SEAFOOD INDUSTRY YEAR IN REVIEW 2010

Newfoundland Labrador

Fisheries and Aquaculture

Message from the Minister

On behalf of the Department of Fisheries and Aquaculture, I am pleased to present the Seafood Industry Year in Review 2010. This publication highlights the performance of the province's fishing and aquaculture industries. It also provides overall statistics for the seafood industry in Newfoundland and Labrador and an overview of some of the major policy initiatives that my department pursued during 2010.

The industry continues to be a main employer with well over 20,000 participants, particularly in rural areas. Total production in the Newfoundland and Labrador seafood industry for 2010 was valued at $942 million, up from the $827 million experienced in 2009. This demonstrates an increase of 13.9% over 2009. These gains were mainly a result of increases in the production value of snow crab and shrimp, as market prices for these species strengthened in 2010. In addition, the value of the province's sealing industry increased in comparison to 2009, as we began to pursue development of new seal products and new market opportunities.

The province's aquaculture industry has become a key pillar of economic growth in Newfoundland and Labrador, contributing to the development of rural and coastal regions. In 2010, aquaculture production reached a record level of 15,360 tonnes, valued at $116 million. Aquaculture is rapidly growing throughout the global economy and my department is working to ensure this growth continues here in Newfoundland and Labrador.

Through continued commitment to industry collaboration, support and innovative marketing, our government will advance the seafood industry in our province. Our government is committed to ensuring the existence of sustainable and vibrant fishing and aquaculture industries. These will continue to be integral parts of the economic future of our province. We are pleased to work with industry, government and the public to accomplish these goals.

Clyde Jackman

Honourable Clyde Jackman, M.H.A.
Burin-Placentia West
Minister of Fisheries and Aquaculture

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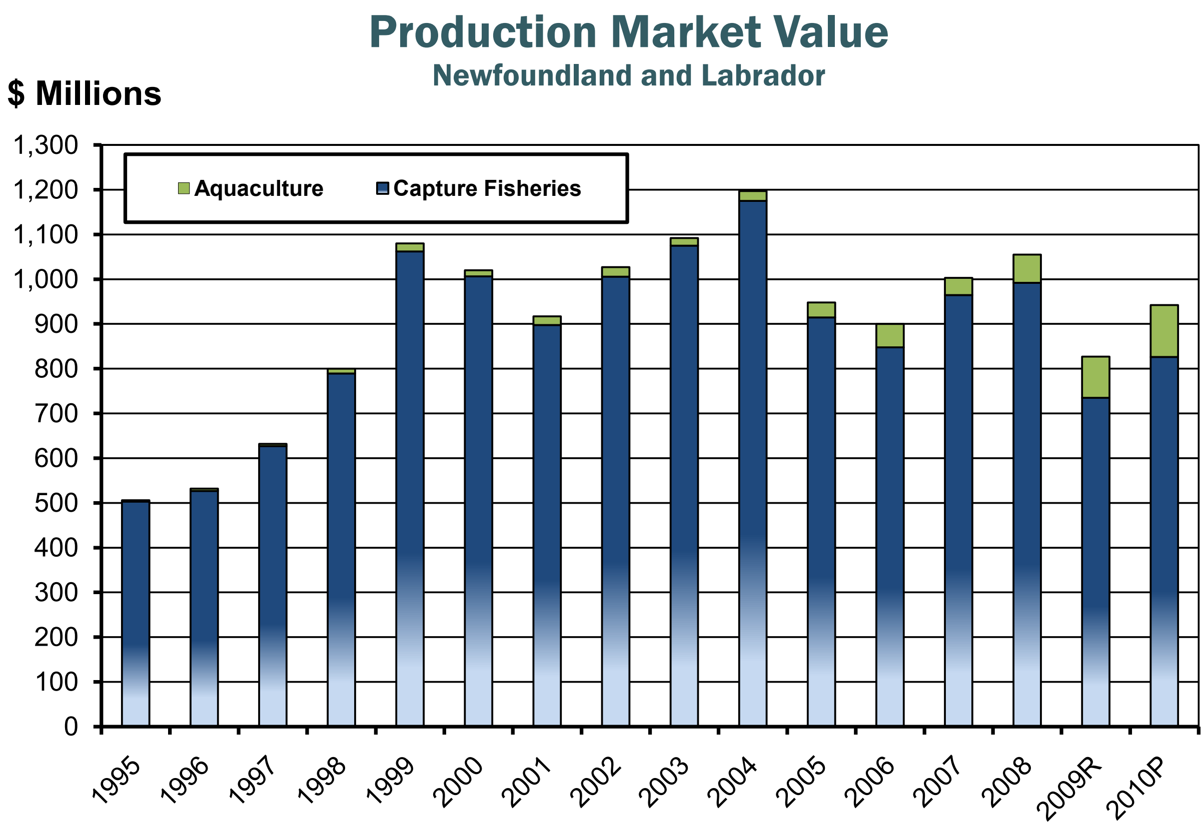
Above: Fishing vessels in Salvage

Seafood Industry Performance 2010

Newfoundland and Labrador's (NL) seafood industry experienced a successful year in 2010. Early in the year, participants expected recessionary pressures to contribute to a further decline in industry returns. However, the Gulf of Mexico oil spill that occurred in April left domestic and international consumers apprehensive about the seafood supply from the United States (U.S.). This, combined with low inventories for key species, contributed to higher global seafood prices. Aquaculture exports also increased in 2010. These factors resulted in a rise in total production value in 2010 that reached $942 million, up 13.9% from $827 million recorded in 2009.

Commercial wild fishery landings were stable and aquaculture volume was higher in 2010. Both the capture fisheries and aquaculture sectors saw a rise in production market value, up 12.4% and 26.1% respectively. This increase was the result of higher market prices in 2010, with notable recovery for snow crab and shrimp.



Source: Fisheries and Oceans Canada (DFO); Department of Fisheries and Aquaculture (DFA)

R = Revised: P = Preliminary

Despite the unanticipated good performance in 2010, the province's seafood industry continued to be negatively impacted by high fuel costs and a strong Canadian dollar. The majority of the province's seafood products were exported to over 50 countries in 2010. The United States and China remain the province's primary export markets.

Employment

Total employment in the capture fisheries sector was 21,142 individuals in 2010, representing a 5.3% decline since 2009. The number of fish harvesters in the province was down 7.0%, to 10,802 harvesters, while the number of fish processing workers declined by 3.5%, to 10,340 persons. Aquaculture employment increased 4.4%, from 655 persons in 2009 to 684 persons in 2010. Overall employment growth in the seafood industry has been slowed by competing employment opportunities, out-migration and an aging workforce.

Seafood Industry Employment
Newfoundland and Labrador

	2009R	2010P	% CHANGE
Capture Fisheries	22,333	21,142	-5.3%
Harvesting	*11,619*	*10,802*	*-7.0%*
Processing	*10,714*	*10,340*	*-3.5%*
Aquaculture	655	684	4.4%

Note: Processing includes aquaculture processing workers.

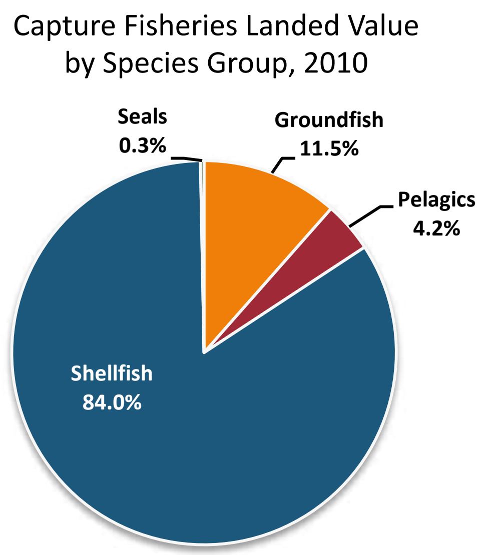
R = Revised: P = Preliminary

Source: DFA; Professional Fish Harvesters Certification Board (PFHCB)

Personnel from Independent Fish Harvesters sampling capelin

Above: Grand Bank

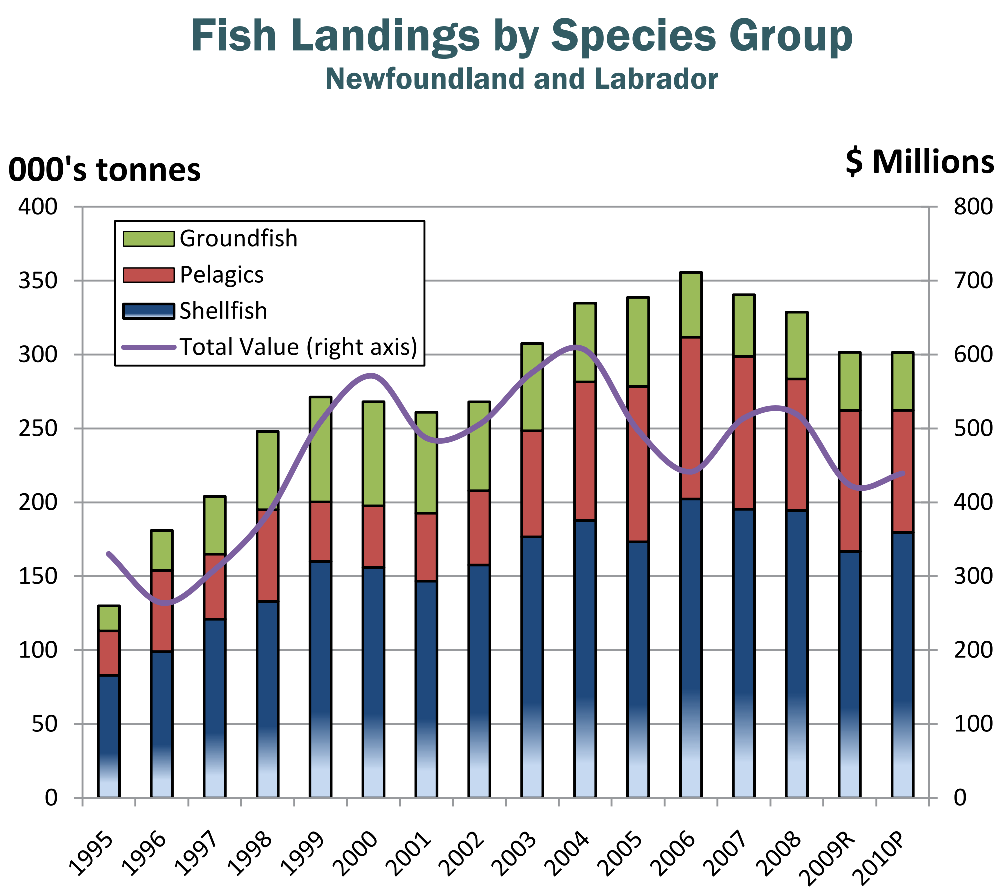
Capture Fisheries



Note: Total landed value = $439 million.

Source: DFO; DFA

In 2010, the capture fisheries sector sustained harvest volumes on par with 2009 and realized growth in the value of those catches. Overall landings totalled 301,397 tonnes. A decline in pelagic landings was offset by an increase in shellfish catches. The corresponding landed value totalled $439 million, up 3.7% compared to $423 million recorded in the previous year. This increase was a result of higher shellfish landings and raw material prices paid for key species; shrimp in particular.



Source: DFO; DFA

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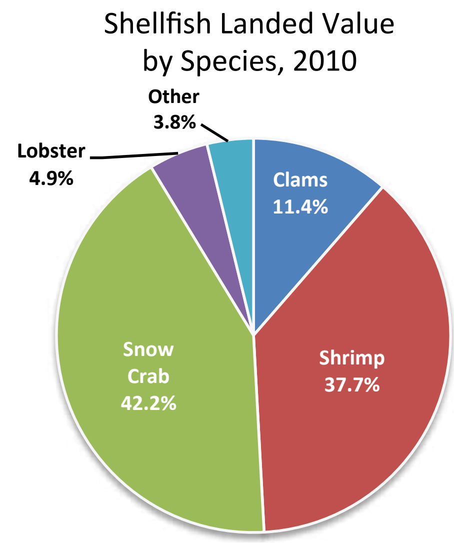


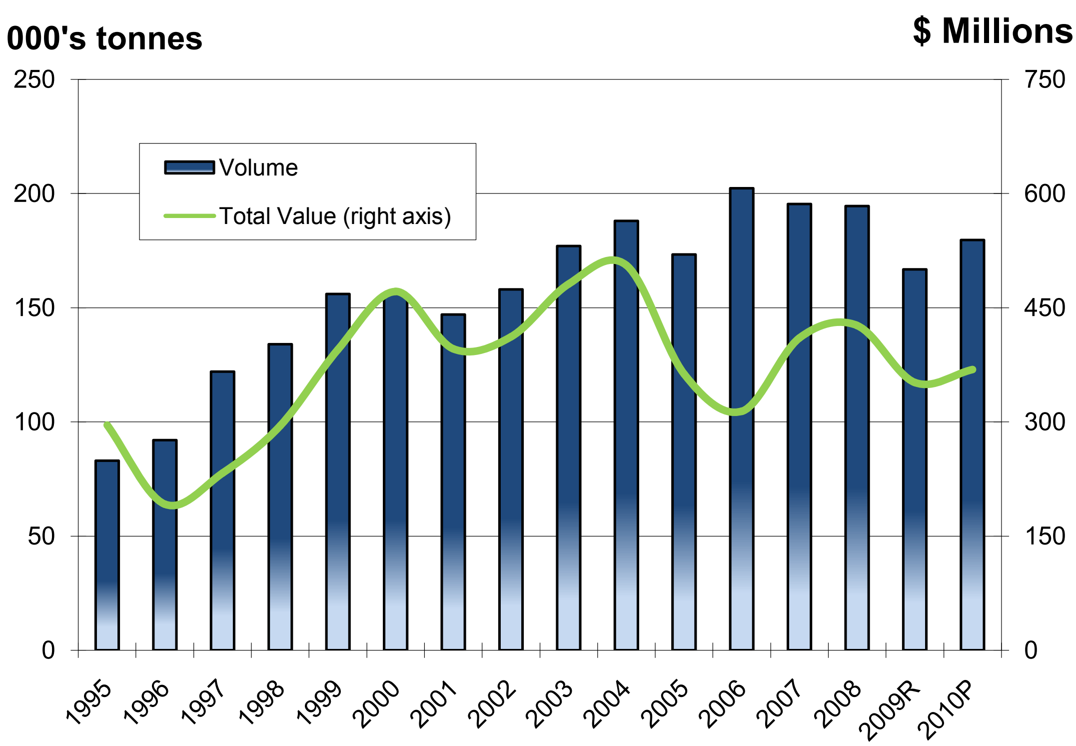
Note: Total landed value = $369 million.
Source: DFO; DFA

Above: Atlantic Lobster

Shellfish

The shellfish sector continued to be a major contributor to capture fisheries in 2010, comprising 59.6% of total landings and generating 84.0% of the total landed value. These fisheries recovered somewhat from the challenging year experienced in 2009. Landings rose to 179,641 tonnes, up 7.7%, and the corresponding landed value increased 4.8%, to $369 million. This growth is the result of higher inshore and offshore shrimp catches and higher raw material prices paid for shrimp.

Shellfish Landings
Newfoundland and Labrador



Source: DFO; DFA

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Above: Harvesters untangling nets

Shrimp

Overall shrimp landings rose 22.4% in 2010, to 95,077 tonnes from 77,663 tonnes in 2009. This increase is due to a rise in both inshore and offshore fleet landings, which were up 20.1% and 27.3% respectively. In 2009, less shrimp were landed than in prior years as a result of less fishing effort, low catch rates and the shutdown of the inshore shrimp fishery. Despite a 28% quota cut in Shrimp Fishing Area (SFA) 6 in 2010, there was a higher fishing effort for shrimp in some areas which resulted in increased landings compared to 2009. The overall landed value of shrimp increased 27.4%, from $109 million in 2009 to $139 million in 2010, due to the rise in landings and higher landed prices compared to 2009.

Snow Crab

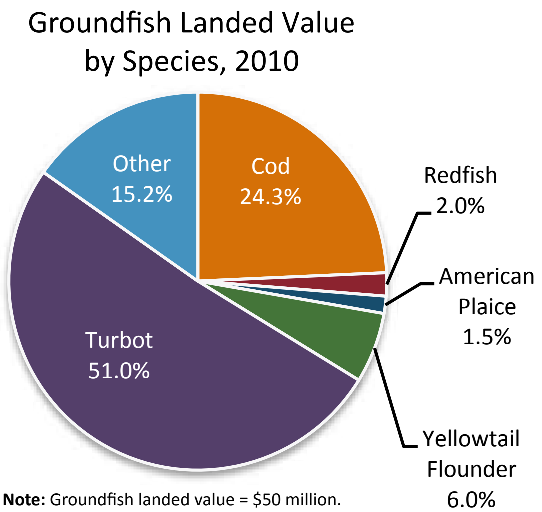
While the start of the season was delayed by a price dispute, snow crab landings fell only marginally. Landings decreased 2.3%, to 52,219 tonnes in 2010 compared to 53,460 tonnes the previous year. The associated landed value also declined, down 5.6%, from $165 million in 2009 to $155 million in 2010. This was mostly due to a lower average raw material price paid per pound for snow crab; $1.35 in 2010, compared to $1.40 in 2009. In NAFO Division 3K (see map on page 28), about 2,000 tonnes of the snow crab quota was left in the water, mainly due to poor catch rates. An early start to the fishery may have avoided this problem in some areas.

Other Shellfish

Surf clam landings and landed value declined 7.7% in 2010, due to lower catch rates in the Grand Banks fishing area. Lobster landings and corresponding landed value remained on par with the previous year, recording 2,519 tonnes and $18 million respectively. Whelk landings also remained relatively on par at 5,050 tonnes, while its landed value increased 20.9%, to $5.5 million due to an increase in landed price.

Groundfish

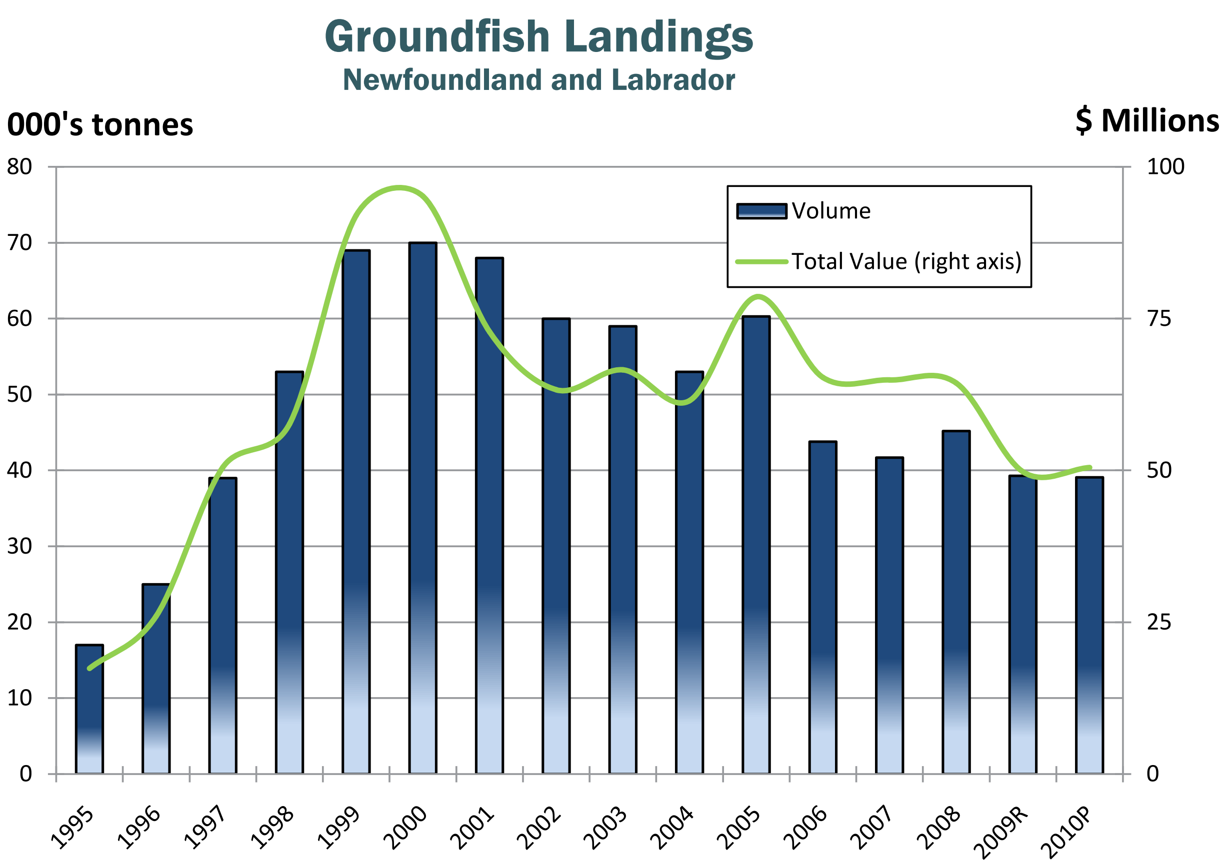
Groundfish accounted for 13.0% of total capture fisheries landings in 2010, and 11.5% of total landed value. Landings were on par with 2009 at 39,091 tonnes, while the corresponding landed value rose 1.4%, to $50 million. The rise in landings of yellowtail flounder and turbot more than offset the decline in cod landings. Cod landings were down 16.9%, from 14,472 tonnes in 2009 to 12,028 tonnes in 2010, mainly the result of lower



Note: Groundfish landed value = $50 million.
Source: DFO; DFA

Above: Bridgeport

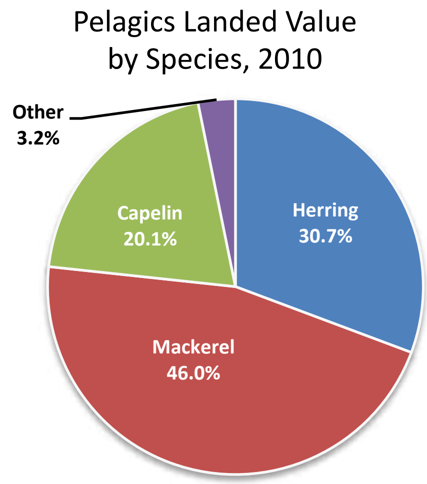
catches in NAFO Division 3Ps and a quota reduction in NAFO Division 4R. There was a rise of 47.7% in yellowtail flounder landings, from 5,440 tonnes in 2009 to 8,033 tonnes in 2010, resulting from increased fishing effort. Turbot landings increased 10.0%, from 10,417 tonnes in 2009 to 11,455 tonnes in 2010, due to an increase in the total allowable catch in NAFO Division 0B.



Source: DFO; DFA

R = Revised: P = Preliminary

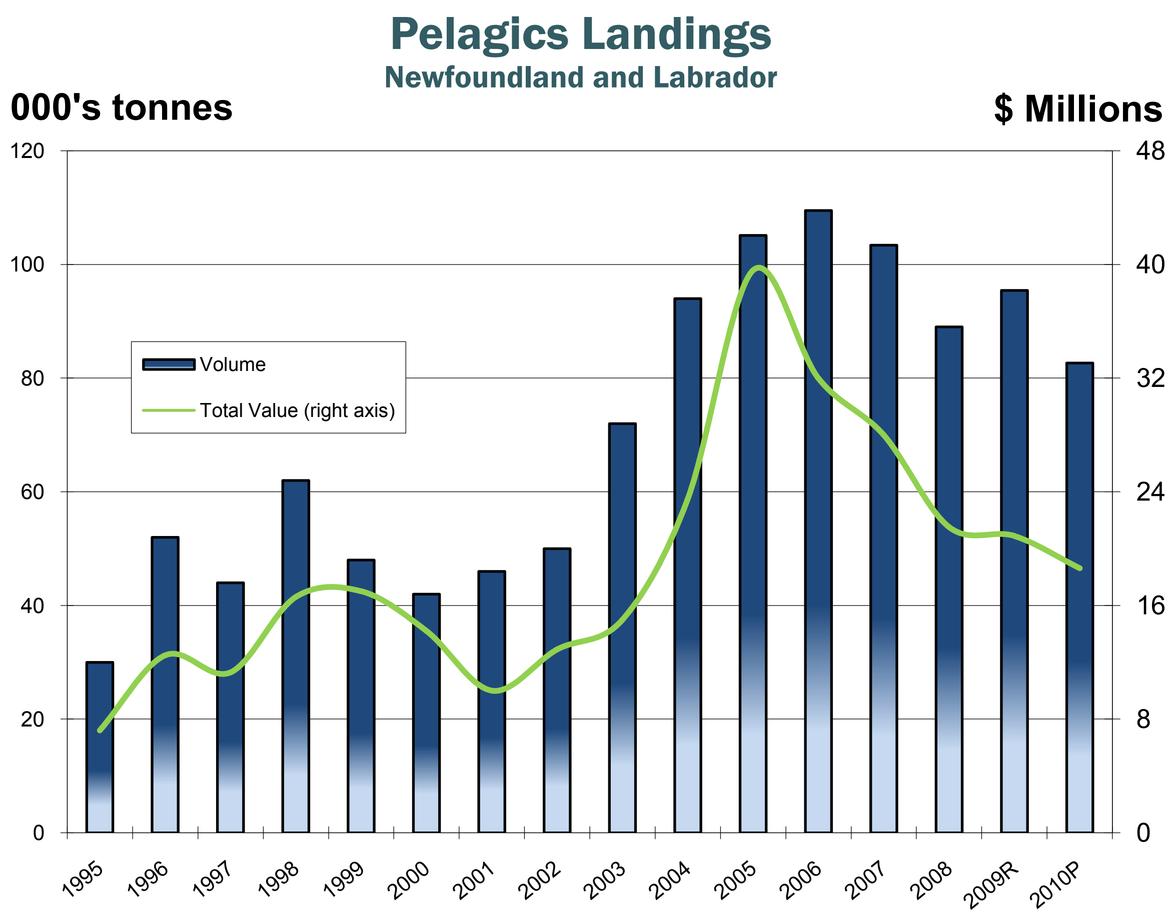
Above:Fishing vessels in Triton



Note: Pelagics landed value = $19 million.
Source: DFO; DFA

Pelagics

Pelagics comprised 27.4% of total capture fisheries landed volume in 2010, and 4.2% of total landed value. Landings decreased by 13.4%, from 95,443 tonnes in 2009 to 82,665 tonnes in 2010. The corresponding landed value was down 10.8%, from $21 million in 2009 to $19 million in 2010, primarily the result of lower capelin catches. Capelin landings dropped 27.1%, from 33,230 tonnes in 2009 to 24,240 tonnes in 2010, due mainly to lower catches in NAFO Division 3K. Landings of herring and mackerel also declined in 2010, down 6.7% and 5.5% respectively.



Source: DFO; DFA

R = Revised: P = Preliminary

Seals

Seal landings remained low when compared to historical levels. Restrictions on the sale of seal products to some countries are a notable challenge for this industry. Despite continued challenges, landings rose 25.2% in 2010 to 67,008 seals from 53,531 seals in 2009. The associated landed value also increased 53.0%, to $1.3 million compared to $857,000 in the previous year.

Landed Volume and Value
Newfoundland and Labrador

SPECIES GROUP	2009 REVISED		2010 PRELIMINARY		2009/2010 Comparison	
	Volume (tonnes)	Value ($000's)	Volume (tonnes)	Value ($000's)	% Volume	% Value
GROUNDFISH						
Cod	14,472	$14,967	12,028	$12,263	-16.9%	-18.1%
Redfish	2,662	$1,098	2,574	$1,003	-3.3%	-8.7%
American Plaice	1,731	$881	1,577	$744	-8.9%	-15.6%
Yellowtail Flounder	5,440	$2,050	8,033	$3,044	47.7%	48.5%
Greysole/Witch	787	$520	748	$483	-5.0%	-7.1%
Turbot (Greenland Halibut)	10,417	$21,371	11,455	$25,746	10.0%	20.5%
Pollock	311	$188	327	$165	5.1%	-12.2%
Hake	703	$399	505	$363	-28.2%	-9.0%
Monkfish	297	$305	224	$210	-24.6%	-31.1%
Skate	1,085	$338	316	$133	-70.9%	-60.7%
Other	1,376	$7,654	1,304	$6,332	-5.2%	-17.3%
TOTAL GROUNDFISH	39,281	$49,771	39,091	$50,486	-0.5%	1.4%
PELAGICS						
Herring	27,872	$6,142	25,995	$5,712	-6.7%	-7.0%
Mackerel	34,238	$9,051	32,357	$8,560	-5.5%	-5.4%
Capelin	33,230	$5,128	24,240	$3,741	-27.1%	-27.0%
Other	103	$569	73	$611	-29.1%	7.4%
TOTAL PELAGICS	95,443	$20,890	82,665	$18,624	-13.4%	-10.8%
SHELLFISH						
Clams	24,692	$45,515	22,800	$42,027	-7.7%	-7.7%
Scallops	702	$1,076	1,039	$1,598	48.0%	48.5%
Lobster	2,499	$18,088	2,519	$18,051	0.8%	-0.2%
Whelk	5,152	$4,549	5,050	$5,498	-2.0%	20.9%
Shrimp	77,663	$109,248	95,077	$139,161	22.4%	27.4%
Snow Crab	53,460	$164,715	52,219	$155,411	-2.3%	-5.6%
Other Shellfish	2,604	$8,563	937	$6,934	-64.0%	-19.0%
TOTAL SHELLFISH	166,772	$351,754	179,641	$368,680	7.7%	4.8%
Seals (number)	53,531	$857	67,008	$1,311	25.2%	53.0%
TOTAL	301,496	$423,272	301,397	$439,101	0.0%	3.7%

Note: Shrimp includes inshore and offshore.
Source: DFO; DFA

Fishing Industry Safety Initiatives

Safety in the fishing industry has become very important as workers and their families are no longer willing to accept the tragedies that have been a part of the industry for generations. Recent statistics show that the harvesting sector recorded the highest number of accidental deaths in all industries over the past 10 years and the processing sector has a soft tissue incident rate almost 60% higher than the provincial average. In response to these grim statistics, there has been a concerted effort led by industry, and supported by government, to improve occupational health and safety in the industry.

DFA, in partnership with the Workplace Health, Safety and Compensation Commission (WHSCC), has taken the lead role with industry in assessing options to determine the best organizational approach to address safety in the NL fishing industry. The groups involved in the consultation process included the Safety Net, Centre for Occupational Health and Safety, Memorial University of Newfoundland (MUN); PFHCB; Fish, Food and Allied Workers (FFAW); and the Association of Seafood Producers (ASP). Advice was also provided by DFO, the Canadian Coast Guard and the Marine Institute.

On December 7, 2010, DFA and the WHSCC announced funding of $1,000,000 ($500,000 each) for the formation of safety organizations in the fish harvesting and processing sectors. Two separate organizations will be formed to improve occupational health and safety in the fishing industry; the Fish Harvesting Safety Association and the Fish Processing Sector Safety Council. The Fish Processing Sector Safety Council will follow the WHSCC sector safety council model used in other industrial sector safety councils. The Fish Harvesting Safety Association is envisaged as a unique approach which will consider the WHSCC sector safety council model, but will also consider new approaches, including those used in other jurisdictions. The WHSCC will take the lead role in setting up both groups and DFA will provide assistance as required. The funding is for a three-year period, after which it is anticipated that the councils will evaluate their progress and investigate ways and means to fund their operations for the long term.

The WHSCC will work with labour and employer organizations to coordinate the establishment of the sector councils by developing a common understanding and approach. It will also act as a resource for the establishment of the committees and assist the respective representatives to move forward with health and safety improvements in the industry.

It is anticipated that effective organizations will be established that allow for views of many groups and individuals to be heard as they lead this initiative to improve health and safety.

The new fishing industry safety organizations will complement other safety initiatives supported by DFA. Under the Fisheries Technology and New Opportunities Program (FTNOP), the department funded a project with the WHSCC and the PFHCB to produce a safety video titled “Getting Back Home.” The video, prepared by MUN and the Marine Institute (MI) with fish harvesters, looks at how harvesters can enhance their own safety and the safety of their crew. The video has been distributed to all fish harvesters in the province. Also under FTNOP, DFA collaborated with industry and academic partners to fund an e-simulator distance education program for inshore vessel stability management. This multi-year initiative is scheduled for completion in 2012.

Fishing industry safety is everyone’s business. DFA will continue to help make the province’s fishing industry as safe as it can be.

Above Left: Filming “Getting Back Home.”

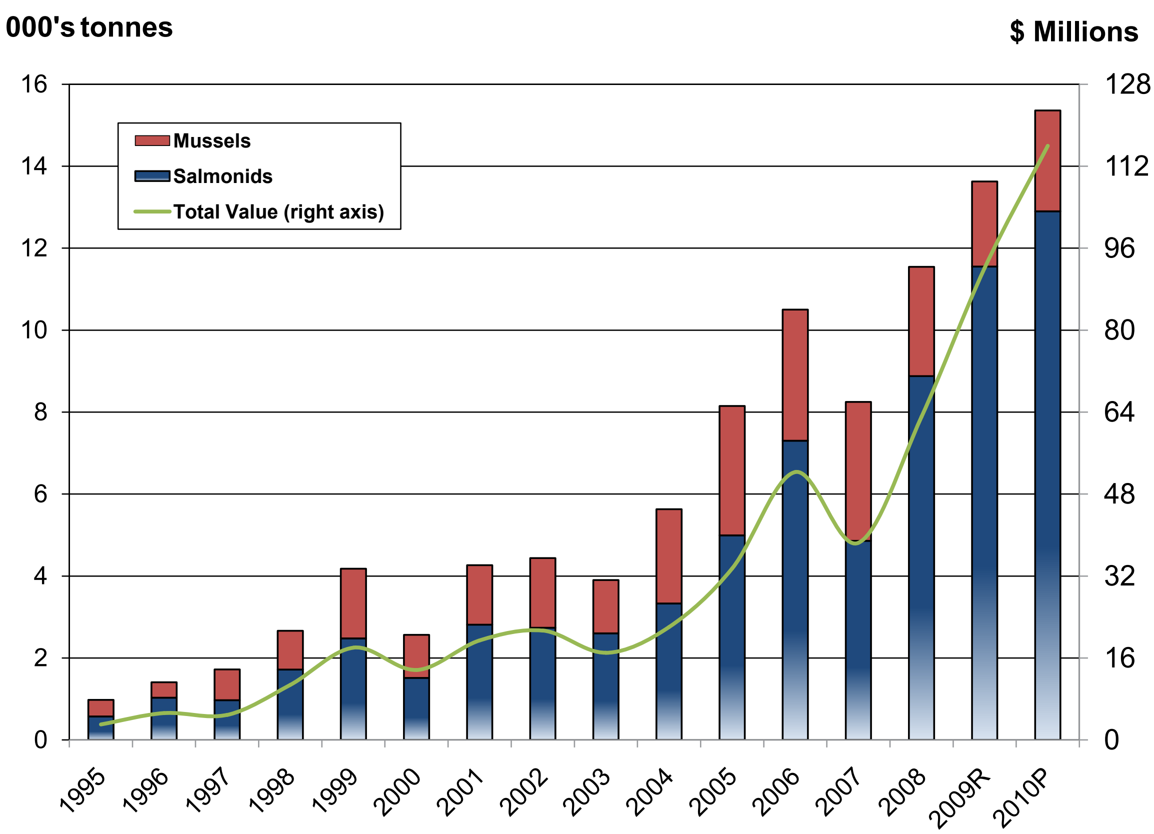
Aquaculture

Above: Salmonid site in St. Alban's

In 2010, the Newfoundland and Labrador aquaculture industry continued to grow in terms of production and market value. Aquaculture production rose 12.7%, from 13,627 tonnes in 2009 to 15,360 tonnes in 2010. This sustained growth was largely facilitated by the continued expansion of the salmonid sector.

The total market value increased 26.1%, from $92 million in 2009 to $116 million in 2010. The continued increase in market value over the past few years was largely the result of stronger market prices and higher production in the salmonid sector.

Aquaculture Production
Newfoundland and Labrador



Source: DFO; DFA

R = Revised: P = Preliminary

Salmonids

Commercial production within the salmonid sector is currently focused on Atlantic salmon and steelhead trout. DFA has approved 78 commercial salmonid site licenses that cover a combined area of 1,965 hectares (see map on page 28). Total salmonid production has continued to increase steadily since 2007. In 2010, production reached 12,899 tonnes, valued at $110 million in the marketplace.

In support of the growing salmonid sector, DFA led the development of key strategic infrastructure initiatives to ensure continued success. Specifically, marine infrastructure has been improved through increased wharf access, existing wharf upgrades and construction of new wharf facilities dedicated to aquaculture activities. To ensure optimal fish health within the industry, the Centre for Aquaculture Health and Development is under construction in St. Alban's. In addition, to promote biosecurity and improve access to smolts, DFA has also supported the construction of two salmonid hatcheries within the province.

Mussels

Commercial shellfish aquaculture production is focused on blue mussels. DFA has approved 52 commercial shellfish site licenses that cover a combined area of 3,843 hectares (see map on page 28). Mussel production has remained relatively stable during the last few years. In 2010, production totalled 2,461 tonnes, valued at $6 million in the marketplace.

Mussel aquaculture sales have been modest since the global economic downturn in 2008. Consumer demand and market access have been slow to recover. In response, DFA, with participation from the mussel industry, sponsored a study to identify mussel market constraints and opportunities and suggest strategies for future market development and growth. DFA and industry are working toward implementing the strategies recommended from the study to increase growth and prosperity within the mussel sector.

Above: Mussel barge in Green Bay

Sustainable Growth in Aquaculture

The aquaculture sector of the Newfoundland and Labrador seafood industry has entered a phase of significant growth, in production and support sectors. To ensure a long-term and prosperous industry, DFA has recognized the importance of developing aquaculture sustainably.

To this end, the province is working to ensure that current activities and future development follow clearly defined sustainable management objectives. Sustainable management is dependent on effective best management planning and practices, efficient supply lines, adequate services and robust onshore infrastructure. A major DFA initiative toward achieving this goal is the ongoing development of an Aquaculture Sustainable Management Framework. This framework will ensure mechanisms exist that incorporate social, economic and environmental values into decision-making, for the long-term economic benefit of the province.

In 2010, DFA was involved in several initiatives promoting sustainable growth in aquaculture, including:

- **Aquatic Animal Health:** The department recognizes aquatic animal health as an essential component to sustainable growth in aquaculture and has increased its operational capacity in this area. Specifically, DFA has created a new Aquatic Animal Health Division to facilitate an efficient and effective aquaculture health management regime for Newfoundland and Labrador.

- **Stock Containment:** Developed in 1999, the Code of Containment is a management strategy aimed at reducing farmed salmonid escapes from grow-out cage sites. In an effort to seek continual improvement, the department reviews the code annually and updates protocols and implementation procedures.

- **Service Infrastructure:** DFA's Aquaculture Strategic Development Program has assisted in the transfer of centralized net-washing technology to the province and a pre-commercial, land-based net-washing facility was established. This facility uses less water than traditional net-washing practices and has no impact on the marine environment. Located in Milltown, this service infrastructure enables an environmentally sustainable and biosecure method of waste disposal.

- **Waste Management:** DFA and industry have identified the biological waste generated from salmonid aquaculture as an environmental and biosecurity risk. In response, DFA is working with other provincial departments, academic institutions and industry to identify sustainable alternatives for waste management, including the viability of converting fish waste into fertilizer products for agriculture.

Above right : Example of Marine infrastructure that will help strengthen the aquaculture industry

Above: Packaging crab

Production Overview

In 2010, there were 121 processing facilities (102 primary, 4 secondary, 5 aquaculture and 10 retail) that operated in the province, employing 10,340 people. Total seafood production declined 5.9%, from 177,864 tonnes in 2009 to 167,302 tonnes in 2010. Increased shellfish production partially offset the declines in the processing of pelagics and groundfish.

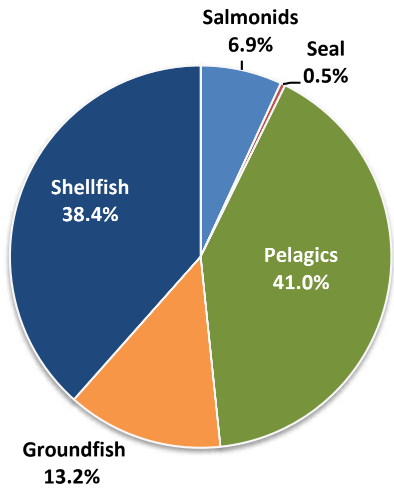
Shellfish

Shellfish production was up 5.3%, from 61,068 tonnes in 2009 to 64,301 tonnes in 2010. This increase can be mainly attributed to the rise in shrimp production. Cooked and peeled shrimp production was 18,349 tonnes in 2010, up 18.3% from 15,512 in 2009, and accounted for 11.0% of total seafood production. Snow crab sections for the U.S. market declined 19.3%, from 22,615 tonnes in 2009 to 18,259 in 2010. Sections destined for the Japanese market, however, improved by 33.3%, to 10,860 tonnes in 2010 after declining the previous year. Sections for the Japanese and U.S. markets combined, accounted for 17.4% of total seafood production. Shellfish represented 38.4% of total production in 2010 compared to 34.3% in 2009.

Pelagics

Due to a significant drop in capelin and herring production levels, pelagic production was down 12.8%, from 78,707 tonnes in 2009 to 68,656 tonnes in 2010. Capelin production declined considerably from 24,857 tonnes in 2009 to 18,521 in 2010, down 25.5%. Similarly, herring production decreased 20.2%, from 2009 levels of 19,951 tonnes to 15,915 tonnes in 2010. Seasonal variability is common in pelagic production. Pelagic production comprised 41.0% of all seafood production in 2010.

Production Volume
by Species, 2010



Note: Total production volume = 167,302 tonnes.

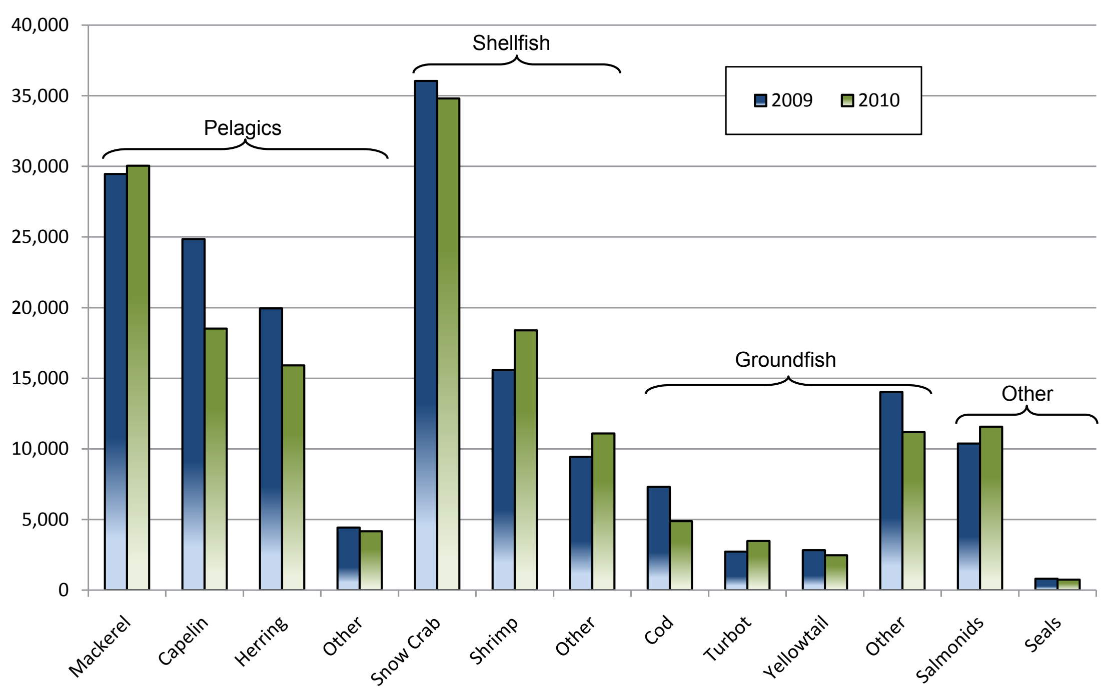
Source: DFA

Above: Crab sections

Groundfish

Groundfish production decreased 18.1% from the previous year. While turbot production was up 27.6%, cod and yellowtail flounder production was down significantly, 33.2% and 12.7% respectively. Groundfish production accounted for 13.2% of the 2010 total production.

Production Volume by Species 2010



Source: DFA

Above: Snow Crab

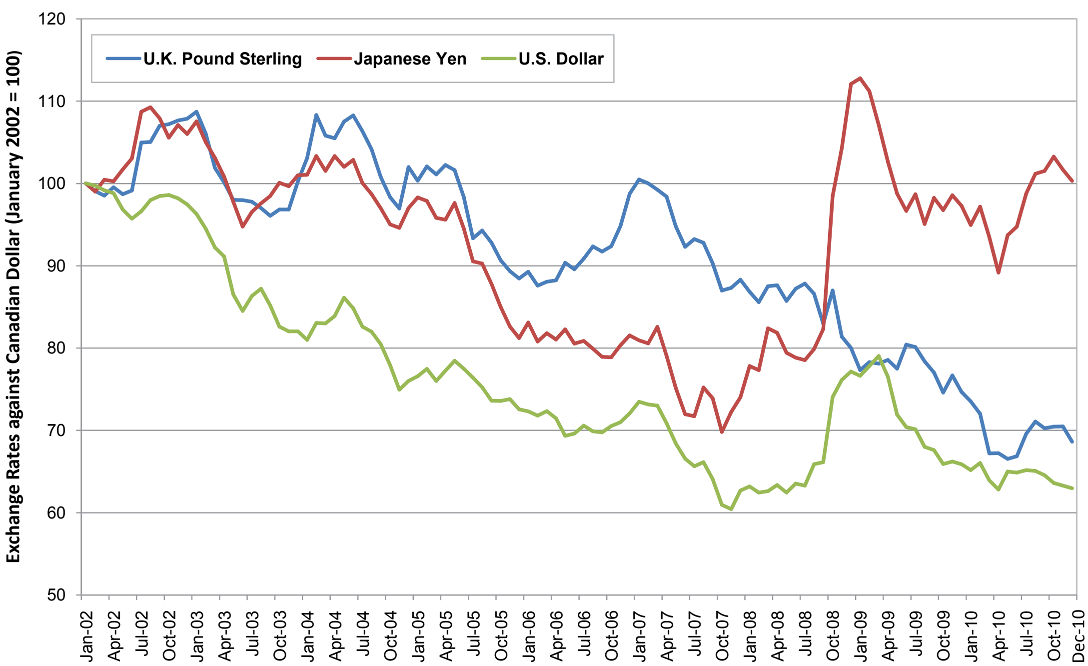
Market Overview

Newfoundland and Labrador is a significant exporter of seafood products. According to Statistics Canada, the province exported approximately 181,036 tonnes of seafood to other countries in 2010, valued at over $780 million. This represents an increase of 8.1% in volume and 8.3% in value against the previous year. A considerable rise in shell-on shrimp exports contributed to this increase.

The United States and China remained the province's largest seafood markets in 2010, accounting for 33.6% and 22.2% of the province's total export value, respectively. Other key markets based on export value included Russia (5.7%), the United Kingdom (5.6%), Denmark (4.9%) and Japan (4.4%). These top markets comprised 76.4% of the provincial export value. The remaining portion was exported to over 50 other countries.

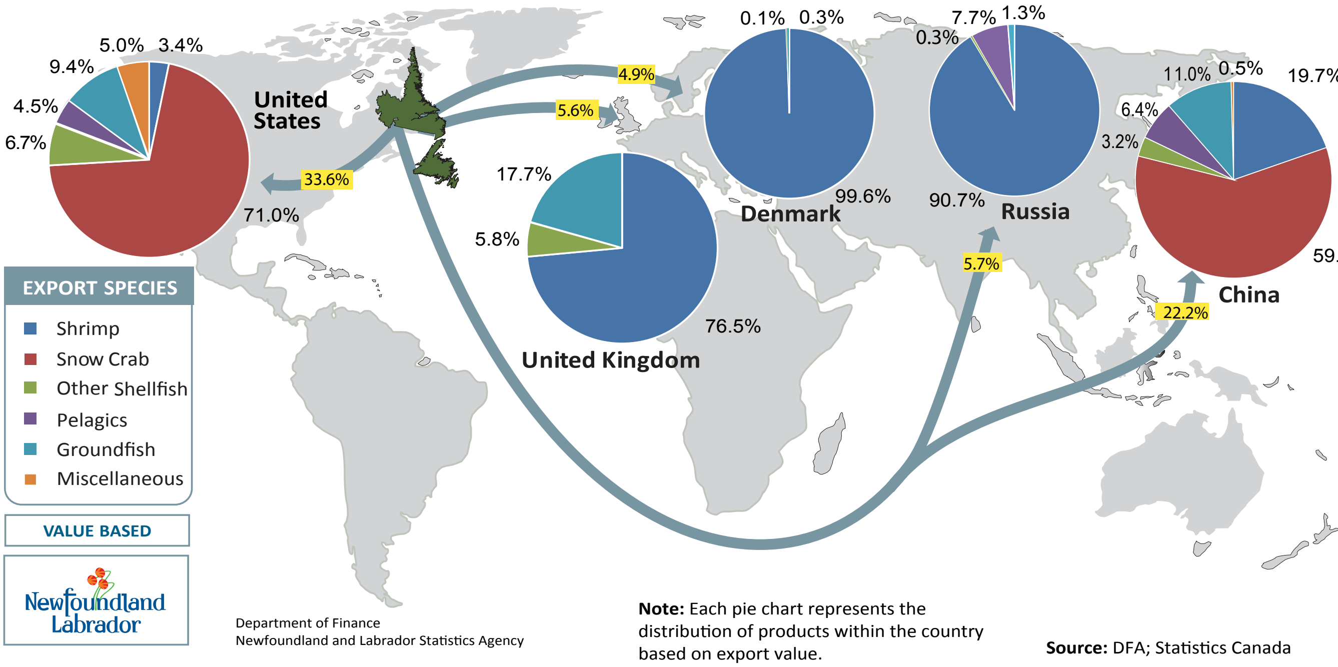
Most seafood sales occur in foreign currencies, notably the U.S. dollar, the Euro and the British pound. A stronger Canadian dollar has caused seafood exports from this province to become relatively more expensive. For example, when the U.S. exchange rate declines, fewer Canadian dollars are received in exchange for U.S. dollars, leading to a decline in the returns producers

Selected Foreign Exchange Rates
Indexed to January 2002



Source: Bank of Canada (BoC)

Top 5 World Markets for Newfoundland and Labrador Seafood Products 2010



Note: Each pie chart represents the distribution of products within the country based on export value.

Source: DFA; Statistics Canada

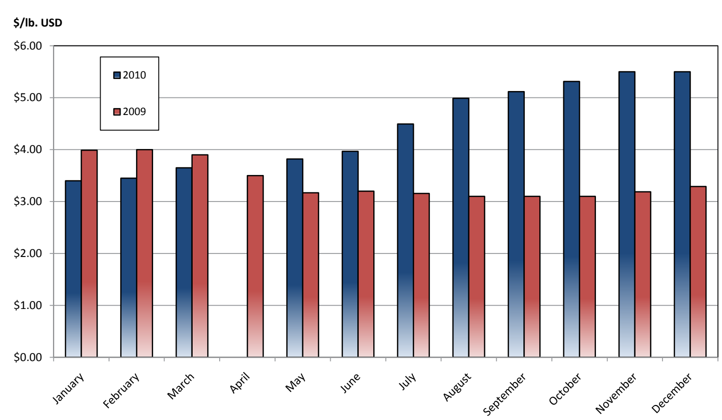
receive from seafood sales. When the Canadian dollar appreciates, competing countries with a weaker currency are in a better position than Canadian exporters.

Stronger seafood markets were experienced by the industry in 2010. Decreased global seafood supply and the reduction of recessionary pressures stimulated demand for the province's seafood.

Snow Crab

Snow crab market prices, according to Urner Barry Publications Inc., steadily rebounded from a low of US$3.40 for 5-8 ounce sections in January 2010, to US$5.50 in December 2010. The yearly average was US$4.52, up 33.3% from the 2009 average of US$3.39. The United States was the largest market for NL snow crab exports, accounting for 61.5% of total export value, with China and Japan following at 33.9% and 1.1%, respectively. Traditionally, Japan was the second largest market for snow crab. Now, much of the NL snow crab shipped to China is ultimately consumed in Japan. Snow crab still accounted for the highest value of all NL seafood exports in 2010, at $302 million.

Monthly Market Prices
5-8 oz. Frozen Crab Sections



Source: Urner Barry Publications Inc.; BoC

Shrimp

Market prices for cooked and peeled shrimp increased in 2010. Leftover inventory that plagued the 2009 season was not an issue in 2010, due in part to a partial fleet tie-up in NL in 2009. In 2010, the yearly average market price for 150/250 count was US$3.77, up 10.9% from 2009, according to Urner Barry Publications Inc. The major markets for cooked and peeled coldwater shrimp were the United Kingdom, the United States and Denmark. The major markets for offshore frozen shrimp were Russia, Iceland and Denmark. In 2010, the total value of shrimp exports was over $237 million.

Cod

Prices for cod remained steady from the latter part of 2009 with some products increasing in market value. The total export value for cod was over $21 million in 2010. The United States and the United Kingdom accounted for the bulk of cod exports from the province at 36.9% and 36.3% of value respectively. A number of other European Union (EU) countries accounted for the majority of the remainder.

Pelagics

Pelagic prices remained steady in 2010, with some species increasing slightly from 2009. The major destinations by value for capelin were Taiwan (25.0%), China (25.0%), and the United States (16.4%). A significant portion of the total export value (82.6%) of herring went to the United States. Main markets for mackerel were China (17.1%), Georgia (14.0%), and Taiwan (12.6%).

Sustainability and Certification

Sustainability and traceability are becoming increasingly important at the consumer and trade level in many North American and European seafood markets. There are numerous ecolabelling and sustainability programs available, but the Marine Stewardship Council (MSC) is the most widely recognized global certification program for wild capture fisheries. The MSC program is consistent with the United Nations Food and Agriculture Organization guidelines for fisheries certification. The MSC's rigorous, scientific standard for sustainable fisheries includes three core principles: health of the fish stock, fishery impacts on the ecosystem, and fishery management.

CERTIFIED SUSTAINABLE SEAFOOD
MSC
www.msc.org
TM

In 2010, the Ocean Choice International yellowtail flounder fishery was the first of the Grand Banks finfish fisheries to receive MSC certification. In 2008, the NL coldwater shrimp fishery was the first shrimp fishery to become MSC certified. This has allowed the province to both obtain and maintain market share in certain export markets. Also certified is the eastern Canada offshore scallop fishery. The offshore shrimp fishery in areas 1, 2, 4, 5, 6 and 7 is in the full assessment process, as is the large vessel herring purse seine fishery in NAFO Division 4R. Several other fisheries are in the pre-assessment process.

Resource Status

Above: Steelhead Trout

The Total Allowable Catch (TAC) for selected species is set and regulated by DFO. While there appears to be some evidence of a decline in shrimp stocks, other key shellfish stocks remain relatively stable. Most groundfish stocks remain at low levels, but several stocks on the Grand Banks appear to be improving. The yellowtail flounder stock is considered to be fully recovered.

Snow Crab

The snow crab resource has been relatively stable over the past few years. The TAC was increased to approximately 56,000 tonnes in 2010, up from 54,000 tonnes in 2009. The increases occurred in 3LNO (11%) and 3Ps (18%) quotas, with 10% and 12% reductions in 2J and 3K quotas respectively.

Northern Shrimp

The northern shrimp resource extends from the Grand Banks to the Davis Strait. Biomass estimates in southern areas are declining from historically high levels. In 2009, northern shrimp landings by the NL inshore and offshore sectors dropped to approximately 70,000 tonnes due to market conditions and declining catch rates. In 2010, landings increased to approximately 90,000 tonnes, despite a 28% quota cut in SFA 6. The inshore fleet (vessels less than 90 feet) landed approximately 53% of the overall total. There will be a 35% reduction in the SFA 7 quota for 2011, as determined by Northwest Atlantic Fisheries Organization (NAFO), which manages this portion of the northern shrimp resource.

Gulf Shrimp

The province's Gulf shrimp fleet fishes 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. However, landings declined in 2009 to approximately 5,600 tonnes due to market conditions. The stock appears to be stable and the fleet's TAC of 6,227 was taken in 2010.

TOTAL ALLOWABLE CATCH (tonnes)
NEWFOUNDLAND AND LABRADOR 2010

SPECIES GROUP	2009	2010
Groundfish Stocks		
3Ps Cod (15.6% allocated to St. Pierre et Miquelon, France)	11,500	11,500
3Pn 4RS Cod (NL & Québec)	7,000	4,000
Redfish Unit 2 (3.6% allocated to St. Pierre et Miquelon, France)	8,500	8,500
NAFO Stocks		
2+3KLMNO Turbot (Canada 36%)	16,000	16,000
3LNO Yellowtail Flounder (Canada 97.5%)	17,000	17,000
3O Redfish (Canada 30%)	20,000	20,000
Pelagic Stocks		
Herring (NL stocks + 4R)	30,990	31,826
Mackerel (Atlantic wide)	75,000	60,000
Capelin (NL stocks + 4R)	41,691	41,691
Shellfish Stocks		
Crab	54,110	56,087
Gulf (4R) Shrimp (NL allocation)	6,227	6,227
Northern Shrimp		
-inshore	74,799	57,906
-offshore/special allocations (Atlantic Wide)	112,761	102,893

Source: DFA; DFO

Cod

The northern (2J3KL) cod stock consists of an inshore and offshore component. The offshore has been under a fishing moratorium since 1992, but the biomass has increased in recent years. A limited inshore fishery was conducted from 1998 to 2002, and again from 2006 to 2010. The stock as a whole, while improving, remains far below historical levels.

The TAC for the south coast (3Ps) cod stock was set at 15,000 tonnes from 2001 to 2006, while it was adjusted down in 2007 to 13,000 tonnes based on scientific information. The TAC remained at 13,000 tonnes for 2008, but dropped to 11,500 tonnes in 2009, and remained at this level for 2010. Based on the most recent scientific information, some growth in the stock is expected in coming years, but no significant change in the TAC is expected in 2011.

The status of the northern Gulf of St. Lawrence (4RS3Pn) cod stock remains well below historic levels. In 2003, the stock was placed under a moratorium but the fishery reopened in 2004 with a TAC of 3,500 tonnes. The TAC was increased to 6,000 tonnes in 2006, due to signs of improved recruitment. In 2007, it was increased to 7,000 tonnes and remained at this level for 2008 and 2009. However, the TAC was decreased to 4,000 tonnes in 2010 due to a decline in the overall status of the stock.

Above: Corner Brook

Unit 2 Redfish

Unit 2 redfish is located on the south coast of the island portion of the province and parts of the Laurentian Channel. NL fleets traditionally harvest between 35% and 40% of the Unit 2 redfish TAC. The stock has been relatively stable over the past 12 years, with little growth due to poor recruitment. The TAC for 2008 to 2010 was set at 8,500 tonnes. Landings increased in 2009 and 2010, but remained low due to limited 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 42,000 tonne quota that was in place in 2003. 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 until 2010. The TAC will increase to 17,185 tonnes in 2011 under NAFO's newly adopted management strategy evaluation approach for this stock. Canada's allocation is 36% of the quota, which is mainly harvested by NL-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 increased to 17,000 tonnes in 2009, remained at this level for 2010 and will be maintained for 2011. Canada's share of this stock is 97.5%, which is harvested by offshore vessels based in NL.

Other Groundfish

The following NAFO-managed straddling groundfish stocks will remain under moratoria in 2011: 3NO cod; 3NO witch flounder; and 3LNO American plaice. The 3LN redfish stock, which was under moratoria in 2009, was reopened in 2010 with a TAC of 3,500 tonnes. This TAC will increase to 6,000 tonnes in 2011. Canada's share of this stock is 42.6%.

Above: Transporting cod to farms

Departmental Initiatives

During 2010, the department continued initiatives to support the NL seafood industry. DFA worked with stakeholders in response to challenges to ensure the long-term viability of the province's seafood industry.

Aquaculture

- The construction of the Centre for Aquaculture Health and Development in St. Alban's commenced in 2010, with completion anticipated in 2011.
- Aquaculture infrastructure remained a top priority for DFA in 2010, with wharf construction nearing completion in Hermitage and Pool's Cove.
- The capacity of the salmonid sector was strengthened with the construction of a salmon hatchery in St. Alban's and the site work being completed on another salmon hatchery in Stephenville.
- DFA acquired wharves at St. Alban's and Milltown through the Government of Canada Ports Divestiture Program.
- DFA collaborated with DFO in the development of the National Aquaculture Strategic Action Plan Initiative to increase production, competitiveness and sustainability.
- DFA worked with the mussel stakeholders to address challenges by completing a marketing/benchmarking study for the NL mussel sector.

Trade

DFA continued to work toward the elimination of tariffs and other trade barriers.

- While not a participant in the Canada-EU Comprehensive Economic and Trade Agreement (CETA) negotiations, the province continued to closely monitor the negotiations. Real market access, including the elimination of tariff and non-tariff barriers on seafood products entering the EU, would result in substantial benefits to the seafood industry.
- The NL seafood industry continued to avail of the EU's reduced tariff under the Autonomous Tariff Rate Quota on shrimp and yellowtail flounder.

Sealing Industry

In 2010, DFA continued to support initiatives that promote the NL sealing industry as part of its Sealing Industry Communications and Advocacy Strategy. This strategy is designed to support the province's humane, sustainable and economically important sealing industry. Some key activities of the strategy include:

- supporting the federal government in its legal action through the World Trade Organization to remove the EU ban on seal products;
- maintaining alliances with like-minded organizations (e.g. International Council for Game and Wildlife Conservation);
- advocating for the development of mandatory training and certification requirements to support professionalization in the sealing industry;
- coordinating an integrated approach on seal management and market development;
- supporting the Fur Institute of Canada and the Inuit Tapiriit Kanatami in its legal efforts to have the EU seal ban annulled; and

Above: Seal skin boots by Bente Houmann Andersen

- providing funding for the Canadian Seal Marketing Group to develop and expand markets in Russia and Asia.

Marketing

- In efforts to both maintain our market presence and explore new market opportunities, DFA participated with industry at a number of key international trade events: International Boston Seafood Show, European Seafood Exposition, World Food Moscow and China Fisheries and Seafood Expo.
- In partnership with the Atlantic Canada lobster industry, the federal government, the other Atlantic provinces and Quebec, DFA provided $25,000 to the Lobster Council of Canada to assist with strategic development and international marketing and promotion.
- DFA provided financial assistance to industry stakeholders toward the attainment of Marine Stewardship Council certification of the purse seine herring fishery in NAFO Division 4R.

Fisheries Technology and New Opportunities Program

There was $1.6 million committed to fisheries research and development projects under FTNOP in 2010. The total value of all projects funded was $13.6 million, thereby leveraging an additional $12 million from industry and other partners.

- In the harvesting sector, funding was provided for projects including design/testing of a new shrimp trawl for reduced fuel consumption; commercial trials of biodegradable twine; an e-learning delivery of a Fishing Master IV program; and an experimental Atlantic Saury fishery.
- In the processing sector, support was provided for projects such as water jet cutting technology; Phase I of an analysis of whelk shell use for agriculture; various value-added secondary processing initiatives; a pelagic information booklet to address quality issues; and high-pressure crab processing.
- To enhance seafood marketing, funding was provided for projects such as market development of snow crab, mackerel, yellowtail flounder, and blue mussels; MSC certified cooked-and-peeled shrimp; and the development and international marketing of seal products.

Compliance and Enforcement

The Compliance and Enforcement Division continued with a number of initiatives:

- The Quality Compliance and Enforcement Program is now entering its fourth year. The training focuses on compliance, enforcement, inspections and handling of fish products. All inspectors are required to complete this training to enhance their inspection and enforcement techniques to ensure higher fish quality for the province’s seafood industry. The majority of inspectors have completed 10 modules to date, 6 of which were in 2010.
- 59 audits were conducted on licensed processing facilities. These audits ensure that each license holder is complying with the reporting and other requirements under the *Fish Inspection Act*.
- Over 2,200 inspections were conducted, with 10 tickets and 19 formal warnings issued. In addition, other enforcement measures include administrative penalties, the laying of charges and the disposal of product that is tainted, decomposed or unwholesome.

Youth Initiatives

Coastal areas are extremely important to many of the communities in the province. The youth of today play a key role in fostering conservation ethics as we move forward with an integrated approach to managing our coastal and ocean activities. Educating our youth is a key component to promoting healthy oceans and sustainable fisheries. The department has supported a number of youth initiatives in 2010 such as:

- **Marine Institute Ocean Net:** Youth and Oceans Conference gives students from NL an opportunity to learn more about the importance of ocean conservation and the marine environment. This past year, MI Ocean Net held its eleventh conference in which over 450 youth participated from around the province.

- **Marine Institute Ocean Net:** Friends of Beaches Network provides opportunities for communities and youth to participate and expand their knowledge on the importance of ocean conservation, including beach and shoreline clean-ups. Over 2,000 youth were engaged in this project across the province and more than 20,000 pounds of debris was collected.

- **Envirothon Newfoundland and Labrador:** This is an environmental education competition for high school students that raises the awareness of environmental issues through teamwork, public speaking and understanding of the province's natural resources.

- **Atlantic Coastal Action Program Humber Arm:** Ocean's Day Stream and Shoreline Clean-up Challenge collaborated with local town councils and schools in the Bay of Islands coastal management area to facilitate stream and beach clean-ups.

- **Students on Ice:** Arctic Youth Expedition is a program that offers a valuable opportunity for young students to experience Canada's unique arctic ecosystems first-hand. The department fully sponsored one student and assisted a second student from the province to participate in the 2010 expedition.

- **World Oceans Day:** Events were held that highlighted the importance of the ocean to the province. The department partnered with other organizations to bring education and awareness to schools across the province through an art contest and participated in a World Oceans Day family event.

The department has also established two scholarships through the Sustainable Fisheries Resources and Oceans Policy Division:

- **Department of Fisheries and Aquaculture Fisheries Scholarship:** This $1,000 scholarship is for students graduating high school and pursuing post-secondary education. Students applying must submit a 2,500 word essay describing what they view as the biggest issue facing the province's fishing industry and offer potential solutions. Academic standing and extracurricular activities are also taken into consideration. The winner of the 2010 Scholarship was Victoria French of Bay Roberts.

- **Dr. Wilfred Templeman Memorial Scholarship:** The provincial government created this award in honour of Dr. Wilfred Templeman, a pioneer in fisheries research in NL. This scholarship is available to full-time students pursuing a graduate program at Memorial University in which groundfish research is the main focus. Successful applicants will receive $2,500 per year for a maximum of two years toward a graduate degree program related to the stated goals of the scholarship. The winner of the 2009/2010 scholarship was Brendan Wringe, a Ph.D. student from MUN.

Above left: Children participating in a shoreline clean-up of Topsail Beach

Fisheries Science

On July 2, 2010, the Government of Newfoundland and Labrador announced an investment of $14 million to expand the long-term fisheries science capabilities for the province. A total of $11.75 million of this funding was allotted toward the establishment of the Centre for Fisheries Ecosystems Research (CFER) at MI. This included funding to charter an offshore research vessel to conduct fishery related surveys off the coast of NL.

The focus of CFER will be on offshore fishery studies, coastal fishery studies, international collaboration, and fisheries conservation studies as the research program expands. Dr. George Rose, renowned fisheries scientist and Newfoundlander, is the director of the new centre. Additional scientists and technicians will be hired and graduate and postgraduate students will also train within the centre, providing new and immediate research opportunities for young Newfoundlanders and Labradorians interested in the fishery.

As the initial project of CFER, the MI is chartering the RV Celtic Explorer from the Marine Institute in Ireland to conduct an acoustic cod survey, during the winter of 2011. This is a 65 metre state-of-the-art fisheries research vessel, capable of conducting offshore acoustic surveys and other oceanographic work throughout the year in the waters off NL. This vessel meets international specifications required for acoustic surveys with respect to equipment, distance and weather capabilities, and is compliant with the minimum sound requirements needed for acoustic surveying. The vessel is also outfitted with additional scientific trawls and equipment allowing CFER to contribute to fish stock assessment through use of new and emerging technologies.

The province has an excellent international reputation for oceanographic and marine research. This will enable our academic institutions to take their already world class research to the next level and provide enhanced scientific support to the province's fishing industry.

In 2010, the MI also launched a 10 metre inshore fisheries research vessel, the RV Gecho II. The $200,000 in funding provided by DFA in 2009 was used to construct the vessel. The funding also allowed the vessel to be equipped with new electronics that enhances its capabilities to work in coastal bays with unique inshore spawning and nursery habitats. This vessel will also allow CFER to better monitor the inshore migration of cod from the offshore banks.

Additionally, $2.6 million was allocated to fund the Canadian Centre for Fisheries Innovation over three years to work with fishing and aquaculture industries to enable them to realize opportunities and address challenges. This centre provides funding for industry-specific research and development projects, helps attract funds from other sources and provides support for project management.

The department continued to support other science related research in 2010 under the Cod Recovery Program. A number of projects were initiated in partnership with DFO Science, industry and MUN. These projects continue to contribute to knowledge base and sustainable management of our fishery resources.

Above right: Glenn Blackwood, Executive Director, Fisheries and Marine Institute of Memorial University; Jim Fennell, Chairman, Irish Marine Institute; Honourable Clyde Jackman, Minister of Fisheries and Aquaculture; Dr. Peter Heffernan, CEO, Irish Marine Institute; Alastair O'Rielly, Deputy Minister of Fisheries and Aquaculture; and Glenn Janes, CEO of the Research and Development Corporation, on board the RV Celtic Explorer.

Outlook for 2011

Capture Fisheries

In 2010, the province's capture fisheries experienced growth in production value after falling in 2009, which was the lowest on record since 1998. Market prices for key species rebounded in 2010 and are expected to remain strong throughout 2011. Strong demand for seafood along with stable landings will likely sustain industry returns.

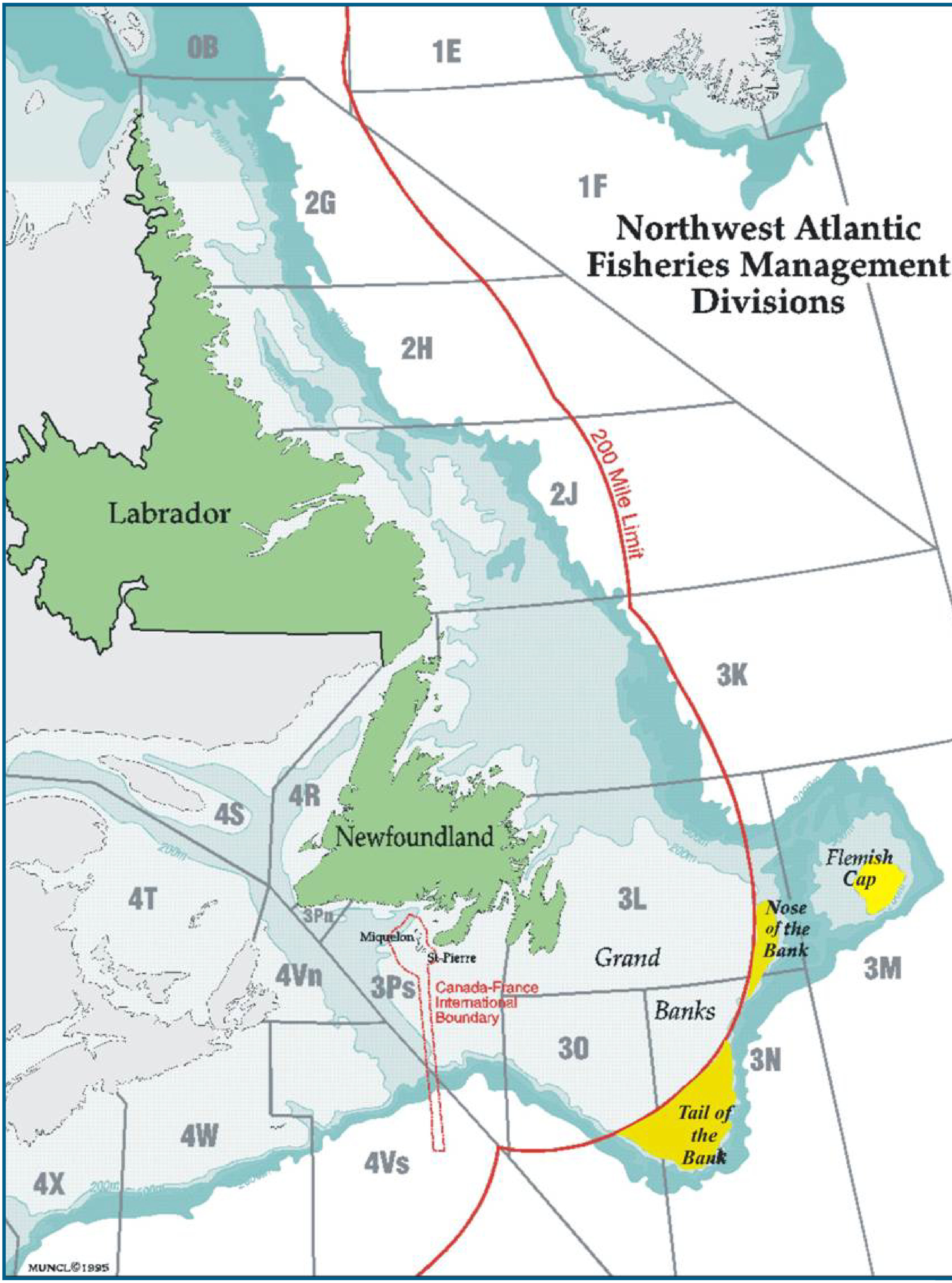
In 2011, snow crab and shrimp market prices are anticipated to remain strong. Japanese inventories are low and many sources suggest that the shortfall in supply for snow crab will continue, which will likely keep prices high. Market prices for snow crab have hit a ten-year high. In all likelihood, the next fishing season will realize higher prices than those experienced at the beginning of 2010.

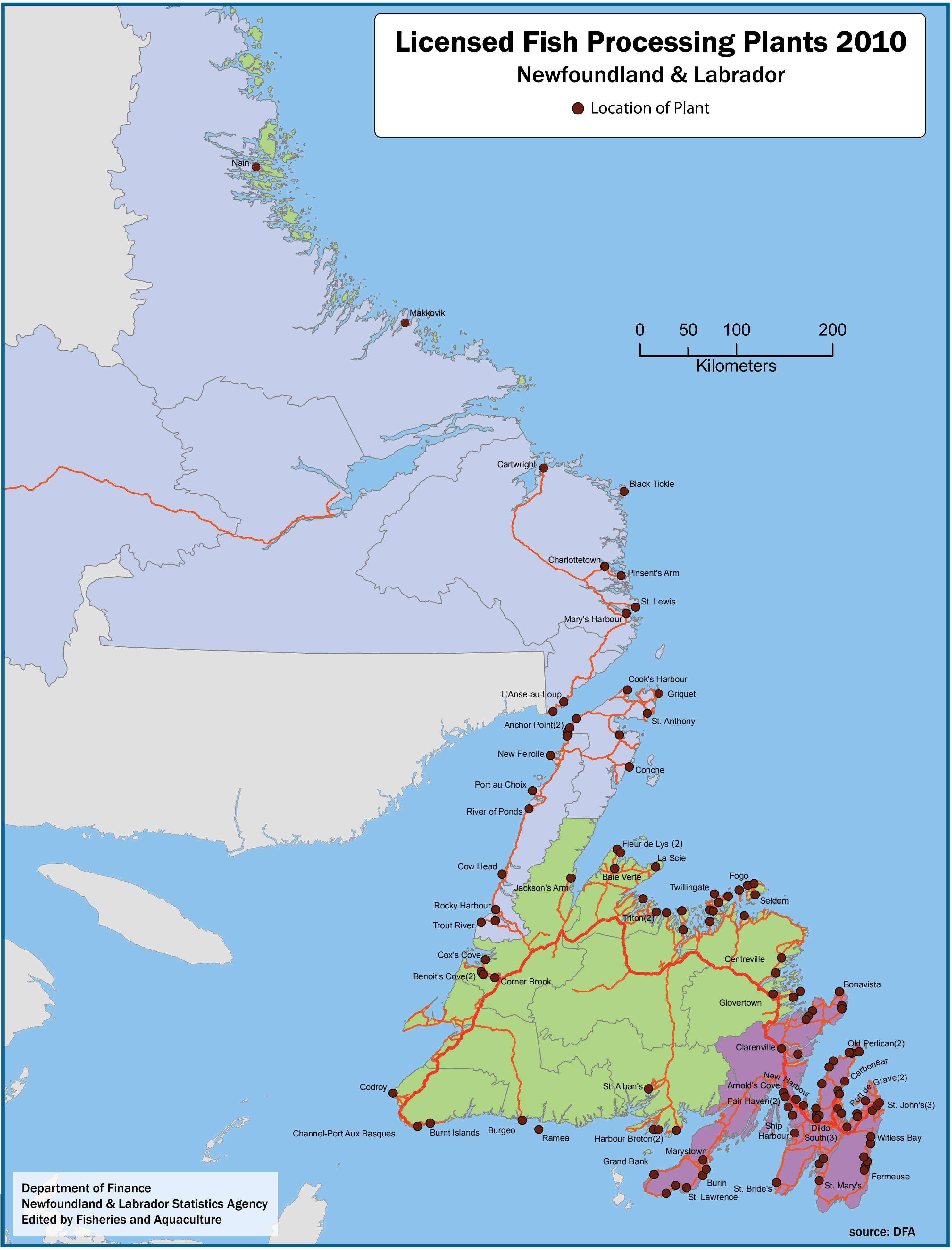
The overall supply of coldwater shrimp is decreasing both globally and in Canada, and there are lower inventories in Europe since 2008. Canada was the first nation to obtain coldwater shrimp MSC certification and this has provided NL producers with a competitive advantage. These factors will serve to contribute to higher coldwater shrimp prices in 2011.

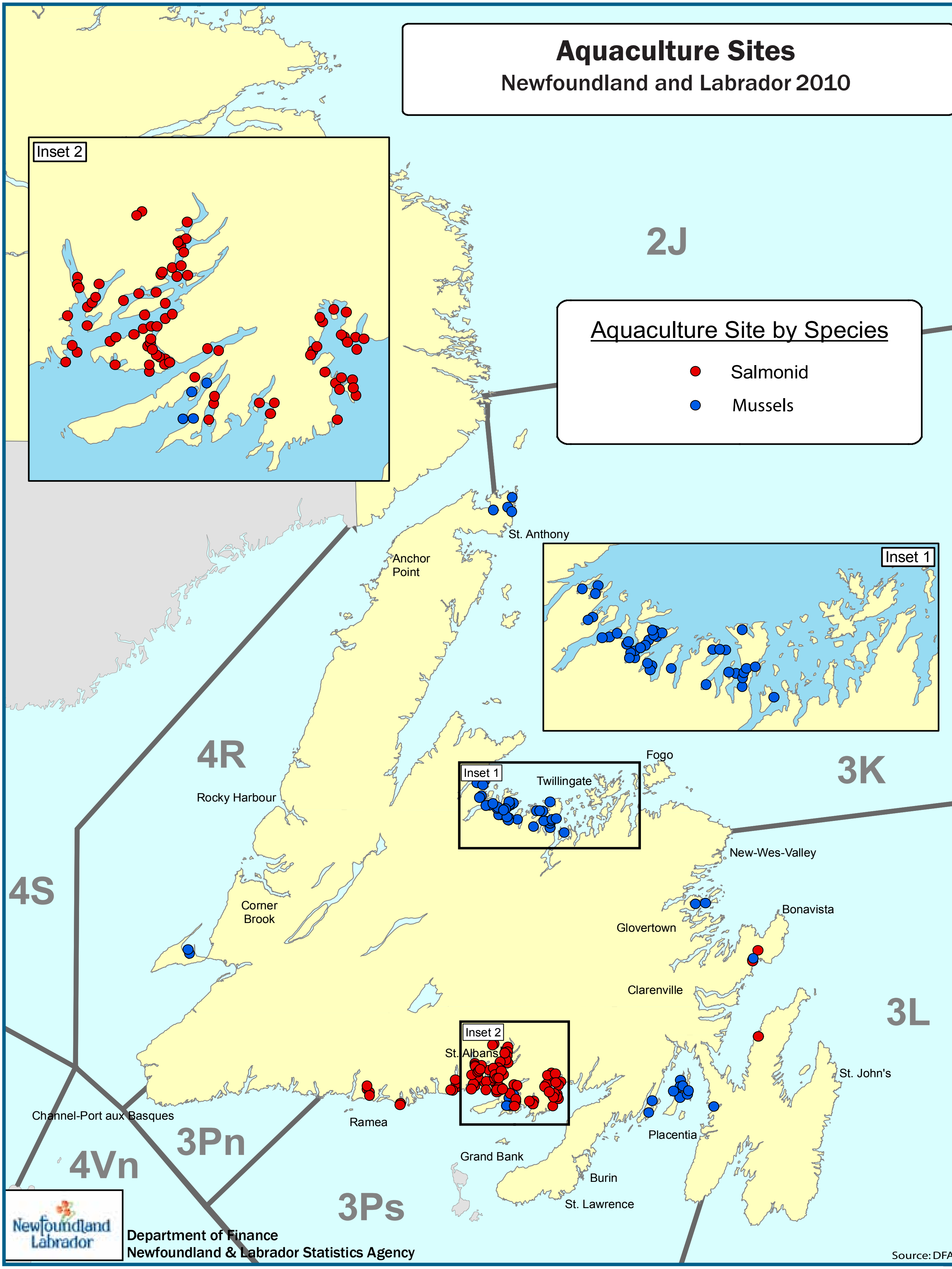
Aquaculture

Further expansion of the salmonid sector is expected to increase total aquaculture production in 2011. With the Chilean industry still recovering from significant production declines in 2009 and 2010, retail markets are likely to remain strong for NL aquaculturists.

Mussel production and market value is expected to be similar to those recorded in 2010. DFA and the Newfoundland Aquaculture Industry Association will continue to work collaboratively toward retaining existing market share and increasing domestic and international market access for mussels.


Northwest Atlantic Fisheries Management Divisions
0B
1E
1F
2G
2H
2J
3K
3L
3M
3N
3O
3Ps
3Pn
4R
4S
4T
4Vn
4Vs
4W
4X
200 Mile Limit
Labrador
Newfoundland
Miquelon
St-Pierre
Canada-France International Boundary
Grand Banks
Flemish Cap
Nose of the Bank
Tail of the Bank
200m
MUNCL©1995


Licensed Fish Processing Plants 2010
Newfoundland & Labrador
Location of Plant
0 50 100 200
Kilometers
Nain
Makkovik
Cartwright
Black Tickle
Charlottetown
Pinsent's Arm
St. Lewis
Mary's Harbour
Cook's Harbour
Griquet
L'Anse-au-Loup
St. Anthony
Anchor Point(2)
New Ferolle
Conche
Port au Choix
River of Ponds
Fleur de Lys (2)
La Scie
Cow Head
Baie Verte
Jackson's Arm
Fogo
Twillingate
Seldom
Rocky Harbour
Trout River
Triton(2)
Cox's Cove
Centreville
Benoit's Cove(2)
Corner Brook
Bonavista
Glovertown
Clarenville
Old Perlican(2)
Carbonear
New Harbour
Arnold's Cove
Port de Grave(2)
Fair Haven(2)
St. John's(3)
Codroy
St. Alban's
Ship Harbour
Dildo
South(3)
Witless Bay
Channel-Port Aux Basques
Burnt Islands
Burgeo
Ramea
Harbour Breton(2)
Marystown
Grand Bank
Burin
St. Bride's
St. Lawrence
Fermeuse
St. Mary's
Department of Finance
Newfoundland & Labrador Statistics Agency
Edited by Fisheries and Aquaculture
source: DFA


Aquaculture Sites
Newfoundland and Labrador 2010
Aquaculture Site by Species
Salmonid
Mussels
Inset 2
Inset 1
2J
3K
3L
4R
4S
4Vn
3Pn
3Ps
St. Anthony
Anchor Point
Rocky Harbour
Fogo
Twillingate
New-Wes-Valley
Corner Brook
Glovertown
Bonavista
Clarenville
St. Albans
St. John's
Channel-Port aux Basques
Ramea
Placentia
Grand Bank
Burin
St. Lawrence
Newfoundland Labrador
Department of Finance
Newfoundland & Labrador Statistics Agency
Source: DFA

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Newfoundland Labrador

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