



2003

Seafood Industry Year In Review



GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR
Department of Fisheries and Aquaculture



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Northern Pen

Message From The Minister

Welcome to the 2003 Seafood Industry Year in Review

I am pleased to make my first contribution to the *Seafood Industry Year in Review*. This annual publication provides a year-end summary of the Newfoundland and Labrador fishing industry.

Our fishery has experienced considerable change over the past decade, with the shift from ground-fish to higher valued shellfish species. Today's fishery remains strong, particularly when measured in terms of product value. Production value again exceeded \$1 billion in 2003, primarily because of higher market prices for crab. Overall landings increased by 12 percent from the previous year, and the total landed value of the industry rose by 11 percent to a near record level in 2003, despite exchange rate changes.

The aquaculture sector continues to show excellent potential for growth. The export value was lower than 2002 at approximately \$16 million in 2003. This is partially explained by the market demand for smaller steelhead and low prices for mussels in the first half of the year. Yet, the aquaculture industry is poised for considerable expansion in 2004. The provincial government has committed to investing in aquaculture and is encouraged by the level of private sector interest and investment. In particular, there is optimism associated with the impending development of egg-to-plate cod aquaculture, and the anticipated opening of the Bay Roberts cod hatchery this Fall.

In spite of challenges, the Newfoundland and Labrador fishing industry posted a solid year in 2003. I am certain that, with a renewed spirit of cooperation, it will continue to prosper in 2004 and beyond.

Trevor Taylor
Minister of Fisheries and Aquaculture

FISHING SECTOR PERFORMANCE 2003

The Newfoundland and Labrador fishing industry recorded another strong performance in 2003, posting a production value exceeding \$1 billion, the fourth time since 1999. The 2003 production value increased 6 percent over 2002, due primarily to higher market prices for crab.

Total landings increased 12 percent to 301,049 tonnes in 2003 from 268,035 tonnes in 2002. The landed value increased 11 percent in 2003 to \$560 million from \$505 million in 2002. Groundfish was the only species group that showed a decline in landings, decreasing by 4 percent to 57,473 tonnes, due to the cod closures announced earlier in the year. Higher

Fishing Industry Performance Newfoundland and Labrador, 2002 & 2003

LANDINGS (tonnes)	2002(R)	2003(P)	% Change
Groundfish	60,170	57,473	-4%
Pelagics	50,233	69,661	39%
Shellfish	157,633	173,915	10%
Seals (number)	310,000	289,000	-7%
Total *	268,035	301,049	12%

LANDED VALUE (\$ millions)

Groundfish	\$63.3	\$65.8	4%
Pelagics	\$12.9	\$17.2	33%
Shellfish	\$411.7	\$465.1	13%
Seals	\$17.6	\$12.1	-31%
Total	\$505.4	\$560.2	11%

PEAK EMPLOYMENT

Harvesting (individuals)	12,700	13,400	6%
Processing (individuals)	14,400	11,600	-19%

ANNUAL AVERAGE EMPLOYMENT (Person Years)

Harvesting	8,300	8,800	6%
Processing	7,900	6,400	-19%

AVERAGE INDUSTRY EMPLOYMENT(PYs)

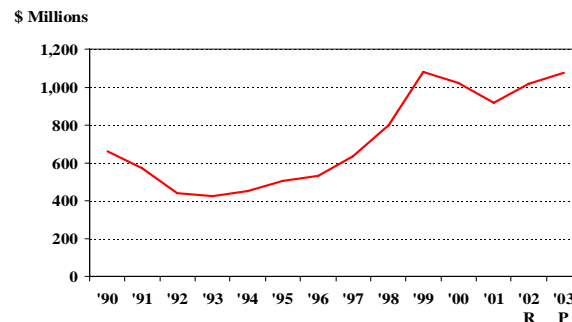
16,200	15,200	-6%
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Source: DFO; DFA; Statistics Canada
Note: R - Revised; P - Preliminary

(* Does not include seals)

Production Value

Newfoundland and Labrador, 1990 - 2003



Source: DFA & DFO

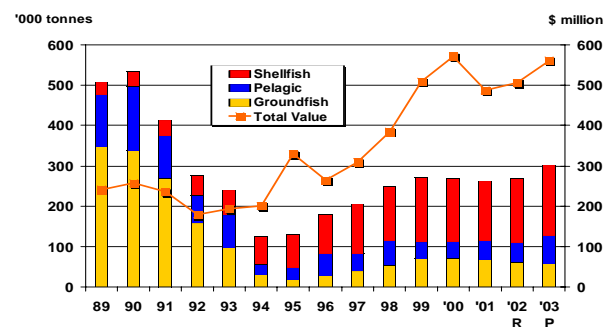
P = Preliminary; R = Revised

landings of yellowtail flounder and turbot partially offset the lower cod landings. Seal landings dropped 7 percent from 310,000 to 289,000 seals.

Pelagic landings increased by 39 percent in 2003 to 69,661 tonnes from 50,233 tonnes in 2002. Higher landings were recorded for mackerel, capelin and herring. The landed value increased by 33 percent from \$13 million in 2002 to \$17 million.

Shellfish landings rose 10 percent to 173,915 tonnes in 2003. This increase is attributed mainly to higher shrimp landings and increased landings of surf clams.

Fish Landings by Species Group Newfoundland and Labrador, 1989 - 2003



Source: DFA & DFO

P = Preliminary; R = Revised

Employment

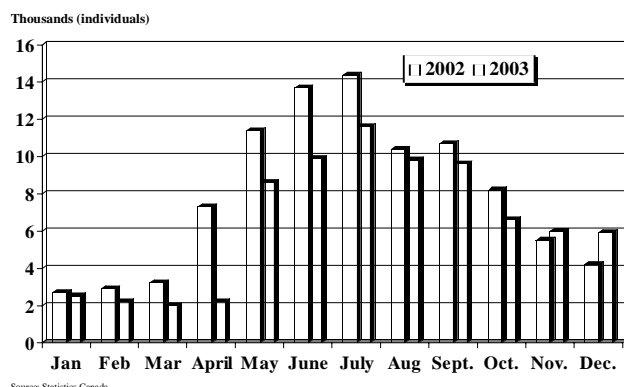
Overall peak employment decreased 8 percent in 2003 to 25,000 individuals from 27,100 in 2002.

Total annual average employment in the fishing industry decreased 6 percent to 15,200 person years from 16,200 in 2002. This decline was due mainly to lower employment levels in the processing sector.

Average processing employment decreased 19 percent to 6,400 person years from 7,900 in 2002. Peak processing declined 19 percent to 11,600 individuals in 2003 from 14,400. Lower processing activity is attributed to the moratoria on cod, the temporary shutdown of the shrimp and crab plants during the year, increased efficiencies in the processing sector and shifts in product mix at crab facilities.

Average harvesting employment increased 6 percent to 8,800 person years in 2003 from 8,300 in 2002. The increased availability of pelagics, primarily mackerel, capelin and herring, combined with increased shrimp, yellowtail flounder and turbot landings, contributed to higher harvesting employment.

Processing Employment Newfoundland and Labrador, 2002 - 2003



AQUACULTURE SECTOR

The Aquaculture sector recorded another strong year in 2003. Total production exceeded 3,900 tonnes, with an export value of approximately \$16 million. The sector experienced increased smolt stocking and continued strong fish growth and health performance.

Aquaculture Industry Profile Newfoundland and Labrador, 2003

Employment	500
Export Value	\$16 Million
Commercial Shellfish Sites	62
Commercial Finfish Sites	24
Aquaculture Tonnage	3,900

Source: DFA

Atlantic salmon and steelhead production totalled 2,603 tonnes in 2003, down 5.5 percent from 2002. The value per tonne, however, of salmonids increased by 4 percent, due to good overall market conditions.

Mussel production reached 1,284 tonnes in 2003. Industry participants effectively responded to low market prices, increased Chilean imports and a strong Canadian dollar that affected U.S. markets early in 2003. The Department of Fisheries and Aquaculture worked closely with industry throughout the year to expand and support the mussel sector with shellfish health and dedicated marketing programs.

(continued on page 4)



Ocean Fresh Blue Mussels

SPECIAL DISCUSSION: AQUACULTURE INVESTMENT PROSPECTING

The Government of Newfoundland and Labrador recognizes aquaculture as a significant growth opportunity that requires cooperation between industry, government and academia. This growth can only occur where a favourable investment climate exists, created by sustainable environmental policies and a streamlined licensing system. The aquaculture industry developed its Strategic Plan in 1999. It identified four main species for development: Atlantic salmon, steelhead, blue mussels and Atlantic cod.

Newfoundland and Labrador's aquaculture industry is strategically located for North American and European markets. It is endowed with extensive open areas of pristine water ideally suited for aquaculture. The Department of Fisheries and Aquaculture recognizes the area encompassing the Connaigre Peninsula, Bay d'Espoir and the north of Fortune Bay as regions with considerable aquaculture potential. The area offers opportunity for all commercial sectors including the mussel industry, the growth of egg-to-plate cod, and the expanding salmonid sector. The growth and continued development of these exciting sectors can only be realized with substantial investment. There is significant opportunity for private sector investment and public funding agencies are willing to partner.

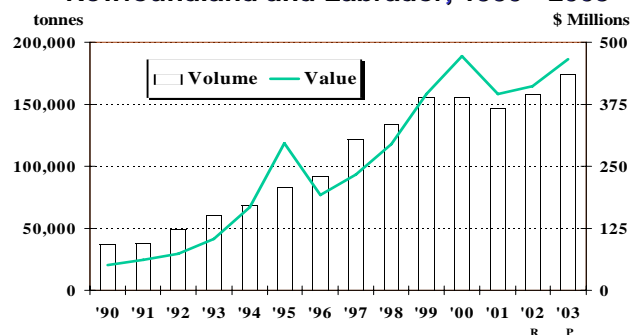
The Department of Fisheries and Aquaculture has adopted a strategic approach to attracting capital investment into the Newfoundland and Labrador aquaculture industry. In consultation with other departments, an investment prospecting package was prepared highlighting the investment opportunities within the industry. A Geographic Information System was developed which catalogues all key environmental data for the region. To raise the international profile of the industry, a trade show booth was designed around the investment package. To promote the sector as an investment opportunity, the aquaculture staff attended the Atlantic Aquaculture Exhibition and Fair in New Brunswick, the Aquaculture Association of Canada Conference in British Columbia and the AquaNor trade show in Norway. This international exposure has attracted a variety of multi-national companies to the south coast of Newfoundland and Labrador.

**Newfoundland and Labrador is open for business:
Aquaculture.**





Shellfish Landings Newfoundland and Labrador, 1990 - 2003



Source: DFA & DFO

P = Preliminary; R = Revised

SPECIES REVIEW

Shellfish

The shellfish sector continued its dominance of the industry in 2003 with a 10% increase in landings over last year. Landings increased mainly due to higher shrimp and surf clam landings. Correspondingly, landed value of shellfish increased 13 percent to approximately \$465 million. Shellfish represented 83 percent of total landed value. Crab and shrimp continued to be the dominant species.

Shellfish Volume and Landed Value 2002 and 2003

Species	2002(R)		2003(P)	
	Volume (tonnes)	Value (000's)	Volume (tonnes)	Value (000's)
S.S. Clams	14,502	\$10,746	20,348	\$17,879
I. Scallops	989	\$991	1,377	\$1,310
Lobster	2,058	\$23,486	2,100	\$25,463
Shrimp	76,185	\$142,944	87,040	\$141,121
Snow Crab	59,415	\$229,234	58,351	\$276,576
Other	4,484	\$4,289	4,699	\$2,772
Total	157,633	\$411,690	173,915	\$465,121

Source: DFO; DFA

P-Preliminary, R-Revised

Crab

Despite a slight 2 percent drop in crab landings to 58,351 tonnes, due to minor quota reductions, the landed value increased by 21 percent to \$277 million

from about \$229 million in 2002. The increase in landed value was a reflection of more favourable market prices for crab.

Shrimp

Shrimp landings increased 14 percent from 76,185 tonnes in 2002 to 87,040 tonnes in 2003. The industry consists of two main sectors, the wet-fish sector producing cooked and peeled shrimp and the offshore sector primarily producing frozen-at-sea product. Total landings for the offshore sector were 34,154 tonnes, up 19 percent from 2002. Wet-fish landings increased 11 percent to 52,886 tonnes. Higher landings are due to increased allocations. Quotas of Northern shrimp for the wet-fish sector increased 35 percent to 58,000 tonnes.

The rapid growth in the wet-fish shrimp industry has provided many challenges. Some of the structural problems have been exacerbated by weak market conditions, changing exchange rates and high tariffs in the major coldwater shrimp consuming nations. As a result, the industry has developed an implementation plan to deal with many of these issues.

Other Shellfish

Though crab and shrimp remain the dominant species in this sector, other species contributed significantly

to the industry in 2003. Stimpson surf clam landings increased 40 percent from 14,502 tonnes in 2002 to 20,348 tonnes in 2003. Landed value increased 66 percent over the previous year to approximately \$18 million. Icelandic scallops, though still at modest harvest levels, registered a 39 percent increase in landings to 1,377 tonnes and a 32 percent increase in landed value to \$1 million. Lobster landings increased by 2 percent and the landed value increased 8 percent from \$23 million to \$25 million in 2003.

Groundfish

The groundfish sector registered further declines in 2003 with landings falling by 4 percent to 57,473 tonnes, due primarily to the closures of the 2J3KL and 4RS3Pn cod fisheries and the resulting 34 percent decrease in cod landings. Despite a slight decrease in overall groundfish landings, the landed value rose by 4 percent from \$63 million to \$66 million in 2003, due largely to strong prices for turbot.

**Groundfish Volume and Landed Value
2002 and 2003**

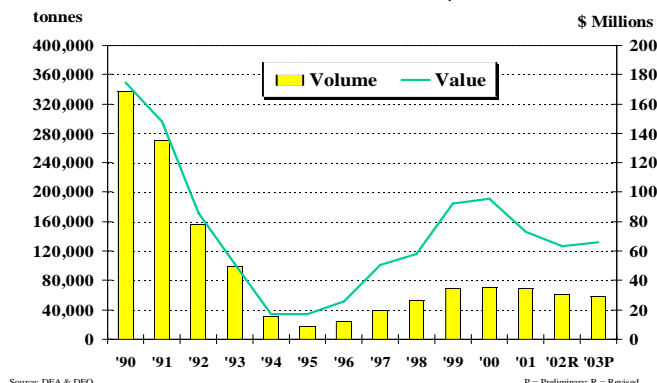
Species	2002(R)		2003(P)	
	Volume (tonnes)	Value (000's)	Volume (tonnes)	Value (000's)
Cod	21,103	\$27,206	14,022	\$18,100
Redfish	6,918	\$4,385	7,336	\$4,597
American plaice	2,641	\$2,121	2,642	\$2,058
Flounder	11,583	\$9,295	13,888	\$9,747
Turbot	9,706	\$10,663	11,727	\$20,683
Hake	1,255	\$796	1,477	\$966
Monkfish	2,265	\$3,735	2,607	\$4,259
Skate	2,488	\$651	2,118	\$555
Other	2,211	\$4,402	1,656	\$4,802
Total	60,170	\$63,254	57,473	\$65,767

Source: DFO; DFA

P-Preliminary, R-Revised

Offsetting cod declines, yellowtail flounder and turbot landings registered increases of 27 percent and 21 percent respectively. The landed value of turbot increased 94 percent from \$11 million to \$21 million.

Groundfish Landings Newfoundland and Labrador, 1990 - 2003



Redfish landings increased by 6 percent from 6,918 tonnes to 7,336 tonnes in 2003 and registered a 5 percent increase in landed value to \$4.6 million. Halibut landings increased by 21 percent from 448 tonnes to 540 tonnes in 2003. Its landed value also increased 20 percent from \$2.5 million in 2002 to \$3 million.



Pelagics

Pelagic landings increased by 39 percent from 50,233 tonnes in 2002 to 69,661 tonnes. Higher landings of mackerel, capelin and herring contributed to this significant increase. The landed value increased by 33 percent from \$13 million to \$17 million in 2003. Herring and mackerel were the dominant pelagic species accounting for 30 and 38 percent respectively of total pelagic landings. Capelin landings increased

Pelagics Volume and Landed Value 2002 and 2003

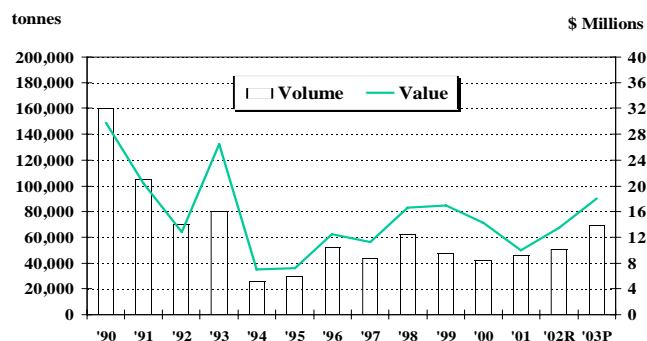
Species	2002(R)		2003(P)	
	Volume (tonnes)	Value (000's)	Volume (tonnes)	Value (000's)
Herring	18,340	\$3,329	20,937	\$3,710
Mackerel	18,016	\$6,710	26,331	\$9,869
Capelin	13,482	\$1,732	22,309	\$2,951
Other	395	\$1,119	84	\$658
Total	50,233	\$12,890	69,661	\$17,188

Source: DFO;DFA

P-Preliminary, R- Revised

66 percent from 13,482 tonnes to 22,309 tonnes in 2003 and registered a 70 percent increase in landed value over the previous year.

Pelagic Landings Newfoundland and Labrador, 1990 - 2003



Source: DFA & DFO

P = Preliminary; R = Revised

Seals

Seal pelt markets remained strong in 2003. The total harvest decreased slightly to 289,000 seals (preliminary), from 310,000 in 2002. Prices declined in 2003, from \$60 per pelt to \$45. The market value of the seal fishery in 2003 exceeded \$40 million.

While the cyclical nature of fur markets makes yearly predictions difficult, forecasts for 2004 are optimistic. Pelt prices for 2004 have not been finalized, as inventories of fur are continuously moving through auction houses. Markets are expected to remain strong and prices are expected to remain stable, as the industry strives to achieve balance and to maintain a strong presence in world fur markets.

A new tannery is expected to be operational in Dildo in 2004. This plant will augment similar operations in Catalina and increase the province's overall tanning capacity.

The market value of the sealing industry is projected to reach \$100 million over the next three to five years. This projection is based on an average pelt price of \$50 and expected higher prices to harvesters for seal oil and meat products. Increasingly valuable meat exports to China, Korea and Europe are an integral factor in this forecast. Employment is expected to peak at 5,000 fish harvesters and 500 plant workers with the majority employed on a seasonal basis.

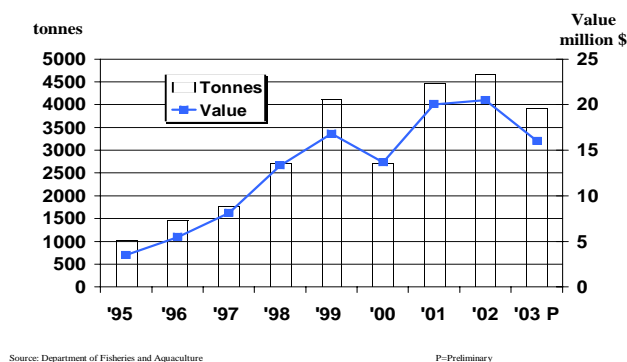


Seal Tanning

AQUACULTURE

Aquaculture development in the Province during 2003 continued to be guided by the Aquaculture Strategic Plan, which was adopted by all stakeholders in 2000. The focus continues on Atlantic salmon, steelhead, blue mussels and Atlantic cod. The production volume for all species in 2003 was approximately 3,900 tonnes, down from the 4,663 tonnes recorded in 2002. The export value of the aquaculture industry peaked in 2002 at \$20.5 million and reached \$16 million in 2003. Lower volumes and value were a reflection of lower market prices for mussels, increased competition from Chile and a strong Canadian dollar. These all negatively impacted mussel production and, ultimately, the export value for the aquaculture industry in 2003.

Aquaculture Production Newfoundland and Labrador, 1995-2003



Shellfish

Blue mussel aquaculture in Newfoundland and Labrador was targeted for expansion during 2003 and the larger companies increased gear deployment. Processors purchased approximately 1,300 tonnes of mussels in 2003, down from 1,700 tonnes in 2002. A number of local processors secured contracts with national grocery chains to supply mussel products throughout Atlantic Canada. Other growers developed private investment opportunities and partnership

arrangements during the year which bodes well for continued expansion of this sector in 2004.

The Department provided extension services such as the Environmental and Biological Monitoring Program and the Shellfish Health Monitoring Program. These programs were funded by the Canada - Newfoundland and Labrador Comprehensive Economic Development Agreement (CEDA) and aided in the expansion and production efficiency of the sector in 2003.



Salmonids

Overall production value of the salmonid sector declined from \$15 million in 2002 to \$13 million in 2003, primarily due to the smaller steelhead size preferred by the market. The number of fish harvested was similar to 2002 and the value per tonne increased by 4 percent.

The salmonid sector achieved a production level of 2,603 tonnes in 2003. Atlantic salmon production was stable. The production of an additional 540,000 smolt in 2003 will result in an extra 2,400 tonnes in 2004. Even with smaller steelhead harvested, which contributed to less overall production, the resulting



increase in marine rearing capacity and strong market price positions the industry for production increases in 2004.

Five companies operated in Bay d'Espoir and Fortune Bay in 2003, with two companies growing Atlantic salmon and three growing steelhead. Three of the five companies will be involved in both Atlantic salmon and steelhead production in 2004.

Infrastructure requirements for the development of the salmonid industry were reviewed in 2003, with particular emphasis on access to appropriate wharfage, increased hatchery capacity, better road development and access to bulk feed. The reduction of processing and feed costs were the main focus.

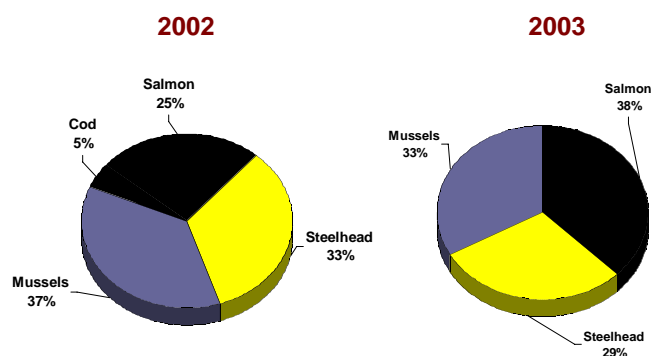
The largest growth in the Newfoundland and Labrador aquaculture industry is expected in the Atlantic salmon sector, with new companies commencing operations in 2004 and expansion of existing companies. Production of Atlantic salmon should increase significantly by 2006. Growth in the steelhead sector is also expected in 2004.

Cod

Future Atlantic cod production in Newfoundland and Labrador will be based upon egg-to-plate aquaculture.

The industry's goal is to produce 32,000 tonnes of farmed cod for market by 2010. There are currently eight cage sites licensed for marine growout of hatchery-raised cod and many others under licensing review. Egg-to-plate aquaculture will develop in a significant way in 2004 with the anticipated opening of the Bay Roberts cod hatchery, which has a fry production capability of ten million cod juveniles. Cod growout production was hampered in 2003 by the sector's dependence on federal quotas for starting stock. Activity was limited to the south coast of the

Aquaculture Production by Species



Source: DFA

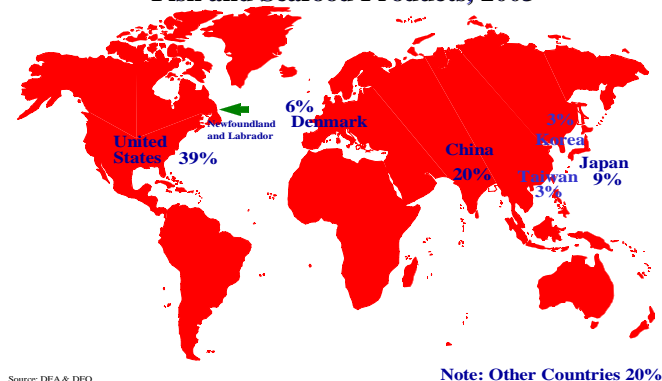
province in NAFO area 3Ps. No new cod was procured for the 2003 growout season and the only fish held for cod growout were on two sites that overwintered fish from 2002.

The Aquaculture Sector Development Program under the Canada/Newfoundland and Labrador Comprehensive Economic Development Agreement funded several companies in human resource development and technology transfer initiatives for egg-to-plate cod aquaculture. This program provided biological and technological support to both the egg-to-plate and growout operations. Site prospecting and fish health services provided by the Department assisted with the expansion of this sector in 2003.

MARKET OVERVIEW

A strengthening Canadian dollar put Newfoundland and Labrador exporters at a competitive disadvantage in 2003, contributing to a decline on the return on seafood sales to the United States. Despite the strength of the Canadian dollar, the U.S. remained our largest export market for seafood products.

World Markets for Newfoundland and Labrador Fish and Seafood Products, 2003



Market conditions were favourable in the crab industry and price increases more than offset any losses from a stronger Canadian dollar. In the shrimp industry, however, prices did not increase to the same degree to counteract unfavourable exchange rates. Low-priced Chinese groundfish products continued to take a larger share of the U.S. groundfish market, placing increased pressure on local groundfish producers. This, when combined with lower exchange rates, is believed to have negatively impacted processor margins.

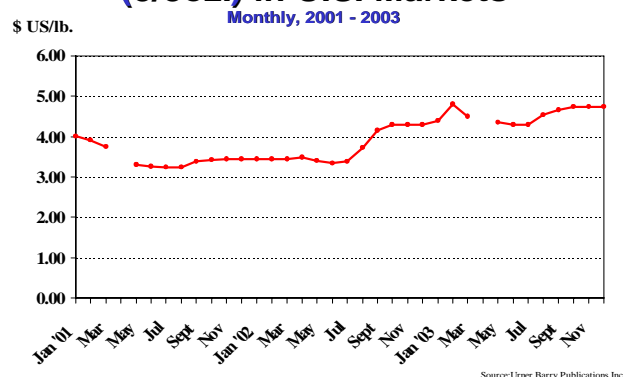
High import tariffs in Europe continue to be a stumbling block, particularly in the shrimp business, where our European competitors are not subject to the same high rates. For a number of years, the European Union (EU) has permitted a small volume (5,000 tonnes) of shrimp to be imported at a reduced

tariff (6%, instead of the 20% that is applied to the remainder of Canadian shrimp exports). The volume permitted at the lower rate was increased to 7,000 tonnes in 2003 and this ceiling is expected to remain in place until 2006. These high import tariffs are a major impediment to further expanding the shrimp industry in the province.

Crab

The Newfoundland and Labrador crab industry experienced a good year in 2003, with a strong demand for snow crab in the United States and Japan. Continued low crab production in Alaska helped push prices higher in the face of strong consumer demand. This strong demand contributed to firm prices which increased as the season progressed. The news of further reductions in Alaskan snow crab quotas for 2004 provided a market signal that kept prices at high levels to the end of 2003. The stronger Canadian dollar was a negative factor for exporters, and partially offset the favourable supply and demand situation for crab experienced in 2003.

Prices for Frozen Crab Clusters (5/8oz.) in U.S. Markets



Shrimp

The strengthening Canadian dollar and high European import tariffs represented the two biggest challenges to the Province's shrimp industry in 2003.

A stronger Canadian dollar in 2003 resulted in lower margins to exporters compared to 2002. There was also a downward pressure on prices in Europe early in the season. The situation improved as the season progressed, due mainly to lower inventories and a more balanced supply and demand relationship. Urner Barry Publications Inc., *Seafood Price Current*, indicates that the U.S. import prices for cooked and peeled coldwater shrimp have not changed since February 2002. This suggests that exchange rate influences would have further squeezed shrimp exporters.

The anti-dumping lawsuits launched by American shrimp producers against warmwater shrimp producers from around the world may result in more warmwater shrimp being targeted for Europe, especially the United Kingdom (U.K.). Inroads have already been made in the U.K. for this warmwater shrimp, an area that has traditionally been the strongest world market for coldwater shrimp.

PROCESSING UPDATE

The Province's seafood industry, through its 122 processing facilities, supplied over 162,000 tonnes of finished products to the marketplace in 2003, comprised of 28 percent groundfish, 34 percent pelagics, and 38 percent shellfish. Overall production increased by 12 percent from about 146,000 tonnes in 2002.

Mirroring landings figures, pelagics registered a 39 percent increase in production, from 39,400 tonnes in 2002 to 54,600 tonnes, due to significant increases in capelin, herring and mackerel production in 2003.

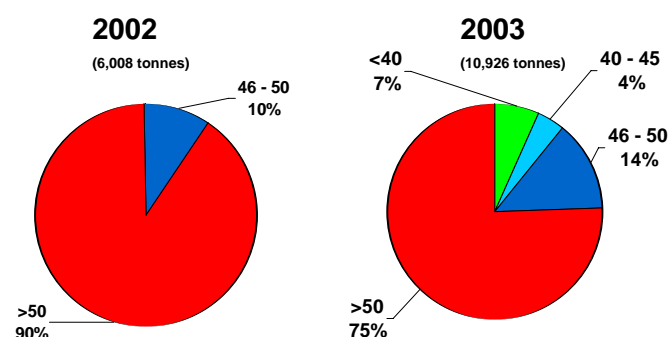
The fish processing sector produced 45,900 tonnes of groundfish, a 2 percent increase from 2002. Cod production, including secondary production, declined by

about 9 percent to 15,100 tonnes. Imported cod helped keep production from declining significantly due to lower landings. Higher production of frozen fillet, block, and breaded products was seen in 2003, while salted, dressed, and fresh fillet cod production declined. There was also an increased production of turbot and yellowtail flounder due to higher landings.

The market for capelin was good in 2003 with a production increase of 55 percent. Female capelin production was 82 percent higher than in 2002.

Mackerel and herring production also increased, by 59 percent and 8 percent respectively. Production of fresh and frozen round mackerel products increased 63 percent to 25,000 tonnes.

Female Capelin by Size Category



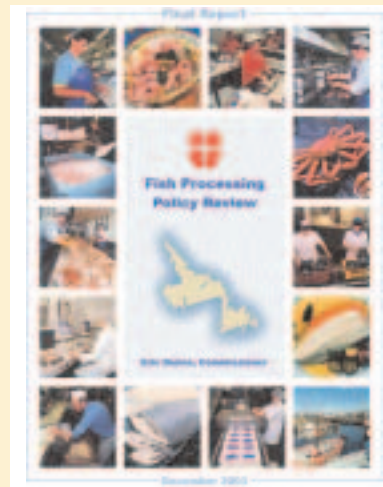
Source: DFA

Shellfish production totaled almost 62,000 tonnes, up 1 percent from 2002. Shellfish products, though less labour intensive than other species were again the dominant species, particularly in terms of value. Crab production remained on par with 2002, with less meat production in 2003 (1 percent of total production versus 3 percent in 2002). The bulk of the crab was processed in sections destined mainly for the United States and Japan. Overall shrimp production increased by 6 percent. Cooked and peeled shrimp production was 7 percent higher than (continued on page 12)

SPECIAL DISCUSSION: DUNNE REPORT AND A RENEWED FISH PROCESSING POLICY

On February 4, 2004, Trevor Taylor, Minister of Fisheries and Aquaculture, released the Final Report of the Fish Processing Policy Review Commission. Government has approved the report, in principle, as the basis to renew the province's fish processing policy. The need for a new policy was driven, in part, by a shift from groundfish to shellfish as the main species, a less labour-intensive sector, an aging workforce, and a population migrating within the province.

The report was commissioned in June 2003 to conduct a policy review of the province's management of the fish processing sector. Commissioner Eric Dunne delivered his final report with 25 recommendations on December 15, 2003.



The Dunne Report forms the basis for a renewed fish processing policy in four broad categories:

- Development of a new policy framework in 2004 to be more open and transparent, attempt to eliminate latent capacity in the industry and make processing plants more accountable to government. The report recommends that the framework include: establishing an arms-length fish processing licensing board, as well as a formal industry-government policy advisory committee; elimination of inactive and cancelled processing licences; adoption of a species licensing system linked to resource thresholds; establishing criteria for new licences and licence transfers; a requirement for processors to submit annual processing plans; and, an annual requirement to report corporate shareholders in fish processing companies.
- Development, in consultation with industry, of a pilot project for sharing of raw material by the processing sector for which a proposal would have to come from a group of processors representing at least three-quarters of the active processing licence holders.
- Continuation and strengthening of the Quality Assurance Program, including the development of further quality standards, increased inspection activity and additional training for inspectors and others handling fish products.
- A review and revision of the department's legislative and regulatory framework as set out in the *Fish Inspection Act* and its regulations. The report makes proposals to increase the requirement for crab processing, develop an enforcement program, monitor crab exports and implement a ticketing system for enforcement purposes.

In making his recommendations for overall policy changes, Mr. Dunne also addressed issues relating to labour supply, employment levels that provide adequate incomes and challenges arising from migration within the province.

Minister Taylor expects the new policy framework to be completely operational for 2005.

in 2002, however, the production of secondary products (including breaded, garlic king prawn and glazed) declined by 12 percent. Whelk production declined by 48 percent from 214 tonnes to 112 tonnes.

QUALITY ASSURANCE

The Department's Quality Assurance Program was again instrumental, in 2003, in enhancing the quality of fish produced in our fishery. The cooperation from industry in implementing quality measures continued to be excellent. The Department of Fisheries and Aquaculture partnered with industry by providing support to the industry sanctioned grading program.

The Department employed thirty fisheries inspection officers in 2003. They conducted a total of 6,780 inspections during the year.

The fisheries inspection officers carefully monitored the incidence of yellowing in shrimp during the year. This annual condition, which arises for several weeks each summer, was initially attributed to a feeding condition known as "blackberry". A subsequent analysis of samples suggested the yellowing may be a physiological effect, which results during the biological transformation of males into females, rather than a feeding condition.

The Department also participated with industry in several containerization evaluation projects. These projects were to improve quality, cost efficiency and

effectiveness of discharging vessels, and transport of raw materials to processing plants.



Performing Temperature Check

FISHERIES DEVELOPMENT

Fisheries development remained a priority for the Department in 2003. A range of projects were undertaken by the Department in association with industry partners. This work was coordinated by the regional offices throughout the province and focused on resource surveys, fishing gear development, vessel design, and quality.

Resource Surveys

Fishing trials were conducted to determine the size of fish stocks and to assess the development potential for new fisheries utilizing under or non-utilized species. Surveys were completed for sea cucumber (Strait of Belle Isle), sea urchin (Labrador), and whelk (Burgeo Bank).

Fishing Gear Development

Improvements in fishing gear and selectivity are required for fisheries conservation. Work on a snow crab size selectivity project continued from 2002 into 2003, in an effort to decrease the level of discarding on board. There were limited fishing trials associated with this project and results have been inconclusive.



Crab Pot Size Selection Trials

Vessel Design

The primary role of the vessel design program is to assist industry develop projects and provide fishermen with the latest in vessel technology. The introduction of the catamaran vessel to the inshore fleet is a good example of the industry utilizing the latest in vessel technology. This design provides increased safety and improved ergonomics onboard fishing vessels.

Quality

Considerable quality-related development work involving shrimp was completed in 2003. A project on boxing of shrimp at sea demonstrated improved quality and less broken shrimp compared to the traditional bagging method. An onboard handling and transportation practices study associated with improving the quality of sea cucumbers landed from the St. Pierre Bank was also undertaken in 2003.

RESOURCE STATUS

Northern Shrimp

The Northern shrimp resource is concentrated in a large area extending from the Grand Banks to the Davis Strait. The more northerly regions are fished exclusively by the offshore licence holders, while the southern regions are accessed by the inshore and offshore sectors. Biomass estimates in the southern regions remain at historical high levels. Significant increases in the Total Allowable Catch (TAC) were introduced in 2003, mainly in these southern areas.

Medium to long-term recruitment is somewhat uncertain, however, a decline is not expected in the short term. Based on limited information, the resource appears to be stable in the north.

Gulf Shrimp

The Newfoundland and Labrador fleet fish in the Esquiman Channel portion of the Gulf of St. Lawrence. The Newfoundland and Labrador portion of the TAC was 5,300 tonnes in 2001 and 2002. The TAC declined to 4,450 tonnes in 2003 as the overall quota was decreased in response to concerns expressed by fisheries scientists.



Snow Crab

The snow crab resource remains at a high level. Landings exceeded 58,000 tonnes in 2003, despite a decrease in landings in 2J and 3Ps. To protect the resource in these areas, the federal minister announced a slight quota reduction in April 2003, from 56,981 tonnes to 56,240 tonnes in 2003.



Technology at Work

The current status of the resource appears stable in most areas. Some decline in the resource was seen off Labrador and on the south coast of the island. If further TAC reductions are implemented in these areas the overall harvest level may decline slightly in 2004.

Cod

The offshore portion of the 2J3KL stock has remained under moratorium since 1992. The Minister of Fisheries and Oceans Canada noted in November 2002 that this stock is not recovering. A fishing moratorium was placed on the entire stock area in April 2003.

The TAC for the 3Ps cod stock was reduced in 2001 from 20,000 tonnes to 15,000 tonnes, due to concerns about recruitment. The TAC remained at 15,000 tonnes for the past two fishing seasons. The latest scientific information does indicate some growth in the stock biomass. The quota, however, will likely remain at 15,000 tonnes in 2004-2005.

The 4RS3Pn stock levels were well below the historical average in 2003. The fishery for this stock was placed under moratorium in April 2003, as science indicated that the stock may be further declining.

Unit 2 Redfish

The range of this stock covers the South coast of Newfoundland and parts of the Laurentian Channel. Newfoundland and Labrador harvests between 35 to 40 percent of the redfish quota. The stock remains relatively stable and there is little sign of recruitment. The quota was reduced to 8,000 tonnes in 2001, and has remained at this level for the past 2 years.

Skate

A small skate fishery is ongoing off the Avalon Peninsula and south coast of the province. The annual quota has remained at 3,000 tonnes for the past three years. Annual landings have been between 2,000 and 2,500 tonnes over this period.

Monkfish

Landings of monkfish in Newfoundland and Labrador remained low until 2002 when they reached 2,400 tonnes, and increased to 2,800 tonnes in 2003.

NAFO-Managed Stocks

2+3LMNO Turbot

The growth observed in the turbot stock during the late 1990s has stopped and now is considered to be on a decline. The TAC was reduced from 44,000 tonnes in 2002 to 42,000 tonnes in 2003. The TAC has been set at 20,000 tonnes in 2004, of which Canada is allocated 36 percent.

3LNO Yellowtail

This stock has experienced growth in the past few years. The quota was 13,000 tonnes in 2001 and 2002, and was increased to 14,500 tonnes in 2003. The TAC for 2004 will remain unchanged of which almost 98 percent is allocated to Canada.

Other Groundfish

All other NAFO-managed straddling groundfish stocks remain under moratoria. The few that are showing any signs of recovery include: 3NO cod, 3NO witch flounder, 3LNO American plaice, and 3LN redfish.



OUTLOOK FOR 2004

Fisheries

Industry participants will likely have to respond to several challenges in 2004 on both the labour and resource side of the industry. Landings should be consistent with 2003 levels and exchange rate pressures may continue to pose problems for both processors and harvesters. A decline in landed value and production value is possible. Appreciation in the Canadian dollar continues to reduce the overall return from the marketplace for fish products to the United States, our primary consumer of local products. This will result in lower net market returns to processors and lower prices to harvesters.

Groundfish landings are expected to remain stable. Cod landings in 3Ps are anticipated to remain unchanged; yellowtail flounder landings may increase over 2003 levels; and redfish and turbot landings may decline slightly. Landings of miscellaneous ground-

fish species such as monkfish and skate may remain unchanged or decline slightly.

Pelagic landings may increase, with total landings driven by a combination of market forces and resource availability. This will be especially true for mackerel and herring. There is potential for improvement in capelin prices, due to anticipated lower catches in other producing areas. This could result in higher landings.

Shellfish landings may increase, however, crab landings may decline in anticipation of slightly lower quotas. Shrimp landings should increase, however, market challenges remain an impediment to the complete harvest of allocations.

Overall structural problems in the industry will continue to challenge harvesters and processors in 2004. Recent changes in collective bargaining are likely to contribute to some frustration for the industry.

Aquaculture Outlook

The Province is aggressively pursuing commercialization of the cod aquaculture industry, with significant advancements expected in 2004. With the establishment of marine culture sites, and the anticipated opening of the Bay Roberts cod hatchery, cod aquaculture has the potential to be a major contributor to the continued development and expansion of the aquaculture sector in Newfoundland and Labrador.

Strong interest is being shown from Atlantic Canadian and Norwegian salmon and steelhead companies in establishing operations along the south coast of Newfoundland. While Atlantic salmon is the major species of interest, Atlantic cod is also being seriously investigated. An increase in demand for aquaculture

Steelhead and Atlantic salmon production are expected to rebound in 2004, due to more smolt entries in 2003 and the remaining 2002 year class going to market.

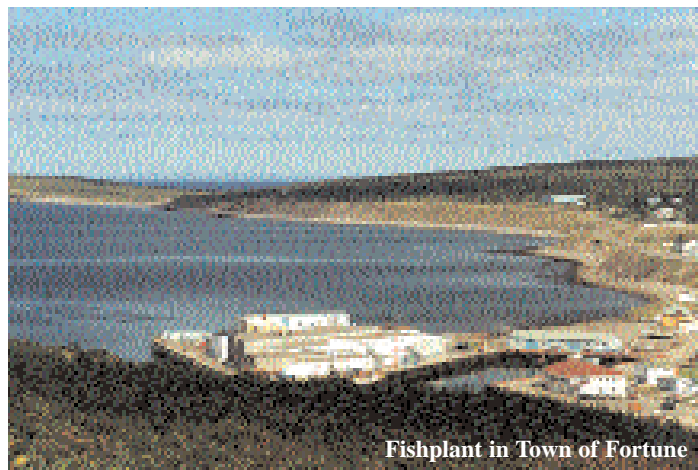
Blue mussel production is expected to increase in 2004 with the development of new markets and continued expansion into the fresh mussel market.

**DEPARTMENT OF FISHERIES AND
AQUACULTURE WEBSITE**

The Department is in the process of updating and modifying its website. Please visit our site for detailed information on the Newfoundland and Labrador fishery.



URL: <http://www.gov.nl.ca/fishaq/>



Fishplant in Town of Fortune



DFA Veterinarian at May Cove

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Locations of Aquaculture Sites Newfoundland & Labrador

Aquaculture Sites by Species

- | | |
|---------------|---------------------|
| Blue Mussels | Rainbow Trout |
| Oysters | Atlantic Cod |
| Giant Scallop | Steelhead Trout |
| Sea Urchins | Atlantic Salmon |
| Clams | Halibut |
| Marine Plants | Arctic Char |
| Eel | Yellowtail Flounder |

Inset 2



Inset 1



Inset 1



Inset 2



