## Aquaculture Statistics

## 2011



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## Aquaculture Statistics

2011

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... not applicable
0 true zero or a value rounded to zero
0 s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
p preliminary
r revised
x suppressed to meet the confidentiality requirements of the Statistics Act
E use with caution
F too unreliable to be published

* $\quad$ significantly different from reference category ( $p<0.05$ )


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## Note to users

Aquaculture is defined as the managed production of fish. In Canada, the industry is dominated by the production of finfish, primarily salmon off the coasts of British Columbia and New Brunswick. Production of shellfish is smaller with Prince Edward Island and British Columbia being the major producing provinces.

The annual publication, Aquaculture Statistics $23-222-X$, presents an overview of this sector using data collected from the Survey of Aquaculture Industry. The survey is designed to provide economic variables that result in the aquaculture value added account, which measures the economic production (value added) of goods and services from aquaculture establishments.

The data presented are used by aquaculture industry analysts and producers as they make production and marketing decisions and by government analysts or special interest groups to monitor the industry or develop policies related to aquaculture in Canada. The data are also used in the Canadian System of National Accounts to develop provincial and national level accounts.

## Highlights

- Operating revenues amounted to $\$ 838.4$ million in 2011, a decrease of $15.2 \%$ from 2010.
- Finfish sales, which accounted for $89.8 \%$ of total operating revenue in 2011, decreased $16.9 \%$ to $\$ 753.2$ million. This decrease was mainly due to a drop in farmgate prices.
- The gross value added to the economy by the aquaculture industry dropped to $\$ 300.6$ million, down $29.9 \%$ from 2010.
- The value of total exports of farmed salmon including fillets decreased $7.9 \%$ in 2011 , while the value of farmed mussel exports increased $7.8 \%$ compared to 2010.


## Chart 1

## Canadian finfish production



## Chart 2

Canadian shellfish production


Chart 3
Canadian exports of atlantic salmon and atlantic salmon fillets


Chart 4
Percentage of gross value-added compared to the value of production


## Related products

Selected publications from Statistics Canada
21-207-X Statistics on income of farm families

Selected CANSIM tables from Statistics Canada

003-0001
003-0003

Aquaculture, production and value
Aquaculture economic statistics, value added account

## Selected surveys from Statistics Canada

## Selected summary tables from Statistics Canada

- Canadian Statistics - Aquaculture industry, by selected provinces


## Statistical tables

Table 1-1
Aquaculture, production and value, by province and Canada - 2007

|  | Newfoundland and Labrador | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tonnes |  |  |  |  |  |  |  |  |  |  |
| Production |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | $x$ | x | 6,936 | 24,575 | 0 | 0 | 0 | 0 | 0 | 70,998 | 102,509 |
| Trout | 0 | x | 118 | 300 | .. | 4,100 | 21 | x | x | 505 | 5,044 |
| Steelhead | x | 0 | x | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other finfish | x | x | x | x | .. | x | x | x | x | x | 7,745 |
| Total finfish | 5,770 | 14 | 7,053 | 24,875 | 543 | 4,100 | 21 | x | x | 71,503 | 115,297 |
| Clams | 0 | 0 | 211 | 0 | 0 | 0 | 0 | 0 | 0 | 1,658 | 1,869 |
| Oysters | 0 | 2,812 | 199 | 571 | 0 | 0 | 0 | 0 | 0 | 7,483 | 11,065 |
| Mussels | 2,600 | 17,052 | 2,476 | 550 | 614 | 0 | 0 | 0 | 0 | 543 | 23,835 |
| Scallops | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 157 | 168 |
| Other shellfish | 0 | 0 | 230 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 241 |
| Total shellfish | 2,600 | 19,864 | 3,127 | 1,121 | 625 | 0 | 0 | 0 | 0 | 9,841 | 37,178 |
| Total aquaculture | 8,370 | 19,878 | 10,181 | 25,996 | 1,168 | 4,100 | 21 | x | x | 81,344 | 152,475 |
| Re-stocking ${ }^{1}$ | . | . | . | . | 585 | . | . | . | . |  | 585 |
| Total aquaculture (including re-stocking) ${ }^{1}$ | 8,370 | 19,878 | 10,181 | 25,996 | 1,753 | 4,100 | 21 | x | x | 81,344 | 153,060 |
|  | thousands of dollars |  |  |  |  |  |  |  |  |  |  |
| Value |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | $x$ | x | 39,209 | 181,609 | 0 | 0 | 0 | 0 | 0 | 384,099 | 604,917 |
| Trout | 0 | x | 1,084 | 3,000 |  | 17,000 | 87 | x | x | 2,399 | 23,570 |
| Steelhead | x | 0 | x | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other finfish | x | x | x | x | .. | X | X | X | x | X | 54,877 |
| Total finfish | 35,200 | 1,700 | 40,293 | 184,609 | 3,173 | 17,000 | 87 | x | x | 386,498 | 683,364 |
| Clams | 0 | 0 | 408 | 0 | 0 | 0 | 0 | 0 | 0 | 9,305 | 9,713 |
| Oysters | 0 | 6,700 | 821 | 600 | 0 | 0 | 0 | 0 | 0 | 8,605 | 16,726 |
| Mussels | 4,800 | 21,800 | 3,461 | 600 | 798 | 0 | 0 | 0 | 0 | 2,481 | 33,940 |
| Scallops | 0 | 0 | 197 | 0 | 0 | 0 | 0 | 0 | 0 | 877 | 1,074 |
| Other shellfish | 0 | 0 | 7,808 | 0 | 64 | 0 | 0 | 0 | 0 | 0 | 7,872 |
| Total shellfish | 4,800 | 28,500 | 12,696 | 1,200 | 862 | 0 | 0 | 0 | 0 | 21,268 | 69,326 |
| Total aquaculture | 40,000 | 30,200 | 52,989 | 185,809 | 4,035 | 17,000 | 87 | x | x | 407,766 | 752,690 |
| Re-stocking ${ }^{1}$ | . | . | . | . | 8,880 | . | . | . | - | . | 8,880 |
| Total aquaculture (including re-stocking) ${ }^{1}$ | 40,000 | 30,200 | 52,989 | 185,809 | 12,915 | 17,000 | 87 | x | x | 407,766 | 761,570 |

1. Sales to outfitters: operations offering lodging and services for hunting, fishing and trapping.

Note(s): The production and value of aquaculture includes the amount and value produced on sites and excludes hatcheries or processing. Shellfish also includes some wild production. The data are collected from each of the provincial departments responsible for aquaculture.

Table 1-2
Aquaculture, production and value, by province and Canada - 2008

|  | Newfoundland and Labrador | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tonnes |  |  |  |  |  |  |  |  |  |  |
| Production |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | .. | 4,810 | 26,000 | 0 | 0 | 0 | 0 | 0 | 73,265 | 104,075 |
| Trout | . | . | x | 500 | 379 | 4,335 | x | x | x | 635 | 7,932 |
| Steelhead | .. | .. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other finfish | .. | .. | x | 0 | 79 | 0 | $x$ | 0 | x | 437 | 868 |
| Total finfish | .. | 14 | 5,045 | 26,500 | 459 | 4,335 | x | x | x | 74,337 | 112,890 |
| Clams | .. | 0 | 329 | 0 | 0 | 0 | 0 | 0 | 0 | 1,305 | 1,634 |
| Oysters | .. | 2,565 | 151 | 598 | 0 | 0 | 0 | 0 | 0 | 5,670 | 8,984 |
| Mussels | .. | 16,920 | 1,677 | 500 | 453 | 0 | 0 | 0 | 0 | 285 | 19,835 |
| Scallops | .. | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 276 | 285 |
| Other shellfish | . | 0 | 126 | 0 | 65 | 0 | 0 | 0 | 0 | 0 | 191 |
| Total shellfish | .. | 19,484 | 2,292 | 1,098 | 518 | 0 | 0 | 0 | 0 | 7,536 | 30,928 |
| Total aquaculture | 11,545 | 19,498 | 7,337 | 27,598 | 977 | 4,335 | x | x | x | 81,873 | 155,362 |
| Re-stocking ${ }^{2}$ | . | . | . | . | 868 | . | . | . | . | . | 868 |
| Total aquaculture (including re-stocking) ${ }^{2}$ | 11,545 | 19,498 | 7,337 | 27,598 | 1,844 | 4,335 | x | x | x | 81,873 | 156,230 |
|  | thousands of dollars |  |  |  |  |  |  |  |  |  |  |
| Value |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | .. | 23,175 | 192,140 | 0 | 0 | 0 | 0 | 0 | 409,267 | 624,582 |
| Trout | .. | .. | x | 5,000 | 2,040 | 17,620 | x | x | x | 2,958 | 41,358 |
| Steelhead | . | .. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other finfish | .. | .. | x | 0 | 533 | 0 | x | 0 | x | 4,634 | 8,874 |
| Total finfish | .. | 1,624 | 25,200 | 197,140 | 2,573 | 17,620 | x | x | x | 416,859 | 676,438 |
| Clams | .. | 0 | 1,424 | 0 | 0 | 0 | 0 | 0 | 0 | 7,211 | 8,635 |
| Oysters | .. | 5,654 | 652 | 628 | 0 | 0 | 0 | 0 | 0 | 6,542 | 13,476 |
| Mussels | .. | 22,381 | 2,430 | 545 | 589 | 0 | 0 | 0 | 0 | 1,281 | 27,227 |
| Scallops | .. | 0 | 160 | 0 | 0 | 0 | 0 | 0 | 0 | 1,167 | 1,327 |
| Other shellfish | .. | 0 | 6,326 | 0 | 171 | 0 | 0 | 0 | 0 | 0 | 6,497 |
| Total shellfish | .. | 28,035 | 10,992 | 1,173 | 760 | 0 | 0 | 0 | 0 | 16,201 | 57,162 |
| Total aquaculture | 63,120 | 29,659 | 36,192 | 198,313 | 3,333 | 17,620 | x | x | x | 433,060 | 796,719 |
| Re-stocking ${ }^{2}$ | . | - | . | . | 9,004 | . | . | . | . | . | 9,004 |
| Total aquaculture (including re-stocking) ${ }^{2}$ | 63,120 | 29,659 | 36,192 | 198,313 | 12,337 | 17,620 | x | x | x | 433,060 | 805,724 |

1. Provinces with data not available are not included in the Canada totals.
2. Sales to outfitters: operations offering lodging and services for hunting, fishing and trapping.

Note(s): The production and value of aquaculture includes the amount and value produced on sites and excludes hatcheries or processing. Shellfish also includes some wild production. The data are collected from each of the provincial departments responsible for aquaculture.

Table 1-3
Aquaculture, production and value, by province and Canada - 2009

|  | Newfoundland and Labrador | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tonnes |  |  |  |  |  |  |  |  |  |  |
| Production |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | . | 7,550 | 24,000 | 0 | 0 | 0 | 0 | 0 | 68,662 | 100,212 |
| Trout | .. | .. | 133 | 150 | 380 | 4,375 | x | x | x | 523 | 7,198 |
| Steelhead | .. | .. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other finfish | .. | .. | 93 | 0 | 104 | 0 | x | 0 | x | 839 | 1,429 |
| Total finfish | .. | 4 | 7,777 | 24,150 | 484 | 4,375 | x | x | x | 70,024 | 108,843 |
| Clams | .. | 0 | 539 | 0 | 0 | 0 | 0 | 0 | 0 | 1,359 | 1,898 |
| Oysters | .. | 2,281 | 159 | 638 | 0 | 0 | 0 | 0 | 0 | 5,735 | 8,813 |
| Mussels | .. | 18,639 | 1,893 | 95 | 522 | 0 | 0 | 0 | 0 | 312 | 21,461 |
| Scallops | .. | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 385 | 388 |
| Other shellfish | .. | 0 | 147 | 0 | 27 | 0 | 0 | 0 | 0 | 530 | 704 |
| Total shellfish | .. | 20,920 | 2,741 | 733 | 549 | 0 | 0 | 0 | 0 | 8,321 | 33,264 |
| Total aquaculture | 13,625 | 20,924 | 10,518 | 24,883 | 1,033 | 4,375 | x | x | x | 78,345 | 155,732 |
| Re-stocking ${ }^{2}$ | - | . | . | . | 805 | . | . | . | . | . | 805 |
| Total aquaculture (including re-stocking) ${ }^{2}$ | 13,625 | 20,924 | 10,518 | 24,883 | 1,838 | 4,375 | x | x | x | 78,345 | 156,537 |
|  | thousands of dollars |  |  |  |  |  |  |  |  |  |  |
| Value |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | . | 45,774 | 159,000 | 0 | 0 | 0 | 0 | 0 | 394,151 | 598,925 |
| Trout | .. | .. | 1,330 | 670 | 2,094 | 17,820 | x | x | x | 2,944 | 32,899 |
| Steelhead | .. | .. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other finfish | .. | .. | 543 | 0 | 798 | 0 | x | 0 | x | 7,576 | 11,687 |
| Total finfish | .. | 1,828 | 47,646 | 159,670 | 2,892 | 17,820 | x | x | x | 404,671 | 645,338 |
| Clams | .. | 0 | 2,057 | 0 | 0 | 0 | 0 | 0 | 0 | 7,407 | 9,464 |
| Oysters | .. | 5,075 | 676 | 4,000 | 0 | 0 | 0 | 0 | 0 | 7,043 | 16,794 |
| Mussels | .. | 24,655 | 2,629 | 120 | 679 | 0 | 0 | 0 | 0 | 1,389 | 29,472 |
| Scallops | .. | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 1,649 | 1,672 |
| Other shellfish | .. | 0 | 4,847 | 0 | 93 | 0 | 0 | 0 | 0 | 593 | 5,533 |
| Total shellfish | .. | 29,730 | 10,231 | 4,120 | 772 | 0 | 0 | 0 | 0 | 18,081 | 62,935 |
| Total aquaculture | 92,100 | 31,558 | 57,878 | 163,790 | 3,665 | 17,820 | x | x | x | 422,752 | 800,373 |
| Re-stocking ${ }^{2}$ | . | . | . | . | 8,623 | . | . | . | . | . | 8,623 |
| Total aquaculture (including re-stocking) ${ }^{2}$ | 92,100 | 31,558 | 57,878 | 163,790 | 12,287 | 17,820 | x | x | x | 422,752 | 808,995 |

1. Provinces with data not available are not included in the Canada totals.
2. Sales to outfitters: operations offering lodging and services for hunting, fishing and trapping.

Note(s): The production and value of aquaculture includes the amount and value produced on sites and excludes hatcheries or processing. Shellfish also includes some wild production. The data are collected from each of the provincial departments responsible for aquaculture.

Table 1-4
Aquaculture, production and value, by province and Canada - 2010

|  | Newfoundland and Labrador | Prince Edward Island | Nova Scotia | New <br> Brunswick | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tonnes |  |  |  |  |  |  |  |  |  |  |
| Production |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | . | 5,088 | 25,625 | 0 | 0 | 0 | 0 | 0 | 70,831 | 101,544 |
| Trout | .. | .. | 91 | 150 | 337 | 4,060 | x | x | X | 600 | 6,844 |
| Steelhead | .. |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other finfish | .. | .. | 62 | 0 | 71 | 0 | x | 0 | x | 884 | 1,291 |
| Total finfish | 12,899 | .. | 5,241 | 25,775 | 408 | 4,060 | x | x | x | 72,315 | 122,577 |
| Clams | 0 | 0 | 438 | 0 | 0 | 0 | 0 | 0 | 0 | 1,485 | 1,923 |
| Oysters | 0 | 2,478 | 205 | 881 | 0 | 0 | 0 | 0 | 0 | 7,550 | 11,113 |
| Mussels | 2,461 | 20,112 | 2,121 | 95 | 523 | 0 | 0 | 0 | 0 | 364 | 25,675 |
| Scallops | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 695 | 697 |
| Other shellfish | 0 | 0 | 110 | 0 | 23 | 0 | 0 | 0 | 0 | 26 | 160 |
| Total shellfish | 2,461 | 22,589 | 2,877 | 976 | 546 | 0 | 0 | 0 | 0 | 10,120 | 39,569 |
| Total aquaculture | 15,360 | 22,589 | 8,118 | 26,751 | 954 | 4,060 | x | x | x | 82,435 | 162,146 |
| Re-stocking ${ }^{2}$ | . | . | . | . | 874 | . | . | . | . | . | 874 |
| Total aquaculture (including re-stocking) ${ }^{2}$ | 15,360 | 22,589 | 8,118 | 26,751 | 1,828 | 4,060 | x | x | x | 82,435 | 163,020 |
|  | thousands of dollars |  |  |  |  |  |  |  |  |  |  |
| Value |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | .. | 32,040 | 162,000 | 0 | 0 | 0 | 0 | 0 | 499,608 | 693,648 |
| Trout | . | .. | 891 | 700 | 1,813 | 17,100 | x | x | x | 4,852 | 33,251 |
| Steelhead | .. | .. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other finfish | . | .. | 375 | 0 | 482 | 0 | x | 0 | x | 10,800 | 13,795 |
| Total finfish | 100,301 | 2,200 | 33,307 | 162,700 | 2,295 | 17,100 | x | x | x | 515,260 | 843,195 |
| Clams | .. | 0 | 190 | 0 | 0 | 0 | 0 | 0 | 0 | 8,159 | 8,349 |
| Oysters | ... | 5,844 | 720 | 3,355 | 0 | 0 | 0 | 0 | 0 | 8,957 | 18,876 |
| Mussels | 6,009 | 26,603 | 2,548 | 100 | 680 | 0 | 0 | 0 | 0 | 1,809 | 37,748 |
| Scallops | .. | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 2,904 | 2,919 |
| Other shellfish | . | 0 | 4,521 | 0 | 90 | 0 | 0 | 0 | 0 | 1,401 | 6,012 |
| Total shellfish | 6,009 | 32,447 | 7,994 | 3,455 | 769 | 0 | 0 | 0 | 0 | 23,230 | 73,905 |
| Total aquaculture | 106,310 | 34,647 | 41,301 | 166,155 | 3,065 | 17,100 | x | x | x | 538,490 | 917,100 |
| Re-stocking ${ }^{2}$ | . | . | . | . | 8,852 | . | . | . | . | . | 8,852 |
| Total aquaculture (including re-stocking) ${ }^{2}$ | 106,310 | 34,647 | 41,301 | 166,155 | 11,917 | 17,100 | x | x | x | 538,490 | 925,952 |

1. Provinces with data not available are not included in the Canada totals.
2. Sales to outfitters: operations offering lodging and services for hunting, fishing and trapping.

Note(s): The production and value of aquaculture includes the amount and value produced on sites and excludes hatcheries or processing. Shellfish also includes some wild production. The data are collected from each of the provincial departments responsible for aquaculture.

Table 1-5
Aquaculture, production and value, by province and Canada - 2011

|  | Newfoundland and Labrador | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tonnes |  |  |  |  |  |  |  |  |  |  |
| Production |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | . | 5,624 | 21,560 | 0 | 0 | 0 | 0 | 0 | 74,880 | 102,064 |
| Trout | . | .. | 124 | 80 | 349 | 3,738 | x | x | x | 630 | 6,511 |
| Steelhead | .. | .. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other finfish | .. | .. | 69 | 0 | 71 | 0 | x | 0 | x | 360 | 728 |
| Total finfish | 14,264 | .. | 5,817 | 21,640 | 420 | 3,738 | x | x | x | 75,870 | 123,567 |
| Clams | 0 | 0 | 341 | 0 | 0 | 0 | 0 | 0 | 0 | 1,300 | 1,641 |
| Oysters | 0 | 2,525 | 246 | 609 | 0 | 0 | 0 | 0 | 0 | 7,500 | 10,880 |
| Mussels | 3,000 | 20,494 | 1,374 | 25 | 316 | 0 | 0 | 0 | 0 | 300 | 25,509 |
| Scallops | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 300 | 301 |
| Other shellfish | 0 | 0 | 237 | 0 | 78 | 0 | 0 | 0 | 0 | 0 | 315 |
| Total shellfish | 3,000 | 23,018 | 2,199 | 634 | 394 | 0 | 0 | 0 | 0 | 9,400 | 38,646 |
| Total aquaculture | 17,264 | 23,018 | 8,017 | 22,274 | 814 | 3,738 | x | x | x | 85,270 | 162,213 |
| Re-stocking ${ }^{2}$ | - | . | . | . | 823 | . | . | . | . | . | 823 |
| Total aquaculture (including re-stocking) ${ }^{2}$ | 17,264 | 23,018 | 8,017 | 22,274 | 1,637 | 3,738 | x | x | x | 85,270 | 163,036 |
|  | thousands of dollars |  |  |  |  |  |  |  |  |  |  |
| Value |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | .. | 31,234 | 140,241 | 0 | 0 | 0 | 0 | 0 | 435,300 | 606,775 |
| Trout | .. | .. | 1,796 | 400 | 1,875 | 17,700 | x | x | x | 5,700 | 35,300 |
| Steelhead | . | .. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other finfish | .. | .. | 367 | 0 | 469 | 0 | x | 0 | x | 4,400 | 6,887 |
| Total finfish | 111,829 | 2,242 | 33,397 | 140,641 | 2,344 | 17,700 | x | x | x | 445,400 | 763,033 |
| Clams | . | 0 | 1,396 | 0 | 0 | 0 | 0 | 0 | 0 | 7,200 | 8,596 |
| Oysters |  | 5,955 | 894 | 2,645 | 0 | 0 | 0 | 0 | 0 | 9,200 | 18,694 |
| Mussels | 8,221 | 27,108 | 1,584 | 28 | 411 | 0 | 0 | 0 | 0 | 1,500 | 38,853 |
| Scallops | .. | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 1,700 | 1,711 |
| Other shellfish | . | 0 | 6,005 | 0 | 249 | 0 | 0 | 0 | 0 | 0 | 6,254 |
| Total shellfish | 8,221 | 33,063 | 9,890 | 2,673 | 661 | 0 | 0 | 0 | 0 | 19,600 | 74,108 |
| Total aquaculture | 120,050 | 35,305 | 43,287 | 143,314 | 3,005 | 17,700 | x | x | x | 465,000 | 837,141 |
| Re-stocking ${ }^{2}$ | . | . | . | . | 8,456 | . | . | . | . | . | 8,456 |
| Total aquaculture (including re-stocking) ${ }^{2}$ | 120,050 | 35,305 | 43,287 | 143,314 | 11,461 | 17,700 | x | x | x | 465,000 | 845,598 |

1. Provinces with data not available are not included in the Canada totals.
2. Sales to outfitters: operations offering lodging and services for hunting, fishing and trapping.

Note(s): The production and value of aquaculture includes the amount and value produced on sites and excludes hatcheries or processing. Shellfish also includes some wild production. The data are collected from each of the provincial departments responsible for aquaculture.

Table 2-1
Exports of selected Canadian aquaculture products, by country of destination - 2007 and 2008

| Destination | 2007 |  |  |  | 2008 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mussels | Other Salmon ${ }^{1}$ | Atlantic Salmon ${ }^{2}$ | Atlantic Salmon fillets | Mussels | Other Salmon ${ }^{1}$ | Atlantic Salmon ${ }^{2}$ | Atlantic Salmon fillets |
|  | tonnes |  |  |  |  |  |  |  |
| United States | 9,868 | 2,714 | 67,628 | 3,906 | 9,620 | 1,532 | 70,481 | 5,399 |
| California | 177 | 1,103 | 23,908 | 408 | 47 | 359 | 20,296 | 242 |
| Maine | 2,679 | 0 | 813 | 104 | 2,286 | 0 | 808 | 154 |
| Massachusetts | 4,719 | 223 | 8,965 | 596 | 5,432 | 146 | 9,219 | 1,423 |
| New York | 913 | 175 | 8,919 | 342 | 916 | 125 | 10,743 | 446 |
| Washington | 129 | 1,076 | 16,793 | 549 | 35 | 763 | 18,508 | 651 |
| Other | 1,252 | 138 | 8,229 | 1,908 | 904 | 139 | 10,906 | 2,483 |
| France | 0 | 16 | 11 | 3 | 0 | 22 | 46 | 3 |
| Japan | 0 | 469 | 1,162 | 155 | 0 | 356 | 2,229 | 172 |
| Taiwan | 0 | 3 | 680 | 37 | 0 | 0 | 871 | 110 |
| Other | 209 | 6 | 265 | 74 | 117 | 0 | 586 | 20 |
| Total | 10,077 | 3,208 | 69,746 | 4,175 | 9,738 | 1,911 | 74,213 | 5,704 |
|  | thousands of dollars |  |  |  |  |  |  |  |
| United States | 25,418 | 19,792 | 411,360 | 42,526 | 26,762 | 14,806 | 414,921 | 65,307 |
| California | 574 | 7,794 | 146,732 | 3,544 | 181 | 3,737 | 120,419 | 2,462 |
| Maine | 6,541 | 0 | 4,791 | 1,222 | 5,378 | 0 | 4,461 | 1,964 |
| Massachusetts | 12,484 | 2,159 | 53,526 | 6,883 | 16,117 | 1,854 | 50,770 | 17,537 |
| New York | 2,302 | 1,577 | 58,156 | 3,736 | 2,624 | 1,370 | 62,136 | 5,523 |
| Washington | 325 | 7,231 | 97,738 | 4,860 | 112 | 6,689 | 112,272 | 6,429 |
| Other | 3,192 | 1,030 | 50,418 | 22,282 | 2,350 | 1,157 | 64,864 | 31,392 |
| France | 0 | 121 | 72 | 33 | 0 | 161 | 223 | 27 |
| Japan | 0 | 7,188 | 6,712 | 695 | 2 | 4,861 | 16,264 | 854 |
| Taiwan | 0 | 17 | 3,117 | 163 | 0 | 4 | 4,929 | 608 |
| Other | 832 | 28 | 1,394 | 328 | 527 | 0 | 3,615 | 116 |
| Total | 26,250 | 27,147 | 422,656 | 43,745 | 27,291 | 19,832 | 439,953 | 66,912 |

1. Includes Coho and Spring (Chinook).
2. Includes fresh, chilled and frozen.

Table 2-2
Exports of selected Canadian aquaculture products, by country of destination - 2009 and 2010

| Destination | 2009 |  |  |  | 2010 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mussels | Other Salmon ${ }^{1}$ | Atlantic Salmon ${ }^{2}$ | Atlantic <br> Salmon fillets | Mussels | Other Salmon ${ }^{1}$ | Atlantic Salmon ${ }^{2}$ | Atlantic Salmon fillets |
|  | tonnes |  |  |  |  |  |  |  |
| United States | 10,571 | 1,513 | 66,615 | 4,563 | 12,689 | 1,697 | 70,036 | 6,357 |
| California | 23 | 646 | 25,781 | 191 | 52 | 846 | 24,694 | 122 |
| Maine | 2,331 | 0 | 2,944 | 225 | 2,661 | 0 | 4,837 | 199 |
| Massachusetts | 6,332 | 105 | 8,244 | 885 | 7,863 | 169 | 8,662 | 1,180 |
| New York | 1,046 | 224 | 9,103 | 683 | 947 | 147 | 11,808 | 823 |
| Washington | 85 | 425 | 10,927 | 272 | 50 | 433 | 10,506 | 668 |
| Other | 754 | 112 | 9,615 | 2,308 | 1,116 | 102 | 9,529 | 3,365 |
| France | 0 | 20 | 8 | 0 | 0 | 0 | 1 | 1 |
| Japan | 0 | 290 | 578 | 44 | 0 | 213 | 437 | 397 |
| Taiwan | 0 | 0 | 253 | 67 | 0 | 1 | 166 | 70 |
| Other | 38 | 2 | 237 | 1 | 30 | 4 | 512 | 2 |
| Total | 10,608 | 1,826 | 67,691 | 4,675 | 12,719 | 1,915 | 71,152 | 6,827 |
|  | thousands of dollars |  |  |  |  |  |  |  |
| United States | 29,883 | 12,495 | 430,723 | 60,541 | 33,142 | 14,651 | 432,283 | 78,407 |
| California | 60 | 5,206 | 168,235 | 1,953 | 274 | 6,951 | 152,917 | 1,345 |
| Maine | 5,727 | 0 | 17,892 | 3,206 | 5,979 | 0 | 26,549 | 2,508 |
| Massachusetts | 18,957 | 1,259 | 52,951 | 11,663 | 21,562 | 1,897 | 51,283 | 14,580 |
| New York | 2,866 | 1,782 | 58,651 | 9,187 | 2,392 | 1,276 | 69,758 | 10,304 |
| Washington | 282 | 3,336 | 69,028 | 2,810 | 158 | 3,580 | 71,557 | 6,384 |
| Other | 1,991 | 912 | 63,967 | 31,723 | 2,777 | 947 | 60,219 | 43,286 |
| France | 0 | 150 | 71 | 5 | 0 | 1 | 10 | 17 |
| Japan | 0 | 4,465 | 4,159 | 729 | 0 | 3,115 | 2,708 | 2,263 |
| Taiwan | 0 | 2 | 1,722 | 423 | 0 | 6 | 1,222 | 410 |
| Other | 217 | 23 | 1,383 | 6 | 152 | 32 | 3,825 | 16 |
| Total | 30,101 | 17,135 | 438,059 | 61,704 | 33,294 | 17,805 | 440,048 | 81,113 |

1. Includes Coho and Spring (Chinook).
2. Includes fresh, chilled and frozen.

Table 2-3
Exports of selected Canadian aquaculture products, by country of destination - 2011

| Destination |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
|  |  |  |  |

1. Includes Coho and Spring (Chinook).
2. Includes fresh, chilled and frozen.

Table 3-1
Value added account - Aquaculture industry, by province and Canada - 2007

|  | Newfoundland and Labrador | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario | British Columbia | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | thousands of dollars |  |  |  |  |  |  |  |
| Sources of output |  |  |  |  |  |  |  |  |
| Sales of aqua products and services | 33,840 | 28,466 | 41,200 | 134,520 | 13,600 | 17,050 | 528,950 | 797,626 |
| Whole fish dressed, fresh or chilled | .. | .. | 15,000 | 114,000 | 1,400 | .. | 440,000 | 570,400 |
| Fish eggs and live fish for grow-out | .. | .. | 10,000 | x | x | .. | x | 23,700 |
| Whole fish live except for grow-out | . | .. | 100 | 3,000 | 8,000 | .. | 0 | 11,100 |
| Whole fish, dressed and frozen |  |  | 500 | x | 0 | .. | x | 7,320 |
| Fish fillets, fresh or frozen |  |  | x | x | x |  | x | 67,420 |
| Fish, dried, smoked or in brine | . | . | x | 0 | x | . | x | 1,530 |
| Total finfish | 28,400 | x | 31,000 | 130,020 | 12,350 | x | 508,100 | 727,870 |
| Total molluscs | x | 27,300 | X | 3,400 | 1,000 | 0 | 19,300 | 65,640 |
| Other goods and services, not elsewhere specified | x | x | $x$ | 1,100 | 250 | x | 1,550 | 4,116 |
| Subsidies | x | x | x | x | 400 | X | $x$ | 2,510 |
| Other operating revenue | x | x | x | x | 300 | x | x | 9,925 |
| Total operating revenue | 34,000 | 28,791 | 41,740 | 142,320 | 14,300 | 17,690 | 531,220 | 810,061 |
| Change in inventory value, goods | 10,437 | 4,320 | 6,200 | 5,000 | -570 | -715 | 10,700 | 35,372 |
| Gross output | 44,437 | 33,111 | 47,940 | 147,320 | 13,730 | 16,975 | 541,920 | 845,433 |
| Product inputs |  |  |  |  |  |  |  |  |
| Product expenses | 31,495 | 8,105 | 16,450 | 130,200 | 5,815 | 8,680 | 382,160 | 582,905 |
| Feed | 12,900 | x | 8,500 | 60,000 | x | 5,500 | 158,000 | 246,760 |
| Therapeutants | 120 | x | x | 4,000 | 55 | 65 | 7,700 | 12,355 |
| Purchases, eggs and fish for grow-out Purchases, fish for processing and resale | 10,000 | 2,800 | 3,000 | 20,000 | 360 | 1,000 | 13,400 | 50,560 |
|  | x | 60 | x | 11,000 | X | X | X | 86,560 |
| Insurance premiums | 1,000 | 320 | 400 | 5,000 | 270 | 120 | 7,800 | 14,910 |
| Energy (electricity, fuel, et cetera) | 1,000 | 700 | 950 | 6,000 | 1,300 | 800 | 9,600 | 20,350 |
| Goods transportation and storage | 2,200 | 490 | 400 | 3,000 | 180 | 100 | 37,000 | 43,370 |
| Processing services | x | x | x | 3,000 | 40 | x | x | 30,390 |
| Rental and leasing expenses | 430 | 450 | 70 | 1,600 | 60 | 200 | 3,500 | 6,310 |
| Maintenance and repairs, buildings | 120 | 300 | 280 | 2,000 | 210 | 50 | 1,200 | 4,160 |
| Maintenance and repairs, machinery | 1,500 | 800 | 650 | 8,500 | 500 | 100 | 22,000 | 34,050 |
| Professional services | 385 | 310 | 400 | 1,200 | 275 | 310 | 5,800 | 8,680 |
| Other operating expenses, not elsewhere specified | 1,340 | 1,600 | 550 | 4,900 | 615 | 285 | 15,160 | 24,450 |
| Change in inventory value, raw materials | 726 | -5 | 2,400 | 0 | -500 | -15 | -200 | 2,406 |
| Total of product inputs | 30,769 | 8,110 | 14,050 | 130,200 | 6,315 | 8,695 | 382,360 | 580,499 |
| Gross value added (factor cost) | 13,668 | 25,001 | 33,890 | 17,120 | 7,415 | 8,280 | 159,560 | 264,934 |
| Selected primary inputs |  |  |  |  |  |  |  |  |
| Salaries and wages | 5,000 | 10,200 | 6,000 | 22,000 | 2,100 | 3,000 | 53,000 | 101,300 |
| Employer portion of employee benefits | 550 | 800 | 600 | 2,500 | 300 | 300 | 10,000 | 15,050 |
| Depreciation | 1,700 | 2,400 | 1,500 | 7,500 | 1,200 | 720 | 31,500 | 46,520 |
| Interest paid | 1,300 | 900 | 1,000 | 4,000 | 1,000 | 1,000 | 13,600 | 22,800 |

[^0]Note(s): Data and account structure are subject to revision.

Table 3-2
Value added account - Aquaculture industry, by province and Canada - 2008

|  | Newfoundland and Labrador | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario | British Columbia | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | thousands of dollars |  |  |  |  |  |  |  |
| Sources of output |  |  |  |  |  |  |  |  |
| Sales of aqua products and services | 46,415 | 27,997 | 43,405 | 108,905 | 13,235 | 17,520 | 479,920 | 737,397 |
| Whole fish dressed, fresh or chilled | .. | .. | x | 94,200 | x | 3,550 | 441,700 | 571,450 |
| Fish eggs and live fish for grow-out | .. | .. | 4,200 | 10,500 | x | 2,740 | x | 21,740 |
| Whole fish live except for grow-out | . | .. | x | x | 7,750 | 10,800 | 0 | 20,395 |
| Whole fish, dressed and frozen |  | .. | 10 | 0 | 0 | 0 | $x$ | x |
| Fish fillets, fresh or frozen |  |  | 75 | x | x | x | x | 2,985 |
| Fish, dried, smoked or in brine | .. | . | 20 | 0 | x | x | x | x |
| Total finfish | x | x | 35,250 | 106,850 | 12,100 | 17,500 | 449,120 | 664,320 |
| Total molluscs | 3,700 | 26,700 | 8,000 | 2,000 | 900 | 0 | 15,900 | 57,200 |
| Other goods and services, not elsewhere specified | x | x | 155 | 55 | 235 | 20 | 14,900 | 15,877 |
| Subsidies | x | 0 | x | 65 | 370 | 140 | $x$ | x |
| Other operating revenue | x | 140 | X | 2,325 | 495 | 270 | X | x |
| Total operating revenue | 54,565 | 28,137 | 44,495 | 111,295 | 14,100 | 17,930 | 481,575 | 752,097 |
| Change in inventory value, goods | 12,000 | -1,270 | 2,600 | 20,000 | -1,380 | -1,170 | -19,200 | 11,580 |
| Gross output | 66,565 | 26,867 | 47,095 | 131,295 | 12,720 | 16,760 | 462,375 | 763,677 |
| Product inputs |  |  |  |  |  |  |  |  |
| Product expenses | 41,890 | 8,355 | 30,330 | 97,885 | 6,315 | 7,690 | 336,350 | 528,815 |
| Feed | x | x | x | 44,700 | 2,160 | 5,000 | 158,000 | 246,435 |
| Therapeutants | x | x | 1,100 | 3,700 | 60 | 70 | 5,000 | 10,535 |
| Purchases, eggs and fish for grow-out | x | 2,500 | x | 16,500 | 340 | 840 | x | 70,580 |
| Purchases, fish for processing and resale | 1,500 | x | x | 1,000 | 90 | x | 7,600 | 10,400 |
| Insurance premiums | x | 300 | 1,000 | 3,100 | 310 | x | 6,600 | 12,900 |
| Energy (electricity, fuel, et cetera) | 1,400 | 1,100 | 1,500 | 5,000 | 1,210 | 810 | 9,700 | 20,720 |
| Goods transportation and storage | 900 | 200 | 250 | 1,900 | 210 | 90 | 37,700 | 41,250 |
| Processing services | x | 100 | 400 | 2,700 | 30 | 35 | 28,200 | 31,815 |
| Rental and leasing expenses | x | 350 | x | 800 | 65 | 200 | 3,840 | 5,915 |
| Maintenance and repairs, buildings | 50 | 315 | 180 | X | 190 | 30 | X | 2,015 |
| Maintenance and repairs, machinery | x | 1,600 | x | 8,900 | 560 | 80 | 19,100 | 36,515 |
| Professional services | 275 | 205 | 1,505 | x | 195 | X | 5,260 | 12,735 |
| Other operating expenses, not elsewhere specified | 1,765 | 1,545 | 1,510 | 4,145 | 895 | 240 | 16,900 | 27,000 |
| Change in inventory value, raw materials | 2,000 | 0 | -5,000 | -8 | 500 | 140 | -2,200 | -4,568 |
| Total of product inputs | 39,890 | 8,355 | 35,330 | 97,893 | 5,815 | 7,550 | 338,550 | 533,383 |
| Gross value added (factor cost) | 26,675 | 18,512 | 11,765 | 33,402 | 6,905 | 9,210 | 123,825 | 230,294 |
| Selected primary inputs |  |  |  |  |  |  |  |  |
| Salaries and wages | 8,200 | 8,700 | 5,200 | 20,000 | 2,200 | 2,800 | 58,900 | 106,000 |
| Employer portion of employee benefits | 900 | 775 | 625 | 2,000 | 320 | 280 | 10,100 | 15,000 |
| Depreciation | 2,900 | 2,000 | 2,500 | 6,700 | 1,600 | 600 | 30,200 | 46,500 |
| Interest paid | x | 860 | x | 2,400 | 345 | 250 | 7,000 | 13,865 |

[^1]Note(s): Data and account structure are subject to revision.

Table 3-3
Value added account - Aquaculture industry, by province and Canada - 2009

|  | Newfoundland and Labrador | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario | British Columbia | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | thousands of dollars |  |  |  |  |  |  |  |
| Sources of output |  |  |  |  |  |  |  |  |
| Sales of aqua products and services | 69,800 | 28,540 | 49,810 | 198,910 | 10,829 | 18,150 | 492,600 | 868,639 |
| Whole fish dressed, fresh or chilled | 65,400 | 0 | $x$ | 157,720 | 2,174 | $x$ | 412,000 | 675,294 |
| Fish eggs and live fish for grow-out | x | 0 | 7,900 | x | 3,853 | 3,370 | 7,000 | 43,723 |
| Whole fish live except for grow-out | 0 | 0 | 700 | 315 | 2,839 | 10,850 | 0 | 14,704 |
| Whole fish, dressed and frozen | 0 | 0 | 0 | 0 | x | 0 | x | x |
| Fish fillets, fresh or frozen | x | 0 | x | x | x | x | x | x |
| Fish, dried, smoked or in brine | 0 | 0 | 10 | 0 | x | 0 | x | 220 |
| Total finfish | 66,200 | x | 43,405 | 192,650 | 9,779 | x | 466,600 | 798,034 |
| Total molluscs | x | 26,300 | 6,330 | x | 800 | 0 | 12,200 | 53,480 |
| Other goods and services, not elsewhere specified | $x$ | x | 75 | X | 250 | x | 13,800 | 17,125 |
| Subsidies | x | 50 | x | x | 170 | x | x | x |
| Other operating revenue | X | 100 | x | x | 570 | x | x | x |
| Total operating revenue | 72,275 | 28,690 | 52,545 | 207,290 | 11,569 | 19,570 | 495,255 | 887,194 |
| Change in inventory value, goods | 9,000 | 1,100 | 2,010 | 15,100 | 500 | 1,800 | -32,015 | -2,505 |
| Gross output | 81,275 | 29,790 | 54,555 | 222,390 | 12,069 | 21,370 | 463,240 | 884,689 |
| Product inputs |  |  |  |  |  |  |  |  |
| Product expenses | 66,720 | 8,200 | 29,325 | 149,700 | 6,165 | 9,320 | 320,800 | 590,230 |
| Feed | 38,500 | x | 14,300 | 74,600 | x | 5,500 | 159,600 | 294,840 |
| Therapeutants | x | 0 | 1,200 | 6,100 | x | 150 | 9,600 | 17,640 |
| Purchases, eggs and fish for grow-out | 11,650 | 3,400 | 6,700 | 36,800 | 290 | 1,500 | 5,500 | 65,840 |
| Purchases, fish for processing and resale | 0 | x | 110 | 250 | x | 60 | 500 | 1,000 |
| Insurance premiums | x | 200 | 810 | x | 220 | 100 | 6,800 | 14,010 |
| Energy (electricity, fuel, et cetera) | 1,550 | 1,000 | 1,100 | 4,600 | 1,250 | 820 | 9,800 | 20,120 |
| Goods transportation and storage | 1,700 | 600 | 440 | 2,900 | 220 | 300 | 35,000 | 41,160 |
| Processing services | x | 120 | 440 | x | 75 | 5 | 31,700 | 35,100 |
| Rental and leasing expenses | x | x | 580 | 1,000 | x | 200 | 4,600 | 7,930 |
| Maintenance and repairs, buildings | 450 | 320 | 170 | 300 | 230 | 100 | 1,800 | 3,370 |
| Maintenance and repairs, machinery | X | 1,000 | 1,920 | X | 365 | 100 | 25,600 | 43,685 |
| Professional services | 570 | 245 | 130 | 2,160 | 145 | 145 | 7,400 | 10,795 |
| Other operating expenses, not elsewhere specified | 2,330 | 1,065 | 1,425 | 5,810 | 870 | 340 | 22,900 | 34,740 |
| Change in inventory value, raw materials | -1,000 | 250 | 0 | 200 | -500 | 200 | 10,000 | 9,150 |
| Total of product inputs | 67,720 | 7,950 | 29,325 | 149,500 | 6,665 | 9,120 | 310,800 | 581,080 |
| Gross value added (factor cost) | 13,555 | 21,840 | 25,230 | 72,890 | 5,404 | 12,250 | 152,440 | 303,609 |
| Selected primary inputs |  |  |  |  |  |  |  |  |
| Salaries and wages | 8,400 | 7,800 | 5,500 | 21,000 | 2,300 | 2,850 | 66,500 | 114,350 |
| Employer portion of employee benefits | 1,100 | 675 | 700 | 2,200 | 330 | 285 | 11,500 | 16,790 |
| Depreciation | x | 1,500 | x | 11,700 | 1,300 | 700 | 33,000 | 54,500 |
| Interest paid | $\times$ | 500 | x | 6,900 | 380 | 200 | 6,200 | 18,930 |

[^2]Note(s): Data and account structure are subject to revision.

Table 3-4
Value added account - Aquaculture industry, by province and Canada - 2010

|  | Newfoundland and Labrador | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario | British Columbia | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | thousands of dollars |  |  |  |  |  |  |  |
| Sources of output |  |  |  |  |  |  |  |  |
| Sales of aqua products and services | x | 29,790 | 39,155 | 233,175 | x | 18,295 | 534,300 | 973,725 |
| Whole fish dressed, fresh or chilled | x | 0 | 20,345 | 198,800 | x | 15,240 | 446,925 | 786,760 |
| Fish eggs and live fish for grow-out | 0 | x | x | x | 2,360 | 1,185 | x | 38,470 |
| Whole fish live except for grow-out | 0 | x | 15 | 0 | 5,155 | 1,700 | x | x |
| Whole fish, dressed and frozen | 0 | 0 | 0 | 0 | 5 | 0 | x | x |
| Fish fillets, fresh or frozen | 0 | 0 | x | x | x | x | x | 67,970 |
| Fish, dried, smoked or in brine | .. | .. | 0 | 0 | x | 55 | x | 335 |
| Total finfish | x | x | 31,175 | 227,290 | 10,270 | x | 514,925 | 906,830 |
| Total molluscs | x | 27,840 | 7,980 | x | x | 0 | 15,785 | 58,420 |
| Other goods and services, not elsewhere specified | x | x | 0 | x | x | x | 3,590 | 8,475 |
| Subsidies | x | 0 | x | x | X | x | $x$ | 1,770 |
| Other operating revenue | X | 905 | x | x | x | x | x | 13,540 |
| Total operating revenue | x | 30,695 | 41,240 | 242,010 | x | 18,925 | 536,250 | 989,035 |
| Change in inventory value, goods | 4,675 | -1,015 | 1,260 | 21,040 | -330 | -1,000 | 15,015 | 39,645 |
| Gross output | x | 29,680 | 42,500 | 263,050 | x | 17,925 | 551,265 | 1,028,680 |
| Product inputs |  |  |  |  |  |  |  |  |
| Product expenses | x | 7,060 | 21,690 | 139,475 | x | 10,465 | 338,900 | 596,885 |
| Feed | 42,595 | x | 9,800 | 82,140 | x | 6,900 | 164,500 | 308,020 |
| Therapeutants | 1,135 | x | 670 | 12,520 | x | 220 | 11,100 | 25,790 |
| Purchases, eggs and fish for grow-out | 12,870 | 2,120 | x | 18,140 | x | 800 | 5,115 | 45,435 |
| Purchases, fish for processing and resale | x | 0 | X | x | x | x | X | 900 |
| Insurance premiums | x | 580 | 750 | 6,200 | x | 135 | 7,270 | 17,665 |
| Energy (electricity, fuel, et cetera) | x | 795 | 930 | 4,880 | x | 620 | 10,050 | 20,780 |
| Goods transportation and storage | 1,780 | x | x | 3,155 | x | x | 34,270 | 40,315 |
| Processing services | 2,765 | 165 | x | x | x | x | 37,730 | 41,565 |
| Rental and leasing expenses | x | 120 | 480 | 950 | x | 320 | 5,140 | 8,415 |
| Maintenance and repairs, buildings | 530 | 370 | 340 | 515 | x | 30 | x | 3,100 |
| Maintenance and repairs, machinery | X | 1,100 | 325 | 4,300 | x | 110 | 26,530 | 35,095 |
| Professional services | 940 | 145 | 210 | 935 | 125 | 160 | 7,415 | 9,930 |
| Other operating expenses, not elsewhere specified | x | 1,130 | 935 | 5,315 | x | 860 | 28,030 | 39,875 |
| Change in inventory value, raw materials | -110 | 315 | 5 | -95 | -810 | -580 | -1,480 | -2,755 |
| Total of product inputs | x | 6,745 | 21,685 | 139,570 | x | 11,045 | 340,380 | 599,640 |
| Gross value added (factor cost) | 37,640 | 22,935 | 20,815 | 123,480 | 6,405 | 6,880 | 210,885 | 429,040 |
| Selected primary inputs |  |  |  |  |  |  |  |  |
| Salaries and wages | 10,790 | 6,745 | 4,975 | 22,595 | 2,125 | 2,100 | 60,010 | 109,340 |
| Employer portion of employee benefits | 1,545 | 675 | 700 | 2,725 | 280 | 330 | 10,685 | 16,940 |
| Depreciation | x | 2,090 | 2,185 | 27,025 | x | 650 | 30,645 | 74,300 |
| Interest paid | x | 430 | 665 | 7,185 | X | 375 | 3,560 | 16,870 |

[^3]Note(s): Data and account structure are subject to revision.

Table 3-5
Value added account - Aquaculture industry, by province and Canada - 2011

|  | Newfoundland and Labrador | Prince Edward Island | Nova Scotia | New <br> Brunswick | Quebec | Ontario | British Columbia | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | thousands of dollars |  |  |  |  |  |  |  |
| Sources of output |  |  |  |  |  |  |  |  |
| Sales of aqua products and services | x | x | 44,570 | 195,495 | 10,450 | 17,250 | 472,190 | 823,705 |
| Whole fish dressed, fresh or chilled | x | 0 | x | 172,030 | 1,290 | 6,730 | 390,910 | 637,620 |
| Fish eggs and live fish for grow-out | $x$ | x | x | 2,330 | 1,510 | 9,340 | x | 48,925 |
| Whole fish live except for grow-out | 0 | 0 | x | x | 5,125 | 670 | x | 8,230 |
| Whole fish, dressed and frozen | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fish fillets, fresh or frozen | 0 | 0 | 0 | x | x | x | x | 58,115 |
| Fish, dried, smoked or in brine | 0 | 0 | 0 | 0 | x | x | 0 | x |
| Total finfish | x | x | 36,125 | 189,240 | 8,805 | x | 451,135 | 753,155 |
| Total molluscs | 3,030 | 28,730 | x | x | 695 | 0 | 15,510 | 59,030 |
| Other goods and services, not elsewhere specified | $x$ | x | x | x | x | x | 5,545 | 11,520 |
| Subsidies | x | x | x | 65 | 170 | $x$ | 815 | 1,865 |
| Other operating revenue | x | X | x | 6,455 | 710 | x | 2,610 | 12,835 |
| Total operating revenue | X | X | 46,990 | 202,015 | 11,330 | 17,885 | 475,615 | 838,405 |
| Change in inventory value, goods | X | x | -5,695 | 2,055 | -490 | 795 | -2,200 | 58,185 |
| Gross output | 117,260 | 31,030 | 41,295 | 204,070 | 10,840 | 18,680 | 473,415 | 896,590 |
| Product inputs |  |  |  |  |  |  |  |  |
| Product expenses | x | 8,330 | x | x | 5,390 | 9,640 | 324,630 | 600,725 |
| Feed | 43,330 | X | 13,700 | 67,345 | x | 6,195 | 166,555 | 298,980 |
| Therapeutants | 1,550 | 80 | 920 | 5,735 | 80 | 130 | 9,180 | 17,675 |
| Purchases, eggs and fish for grow-out Purchases, fish for processing and resale | 19,065 | 2,310 | x | x | 250 | 965 | 3,825 | 46,630 |
|  | X | 0 | X | X | x | x | X | 34,515 |
| Insurance premiums | x | 370 | 780 | x | 300 | 125 | 7,315 | 15,365 |
| Energy (electricity, fuel, et cetera) | 1,985 | 960 | 1,180 | 3,895 | 970 | 545 | 10,100 | 19,635 |
| Goods transportation and storage | 1,770 | 510 | 100 | 2,690 | 65 | 205 | 28,325 | 33,665 |
| Processing services | 3,030 | x | x | x | x | x | 32,265 | 35,690 |
| Rental and leasing expenses | x | 195 | 455 | x | 80 | 245 | 5,450 | 9,295 |
| Maintenance and repairs, buildings | x | 250 | 555 | x | 200 | 40 | X | 3,995 |
| Maintenance and repairs, machinery | 300 | 1,515 | 920 | 7,020 | 435 | 150 | 21,945 | 32,285 |
| Professional services | 1,135 | 535 | 405 | 2,390 | 280 | 260 | 7,840 | 12,845 |
| Other operating expenses, not elsewhere specified | 1,830 | 1,140 | 1,025 | 4,470 | 950 | 710 | 30,025 | 40,150 |
| Change in inventory value, raw materials | x | 105 | x | x | 1,070 | 25 | 1,295 | 4,695 |
| Total of product inputs | 77,425 | 8,225 | 27,780 | 145,330 | 4,320 | 9,615 | 323,335 | 596,030 |
| Gross value added (factor cost) | 39,835 | 22,805 | 13,515 | 58,740 | 6,520 | 9,065 | 150,080 | 300,560 |
| Selected primary inputs |  |  |  |  |  |  |  |  |
| Salaries and wages | 8,470 | 6,960 | 5,525 | 19,400 | 2,205 | 2,170 | 61,545 | 106,275 |
| Employer portion of employee benefits | 1,210 | 730 | 705 | 2,200 | 195 | 235 | 10,500 | 15,775 |
| Depreciation | x | 2,320 | 6,340 | 29,670 | x | x | 27,085 | 75,140 |
| Interest paid | x | 655 | 465 | 4,525 | x | x | 3,960 | 12,625 |

[^4]Note(s): Data and account structure are subject to revision.

## Concepts and methods

## Production and value of aquaculture

Statistics Canada defines aquaculture as an industry comprising establishments primarily engaged in farm-raising finfish, shellfish or any other kind of aquatic animal. The aquaculture production and value data, produced by species and province, represent the quantity of production and the farm-gate value of that production.

The series begins in 1991. Until 1994, these data were collected and released by Fisheries and Oceans Canada. Statistics Canada first published the time series in 1996.

The administrative data are provided annually from each of the provincial ministries responsible for aquaculture. Producers must report their production and value as part of their provincial licensing agreements. The data are supplemented through consultation with industry specialists and with data provided by Fisheries and Oceans Canada.

Generally, finfish production is reported as gutted head-on and the value is based on a farm-gate price. Shellfish is reported as whole, again with a farm-gate value. Beginning in 1996, additional data for Quebec represents the sale of fish to outfitters offering lodging and services for hunting, fishing and trapping.

## Exports of selected aquaculture products

Canadian import and export statistics are derived by the International Trade Division of Statistics Canada from administrative records collected by the Canada Customs and Revenue Agency. The one exception to this process is Canadian exports to the United States and the imports from the United States into Canada. As of January 1, 1990, Canada and the United States have been using the other's import data to replace its own export data. Export data are presented by province of origin, which represents the province in which the product was grown or manufactured.

Exports for four categories of aquaculture products have been selected. All of these categories define the products as fresh, chilled or frozen and are based on the harmonised system of coding.

Mussels - code 3073110
Other salmon - includes coho and spring (chinook) salmon, codes 3021221, 3021231
Atlantic salmon - codes 3021211, 3021212, 3032200
Atlantic salmon fillets - code 3041031
Small quantities of fish fillets may be included in other categories that include products from the commercial fishery, however, as the exports under these categories are relatively small, the quantity of aquaculture products in the categories must also be small.

## Aquaculture value added

## Concepts

The aquaculture value added account is designed to measure the economic production (value added) of goods and services from aquaculture establishments. Economic production can be defined as any process that creates value or adds value to existing goods. Consistent with this definition, the Canadian System of National Accounts defines economic production as the production of goods or services, which are exchanged for money in the marketplace.

Starting in 1997, the account displays the inputs and outputs (mostly revenues and expenses except for the change in inventory values) on a calendar year basis. These data are displayed by province, except for the Prairie Provinces where aquaculture is a relatively small industry. Gross value added at factor cost is residually derived by subtracting product inputs, or purchases from other businesses, from the gross output of the sector.

Aquaculture is the managed production of fish. In Canada, the industry is dominated by the production of finfish, primarily salmon off the coasts of British Columbia and New Brunswick. Production of shellfish is smaller with Prince Edward Island and British Columbia being the major producing provinces.

Under the North American Industrial Classification System (NAICS), this industry comprises establishments primarily engaged in farm-raising finfish, shellfish, or any other kind of aquatic animal. These establishments use some form of intervention in the rearing process to enhance production, such as keeping animals in captivity, regular stocking and feeding of animals, and protecting them from predators.

The aquaculture industry includes hatcheries and sales within the industry, for example, sales from a hatchery to a grow-out operation are included. The aquaculture industry does not include sport fishing or the wild fishery.

The estimates also include the costs and revenues derived from processing where it is an integral part of the establishment, but not the main activity or source of revenue.

## Definitions

## A business entity and an establishment

A business entity is an economic transactor having the responsibility and the authority to allocate resources in the production of goods and services.

A statistical establishment is one production entity or the smallest grouping of production entities which produces as homogeneous a set of goods and/or services as possible; which does not cross provincial boundaries; and for which records provide data on the value of output together with the cost of principal intermediate inputs used and cost and quantity of labour resources used to produce the output.

## The population of interest

The population of interest is all establishments classified to aquaculture under NAICS 112510 and operating for at least one day during the reference year.

## Financial variables

Operating revenues are generated from the sale of: whole fish (fresh or chilled); fish eggs or live fish for grow-out; live fish; whole fish dressed and frozen; fish fillets; fish that are dried, smoked or in brine; molluscs (oysters, mussels, clams, scallops;) and, seed or larvae for grow-out. Operating revenue may also include revenue from other sources such as real estate rental, consulting or government subsidies.

Non-operating revenues include income from interest or dividends.
Salaries and benefits include wages, salaries and benefits such as vacation pay, commissions or bonuses paid to employees as defined by the Canada Customs and Revenue Agency and requiring a T4 Supplementary Form. This item includes the employer portion of employee benefits for items such as health care insurance plans, Canada/Quebec Pension Plan contributions or Employment Insurance premiums.

The processing services are the costs incurred when another company provides services related to gutting, cleaning, slitting or shelling.

Other operating expenses include a long list of items such as: energy (electricity, gasoline, diesel, propane); water; transportation; rental and leasing; maintenance and repair; legal; accounting; consulting; veterinary; financial services; insurance; advertising; travel; property taxes; licenses; permits; office; management; and depreciation.

Non-operating expenses relate to interest expenses on loans or the interest component of a capital lease.

## Methods

These data are produced as part of Statistics Canada's Unified Enterprise Survey (UES) conducted in 1997 for the first time. The survey incorporates several annual business surveys into an integrated survey. It aims to ensure Statistics Canada receives consistent and integrated data from many types of surveys and sizes of businesses, with enough detail to produce accurate provincial statistics.

## Target population

The target population for this survey is: all establishments classified to aquaculture under NAICS 112510 that operated for at least one day during the reference year.

## Frame and sample design

Two sources of data are used to derive the estimates:

- a probability sample survey of aquaculture establishments with a gross business revenue greater than or equal to a cut-off that varied by province from \$30,000 to \$105,000.
- taxation data are used to estimate for businesses with a gross business revenue less than the cut-off.

The frame that is used for the selection of the probability sample is Statistics Canada's Business Register. This list frame is updated and verified prior to sample selection. For 2011, the frame included 552 establishments classified to aquaculture.

Before a sample is taken, the records are stratified by province. Within each province, to improve the efficiency of the sample design, strata are defined using the gross revenue variable on the Business Register.

The "must-take" stratum contains the enterprises (with all its associated establishments) with revenue greater than or equal to $\$ 25,000,000$. All of these establishments are sent a questionnaire.

The "take-none" stratum contains the establishments with gross business revenue less than the cut-off. Data for these businesses are obtained from taxation data.

For the establishments not selected in the "must-take" (greater than $\$ 25,000,000$ ) or "take none" (less than the cut-off), three strata are defined to improve the efficiency of the sample design. There is a "take-all" stratum (all establishments are sent a questionnaire) and there are two "take-some" strata (a sample of establishments are selected and sent a questionnaire).

The overall sample size for 2011 was 159 establishments.

## Data collection

In the spring, respondents selected in the questionnaire part of the sample were asked to report their fiscal year transactions. The fiscal year data are subsequently aligned to produce calendar year data using provincial level industry indicators.

The survey is conducted by mail along with Computer Assisted Telephone Interviews. These data are examined for inconsistencies and errors using automated edits coupled with an analytical review. Data for non-respondents and no-contacts are imputed, partially with the assistance of tax data.

## Estimation design

The sampling weights derived from the sample design are modified and improved if necessary, using post stratification. This is possible because, during the passage of time since the sample was selected, the Business Register is updated further with more complete information.

## Analysis of the estimates

The last step of the process is analytical. The financial picture for aquaculture is assessed within the context of other related production statistics available from provincial regulatory sources. Although the two sources measure different things, the provincial administrative data are valuable in the analysis to assist in the reduction of error and in confirming the accuracy of the estimates.

## Data quality

All surveys are subject to sampling and non-sampling errors. Statistics Canada uses a variety of methods to minimize all types of errors. Measures of sampling error along with other indicators of quality are provided.

The coefficients of variation (CV), a measure of sampling error, are computed. The quality of the estimates are classified as Excellent (CV is 0.01 to $4.99 \%$ ); Very good (CV is $5.00 \%$ to $9.99 \%$ ); Good (CV is $10.00 \%$ to $14.99 \%$ ); Acceptable (CV is $15.00 \%$ to $24.99 \%$ ); Use with caution (CV is $25.00 \%$ to $34.99 \%$ ); and Unreliable (> $35.00 \%$ ).

Using these ratings at the national level, the 2011 estimates are judged to be very good, and at the provincial level, the estimates range from excellent to acceptable.

Every effort is made to minimize the non-sampling error of omission, duplication, reporting and processing. When necessary, some records are imputed using information from tax files where possible.

Of the sampled units contributing to the estimate the weighted response rate was $72.6 \%$.
Finally, the aquaculture estimates were compared to and found to be consistent with administrative data sources obtained from the provinces, reinforcing confidence in the quality of the aquaculture statistics. All of the data are reviewed


[^0]:    1. Canada total excludes Manitoba, Saskatchewan and Alberta
[^1]:    1. Canada total excludes Manitoba, Saskatchewan and Alberta.
[^2]:    1. Canada total excludes Manitoba, Saskatchewan and Alberta.
[^3]:    1. Canada total excludes Manitoba, Saskatchewan and Alberta.
[^4]:    1. Canada total excludes Manitoba, Saskatchewan and Alberta
