Trawl, Traps, Gillnet, Longline, Seine	Competitive, Trap Limits, IQ	All	17	Snowcrab, Lobster, Groundfish, Scallop, Shrimp, Sea Urchins	\$29m
<i>Other</i>						\$19m
Total				3,680		\$718m

Source: DFO, Maritimes Region, Statistics and Licencing Units.

Table 5.2: Overview of main fleets, DFO Gulf region (Eastern New Brunswick, Prince Edward Island, Nova Scotia's Northumberland Strait)

Fishing Fleet	Fishing Method	Management Method	Vessel Length	Number of Fish Harvesters	Main (directed) Species	Landed Value in 2005 (\$m)
Crabbers	Traps	IQ	< 45' and 50' - 100'	260	Snow Crab	\$82m
Shrimp fishers	Trawl	IQ	All	20	Shrimp	\$7m
Herring Seiners	Purse Seine	IQ	> 65'	6	Herring	\$2m
Lobster / Multi-species	Traps, Gill-net, Hook & Line	Trap Limits (75-375)	< 45'	3,175	Lobster (Directed), Herring, Tuna, Snow Crab, Groundfish	\$225m , inc. \$188m lobster and \$14m snow crab
Groundfish Specialists	Trawl, Seine, Longline, Gillnet	IQ and Competitive	< 65'	35	Groundfish (Directed), Shrimp, Snow crab	\$8m , inc. \$6m snow crab, \$1m shrimp and \$1m groundfish
Aboriginals	Traps	IQ, Trap Limits (75-375)	< 45'	207	Snow Crab, Lobster	\$20m , inc. \$14m snow crab and \$6m lobster
<i>Other</i>						<i>\$32m</i>
Total				3,703		\$376m

Source: DFO, Gulf Region, Statistics and Licencing Units.

Table 5.3: Overview of main fleets, DFO Quebec Region (Quebec)

Fishing Fleet	Fishing Method	Management Method	Vessel Length	Number of Fish Harvesters ¹	Main (directed) Species	Landed Value in 2005 (\$m)
Crabbers	Traps	IQ	< 100'	156	Crab	\$48m
Lobster fishers	Traps	Trap limits	< 65'	583	Lobster	\$44m
Shrimp fishers	Trawl	IQ	< 100'	33	Shrimp	\$14m
Groundfish / Multispecies	Gillnet, Trawl, Traps	IQ and Competitive	< 45'	304	Cod, Greenland Halibut, Atlantic Halibut, Temporary Snow crab and Shrimp allocations	\$13m
Midshore Groundfish / Multispecies	Longline, Traps, Trawl	IQ and Competitive	> 45'	99	Cod, Greenland Halibut, Atlantic Halibut, Temporary Snow crab et shrimp and Shrimp allocations	\$9m
Aboriginals	Trawl, Gillnet, Traps	IQ and Competitive	< 100'	12	Groundfish, Lobster, Shrimp and Snow crab	\$10m
<i>Other</i>						<i>\$22m</i>
Total				1,187		\$160m

¹Number of active Quebec fish harvesters in 2005, "core" and "s/o" designations only.
Source: DFO, Quebec Region, Statistics and Licensing Unit and Policy & Economics Branch.

Table 5.4: Overview of main fleets, DFO Newfoundland and Labrador Region (Newfoundland and Labrador)

Fishing Fleet	Fishing Method	Management Method	Vessel Length	Number of Fish Harvesters ¹	Main (directed) Species	Landed Value in 2005 (\$m)
Inshore	Pots, Gillnet, Traps, Rifles	IQ, Competitive	< 35'	2,781	Groundfish, Snow Crab, Lobster, Cod, Roe (lumpfish), Capelin, Seal	\$84m , inc. \$30m Snow crab and \$25m Lobster
Nearshore	Pots, Otter trawl, Gillnet, Purse seine, Rifles, Hakapik	IQ, Competitive	35' - 65"	1,209	Groundfish, Snow Crab, Shrimp(Pandalus Borealis), Seal, Mackerel, Greenland halibut	\$219m , inc. \$104m Snow crab and \$59m Shrimp
Midshore	Pots, Purse seine, Gillnet	IQ, Competitive	100'	9	Snow Crab, Mackerel, Greenland halibut, Herring, Capelin	\$7m , inc. \$2m Greenland halibut and \$1m Herring
Offshore	Otter Trawl, Pots	Enterprise allocations, IQ, Competitive	100' +	14	Shrimp (Pandalus Borealis), Clams (Stimpsons surf), Greenland halibut, Yellowtail flounder, Snow Crab, Cod	\$122m , inc. \$77m Shrimp, \$11m Greenland halibut and \$10m Yellowtail flounder
Aboriginal, Inshore	Pots, Gillnet, Traps, Rifles	IQ, Competitive	< 35'	4	Groundfish, Snow Crab, Lobster, Cod, Roe (lumpfish), Capelin, Herring, Mackerel	n/a
Aboriginal, Nearshore	Pots, Otter trawl, Gillnet, Purse seine, Rifle, Hakapik	IQ, Competitive	35' - 64'11"	9	Groundfish, Snow Crab, Seal, Mackerel, Greenland halibut, Bluefin Tuna, Swordfish, Tuna, Scallop	n/a
Aboriginal, Offshore	Gillnet, Otter Trawl	Enterprise allocations, Competitive	65' - 100'	1	Groundfish, Greenland halibut, Shrimp	n/a
<i>Other</i>						\$83m
Total				4,027		\$515m

¹Active "core" fish harvesters in 2005 only.

Source: DFO, Newfoundland and Labrador Region, Statistics and Licencing Units.

Table 5.5: Overview of main fleets, DFO Pacific Region (British Columbia)

Fishing Fleet	Fishing Method	Management Method	Vessel Length	Number of Fish Harvesters ¹	Main (directed) Species	Landed Value in 2005 (\$m)
Shellfish	Dive, Dredge, Trawl, Traps, Hand picking or digging, Longline, Seine	IQ, Competitive, Trap Limits	12' - 150'	657	Prawn, Shrimp, Geoduck, Dungeness crab, Clam, Horse clam, Euphausiid, Sea urchins, Sea cucumber, Opal squid	\$112m , including \$43m Prawn and Shrimp and \$32m Geoduck
Groundfish - multispecies	Trawl, Longline	IQ, Competitive	9' - 187'	134	Groundfish (Rockfish, Longspine/Shortspine thornyheads, Greenlings, Lingcod, Perch, Cod, Sole, Flounder, Dogfish, Pollock, Hake, Tuna)	\$61m
Pacific Halibut	Longline	IQ	9' - 85'	223	Halibut	\$52m
Sablefish	Longline, Traps	IQ	23' - 116'	45	Sablefish	\$29m
Salmon	Gillnet, Purse seine, Troll	Competitive	17' - 100'	1,430	Sockeye, Coho, Pink, Chum, Chinook	\$34m
Herring	Purse seine, Gillnet, Seine, Dip net	IQ, Competitive	20' - 101'	216	Herring, Herring Roe, Herring spawn on kelp	\$24m
<i>Other</i>						<i>\$17m</i>
Total				2,705		\$329m

¹Since data on the number of active fish harvesters is not available for Pacific region, the number of vessels for which at least one landing was registered in 2005 was used as a proxy.

Source: DFO, Pacific Region, Statistics and Licensing Units.

Table 5.6: Overview of main fleets, DFO Central & Arctic Region (Freshwater fisheries and Canadian Arctic)

Fishing Fleet	Fishing Method	Management Method	Vessel Length	Number of Fish Harvesters	Main (directed) Species	Landed Value in 2005 (\$m)
Groundfish, North Atlantic (NAFO Sub-Area 0)	Trawl, Longline, (under ice) Gillnet	IQ	> 65'	14	Greenland halibut	n/a
Shrimp, North Atlantic (NAFO Sub-Area 0)	Trawl	IQ	> 65'	5	Shrimp (Pandalus Borealis)	n/a
Freshwater Fisheries (MB, SK, AB, NWT and Northwestern Ontario)	Gillnet	Competitive	n/a	2,828	Whitefish, Pickerel, Pike, other	\$28m
Great Lakes Fisheries	Gillnet, Trap net, Trawl, Hoop net, Other	IQ	n/a	482	Yellow Perch, Walleye, Lake Whitefish, Bass, Smelt, other	\$35m
Aboriginals	Gillnet	Competitive	n/a	366	Arctic Char	n/a
<i>Other</i>						<i>\$3m</i>
Total				3,695		\$66m

Source: DFO, Central and Arctic Region, Policy & Economics Branch.

6 Appendix II: Landings tables, marine fisheries

Table 6.1: Landed volume of the main species fished in Canada, thousand tonnes, 2003-2005

Main species, by ISSCAAP division	Landed Volume (,000 t)			% of Total (2005)	% change 2004-2005
	2003	2004	2005		
Diadromous fishes	46	31	33	3%	5%
Salmon	39	26	27	2%	6%
Other diadromous fish	7	5	5	0%	3%
Marine fishes	558	549	580	53%	6%
Groundfish	244	236	257	23%	9%
Atlantic halibut	2	2	2	0%	-4%
Greenland halibut	15	15	16	1%	6%
Pacific halibut	6	6	7	1%	4%
Cod, Atlantic	23	25	26	2%	6%
Haddock	16	16	20	2%	24%
Hake, North Pacific	69	66	88	8%	34%
Rockfishes, Pacific	22	20	19	2%	-7%
Sablefish	3	3	5	0%	56%
Other groundfish	89	83	74	7%	-11%
Pelagic fish	314	313	324	29%	3%
Herring	200	183	163	15%	-11%
Herring, Pacific	31	24	29	3%	19%
Swordfish	1	1	2	0%	32%
Tuna	1	2	2	0%	22%
Mackerel	45	54	56	5%	4%
Capelin	22	34	37	3%	10%
Other pelagic fish	13	15	35	3%	133%
Crustaceans	310	350	333	30%	-5%
Crab, Dungeness	7	9	5	0%	-43%
Crab, Snow (Queen)	97	103	95	9%	-8%
Lobster	50	47	52	5%	9%
Shrimp	146	179	170	15%	-5%
Other crustaceans	11	11	11	1%	2%
Molluscs	146	132	102	9%	-23%
Scallop	94	83	57	5%	-31%
Clams, Pacific geoduck	2	2	2	0%	-13%
Clams, Stimpson Surf	27	24	19	2%	-20%
Other molluscs	23	24	24	2%	2%
Other¹	59	56	56	5%	0%
Total	1,119	1,118	1,104	100%	-1%

¹Other = "Whales, seals and other aquatic mammals", "Miscellaneous aquatic animals", "Miscellaneous aquatic products" and "Aquatic plants". Data on seal skins and other seal parts are provided in numbers instead of landed weight and hence, are not included in the total volume estimates. Source: DFO, Economic Analysis and Statistics.

Table 6.2: Landed value of the main species fished in Canada, million dollars, 2003-2005

Main species, by ISSCAAP division	Landed Value (\$m)			% of Total (2005)	% change 2004-2005
	2003	2004	2005		
Diadromous fishes	54	57	40	2%	-29%
Salmon	48	53	34	2%	-35%
Other diadromous fish	5	4	6	0%	53%
Marine fishes	439	401	448	21%	12%
Groundfish	296	272	292	14%	7%
Atlantic halibut	15	15	15	1%	-4%
Greenland halibut	37	37	40	2%	7%
Pacific halibut	47	38	48	2%	28%
Cod, Atlantic	34	35	34	2%	-4%
Haddock	28	20	27	1%	32%
Hake, North Pacific	16	16	21	1%	34%
Rockfishes, Pacific	26	27	25	1%	-9%
Sablefish	23	20	31	1%	51%
Other groundfish	70	63	51	2%	-19%
Pelagic fish	143	128	156	7%	22%
Herring	43	36	39	2%	10%
Herring, Pacific	48	36	28	1%	-21%
Swordfish	12	10	13	1%	32%
Tuna	16	15	16	1%	11%
Mackerel	15	17	25	1%	46%
Capelin	4	9	11	1%	18%
Other pelagic fish	6	5	23	1%	352%
Crustaceans	1,501	1,538	1,393	66%	-9%
Crab, Dungeness	38	47	28	1%	-40%
Crab, Snow (Queen)	514	613	359	17%	-41%
Lobster	665	590	698	33%	18%
Shrimp	275	280	300	14%	7%
Other crustaceans	9	8	8	0%	-1%
Molluscs	235	214	171	8%	-20%
Scallop	131	119	82	4%	-31%
Clams, Pacific geoduck	33	34	32	2%	-7%
Clams, Stimpson Surf	36	28	23	1%	-19%
Other molluscs	35	33	35	2%	4%
Other¹	43	50	45	2%	-11%
Total	2,272	2,261	2,098	100%	-7%

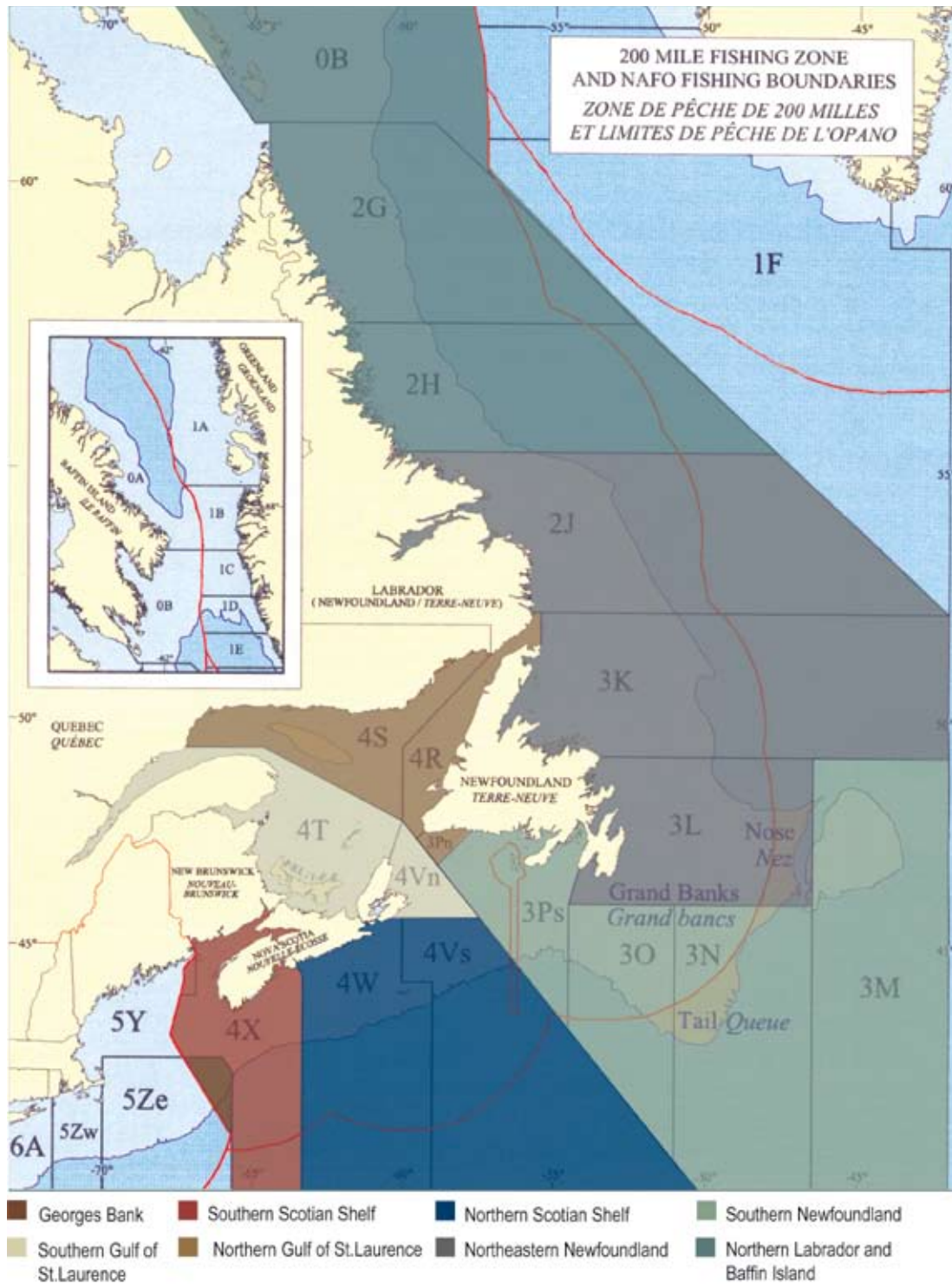
¹Other = "Whales, seals and other aquatic mammals", "Miscellaneous aquatic animals", "Miscellaneous aquatic products" and "Aquatic plants".
Source: DFO, Economic Analysis and Statistics.

Table 6.3: Landed price of the main species fished in Canada, \$/kg 2003-2005

Main species, by ISSCAAP division	Landed Price (\$/kg)				
	2003	2004	2005	% change 2004-2005	% change 2003-2005
Diadromous fishes	1.18	1.84	1.24	-32%	6%
Salmon	1.26	2.04	1.25	-39%	0%
Other diadromous fish	0.74	0.80	1.19	49%	61%
Marine fishes	0.79	0.73	0.77	6%	-2%
Groundfish	1.21	1.15	1.14	-2%	-6%
Atlantic halibut	7.94	8.21	8.28	1%	4%
Greenland halibut	2.40	2.55	2.57	1%	7%
Pacific halibut	7.48	5.93	7.31	23%	-2%
Cod, Atlantic	1.47	1.43	1.30	-9%	-12%
Haddock	1.79	1.24	1.31	6%	-27%
Hake, North Pacific	0.24	0.24	0.24	0%	2%
Rockfishes, Pacific	1.22	1.35	1.32	-2%	8%
Sablefish	8.98	6.73	6.50	-3%	-28%
Other groundfish	0.79	0.76	0.69	-10%	-13%
Pelagic fish	0.46	0.41	0.48	18%	6%
Herring	0.21	0.20	0.24	24%	12%
Herring, Pacific	1.57	1.47	0.98	-34%	-38%
Swordfish	9.12	8.40	8.40	0%	-8%
Tuna	10.69	8.49	7.72	-9%	-28%
Mackerel	0.34	0.32	0.45	40%	32%
Capelin	0.16	0.27	0.29	7%	77%
Other pelagic fish	0.45	0.34	0.65	94%	46%
Crustaceans	4.84	4.40	4.18	-5%	-14%
Crab, Dungeness	5.41	4.96	5.18	4%	-4%
Crab, Snow (Queen)	5.30	5.93	3.76	-37%	-29%
Lobster	13.35	12.43	13.52	9%	1%
Shrimp	1.88	1.57	1.76	13%	-6%
Other crustaceans	0.83	0.79	0.76	-3%	-8%
Molluscs	1.61	1.62	1.68	3%	4%
Scallop	1.40	1.45	1.44	0%	3%
Clams, Pacific geoduck	19.03	19.03	20.29	7%	7%
Clams, Stimpson Surf	1.31	1.15	1.17	1%	-11%
Other molluscs	1.53	1.40	1.44	2%	-6%
Other¹	0.73	0.91	0.81	-11%	11%
Total	2.03	2.02	1.90	-6%	-6%

¹Other = "Whales, seals and other aquatic mammals", "Miscellaneous aquatic animals", "Miscellaneous aquatic products" and "Aquatic plants".
Source: DFO, Economic Analysis and Statistics.

7 Appendix III: Map of NAFO fishing areas



Source: DFO, Communications Branch and Economic Analysis and Statistics.

