

# Incidental catch at BC marine finfish aquaculture sites

November 1st 2021

## Context

Conditions of Licence for finfish aquaculture in British Columbia include requirements for facility operators to maintain an incidental catch log with record of wild fish caught at facilities during harvest and transfer events since 2011. This information is submitted to DFO and public reports are posted quarterly. The “Incidental catch at BC marine finfish aquaculture sites” dataset is available on the Open Canada website.

As stated on the website, the tables provided list the reported incidental catch of dead wild finfish and the year and month in which they were captured from B.C. marine finfish facilities during harvest and transfer events. Data are reported in the quarter in which the harvest activities ended and do not exist for farms that do not have fish on site or where no incidentally caught fish were recorded.

## Overview of Pacific salmon species reported during harvest and transfer events

Table 1: Pacific salmon species and total number of fish reported between 2011 and 2021 (incomplete) as incidental catches on aquaculture marine rearing sites in British Columbia

| common_name    | total |
|----------------|-------|
| Chinook Salmon | 137   |
| Coho Salmon    | 115   |
| Pink Salmon    | 79    |
| Sockeye Salmon | 2     |
| Pacific Salmon | 10    |
| Chum Salmon    | 12    |

Table 2: All Pacific salmon species reported between 2011 and 2021 (incomplete) as incidental catches on aquaculture marine rearing sites in British Columbia

| finfish_aquaculture_reporting_zone | total |
|------------------------------------|-------|
| Broughton Archipelago              | 47    |
| Clayoquot Sound                    | 192   |
| Discovery Passage                  | 83    |
| Nootka Sound                       | 17    |
| Port Hardy                         | 11    |
| Quatsino Sound                     | 1     |
| Sunshine Coast                     | 4     |

Table 3: Total number of Chinook Salmon reported as incidental catches on aquaculture marine rearing sites in various Finfish Aquaculture Reporting Zones between 2011 and 2021 (up to April) in British Columbia

| finfish_aquaculture_reporting_zone | total |
|------------------------------------|-------|
| Broughton Archipelago              | 11    |
| Clayoquot Sound                    | 110   |
| Discovery Passage                  | 6     |
| Nootka Sound                       | 8     |
| Quatsino Sound                     | 1     |
| Sunshine Coast                     | 1     |

Table 4: Total number of Chum Salmon reported as incidental catches on aquaculture marine rearing sites in various Finfish Aquaculture Reporting Zones between 2011 and 2021 (up to April) in British Columbia

| finfish_aquaculture_reporting_zone | total |
|------------------------------------|-------|
| Broughton Archipelago              | 6     |
| Port Hardy                         | 6     |

Table 5: Total number of Coho Salmon reported as incidental catches on aquaculture marine rearing sites in various Finfish Aquaculture Reporting Zones between 2011 and 2021 (up to April) in British Columbia

| finfish_aquaculture_reporting_zone | total |
|------------------------------------|-------|
| Broughton Archipelago              | 21    |
| Clayoquot Sound                    | 76    |
| Discovery Passage                  | 9     |
| Nootka Sound                       | 1     |
| Port Hardy                         | 5     |
| Sunshine Coast                     | 3     |

Table 6: Total number of Pink Salmon reported as incidental catches on aquaculture marine rearing sites in various Finfish Aquaculture Reporting Zones between 2011 and 2021 (up to April) in British Columbia

| finfish_aquaculture_reporting_zone | total |
|------------------------------------|-------|
| Broughton Archipelago              | 8     |
| Clayoquot Sound                    | 4     |
| Discovery Passage                  | 67    |

Table 7: Total number of Sockeye Salmon reported as incidental catches on aquaculture marine rearing sites in various Finfish Aquaculture Reporting Zones between 2011 and 2021 (up to April) in British Columbia

| finfish_aquaculture_reporting_zone | total |
|------------------------------------|-------|
| Clayoquot Sound                    | 2     |

## Appendix: All fish species reported during harvest and transfer events (needs data cleaning)

Table 8: Fish species and total number of fish reported between 2011 and 2021 (incomplete) as incidental catches on aquaculture marine rearing sites in British Columbia

| common_name                 | scientific_name            | total |
|-----------------------------|----------------------------|-------|
| English Sole                | Parophrys vetulus          | 8     |
| Pacific Hake                | Merluccius productus       | 141   |
| Pacific Herring             | Clupea pallasii            | NA    |
| Pacific Staghorn Sculpin    | Leptocottus armatus        | 192   |
| Shiner Perch                | Cymatogaster aggregata     | 253   |
| Shiner Perch                | Cymatogaster aggregata     | 1156  |
| Surfperch                   | Embiotocidae               | 3617  |
| Yellowtail Rockfish         | Sebastes flavidus          | 1970  |
| Yellowtail Rockfish         | Sebastes flavidus          | 223   |
| Pacific Cod                 | Gadus macrocephalus        | 34626 |
| Striped Seaperch            | Embiotoca lateralis        | 261   |
| Rockfish                    | Sebastes sp.               | 14497 |
| Rockfish                    | Sebastes sp.               | 1     |
| Sablefish                   | Anoplopoma fimbria         | 10286 |
| Chinook Salmon              | Oncorhynchus tshawytscha   | 137   |
| Chum Salmon                 | Oncorhynchus keta          | 23    |
| Coho Salmon                 | Oncorhynchus kisutch       | 115   |
| Lingcod                     | Ophiodon elongatus         | 17    |
| Pink Salmon                 | Oncorhynchus gorbuscha     | 40    |
| Pink Salmon                 | Oncorhynchus gorbuscha     | 39    |
| Kelp Greenling              | Hexagrammos decagrammus    | 12    |
| China Rockfish              | Sebastes nebulosus         | 18    |
| Pile Perch                  | Rhacochilus vacca          | 215   |
| Pile Perch                  | Rhacochilus vacca          | 2     |
| Black Rockfish              | Sebastes melanops          | 70    |
| Buffalo Sculpin             | Enophrys bison             | 23    |
| Bay Pipefish                | Syngnathus leptorhynchus   | 7     |
| Pacific Tomcod              | Microgadus proximus        | 346   |
| Pacific Chub Mackerel       | Scomber japonicus          | 66    |
| Pilchard                    | Sardinops sagax            | 274   |
| Unknown                     | Unknown                    | 1     |
| North Pacific Spiny Dogfish | Squalus suckleyi           | 13    |
| Kelp Perch                  | Brachyistius frenatus      | 31    |
| Silver Surfperch            | Hyperprosopon ellipticum   | 3     |
| Dover Sole                  | Microstomus pacificus      | 4     |
| Sculpin                     | Cottidae                   | 290   |
| Threespine Stickleback      | Gasterosteus aculeatus     | 100   |
| Sockeye Salmon              | Oncorhynchus nerka         | 2     |
| Cabezon                     | Scorpaenichthys marmoratus | 194   |
| Walleye Pollock             | Theragra chalcogramma      | 3799  |
| Spotted Ratfish             | Hydrolagus coliei          | 8     |
| Brown Rockfish              | Sebastes auriculatus       | 3     |
| Dusky Rockfish              | Sebastes variabilis        | 33    |
| Pacific Salmon              | Oncorhynchus sp.           | 10    |
| Quillback Rockfish          | Sebastes maliger           | 20    |

| common_name         | scientific_name         | total |
|---------------------|-------------------------|-------|
| Starry Flounder     | Platichthys stellatus   | 1     |
| Blue Rockfish       | Sebastes mystinus       | 2     |
| Codfish             | Gadidae                 | 1368  |
| Copper Rockfish     | Sebastes caurinus       | 93    |
| Pacific Ocean Perch | Sebastes alutus         | 182   |
| Dungeness Crab      | Cancer magister         | 1     |
| Flatfish            | Pleuronectidae          | 2     |
| Northern Anchovy    | Engraulis mordax        | 1765  |
| Yelloweye Rockfish  | Sebastes ruberrimus     | 1     |
| Unknown             | Unknown                 | 20    |
| Striped Seaperch    | Embiotoca lateralis     | 173   |
| Pacific Sand Lance  | Ammodytes hexapterus    | 1     |
| Chum Salmon         | Oncorhynchus keta       | 12    |
| Tubesnout           | Aulorhynchus flavidus   | 22    |
| Gunnel              | Pholidae                | 56    |
| Wolf Eel            | Anarrhichthys ocellatus | 4     |