# The 2003 British Columbia Seafood Industry Year in Review

BRITISH COLUMBIA

Ministry of Agriculture, Food & Fisheries

In 2003, the British Columbia (BC) harvest of more than 80 species of farmed and wild fish, shellfish and marine plants increased to 304,000 tonnes with a total landed value of $636.8 million.

The wholesale value of the finished seafood products reached $1.1 billion in 2003; sales of farmed salmon generated $308 million, wild salmon $183.6 million, groundfish $262.8 million, shellfish $226.6 million, herring $102.9 million and other fish $24.2 million in wholesale value.

BC seafood products undergo various levels of processing and can be grouped into five primary processing categories: fresh, frozen, canned, cured and "other". In 2003 fresh seafood products contributed 58 per cent of the total wholesale value, followed by frozen products at 20 per cent, cured products (including salted and smoked) at 13 per cent, canned products 4 per cent, and "other" products accounting for the remaining 5 per cent. In 2003, 171,744 tonnes of BC seafood was exported to 56 countries with a total export value of $997 million.

Sport fisheries are also strong contributors to the provincial economy. Their role is detailed on the Ministry of Agriculture, Food and Fisheries web site along with key fisheries and aquaculture industry reports, statistics and information at www.agf.gov.bc.ca/fisheries/index.htm.

## British Columbia Seafood Production 2001 - 2003

| | Wholesale Value[1] ... $ Millions ... | | | Landed Value[2] ... $ Millions ... | | | Landings[3] ... '000 Tonnes ... | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2003 E | 2002 P | 2001P | 2003E | 2002P | 2001P | 2003E | 2002P | 2001P |
| **Salmon** | | | | | | | | | |
| Chinook | 16.9 | 11.8 | 5.1 | 8.1 | 7.1 | 3.1 | 2.2 | 1.7 | 0.7 |
| Sockeye | 71.8 | 103.5 | 77.7 | 24.1 | 40.2 | 23.9 | 6.3 | 10.1 | 7.2 |
| Coho | 14.2 | 8.1 | 5.0 | 2.4 | 1.1 | 0.1 | 0.8 | 0.5 | 0.1 |
| Pink | 33.4 | 32.1 | 43.3 | 4.4 | 2.9 | 4.3 | 15.4 | 8.6 | 10.9 |
| Chum | 43.7 | 40.4 | 26.6 | 9.1 | 6.0 | 5.7 | 13.7 | 12.4 | 5.8 |
| Subtotal[4] | 183.6 | 198.8 | 161.9 | 48.1 | 57.3 | 37.1 | 38.4 | 33.3 | 24.7 |
| **Farmed Salmon** | 308.0 | 359.0 | 323.0 | 255.8 | 288.9 | 270.9 | 72.7 | 84.2 | 68.0 |
| **Farmed Trout** | 2.2 | 1.3 | 1.3 | 0.5 | 0.7 | 0.5 | 0.1 | 0.1 | 0.1 |
| **Herring** | | | | | | | | | |
| Spawn on Kelp | 11.5 | 12.8 | 12.8 | 9.3 | 10.6 | 10.5 | 0.4 | 0.4 | 0.4 |
| Roe Herring | 88.1 | 113.6 | 97.3 | 36.0 | 40.0 | 35.5 | 28.8 | 26.3 | 23.9 |
| Food and Bait | 3.3 | 3.1 | 2.5 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Subtotal | 102.9 | 129.5 | 112.6 | 45.5 | 50.8 | 46.2 | 29.4 | 26.9 | 24.5 |
| **Groundfish** | | | | | | | | | |
| Halibut | 89.0 | 71.1 | 71.5 | 49.2 | 48.0 | 37.2 | 5.3 | 5.4 | 4.6 |
| Sablefish | 23.7 | 23.1 | 26.5 | 20.0 | 21.0 | 24.0 | 2.3 | 3.0 | 3.6 |
| Other Groundfish[5] | 150.1 | 144.3 | 126.2 | 66.4 | 60.7 | 64.1 | 118.5 | 104.4 | 107.5 |
| Subtotal | 262.8 | 238.5 | 224.2 | 135.6 | 129.7 | 125.3 | 126.1 | 112.8 | 115.7 |
| **Shellfish** | | | | | | | | | |
| Farmed | 30.9 | 28.5 | 25.6 | 15.9 | 14.8 | 17.2 | 8.6 | 8.8 | 8.9 |
| Wild | 195.7 | 181.1 | 182.4 | 119.3 | 107.6 | 129.5 | 20.2 | 18.6 | 20.1 |
| Subtotal | 226.6 | 209.6 | 208.0 | 135.2 | 122.4 | 146.7 | 28.8 | 27.4 | 29.0 |
| **Other** | | | | | | | | | |
| Tuna | 22.8 | 20.8 | 22.7 | 15.1 | 11.0 | 19.3 | 6.8 | 5.1 | 5.2 |
| Other | 1.4 | 2.5 | 1.9 | 1.0 | 0.6 | 1.2 | 1.7 | 1.0 | 1.7 |
| Subtotal | 24.2 | 23.3 | 24.6 | 16.1 | 11.6 | 20.5 | 8.5 | 6.1 | 6.9 |
| **Grand Total** | 1,110.3 | 1,160.0 | 1,055.6 | 636.8 | 661.4 | 647.2 | 304.0 | 290.8 | 268.9 |

E Estimates - Volume and value estimates are derived from information available to June 2004 that has been adjusted to account for missing data.
P Preliminary – Volumes and values are revised from previously published estimates but are not yet final.
1. Wholesale Value – The value of the fish after processing. All of the fish from the British Columbia landings are included in the wholesale value as well as all fish imported from outside British Columbia that has undergone processing within the province.
2. Landed Value – The price paid to the commercial fishers and/or aquaculturists for the whole fish. In aquaculture, this can also be referred to as farmgate value.
3. Landings – The round (whole) weight of the fish harvested from the British Columbia commercial fisheries or aquaculture operations.
4. The total wholesale value of wild salmon includes the value of salmon products such as offal, meal and oil which cannot be identified by species.
5. The total wholesale value for "Other Groundfish" includes the value of fish meal and oil which cannot be identified by species.

## British Columbia Commercial Fishing and Aquaculture Landings and Values 2001 - 2003

| | Wholesale Value ... $ Millions ... | | | Landed Value ... $ Millions ... | | | Landings ... '000 Tonnes ... | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2003E | 2002P | 2001P | 2003E | 2002P | 2001P | 2003E | 2002P | 2001P |
| Commercial Fishing | 769.2 | 771.2 | 705.7 | 364.6 | 357.0 | 358.6 | 222.6 | 197.7 | 191.9 |
| Aquaculture | 341.1 | 388.8 | 349.9 | 272.2 | 304.4 | 288.6 | 81.4 | 93.1 | 77.0 |
| **Total** | 1,110.3 | 1,160.0 | 1,055.6 | 636.8 | 661.4 | 647.2 | 304.0 | 290.8 | 268.9 |

E Estimates P Preliminary

*Production and values of British Columbia seafood are influenced by a variety of factors. Fluctuations in wild fish populations, competition in the marketplace, the degree to which raw material is value-added, and downturns in the economies of countries that are traditional markets all affect the amount of fish landed and its landed and wholesale value.*

# Commercial Fishing

In 2003, commercial fishing provided 73 per cent of all fish harvested in British Columbia. The 2003 season's harvest was up 13 per cent from the previous year, to 222,600 tonnes while the landed value was little changed at $364.6 million. Groundfish contributed the bulk of the commercial fishery harvest volume followed by salmon, herring and shellfish species. In terms of landed value, groundfish contributed the largest share of the total followed by shellfish, salmon and herring.

## Salmon

BC harvests 5 species of salmon from the Pacific Ocean; each species varies in life-cycle length, distribution, abundance and market demand. As a result, the BC salmon fishery experiences significant fluctuations in both volume and value of the harvest from year to year.

The 2003 commercial harvest of wild salmon was up 15 per cent, from 33,300 tonnes to 38,400 tonnes, while the corresponding landed value fell to $48.1 million from $57.3 million the previous year. The 16 per cent drop in the value is directly attributable to the species mix of the harvest where the lower-valued pink and chum dominated the landings with a combined 29,100 tonnes (76 per cent of wild salmon landings) but generated only $13.5 million (28 per cent of wild salmon landed value).

Conversely the sockeye harvest at 6,300 tonnes made up 16 per cent of the wild salmon harvest by weight with a total landed value of $24.1 million and a 50 per cent share of the total wild salmon landed value.

Also related to the species mix, the 2003 wholesale value of all salmon products marketed as a "Product of BC" was down 8 per cent to $183.6 million. Sockeye generated close to $72 million in wholesale value followed by chum at $43.7 million, pinks at $33.4 million, chinook at $16.9 million and coho at $14.2 million.

### Canned Salmon

Canned salmon production in British Columbia reached 552,707 cases in 2003. The pack was more than 79,000 cases higher than in 2002 due to a higher pink salmon pack which contributed 69 per cent of the total pack. Canned salmon, including added-value specialty canned items such as paté, smoked, and skinless-boneless salmon, generated $64.7 million representing a 26 per cent share of the total wholesale value of all wild salmon products.

Domestic sources of wild salmon contributed 75 per cent of the pack this year, similar to the 2002 share. In addition, the six major canneries accessed almost 4,600 tonnes of salmon from Alaska, which contributed 25 per cent of the total canned salmon production for the season. Wholesale revenues from the imported canned salmon are estimated at $17 million dollars.

## Herring

The 2003 harvest of all herring (including spawn-on-kelp) was 29,400 tonnes with a landed value of $45.5 million. The two key herring products are herring roe and herring spawn-on-kelp, which, combined, generated close to $100 million in wholesale value while the much smaller food and bait herring fishery generated $3 million in wholesale value.

**British Columbia Groundfish Production 2001 - 2003**

| | Wholesale Value ... $ Millions ... | | | Landed Value ... $ Millions ... | | | Landings ... '000 Tonnes ... | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2003[E] | 2002[P] | 2001[P] | 2003[E] | 2002[P] | 2001[P] | 2003[E] | 2002[P] | 2001[P] |
| Dogfish | 11.3 | 6.7 | 8.1 | 5.1 | 2.7 | 2.8 | 5.8 | 4.7 | 4.5 |
| Hake | 40.1 | 37.3 | 29.0 | 13.7 | 12.0 | 13.8 | 69.1 | 56.9 | 61.0 |
| Halibut | 89.0 | 71.1 | 71.5 | 49.2 | 48.0 | 37.2 | 5.3 | 5.4 | 4.6 |
| Lingcod | 8.3 | 7.9 | 7.4 | 5.4 | 5.2 | 4.2 | 2.7 | 2.7 | 2.4 |
| Pacific Cod | 3.8 | 4.7 | 3.7 | 0.8 | 1.0 | 0.6 | 0.8 | 0.7 | 0.5 |
| Pollock | 3.3 | 2.5 | 2.8 | 2.6 | 1.0 | 1.0 | 5.4 | 3.6 | 1.8 |
| Rockfish | 48.8 | 49.0 | 45.8 | 28.9 | 28.0 | 32.8 | 21.7 | 22.2 | 21.9 |
| Sablefish | 23.7 | 23.1 | 26.5 | 20.0 | 21.0 | 24.0 | 2.3 | 3.0 | 3.6 |
| Sole | 13.0 | 14.9 | 11.6 | 7.1 | 7.1 | 5.7 | 6.1 | 6.7 | 5.5 |
| Turbot | 2.1 | 3.0 | 5.2 | 1.3 | 2.4 | 2.3 | 4.3 | 5.2 | 8.2 |
| Other | 19.4 | 18.3 | 12.6 | 1.5 | 1.3 | 0.9 | 2.6 | 1.7 | 1.7 |
| Total | 262.8 | 238.5 | 224.2 | 135.6 | 129.7 | 125.3 | 126.1 | 112.8 | 115.7 |

E Estimates P Preliminary

## Groundfish

In 2003, the total British Columbia groundfish harvest was up 12 per cent to 126,100 tonnes of which 72 per cent, or 91,800 tonnes, was hake and rockfish. The landed value for all groundfish was up 4 per cent to $135.6 million and the wholesale value of groundfish products increased 10 per cent to $262.8 million. In terms of value, BC's dominant groundfish species are halibut, rockfish, sablefish and hake with sole and dogfish increasing in importance.

### Halibut

Halibut landings were slightly lower in 2003 at 5,300 tonnes, while the landed value increased to $49.2 million from $48 million in 2002 and accounted for 36 per cent of the landed value of all BC groundfish. Imported halibut is utilized extensively by BC fish plants to supplement the domestic supply. The wholesale value of all halibut products reached $89 million in 2003, contributing more than 33 per cent of the total wholesale value for all British Columbia groundfish.

### Hake

In 2003, Pacific hake was British Columbia's largest single-species harvest by weight at 69,100 tonnes which accounted for 31 per cent of the provincial total commercial harvest and 55 per cent of the groundfish harvest. Hake has a low landed price but with the large volume, the total landed value reached $13.7 million in 2003.

The 2003 season was the second year in which the entire hake catch was allocated for delivery to on-shore BC processing facilities. These facilities have expanded from the traditional surimi and mince products to include frozen dressed and frozen fillet products. The wholesale value of value-added hake showed a 7 per cent increase in 2003 to $40.1 million.

**British Columbia Shellfish Production**
**2001 - 2003**

| | Wholesale Value ... $ Millions ... | | | Landed Value ... $ Millions ... | | | Landings ... '000 Tonnes ... | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2003 E | 2002 P | 2001 P | 2003 E | 2002 P | 2001 P | 2003 E | 2002 P | 2001 P |
| **Farmed** | | | | | | | | | |
| Clams | 11.3 | 11.4 | 10.8 | 7.6 | 7.1 | 8.2 | 1.5 | 1.5 | 1.4 |
| Oysters | 17.7 | 15.6 | 13.7 | 7.6 | 7.2 | 8.5 | 7.0 | 7.2 | 7.4 |
| Scallops & Other | 1.9 | 1.6 | 1.1 | 0.7 | 0.5 | 0.5 | 0.13 | 0.09 | 0.11 |
| Subtotal | 30.9 | 28.5 | 25.6 | 15.9 | 14.8 | 17.2 | 8.6 | 8.8 | 8.9 |
| **Wild** | | | | | | | | | |
| Clams | 8.0 | 10.2 | 8.1 | 5.4 | 6.4 | 6.1 | 1.5 | 1.9 | 1.8 |
| Crabs | 61.4 | 51.8 | 50.9 | 37.8 | 28.2 | 36.5 | 7.0 | 4.2 | 5.8 |
| Geoducks | 49.3 | 51.4 | 60.1 | 32.0 | 38.1 | 39.2 | 1.7 | 1.8 | 1.8 |
| Scallops | 0.6 | 0.9 | 0.5 | 0.2 | 0.3 | 0.3 | 0.04 | 0.04 | 0.05 |
| Sea Cucumbers | 11.4 | 6.5 | 4.5 | 2.1 | 1.9 | 1.6 | 1.4 | 1.2 | 1.0 |
| Sea Urchins: Red | 14.9 | 17.7 | 16.7 | 7.2 | 8.0 | 7.8 | 4.3 | 4.8 | 4.5 |
| Sea Urchins: Green | 1.5 | 1.0 | 1.3 | 0.5 | 0.5 | 0.7 | 0.12 | 0.12 | 0.14 |
| Shrimp | 5.9 | 7.8 | 7.5 | 3.2 | 4.1 | 4.9 | 1.2 | 1.9 | 2.4 |
| Prawns | 41.0 | 32.0 | 32.1 | 29.9 | 18.9 | 31.7 | 2.2 | 1.8 | 2.0 |
| Other | 1.7 | 1.8 | 0.7 | 1.0 | 1.2 | 0.7 | 0.7 | 0.8 | 0.6 |
| Subtotal | 195.7 | 181.1 | 182.4 | 119.3 | 107.6 | 129.5 | 20.2 | 18.6 | 20.1 |
| **Total** | 226.6 | 209.6 | 208.0 | 135.2 | 122.4 | 146.7 | 28.8 | 27.4 | 29.0 |

E Estimates P Preliminary

## Shellfish

In 2003, the British Columbia wild shellfish harvest increased 8 per cent to 20,200 tonnes. The total landed value, at $119.3 million, showed a 10 per cent increase primarily due to a significant rise in volumes and value of the crab and prawn fisheries. The wholesale value of all British Columbia wild shellfish rose 8 per cent to $195.7 million.

### Crab

Crabs dominated the wild shellfish industry in 2003 when landings were up 66 per cent to 7,000 tonnes and strong prices generated a landed value of $37.8 million. The wholesale value of crab products rose more than 18 per cent to $61.4 million for a 31 per cent share of BC's wild shellfish sector.

### Geoduck Clams

The 2003 geoduck fishery produced 1,700 tonnes, generated $32 million and contributed 27 per cent of the total landed value of wild shellfish. Geoduck products generated $49.3 million in 2003, and represented 25 per cent of the total wholesale value of British Columbia wild shellfish products.

### Prawns

In 2003, the prawn harvest increased 22 per cent to 2,200 tonnes, while the landed value was up 58 per cent to almost $30 million. The wholesale value of prawn products rose from $32 million in 2002 to $41 million in 2003, a 28 per cent increase.

### Sea Cucumbers

Sea cucumbers are a relatively small harvest at 1,400 tonnes worth $2.1 million to the harvester. However, once processed into meat and skin products, sea cucumbers generated a wholesale value of $11.4 million in 2003, up from $6.5 million the year before.

## Aquaculture

British Columbia aquaculture operations are located throughout the province. Along the coast, marine finfish and shellfish farms produced 81,300 tonnes worth $271.7 million in farmgate value in 2003. Inland, the freshwater operations culture finfish for introduction to the saltwater (salmon), or for rearing in natural and man-made freshwater ponds, (trout, carp & char); these latter sites generated 120 tonnes of fish worth $500 thousand in farmgate value.

## Salmon

Farmed salmon production was down significantly in 2003 compared to 2002 levels. The 2003 harvest of farmed Atlantic, chinook and coho salmon was 72,700 tonnes - closer to the 2001 harvest levels. With a total farmgate value of $255.8 million and a wholesale value of $308 million, farmed salmon continued to be the number one seafood commodity in British Columbia.

## Shellfish

The combined harvest of farmed oysters, mussels, clams and scallops was little changed from 2002, at 8,600 tonnes. The farmgate value increased 7 per cent to $15.9 million.

At 7,000 tonnes the oyster harvest made up more than 81 per cent of the provincial shellfish aquaculture harvest by weight (in-shell), and generated $7.6 million in farmgate value. Oysters are sold in-shell and as a shucked (meat only) product, and in 2003 their wholesale value increased 13 per cent to $17.7 million.

By comparison, the farmed clam harvest, at 1,500 tonnes, contributed only 17 per cent of the harvest by volume but also generated $7.6 million. Farmed clams are primarily Manila clams which are sold almost exclusively in-shell. In 2003 the wholesale value of farmed clams was $11.3 million.

# The Outlook for 2004

Overall the 2004 salmon harvest will be lower than in 2003. Although sockeye landings are expected to be similar to 2003, the chum and pink harvests are expected to be down. The landed value will be down slightly as a result of the reduced harvest and the wholesale value will most likely show a decline as well.

### Farmed Salmon

Consolidation of production areas will limit the total harvest in 2004 as many sites located away from primary distribution channels will remain fallow. Increased site stocking will occur with a look towards higher harvests in 2005. Export markets are not expected to expand in 2004 and farmgate and wholesale values will remain similar to 2003.

### Herring

The roe herring harvest will be down and with markets for various roe products showing little change in 2004 the landed and wholesale values are expected to be lower than 2003 levels.

### Groundfish

With a record Total Allowable Catch (TAC) for Pacific hake anticipated for 2004 the total groundfish harvest will be up considerably from 2003. The sablefish TAC will also be up and as a result the overall total landed and wholesale value for groundfish is expected to increase over 2003 levels.

### Wild Shellfish

Harvest for most shellfish species are expected to be up over 2003 levels. The domestic and export markets remain steady and the demand for crabs, prawns and geoducks will sustain the sector with continued high landed and wholesale values.

### Farmed Shellfish

Shellfish expansion will continue as additional sites are established throughout coastal BC. Production is expected to increase in 2004 for all shellfish species. Markets may remain static however, and a minimal increase in farmgate value is expected. Value-added products should begin to emerge and the wholesale value may reflect this trend.

**British Columbia Seafood Industry 2004**

| | Harvest | Landed Value | Wholesale Value) |
|---|---|---|---|
| Wild Salmon | ↓ | ↓ | ↓ |
| Farmed Salmon | ↔ | ↔ | ↔ |
| Herring | ↓ | ↓ | ↓ |
| Halibut | ↔ | ↔ | ↑ |
| Groundfish | ↑ | ↑ | ↑ |
| Wild Shellfish | ↑ | ↑ | ↑ |
| Farmed Shellfish | ↑ | ↑ | ↑ |
| Other Species | ↔ | ↔ | ↔ |
| Total BC | ↔ | ↔ | ↔ |

# Significant Events 2003/4

## New Report - SWOT Assessment

www.agf.gov.bc.ca/fisheries/reports/SWOT2004.htm

A Ministry of Agriculture, Food and Fisheries (MAFF) - commissioned Strengths, Weaknesses, Opportunities, Threats (SWOT) assessment of the BC seafood sector (commercial fishing, aquaculture and processing) and the tidal water recreational fishing sector was completed in February 2004. A SWOT assessment is a strategic planning tool used to identify the major factors affecting competitiveness and viability including current influences (**S**trengths and **W**eaknesses), and potential future developments (**O**pportunities and **T**hreats) to a business or sector. Some of the key themes identified by the MAFF assessment are:

- Both the BC seafood industry and the recreational fishery need to be more effective in adapting to global market conditions and repositioning to meet those conditions;
- Environmental sustainability is becoming a critical factor in the marketplace;
- Government regulation and policy actions should be efficient, timely and prudent in order to facilitate business planning in the industry;
- There is a need to shift from a production-driven sector to a market-driven one;
- The federal *Species at Risk Act* will have major implications for the salmon industry; and
- Human resources issues, such as an ageing workforce and lack of training in new technologies are a pending problem.

MAFF is reviewing the report and will work with the BC Seafood Alliance, other industry organizations and government agencies to identify and tackle the next steps in the development of a strategy to renew the BC fisheries.

# Salmon Aquaculture Policy Updates

In developing its Salmon Aquaculture Policy (2001), government evaluated salmon farming based on environmental standards, technological development and consultation with communities. Government continues to address fish health, waste management, escape management, compliance and enforcement, research and development, and farm siting and relocation.

### Fish Health

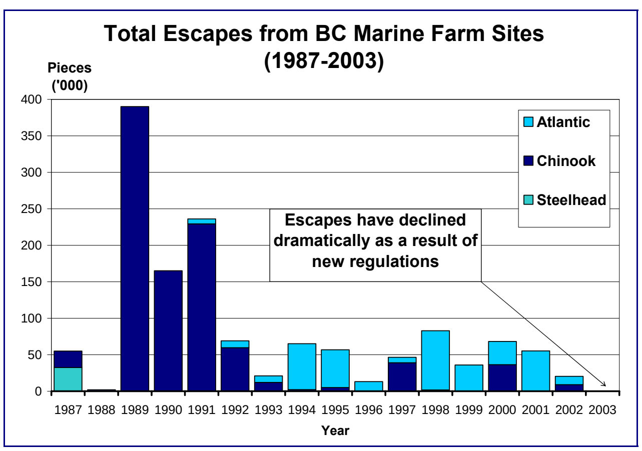
www.agf.gov.bc.ca/fisheries/health/index.htm

- Sea lice workshop February 13, 2003 / Sea lice science forum February 22-24, 2003.
- Sea lice technical workshop January 27-28, 2004 provided information on the biology, ecology and identification of sea lice as well as an overview on the techniques of fish health sampling and sea lice counting.
- Mandatory Fish Health Management Plans for all marine finfish sites. The plans encompass all aspects of on-farm management affecting fish health from routine handling and therapeutant treatments to monitoring and reporting of all mortality and fish health events that occur.
- Mandatory sea lice monitoring extended to entire industry.
- MAFF auditing of sea lice levels on farms.
- Support for federal field research on sea lice and wild salmon.
- 2 new fish health bio-technicians have been primarily tasked with the organization and implementation of the Fish Health Surveillance and Sea Lice Monitoring programs.
- Infectious Hematopoietic Necrosis Virus (IHNV) workshops. In January 2003 researchers, industry, government, First Nations and community representatives participated in a workshop to identify IHNV research priorities to manage this viral disease that has caused significant loss of farmed Atlantic salmon in BC.

### Escape Management

www.agf.gov.bc.ca/fisheries/escape/escape_reports.htm

- A total of 40 fish were reported lost in 2003 (down from 20,455 in 2002)




### Compliance and Enforcement

www.agf.gov.bc.ca/fisheries/compl/ce_main.htm

- 2 new fisheries inspectors were hired by the MAFF Licensing and Compliance Branch to expand the ministry's presence in the aquaculture and commercial fisheries sectors and to further enhance enforcement abilities.
- New MAFF/ Ministry of Water, Land and Air Protection (WLAP) Finfish Inspection Checklist material was drafted.
- Staff inspected finfish farms regularly to ensure compliance with mandatory reporting of escapes. These inspections assess regulatory and policy issues for MAFF, WALP and Land and Water BC (LWBC) in keeping with the joint agency Service Agreement.
- The joint MWLAP/ MAFF 3rd Annual Inspection Report on Marine Finfish Aquaculture Sites (2002) was released in November 2003.
- The 4th Annual Inspection Report for 2003 will be released in September 2004. A total of 77 marine finfish sites were inspected during the 2003 cycle.
- Enhanced cross-compliance efforts with other agencies, most notably Fisheries and Oceans Canada (DFO), by conducting joint inspections, investigations and broadened communication efforts.

### Waste Management

- Fish Farm Waste Workshop in Victoria (Nov. 7, 2003).

### Research and Development

www.agf.gov.bc.ca/fisheries/rd_main.htm

In 2003, the BC Aquaculture Research and Development Committee awarded *Aquaculture and the Environment* funding, provided by the province, for the following studies:

- Assessing the impact of sea lice on the recruitment of pink salmon in the Broughton Archipelago and surrounding area;
- Origin of sea lice on juvenile pink salmon in the Broughton Archipelago;
- Interaction between the sea louse (*Lepeoptheirus salmonis*) and wild and farmed salmonids. Laboratory and field investigations into louse origin, susceptibility and lethal loading, using sentinel cages and biomolecular markers.
- Evaluation and pilot-scale study on bloodwater management and disposal; and
- Shellfish culture and particulate matter production and cycling.

### Siting and Relocation

www.lwbc.bc.ca/02land/tenuring/aquaculture/finfish/salmon_relocation.pdf

- 5 relocations completed in 2003.
- Seabed bathymetry data collected for marine fish farms.
- Sonar seabed classification catalogue being developed for marine fish farms.
- Ongoing visual and geochemical monitoring of seabeds under fish farms.

# Economic Measures Fund (EMF)

www.gov.bc.ca/tno/popt/eco_meas_fund.htm

MAFF coordinated more than $1 million in contribution agreements under the EMF with First Nations to support economic development measures. Examples include:

- Developing a Market Branding Strategy for Nuu-Chah-Nulth fisheries products to maximize the value of cultured shellfish and specific wild fisheries produced in their territory;
- The First Nations Shellfish Aquaculture Training Strategy, directed by Malaspina University-College, to provide relevant and accessible education and training to, and facilitate the development and operation of shellfish aquaculture businesses by BC First Nations people in First Nations communities;

- Assessments by Oweekeno First Nation along the BC Central Coast to examine the potential of developing a new exploratory fishery for the Tanner Crab (*Chionoecetes bairdi*) in their traditional territories; and
- A three-year project to develop an experimental gooseneck barnacle fishery on the west coast of Vancouver Island. The stock assessments have enabled the fishery to begin in January 2004 and in the first three months the landed value was reported to be $70,000.

## New Report – Native Participation in BC Commercial Fisheries

www.agf.gov.bc.ca/fisheries/reports/NativeParticipationBCFishing03.pdf

Released in November 2003 this MAFF-commissioned report provides base-line data on the current level of BC Native/First Nations participation – an important requirement in order to understand the impact of government policies on economic opportunities and activities in commercial fishing. Highlights include:

- First Nations hold or operate 26.9% of all commercial licences;
- First Nations own or operate 21% of the commercial fleet;
- First Nation participation varies from 0% in some fisheries to 80% of the quota in the herring spawn-on-kelp fishery; and,
- 14.2% of the recent average value of all commercial fisheries in BC is harvested under First Nations-held authorities to fish.

## Seafood Summit – "Challenges Ahead"

www.bcseafoodalliance.com/Summit2004.htm

On January 7, 2004, the BC Seafood Alliance, with funding support from MAFF, held the third Summit focused on many of the issues that will affect the BC seafood industry in the near future. Major topics discussed included:

- The federal *Species at Risk Act*;
- Challenges and opportunities presented in the MAFF SWOT Assessment; and
- Global aquaculture industry and BC seafood, and implications of increasing requirements for full traceability of food products from harvest through to consumer.

Previous Summit topics were "Sustainability through Co-Management" in 2002 and a "Vision for a Modern Seafood Industry" in 2000.

## New Pacific Council of Fisheries and Aquaculture Ministers (PCFAM)

www2.news.gov.bc.ca/nrm_news_releases/2003AGF0030-001141.htm

The Canada, BC and Yukon Ministers responsible for fisheries entered into an agreement which was the basis for the formation of the Pacific Council of Fisheries and Aquaculture Ministers. The council's objective is to strengthen cooperation and coordination between the three governments on the management of Pacific fisheries, oceans, aquaculture, and aquatic habitat issues. Topics for discussion at the first meeting, in December 2003, included:

- Aquaculture;
- Harmonization/DFO Habitat Risk Management Framework;
- Development of a Memorandum of Understanding (MOU) for implementation of Canada's Oceans Strategy in BC;
- Canada-British Columbia Joint Task Group on Post Treaty Fisheries; and
- Federal *Species at Risk Act*.

## MOU on Implementation of Canada's Oceans Strategy on the Pacific Coast

The Ministry of Sustainable Resource Management (MSRM) has been leading the development of an MOU with DFO and other federal agencies and provincial ministries to establish priorities for implementing Canada's Oceans Strategy (www.cos-soc.gc.ca/doc/cos-soc/index_e.asp) on the Pacific coast.

## Canada-British Columbia Joint Task Group on Post Treaty Fisheries (JTG)

The federal and provincial ministers appointed Donald M. McRae and Peter H. Pearse in July 2003 to look at post-treaty fisheries issues. Their May 2004 report *Treaties and Transition* (www.gov.bc.ca/tno/down/pearse_mcrae_report-joint_fish_task_group.pdf) explored options for the implementation of fisheries arrangements that support treaty settlements in order to bring greater certainty to all fishing groups in the post-treaty era. Key outcomes of the approach recommended in the report are:

- A fully integrated commercial fishery with all participants operating on an equal footing;
- A more responsive management system;
- Adoption of co-management with meaningful stakeholder participation;
- Enhanced security of tenure (long-term licences);
- Enhanced certainty of harvest shares (individual quotas); and
- Transitional arrangements with First Nations.

The advice contained in the report is being evaluated by the federal and provincial governments.

## National Seafood Value-Chain Roundtable

Initiated and funded by Agriculture and AgriFood Canada in 2003, this forum includes seafood industry representatives (catch and harvest through to retail) plus federal and provincial members. The roundtable looks at barriers to, and strategies for, expansion of the export market for Canadian seafood products.

A range of competitive issues, government mandates and strategies to brand Canada have been reviewed and discussed. It is expected that this forum, in conjunction with the BC SWOT Assessment and Pearse-McRae Report, will provide a basis on which a solid strategy can be developed to revitalize the BC seafood industry.

## Organic Certification for Aquaculture

www.certifiedorganic.bc.ca/rcbtoa/services/aquaculture-standards.html

The Certified Organic Associations of BC (COABC) is reviewing a draft of standards for organic aquaculture production that was developed in cooperation with multiple stakeholders. MAFF has provided informational support to the COABC's Aquaculture Standard Review Sub-committee throughout their standards development process. If accepted, the standards would allow producers who meet requirements to market their products as "BC Certified Organic" both within BC and for export.

## Marine Stewardship Council Update

The Marine Stewardship Council (MSC) has developed an environmental standard and certification process for sustainable and well-managed fisheries. It creates a market demand for certified fisheries through use of a product label. Two BC fisheries are currently in the formal assessment phase of the MSC certification process:

- The non-aquaculture sectors of the BC salmon fishery (www.msc.org/html/content_493.htm) initiated this phase in 2002. It is expected that the industry submission on the key sockeye salmon fishery will be provided to the third-party certifier in 2004 and that the process will be completed in time to certify the 2005 fishery; and
- The BC halibut industry, in conjunction with the US Pacific halibut industry, entered into the full assessment phase in 2003 and will be evaluated against performance indicators and criteria that has been reviewed and accepted by stakeholders. It is expected the assessment will be completed in 2005. (www.msc.org/html/content_784.htm)

## Sustainability Initiatives

### Groundfisheries Management

www-ops2.pac.dfo-mpo.gc.ca/xnet/content/MPLANS/plans04/html/groundfishtrawl/gfish_trawl.htm

DFO, MAFF, the commercial groundfish fishing industry, certain conservation groups, First Nations, coastal communities, labour and sports fishing groups are working together to create a comprehensive and integrated approach to the management of the commercial groundfish fishery on the West Coast of Canada to:

- Reduce by-catch and discards;
- Improve the transferability of quotas amongst fisheries that harvest multiple species and stocks;
- Increase the economic value of the catch; and
- Improve harvest monitoring and accountability.

A Commercial Industry Caucus made up of representatives from each licensed groundfish fishery and processors will develop proposals for review by the multi-stakeholder Commercial Groundfish Integrated Advisory Committee and eventual recommendation to government. The process is expected to last several years.

### Pacific Salmon Advisory Process

www-ops2.pac.dfo-mpo.gc.ca/xnet/content/consultations/salmon/CSAB/default_e.htm

Following on the 2001 report by the Institute for Dispute Resolution on improved decision-making for the Pacific salmon fishery, DFO has established a salmon advisory process which includes eight Area/Gear Commercial Harvest Committees that report to a Commercial Salmon Advisory Board (CSAB) with north and south subcommittees. The Board consists of representatives from the harvest committees, processors, UFAWU and the Native Brotherhood. MAFF has an ex-officio position on the commercial board.

The CSAB will serve as the primary consultative body on issues that affect commercial salmon fisheries. Above the Board level there is a multi-stakeholder Integrated Salmon Harvest Planning Committee.

The Area/Gear Harvest Committees and the Commercial Board, with governments, will develop the commercial components of each year's Integrated Salmon Management Plans (IFMP) and the Integrated Salmon Harvest Planning Committee is intended to resolve cross-sector IFMP issues. MAFF assisted the commercial sector by funding salmon harvester representatives to work with governments on the structure and function of the advisory process.

### Rockfish Conservation

www.pac.dfo-mpo.gc.ca/comm/pages/consultations/fisheriesmgmt/rockfish/default_e.htm

Effective April 1, 2004, DFO established 89 new Rockfish Conservation Areas to protect and rebuild inshore rockfish populations. These represent approximately 10 percent of prime rockfish habitat and are closed to all forms of commercial and recreational fishing that cause significant rockfish mortality.

The closed areas are part of a broader Rockfish Conservation Strategy that has seen a 50-75% reduction in commercial TACs and sport limits, improved catch monitoring and increased research on inshore rockfish. MAFF is an active participant in the DFO Rockfish Conservation Strategy.

### Pacific Hake

www.pac.dfo-mpo.gc.ca/comm/pages/release/p-releas/2003/nr066_e.htm

In February 2003, Canada and USA signed an agreement on the management, conservation and allocation of Pacific hake. For 2004, both sides agree to abide by the principles of the agreement which allocates 26.12% of the offshore Pacific hake TAC to Canada and 73.88% to the US. The US is expected to ratify the agreement before the next season.

On May 14, 2004, DFO announced the management measures for the 2004 Pacific hake commercial fishery. Due to the presence of the strong 1999 year-class, the Canadian TAC is a record 134,000 tonnes. This comes at a time when prices and markets for hake surimi are very weak. As a result, several large BC processing plants announced that they would not operate for the 2004 season.

In order for Canadian industry to fully benefit from the exceptional TAC, governments agreed to a one-year reinstatement of the joint venture program, which allows Canadian trawlers to deliver hake directly to at-sea processors. (www.pac.dfo-mpo.gc.ca/comm/pages/release/p-releas/2004/nr029_e.htm) Canadian TAC was allocated 50,000 tonnes to onshore processors and 50,000 tonnes for delivery to at-sea processors involved in the joint venture program, and held 34,000 tonnes in reserve. Specific management measures ensure remaining onshore processors have clear access to supplies of hake.

Data Sources:
All wild fisheries landings are provided by Fisheries and Oceans Canada, Pacific Region. (Preliminary values for 2001 and 2002 and estimates for 2003 have been adjusted.)

All seafood finished products and wholesale values as well as aquaculture industry harvests and farmgate values are compiled by the provincial Ministry of Agriculture, Food and Fisheries.

We encourage you to send us your comments on this publication and any suggestions for future issues to:

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