## South Coast Assessment Bulletin <br> September 2020 Creel Survey Update Recreational Fishery South Coast Tidal Waters

## Overview:

This bulletin provides a monthly update on estimates of recreational fin fishing effort and catch in the marine waters of southern British Columbia, within Pacific Fishery Management Areas 11 through 29 and 111, 121 to 127. These estimates are generated from data collected by the DFOs South Coast Creel Survey. A brief overview of the survey, the study area and methods used to collect data and generate these estimates is provided in the first bulletin of 2020 , available on the Federal Science Library catalogue:

> http://science-libraries.canada.ca/eng/home/

The search term South Coast assessment bulletin, creel survey is helpful to find the bulletins
The estimates presented in this bulletin are based on in-season data and should be interpreted as preliminary and subject to revision as the data are finalized.

## Recreational Fishery Links:

It is the responsibility of all fishers to be familiar with the current regulations prior to fishing. The online British Columbia Sport Fishing Guide will provide you with information on regulations and management measures in place. The guide can be accessed from the Fisheries and Oceans Canada Pacific Region Recreational Fishery webpage at:

## http://www.pac.dfo-mpo.gc.ca/fm-gp/rec/index-eng.html

In-season management measure are sometimes required that are not published in the guide. These decisions are implemented by the issuance of a fishery notice which can be viewed at:
http://notices.dfo-mpo.gc.ca/fns-sap/index-eng.cfm

## Creel Survey Data:

A summary of survey statistics and preliminary recreation effort, measured in boat trips, by Pacific Fishery Management Area (PFMA) are presented in Table 1. Maps identifying the PFMAs are available by following the link provided above to the Fisheries and Oceans Canada Pacific Region Recreational Fishery webpage. Cumulative totals are calculated from July to September inclusive.

## Recreational Catch Estimates:

A summary of preliminary kept and released catch estimates for key species by PFMA are presented in Tables 2 through 5. Table 6 presents kept Chinook catch estimates by Pacific Fishery Management Area, divided into Aggregate Abundance-based Management (AABM) and Individual Stock-based Management (ISBM) groupings.

## Contacts:

For additional information on the South Coast Creel Survey Programs, please contact:
Johnstone Strait and North Island Surveys (PFMAs 11, 12, 27, 111 GG 127)
Pieter Van Will - Program Head, Johnstone Strait Salmon Stock Assessment Pieter.VanWill@dfo-mpo.gc.ca

250-949-9273
Strait of Georgia Survey (PFMAs 13 - 20, 28 \& 29)
Kevin Pellett- Program Head, Strait of Georgia Salmon Stock Assessment $\frac{\text { Kevin.Pellett@dfo-mpo.gc.ca }}{250-756-7273}$

West Coast Vancouver Island Survey (PFMAs 20-26 G3 121-126)
Karin Mathias - Biologist, WCVI Salmon Stock Assessment
Karin.Mathias@dfo-mpo.gc.ca
250-714-4304
All South Coast Area
Wilf Luedke - Area Chief South Coast Salmon Stock Assessment
Wilf.Luedke@dfo-mpo.gc.ca
250-756-7222

Table 1: Creel survey statistics (number of interviews and flights) and preliminary effort estimates (number of boat trips) by Pacific Fishery Management Area, September 2020.

| Pacific Fishery <br> Management <br> Area (PFMA) | Number of Creel Interviews | Number of Effort Count Flights ${ }^{1}$ | Effort |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Estimate | $\% \mathrm{SE}^{2}$ | $\begin{aligned} & \text { Year to } \\ & \text { date }^{3} \end{aligned}$ | $\begin{gathered} \text { Year to } \\ \text { date } \\ 5-\mathrm{yr} \text { avg } \end{gathered}$ |
| 11 | No Survey This Month |  |  | \% | 1184 | 1160 |
| 111 | No Survey This Month |  |  | \% | 185 | 767 |
| 12 | No Survey This Month |  |  | \% | 6506 | 10873 |
| 13 | 142 | 9 | 3227 | 13\% | 15926 | 21607 |
| 14 | 228 | 8 | 4925 | 15\% | 18130 | 13633 |
| 15 | No Survey This Month | 9 |  | \% | 3325 | 6165 |
| 16 | 21 | 7 | 1081 | 17\% | 11390 | 7388 |
| 17 | 167 | 7 | 2146 | 21\% | 9463 | 7517 |
| 18 | 42 | 7 | 2586 | 29\% | 5065 | 5160 |
| 19 | 158 | 8 | 2687 | 16\% | 7659 | 7862 |
| 20 | 544 | 10 | 9342 | 17\% | 30895 | 27859 |
| 21 | 4 | 5 | 35 | $4 \%$ | 272 | 548 |
| 121 | 18 | 4 | 173 | 19\% | 1511 | 2401 |
| 23 | 185 | 6 | 5740 | 6\% | 22216 | 23168 |
| 123 | 23 | 6 | 425 | 16\% | 2543 | 3642 |
| 24 | 44 | 6 | 310 | 27\% | 1344 | 1799 |
| 124 | 30 | 6 | 136 | $31 \%$ | 1042 | 1885 |
| 25 | No Survey This Month |  |  | \% | 9817 | 11558 |
| 125 | No Survey This Month |  |  | \% | 666 | 1729 |
| 26 | No Survey This Month |  |  | \% | 3685 | 1777 |
| 126 | No Survey This Month |  |  | \% | 701 | 1772 |
| 27 | No Survey This Month |  |  | \% | 3092 | 3073 |
| 127 | No Survey This Month |  |  | \% | 672 | 1298 |
| 28 | 71 | 7 | 2377 | 26\% | 4808 | 5567 |
| 29 | 89 | 7 | 6317 | $33 \%$ | 10027 | 12821 |
| Total ${ }^{4}$ | 1771 |  | 41507 | 7\% | 172124 | 183029 |

${ }^{1}$ The number of flights where weather conditions allowed effort counts; not including on-water counts
${ }^{2} \% \mathrm{SE}$ is a measure of uncertainty; one Standard Error as a percentage of the estimate.
${ }^{3}$ Cumulative effort (from July 2020) to date summed across periods where surveys are active - note that WCVI 5 year averages including September are unavailable (N/A)
${ }^{4}$ Individual flights cover multiple PFMA's, so an additive total is not appropriate

Table 2: Preliminary recreational kept catch estimates (number of fish) for key salmon species by Pacific Fishery Management Area (PFMA), September 2020. Percent standard error (\%SE; one standard error as a percentage of the estimate), a measure of uncertainty, is indicated for estimates from PFMAs where they are calculated in-season.

|  | Chinook |  |  |  | Coho |  |  |  | Sockeye |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pacific Fishery <br> Management <br> Area (PFMA) | Estimate | \%SE | Year to <br> date ${ }^{1}$ | Year to date 5 -yr. average $^{1}$ | Estimate | \%SE | Year to date ${ }^{1}$ | Year to date 5 -yr. average $^{1}$ | Estimate | \%SE | Year to date ${ }^{1}$ | Year to date 5 -yr. average $^{1}$ |
| 11 |  |  |  |  |  |  |  |  |  |  |  |  |
| 111 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 | 2121 | $24 \%$ | 13414 | 19222 | 368 | $37 \%$ | 549 | 3197 |  |  |  |  |
| 14 | 1708 | 19\% | 9580 | 5213 | 115 | $44 \%$ | 2098 | 2956 |  |  |  |  |
| 15 |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | 27 | 167\% | 3665 | 1845 |  |  |  |  |  |  |  |  |
| 17 | 283 | 35\% | 1506 | 1693 | 98 | 46\% | 1316 | 1010 |  |  |  |  |
| 18 | 114 | 89\% | 195 | 955 | 65 | 64\% | 65 | 66 |  |  |  |  |
| 19 | 314 | $31 \%$ | 877 | 2454 | 223 | $38 \%$ | 318 | 189 |  |  |  |  |
| 20 | 1700 | 16\% | 12569 | 21593 | 10248 | 14\% | 19026 | 7708 | 18 | 107\% | 18 | 2205 |
| 21 | 10 | 100\% | 417 | 1279 |  |  |  |  |  |  |  |  |
| 121 | 0 |  | 1639 | 7818 | 428 | 41\% | 3677 | 5281 |  |  |  |  |
| 23 | 1570 | 11\% | 19872 | 18743 | 739 | $23 \%$ | 2652 | 7656 |  |  |  |  |
| 123 | 247 | $34 \%$ | 5538 | 9733 | 508 | 57\% | 3935 | 3957 |  |  |  |  |
| 24 | 46 | $71 \%$ | 908 | 1834 | 125 | 63\% | 219 | 1208 |  |  |  |  |
| 124 | 5 | 112\% | 1445 | 4096 |  |  |  |  |  |  |  |  |
| $25 \sim$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 125 |  |  |  |  |  |  |  |  |  |  |  |  |
| 26 |  |  |  |  |  |  |  |  |  |  |  |  |
| 126 |  |  |  |  |  |  |  |  |  |  |  |  |
| 27 |  |  |  |  |  |  |  |  |  |  |  |  |
| 127 |  |  |  |  |  |  |  |  |  |  |  |  |
| 28 | 749 | $31 \%$ | 919 | 1087 | 355 | 46\% | 674 | 697 |  |  |  |  |
| 29 | 2337 | 54\% | 2564 | 5208 | 605 | 56\% | 1338 | 748 | 0 |  | 0 | 22059 |
| Kept Total ${ }^{2}$ | 11231 | 13\% | 75108 | 102773 | 13877 | 11\% | 35867 | 34673 | 18 | 109\% | 18 | 24264 |

[^0]Table 3: Preliminary recreational released catch estimates (number of fish) for key salmon species by Pacific Fishery Management Area (PFMA), September 2020. Percent standard error (\%SE; one standard error as a percentage of the estimate), a measure of uncertainty, is indicated for estimates from PFMAs where they are calculated in-season.

|  | Chinook |  |  |  | Coho |  |  |  | Sockeye |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pacific Fishery <br> Management <br> Area (PFMA) | Estimate | \%SE | Year to date ${ }^{1}$ | Year to date 5 -yr. average $^{1}$ | Estimate | \%SE | Year to date ${ }^{1}$ | Year to date 5 -yr. average $^{1}$ | Estimate | \%SE | Year to date ${ }^{1}$ | Year to date 5 -yr. average ${ }^{1}$ |
| 11 |  |  |  |  |  |  |  |  |  |  |  |  |
| 111 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 | 1988 | 23\% | 23536 | 20822 | 1206 | 50\% | 3501 | 15645 |  |  |  |  |
| 14 | 5606 | 20\% | 27243 | 15182 | 1747 | $37 \%$ | 6378 | 12486 |  |  |  |  |
| 15 |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | 384 | 60\% | 9080 | 1406 |  |  |  |  |  |  |  |  |
| 17 | 7918 | 30\% | 26067 | 7274 | 581 | 42\% | 3582 | 3624 |  |  |  |  |
| 18 | 1249 | 58\% | 1636 | 537 | 340 | 90\% | 432 | 259 |  |  |  |  |
| 19 | 510 | 30\% | 2074 | 2708 | 815 | 39\% | 1055 | 869 |  |  |  |  |
| 20 | 3332 | 26\% | 22611 | 21964 | 22361 | 18\% | 39535 | 19944 | 0 |  | 50 | 606 |
| 21 | 0 |  | 27 | 225 |  |  |  |  |  |  |  |  |
| 121 | 0 |  | 61 | 3680 | 92 | 89\% | 3458 | 8189 |  |  |  |  |
| 23 | 654 | 26\% | 8471 | 20532 | 274 | 39\% | 1279 | 3357 |  |  |  |  |
| 123 | 445 | 52\% | 3128 | 7523 | 1236 | 53\% | 6792 | 8617 |  |  |  |  |
| 24 | 53 | 60\% | 250 | 690 | 23 | 89\% | 67 | 823 |  |  |  |  |
| 124 | 0 |  | 276 | 1537 |  |  |  |  |  |  |  |  |
| 25 |  |  |  |  |  |  |  |  |  |  |  |  |
| 125 |  |  |  |  |  |  |  |  |  |  |  |  |
| 26 |  |  |  |  |  |  |  |  |  |  |  |  |
| 126 |  |  |  |  |  |  |  |  |  |  |  |  |
| 27 |  |  |  |  |  |  |  |  |  |  |  |  |
| 127 |  |  |  |  |  |  |  |  |  |  |  |  |
| 28 | 632 | $59 \%$ | 1247 | 439 | 316 | 51\% | 506 | 572 |  |  |  |  |
| 29 | 6138 | 41\% | 10530 | 4566 | 669 | $74 \%$ | 2255 | 1958 | 91 | 132\% | 91 | 237 |
| Released Total ${ }^{2}$ | 28909 | $14 \%$ | 136237 | 109085 | 29660 | 15\% | 68840 | 76343 | 91 | 132\% | 141 | 843 |

[^1]Table 4: Preliminary recreational kept catch estimates (number of fish) for key groundfish species by Pacific Fishery Management Area (PFMA), September 2020. Percent standard error (\%SE; one standard error as a percentage of the estimate), a measure of uncertainty, is indicated for estimates from PFMAs where they are calculated in-season.

| Pacific Fishery Management Area (PFMA) | Halibut |  |  |  | Lingcod |  |  |  | Rockfishes ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimate | \%SE | Year to date ${ }^{2}$ | Year to date 5 -yr. average $^{2}$ | Estimate | \%SE | Year to date ${ }^{2}$ | Year to date 5 -yr. average $^{2}$ | Estimate | \%SE | Year to date ${ }^{2}$ | Year to date 5 -yr. average $^{2}$ |
| 11 |  |  |  |  |  |  |  |  |  |  |  |  |
| 111 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 | 0 |  | 20 | 27 | 235 | $35 \%$ | 867 | 2700 | 239 | 44\% | 1429 | 1751 |
| 14 | 5 | 112\% | 8 | 28 | 31 | 115\% | 224 | 643 | 360 | $35 \%$ | 848 | 1166 |
| 15 |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | 0 |  | 0 | 0 | 53 | 69\% | 3632 | 1047 | 643 | 54\% | 3534 | 2736 |
| 17 | 0 |  | 0 | 0 | 148 | 48\% | 734 | 1003 | 264 | 35\% | 1492 | 1884 |
| 18 | 0 |  | 0 | 0 | 642 | $56 \%$ | 756 | 509 | 593 | 61\% | 1210 | 1344 |
| 19 | 209 | 39\% | 633 | 651 | 229 | 44\% | 366 | 167 | 444 | 36\% | 1494 | 1263 |
| 20 | 150 | $56 \%$ | 493 | 287 | 695 | 27\% | 1616 | 878 | 1836 | 22\% | 5723 | 4117 |
| 21 | 14 | 71\% | 93 | 55 | 28 | 71\% | 53 | 178 | 38 | 59\% | 149 | 598 |
| 121 | 173 | $46 \%$ | 3385 | 4616 | 178 | $72 \%$ | 737 | 369 | 220 | 75\% | 1462 | 1071 |
| 23 | 0 |  | 156 | 176 | 116 | $35 \%$ | 963 | 738 | 285 | $36 \%$ | 2427 | 3733 |
| 123 | 964 | 46\% | 4312 | 3092 | 45 | 92\% | 233 | 361 | 24 | 88\% | 679 | 1004 |
| 24 | 17 | 70\% | 54 | 118 | 165 | 48\% | 351 | 309 | 219 | 35\% | 576 | 791 |
| 124 | 323 | $46 \%$ | 736 | 938 | 20 | $79 \%$ | 502 | 1530 | 33 | 63\% | 588 | 1676 |
| 25 ( ${ }^{\text {c }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 125 |  |  |  |  |  |  |  |  |  |  |  |  |
| 26 |  |  |  |  |  |  |  |  |  |  |  |  |
| 126 |  |  |  |  |  |  |  |  |  |  |  |  |
| 27 |  |  |  |  |  |  |  |  |  |  |  |  |
| 127 |  |  |  |  |  |  |  |  |  |  |  |  |
| 28 | 0 |  | 0 | 0 | 0 |  | 0 | 15 | 75 | 45\% | 75 | 192 |
| 29 | 0 |  | 0 | 0 | 48 | 137\% | 296 | 314 | 757 | 66\% | 1393 | 388 |
| Kept Total ${ }^{3}$ | 1855 | 27\% | 9890 | 9988 | 2633 | 18\% | 11330 | 10761 | 6030 | 15\% | 23079 | 23714 |

[^2]Table 5: Preliminary recreational released catch estimates (number of fish) for key groundfish species by Pacific Fishery Management Area (PFMA), September 2020. Percent standard error ( $\%$ SE; one standard error as a percentage of the estimate), a measure of uncertainty, is indicated for estimates from PFMAs where they are calculated in-season.

| Pacific Fishery Management Area (PFMA) | Halibut |  |  |  | Lingcod |  |  |  | Rockfishes ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimate | \%SE | Year to date ${ }^{2}$ | Year to date 5 -yr. average $^{1}$ | Estimate | \%SE | Year to date ${ }^{2}$ | Year to date 5 -yr. average $^{2}$ | Estimate | \%SE | Year to date ${ }^{2}$ | Year to date 5 -yr. average $^{1}$ |
| 11 |  |  |  |  |  |  |  |  |  |  |  |  |
| 111 |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 | 0 |  | 24 | 64 | 1008 | $34 \%$ | 4709 | 5047 | 418 | 46\% | 2737 | 2931 |
| 14 | 15 | 101\% | 20 | 40 | 616 | $30 \%$ | 2900 | 2529 | 636 | 29\% | 2400 | 3105 |
| 15 |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | 0 |  | 0 | 0 | 185 | $56 \%$ | 2536 | 905 | 872 | 44\% | 7726 | 3362 |
| 17 | 0 |  | 0 | 0 | 469 | 38\% | 1823 | 543 | 522 | 33\% | 2140 | 1799 |
| 18 | 0 |  | 82 | 48 | 4137 | 92\% | 4815 | 590 | 3143 | 78\% | 4146 | 1786 |
| 19 | 44 | $61 \%$ | 125 | 108 | 1464 | 38\% | 3680 | 1642 | 1096 | 35\% | 3284 | 1880 |
| 20 | 0 |  | 76 | 79 | 452 | $37 \%$ | 2814 | 3048 | 1134 | $32 \%$ | 4596 | 5575 |
| 21 | 0 |  | 0 | 58 | 0 |  | 17 | 197 | 0 |  | 9 | 302 |
| 121 | 0 |  | 68 | 137 | 0 |  | 111 | 121 | 0 |  | 149 | 377 |
| 23 | 0 |  | 0 | 59 | 463 | $59 \%$ | 1884 | 1232 | 315 | 26\% | 2312 | 2660 |
| 123 | 1 |  | 58 | 452 | 0 |  | 176 | 227 | 12 | 88\% | 155 | 480 |
| 24 | 3 | 100\% | 13 | 6 | 125 | 58\% | 231 | 140 | 120 | 80\% | 193 | 552 |
| 124 | 5 | 112\% | 22 | 78 | 21 | 79\% | 322 | 427 | 14 | 69\% | 413 | 684 |
| 25 |  |  |  |  |  |  |  |  |  |  |  |  |
| 125 |  |  |  |  |  |  |  |  |  |  |  |  |
| 26 |  |  |  |  |  |  |  |  |  |  |  |  |
| 126 |  |  |  |  |  |  |  |  |  |  |  |  |
| 27 |  |  |  |  |  |  |  |  |  |  |  |  |
| 127 |  |  |  |  |  |  |  |  |  |  |  |  |
| 28 | 0 |  | 0 | 0 | 0 |  | 0 | 57 | 0 |  | 0 | 290 |
| 29 | 0 |  | 0 | 0 | 55 | 119\% | 234 | 447 | 48 | 131\% | 89 | 399 |
| Released Total ${ }^{3}$ | 68 | 48\% | 488 | 1129 | 8995 | $43 \%$ | 26252 | 17152 | 8330 | 31\% | 30349 | 26182 |

[^3]Table 6: Preliminary recreational kept Chinook catch estimates (number of fish) by Pacific Fishery Management Area (PFMA), September 2020, divided into Aggregate Abundance-based Management (AABM) and Individual Stock-based Management (ISBM) groupings.

| Area | Region | AABM |  |  | ISBM |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Esti- <br> mate | Year to date ${ }^{1}$ | Year to date 5 -yr. average $^{2}$ | Esti- <br> mate | Year to date $^{1}$ | Year to date 5 -yr. average $^{2}$ |
| 121 | Swiftsure Bank | 0 | 1639 | 7800 | 0 | 0 | 0 |
| 123 | Offshore Barkley | 247 | 5538 | 9700 | 0 | 0 | 150 |
| 124 | Offshore Clayoquot | 5 | 1445 | 4050 | 0 | 0 | 150 |
| 125 | Offshore Nootka | 0 | 99 | 2050 | 0 | 0 | 50 |
| 126 | Offshore Kyuquot | 0 | 407 | 3650 | 0 | 0 | 100 |
| 127 | Offshore Quatsino | 0 | 313 | 1500 | 0 | 0 | 0 |
| 20 (West) | Juan de Fuca | 0 | 0 | 0 | 793 | 6445 | 7850 |
| 21 | Nitinat | 0 | 266 | 300 | 10 | 151 | 1000 |
| 23-3 to 11 | Barkley Sound | 0 | 2745 | 3450 | 1057 | 11110 | 11650 |
| $23-1,2$ | Alberni Inlet | 0 | 16 | 50 | 513 | 6000 | 3600 |
| 24 | Clayoquot Sound | 0 | 336 | 1000 | 46 | 572 | 850 |
| 25 | Nootka Snd. / Esperanza Inlet | 0 | 0 | 0 | 0 | 9070 | 13050 |
| 26 | Kyuquot Sound | 0 | 0 | 0 | 0 | 2988 | 2400 |
| 27 | Quatsino Sound | 0 | 0 | 0 | 0 | 1076 | 2550 |
| Total |  | 252 | 12804 | 33550 | 2419 | 37412 | 43400 |

[^4]
[^0]:    ${ }^{1}$ Cumulative kept catch (from July 2020) to date summed across periods where surveys are active
    ${ }^{2}$ Including only those areas with in-season estimates this month

[^1]:    ${ }^{1}$ Cumulative released catch (from July 2020) to date summed across periods where surveys are active
    ${ }^{2}$ Including only those areas with in-season estimates this month

[^2]:    ${ }^{1}$ All rockfishes; including those not identified to species
    ${ }^{2}$ Cumulative kept catch (from July 2020) to date summed across periods where surveys are active
    ${ }^{3}$ Including only those areas with in-season estimates this month

[^3]:    ${ }^{1}$ All rockfishes; including those not identified to species
    ${ }^{2}$ Cumulative released catch (from July 2020) to date summed across periods where surveys are active
    ${ }^{3}$ Including only those areas with in-season estimates this month

[^4]:    ${ }^{1}$ Cumulative kept (from July 2020) to date summed across periods where surveys are active.
    ${ }^{2}$ Cumulative kept to date 5 year averages have been rounded to the nearest 50 fish.

