## Aquaculture Statistics

 2014

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## Aquaculture Statistics

## 2014

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## User information

## Symbols

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. not available for any reference period
.. not available for a specific reference period
... 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

* 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

- Sales of aquaculture products and services amounted to $\$ 735.4$ million in 2014, a decrease of $23.1 \%$ from 2013. In 2013, to avoid the onset of disease some aquaculture farms harvested their fish earlier in the growing cycle. The early harvest increased the reported sales of aquaculture products in 2013 but diminished the inventory of finished goods available in 2014 resulting in the observed decrease in sales of aquaculture products.
- Finfish sales, which accounted for $87.9 \%$ of sales of aquaculture products and services in 2014 , decreased $25.5 \%$ to $\$ 646.2$ million.
- The gross value added to the economy by the aquaculture industry decreased to $\$ 244.5$ million, down from $\$ 392.8$ million in 2013. Nova Scotia and Prince Edward Island were the only provinces to experience growth in 2014.
- The value of total exports of farmed salmon including fillets decreased by $24.9 \%$ and the value of farmed mussel exports decreased by 6.6\% compared to 2013.

Chart 1
Canadian finfish production


Source(s): Statistics Canada, CANSIM table 003-0001.

## Chart 2

Canadian shellfish production


Source(s): Statistics Canada, CANSIM table 003-0001.

## Chart 3

Canadian exports of atlantic salmon and atlantic salmon fillets


Chart 4
Gross value-added (at factor cost 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 - 2010

|  | Newfoundland and Labrador | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tonnes |  |  |  |  |  |  |  |  |  |  |
| Production |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | .. | 5,088 | 25,625 | 0 | 0 | x | x | x | 70,831 | 101,544 |
| Trout | .. | .. | 91 | 150 | 337 | 4,060 | x | x | x | 600 | 6,844 |
| Steelhead | .. |  | 0 | 0 | 0 | 0 | x | x | x | 0 | 0 |
| Other finfish | .. | .. | 126 | 0 | 71 | 0 | X | X | x | 884 | 1,355 |
| Total finfish | 12,899 | .. | 5,305 | 25,775 | 408 | 4,060 | $\mathbf{x}$ | x | $\mathbf{x}$ | 72,315 | 122,641 |
| Clams | 0 | 0 | 438 | 0 | 0 | 0 | x | x | x | 1,485 | 1,923 |
| Oysters | 0 | 2,478 | 205 | 881 | 0 | 0 | x | x | x | 7,550 | 11,113 |
| Mussels | 2,461 | 20,112 | 2,121 | 95 | 523 | 0 | x | x | x | 364 | 25,675 |
| Scallops | 0 | 0 | 2 | 0 | 0 | 0 | x | x | x | 695 | 697 |
| Other shellfish | 0 | 0 | 41 | 0 | 23 | 0 | x | x | x | 26 | 90 |
| Total shellfish | 2,461 | 22,589 | 2,807 | 976 | 546 | 0 | $\mathbf{x}$ | x | $\mathbf{x}$ | 10,120 | 39,500 |
| Total aquaculture | 15,360 | 22,589 | 8,112 | 26,751 | 954 | 4,060 | $\mathbf{x}$ | $\mathbf{x}$ | $\mathbf{x}$ | 82,435 | 162,141 |
| Re-stocking ${ }^{2}$ | . | . | . | . | 874 | . | . | . | . |  | 874 |
| Total aquaculture (including re-stocking) ${ }^{2}$ | 15,360 | 22,589 | 8,112 | 26,751 | 1,828 | 4,060 | $\mathbf{x}$ | $\mathbf{x}$ | $\mathbf{x}$ | 82,435 | 163,015 |
|  | thousands of dollars |  |  |  |  |  |  |  |  |  |  |
| Value |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | .. | 32,040 | 162,000 | 0 | 0 | x | x | x | 499,608 | 693,648 |
| Trout | .. | .. | 891 | 700 | 1,813 | 17,100 | x | x | x | 4,852 | 33,269 |
| Steelhead | .. | .. | 0 | 0 | 0 | 0 | x | x | x | 0 | 0 |
| Other finfish | .. | .. | 3,907 | 0 | 482 | 0 | x | x | x | 10,800 | 17,169 |
| Total finfish | 100,301 | 2,200 | 36,839 | 162,700 | 2,295 | 17,100 | $\mathbf{x}$ | x | $\mathbf{x}$ | 515,260 | 846,587 |
| Clams | 0 | 0 | 1,736 | 0 | 0 | 0 | x | x | x | 8,159 | 9,895 |
| Oysters | 0 | 5,844 | 720 | 3,355 | 0 | 0 | x | x | x | 8,957 | 18,876 |
| Mussels | 6,009 | 26,603 | 2,548 | 100 | 680 | 0 | x | x | x | 1,809 | 37,748 |
| Scallops | 0 | 0 | 15 | 0 | 0 | 0 | x | x | x | 2,904 | 2,919 |
| Other shellfish | 0 | 0 | 837 | 0 | 90 | 0 | x | X | X | 1,401 | 2,328 |
| Total shellfish | 6,009 | 32,447 | 5,856 | 3,455 | 769 | 0 | $\mathbf{x}$ | x | $\mathbf{x}$ | 23,230 | 71,767 |
| Total aquaculture | 106,310 | 34,647 | 42,695 | 166,155 | 3,065 | 17,100 | $\mathbf{x}$ | $\mathbf{x}$ | $\mathbf{x}$ | 538,490 | 918,354 |
| Re-stocking ${ }^{2}$ | . | . | . | . | 8,852 | . | . | . | . |  | 8,852 |
| Total aquaculture (including re-stocking) ${ }^{2}$ | 106,310 | 34,647 | 42,695 | 166,155 | 11,917 | 17,100 | x | x | $\mathbf{x}$ | 538,490 | 927,206 |

1. Provinces with data not available are not included in the Canada or provincial 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 ministries responsible for aquaculture.

Table 1-2
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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tonnes |  |  |  |  |  |  |  |  |  |  |
| Production |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | .. | 5,624 | 21,560 | 0 | 0 | x | x | X | 83,144 | 110,328 |
| Trout | . | . | 124 | 80 | 357 | 3,385 | x | x | x | 64 | 5,600 |
| Steelhead | .. | .. | 0 | 0 | 0 | 0 | x | x | x | 694 | 694 |
| Other finfish | . | . | 85 | 0 | 64 | 23 | x | x | x | 389 | 788 |
| Total finfish | 14,264 | .. | 5,833 | 21,640 | 421 | 3,408 | x | x | x | 84,291 | 131,674 |
| Clams | 0 | 0 | 341 | 0 | 0 | 0 | X | x | X | 1,172 | 1,513 |
| Oysters | 0 | 2,682 | 246 | 609 | 0 | 0 | x | x | x | 6,242 | 9,779 |
| Mussels | 3,000 | 20,894 | 1,374 | 25 | 317 | 0 | x | x | x | 288 | 25,897 |
| Scallops | 0 | 0 | 1 | 0 | 28 | 0 | x | x | x | 271 | 300 |
| Other shellfish | 0 | 0 | 21 | 0 | 50 | 0 | x | x | x | 0 | 71 |
| Total shellfish | 3,000 | 23,576 | 1,983 | 634 | 394 | 0 | x | x | x | 7,973 | 37,560 |
| Total aquaculture | 17,264 | 23,576 | 7,817 | 22,274 | 815 | 3,408 | x | x | x | 92,264 | 169,235 |
| Re-stocking ${ }^{2}$ | . | . | . | . | 824 | . | . | . | . | . | 824 |
| Total aquaculture (including re-stocking) ${ }^{2}$ | 17,264 | 23,576 | 7,817 | 22,274 | 1,639 | 3,408 | x | x | $\mathbf{x}$ | 92,264 | 170,059 |
|  | thousands of dollars |  |  |  |  |  |  |  |  |  |  |
| Value |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | .. | 31,234 | 140,241 | 0 | 0 | x | x | x | 435,667 | 607,142 |
| Trout | .. | .. | 1,796 | 400 | 2,266 | 17,200 | x | x | x | 408 | 29,927 |
| Steelhead | .. | .. | 0 | 0 | 0 | 0 | x | x | x | 5,269 | 5,269 |
| Other finfish | . | .. | 4,592 | 0 | 81 | 500 | x | x | x | 4,364 | 11,184 |
| Total finfish | 111,829 | 3,700 | 37,622 | 140,641 | 2,347 | 17,700 | $x$ | x | x | 445,708 | 769,052 |
| Clams | 0 | 0 | 1,396 | 0 | 0 | 0 | x | x | x | 6,652 | 8,048 |
| Oysters | 0 | 6,622 | 894 | 2,645 | 0 | 0 | x | x | x | 8,380 | 18,541 |
| Mussels | 8,221 | 26,716 | 1,584 | 28 | 411 | 0 | x | x | x | 1,471 | 38,431 |
| Scallops | 0 | 0 | 11 | 0 | 179 | 0 | x | x | x | 1,714 | 1,904 |
| Other shellfish | 0 | 0 | 1,582 | 0 | 74 | 0 | x | x | x | 0 | 1,656 |
| Total shellfish | 8,221 | 33,338 | 5,467 | 2,673 | 664 | 0 | x | x | x | 18,217 | 68,580 |
| Total aquaculture | 120,050 | 37,038 | 43,089 | 143,314 | 3,011 | 17,700 | x | x | x | 463,925 | 837,632 |
| Re-stocking ${ }^{2}$ | . | . | . | . | 8,469 | . | . | . | . | . | 8,469 |
| Total aquaculture (including re-stocking) ${ }^{2}$ | 120,050 | 37,038 | 43,089 | 143,314 | 11,480 | 17,700 | x | x | x | 463,925 | 846,101 |

1. Provinces with data not available are not included in the Canada or provincial 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 ministries responsible for aquaculture.

Table 1-3
Aquaculture, production and value, by province and Canada - 2012

|  | Newfoundland and Labrador | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tonnes |  |  |  |  |  |  |  |  |  |  |
| Production |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | . | 5,903 | 30,217 | 0 | 0 | $x$ | $x$ | x | 79,981 | 116,101 |
| Trout | .. | .. | 113 | 142 | 420 | 3,700 | x | x | x | 88 | 6,077 |
| Steelhead | .. | .. | 0 | 0 | 0 | 0 | x | x | x | 505 | 505 |
| Other finfish | .. | .. | 264 | 0 | 1 | 21 | x | x | x | 139 | 645 |
| Total finfish | 16,831 | .. | 6,280 | 30,359 | 421 | 3,721 | x | $\mathbf{x}$ | x | 80,713 | 140,159 |
| Clams | 0 | 0 | 406 | 0 | 0 | 0 | x | x | x | 2,710 | 3,116 |
| Oysters | 0 | 2,787 | 105 | 1,118 | 0 | 0 | x | x | x | 6,487 | 10,497 |
| Mussels | 4,397 | 22,690 | 1,396 | 4 | 271 | 0 | x | x | x | 274 | 29,033 |
| Scallops | 0 | 0 | 2 | 0 | 15 | 0 | x | x | x | 198 | 215 |
| Other shellfish | 0 | 0 | 40 | 0 | 46 | 0 | x | x | x | 0 | 86 |
| Total shellfish | 4,397 | 25,477 | 1,949 | 1,122 | 333 | 0 | x | x | $\mathbf{x}$ | 9,669 | 42,947 |
| Total aquaculture | 21,228 | 25,477 | 8,229 | 31,481 | 754 | 3,721 | x | $\mathbf{x}$ | x | 90,382 | 183,106 |
| Re-stocking ${ }^{2}$ | . | . | . | . | 806 | . | . | . | . | . | 806 |
| Total aquaculture (including re-stocking) ${ }^{2}$ | 21,228 | 25,477 | 8,229 | 31,481 | 1,560 | 3,721 | x | $\mathbf{x}$ | $\mathbf{x}$ | 90,382 | 183,912 |
|  | thousands of dollars |  |  |  |  |  |  |  |  |  |  |
| Value |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | .. | 40,124 | 184,966 | 0 | 0 | x | x | x | 409,143 | 634,233 |
| Trout | .. | .. | 1,412 | 1,420 | 1,951 | 18,300 | x | x | x | 478 | 31,516 |
| Steelhead | .. | .. | 0 | 0 | 0 | 0 | x | x | x | 5,183 | 5,183 |
| Other finfish | .. | .. | 4,687 | 0 | 78 | 500 | x | x | x | 1,197 | 8,058 |
| Total finfish | 99,286 | 3,200 | 46,223 | 186,386 | 2,029 | 18,800 | x | $\mathbf{x}$ | $\mathbf{x}$ | 416,001 | 781,476 |
| Clams | 0 | 0 | 1,258 | 0 | 0 | 0 | x | x | x | 6,291 | 7,549 |
| Oysters | 0 | 7,617 | 1,140 | 5,220 | 0 | 0 | x | x | x | 10,251 | 24,228 |
| Mussels | 13,518 | 30,014 | 1,876 | 9 | 353 | 0 | x | x | x | 855 | 46,625 |
| Scallops | 0 | 0 | 13 | 0 | 209 | 0 | x | x | x | 1,338 | 1,560 |
| Other shellfish | 0 | 0 | 1,525 | 0 | 70 | 0 | $x$ | $x$ | $x$ | 0 | 1,595 |
| Total shellfish | 13,518 | 37,631 | 5,812 | 5,229 | 631 | 0 | $\mathbf{x}$ | $\mathbf{x}$ | x | 18,735 | 81,557 |
| Total aquaculture | 112,804 | 40,831 | 52,035 | 191,615 | 2,661 | 18,800 | x | x | x | 434,736 | 863,033 |
| Re-stocking ${ }^{2}$ | . | . | . | . | 8,584 | . | . | . | . | . | 8,584 |
| Total aquaculture (including re-stocking) ${ }^{2}$ | 112,804 | 40,831 | 52,035 | 191,615 | 11,245 | 18,800 | $\mathbf{x}$ | $\mathbf{x}$ | $\mathbf{x}$ | 434,736 | 871,617 |

1. Provinces with data not available are not included in the Canada or provincial 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 ministries responsible for aquaculture.

Table 1-4
Aquaculture, production and value, by province and Canada - 2013

|  | Newfoundland and Labrador | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tonnes |  |  |  |  |  |  |  |  |  |  |
| Production |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | .. | 6,616 | 18,837 | 0 | 0 | x | x | x | 74,673 | 100,126 |
| Trout | .. | .. | 104 |  | 1,262 | 3,580 | x | x | x | 62 | 6,695 |
| Steelhead |  |  | 0 | 0 | 0 | 0 | x | x | x | 682 | 682 |
| Other finfish | .. | .. | 255 | 0 | 1 | 210 | x | x | x | 391 | 1,179 |
| Total finfish | 22,196 | .. | 6,975 | 18,837 | 1,263 | 3,790 | x | $\mathbf{x}$ | x | 75,808 | 130,879 |
| Clams | 0 | 0 | 358 | 0 | 0 | 0 | X | $x$ | x | 2,476 | 2,834 |
| Oysters | 0 | 3,278 | 356 | 739 | 10 | 0 | x | x | x | 5,592 | 9,975 |
| Mussels | 4,354 | 20,009 | 1,051 |  | 448 | 0 | x | x | x | 291 | 26,154 |
| Scallops | 0 | 0 | 12 | 5 | 11 | 0 | x | x | x | 91 | 119 |
| Other shellfish | 0 | 0 | 0 | 5 | 22 | 0 | x | X | x | 0 | 27 |
| Total shellfish | 4,354 | 23,287 | 1,777 | 749 | 491 | 0 | x | x | x | 8,450 | 39,108 |
| Total aquaculture | 26,550 | 23,287 | 8,752 | 19,586 | 1,754 | 3,790 | x | $\mathbf{x}$ | x | 84,258 | 169,987 |
|  | thousands of dollars |  |  |  |  |  |  |  |  |  |  |
| Value |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | .. | 41,956 | 117,334 | 0 | 0 | x | x | x | 475,769 | 635,059 |
| Trout | .. | .. | 1,042 |  | 10,735 | 18,000 | x | x | x | 501 | 38,555 |
| Steelhead | .. | .. | 0 | 0 | 0 | 0 | X | x | x | 4,635 | 4,635 |
| Other finfish | .. | .. | 6,867 | 0 | 119 | 1,200 | x | x | x | 4,664 | 15,190 |
| Total finfish | 181,833 | 3,000 | 49,865 | 117,334 | 10,854 | 19,200 | x | $\mathbf{x}$ | $\mathbf{x}$ | 485,569 | 878,272 |
| Clams | 0 | 0 | 1,090 | 0 | 0 | 0 | X | X | X | 7,014 | 8,104 |
| Oysters | 0 | 8,671 | 1,463 | 5,665 | 170 | 0 | x | x | x | 12,357 | 28,326 |
| Mussels | 15,139 | 28,673 | 1,601 |  | 584 | 0 | x | x | x | 1,824 | 47,821 |
| Scallops | 0 | 0 | 78 | 11 | 141 | 0 | x | x | x | 726 | 956 |
| Other shellfish | 0 | 0 | 0 | 2 | 29 | 0 | x | x | x | 0 | 31 |
| Total shellfish | 15,139 | 37,344 | 4,232 | 5,678 | 925 | 0 | x | X | x | 21,921 | 85,239 |
| Total aquaculture | 196,972 | 40,344 | 54,097 | 123,012 | 11,779 | 19,200 | x | $\mathbf{x}$ | x | 507,490 | 963,510 |

1. Provinces with data not available are not included in the Canada or provincial totals.

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 ministries responsible for aquaculture.

Table 1-5
Aquaculture, production and value, by province and Canada - 2014

|  | Newfoundland and Labrador | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tonnes |  |  |  |  |  |  |  |  |  |  |
| Production |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | .. | 6,824 | 17,184 | 0 | 0 | X | x | x | 54,971 | 78,979 |
| Trout | .. | .. |  |  | 1,143 | 4,000 | x | x | x | 44 | 6,698 |
| Steelhead | .. |  | 0 | 0 | 0 | 0 | x | x | x | 790 | 790 |
| Other finfish | . | .. | 278 | 0 | 1 | 210 | x | x | x | 471 | 1,209 |
| Total finfish | 5,980 | .. | 7,102 | 17,184 | 1,144 | 4,210 | $\mathbf{x}$ | $\mathbf{x}$ | x | 56,276 | 93,656 |
| Clams | 0 | 0 | 299 | 0 | 0 | 0 | x | x | x | 1,327 | 1,626 |
| Oysters | 0 | 3,321 | 314 | 847 | 14 | 0 | x | x | x | 8,108 | 12,604 |
| Mussels | 3,260 | 20,269 | 970 |  | 373 | 0 | x | x | x | 592 | 25,464 |
| Scallops | 0 | 0 |  | 5 | 9 | 0 | x | x | x | 100 | 114 |
| Other shellfish | 0 | 0 | 58 | 41 | 20 | 0 | x | x | x | 0 | 119 |
| Total shellfish | 3,260 | 23,590 | 1,641 | 893 | 416 | 0 | x | x | x | 10,127 | 39,927 |
| Total aquaculture | 9,240 | 23,590 | 8,743 | 18,077 | 1,560 | 4,210 | $\mathbf{x}$ | x | x | 66,403 | 133,583 |
|  |  |  |  |  | thous | nds of dol |  |  |  |  |  |
| Value |  |  |  |  |  |  |  |  |  |  |  |
| Salmon | .. | .. | 49,664 | 117,744 | 0 | 0 | x | x | x | 380,354 | 547,762 |
| Trout | .. | .. |  |  | 9,329 | 20,500 | x | x | x | 344 | 37,612 |
| Steelhead | .. | .. | 0 | 0 | 0 | 0 | x | x | x | 5,917 | 5,917 |
| Other finfish | .. | . | 6,399 | 0 | 94 | 1,300 | x | x | x | 3,198 | 12,795 |
| Total finfish | 42,446 | 3,410 | 56,063 | 117,744 | 9,423 | 21,800 | $\mathbf{x}$ | x | x | 389,813 | 649,942 |
| Clams | 0 | 0 | 368 | 0 | 0 | 0 | x | x | x | 6,040 | 6,408 |
| Oysters | 0 | 8,784 | 1,181 | 6,326 | 275 | 0 | x | x | x | 13,014 | 29,580 |
| Mussels | 11,640 | 29,046 | 1,212 |  | 609 | 0 | x | x | x | 2,584 | 45,091 |
| Scallops | 0 | 0 |  | 22 | 142 | 0 | x | x | x | 490 | 654 |
| Other shellfish | 0 | 0 | 1,534 | 135 | 26 | 0 | x | x | x | 0 | 1,695 |
| Total shellfish | 11,640 | 37,830 | 4,295 | 6,483 | 1,052 | 0 | x | x | $\mathbf{x}$ | 22,128 | 83,428 |
| Total aquaculture | 54,086 | 41,240 | 60,358 | 124,227 | 10,475 | 21,800 | $\mathbf{x}$ | x | x | 411,941 | 733,370 |

1. Provinces with data not available are not included in the Canada or provincial totals.

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 ministries responsible for aquaculture.

Table 2-1
Exports of selected Canadian aquaculture products, by country of destination - 2010 and 2011

| Destination | 2010 |  |  |  | 2011 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mussels | Other Salmon ${ }^{1}$ | Atlantic Salmon ${ }^{2}$ | Atlantic Salmon fillets | Mussels | Other Salmon ${ }^{1}$ | Atlantic Salmon ${ }^{2}$ | Atlantic <br> Salmon fillets |
|  | tonnes |  |  |  |  |  |  |  |
| United States | 12,690 | 1,697 | 70,036 | 6,357 | 13,740 | 1,392 | 66,141 | 4,377 |
| California | 52 | 846 | 24,694 | 122 | 41 | 593 | 26,649 | 205 |
| Maine | 2,661 | 0 | 4,837 | 199 | 2,741 | 0 | 3,695 | 171 |
| Massachusetts | 7,863 | 169 | 8,662 | 1,180 | 8,503 | 301 | 7,349 | 578 |
| New York | 947 | 147 | 11,808 | 823 | 942 | 149 | 10,597 | 308 |
| Washington | 50 | 433 | 10,506 | 668 | 39 | 225 | 9,562 | 401 |
| Other | 1,116 | 102 | 9,529 | 3,365 | 1,474 | 124 | 8,289 | 2,716 |
| France | 0 | 0 | 1 | 1 | 0 | 0 | 9 | 5 |
| Japan | 0 | 213 | 437 | 397 | 0 | 445 | 187 | 501 |
| Taiwan | 0 | 1 | 166 | 70 | 0 | 69 | 8 | 122 |
| Other | 30 | 4 | 512 | 2 | 73 | 43 | 389 | 186 |
| Total | 12,719 | 1,914 | 71,152 | 6,827 | 13,813 | 1,949 | 66,734 | 5,192 |
|  | thousands of dollars |  |  |  |  |  |  |  |
| United States | 33,142 | 11,190 | 432,283 | 78,407 | 35,575 | 13,159 | 414,412 | 55,822 |
| California | 274 | 5,701 | 152,917 | 1,345 | 181 | 5,619 | 158,025 | 2,199 |
| Maine | 5,979 | 0 | 26,549 | 2,508 | 5,872 | 0 | 22,359 | 2,262 |
| Massachusetts | 21,562 | 2,506 | 51,283 | 14,580 | 23,241 | 3,218 | 44,743 | 7,691 |
| New York | 2,392 | 215 | 69,758 | 10,304 | 2,406 | 1,331 | 71,933 | 3,500 |
| Washington | 158 | 2,009 | 71,557 | 6,384 | 167 | 1,898 | 61,359 | 3,505 |
| Other | 2,777 | 758 | 60,219 | 43,286 | 3,706 | 1,093 | 55,992 | 36,663 |
| France | 0 | 1 | 10 | 17 | 0 | 0 | 93 | 61 |
| Japan | 0 | 3,115 | 2,708 | 2,263 | 0 | 5,886 | 1,439 | 2,831 |
| Taiwan | 0 | 6 | 1,222 | 410 | 1 | 559 | 47 | 760 |
| Other | 152 | 32 | 3,825 | 16 | 321 | 388 | 2,693 | 1,233 |
| Total | 33,295 | 14,345 | 440,049 | 81,113 | 35,897 | 19,992 | 418,684 | 60,707 |

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 - 2012 and 2013

| Destination | 2012 |  |  |  | 2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mussels | Other Salmon ${ }^{1}$ | Atlantic Salmon ${ }^{2}$ | Atlantic <br> Salmon fillets | Mussels | Other Salmon ${ }^{1}$ | Atlantic Salmon ${ }^{2}$ | Atlantic Salmon fillets |
|  | tonnes |  |  |  |  |  |  |  |
| United States | 14,941 | 1,169 | 82,119 | 4,393 | 14,560 | 2,037 | 61,497 | 5,697 |
| California | 28 | 511 | 32,475 | 3 | 15 | 904 | 21,598 | 65 |
| Maine | 3,053 | 0 | 1,924 | 1,209 | 2,644 | 0 | 390 | 2,415 |
| Massachusetts | 9,755 | 222 | 12,912 | 398 | 9,587 | 261 | 11,553 | 526 |
| New York | 516 | 94 | 15,109 | 286 | 395 | 197 | 12,537 | 338 |
| Washington | 5 | 281 | 9,586 | 64 | 19 | 537 | 5,589 | 44 |
| Other | 1,584 | 61 | 10,113 | 2,433 | 1,900 | 140 | 9,829 | 2,309 |
| France | 0 | 6 | 0 | 0 | 0 | 2 | 0 | 0 |
| Japan | 0 | 98 | 406 | 509 | 0 | 83 | 1,380 | 0 |
| Taiwan | 0 | 3 | 340 | 81 | 0 | 0 | 542 | 0 |
| Other | 60 | 1 | 557 | 1 | 60 | 1 | 375 | 4 |
| Total | 15,001 | 1,277 | 83,422 | 4,985 | 14,619 | 2,123 | 63,793 | 5,701 |
|  | thousands of dollars |  |  |  |  |  |  |  |
| United States | 39,149 | 10,390 | 457,099 | 38,838 | 39,863 | 18,284 | 418,176 | 55,279 |
| California | 107 | 5,052 | 180,319 | 27 | 64 | 8,219 | 139,757 | 439 |
| Maine | 6,617 | 0 | 10,410 | 6,163 | 5,744 | 0 | 2,094 | 12,648 |
| Massachusetts | 27,249 | 2,455 | 69,139 | 4,104 | 28,392 | 2,916 | 69,133 | 6,727 |
| New York | 1,245 | 139 | 86,538 | 2,153 | 1,013 | 1,912 | 95,050 | 3,500 |
| Washington | 28 | 2,124 | 51,327 | 682 | 88 | 3,860 | 37,431 | 476 |
| Other | 3,901 | 620 | 59,365 | 25,709 | 4,562 | 1,377 | 74,711 | 31,488 |
| France | 0 | 65 | 2 | 3 | 0 | 21 | 4 | 0 |
| Japan | 0 | 1,122 | 2,897 | 2,791 | 0 | 900 | 10,544 | 0 |
| Taiwan | 0 | 19 | 1,951 | 447 | 1 | 0 | 3,605 | 0 |
| Other | 290 | 8 | 3,293 | 13 | 236 | 7 | 2,139 | 75 |
| Total | 39,439 | 11,605 | 465,242 | 42,092 | 40,100 | 19,212 | 434,469 | 55,355 |

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 - 2014

| Destination | 2014 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Mussels | Other Salmon ${ }^{1}$ | Atlantic Salmon ${ }^{2}$ | Atlantic Salmon fillets |
|  | tonnes |  |  |  |
| United States | 13,488 | 1,580 | 44,520 | 3,168 |
| California | 46 | 733 | 16,826 | 29 |
| Maine | 2,577 | 0 | 1,459 | 831 |
| Massachusetts | 8,902 | 256 | 3,438 | 447 |
| New York | 317 | 127 | 9,597 | 371 |
| Washington | 27 | 307 | 4,825 | 22 |
| Other | 1,618 | 157 | 8,374 | 1,468 |
| France | 0 | 10 | 2 | 0 |
| Japan | 1 | 223 | 599 | 0 |
| Taiwan | 0 | 0 | 156 | 0 |
| Other | 50 | 1 | 269 | 1 |
| Total | 13,540 | 1,814 | 45,546 | 3,169 |
| thousands of dollars |  |  |  |  |
| United States | 37,261 | 15,074 | 321,823 | 37,066 |
| California | 276 | 7,181 | 119,363 | 330 |
| Maine | 5,621 | 0 | 9,146 | 5,485 |
| Massachusetts | 26,311 | 3,203 | 23,336 | 5,156 |
| New York | 857 | 257 | 73,073 | 4,518 |
| Washington | 102 | 2,857 | 32,434 | 288 |
| Other | 4,094 | 1,576 | 64,470 | 21,289 |
| France | 1 | 93 | 7 | 4 |
| Japan | 8 | 2,167 | 4,262 | 0 |
| Taiwan | 0 | 0 | 987 | 0 |
| Other | 200 | 11 | 813 | 12 |
| Total | 37,470 | 17,346 | 327,894 | 37,082 |

[^0]Table 3-1
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 | 33,835 | 36,218 | 233,165 | x | 18,295 | 531,739 | 974,836 |
| Whole fish dressed, fresh or chilled | x | 0 | 13,785 | 90,465 | x | 15,240 | 444,395 | 598,360 |
| Fish eggs and live fish for grow-out | 0 | x | x | x | 2,360 | 1,185 | x | 39,195 |
| Whole fish live except for grow-out | 70,975 | x | 6,575 | 108,335 | 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 | 23 | 0 | x | 55 | x | 357 |
| Total finfish | X | x | 31,198 | 227,290 | 10,270 | x | 512,364 | 905,017 |
| Total molluscs | x | 31,160 | 5,020 | x | x | 0 | 15,785 | 61,345 |
| Other goods and services, not elsewhere specified | x | x | 0 | x | $x$ | x | 3,590 | 8,474 |
| 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 | $\mathbf{x}$ | 34,740 | 38,303 | 242,000 | x | 18,925 | 533,689 | 990,146 |
| Change in inventory value, goods | 4,650 | 355 | 1,260 | 21,040 | -460 | -1,200 | 15,035 | 40,680 |
| Gross output | x | 35,095 | 39,563 | 263,040 | x | 17,725 | 548,724 | 1,030,826 |
| Product inputs |  |  |  |  |  |  |  |  |
| Product expenses | x | 9,029 | 22,612 | 152,559 | x | 10,795 | 368,072 | 646,924 |
| Feed | 42,595 | x | 9,800 | 82,140 | x | 6,900 | 164,500 | 308,825 |
| Therapeutants | 1,135 | x | 670 | 12,520 | x | 220 | 12,385 | 27,099 |
| Purchases, eggs and fish for grow-out | 12,870 | 2,120 | x | 18,140 | x | 800 | 5,115 | 45,229 |
| Purchases, fish for processing and resale | x | 0 | x | x | x | x | x | 1,481 |
| Insurance premiums | x | 580 | 707 | 6,200 | x | 135 | 7,527 | 18,013 |
| Energy (electricity, fuel, et cetera) | x | 889 | 930 | 4,496 | x | 620 | 10,050 | 21,111 |
| Goods transportation and storage | 1,780 | x | x | 2,869 | x | x | 34,270 | 40,029 |
| Processing services | 2,768 | 165 | x | x | x | x | 37,730 | 41,568 |
| Rental and leasing expenses | x | 120 | 480 | 950 | x | 320 | 5,140 | 8,422 |
| Maintenance and repairs, buildings | 530 | 370 | 340 | 515 | x | 30 | x | 4,946 |
| Maintenance and repairs, machinery | x | 1,100 | 325 | 3,239 | x | 110 | 26,530 | 34,034 |
| Professional services | 940 | 145 | 210 | 935 | 125 | 160 | 7,415 | 9,930 |
| Other operating expenses, not elsewhere specified | x | 3,005 | 2,290 | 19,543 | x | 1,190 | 53,814 | 86,237 |
| Change in inventory value, raw materials | -110 | 315 | 5 | -95 | -810 | -580 | -1,480 | -2,755 |
| Total of product inputs | x | 8,714 | 22,607 | 152,654 | x | 11,375 | 369,552 | 649,679 |
| Gross value added (factor cost) | 37,770 | 26,381 | 16,956 | 110,386 | 4,132 | 6,350 | 179,172 | 381,147 |
| Selected primary inputs |  |  |  |  |  |  |  |  |
| Salaries and wages | 10,818 | 6,745 | 4,975 | 22,595 | 2,125 | 2,100 | 60,010 | 109,368 |
| 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 | 17,014 |

1. Canada total excludes Manitoba, Saskatchewan and Alberta.

Note(s): Data and account structure are subject to revision.

Table 3-2
Value added account - Aquaculture industry, by province and Canada - 2011

|  | 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 | $\mathbf{x}$ | 41,485 | 195,495 | 12,390 | 17,250 | 472,190 | 831,995 |
| Whole fish dressed, fresh or chilled | x | 0 | x | 81,980 | 1,875 | 6,730 | 390,910 | 522,855 |
| Fish eggs and live fish for grow-out | $x$ | $x$ | 3,460 | 2,330 | 2,140 | 9,340 | x | 43,695 |
| Whole fish live except for grow-out | 6,780 | 0 | x | x | 5,550 | 670 | $x$ | 126,610 |
| Whole fish, dressed and frozen | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fish fillets, fresh or frozen | 0 | 0 | $x$ | $x$ | x | x | $x$ | 65,090 |
| Fish, dried, smoked or in brine | 0 | 0 | 0 | 0 | x | x | 0 | 270 |
| Total finfish | x | x | 37,560 | 189,240 | 10,465 | x | 451,135 | 758,520 |
| Total molluscs | 6,970 | 31,905 | x | x | 595 | 0 | 15,510 | 61,455 |
| Other goods and services, not elsewhere specified | x | x | 205 | x | x | x | 5,545 | 12,020 |
| Subsidies | $x$ | 5 | x | 65 | 170 | x | 815 | 1,845 |
| Other operating revenue | x | x | X | 6,455 | 495 | x | 2,610 | 12,635 |
| Total operating revenue | x | $\mathbf{x}$ | 43,905 | 202,015 | 13,055 | 17,885 | 475,615 | 846,475 |
| Change in inventory value, goods | x | x | -3,205 | 2,055 | -490 | 790 | -2,190 | 60,680 |
| Gross output | 121,200 | 36,520 | 40,700 | 204,070 | 12,565 | 18,675 | 473,425 | 907,155 |
| Product inputs |  |  |  |  |  |  |  |  |
| Product expenses | x | 10,855 | $\mathbf{x}$ | 159,640 | 5,190 | 10,615 | 344,800 | 643,775 |
| Feed | 43,330 | x | 12,070 | 67,220 | x | 6,195 | 166,555 | 297,225 |
| Therapeutants | 1,550 | 75 | 900 | 5,735 | 80 | 130 | 9,280 | 17,750 |
| Purchases, eggs and fish for grow-out | 19,065 | 2,315 | x | x | 250 | 1,140 | 3,635 | 45,065 |
| Purchases, fish for processing and resale | x | 0 | X | x | 70 | x | x | 34,515 |
| Insurance premiums | x | 365 | 745 | x | 235 | 125 | 7,430 | 15,220 |
| Energy (electricity, fuel, et cetera) | 1,985 | 960 | 1,070 | 3,895 | 870 | 545 | 9,515 | 18,840 |
| Goods transportation and storage | 1,770 | 520 | 110 | 2,690 | 75 | 205 | 28,175 | 33,545 |
| Processing services | 3,030 | x | 120 | 5 | x | - | 32,245 | 35,725 |
| Rental and leasing expenses | x | 195 | 455 | x | 80 | 245 | 5,060 | 8,905 |
| Maintenance and repairs, buildings | x | 255 | 540 | x | 200 | 40 | x | 4,385 |
| Maintenance and repairs, machinery | 300 | 1,505 | 805 | 7,165 | 365 | 150 | 21,500 | 31,790 |
| Professional services | 1,135 | 710 | 385 | 2,500 | 155 | 315 | 8,075 | 13,275 |
| Other operating expenses, not elsewhere specified | 5,330 | 3,490 | 4,630 | 20,205 | 1,100 | 1,460 | 51,320 | 87,535 |
| Change in inventory value, raw materials | X | 105 | x | -125 | 170 | 25 | 1,295 | 3,795 |
| Total of product inputs | 80,920 | 10,750 | 29,430 | 159,765 | 5,020 | 10,590 | 343,505 | 639,980 |
| Gross value added (factor cost) | 40,280 | 25,770 | 11,270 | 44,305 | 7,545 | 8,085 | 129,920 | 267,175 |
| Selected primary inputs |  |  |  |  |  |  |  |  |
| Salaries and wages | 8,470 | 6,955 | 5,645 | 18,510 | 2,205 | 2,170 | 62,855 | 106,810 |
| Employer portion of employee benefits | 1,210 | 735 | 705 | 2,135 | 195 | 235 | 10,500 | 15,715 |
| Depreciation | x | 2,315 | 6,210 | 23,735 | x | x | 26,860 | 68,295 |
| Interest paid | x | 635 | 465 | 4,525 | x | x | 3,930 | 12,575 |

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

Table 3-3
Value added account - Aquaculture industry, by province and Canada - 2012

|  | 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 | 106,210 | 39,945 | 44,035 | 190,700 | 11,825 | 18,580 | 436,235 | 847,530 |
| Whole fish dressed, fresh or chilled | 56,740 | 0 | 5,860 | 72,035 | 2,020 | 14,580 | 361,625 | 512,860 |
| Fish eggs and live fish for grow-out | 15 | $x$ | 4,575 | 7,220 | x | 1,980 | 14,465 | 33,180 |
| Whole fish live except for grow-out | 36,925 | 0 | x | x | 5,795 | 960 | 35 | 153,785 |
| Whole fish, dressed and frozen | 0 | 0 | 0 | 0 | 0 | 0 | 4,195 | 4,195 |
| Fish fillets, fresh or frozen | 0 | 0 | x | x | x | x | 32,715 | 56,500 |
| Fish, dried, smoked or in brine | 0 | 0 | 0 | 0 | x | x | 0 | 330 |
| Total finfish | 93,680 | x | 39,070 | 182,810 | 10,665 | x | 413,035 | 760,850 |
| Total molluscs | 11,170 | 36,090 | x | x | 535 | 0 | 18,295 | 75,780 |
| Other goods and services, not elsewhere specified | 1,360 | x | x | x | 625 | 15 | 4,905 | 10,900 |
| Subsidies | $x$ | 5 | 80 | 235 | 185 | x | 3,240 | 4,135 |
| Other operating revenue | X | 200 | 2,375 | 4,950 | 75 | X | 3,455 | 11,840 |
| Total operating revenue | 106,500 | 40,150 | 46,490 | 195,885 | 12,085 | 19,465 | 442,930 | 863,505 |
| Change in inventory value, goods | 23,410 | 1,510 | -300 | 2,325 | 425 | -560 | -20,080 | 6,730 |
| Gross output | 129,910 | 41,660 | 46,190 | 198,210 | 12,510 | 18,905 | 422,850 | 870,235 |
| Product inputs |  |  |  |  |  |  |  |  |
| Product expenses | 105,960 | 10,960 | 30,960 | 158,590 | 5,160 | 11,380 | 347,835 | 670,845 |
| Feed | 59,660 | 245 | 12,435 | 60,895 | x | x | 159,950 | 301,590 |
| Therapeutants | x | 125 | 990 | x | 95 | 165 | 9,500 | 21,190 |
| Purchases, eggs and fish for grow-out | 16,090 | 3,655 | $x$ | 12,480 | 155 | x | 5,975 | 42,510 |
| Purchases, fish for processing and resale | x | 0 | x | x | x | X | 825 | 43,610 |
| Insurance premiums | $\times$ | 320 | 1,025 | x | 185 | 155 | 8,500 | 18,555 |
| Energy (electricity, fuel, et cetera) | 1,775 | 1,040 | 1,110 | 3,920 | 920 | 720 | 12,960 | 22,445 |
| Goods transportation and storage | 2,875 | 585 | x | x | 70 | 145 | 23,505 | 30,565 |
| Processing services | x | 225 | x | 15 | x | x | 28,150 | 32,745 |
| Rental and leasing expenses | 720 | 415 | 450 | 765 | 95 | 475 | 5,995 | 8,915 |
| Maintenance and repairs, buildings | X | 250 | 515 | X | 185 | 50 | 5,410 | 8,685 |
| Maintenance and repairs, machinery | 200 | 1,325 | 1,240 | 7,980 | 220 | 315 | 18,380 | 29,660 |
| Professional services | 825 | 555 | 360 | 2,060 | 165 | 215 | 7,160 | 11,340 |
| Other operating expenses, not elsewhere specified | 9,250 | 2,220 | 4,360 | 19,305 | 1,165 | 1,210 | 61,525 | 99,035 |
| Change in inventory value, raw materials | 2,925 | -40 | 35 | 805 | -55 | -205 | 480 | 3,945 |
| Total of product inputs | 103,035 | 11,000 | 30,925 | 157,785 | 5,215 | 11,585 | 347,355 | 666,900 |
| Gross value added (factor cost) | 26,875 | 30,660 | 15,265 | 40,425 | 7,295 | 7,320 | 75,495 | 203,335 |
| Selected primary inputs |  |  |  |  |  |  |  |  |
| Salaries and wages | 10,190 | 7,595 | 5,430 | 16,735 | 2,160 | 2,755 | 60,515 | 105,380 |
| Employer portion of employee benefits | 1,745 | 905 | 525 | 1,910 | 215 | 290 | 9,890 | 15,480 |
| Depreciation | x | 2,680 | x | 18,170 | 945 | 895 | 30,820 | 64,975 |
| Interest paid | x | 705 | x | 9,655 | 155 | 295 | 3,770 | 27,090 |

1. Canada total excludes Manitoba, Saskatchewan and Alberta.

Note(s): Data and account structure are subject to revision.

Table 3-4
Value added account - Aquaculture industry, by province and Canada - 2013

|  | 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 | 196,975 | 40,390 | 54,610 | 123,010 | 12,185 | 19,245 | 510,290 | 956,705 |
| Whole fish dressed, fresh or chilled | x | x | 3,970 | x | 2,665 | 15,170 | 459,970 | 633,905 |
| Fish eggs and live fish for grow-out | 0 | x | 1,960 | x | 1,095 | 2,195 | x | 21,405 |
| Whole fish live except for grow-out | 48,465 | 0 | x | 98,465 | x | 865 | 0 | 190,080 |
| Whole fish, dressed and frozen | 0 | x | 0 | 0 | 0 | 0 | x | 5,310 |
| Fish fillets, fresh or frozen | 0 | x | x | 0 | x | 965 | x | 16,300 |
| Fish, dried, smoked or in brine | 0 | 0 | x | 0 | x | 5 | 0 | 645 |
| Total finfish | x | x | 49,860 | X | 10,850 | 19,200 | 485,570 | 867,645 |
| Total molluscs | x | 37,345 | x | 5,675 | 895 | 0 | x | 85,210 |
| Other goods and services, not elsewhere specified | $x$ | x | x | X | 440 | 45 | X | 3,850 |
| Subsidies | x | x | x | 235 | 775 | 175 | 1,245 | 2,625 |
| Other operating revenue | X | X | X | x | 805 | 460 | 5,600 | 52,755 |
| Total operating revenue | $\mathbf{x}$ | 41,080 | 57,885 | $\mathbf{x}$ | 13,765 | 19,880 | 517,135 | 1,012,085 |
| Change in inventory value, goods | X | 655 | 6,285 | x | -240 | 955 | 13,935 | 165 |
| Gross output | 185,760 | 41,735 | 64,170 | 155,160 | 13,525 | 20,835 | 531,070 | 1,012,250 |
| Product inputs |  |  |  |  |  |  |  |  |
| Product expenses | 97,205 | 15,810 | $\mathbf{x}$ | x | 6,775 | 12,665 | 322,515 | 625,015 |
| Feed | x | 480 | 14,635 | X | 1,745 | 6,570 | 141,850 | 264,030 |
| Therapeutants | x | 85 | x | x | 75 | 110 | 14,655 | 23,905 |
| Purchases, eggs and fish for grow-out | x | 4,980 | 7,355 | x | 225 | 1,780 | x | 56,385 |
| Purchases, fish for processing and resale | x | X | X | X | x | x | x | 27,165 |
| Insurance premiums | x | 540 | 1,490 | x | 290 | 205 | 7,030 | 16,830 |
| Energy (electricity, fuel, et cetera) | 1,715 | 1,105 | 1,150 | x | x | 530 | 12,415 | 20,860 |
| Goods transportation and storage | x | 430 | 675 | X | 140 | 275 | 25,005 | 31,485 |
| Processing services | x | 135 | x | 0 | x | x | 20,510 | 26,495 |
| Rental and leasing expenses | 290 | 600 | 310 | x | 150 | - | 5,930 | 8,125 |
| Maintenance and repairs ${ }^{2}$ | x | 1,950 | 1,850 | x | 675 | 540 | 21,735 | 32,565 |
| Professional services | x | x | 780 | 2,600 | 635 | 465 | 9,275 | 16,315 |
| Other operating expenses, not elsewhere specified | 6,870 | x | x | 23,300 | 1,790 | 1,890 | 56,700 | 100,855 |
| Change in inventory value, raw materials | -355 | 155 | x | x | 120 | -115 | 1,640 | 5,535 |
| Total of product inputs | 97,560 | 15,655 | 39,280 | 126,675 | 6,655 | 12,780 | 320,875 | 619,480 |
| Gross value added (factor cost) | 88,200 | 26,080 | 24,890 | 28,485 | 6,870 | 8,055 | 210,195 | 392,770 |
| Selected primary inputs |  |  |  |  |  |  |  |  |
| Salaries and wages | 10,070 | 8,370 | 5,350 | 14,970 | 2,080 | 2,900 | 59,295 | 103,035 |
| Employer portion of employee benefits | 1,400 | 945 | 515 | 1,505 | 190 | 305 | 9,290 | 14,150 |
| Depreciation | x | 3,280 | 5,875 | x | 1,555 | 925 | 30,550 | 64,215 |
| Interest paid | x | 935 | x | 12,440 | 375 | 425 | x | 23,335 |

1. Canada total excludes Manitoba, Saskatchewan and Alberta.
2. Starting in 2013, maintenance and repair expenses for buildings and machinery are combined.

Note(s): Data and account structure are subject to revision.

Table 3-5
Value added account - Aquaculture industry, by province and Canada - 2014

|  | 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 | 59,605 | 41,980 | 60,425 | 124,660 | 11,070 | 21,875 | 415,770 | 735,385 |
| Whole fish dressed, fresh or chilled | X | x | X | X | 1,230 | 14,355 | 369,950 | 441,930 |
| Fish eggs and live fish for grow-out | 0 | x | x | x | 1,130 | 2,920 | 13,500 | 22,105 |
| Whole fish live except for grow-out | x | 0 | x | x | 5,600 | 1,010 | 0 | 163,530 |
| Whole fish, dressed and frozen | 0 | x | 0 | 0 | 0 | 20 | x | 4,590 |
| Fish fillets, fresh or frozen | 0 | x | x | 0 | x | x | x | 11,900 |
| Fish, dried, smoked or in brine | 0 | x | x | 0 | x | x | 0 | 2,160 |
| Total finfish | 47,965 | 3,410 | X | x | 9,420 | x | 389,815 | 646,215 |
| Total molluscs | 11,640 | 38,385 | x | x | 1,025 | 0 | 22,130 | 83,965 |
| Other goods and services, not elsewhere specified | 0 | 185 | x | x | 625 | x | 3,825 | 5,205 |
| Subsidies | x | x | X | 300 | 735 | 95 | 800 | 2,915 |
| Other operating revenue | X | x | X | 5,945 | 325 | 530 | 9,475 | 32,475 |
| Total operating revenue | $x$ | 48,215 | x | 130,905 | 12,135 | 22,500 | 437,540 | 770,775 |
| Change in inventory value, goods | x | 2,065 | X | 23,915 | 15 | -745 | 72,350 | 144,875 |
| Gross output | 103,830 | 50,280 | 74,430 | 154,820 | 12,150 | 21,755 | 509,890 | 915,650 |
| Product inputs |  |  |  |  |  |  |  |  |
| Product expenses | 98,415 | 21,005 | 40,190 | 133,510 | 6,680 | 19,105 | 352,485 | 671,390 |
| Feed | 52,270 | 165 | X | x | 1,810 | 7,660 | 183,620 | 317,765 |
| Therapeutants | 4,975 | 20 | 535 | x | 65 | x | 19,560 | 30,885 |
| Purchases, eggs and fish for grow-out | 17,625 | 5,595 | 7,215 | x | 420 | 4,760 | x | 61,145 |
| Purchases, fish for processing and resale | x | 880 | x | x | 85 | 5 | x | 24,420 |
| Insurance premiums | 3,080 | 450 | x | x | 265 | 300 | 7,770 | 18,665 |
| Energy (electricity, fuel, et cetera) | 1,445 | 935 | 850 | 1,395 | 810 | 865 | 14,895 | 21,195 |
| Goods transportation and storage | x | 985 | x | 815 | 220 | 435 | 24,555 | 30,665 |
| Processing services | X | 60 | x | x | x | x | 17,285 | 22,340 |
| Rental and leasing expenses | 505 | 395 | 640 | 745 | 145 | 490 | 7,665 | 10,585 |
| Maintenance and repairs ${ }^{2}$ | x | 1,710 | x | x | 740 | 735 | 24,780 | 40,855 |
| Professional services | 2,105 | 1,585 | 730 | 2,010 | 675 | 680 | 10,525 | 18,310 |
| Other operating expenses, not elsewhere specified | 6,425 | 8,225 | 4,090 | x | x | 2,265 | 38,010 | 74,560 |
| Change in inventory value, raw materials | x | 105 | X | 355 | -40 | -230 | 4,645 | 195 |
| Total of product inputs | x | 20,900 | x | 133,155 | 6,720 | 19,335 | 347,840 | 671,195 |
| Gross value added (factor cost) | x | 29,380 | x | 21,665 | 5,430 | 2,420 | 162,050 | 244,455 |
| Selected primary inputs |  |  |  |  |  |  |  |  |
| Salaries and wages | 8,985 | 8,260 | 5,805 | 15,540 | 2,215 | 3,490 | 61,795 | 106,090 |
| Employer portion of employee benefits | 1,250 | 935 | 600 | 1,640 | 240 | 370 | 10,105 | 15,140 |
| Depreciation | 7,605 | 3,260 | 5,020 | 12,020 | 1,195 | 1,245 | 30,775 | 61,120 |
| Interest paid | 4,220 | 880 | 950 | x | 315 | 560 | x | 18,045 |

1. Canada total excludes Manitoba, Saskatchewan and Alberta.
2. Starting in 2013, maintenance and repair expenses for buildings and machinery are combined.

Note(s): Data and account structure are subject to revision.

## Concepts and methods

Aquaculture is the managed production of fish. The North American Industrial Classification System (NAICS) defines the Canadian aquaculture industry as establishments which are primarily engaged in farm-raising aquatic animals and plants. Establishments primarily engaged in raising both aquatic animals and plants in integrated growing operations, aquaponics, are also included. These activities can occur both in natural waters and in artificial aquatic impoundments and include the use of some form of intervention in the rearing or growing process to enhance production.

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

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

## Production and value of aquaculture

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 aquaculture production and value 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.

Generally, finfish production is reported as gutted head-on and the value is based on a farm-gate value. Shellfish is reported as whole, again based on a farm-gate value.

## Exports of selected aquaculture products

Canadian import and export statistics are derived by the International Accounts and Trade Division of Statistics Canada from administrative records collected by the Canada Border Services Agency. The one exception to this process is Canada-United States trade. As of January 1, 1990, Canada and the United States have been using one another's import data as its own export data. Export data are available by province of origin.

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 Harmonized Commodity Description and Coding System, a multipurpose international nomenclature developed by the World Customs Organization.

Small quantities of fish fillets may be included in other categories that include products from the commercial fishery. However, as exports of these categories are relatively low, the number of individual aquaculture categories is limited.

## 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.

The value added account displays the inputs and outputs (revenues and expenses excluding the change in inventory values) on a calendar year basis. These data are displayed by province, with the exception of 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.
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.

## Methods

Starting in reference year 2013, these data are produced as part of Statistics Canada's Integrated Business Statistics Program (IBSP) replacing the Unified Enterprise Survey.
The IBSP incorporates business surveys into a single framework, using questionnaires with a consistent look, structure and content.

The questionnaire satisfies the statistical requirements for financial information as expressed by the Canadian System of National Accounts and businesses and associations operating within the aquaculture industry.
In addition, surveys share common sampling, collection and processing methodologies that are driven by metadata. Common tools are in place to edit, correct, and analyse data. Using common tools helps ensure data quality, while avoiding overlap between surveys and minimizing response burden to the greatest extent possible.

## Frame

The IBSP provides a standardized framework for economic surveys conducted at Statistics Canada. Statistics Canada's Business Register (BR) is the common frame for all surveys using the IBSP model. The BR identifies all businesses operating in Canada and foreign businesses that have links to Canadian companies. It includes information about where businesses are located, how businesses are organized, the industries they operate in and their size in terms of revenues earned and number of employees. The BR is a data service centre updated through a number of sources including administrative data files, feedback received from conducting Statistics Canada business surveys, and profiling activities including direct contact with companies to obtain information about their operations and Internet research findings.

## Target population

The target population is all establishments classified to aquaculture under the North American Industrial Classification System (NAICS 2012) code 112510 that operated for at least one day during the reference year.

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 and the wild fishery.

## Sampling

This is a sample survey with a cross-sectional 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 varies by province from $\$ 30,000$ to $\$ 105,000$.
- Tax data are used to estimate for businesses with gross business revenue less than the cut-off and for imputation of non-response records.

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 2014, the frame included 938 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 a derived threshold. A "must-take" threshold is derived for each province and for each of the commodities (finfish or molluscs). All establishments with a revenue above one of the thresholds are sent a questionnaire.

The "take-none" stratum contains the establishments with gross business revenue less than a cut-off. Take-none strata serve to reduce respondent burden by excluding the smaller businesses from the surveyed population. These businesses should represent at most ten percent of total sales. Instead of sending questionnaires to these businesses, the estimates will be produced through the use of administrative data.

For the establishments not selected in the "must-take" (greater than the "must-take" threshold) 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 2014 was 139 establishments.

## Data collection

The survey is collected primarily through an electronic questionnaire while providing respondents with an option to receive a paper questionnaire, reply by telephone interview or use other electronic reporting methods. Once collected, data are examined for inconsistencies and errors using automated edits followed by an analytical review. Data for non-response and no-contact are imputed using tax and historically reported data.

## Estimation

The general estimation system is used to provide estimates for the entire observed population.
When some enterprises have reported data combining many units located in more than one province or territory, or in more than one industrial classification, data allocation is required. Factors based on information from sources such as tax files and Business Register profiles are used to allocate the data reported on the combined report among the various estimation units where this enterprise is in operation.

The sample used for estimation comes from a two phase sampling process. An initial sampling weight (the design weight) is calculated for each unit of the survey and is simply the multiplication of the inverse of the probability of selection from each phase. It is then adjusted to take into account units that might have been misclassified (large units found in a stratum of small units for example). In addition, the sampling weights derived are modified and adjusted using updated information from taxation data. Using a statistical technique called calibration, the final set of weights is adjusted in such a way that the sample represents as closely as possible the taxation data of the population of this industry.

The weight calculated for each sampling unit indicates how many other units it represents. The final weights are usually either one or greater than one. Sampling units which are "Take-all" have sampling weights of one and only represent themselves; units with larger than expected size are seen as misclassified and their weight is usually adjusted so that they only represent themselves.

The sampling unit being the enterprise, it can represent numerous locations which might contribute to different parts of the population (different sub-industries, province/territory, etc.). Each location is considered an estimation unit. The characteristics of the estimation units are used to derive the domains of estimation, including the industrial classification and the geography. Estimation for the survey portion is done by simple aggregation of the weighted values of all sampled locations that are found in the domain of estimation. Estimates are computed for several domains of estimation such as industrial groups and provinces/territories, based on the most recent classification information available for the location and the survey reference period. It should be noted that this classification information may differ from the original sampling classification because records may have changed in size, industry, or location. Changes in classification are reflected immediately in the estimates.

In the case of the ineligible for sampling portion (also called take-none portion) of the target population defined in Statistics Canada's Business Activity, Expenditure and Output Survey, taxation data is simply aggregated to come up with an estimate. If an estimate is required and taxation data is not available, modeling using auxiliary taxation data is done in order to create data for all requested variables for each unit in the take-none portion. These are also simply aggregated to produce the estimate. The overall estimate includes the estimates from both the surveyed portion and the take-none portion.

## Quality evaluation

Prior to the data release, combined survey results are analyzed for comparability; in general, this includes a detailed review of: individual responses (especially for the largest companies), general economic conditions, coherence with results from related economic indicators, historical trends, and information from other external sources (e.g. associations, trade publications, newspaper articles).

The survey estimates are also analyzed with trends observed in related Statistics Canada data series.

## Data accuracy

All surveys are subject to sampling and non-sampling errors. Sampling error occurs because population estimates are derived from a sample of the population rather than the entire population. Non-sampling error is not related to sampling and may occur for various reasons during the collection and processing of data. For example, non-response is an important source of non-sampling error. Under or over-coverage of the population, differences in the interpretations of questions and mistakes in recording, coding and processing data are other examples of non-sampling errors. To the maximum extent possible, these errors are minimized through careful design of the survey questionnaire, verification of the survey data, and follow-up with respondents when needed to maximize response rates.

Measures of sampling error are calculated for each estimate. Also, when non-response occurs, it is taken into account and the quality is reduced based on its importance to the estimate. Other indicators of quality are also provided such as the response rate. Both the sampling error and the non-response rate are combined into one quality rating code. This code uses letters that ranges from $A$ to $F$ where $A$ means the data is of excellent quality and F means it is unreliable. Estimates with a quality of F are not published. These quality rating codes can be requested and should always be taken into consideration.

Of the sampled units contributing to the estimate, the weighted response rate for 2014 was $77.7 \%$.
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 for accuracy and consistency and provide a reliable portrait of the aquaculture industry.


[^0]:    1. Includes Coho and Spring (Chinook).
    2. Includes fresh, chilled and frozen.
[^1]:    1. Canada total excludes Manitoba, Saskatchewan and Alberta.
