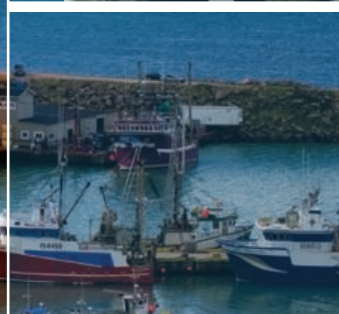
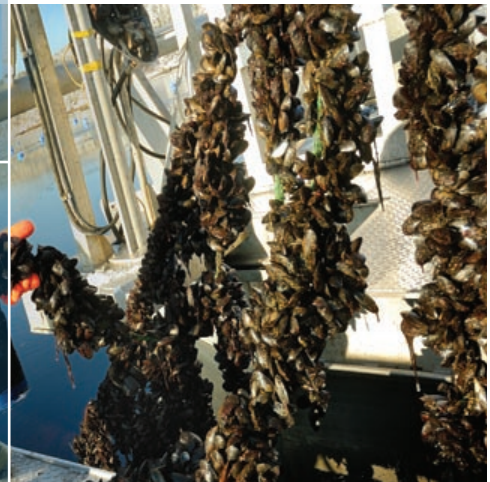


Seafood Industry Year in Review 2008



Contents

SEAFOOD INDUSTRY YEAR IN REVIEW 2008

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Back Cover Aquaculture Cage Site - Travis Mahoney

PREPARED BY:

Planning Services Division
Department of Fisheries and Aquaculture
March 2009

Message from **the Minister**

I am very pleased to make my first contribution to the *Seafood Industry Year in Review*. This publication emphasizes key information pertaining to our province's fishery and aquaculture sectors.

The Newfoundland and Labrador seafood industry again surpassed \$1 billion in production value in 2008. Snow crab and shrimp continued to play a major role in capture fisheries, accounting for \$365.9 million, almost 70 percent of landed value. The aquaculture industry rose to record levels, registering an export value over \$63 million.

In 2008, our government committed over \$2 million in funding to projects under the Fisheries Technology and New Opportunities Program, which was created to foster innovation and diversification in the province's fishery. Projects which received support in 2008 included initiatives in product development, improved quality, safety, energy efficiency and seafood market research and development.

There were many positive developments in 2008 which will bode well for our province's aquaculture industry. Plans have been finalized for the development of a new aquatic veterinary diagnostic facility in St. Alban's which will support expansion of thisok industry. Construction on this facility is expected to commence in 2009.

Our seafood industry performed well in 2008. We are, however, aware of challenges such as the global economic crisis and competition from low-cost producers. Our government will continue to monitor the global economy and work with industry to address the challenges ahead.

A handwritten signature in black ink that reads "Tom Hedderson". The signature is written in a cursive style with a long horizontal line extending to the left from the start of the name.

Honourable Tom Hedderson, M.H.A.
Harbour Main
Minister of Fisheries and Aquaculture

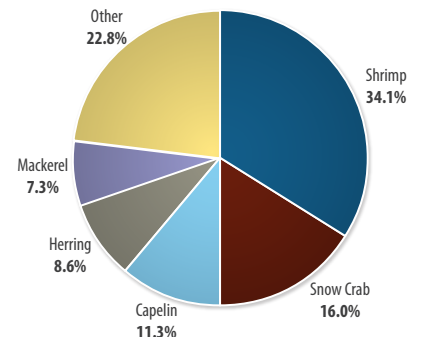


Seafood Industry Performance 2008

The seafood industry experienced another record performance in 2008, despite a world-wide economic crisis, high fuel costs and competition from low-cost producers. Production value exceeded \$1 billion and the industry generated direct employment for approximately 24,000 residents located in over 500 communities throughout the province. Shellfish continued to play a significant role in capture fisheries, accounting for over 194,000 tonnes. Aquaculture production jumped to record levels, surpassing 11,000 tonnes.

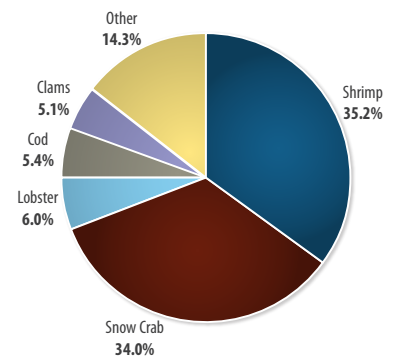
In 2008, Newfoundland and Labrador seafood was shipped to over 55 countries. While export volume decreased by almost 10 percent, export value remained over \$800 million, similar to previous years. This was due to high market prices for key species and favourable exchange rates in key markets such as the United States and Japan.

Top 5 Species by Landings (tonnes)



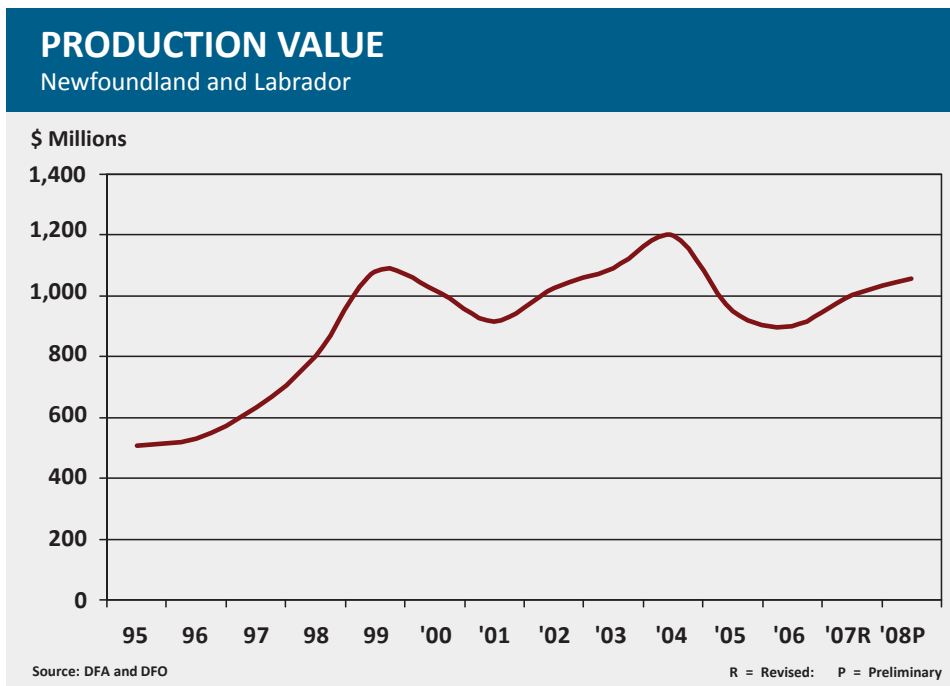
Source: DFO and DFA

Top 5 Species by Landed Value



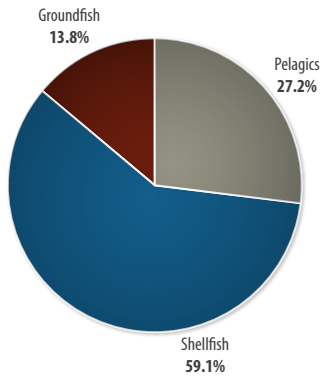
Source: DFO and DFA

Note: Percentages in pie charts may not add to 100% due to rounding.



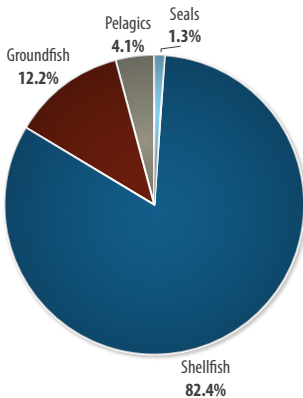
CAPTURE FISHERIES

Capture Fisheries Landings (tonnes)



Source: DFO and DFA

Capture Fisheries Landed Value

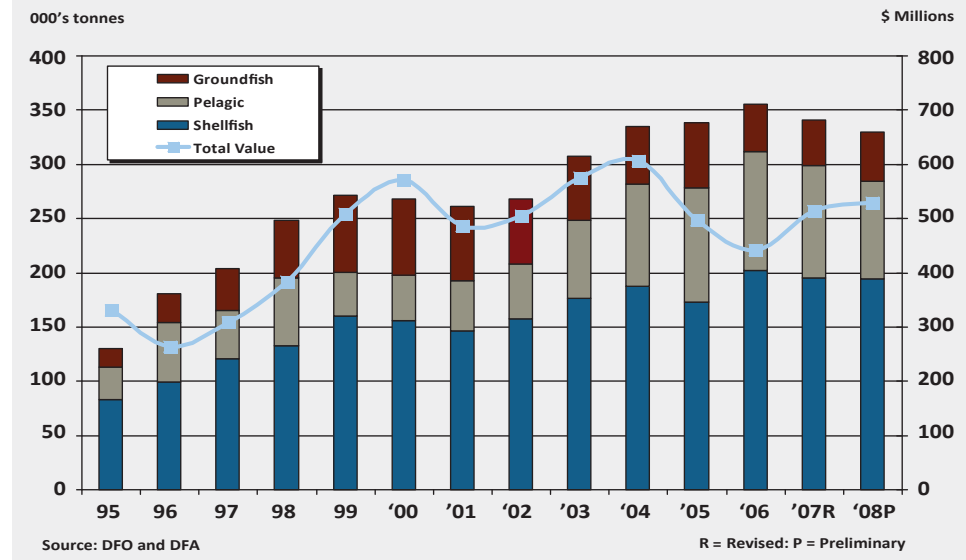


Source: DFO and DFA

Note: Percentages in pie charts may not add to 100% due to rounding.

In 2008, overall landings decreased by 3.2 percent to 329,660 tonnes from 340,505 tonnes in 2007. Corresponding landed value, however, rose by 2.8 percent in 2008 to \$528.7 million from \$514.3 million. This higher landed value may be attributed to stronger market prices for coldwater shrimp, which resulted in a 15.4 percent hike in value. The higher value for shellfish more than offset lower landed value of pelagics. Groundfish landed value was on par with the previous year.

FISH LANDINGS BY SPECIES GROUP Newfoundland and Labrador



Shellfish

The shellfish fishery continued to play a key role in capture fisheries. In 2008, shellfish comprised 59.1 percent of the total landings and generated 82.4 percent of the total landed value. Shellfish landings fell marginally to 194,736 tonnes from 195,403 tonnes in 2007. Meanwhile, landed value rose by 6.3 percent to \$435.9 million from \$410 million in 2007. As noted earlier, improved market prices for coldwater shrimp boosted prices paid to harvesters in 2008, contributing to the significant rise in value.

Snow Crab

Snow crab landings increased in 2008 by 5.1 percent to 52,774 tonnes from 50,207 tonnes in 2007. During this period, the corresponding landed value for snow crab rose marginally by 1.2 percent to \$179.6 million from \$177.5 million in 2007. This higher landed value was due to greater landings resulting from increased quotas; however, market prices for snow crab

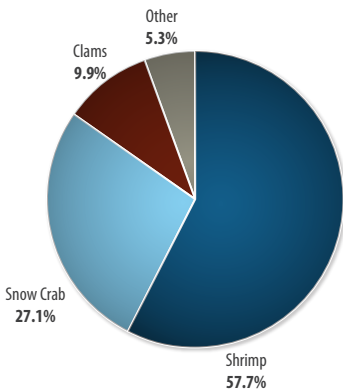
LANDED VOLUME AND VALUE NEWFOUNDLAND AND LABRADOR

SPECIES GROUP	2007 REVISED		2008 PRELIMINARY		2007/2008 COMPARISON	
	Volume (tonnes)	Value (\$'000's)	Volume (tonnes)	Value (\$'000's)	% Volume	% Value
GROUND FISH						
Cod	17,845	\$25,613	17,514	\$28,655	-1.9%	11.9%
Redfish	2,496	\$1,360	1,559	\$783	-37.5%	-42.4%
American Plaice	1,029	\$705	1,429	\$887	38.8%	25.7%
Yellowtail Flounder	3,716	\$2,500	10,290	\$6,527	176.9%	161.1%
Greysole/Witch	583	\$509	655	\$465	12.4%	-8.6%
Turbot (Greenland Halibut)	9,835	\$24,521	8,829	\$17,426	-10.2%	-28.9%
Pollock	1,064	\$659	606	\$362	-43.0%	-45.0%
Hake	1,684	\$1,337	1,393	\$1,171	-17.3%	-12.4%
Monkfish	278	\$305	236	\$206	-15.0%	-32.3%
Skate	1,278	\$490	979	\$385	-23.4%	-21.3%
Other	1,863	\$6,877	1,862	\$7,641	0.0%	11.1%
TOTAL GROUND FISH	41,672	\$64,876	45,352	\$64,509	8.8%	-0.6%
PELAGICS						
Herring	22,660	\$4,505	28,301	\$5,278	24.9%	17.1%
Mackerel	44,584	\$12,754	24,008	\$6,536	-46.2%	-48.8%
Capelin	36,052	\$9,672	37,203	\$9,588	3.2%	-0.9%
Other	134	\$1,045	60	\$262	-54.9%	-74.9%
TOTAL PELAGICS	103,430	\$27,976	89,572	\$21,663	-13.4%	-22.6%
SHELLFISH						
Clams	18,781	\$26,606	19,322	\$26,836	2.9%	0.9%
Scallops	698	\$1,013	428	\$706	-38.8%	-30.3%
Squid	228	\$98	456	\$217	99.6%	122.0%
Lobster	2,567	\$32,006	3,106	\$31,823	21.0%	-0.6%
Whelk	3,927	\$3,756	4,525	\$5,001	15.2%	33.1%
Shrimp	115,223	\$161,442	112,270	\$186,284	-2.6%	15.4%
Snow Crab	50,207	\$177,451	52,774	\$179,596	5.1%	1.2%
Other Shellfish	3,772	\$7,669	1,857	\$5,405	-50.8%	-29.5%
TOTAL SHELLFISH	195,403	\$410,040	194,736	\$435,867	-0.3%	6.3%
SEALS (#)	205,485	\$11,387	207,517	\$6,650	1.0%	-41.6%
TOTAL	340,505	\$514,279	329,660	\$528,690	-3.2%	2.8%
FISHING INDUSTRY EMPLOYMENT						
SECTOR	2007		2008		PERCENT CHANGE	
Harvesting (#)	12,725		12,070		-5.1%	
Processing (#)*	12,080		11,805		-2.3%	
Total (#)	24,805		23,875		-3.7%	

Source: Professional Fish Harvesters Certification Board, DFO and DFA

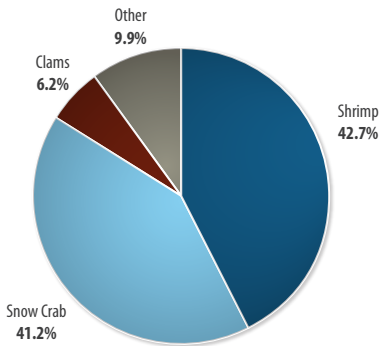
* Based on DFA annual Plant Survey

Shellfish Landings (tonnes)



Source: DFO and DFA

Shellfish Landed Value



Source: DFO and DFA

Note: Percentages in pie charts may not add to 100% due to rounding.

were weaker in 2008, resulting in lower prices paid to harvesters. Overall, snow crab generated 34 percent of the total capture fisheries landed value in 2008.

Shrimp

The shrimp fishery consists of two main fleets: the inshore wetfish fleet (<65 foot) and the offshore factory freezer trawlers. The inshore fleet lands fresh shrimp for the cooked and peeled industry while the offshore factory freezer trawlers mainly harvest and process at sea.

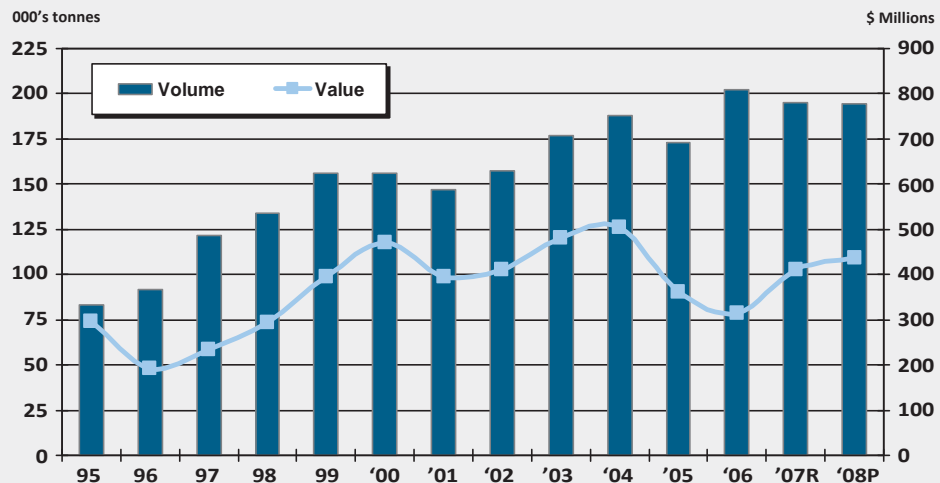
Shrimp landings declined in 2008 by 2.6 percent to 112,270 tonnes from 115,223 tonnes in 2007. This was a result of lower northern offshore shrimp landings. The associated landed value, however, rose by 15.4 percent to \$186.3 million from \$161.4 million in 2007. MSC certification, continuation of the Autonomous Tariff Rate Quote (ATRQ) and market conditions supported higher prices in the marketplace. Shrimp accounted for 34.1 percent of the total landings and generated 35.2 percent of total landed value in 2008.

Other Shellfish

Clam landings increased by 2.9 percent from the previous year to 19,322 tonnes. Lobster and whelk landings jumped by 21 percent and 15.2 percent respectively. Scallop landings fell due to less fishing effort.

SHELLFISH LANDINGS

Newfoundland and Labrador



Source: DFO and DFA

R = Revised: P = Preliminary

SHRIMP MSC CERTIFICATION

CANADIAN NORTHERN SHRIMP TRAWL FISHERY RECEIVES MSC CERTIFICATION



In 2008, the Canadian northern shrimp trawl fishery was certified to the Marine Stewardship Council's (MSC) global environmental standard. It was the first Canadian fishery to earn MSC certification and the first shrimp fishery in the world to be eligible to bear the MSC eco-label.

The importance of eco-labels is becoming widely acknowledged as companies and consumers are increasingly concerned over whether products they purchase are from sustainable resources. Eco-certification is already affecting the marketplace. More retailers and restaurant chains are sourcing eco-certified products.

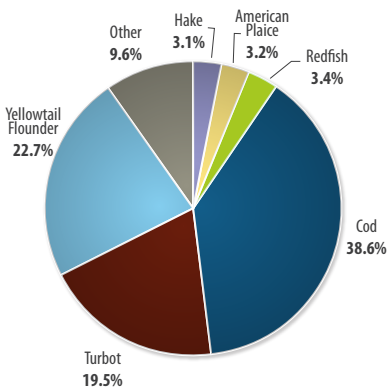
The Marine Stewardship Council, a leader in eco-certification, recognizes well-managed fisheries via a scientifically based global standard for environmentally responsible and sustainable fishing.

Under the MSC program, fisheries are assessed against three core principles:

- 1) A fishery must operate at a level whereby fishing can continue indefinitely.
- 2) Fishing operations should maintain the diversity, structure, function and productivity of the ecosystem on which the fishery depends.
- 3) The fishery must be managed and operated in a responsible manner and conform with local, national and international laws.

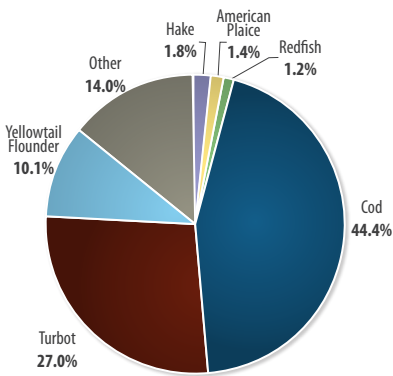
The MSC certification of the Canadian northern shrimp trawl fishery will elevate the competitiveness of Newfoundland and Labrador shrimp in the global marketplace. This fishery is the largest coldwater shrimp fishery in the world and sees annual catches of approximately 80,000 tonnes landed for processing in Newfoundland and Labrador.

Groundfish Landings (tonnes)



Source: DFO and DFA

Groundfish Landed Value



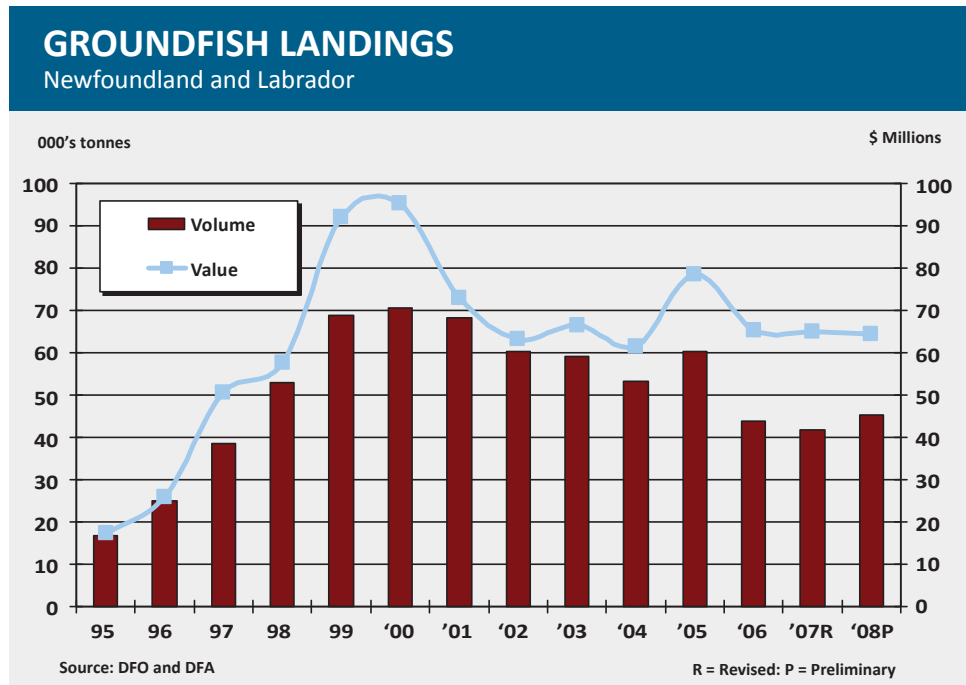
Source: DFO and DFA

Note: Percentages in pie charts may not add to 100% due to rounding.

Groundfish

Groundfish comprised 13.8 percent of total landings and represented 12.2 percent of total landed value in 2008. Landings increased by 8.8 percent to 45,352 tonnes from 41,672 tonnes in 2007. The significant rise in yellowtail flounder landings, up by more than 6,500 tonnes to 10,290 tonnes, contributed to higher landings. Resource allocations for yellowtail flounder which were not harvested in 2007 were harvested in 2008, resulting in greater landings.

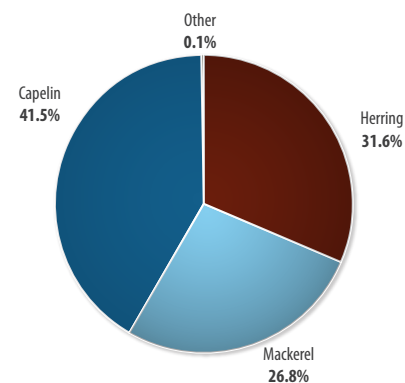
Turbot landings dropped by 10.2 percent to 8,829 tonnes in 2008 from 9,835 tonnes in the previous year. This decline was due to less fishing effort in some areas. Corresponding landed value for turbot also fell by 28.9 percent to \$17.4 million from \$24.5 million in 2007. Cod landings were on par with the previous year at 17,514 tonnes. The associated landed value of cod, however, rose by 11.9 percent to \$28.7 million in 2008 from \$25.6 million in 2007. Overall, the landed value for groundfish was comparable to 2007 at almost \$65 million.



Pelagics

Pelagics accounted for 27.2 percent of total landings and 4.1 percent of total landed value in 2008. Landings fell by 13.4 percent to 89,572 tonnes from 103,430 tonnes in 2007. Mackerel landings declined by 46.2 percent from 44,584 tonnes in 2007 to 24,008 tonnes in 2008. This was due to lower resource availability. Capelin landings increased by 3.2 percent to 37,203 tonnes from 36,052 tonnes in the previous year. The associated landed value for capelin declined marginally to \$9.6 million from \$9.7 million. Herring landings rose by 24.9 percent from 22,660 tonnes to 28,301 tonnes in 2008. Corresponding landed value increased from \$4.5 million to \$5.3 million. Overall, the value of pelagics dropped significantly by 22.6 percent to \$21.7 million from approximately \$28 million in 2007.

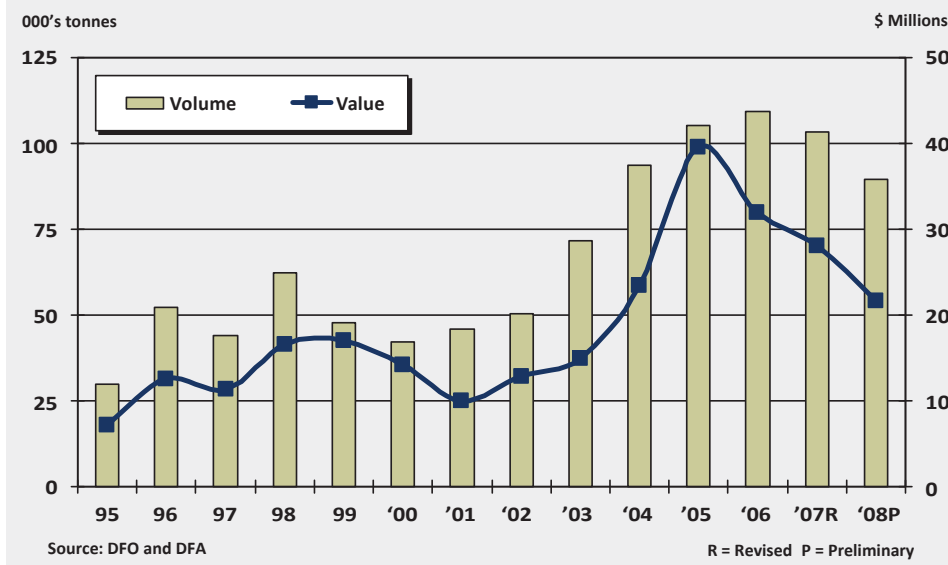
Pelagics Landings (tonnes)



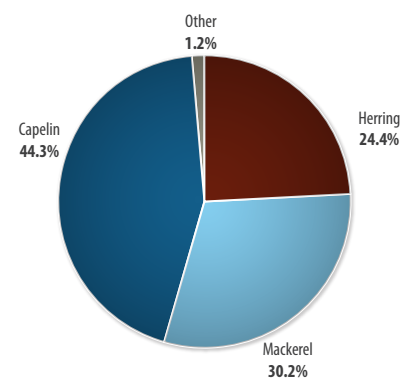
Source: DFO and DFA

PELAGIC LANDINGS

Newfoundland and Labrador



Pelagics Landed Value



Source: DFO and DFA

Note: Percentages in pie charts may not add to 100% due to rounding.

Seals

Seal landings increased marginally in 2008 to 207,517 animals from 205,485 in 2007. The landed value declined to \$6.7 million from \$11.4 million in 2007, due to a decrease in pelt prices. Prices to sealers were \$32 per pelt compared to \$55 in 2007.

AQUACULTURE SECTOR



Cultured Mussels

The province's aquaculture industry continued to expand in 2008. Production jumped to record levels, reaching 11,545 tonnes, up 39.1 percent from 8,300 tonnes in 2007. Key species in the province's aquaculture production are Atlantic salmon, steelhead trout and blue mussels. Efforts continued in 2008 to commercialize cod aquaculture.

Aquaculture companies continued to produce primary and secondary products that entered the Canadian and U.S. markets. Export value of aquaculture products spiked in 2008, rising to \$63.1 million, a significant 57.8 percent increase from \$40 million in 2007. This can be attributed to increased production volume for Atlantic salmon and steelhead, favourable exchange rates and strong market prices. This growth also accounted for increased employment levels in the aquaculture sector, which currently employs 655 individuals.

Salmonid aquaculture is concentrated on the south coast in Bay d'Espoir and Fortune Bay. This area produces approximately 90 percent of the province's salmonids. In 2008, a high volume of smolt was introduced, which will bode well for continued expansion of this sector.

Shellfish culture (mainly blue mussels) is carried out in a variety of locations around the province; however, it is concentrated in the Green Bay, Notre Dame Bay region. This area produces between 80 to 90 percent of the province's cultured shellfish.

AQUACULTURE INDUSTRY PROFILE NEWFOUNDLAND AND LABRADOR 2008

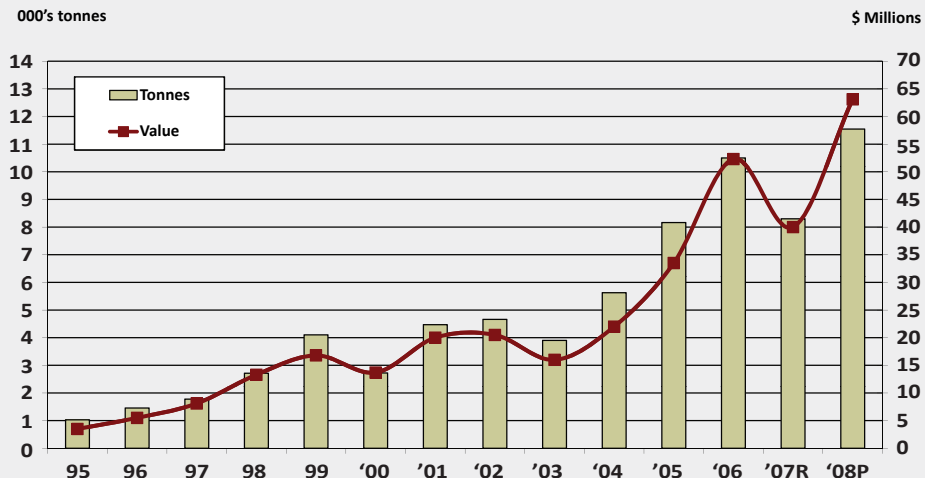
Aquaculture Production	11,545 tonnes
Export Value	\$63.1 million
<i>Commercial Site Licenses:</i>	
Mussels	61
Salmonids	53
Employment (number) <i>*Estimate based on direct industry employment</i>	655

Source: DFA

Preliminary

AQUACULTURE PRODUCTION

Newfoundland and Labrador



Source: DFA

R=Revised: P=Preliminary

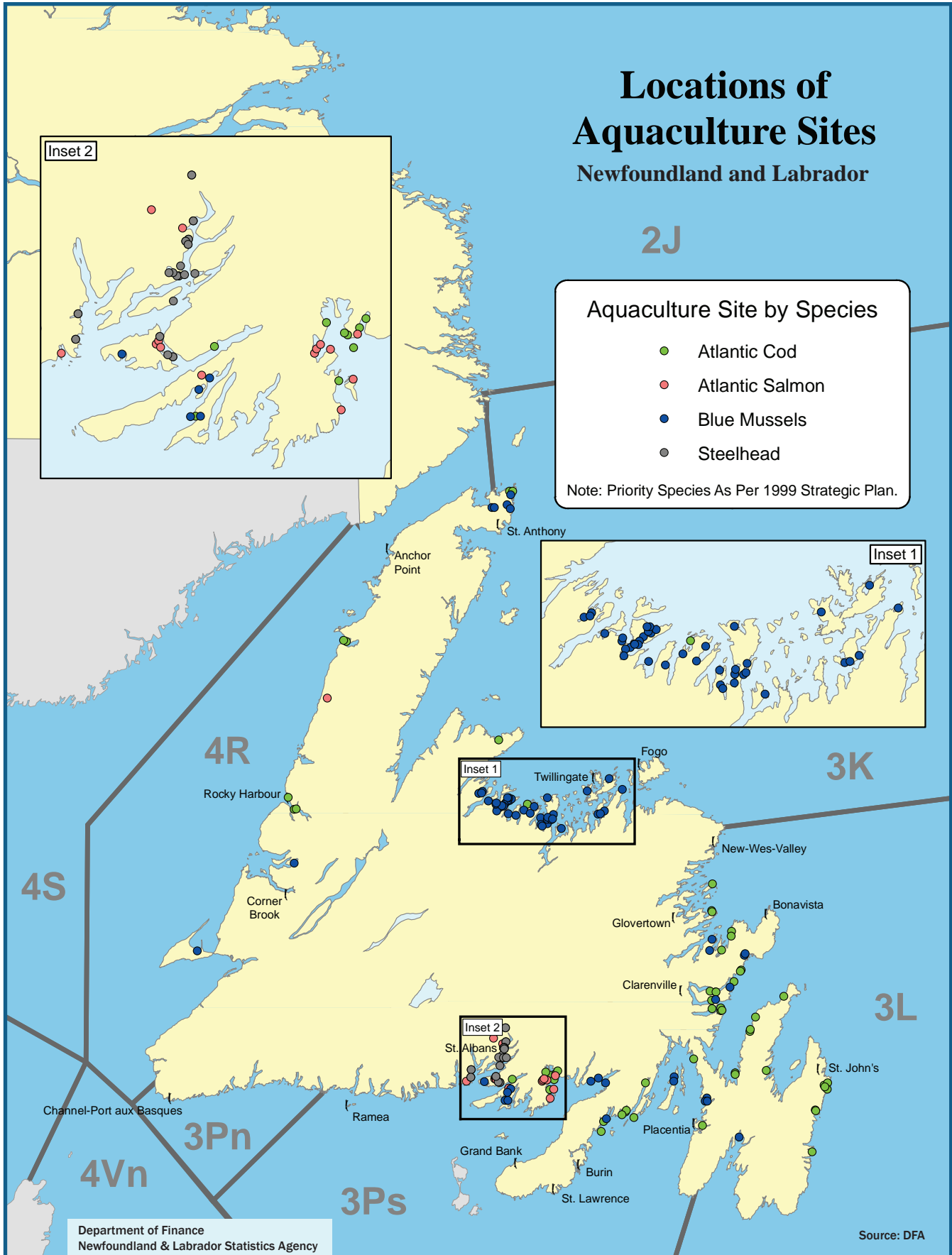
Locations of Aquaculture Sites Newfoundland and Labrador

2J

Aquaculture Site by Species

- Atlantic Cod
- Atlantic Salmon
- Blue Mussels
- Steelhead

Note: Priority Species As Per 1999 Strategic Plan.



Department of Finance
Newfoundland & Labrador Statistics Agency

Source: DFA

PRODUCTION OVERVIEW



Packaging Surf Clams

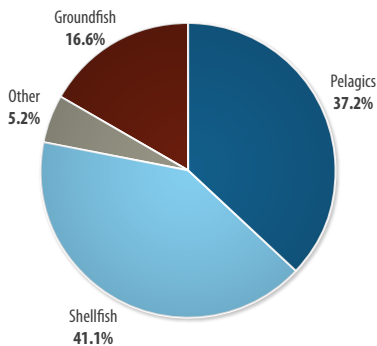
In 2008, 139 processing facilities (115 primary, 6 secondary, 4 aquaculture and 14 retail) operated in the province, employing almost 12,000 people. Total production declined by 5.3 percent from 191,872 tonnes in 2007 to 181,674 tonnes in 2008.

Shellfish production increased by 5.4 percent from 70,763 tonnes in 2007 to 74,584 tonnes in 2008. Shellfish represented 41.1 percent of total production in 2008 compared to 36.9 percent in 2007. Production of U.S. snow crab sections fell 12.8 percent from 19,888 tonnes to 17,351 during this period. Production of Japanese sections, however, rose significantly by 33.2 percent to 12,719 tonnes. Japanese and U.S. sections comprised 16.6 percent of total production in 2008. Cooked and peeled shrimp increased 9.3 percent from 25,861 tonnes to 28,261 tonnes in 2008 and accounted for 15.6 percent of total production.

Pelagics production dropped considerably by 20.1 percent from 84,514 tonnes in 2007 to 67,511 in 2008. This decline can be attributed to a 45.8 percent reduction in round frozen mackerel production from 37,007 tonnes to 20,052 tonnes. Round frozen herring processing also declined by 17.7 percent, from 6,644 tonnes to 5,469 tonnes in 2008. Male and female capelin accounted for 14 percent of total production. In total, pelagics comprised 37.2 percent of production.

Groundfish processing increased marginally from the previous year. Cod, pollock, redfish and turbot production fell. These declines were offset by an increase in flounder production. Groundfish production was 16.6 percent of the 2008 total.

Production Volume by Species Group



Source: DFA

Note: Percentages in pie charts may not add to 100% due to rounding.

PRODUCTION VOLUME NEWFOUNDLAND AND LABRADOR				
PRODUCT TYPE	2007R (tonnes)	2008P (tonnes)	% CHANGE	2008 % OF TOTAL
Crab, U.S. Sections	19,888	17,351	-12.8%	9.6%
Crab, Japanese Sections	9,552	12,719	33.2%	7.0%
Shrimp, Cooked and Peeled	25,861	28,261	9.3%	15.6%
Capelin, Female	13,849	13,584	-1.9%	7.5%
Capelin, Male	11,017	11,913	8.1%	6.6%
Mackerel, Round Frozen	37,007	20,052	-45.8%	11.0%
Herring, Round Frozen	6,644	5,469	-17.7%	3.0%
Other	68,054	72,325	6.3%	39.8%
TOTAL	191,872	181,674	-5.3%	

Note: Numbers may not add to 100% due to rounding.

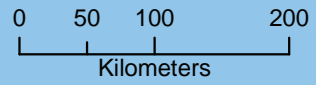
R = Revised P = Preliminary

Source: DFA

Licensed Fish Processing Plants 2008

Newfoundland & Labrador

● Location of Plant

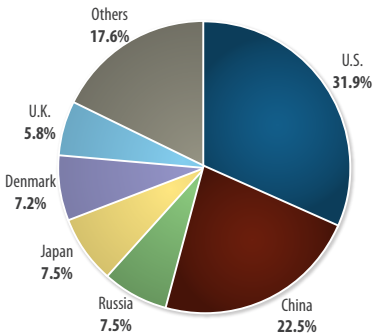


Department of Finance
Newfoundland & Labrador Statistics Agency
Edited by Fisheries and Aquaculture

source: DFA

MARKET OVERVIEW

2008 Seafood Markets by Export Value



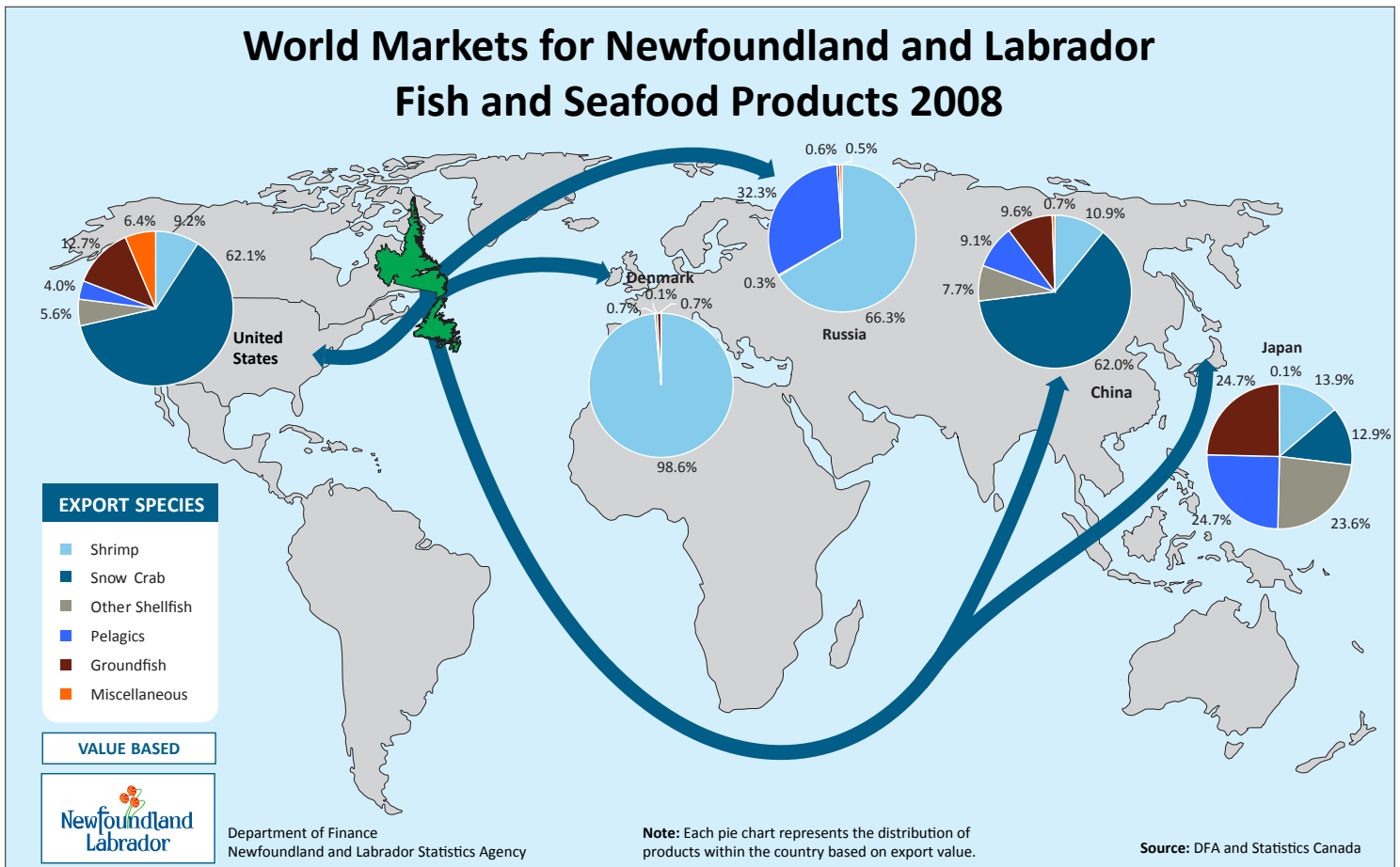
Source: Statistics Canada

The United States (U.S.) and China remained the province's largest seafood markets in 2008, accounting for 31.9 percent and 22.5 percent of export value respectively. Other key markets included Russia, Japan and Denmark, which represented 7.5 percent, 7.5 percent and 7.2 percent respectively. These top five markets comprised 76.6 percent of the province's export value. The United Kingdom (U.K.) accounted for 5.8 percent in 2008. The remaining 17.6 percent was exported to over 50 other countries.

According to Statistics Canada, provincial export volume decreased by 9.7 percent. A substantial decline in mackerel production contributed to this decrease. Stronger markets in 2008, however, kept export value over \$800 million, similar to previous years.

Exchange rates continued to impact the province's seafood industry in 2008. A large portion of the province's seafood is sold for U.S. dollars. The Canada/U.S. exchange rate was unfavorable at the start of the season; however, it improved as the season progressed, thereby increasing industry margins. Sales to the U.K. market, however, declined due to an appreciation of the Canadian dollar relative to the U.K. pound.

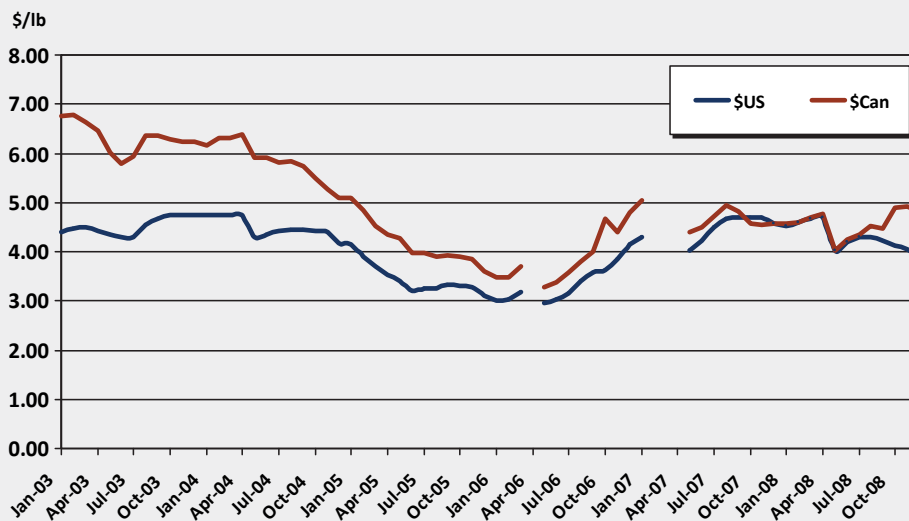
World Markets for Newfoundland and Labrador Fish and Seafood Products 2008



Snow Crab

Market prices for snow crab declined in 2008 compared to 2007. Higher inventories of snow crab sections contributed to lower prices. According to Urner Barry Publications, the average price for (5-8) ounce sections in 2008 decreased by 3.8 percent to USD \$4.27 (CAD \$4.55) per pound from USD \$4.44 (CAD \$4.77) in 2007.

MONTHLY PRICES FOR FROZEN SNOW CRAB SECTIONS (5-8) OUNCE



Source: Urner Barry Publications Inc.; Bank of Canada; DFA



Snow Crab

Shrimp

Shrimp prices rose in 2008 and markets were able to absorb available supplies. The European Union (EU) remains a key market for cooked and peeled shrimp. The EU ATRQ, which allowed 20,000 tonnes of cooked and peeled shrimp to enter at a reduced tariff rate of 6 percent as opposed to 20 percent, boded well for Newfoundland and Labrador producers in 2008.

TRADE



Products packaged for export

The majority of seafood products produced in Newfoundland and Labrador are exported internationally. Some key markets have tariff and other trade barriers which impede market access. The Department of Fisheries and Aquaculture continues to work with industry and the federal government to ensure that the seafood industry's views are represented at international forums such as the World Trade Organization (WTO) and bilateral trade discussions. Some of the key trade challenges for Newfoundland and Labrador are outlined below.

Tariffs

Newfoundland and Labrador producers face high tariffs in key markets such as the EU, Russia and China. In July 2008, talks at the Doha Development Round collapsed, halting any chances of tariff relief at the multilateral level. While negotiations have resumed at Doha, a conclusion to the round in the near future is uncertain. On the bilateral front, however, Canada and the EU have engaged in a scoping exercise to determine potential areas which may be included in an economic partnership agreement.

European Union ATRQ

In 2008, Newfoundland and Labrador producers availed of the ATRQ, which permitted up to 20,000 tonnes of cooked and peeled shrimp to enter the EU at a reduced rate of 6 percent as opposed to 20 percent. In addition, a change to end-use restrictions allowed producers to avail of modified atmospheric packaging (MAP), which improved market access. While there are positive benefits of the ATRQ, the province advocates the complete elimination of tariffs on seafood products.

EU Bans on Seal Products

In 2008, the European Commission (EC) presented the European Parliament and Council with a proposal for a regulation concerning the trade of seal products. Both Belgium and the Netherlands passed legislation in 2007 banning the importation of seal products. The Government of Canada attended WTO consultations in 2007 to address these bans. Further WTO action, however, was not initiated by the federal government in 2008. The Government of Canada has been looking at the opportunity for derogation under the proposed regulation.

RESOURCE STATUS

The Total Allowable Catch (TAC) for selected species is set and regulated by the federal government through the Department of Fisheries and Oceans. Most key shellfish stocks remain healthy. Most groundfish stocks appear stable at low levels, with the exception of yellowtail flounder on the Grand Banks, which has fully recovered.

TOTAL ALLOWABLE CATCH (tonnes) NEWFOUNDLAND AND LABRADOR 2008		
SPECIES GROUP	2007	2008
Groundfish Stocks		
3Ps Cod	13,000	13,000
3Pn 4RS Cod	7,000	7,000
Redfish Unit 2	8,500	8,500
<i>NAFO Stocks</i>		
2+3KLMNO Turbot (CAN 36%)	16,000	16,000
3LNO Yellowtail Flounder (CAN 97.5%)	15,500	15,500
3O Redfish (CAN 30%)	20,000	20,000
Pelagic Stocks		
Herring (NL stocks + 4R)	30,200	30,130
Mackerel (Atlantic wide)	75,000	75,000
Capelin (NL stocks + 4R)	41,600	41,600
Shellfish Stocks		
Crab	47,663	54,320
Gulf (4R) Shrimp (NL allocation)	6,140	6,140
Northern Shrimp		
-inshore	65,000	72,400
-offshore/special allocations (Atlantic Wide)	101,000	102,600

Source: DFA and DFO

Snow Crab

The TAC was increased to 54,320 tonnes in 2008, up from 47,663 tonnes in 2007. The snow crab fishery is expected to be relatively stable over the next few years. Growth in the northern areas may be offset by minor adjustments to catch levels in some southern areas.



Fishing Vessels in Salvage



Iceberg off the Labrador coast

Northern Shrimp

The northern shrimp resource, which extends from the Grand Banks to the Davis Strait, appears healthy. Biomass estimates in the southern areas continue to be at historically high levels. In 2008, northern shrimp landings by the Newfoundland and Labrador inshore and offshore sectors reached approximately 110,000 tonnes. The inshore fleet landed approximately 63 percent of the overall total. Short-term prospects remain positive for this resource.

Gulf Shrimp

The Newfoundland and Labrador fleet fish in the Esquiman Channel portion of the Gulf of St. Lawrence. The fleet's TAC of 6,140 tonnes was taken in 2007 and 2008. The stock is stable at a healthy level.

Cod

The offshore portion of the 2J3KL cod stock has remained under a fishing moratorium since 1992. A limited inshore fishery was conducted from 1998 to 2002, and again, from 2006 to 2008. It appears some recovery has occurred in the inshore areas of the southern range of the stock. The overall stock, however, remains at a relatively low level, particularly in the offshore.

The TAC for 3Ps cod was set at 15,000 tonnes from 2001 to 2006, when it was adjusted down in 2007 to 13,000 tonnes based on scientific information. The TAC remained at 13,000 tonnes for 2008. No significant change in the TAC is expected in the short term.

In 2003, the 4RS3Pn cod stock was placed under a moratorium for one year, as scientific evidence indicated a decline in resource levels. The fishery reopened in 2004 with a TAC set at 3,500 tonnes. The TAC was increased to 6,000 tonnes in 2006, due to signs of recovery. In 2007, the TAC was increased once again to 7,000 tonnes and remained at this level for 2008.

Unit 2 Redfish

Unit 2 redfish is located on the south coast of the island and parts of the Laurentian Channel. Newfoundland and Labrador fleets traditionally harvest between 35 and 40 percent of the Unit 2 redfish TAC. The stock has been relatively stable over the past twelve years, with little growth due to poor recruitment. The TAC for 2007 and 2008 was set at 8,500 tonnes; however, landings have declined in recent years due to a reduction in fishing effort.

NAFO-Managed Stocks

2+3KLMNO Turbot (Greenland Halibut)

The TAC was set at 20,000 tonnes in 2004, less than half of the 44,000 tonne quota that was in place in 2002. The reduction was in response to a dramatic decline in the stock and the establishment of a four-year rebuilding plan. The 2007 TAC, under the rebuilding plan, was set at 16,000 tonnes and remained at this level for 2008. The TAC will stay at 16,000 tonnes in 2009. Canada's allocation is 36 percent of the quota, which is mainly fished by Newfoundland and Labrador-based vessels.

3LNO Yellowtail

The yellowtail flounder resource in 3LNO has experienced growth in the past few years. The 2007 and 2008 TACs were set at 15,500 tonnes. Stock indicators continue to be positive, and this stock is considered to be recovered to levels equivalent to those of the 1980s. The TAC will increase to 17,000 tonnes in 2009. Canada's share of this stock is 97.5 percent which is harvested by offshore vessels based in Newfoundland and Labrador.

Other Groundfish

All other NAFO-managed straddling groundfish stocks remain under moratoria. These stocks are: 3NO cod, 3NO witch flounder, 3LNO American plaice and 3LN redfish.



Newfoundland and Labrador coastline

COD

RECOVERY INITIATIVES

RESEARCH PROJECTS FUNDED TO BETTER UNDERSTAND COD STOCKS



The cod fishery was the backbone of the commercial fishery in Newfoundland and Labrador for over 400 years. In 1992, the northern cod fishery was placed under a fishing moratorium. This was followed by the closure of the south coast cod fishery and the Gulf of St. Lawrence cod fishery. While limited growth allowed for some fishing in these areas over the following decade, the stocks remained well below historical levels.

In August 2003, the Governments of Canada and Newfoundland and Labrador formed the Canada-Newfoundland and Labrador Action Team for Cod Recovery. The Action Team included personnel from Fisheries and Oceans Canada (DFO), the Department of Fisheries and Aquaculture (DFA), and the chair in Fisheries Conservation at Memorial University of Newfoundland (MUN). The mandate of the Action Team was to develop a recovery and

long-term management strategy for the major cod stocks adjacent to the province, with the primary objective of preventing further declines in the biological status, and contributing to the recovery and sustainable management of the stocks. In November 2005, the Action Team published a report entitled *A Strategy for the Recovery and Management of Cod Stocks in Newfoundland and Labrador: A Federal-Provincial Approach*. The report considered factors affecting rebuilding, detailed specific goals and objectives toward rebuilding, and discussed management strategies and research priorities.

In the 2006-2007 budget, the Government of Newfoundland and Labrador announced \$1.5 million for cod recovery initiatives to be administered by DFA over 5 years (\$300,000 annually). The process of reviewing research proposals to identify projects that fit within the

scope of priorities and aims for cod recovery was undertaken. A number of projects geared toward cod recovery have been funded, and several collaborations formed over the first two years of the program.

Research in relation to the northern cod stock has been a priority. In partnership with Dr. George Rose of Memorial University, DFA has funded continued study into the inshore cod population found in the Trinity/Bonavista Bay area. This research provides us with a better understanding of the distribution, growth, health and movement of these fish. The department also partnered with the DFO science branch on projects involving the study of the inshore-offshore migration and mortality rates of northern cod, a midshore survey to increase the area coverage in the survey program, and identification of important inshore cod habitat. An offshore acoustic survey was also funded in 2007 and 2008 involving both Dr. Rose's research team and DFO science personnel. The 2008 survey located a large aggregation of cod in the offshore, which will be quantified prior to the 2009 scientific assessment meeting.

DFA also partnered with DFO on research work in relation to the 3Ps cod stock which is found off the south coast of the island. This stock consists of a complex mixture of coastal and offshore components which often overlap with neighboring stocks. A tagging project has

been initiated, which should lead to a better understanding of the complex structure and relationships of the 3Ps cod stock with other stocks. This should lead to improved overall assessment of the stock.

The Northern Gulf of St. Lawrence cod stock is also important to this province, particularly to the west coast of the island and southern Labrador. DFA has partnered with the FFAW and DFO science to examine the reproductive rate (egg production) along with a study on

the health of individual fish to help determine the overall condition of this stock. A tagging project using Data Storage Tags (DST) has also been funded. These tags record the depth, temperature and location of the fish on a continual basis.

Such information is vital to both the scientific assessment and management of this stock.

These projects resulted in an additional \$1.5 million in cod research throughout the province in both 2007 and 2008. As well, the province increased its cod recovery budget to \$450,000 in 2008. This will allow continuation of several projects which were funded in the first two years of the program and also allow for new initiatives. The outcome of this research should result in a better understanding of cod stocks which inhabit waters around Newfoundland and Labrador and improved management.



Cod Recovery Research in Smith Sound

2008 INITIATIVES



South coast aquaculture marine cage site

The Department of Fisheries and Aquaculture (DFA) implemented major initiatives in 2008 to support the seafood industry in Newfoundland and Labrador.

FISHING INDUSTRY RENEWAL (FIR) STRATEGY

Significant progress was made on the Canada-Newfoundland and Labrador Fishing Industry Renewal Strategy. DFA committed \$15 million over a three-year period to implement initiatives to ensure sustainability, viability and competitiveness of the province's seafood industry.

- Under the Fisheries Technology and New Opportunities Program, DFA committed over \$2 million. Projects which received support focused on quality and safety initiatives, energy efficiency and seafood market research and development.
- A new provincial Seafood Processing Policy Framework was implemented in 2008.
- DFA provided funding to the industry for the establishment of a pilot fish auction during the 2008 fishing season.
- In 2008, the department explored opportunities to enhance seafood marketing, moved forward on the establishment of a Fishing Industry Safety Council, and worked with other departments to enhance the Fisheries Loan Guarantee Program.

AQUACULTURE

Significant progress was made toward advancing the aquaculture sector.

- Plans were finalized for the establishment of an aquatic veterinary diagnostic facility in St. Alban's, and construction is expected to begin in 2009.
- DFA initiated a comprehensive marine infrastructure development study to address marine infrastructure requirements for the expanding aquaculture sector on the south coast.
- DFA partnered with DFO to undertake a study in Green Bay to determine production carrying capacity for mussel aquaculture. This study will ensure productivity remains stable, and it will provide valuable information to support future development and management in this important region.
- DFA, in partnership with their Atlantic Canada counterparts, developed and signed a Memorandum of Understanding to address regional aquaculture issues.

COMPLIANCE AND ENFORCEMENT

DFA continued to improve its compliance and enforcement measures in 2008.

- Inspectors conducted over 3,500 inspections to ensure that the province's seafood products are handled and processed in a safe and sanitary environment. To support these measures, the department continued with the inspectors' training initiatives under the Quality Compliance and Enforcement Program.
- Fisheries Auditors conducted 50 audits of fish processing facilities to ensure compliance with reporting requirements, departmental policies, the Fish Inspection Act and associated regulations.

MARKETING

- DFA actively promoted the province's seafood industry in international venues including the International Boston Seafood Show, the European Seafood Exposition (Brussels, Belgium), Conxemar (Vigo, Spain), Aqua Sur (Puerto Montt, Chile), and the China Fisheries and Seafood Expo (Qingdao, China).
- The Minister of Fisheries and Aquaculture attended the Third Annual North Atlantic Seafood Forum in Oslo, Norway to gather valuable information about seafood markets throughout Europe.

OTHER INITIATIVES

- As part of a Canadian Ministerial Trade Mission, the Minister of Fisheries and Aquaculture and a provincial team visited Chile to learn from this country's experiences in the aquaculture industry.
- DFA supported the Association of Seafood Producers in its successful application to obtain Marine Stewardship Council certification for the Canadian northern shrimp trawl fishery.



Newfoundland and Labrador Booth at the International Boston Seafood Show 2008

OUTLOOK FOR 2009

Capture Fisheries

The Newfoundland and Labrador fishing industry faced another challenging year in 2008. In 2009, the provincial seafood sector will continue to adjust to the changing global economy.

Fish landings in 2009 are expected to fall slightly below those of 2008. Higher groundfish landings are projected which will partially offset an expected decline in shellfish landings. Higher yellowtail catches are anticipated to contribute to increased groundfish landings. Pelagic landings will remain dependent on resource availability. Shellfish landings, with the exception of shrimp, are expected to fall modestly. Shrimp landings are expected to increase due to higher inshore shrimp quotas.

Landed value is projected to fall slightly, as a result of lower landings and downward pressure on market prices for some species due to weaker demand in key markets combined with higher inventories. An unfavorable exchange rate with the U.K. may impact negatively on exports to this market. Favorable exchange rates with the U.S. and Japan, however, will impact positively on the value of our province's seafood and will likely offset any price reductions in these markets. This, combined with the recent reduction in fuel prices and higher prices for some groundfish and shellfish products, may alleviate some negative effects from the global economic downturn.

Aquaculture Sector

A rise in production is expected for the aquaculture sector. Growth in salmonid production in particular is anticipated to continue. Despite the global financial crisis, this sector will see further investment in 2009. Mussel production is expected to remain relatively constant with prices staying on par with the previous year. Access to capital may slow new investment in the sector.

Export value is anticipated to increase in 2009, mainly due to increased levels of production. No decrease in market price for aquaculture products was observed in the fourth quarter of 2008. A favorable exchange rate with the U.S. will bode well for the sector as the majority of production is exported to this market.



Buoys used for mussel aquaculture

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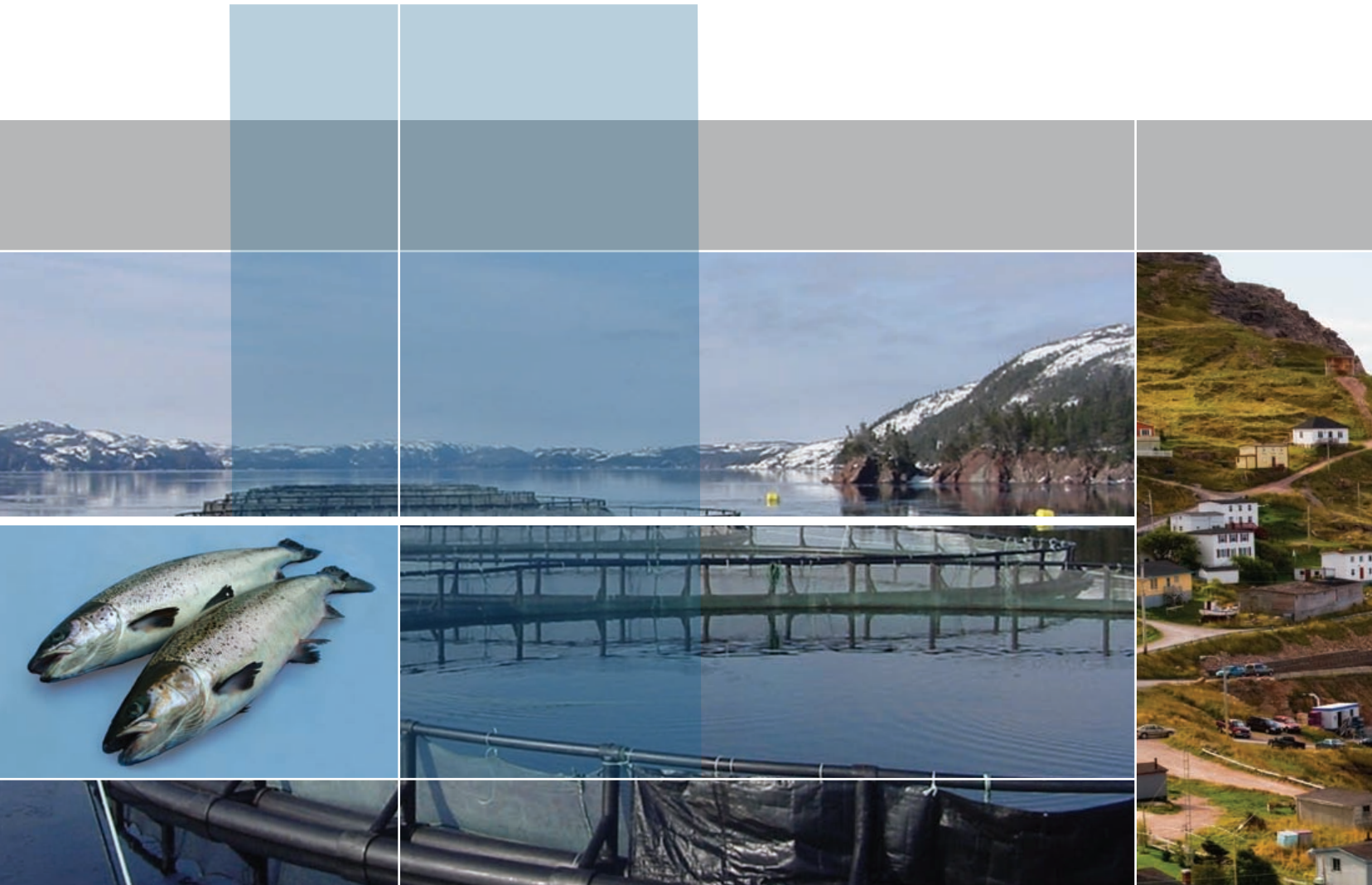
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