Seafood Industry Year in Review

2015

Newfoundland Labrador
CANADA

On behalf of the Department of Fisheries and Aquaculture, I am pleased to present the 2015 Seafood Industry Year in Review, highlighting the performance of the Newfoundland and Labrador fishing and aquaculture industries. This publication is a valuable reference that provides a statistical summary of the province's wild and farmed fisheries, and also outlines initiatives undertaken in the past year.

The seafood industry continues to be an important part of the provincial economy, employing approximately 17,500 people in harvesting, processing, and aquaculture operations, and generating indirect benefits for many more individuals and enterprises. In 2015, the production value of the Newfoundland and Labrador seafood industry reached a record high, exceeding $1.2 billion.

One of the key priorities of our government is the establishment of a Fisheries Advisory Council, consisting of representatives from various industry sectors, which will help inform and influence fisheries policy and programs and guide our seafood industry into the future. This council will be immediately tasked with the development of a strategic action plan on cod revitalization. As groundfish stocks continue to rebound, we need to ensure that we are prepared by focusing on environmental sustainability, innovation, and high quality harvesting and processing. Our government will also look to partner with industry leaders and stakeholders to secure and expand market opportunities locally, nationally, and internationally.

As our province prepares to tackle an unprecedented fiscal challenge, industries based on renewable resources, such as the seafood industry, take on even greater importance as we look for ways to strengthen and further diversify our economy.

By enhancing our competitiveness and continuing to build on our worldwide reputation for producing high quality seafood, we will continue to seek new opportunities and strengthen this valuable industry.

Steve Crocker, MHA
District of Carbonear – Trinity – Bay de Verde
Minister of Fisheries and Aquaculture

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Planning Services Division
Department of Fisheries and Aquaculture
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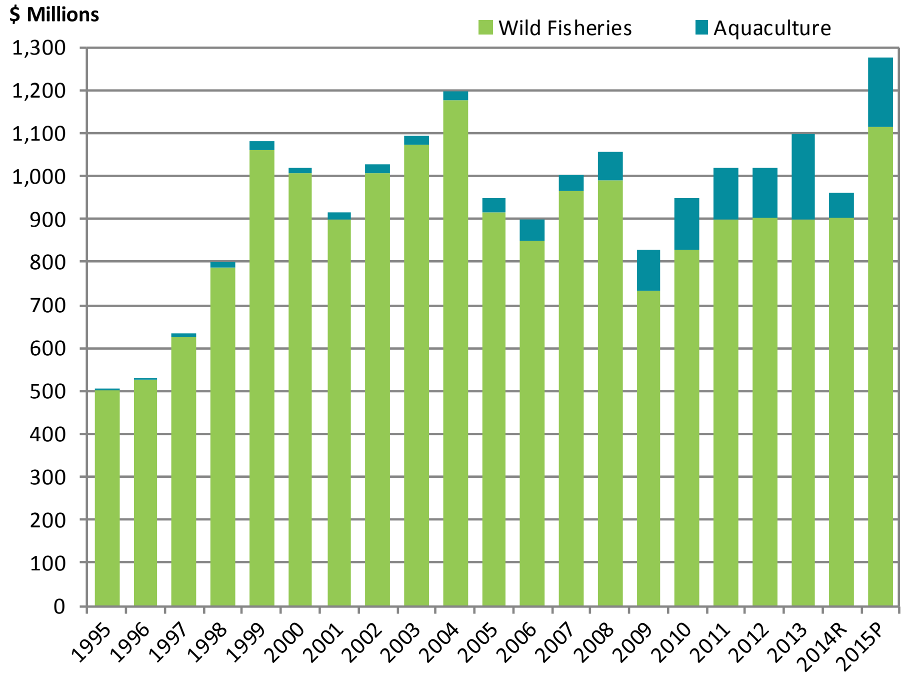
Newfoundland and Labrador's fishing and aquaculture industries experienced another successful year in 2015, with total fish and seafood production value exceeding $1.2 billion. The value of these industries grew 33 per cent since 2014. The increase in value can be attributed to higher market prices for key species and a rebound in aquaculture production. Aquaculture represented 12.8 per cent of total seafood industry production value while the wild fisheries represented the remainder.

PRODUCTION MARKET VALUE

Newfoundland and Labrador



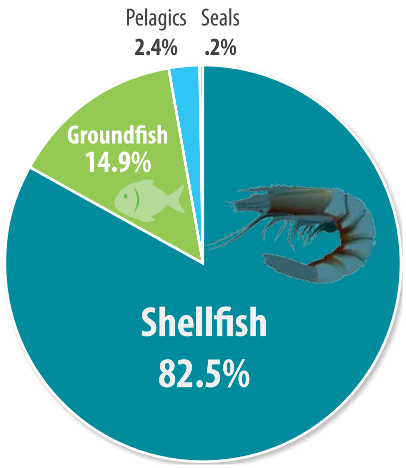
R = Revised; P = Preliminary
Source: Fisheries and Oceans Canada (DFO); Department of Fisheries and Aquaculture (DFA); Statistics Canada

EMPLOYMENT

The seafood industry continued to be a major source of employment in Newfoundland and Labrador in 2015, particularly in rural areas. Throughout more than 400 communities in the province, the industry employed 17,494 people, representing a small decrease from the previous year. The number of fish harvesters was down 1.3 per cent to 9,334 workers. Employment in the processing sector also declined slightly in 2015, by approximately 2 per cent, to 7,721 workers. Aquaculture employment was relatively stable during the same period.

INDUSTRY SECTOR	2014R	2015P	CHANGE
Aquaculture	435	439	0.9%
Harvesting (Wild Fisheries)	9,453	9,334	-1.3%
Processing (Aquaculture and Wild Fisheries)	7,881	7,721	-2.0%
TOTAL	**17,769**	**17,494**	**-1.5%**

R = Revised; P = Preliminary
Source: DFA; Professional Fish Harvesters Certification Board

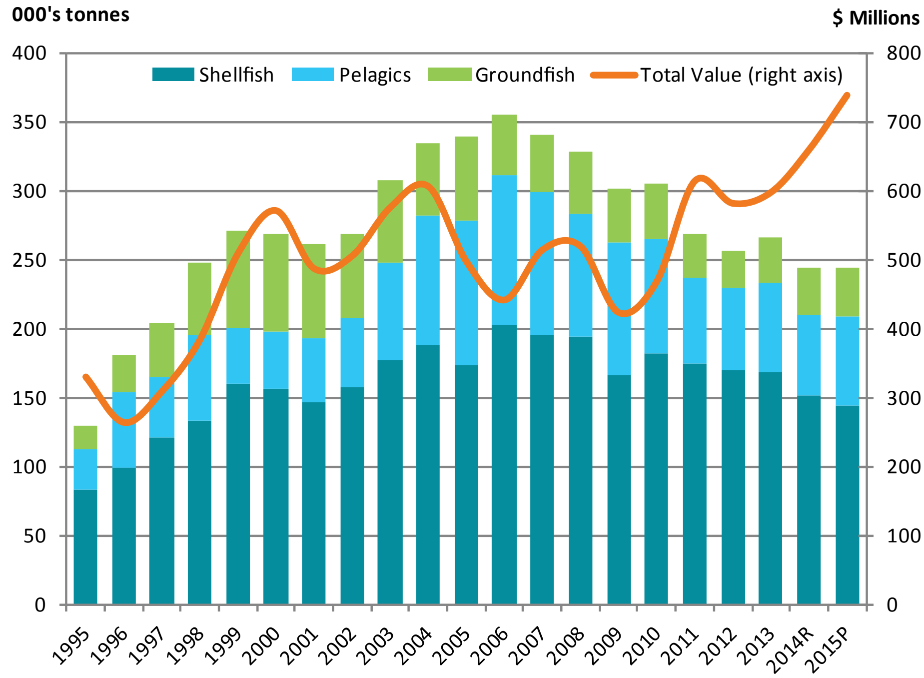


Wild Fisheries Landed Value by Species Group, 2015

Note: Total landed value = $738 million.
Source: DFO; DFA

FISH LANDINGS BY SPECIES GROUP

Newfoundland and Labrador



R = Revised; P = Preliminary
Source: DFO; DFA

Wild fisheries landings remained stable in 2015 while experiencing growth in total value. Landings in the commercial fishery amounted to 240,785 tonnes, on par with levels from 2014. Increased landings of pelagics offset declines in shellfish. The associated landed value reached an all-time high, peaking at $738 million, representing an 11.6 per cent increase from $661 million the previous year. Growth was driven by increased raw material prices for key species, most notably lobster and shrimp. The table on page 7 shows the landed volume and value of fish, by select species, in Newfoundland and Labrador for 2014 and 2015.

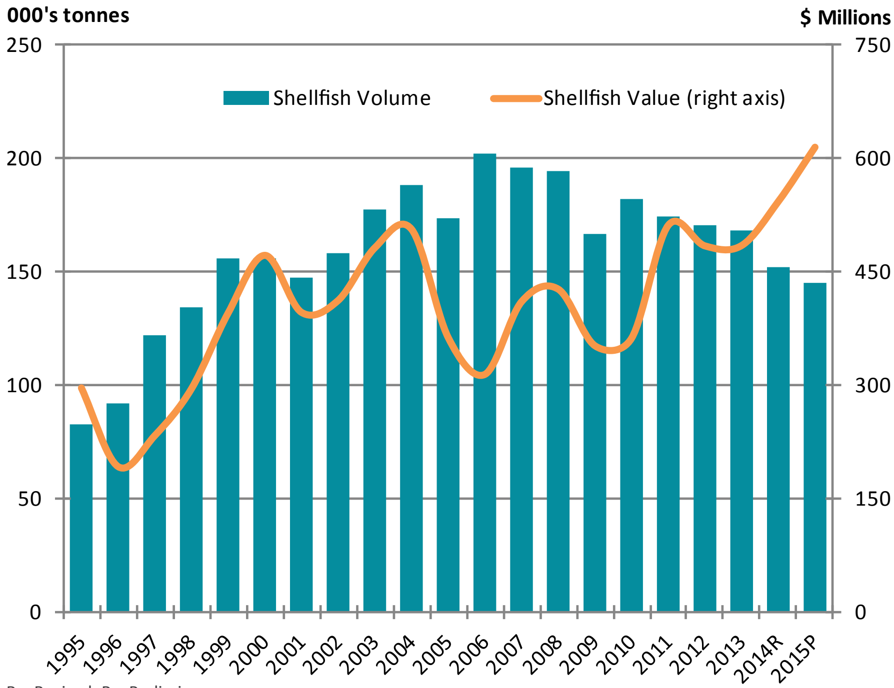
SHELLFISH

The shellfish sector remained the dominant species group in 2015, accounting for 58.9 per cent of total fish landings and 82.5 per cent of the associated total landed value. Shellfish landings decreased to 141,887 tonnes in 2015, a 6.9 per cent drop from a year ago. Lower catches of snow crab in Northwest Atlantic Fisheries Organization (NAFO) Division 3Ps and lower catches of other shellfish were mainly responsible for the decline in landings. The corresponding landed value of shellfish increased 11.7 per cent to $609 million in 2015, a significant rise from $545 million in 2014.

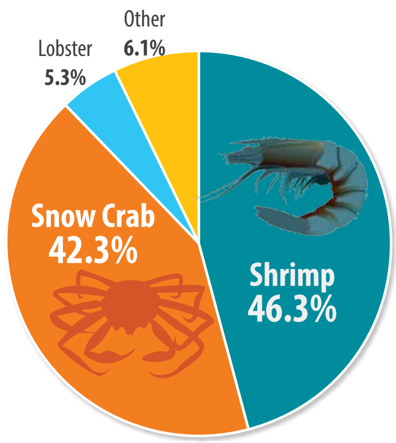
SHRIMP

The shrimp industry in Newfoundland and Labrador increased in terms of both volume and value in 2015. Shrimp landings increased 1.9 per cent to 73,306 tonnes, primarily due to higher catches of northern shrimp by the offshore sector. The total value of shrimp increased 33.3 per cent to $282 million in 2015, attributable to higher raw material prices. The minimum landed price paid to harvesters for shrimp in the 2015 summer fishery was $1.64 per pound, significantly higher than the 2014 summer fishery price of $0.87 per pound. The minimum price also increased in both the spring and fall shrimp fisheries. Spring shrimp prices totalled $1.40 per pound in 2015, up from $0.76 per pound in 2014. Fall shrimp prices increased from $1.08 per pound to $1.79 per pound.

SHELLFISH LANDINGS
Newfoundland and Labrador



R = Revised; P = Preliminary
Source: DFO; DFA



Shellfish Landed Value by Species, 2015

Note: Shellfish landed value = $609 million.
Source: DFO; DFA

SNOW CRAB

As a result of lower snow crab catches in NAFO Division 3Ps, snow crab landings dropped 5.3 per cent to 47,310 tonnes in 2015. The corresponding snow crab value, however, remained constant at $258 million due to an increase in its raw material price. The increase in average price from $2.34 per pound to $2.47 per pound offset the value lost from the decline in snow crab landings.

LOBSTER

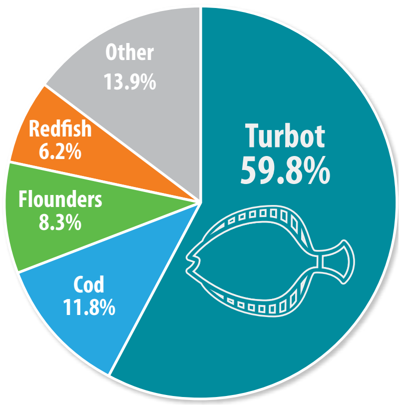
The performance of the lobster industry in Newfoundland and Labrador in 2015 was strong. There were increases in landings and landed value, up 26 per cent and 75.1 per cent respectively. Total lobster landings increased from 2,138 tonnes in 2014 to 2,694 tonnes in 2015. The associated landed value increased from $18 million to $32 million for lobster over the same time period. Lobster prices strengthened by approximately 40 per cent to an average of $5.44 per pound in 2015.

OTHER SHELLFISH

The landed value of whelk increased by 10.7 per cent to $4.5 million, due to a rise in its raw material price. A 24.6 per cent increase in average sea cucumber price to $0.44 per pound in 2015, resulted in increased harvesting effort in the sea cucumber fishery. This led to an increase in sea cucumber landings of approximately 130 per cent. Scallop landings and landed value both declined in 2015, to 1,329 tonnes and $3.3 million respectively.

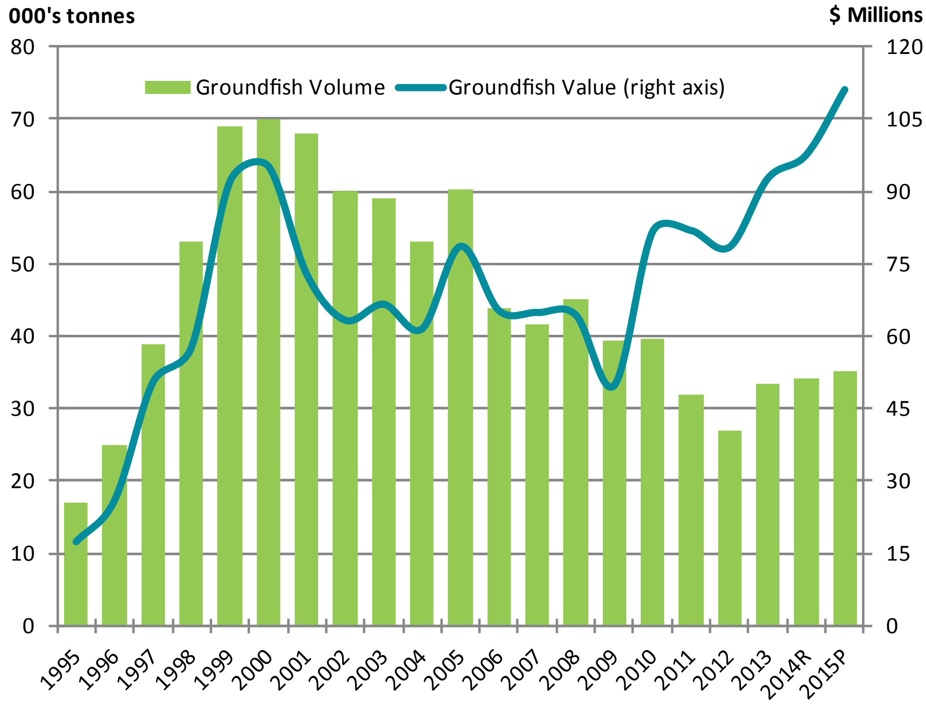
GROUNDFISH LANDINGS

Newfoundland and Labrador



Groundfish Landed Value by Species, 2015

Note: Groundfish landed value = $110 million.
Source: DFO; DFA



R = Revised; P = Preliminary
Source: DFO; DFA

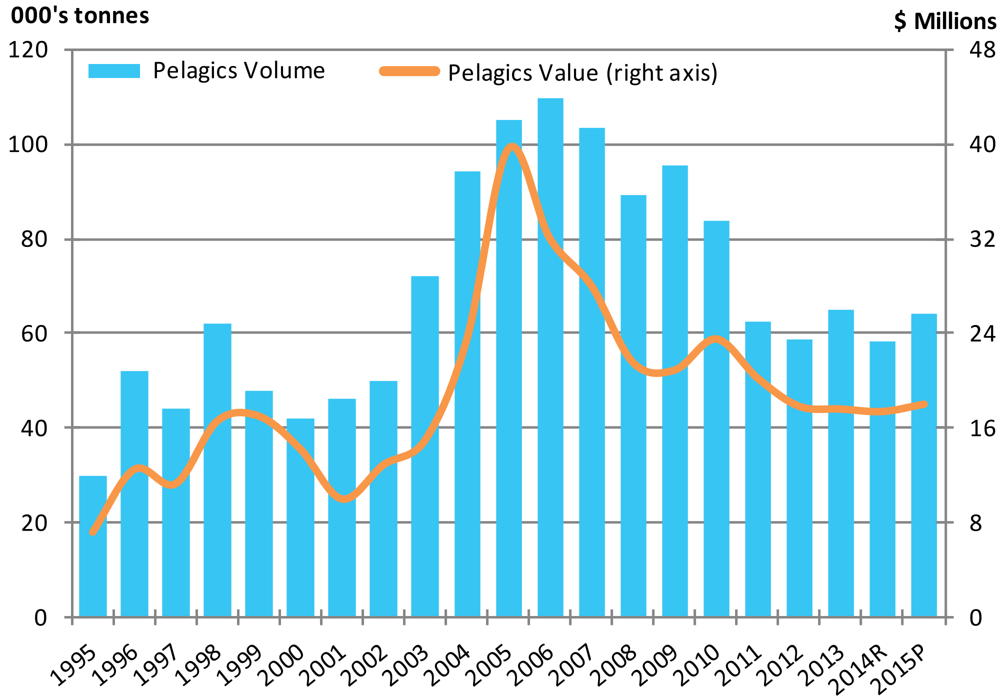
GROUNDFISH

Groundfish remained an important contributor to the Newfoundland and Labrador wild fisheries in 2015, representing 14.5 per cent of total fish landings and 14.9 per cent of landed value. Landings increased 2.1 per cent to 34,952 tonnes in 2015. The large increase in redfish catches offset the decline in flounder landings. The corresponding groundfish value also rose in 2015, increasing 12.7 per cent to approximately $110 million. Increased value stemmed from higher raw material prices of certain species, specifically turbot, redfish, and halibut.

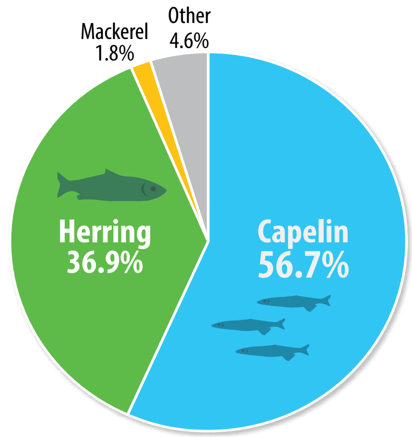
Compared to 2014, cod landings in 2015 remained relatively constant and totalled 10,466 tonnes. The 2015 redfish fishery performed well, with increases in landings and landed value. Higher catches in NAFO Division 3LN and a higher average price contributed to the increased value of redfish. Turbot landings increased by approximately 2.7 per cent in 2015, and landed value grew 19.6 per cent due to higher prices. Flounder landings and landed value fell by 15.2 and 15.7 per cent respectively.

PELAGICS LANDINGS

Newfoundland and Labrador



R = Revised; P = Preliminary
Source: DFO; DFA



Pelagics Landed Value by Species, 2015

Note: Pelagics landed value = $18 million.
Source: DFO; DFA

PELAGICS

Pelagics accounted for 26.6 per cent of total wild fisheries landings and 2.4 per cent of total value in 2015. Compared to 2014, total landings increased by 10 per cent to 63,945 tonnes mainly due to increased capelin catches. The associated landed value of pelagics rose by 3.5 per cent in 2015 to a total of $18 million. Capelin landings were significantly higher in 2015, reaching 36,486 tonnes, while the landed value was $10 million, up by 11.5 per cent from 2014. Herring landings were up by 3.8 per cent to 26,697 tonnes. Mackerel landings decreased by 79.5 per cent, primarily due to lower availability of fish. Total landed value of mackerel also dropped 82.2 per cent compared to the previous year.

HARP SEALS

The 2015 seal harvest in Newfoundland and Labrador continued to be challenged by market access restrictions. The number of seals harvested totalled 35,842, down from 59,486 seals in 2014. The overall Atlantic-wide Total Allowable Catch (TAC) is 400,000. Associated landed value of seals was $1.1 million. The average landed price per pelt was just over $30, a slight increase from 2014.

2015 SHELLFISH LANDED VALUE

$609 M

2015 GROUNDFISH LANDED VALUE

$110 M

2015 PELAGICS LANDED VALUE

$18 M

LANDED VOLUME AND VALUE
NEWFOUNDLAND AND LABRADOR

SPECIES GROUP	2014 REVISED		2015 PRELIMINARY		2014-15 COMPARISON	
	VOLUME (TONNES)	VALUE (000'S)	VOLUME (TONNES)	VALUE (000'S)	VOLUME	VALUE
SHELLFISH						
Scallops	1,492	$3,530	1,329	$3,296	-10.9%	-6.6%
Lobster	2,138	$18,464	2,694	$32,328	26.0%	75.1%
Whelk	2,424	$4,100	2,275	$4,539	-6.2%	10.7%
Shrimp	71,932	$211,492	73,306	$281,834	1.9%	33.3%
Snow Crab	49,949	$257,673	47,310	$257,618	-5.3%	0.0%
Other Shellfish	24,489	$49,488	14,973	$28,996	-38.9%	-41.4%
TOTAL SHELLFISH	**152,423**	**$544,747**	**141,887**	**$608,610**	**-6.9%**	**11.7%**
GROUNDFISH						
Cod	10,324	$12,597	10,466	$13,026	1.4%	3.4%
Redfish	2,096	$3,244	4,255	$6,765	102.9%	108.5%
Flounder	8,257	$10,826	7,000	$9,132	-15.2%	-15.7%
Turbot	11,351	$54,990	11,663	$65,772	2.7%	19.6%
Pollock	336	$236	206	$194	-38.8%	-18.1%
Hake	405	$371	234	$232	-42.2%	-37.6%
Halibut	837	$7,605	655	$7,109	-21.8%	-6.5%
Skate	208	$56	168	$41	-19.2%	-27.1%
Other Groundfish	406	$7,644	306	$7,704	-24.8%	0.8%
TOTAL GROUNDFISH	**34,222**	**$97,569**	**34,952**	**$109,975**	**2.1%**	**12.7%**
PELAGICS						
Herring	25,731	$5,673	26,697	$6,651	3.8%	17.2%
Mackerel	3,432	$1,869	705	$333	-79.5%	-82.2%
Capelin	28,861	$9,162	36,486	$10,216	26.4%	11.5%
Other Pelagics	116	$692	58	$812	-50.1%	17.4%
TOTAL PELAGICS	**58,141**	**$17,395**	**63,945**	**$18,011**	**10.0%**	**3.5%**
Harp Seals (number)	59,486	$1,621	35,842	$1,123	-39.7%	-30.7%
TOTAL	**244,787**	**$661,332**	**240,785**	**$737,719**	**-1.6%**	**11.6%**

Note:
- Species components may not sum to total due to independent rounding.
- The values of flounder may be understated as they may not be representative of port prices.
- Total volume does not include the number of seals.

Source: DFO; DFA

AQUACULTURE



The aquaculture industry in Newfoundland and Labrador experienced positive growth in 2015. Total aquaculture production in 2015 was 22,815 tonnes, representing a large increase relative to the 9,240 tonnes produced in 2014. The growth was attributable to increased salmonid production, particularly Atlantic salmon.

The total value of aquaculture production in 2015 was $161 million, up 172 per cent from 2014. The increase in total market value was mainly due to the rise in Atlantic salmon production. Market prices for 8-10 pound wholefish Atlantic salmon declined over 2014; however, the lower value of the Canadian dollar partially offset lower commodity prices. Market prices for fresh, live mussels remained relatively stable throughout 2015.

SALMONIDS

Atlantic salmon and steelhead trout are the two major commercial salmonid species in the province, with a limited amount of Arctic char also produced. In 2015, there were approximately 87 commercial salmonid site licences, covering a combined area of 2,402 hectares. The map on page 25 shows licensed aquaculture sites by sector.

In 2015, salmonid production increased significantly. Total salmonid production equalled 19,684 tonnes and was valued at $149 million. This represented large increases in both production volume and production value compared to 2014. Production volumes are anticipated to fully rebound in 2016 to peak production levels experienced in 2013.

SHELLFISH

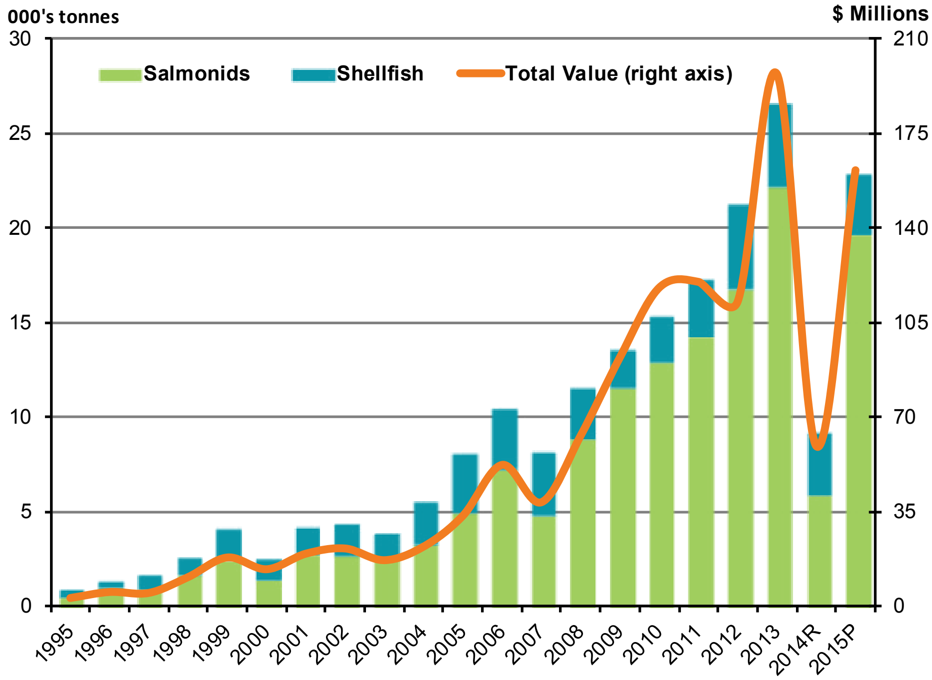
In Newfoundland and Labrador, the blue mussel is the main commercial shellfish aquaculture species. In 2015, there were approximately 51 commercial shellfish site licences that covered a combined area of 4,090 hectares. Licensed shellfish sites are fully displayed on the map on page 25.

Mussel production volume remained relatively on par in 2015, with market value rising, compared to 2014. Total mussel production volume declined 4 per cent to 3,130 tonnes, while market value increased 10.4 per cent to $12.8 million. The mussel sector experienced challenges harvesting product during the 2015 winter season, limiting the product supply available for processing and lowering total production volume. The rise in shellfish value was due to the lower value of the Canadian dollar, not changes in commodity prices.

In 2015, the first commercial oyster sites were licensed in the province with commercial production anticipated in the next two to three years.

AQUACULTURE PRODUCTION

Newfoundland and Labrador



R = Revised; P = Preliminary
Source: DFO; DFA

SPECIAL FEATURE

AQUACULTURE SUSTAINABILITY STRATEGY

The Newfoundland and Labrador Aquaculture Sustainability Strategy was released in late 2014. This document serves as a guide for policy and investment decisions aimed at ensuring the environmental, financial, and social sustainability of the aquaculture industry and builds on the previous strategy developed in 2000 and revised in 2005. The strategy includes initiatives to address sustainable management, support capacity, and research and development as outlined below:

Sustainable Management	Support Capacity	Research and Development
Aquatic Animal Health	Aquaculture Financial Programs	Aquatic Animal Health
Waste Management	Human Resources Planning	Research and Development Advisory Committee
Environmental Impacts	Infrastructure and Supply Chain Logistics	Finfish – Exploration of New Potential Development Areas
Wastewater Treatment	Governance Renewal	Mussel – Enhance Economic and Environmental Sustainability
Farmed and Wild Fish Interactions	Communications Plan	

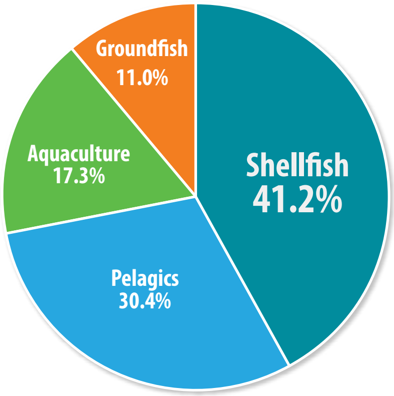
The Provincial Government will foster an environment where current and potential new players in the aquaculture business can succeed and follow national best practices by:

- partnering with industry to enhance regional management plans and implement an overarching aquatic animal health management plan.
- updating its approach to capacity building by assisting industry players with efforts to enhance communication with the public.
- working with industry and the Federal Government to support research and development initiatives that prevent and mitigate the spread of aquatic invasive species, promote the use of bay management areas, and develop improved monitoring and evaluation of aquaculture sites throughout the province.

The first year (2015-16) of the five-year strategy was dedicated to furthering the implementation of bay management areas, the development of a waste management action plan, and the review of policies associated with fish health and aquaculture licensing. The aquaculture industry is an important employer and contributor to the Newfoundland and Labrador economy. The newly developed aquaculture strategy will support the sustainable growth of the industry.

During 2015, there were 83 processing plants that reported production, slightly lower than 86 the previous year. Of these facilities, 66 were primary, 2 were secondary, 5 were aquaculture, and 10 were in-province retail establishments.

Total seafood production increased by 12 per cent to 136,277 tonnes in 2015, up from 121,631 tonnes in 2014. Shellfish production accounted for 41.2 per cent of total production in 2015, measuring 56,187 tonnes. Groundfish production contributed 11 per cent to total production and reached approximately 15,000 tonnes in 2015. Pelagics and aquaculture production accounted for 30.4 per cent and 17.3 per cent of total production respectively in 2015. Production volume is calculated based on the end weight of the fish products which are produced for market.



Production Volume by Sector, 2015

Note:
- Total production volume = 136,277 tonnes.
- Sector components may not sum due to independent rounding.

SHELLFISH

In 2015, shellfish production increased by 2.3 per cent to 56,187 tonnes, up from 54,924 tonnes in 2014. The rise in shellfish production was attributed to increased production of the following species: lobster, sea cucumber, sea urchin, and shrimp. Sea cucumber producers experienced a notable increase in production to 1,855 tonnes in 2015, up from 484 tonnes in 2014. Cooked and peeled coldwater shrimp production totalled 14,617 tonnes in 2015, up 5.3 per cent from 13,881 tonnes in 2014. Snow crab decreased by 4 per cent to 32,583 tonnes in 2015, down from 33,938 tonnes in 2014.

PELAGICS

Pelagic production decreased 3.3 per cent to 41,491 tonnes in 2015, down from 42,893 tonnes in 2014. Mackerel production fell to 631 tonnes in 2015, down from 3,655 tonnes produced the previous year. Herring production also declined in 2015, with production totalling 12,359 tonnes, which represented a 9.6 per cent decrease compared to 2014. Capelin production, however, increased in 2015 by 15.7 per cent, totalling 27,355 tonnes.

GROUNDFISH

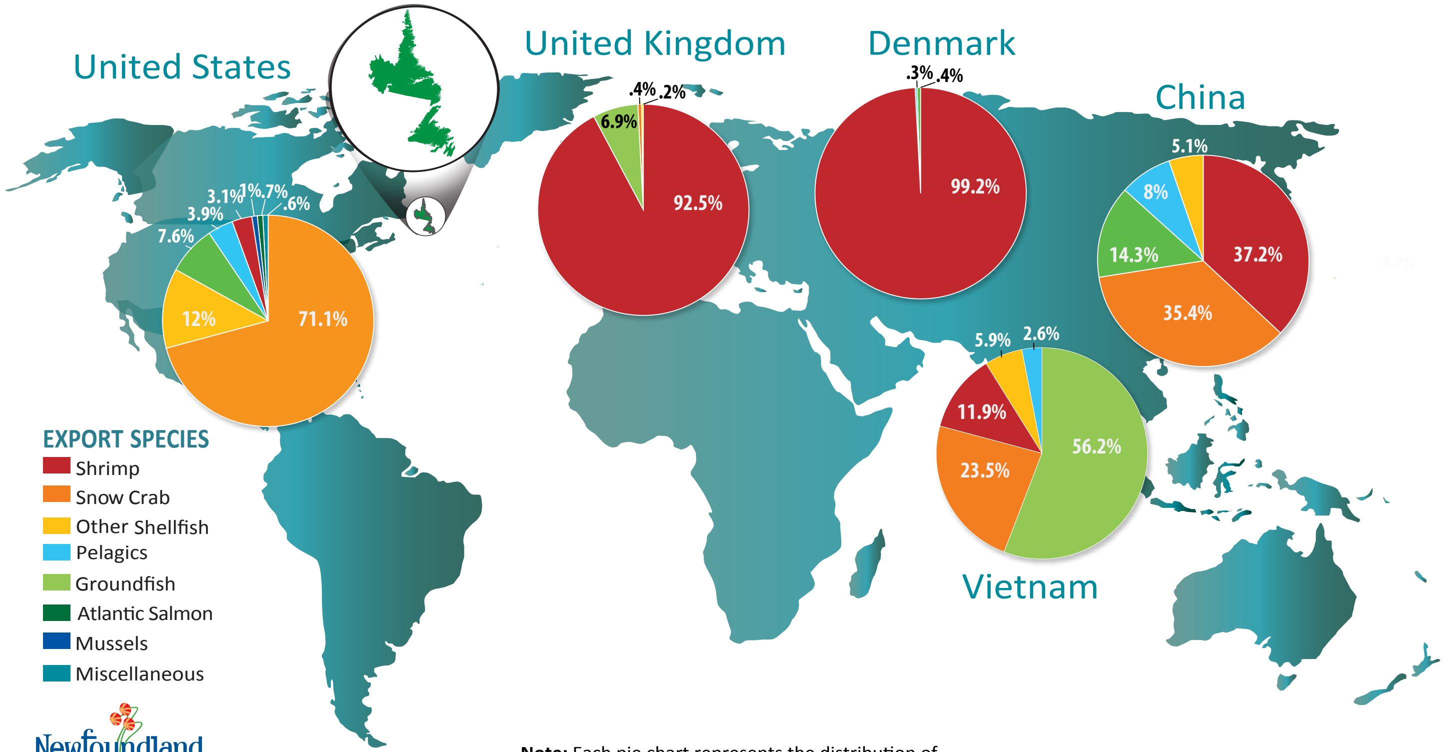
Groundfish production increased to 14,961 tonnes in 2015, representing a 5.3 per cent increase compared to 2014. Notable species that contributed to the overall increase in groundfish production were cod and turbot. Cod production increased 10.6 per cent to 4,940 tonnes, up from 4,468 tonnes in 2014. Turbot production increased to 3,540 tonnes in 2015, representing a 4.1 per cent increase from the previous year.

AQUACULTURE

The final processing volume of aquaculture products increased by 145.9 per cent compared to its 2014 level. Production totalled 23,638 tonnes in 2015, mainly related to increased production of Atlantic salmon.

OR SEAFOOD
USA
$388 M
CHN
$181 M
UK
$89 M
DNK
$55 M
VNM
$40 M
NL EXPORTS
CAD $950 M
ALL VALUES BASED ON
JANUARY TO NOVEMBER 2015
Newfoundland
Labrador
CANADA

TOP FIVE WORLD MARKET DESTINATIONS FOR SEAFOOD PRODUCTS NEWFOUNDLAND AND LABRADOR, 2015*



Newfoundland Labrador CANADA

Note: Each pie chart represents the distribution of products within the identified country based on export value.
* January to November 2015.

Data source: Statistics Canada

Newfoundland and Labrador's seafood products are exported to more than 40 countries around the globe. From January to November 2015, the province's seafood exports were valued at over $950 million, up approximately 13.5 per cent from the same period in 2014. The corresponding volume of seafood exports decreased marginally, dropping by less than 1 per cent to approximately 126,000 tonnes.

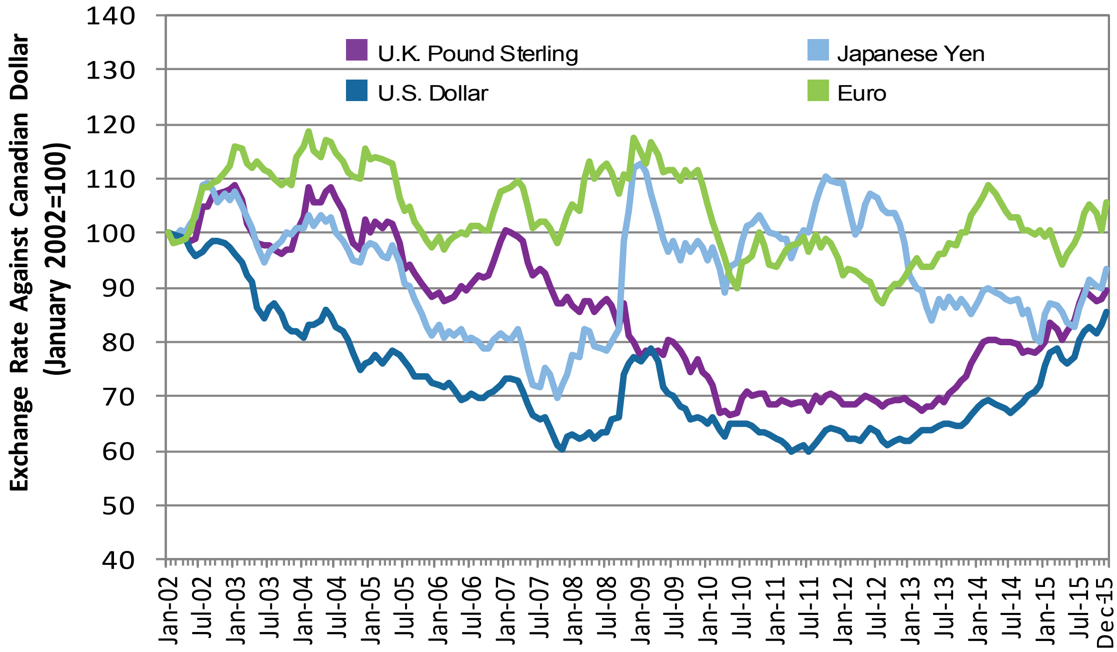
The United States was the largest export market for Newfoundland and Labrador seafood products, representing 40.8 per cent of export value from January to November 2015. Again in 2015, China was the second largest export destination, representing 19 per cent of export value. Other key markets, in terms of export value, included the United Kingdom at 9.4 per cent, Denmark at 5.8 per cent, and Vietnam at 4.2 per cent. Combined, these markets represented 79.2 per cent of the province's total value of seafood exports.

Global seafood demand and prices remained stable in 2015. Emerging markets, particularly in Asia, are driving fish consumption growth around the world. An increasing proportion of Chinese production is now diverted from reprocessing and export routes to local markets in China.

For the Newfoundland and Labrador seafood industry, a weaker Canadian dollar results in more favourable returns for exporters. The graph on page 14 displays the changes in selected foreign exchange rates against the Canadian dollar. The graph can be interpreted as follows: the weaker the Canadian dollar is against a select foreign currency, the higher the indexed value and vice-versa.

SELECTED FOREIGN EXCHANGE RATES

Indexed to January 2002



Source: Bank of Canada

The Canadian dollar was significantly weaker against the United States dollar and the British pound in 2015, down approximately 13.5 per cent and 6.8 per cent respectively compared to 2014. While the Canadian dollar was stronger against the Euro for most of 2015, it has weakened in the latter part of the year and will likely continue to weaken moving into 2016.

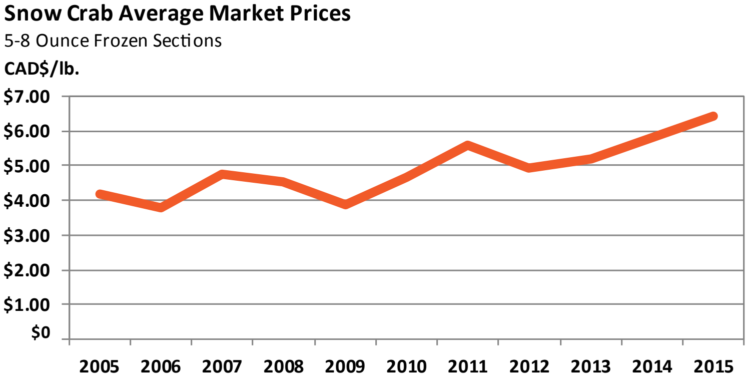
SNOW CRAB

Snow crab was the most valuable seafood export for the province in 2015, valued at over $373 million for the first 11 months of the year. The United States remained the largest export destination for snow crab, accounting for 73.9 per cent of export value, followed by China with approximately 17.1 per cent of export value. Compared to the previous year, 2015 saw snow crab exports increase to the United States and total supply to Japan decrease due to currency factors. Market prices remained strong through 2015. According to Urner Barry Publications Inc., the average market price for 5-8 ounce sections decreased 4.7 per cent to US$5.02 per pound in 2015, down from US$5.27 per pound in 2014 (see chart on page 15). Despite the lower market price, a weak Canadian dollar contributed to an increase in returns to exporters, with prices in Canadian dollars up 10.3 per cent.

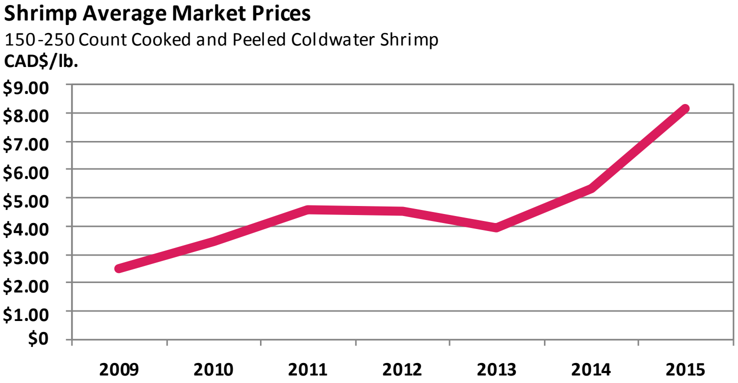
SHRIMP

The value of shrimp exports was over $312 million for the first 11 months of 2015, up 29.2 per cent from the same period in the previous year. Coldwater shrimp prices remained at record high levels in 2015, which more than offset a marginal 1.4 per cent decrease in exports. The key markets for cooked and peeled shrimp, in order by value, were the United Kingdom (60.6 per cent), Denmark (22.6 per cent), and the United States (9.3 per cent). The major markets, by value, for shell-on, frozen-at-sea shrimp were China (36.6 per cent), Iceland (17.4 per cent), and Denmark (14.1 per cent). The average market price for cooked and peeled 150-250 count coldwater shrimp was CAD$8.25 per pound, up over 52 per cent

AVERAGE MARKET PRICES



Source: Urner Barry Publications Inc., Bank of Canada



Source: Gemba Seafood Consulting; Canada UK Partners, Bank of Canada

from 2014 (Gemba Seafood Consulting, September 2015; Canada UK Partners, June 2015). This was the major product type for the Newfoundland and Labrador shrimp fishery, representing 48.8 per cent of total shrimp production volume.

GROUNDFISH

Cod exports were valued at $16.5 million for the first 11 months of 2015, up 21.7 per cent from the same period in 2014. The United States and the United Kingdom were the largest export destinations for Newfoundland and Labrador cod, representing 48.5 per cent and 36.7 per cent of total export value respectively. Cod prices showed an upward trend in 2015, specifically in the United States market, with export volume and value up 2.8 per cent and 49.9 per cent respectively. Greenland halibut, or turbot, is the most valuable groundfish species exported from this province. During the first 11 months of 2015, Newfoundland and Labrador exported 9,684 tonnes of turbot valued at $62.1 million. The three main destinations for turbot, by value, were Vietnam (35.5 per cent), China (29.4 per cent), and Japan (15 per cent).

PELAGICS

There was a 6.1 per cent increase in export volume for major pelagic species in the Newfoundland and Labrador seafood industry in 2015. Value also increased by approximately 14.8 per cent, largely driven by higher capelin exports. The value of capelin exports increased 26.9 per cent to approximately $32.6 million. China was the largest market for capelin, accounting for 43.5 per cent of export value, followed by the United States and Taiwan. Mackerel exports were down, again due to significantly lower landings. Herring exports increased marginally to $12.4 million, up 0.7 per cent relative to the January to November period of 2014. The largest market for herring was the United States, representing 59.6 per cent of the export value. In the past, there were significant volumes of pelagics exported to Russia, but there were no exports in 2015 because of the continuing food import ban which began in 2014.

SUSTAINABLE SEAFOOD

Newfoundland and Labrador is committed to the sustainability of its valuable fisheries and aquaculture resources to ensure the long-term vitality of harvested species, the health of our oceans, and the future viability of rural communities throughout the province.

In 2008, Newfoundland and Labrador's inshore northern shrimp fishery became the first Marine Stewardship Council (MSC)-certified fishery in Canada. Yellowtail flounder, other shrimp fisheries, snow crab, surf clams, and herring have since been certified. The 3Ps cod and 3LN redfish fisheries are currently in the MSC assessment process. More than 80 per cent of the province's wild fisheries (by value) have achieved the MSC certification. This percentage is expected to grow as industry works towards certifying other fisheries. To date, DFA has provided over $445,000 in financial support to these sustainability initiatives.

In the mid-1990s, the World Wildlife Fund and Unilever met to discuss ways to address unsustainable global fishing to safeguard seafood supplies for the future. They envisaged a program for assessing and certifying sustainable fisheries, and labelling products from those fisheries. Such a program would recognize and reward responsible management of seafood resources and influence seafood buying behaviour. The MSC, an international non-profit organization, was created to carry out this vision.

MSC's sustainability standard has become the most common and well-known in the world, with more than 17,000 MSC-labelled fish and seafood products in the marketplace. Assessment against the MSC standard is voluntary and an interested stakeholder must engage an accredited third-party certifier to assess the fishery against the standard. The MSC standard is based on three core principles: sustainable fish stocks, minimizing environmental impact, and effective management.

In 2003, the United Kingdom supermarket giant Sainsbury's became the first retailer to make a commitment towards selling 100 per cent sustainably sourced fish and seafood. Many other retailers, particularly in Europe and North America, followed suit. In recent years, large foodservice providers, such as McDonald's, have made commitments to serve only sustainable fish in their restaurants.



Management measures for commercial fish stocks, including the TAC, are established and regulated by the Federal Government through DFO. Fish stocks that straddle Canada's 200-mile limit are managed by NAFO. The map on page 26 shows the various fisheries management divisions.

Several groundfish stocks have shown signs of improvement over the past two decades. The yellowtail flounder and redfish stocks on the Grand Banks are considered to be fully recovered and the witch flounder fishery reopened in 2015. Cod off the northeast coast of the province continues to show promising signs of rebuilding. Other groundfish stocks remain below historical levels. While shrimp and snow crab stocks have declined in some areas around the province, the shellfish resource in many other areas remains stable at relatively high levels.

SNOW CRAB

The snow crab resource has been relatively stable on the east coast of the province (NAFO Division 3L) in recent years, while it has declined in the north and more recently on the south coast. The overall TAC for the snow crab fishery in 2015 was set at 50,473 tonnes, a reduction of approximately 2 per cent from the TAC of 51,582 tonnes in 2014. The quota was reduced by approximately 10 and 23 per cent in NAFO Divisions 3K and 3Ps respectively, while the quota was increased by 1 per cent in NAFO Divisions 3LNO. The quotas in NAFO Divisions 2HJ and 4R remained unchanged.

NORTHERN SHRIMP

The northern shrimp resource extends from the Grand Banks to the Davis Strait. Biomass estimates of northern shrimp in southern areas have declined from historically high levels in recent years. In 2015, the TAC in Shrimp Fishing Area (SFA) 6 remained at the 2014 level of 48,196 tonnes. Northern shrimp in SFA 7, which is managed by NAFO, was placed under a directed fishing moratorium in 2015 due to a continued decline in the resource. A moratorium will be maintained in 2016.

GULF SHRIMP

The Gulf of St. Lawrence shrimp fishery is managed in four separate SFAs. The Newfoundland and Labrador fleet fishes exclusively in the Esquiman Channel (NAFO Division 4R). The TAC in the Esquiman Channel remained unchanged at 8,249 tonnes in 2015 and the resource in this area remains at a healthy level, however, a slight reduction in the TAC is expected in 2016. The Newfoundland and Labrador-based fleet, which is allocated 65 per cent of the TAC in the Esquiman Channel, harvested its full quota of 5,369 tonnes in 2015.

Total Allowable Catch (Tonnes)
Newfoundland and Labrador 2015

Species Group	2014R	2015P
Groundfish		
3Ps Cod (15.6% allocated to St. Pierre et Miquelon, France)	13,225	13,490
4RS 3Pn Cod (Newfoundland and Labrador and Québec)	1,500	1,500
Redfish Unit 2 (3.6% allocated to St. Pierre et Miquelon, France)	8,500	8,500
2+3KLMNO Turbot (Canada 38%)	15,441	15,578
3LNO Yellowtail Flounder (Canada 97.5%)	17,000	17,000
3LN Redfish (Canada 42.6%)	7,000	10,400
3O Redfish (Canada 30%)	20,000	20,000
Pelagics		
Herring (Newfoundland and Labrador stocks and 4R)	33,800	34,291
Mackerel (Atlantic-Wide)	10,000	8,000
Capelin (Newfoundland and Labrador stocks and 4R)	36,711	42,811
Shellfish		
Crab	51,582	50,473
Gulf (4R) Shrimp (Newfoundland and Labrador allocation)	5,369	5,369
Northern Shrimp		
- Inshore (SFAs 6 and 7)	32,617	30,826
- Canadian offshore/special allocations (SFAs 0 to 7)	83,154	84,811

R = Revised; P = Preliminary

Source: DFO, DFA

COD

The northern cod stock (NAFO Divisions 2J, 3KL) consists of inshore and offshore components. The offshore component has been under a directed fishing moratorium since 1992. A limited inshore fishery was conducted from 1998 to 2002, and again from 2006 to 2015. In 2015, inshore harvesters were permitted an allowance of 5,000 pounds per licence holder. The northern cod stock remains below historical levels, but has increased over the past decade and continues to show signs of rebuilding.

The TAC for cod off the south coast of the province (NAFO Division 3Ps) was set at 11,500 tonnes from 2009 to 2013. A rebuilding plan for 3Ps cod was adopted in 2014 to guide decision-making for the stock. In accordance with the plan, the TAC for 3Ps cod was increased by 15 per cent to 13,225 tonnes for 2014 and by 2 per cent to 13,490 tonnes for 2015.

The northern Gulf of St. Lawrence cod stock (NAFO Divisions 3Pn, 4RS) remains well below its historic level. Since 2012, the annual TAC has been set at 1,500 tonnes and will remain at this level in 2016. Newfoundland and Labrador is allocated 72 per cent of the inshore quota for this stock.

NAFO-MANAGED GROUNDFISH STOCKS

2+3KLMNO Turbot (Greenland Halibut)

In 2010, NAFO adopted a new management plan for this stock. Under the plan, annual downward adjustments to the TAC were made over the following four years due to indications of a short-term decline in the stock, from 17,185 tonnes in 2011 to 15,441 tonnes in 2014. The TAC was slightly increased to 15,578 tonnes in 2015 but will be reduced by 5 per cent to 14,799 tonnes in 2016. Canada's allocation of the TAC is 38 per cent, which is mainly fished by vessels based in Newfoundland and Labrador. A review of the management plan for Greenland halibut will be initiated by NAFO in 2016.

3LNO Yellowtail Flounder

The yellowtail flounder resource in NAFO Divisions 3LNO has experienced significant growth in the past several years and is considered to be fully recovered to levels equivalent to those of the 1980s. The TAC has been set at 17,000 tonnes since 2009 and will remain at this level in 2016. Canada's share of this stock is 97.5 per cent, which is harvested by offshore vessels based in Newfoundland and Labrador.

3NO Witch Flounder

The witch flounder stock in NAFO Division 3NO was closed to directed fishing in 1995 and remained under moratorium for two decades. The stock has grown in recent years and reopened to directed fishing activities in 2015 with a TAC of 1,000 tonnes. Given the continued growth in the stock, the TAC will increase to 2,172 tonnes in 2016. Canada's share of 3NO witch flounder is 60 per cent, which is mainly harvested by offshore vessels based in Newfoundland and Labrador.

3LN Redfish

The redfish fishery in NAFO Division 3LN was under moratorium from 1998 to 2009. The stock has increased substantially over the past number of years and is considered to be fully recovered. The 3LN redfish fishery was reopened in 2010 with a TAC of 3,500 tonnes. Increases have since been made to the TAC, which was set at 10,400 tonnes in 2015. The TAC will remain at this level in 2016. Canada's share of this stock is 42.6 per cent, which is mainly harvested by offshore vessels based in Newfoundland and Labrador.

3O Redfish

The redfish resource in NAFO Division 3O appears to have increased since the early 2000s. The TAC for the 3O redfish fishery has been set at 20,000 tonnes since 2005 and will remain at this level in 2016. Canada's share of 3O redfish is 30 per cent. Harvest levels associated with this stock are low due to the size of the fish and available fishing grounds.

Other Stocks

NAFO-managed straddling groundfish stocks that will remain under moratoria in 2016 include 3NO cod, 2J 3KL witch flounder, and 3LNO American plaice.



During 2015, the Department of Fisheries and Aquaculture (DFA) worked with stakeholders on a number of ongoing and new initiatives towards the vision of sustainable provincial fishing and aquaculture industries, producing high quality seafood products. The following highlight several of the department's key initiatives:

AQUACULTURE

- DFA invested $8.15 million in Northern Harvest Sea Farms through the Aquaculture Capital Equity Program to support a $17.6 million expansion of its salmon aquaculture operations in the province.
- DFA committed more than $1 million over two years for oceanographic research to support the further development of aquaculture Bay Management Areas. This research will foster sustainable management of the aquaculture industry by enhancing the health, biosecurity, and environmental management of aquaculture sites as well as preserving the environmental integrity of the ecosystem.
- DFA provided $100,000 in funding to support research into sustainable management practices for the provincial salmonid industry. The project is investigating alternative methods for sea lice removal using cunner and lumpfish as "cleaner fish" for cultured Atlantic salmon.

INNOVATION AND DEVELOPMENT

- DFA invested approximately $1 million into research and development projects through the Fisheries Technology and New Opportunities Program. Since 2007, DFA has committed approximately $15 million to this program. Key initiatives include:
  - In the harvesting sector, funding initiatives included installation of an onboard bleeding and handling system for cod; installation of a multi-species auto longlining system; installation and sea-trial testing of an auto net fleeter system; Phase III of the lobster and halibut traceability project; review of alternative Arctic char harvesting technology; completion of the first year of a province-wide cod quality study; and the installation of net stacker technology.
  - In the processing sector, funding initiatives included analysis and comparison of available fresh fish packaging; identification of opportunities to improve the processing efficiency and quality of Arctic char; installation of crab waste utilization technology; installation of innovative size grading technology for crab; research into the economic feasibility of constructing refining facilities for seal and other marine oils; installation of innovative herring filleting technology; a review to determine options for improving current sea cucumber processing technology; and development of new sea cucumber processing technology.
  - Marketing funding initiatives included developing marketing and promotional materials for Arctic char, lobster meat, and crustacean by-products; completion of marketing research and a marketing strategy for live lobsters; and completion of market research and identification of opportunities for a new sea cucumber product.



- In the aquaculture industry, funding initiatives included completion of an ensiling demonstration project for salmon waste; completion of Danish trout sea cage trials; development of a specialized oyster Floating Upwelling System; and the installation and testing of mussel winter harvesting technology.

FISHERIES SCIENCE AND RESEARCH

- DFA invested $2.6 million to support world-class fisheries science at the Marine Institute's Centre for Fisheries Ecosystems Research (CFER). Since 2010, the Provincial Government has provided more than $15 million to CFER to support the long-term sustainability of provincial fisheries resources. In addition to enhancing fisheries science capabilities in Newfoundland and Labrador, CFER also offered fisheries research and training opportunities to graduate students both locally and internationally.
- The Fisheries Research Grant Program funded several research initiatives in an effort to partner with the fishing industry and academia to enhance fisheries research collaboration within Newfoundland and Labrador.

TRADE

- Negotiations were successfully concluded on the Trans-Pacific Partnership (TPP) agreement in 2015. The TPP is an Asia-Pacific free trade agreement among the United States, Australia, Brunei, Chile, Malaysia, New Zealand, Peru, Singapore, Vietnam, Mexico, Japan, and Canada. The TPP, with the elimination of seafood tariffs in countries such as Vietnam and Japan, will provide significant opportunities for the Newfoundland and Labrador seafood industry.
- The 2016-18 European Union (EU) Autonomous Tariff Rate Quota (ATRQ) provides tariff relief to Newfoundland and Labrador seafood producers. Under this ATRQ, 30,000 tonnes of cooked and peeled shrimp may enter the EU duty free. This agreement also provides tariff relief to other species such as cod, herring, and haddock.

MARKETING

- DFA and the provincial seafood industry participated in key international seafood trade shows, including Seafood Expo North America, Boston, MA; Seafood Expo Global, Brussels, Belgium; Conxemar, Vigo, Spain; Seafood Expo Asia, Hong Kong; and the China Fisheries and Seafood Expo, Qingdao, China.
- Seafood Expo North America, Conxemar, and the China Fisheries and Seafood Expo each featured a chef station where Atlantic Canadian chefs prepared a variety of seafood products for tasting by potential customers. During Seafood Expo Asia and Conxemar, the Atlantic Canadian group recruited a Canadian chef to deliver a Master Class highlighting the flavourful and versatile qualities of snow crab and lobster.

- In collaboration with other Atlantic provinces and the Canadian Trade Commissioner Service, DFA organized promotional and matchmaking events around several of the tradeshows:
  - Prior to Conxemar, a matchmaking session and networking reception was held in Lisbon, Portugal, with Atlantic Canadian companies and some of Portugal's major retailers, seafood distributors, and foodservice providers.
  - During Seafood Expo Asia, a two-week Atlantic Canadian seafood promotion was held at a high-end hotel restaurant and was launched with a media event. In the days following the media event, the Atlantic seafood promotion appeared on Facebook, Instagram, blogs, and websites – including a daily online newspaper.
  - During the China Fisheries and Seafood Expo, the Atlantic provinces organized a ten-day restaurant promotion with a premium seafood restaurant in Qingdao, China. The promotion began with a media launch that included cooking demonstrations from an executive chef featuring lobster and sea cucumber.
  - Prior to the China Fisheries and Seafood Expo, the department co-organized an Atlantic Canada and British Columbia matchmaking and networking session in Seoul, South Korea. Local seafood importers, traders, and foodservice buyers met with Canadian companies to discuss potential business opportunities.
- In partnership with the Restaurant Association of Newfoundland and Labrador, the Newfoundland and Labrador Chef's Association, and the Forestry and Agrifoods Agency, DFA supported "From This Rock" culinary events promoting Newfoundland and Labrador agri-food and seafood products. This initiative features a team of chefs who are travelling across the province to create five-course, fine dining events at various locations to give consumers the opportunity to experience fresh, local food.
- With funding assistance from DFA, the fishing industry continued to pursue eco-certification, particularly MSC certification. In 2015, over 80 per cent of Newfoundland and Labrador seafood products, by value, have obtained MSC certification. The 3Ps cod fishery and 3LN redfish fishery are in assessment against the MSC standard and the Grand Banks yellowtail fishery has been re-certified.

COMPLIANCE AND ENFORCEMENT

- Over 2,300 inspections were conducted pertaining to raw product requirements; handling and holding conditions on vessels, trailers, and unloading sites; buyers and processing licence compliance checks; aquaculture sites; and products shipped through Channel - Port aux Basques.

Global seafood demand is anticipated to remain strong in 2016. There is growing retail and foodservice demand, with sustainability and traceability being focal points for many customers. Consumer demand is trending upward with an increased focus on food quality, food safety, and health. This increased demand, in combination with a favourable Canadian dollar, provides a positive outlook for Canadian exporters in 2016. Newfoundland and Labrador producers will be able to continue to avail of tariff relief for cooked and peeled shrimp and cod into the EU through renewal of the ATRQ for the 2016-18 period.

WILD FISHERIES

Fish landings in 2016 are expected to experience a slight increase compared to 2015. While shellfish and pelagics landings are anticipated to remain on par moving forward, groundfish landings are expected to rise slightly with strong stock status reports and increased utilization of resources.

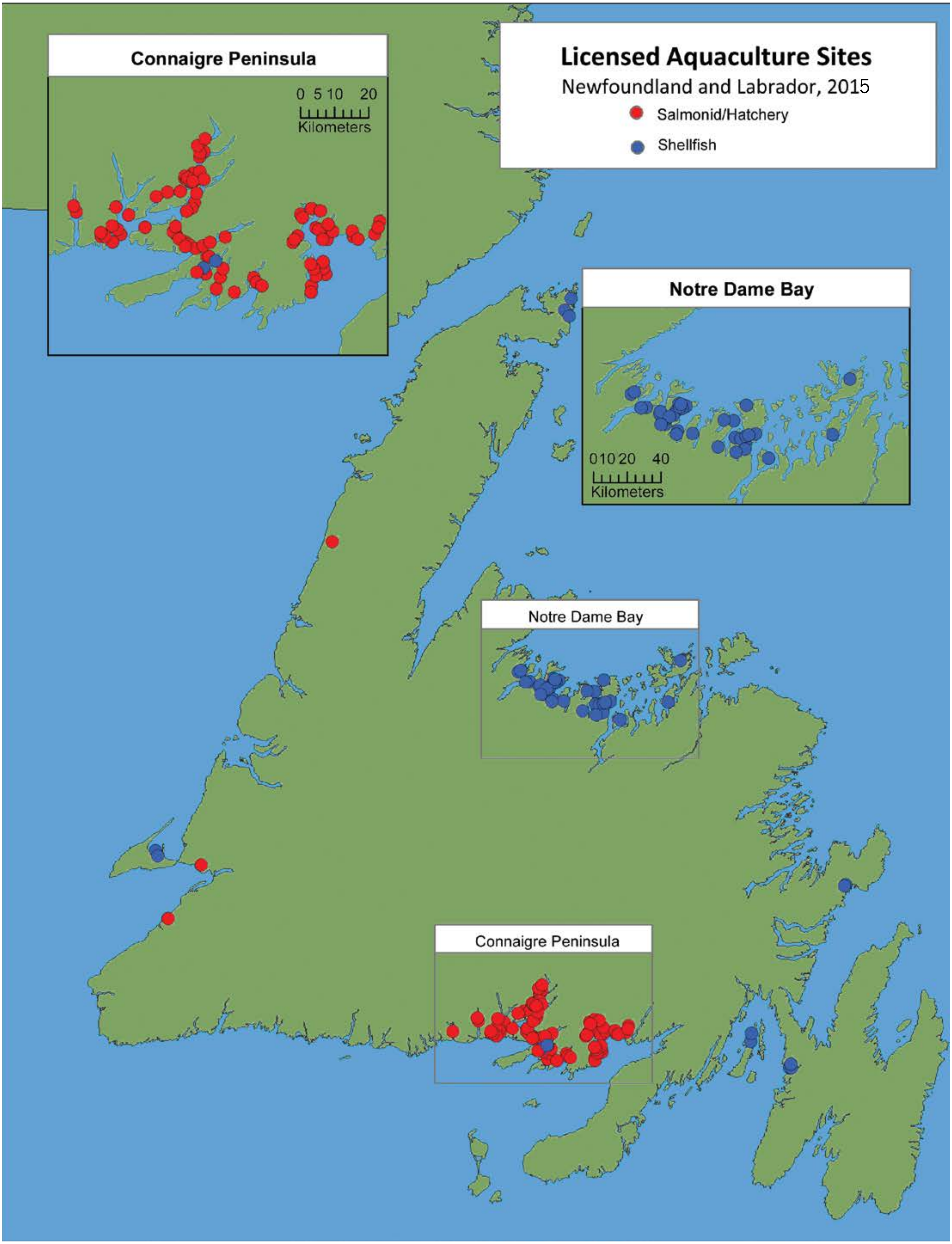
The global supply of coldwater shrimp is expected to continue its decline, however, at a slower rate in 2016. Overall, prices of coldwater shrimp are expected to remain high in 2016.

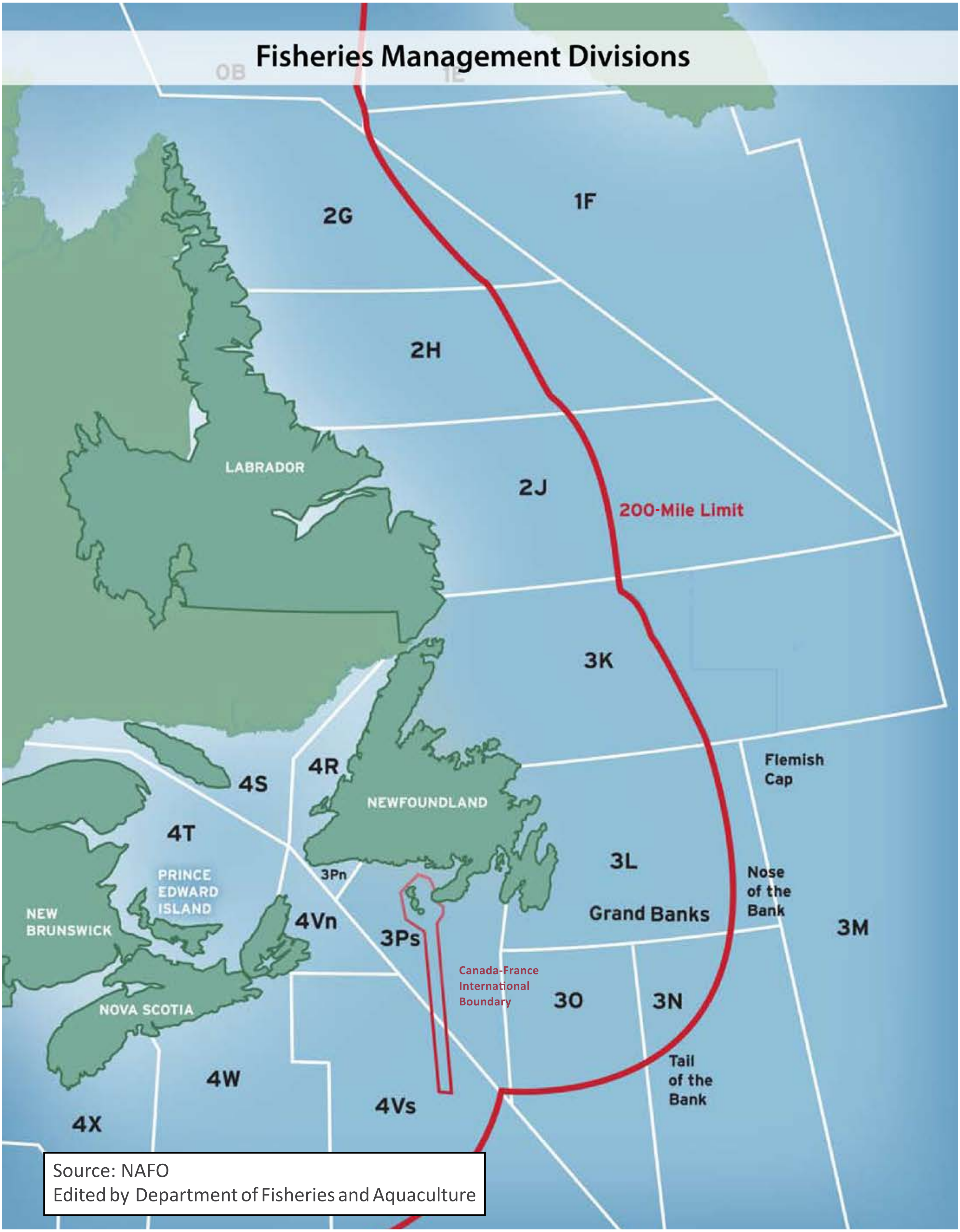
Global snow crab supply is trending downward in 2016, with the Alaskan snow crab quota down 40 per cent. This, combined with a lack of progress in developing a snow crab fishery in the Barents Sea and the limited growth in Canada, will likely result in stable market conditions for the snow crab industry in 2016.
Global supply of whitefish is expected to remain relatively stable in 2016.

AQUACULTURE

Aquaculture production is anticipated to continue to rebound in 2016 and return to peak levels experienced in 2013. Increased production of Atlantic salmon will be the major driver of growth for the industry, while modest growth in the blue mussel sector is likely in 2016.


Licensed Fish Processing Plants
Newfoundland and Labrador, 2015
Location of Plant
Nain
Makkovik
Cartwright
Charlottetown
Pinsent's Arm
Mary's Harbour
L'Anse au Loup
St. Anthony
Main Brook
Black Duck Cove
Anchor Point
Conche
Port au Choix
River of Ponds
Fleur de Lys (2)
Baie Verte
Cow Head
Hillgrade
Twillingate
Fogo
Rocky Harbour
Woody Point
Summerford
Carmanville (2)
Triton(2)
Pleasantview
New-Wes-Valley
Cox's Cove
Centreville-Wareham-Trinity
Benoit's Cove
Corner Brook (2)
Salvage
Bonavista
Glovertown
Happy Adventure
Clarenville
Winterton
Hickman's Harbour-Robinson Bight
Codroy
St. Alban's
Fair Haven
Arnold's Cove
Burgeo
Ramea
Hermitage-Sandyville
Cupids
Harbour Breton (2)
Brigus
Dildo
Aquaforte
Fortune
O'Donnells
Cape Broyle
Lawn
Grand Bank
St. Mary's
St. Lawrence
Department of Finance
Newfoundland & Labrador Statistics Agency
Edited by Department of Fisheries and Aquaculture


Licensed Aquaculture Sites
Newfoundland and Labrador, 2015
Salmonid/Hatchery
Shellfish
Connaigre Peninsula
0 5 10 20
Kilometers
Notre Dame Bay
0 10 20 40
Kilometers
Notre Dame Bay
Connaigre Peninsula



Fisheries Management Divisions
0B
1E
1F
2G
2H
2J
200-Mile Limit
LABRADOR
3K
4R
4S
NEWFOUNDLAND
4T
Flemish
Cap
3L
PRINCE
EDWARD
ISLAND
3Pn
Nose
of the
Bank
NEW
BRUNSWICK
4Vn
3Ps
Grand Banks
3M
Canada-France
International
Boundary
NOVA SCOTIA
3O
3N
Tail
of the
Bank
4W
4Vs
4X
Source: NAFO
Edited by Department of Fisheries and Aquaculture

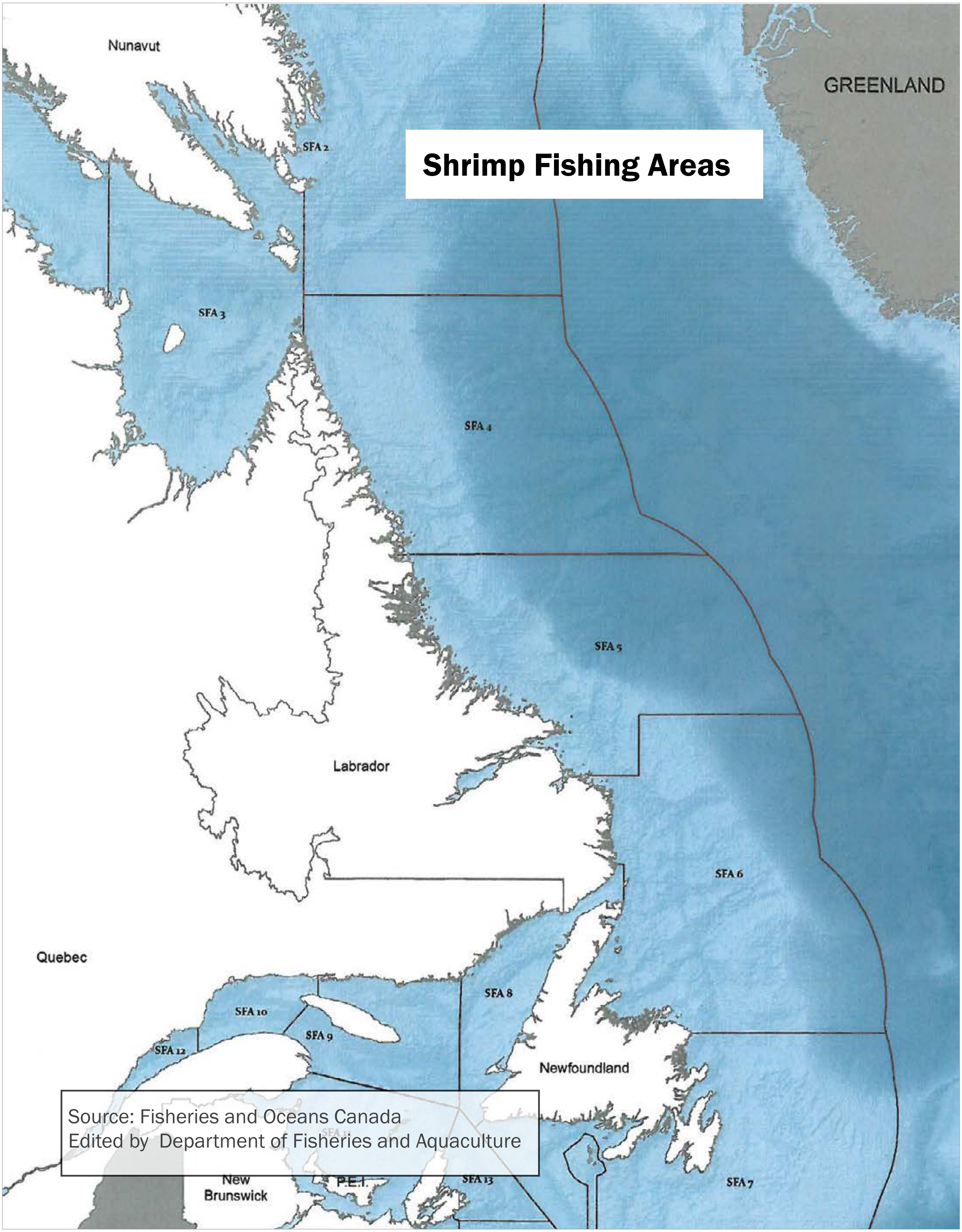

Shrimp Fishing Areas
Nunavut
GREENLAND
SFA 2
SFA 3
SFA 4
SFA 5
SFA 6
SFA 7
SFA 8
SFA 9
SFA 10
SFA 12
SFA 13
Labrador
Quebec
Newfoundland
New Brunswick
P.E.I.
Source: Fisheries and Oceans Canada
Edited by Department of Fisheries and Aquaculture

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PHOTO REFERENCES

Front and back cover feature image: the coast of Fogo Island
Front cover inset: fishing vessels in Black Duck Cove, harvesting shrimp, salmonid sites in Fortune Bay, processing shrimp
Back cover inset: Seafood Expo Asia, inspecting crab, mussel farm, and harvesting crab
Page ii: assorted seafood
Page iv: shrimp harvester
Page v: fish harvester - Courtesy of FFAW
Page 6: assorted seafood
Page 8: salmonid sites in Fortune Bay, mussel farming, and aquaculture seafood
Page 9: mussel farm in Little Bay Arm
Page 10: aquaculture seafood, mussels,mussel farm, and salmonid site
Page 11: plant workers processing salmon, processing mussels, and processing crab
Page 12: Seafood Expo Asia
Page 15: snow crab harvesting, shrimp, shrimp harvesting vessel
Page 16: shrimp harvesting, crab harvesting, shrimp processing, and herring
Page 17: snow crab, cooked and peeled shrimp, shell-on shrimp
Page 20: salmon processing, crab inspection, and salmonid site
Page 21: live lobster, crab legs, and aquaculture site
Page 22: marketing booth, Seafood Expo Asia, food sampling
Page 23: iceberg
Page 29: assorted seafood

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ACRONYMS AND ABBREVIATIONS

The following acronyms and abbreviations are used throughout this document and are provided here for reference.
ATRQ - Autonomous Tariff Rate Quota
CFER - Centre for Fisheries Ecosystems Research
DFA - Department of Fisheries and Aquaculture
DFO - Fisheries and Oceans Canada
EU - European Union
MSC - Marine Stewardship Council
NAFO - Northwest Atlantic Fisheries Organization
SFA - Shrimp Fishing Area
TAC - Total Allowable Catch
TPP - Trans-Pacific Partnership

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