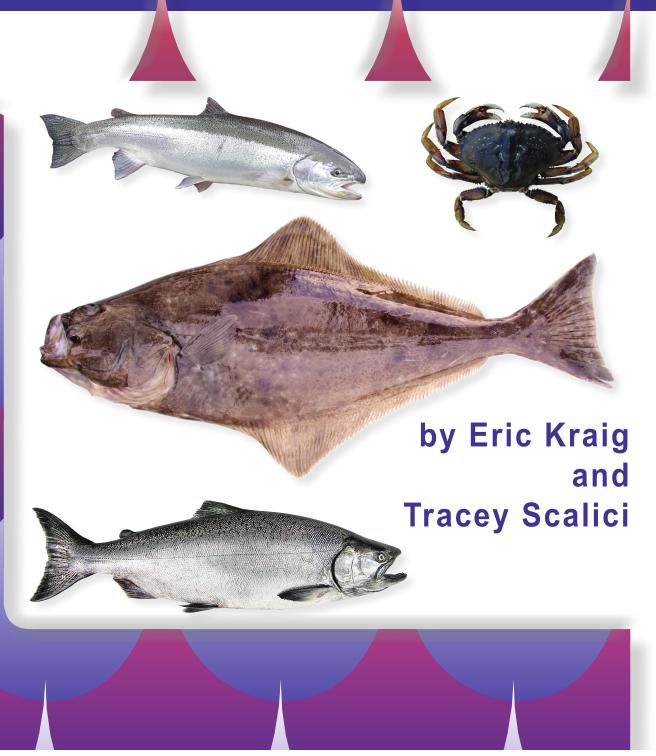


STATE OF WASHINGTON

Washington State Sport Catch Report 2018



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by

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July 2020



ACKNOWLEDGEMENTS

Many Department of Fish and Wildlife biologists and program staff contributed to the compilation and editing of this report. Thanks go to the staff in Licensing, Information Systems, Support Services Unit, and Fish Management. Special thanks are due to Dan Ayres, Wendy Beeghley, David Bramwell, Euna Parse, Camille Speck, Ryan Lothrop, Phuong-Nhi Nguyen, David Stormer, Laura Heironimus, Don Velasquez, Tyler Garber, Alex Wickett, Ann Stephenson, Heather Hall, Barbara McClellan, Ken Keller, and Erin Stehr.

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INTRODUCTION

The Washington State Sport Catch Report was first published in 1967. The report originally provided salmon catch estimates, which were and still are based on data from catch record cards (punch cards). In 1975, marine fish sport harvest estimates were added to the report, followed by shellfish estimates in 1976. Marine fish and intertidal shellfish sport harvest estimates are based on field and creel surveys. In 1994, with the merger of the departments of Fisheries and Wildlife, steelhead sport harvest estimates were added to the report. Now, catch record card data are collected for salmon, sturgeon, steelhead, Dungeness crab and halibut. The card data is supplemented with field or creel survey data or telephone surveys where available to improve recreational harvest estimate accuracy. The sport harvest estimates for salmon, steelhead, sturgeon, marine fish and shellfish are produced at varying times of each year.

The 2018 sport estimates reflect harvest from April 1, 2018, through March 31, 2019. Historically, salmon, sturgeon, halibut, marine fish and shellfish estimates were made on a calendar year basis from January 1 through December 31. Steelhead estimates were summarized from May 1 through the next April 30 to better capture the results of steelhead "run years". Effective January 1, 1999, the sport license system adopted an April 1 to March 31 license year for all species. To adjust to the new reporting time frames, the 1999 sport report included 15 months of salmon and sturgeon catch and 11 months of steelhead catch (May 1, 1999 – March 31, 2000). When comparing past years' sport harvest estimate tables, please note the changes in the license structure and reporting year as described above.

Sport Licenses and Catch Record Cards

In 2018, the following licenses and catch record cards were required to fish in Washington:

- Saltwater license: Required for saltwater fishing, for all anglers aged sixteen and over. Available for residents, resident seniors (70 and older), and non-residents. Catch record cards required for salmon, steelhead, sturgeon and halibut, for anglers of all ages.
- Freshwater license: Required for freshwater fishing, for all anglers aged sixteen and over. Available for residents, resident seniors (70 and older), and non-residents. Catch record cards required for salmon, steelhead and sturgeon, for anglers of all ages.
- Shellfish/seaweed license: Required for harvesters aged sixteen and over. Available for residents, resident seniors (70 and older), and non-residents. Allows the holder to harvest clams, mussels, oysters, shrimp, crab, squid, other shellfish, and seaweed. In addition, a Puget Sound crab endorsement and catch record card was required to harvest Dungeness crab in Marine Areas 5-13.
- Combination license: Allows anglers to fish in both saltwater and freshwater and to harvest shellfish and seaweed. Available for both residents and non-residents aged fifteen and over.

Fish catch record cards were required for salmon, steelhead, sturgeon and halibut. Each species group could be issued as a separate card, or included together on one card. Separate catch record cards were required for recording Dungeness crab in Puget Sound. Separate crab cards were required for the summer and fall/winter seasons.

In 2001 WDFW implemented the Washington Interactive Licensing Data (WILD) system to electronically capture recreational license issuance information at the point of sale. The catch record card remained the same paper document distributed by sport license vendors, but demographic data about persons receiving the cards became available almost immediately.

Table 1 lists license sales for the license year which ran from April 1, 2018 through March 31, 2019. Table 2 provides counts for the numbers of fish and crab catch cards issued going back to 1971. Table 3 shows the return rate, expansion factor, and non-response bias correction factors for the 2018-2019 cards.

METHODS

Catch Record Cards

Card Issuance

Catch cards are required for all anglers fishing for salmon, steelhead, sturgeon, or halibut. Separate crab catch cards are required for Dungeness crab fishing in Puget Sound. The catch card requirement applies to everyone, including anglers under the age of fifteen who are not required to purchase a fishing license. The first catch card issued to an angler is free with the purchase of a license. If an angler fills the initial card with catch, additional cards can be purchased for a fee. Sturgeon and halibut have annual catch limits, so additional cards are not available for these species.

Most catch cards are issued from the Washington Interactive Licensing Database (WILD) system. WILD-issued cards include the angler's name, city of residence, and their WILD ID, a unique identifier assigned to each angler in the system. Each issued card is assigned a unique document number.

Pre-printed catch cards are provided to charter boat operators and fishing guides to be issued along with one-day charter licenses. Anglers write their name/address information on the charter card "stub" which is retained by the operator and sent back to the agency. The same pre-printed cards may also be issued to anglers that purchase "Hot Key" licenses. These are temporary licenses sold through the WILD system, but without the requirement for an angler entry in the database. The angler name and address is entered on the stub, just as with charter licenses. Charter and hot key cards make up about three to five percent of the total card issuance annually.

Card Returns

Fish catch cards are due back on April 30, one month after the end of the license year, which runs from April 1 through March 31. Crab catch cards are issued for two separate seasons. Summer season cards are due back by October 1; winter season cards are dub back by February 1. Cards can be mailed in or dropped off at WDFW offices. Online reporting is available for crab cards, but not yet for fish cards.

For fish catch cards, the CRC unit randomly selects twenty-five percent of the cards issued each year for use in generating catch estimates. These cards are referred to as the "in-sample" group. Cards are selected based on the last two digits of the document numbers printed on the cards. Two reminder postcards are sent out to anglers with cards in the in-sample range, in an effort to increase return rates. For crab catch cards, all reports are processed, including both returned card and those reported online.

Estimation

Once the cards have been returned, the expansion factor is calculated. This is the ratio of total cards issued to cards returned. For cards issued through the Wild system, calculating the total sold is straightforward; canceled or voided cards are subtracted from the total issuance number to arrive at the number of valid cards that were available for use. For charter cards, the total number of issued cards is estimated. Some, but not all, of the name/address stubs are returned by the charter operators, and some, but not all, of the cards are returned by anglers. Thus, total issuance for charter cards is estimated as follows:

 $N_{\tau} = \text{total charter/hot key cards issued}$

 N_r = in-sample name/address stubs returned

 $n_y = \text{total in-sample cards voluntarily returned (returned prior to reminder mailings)}$

 $n_{...}$ = voluntary returns that match returned stubs

It is assumed that:

$$\frac{n_m}{n_v} = \frac{N_r}{N_T}$$

Therefore:

$$N_T = \frac{N_r n_v}{n_m}$$

Charter and hotkey cards make up less than five percent of the total card issuance; thus, we assume that the uncertainty in the numbers does not have a large impact in the overall estimation process.

Catch from the returned in-sample cards is expanded out across all issued cards. The expansion factor is one over the in-sample return rate multiplied by the twenty-five percent sample rate. In-sample return rates in recent years have been in the 30 to 40 percent range. In 2018 the return rate was about 34%, so the expansion factor was:

$$\frac{1}{0.34(0.25)} = 11.76$$

Estimates are generated for each catch area, species, and time period. The following estimation method was implemented after a five-year intensive study conducted in the late 1980's (Conrad, Alexandersdottir, 1993). Variance is calculated using a random group method (Wolter, 1985) in which the in-sample returned cards are randomly assigned to four subgroups. Estimates are then calculated separately for each subgroup as well as for the entire group, and the variance is calculated using the deviations of the sample estimates from the over-all estimate.

In general, cards that are not returned have a lower mean catch per card than those that are returned. To adjust for this non-response bias, a correction factor is applied. Different correction factors are used for different species.

The in-sample cards are randomly subdivided into four groups, and estimates are calculated using each of those groups as follows:

 N_i = number of cards in subsample i

 $N_T = \text{total number of cards issued}$

 h_i = number of fish for subsample i

 H_i = estimated harvest based on subsample i

 H_i = non-response bias correction factor

Then the total estimate of harvest is generated as follows:

 $H_T = \text{total estimate}$

 V_{H_T} = variance of total estimate

The above process generates estimates for total harvest for each area/species/time period combination. For historical reasons, the time periods differ for each species type. Calendar months are used for steelhead, sturgeon, and crab. For salmon, statistical months or statistical weeks are often used. Statistical weeks (defined as Monday-Sunday) are consecutively numbered weeks beginning on January 1. Statistical months are made up of a set number of statistical weeks, which do not necessarily coincide with calendar month start and end dates.

REVIEW

The CRC catch estimates for each area/time period/species are routed to biologists (both state and tribal) for review. The biologists are asked to list those entries that are questionable, either because the area was closed to fishing during that time period or because the likelihood of encountering that species at that time/place was low. The review comments are compiled and used to draw up a list of those anglers reporting the questionable catch. CRC staff attempt to contact these anglers by phone in order to resolve the issues. If the anglers cannot be reached, the biologists make the decisions on how to handle the reports; generally if the catch is biologically feasible the report is left as is, otherwise it is changed to "unknown". Once the calls are completed to resolve possible errors, and the individual catch records are corrected accordingly, the estimation process is rerun.

Salmon

Catch record card estimates are generated for both marine and freshwater areas. In areas where regular long-standing creel surveys are conducted, the catch card numbers are replaced with the estimates generated from the creel surveys. In marine areas, creel estimates were used in Areas 1-4 (not including Willapa Bay or Grays Harbor) and for some Puget Sound fisheries, primarily mark-selective chinook fisheries in the summer and winter months. In freshwater, creel estimates are used for catch in the Columbia River below Bonneville Dam.

Steelhead

Steelhead estimates are generated from catch card returns, as described above. Since steelhead harvest numbers are quite small for many streams, the estimates are first generated for entire river systems. The estimates are then broken out across the individual streams by using catch reported from all returned cards, both those that are in the sample group, and those that are out of sample.

Steelhead are categorized as "summer-run" or "winter-run" based on the month of harvest. In general, fish caught from May through October are considered summer-run and fish caught from November through April are considered winter-run. For most areas in the Columbia system above Bonneville Dam, all fish are considered summer-run.

Sturgeon

Sturgeon estimates are generated from catch card returns, as described above. Retention of Green Sturgeon is now prohibited statewide, so most reported fish are White Sturgeon. Creel estimates are used for the lower Columbia River, up to McNary Dam.

Marine Fish

Marine fish are those species that live their entire lives in salt water. There are four general groups of marine fish for management purposes: 1) bottomfish, which are species such as rockfish, lingcod and flounder; 2) forage fish, which are small schooling fish such as herring and smelt; 3) pelagic fish such as tuna and mackerel; 4) Pacific halibut.

The recreational catch of bottomfish, halibut, and tuna in ocean waters (Catch Area 1-4) is estimated from port-based creel and effort surveys. The estimates are made for each of the four main coastal fishing areas: Ilwaco, Westport, La Push, and Neah Bay.

The Puget Sound (Catch Areas 5-13) catch of bottomfish is estimated using a combination of two surveys: a creel survey of anglers to determine the catch rate and species composition and a phone survey of licensed anglers to determine total fishing effort. Halibut catch is estimated by combining creel data with on-the-water effort surveys. Catch record card estimates are also generated for halibut, but these numbers are not used for the published estimates.

Recreational catch of forage fish is not routinely monitored and no harvest estimates are available.

Crab

Catch record card returns are used to estimate Dungeness crab harvest in Puget Sound. Estimates are generated for two seasons: summer, which generally runs from June through Labor Day, and winter, which runs from the day after Labor Day through December 31. A ten-dollar penalty is assessed for failure to report, so all returned cards and online reports are processed and used for estimation. Non-response bias varies depending on return rate.

Estimates are not available for recreational catch of Dungeness crab from the coast or the Columbia River mouth, or for other crab species such as Red Rock or Tanner Crab.

Shrimp

Puget Sound spot shrimp estimates are calculated from boat ramp creel surveys combined with effort estimates generated by aerial boat counts or on-the-water buoy counts.

Clams and Oysters

Coastal razor clam harvest estimates are generated by combining effort estimates (digger trips) with catch per trip numbers from creel surveys.

Puget Sound clam and oyster harvest estimates are generated for actively managed beaches. Aerial surveys are used to estimate effort, and creel checks are used to determine catch per trip. For beaches that are passively managed, only effort estimates are generated.

Ocean Catch Data

Sport catch data from coastal areas 1-4 were reported using "port sampling" (creel survey) catch estimates. Such estimates were derived by monitoring daily landings at four coastal ports: Ilwaco, Westport, La Push, and Neah Bay. Catch is reported in the area where the fish was caught and not the area where it was landed.

Statistical Months and Statistical Weeks

Some catch data (i.e. salmon and bottomfish) are reported using statistical months or statistical weeks. Statistical weeks (defined as Monday-Sunday) are consecutively numbered weeks beginning on January 1 and continuing through week 53 or 54, ending on December 31. The first and last weeks of any year usually contain less than 7 days. Statistical months are made up of a set number of statistical weeks, which approximate calendar months but do not coincide with calendar month start and end dates. For example, in 2018, the statistical month of January begins January 1 and ends February 2 and the statistical month of February starts on February 3 and ends March 2. Due to the differences between calendar and statistical months, some catch may be reported during what appears to be a closed period.

Salmon

Annual sport salmon catch estimates for 1971 through 2018 are shown in Table 4. Between April 1, 2018, and March 31, 2019 a total of 183,185 salmon were caught in marine areas, and 152,856 salmon were caught in freshwater. The marine totals by species, as shown in Table 5, are: 66,615 chinook; 110,180 coho; 5,807 chum; 14 pink; 263 sockeye; and 306 jacks (all species combined). Freshwater species breakdowns are: 64,928 chinook; 34,668 coho; 8,317 chum; 0 pink; 29,590 sockeye; 17,119 jacks (all species combined).

Catch record card returns are used to estimate sport salmon catch in marine and freshwater areas. For some areas, the catch cards numbers are replaced with estimates based on creel surveys. In marine areas, creel estimates were used in Areas 1-4 (not including Willapa bay or Grays Harbor), and for many of the Puget Sound fisheries including the summer months in Area 5, 9, 10 and 11.

Sturgeon

On the new combined sport catch record card, sturgeon fishers were required to record their catch statewide. The total sport harvest for 2018, based on creel surveys and catch record card returns, was 2,685 fish. Sturgeon retention was only allowed in the Columbia and Snake River systems.

Steelhead

Harvest estimates for sport-caught summer and winter steelhead are based on catch record card returns. Steelhead caught during the months of May through October are considered "summer-runs," designated S. Steelhead caught from November through April are considered "winter-runs," designated W, with the exception of steelhead caught above Bonneville Dam on the Columbia River, where all steelhead are considered "summer-runs,", because of run and spawn timing.

Table 31 presents steelhead sport harvest estimates for the 2018-2019 season geographically by stream and river system. Monthly estimate totals are given for marked and unmarked steelhead.

Marine Fish

Marine fish are those species of fish which live their entire lives in salt water. There are four general groups of marine fish for management purposes: 1) bottomfish, which are species such as rockfish, lingcod and most species of sole and flounder; 2) forage fish, which are small, schooling fish such as herring and smelt; 3) tunas and mackerels; 4) Pacific halibut.

The recreational catch of bottomfish and halibut in ocean waters (Catch Areas 1-4) is estimated from marine surveys (Table 35 and 36). The estimates are made for each of the four main coastal fishing areas: Ilwaco, Westport, La Push and Neah Bay.

The Puget Sound (Catch Areas 5-13) catch of bottomfish, excluding halibut, is estimated using a combination of two surveys: a creel survey of anglers to determine the catch rate and species composition and a phone survey of licensed anglers to determine total fishing effort. These estimates are shown in Table 37. The recreational catch of forage fish is not routinely monitored and no harvest estimate is available.

Shellfish

Razor clam harvest on the coastal beaches is summarized in Table 38. During the fall of 2018 and the spring of 2018 159,932 digging trips resulted in a harvest of 1,619,929 clams, for an average of 12.5 clams per trip.

Puget Sound recreational clam and oyster harvest estimates are shown in Table 39. Harvest totals for Manila and native littleneck clams, butter clams, cockles, softshell clams, horse clams, geoducks and oysters are shown for public access beaches. Estimates show 91,774 sport harvester trips gathered 252,083 total pounds of clams and 528,559 oysters in 2018 on the monitored beaches.

The Puget Sound and Hood Canal shrimp fishery harvest is reported in Table 40. Shrimpers caught 192,875 pounds of shrimp between May and September. The sport crab fishery in the Puget Sound areas is summarized in Table 41. Crabbers harvested an estimated 1,497,890 pounds of Dungeness crab.

REFERENCES

Conrad, R. and M. Alexandersdottir. 1993. Estimating the Harvest of Salmon by the Puget Sound Sport Fishery in Puget Sound: Evaluation and Recommendations. Northwest Fishery Resource Bulletin, Manuscript Series Report No. 1. 82 p.

Wolter, K.M. 1985. Introduction to Variance Estimation. In: Springer Series in Statistics. Springer-Verlag. New York. 427 p.

SPORT LICENSES

Table 1. Number and Value of Sport Fishing Licenses Sold in Washington.

April 1, 2018 - Marc	·		
Type of License	Price	Number Sold	Value*
Saltwater			
Resident	\$30.05	24,147	\$770,550.00
Non-Resident	\$59.75	2,984	\$138,892.00
Senior	\$8.05	5,398	\$32,300.00
Freshwater			
Resident	\$29.50	305,774	\$7,644,350.00
Non-Resident	\$84.50	12,853	\$963,975.00
Senior	\$7.50	30,899	\$154,495.00
Shellfish/Seaweed			
Resident	\$17.40	65,153	\$862,020.00
Non-Resident	\$36.10	7,293	\$186,678.00
Senior	\$7.50	10,166	\$62,625.00
Combination (Saltwater/Freshwater/Shellfish)			
Resident	\$55.35	112,064	\$5,042,880.00
Fish Washington	\$79.62	32,408	\$2,242,634.00
Non-Resident	\$124.65	3,486	\$376,488.00
Senior	\$19.05	16,422	\$246,330.00
Disabled/Veteran - Res	\$11.35	15,774	\$78,870.00
Disabled/Veteran - NR	\$55.35	528	\$23,760.00
Youth	\$8.05	9,367	\$46,835.00
Short-term Combination	·	,	
1-day Resident	\$11.35	47,212	\$377,696.00
1-day Non-Resident	\$20.15	35,001	\$559,536.00
2-day Resident	\$15.75	9,935	\$119,220.00
2-day Non-Resident	\$28.95	12,205	\$292,548.00
3-day Resident	\$19.05	10,575	\$158,625.00
3-day Non-Resident	\$35.55	17,859	\$535,035.00
Razor Clam	+	,	*************************************
Annual Resident	\$14.10	18,313	\$146,504.00
Annual Non-resident	\$21.80	1,511	\$24,762.00
3-day	\$9.70	30,783	\$153,915.00
PS Crab Endorsement	*****	22,122	, ,
Annual	\$8.75	130,004	\$975,030.00
1-5 day	\$3.80	10,186	\$30,558.00
Catch Cards with Halibut	Ψ0.00	,	+++++++++++++++++++++++++++++++++++++
All	\$5.00	3,551	\$17,755.00
Charter/Guide Stamps	Ψ0.00	0,001	Ψ11,1 00.00
Charter/Guide Stamps	\$8.50	30,040	\$255,341.00
Two-Rod Endorsements	Ψ0.00	00,010	Ψ200,011.00
Resident / Non-resident	\$14.80	56,690	\$736,970.00
Senior	\$6.00	10,216	\$51,080.00
Columbia River Endorsements	Ψ3.00	10,210	ψο 1,000.00
Resident / Non-resident	\$8.75	143,814	\$1,078,605.00
Senior / Youth	\$7.10	16,387	\$98,322.00
Duplicates	Ψ1.10	10,307	ψ90,322.00
Additional Catch Cards	\$12.60	1/ 261	¢156 071 00
		14,261	\$156,871.00
<u>Licenses</u> Total	\$9.70	1,253,402	\$780.00 \$24,642,835.00

^{*}Value does not include service charges and other fees that are included in the listed customer price.

TECHNICAL DATA

Table 2. Number of Catch Record Cards Issued 1971-2018

Year	Salmon	Steelhead	Sturgeon
1971	541,600	145,647	j
1972	536,750	153,977	
1973	568,825	165,671	
1974	562,375	154,051	
1975	576,075	no data	
1976	660,150	no data	
1977	641,050	no data	
1978	580,375	130,000	
1979	487,875	136,000	
1980	433,700	139,500	
1981	463,561	132,000	
1982	481,915	100,000	
1983	· ·		
	481,025	101,800	
1984	364,286	133,400	
1985	403,523	121,500	
1986	431,898	100,500	
1987	475,459	102,000	00.405
1988	486,356	108,182	33,195
1989	509,534	106,666	35,576
1990	497,215	98,362	32,421
1991	489,394	98,328	32,396
1992	419,986	98,933	37,615
1993	447,986	94,913	43,067
1994	244,629	87,093	54,837
1995	416,707	101,303	62,572
1996	333,773	92,858	69,639
1997	331,511	68,341	76,806
1998	265,296	85,636	79,264
1999-2000	352,003	183,520	132,503
	Combined	Crab - Summer	Crab - Winter
2000-2001*	539,898		
2001-2002	827,443		
2002-2003	767,465		
2003-2004	799,326		
2004-2005	715,395		
2005-2006	686,831		
2006-2007	672,753		
2007-2008**	640,893	210,327	157,712
2008-2009	603,539	210,893	207,143
2009-2010	729,319	236,665	89,259
2010-2011	574,969	208,458	70,731
2011-2012	632,564	230,355	28,514
2012-2013	566,372	200,711	27,711
2013-2014	631,536	214,692	29,638
2014-2015	606,471	213,741	35,371
2015-2016	636,596	232,619	36,397
2016-2017	499,989	216,949	26,591
2017-2018	541,830	215,929	23,277
2018-2019	498,791	200,962	24,620
2010 2010	7,70,731	200,302	27,020

^{*}Starting with the 2000-2001 season, all species were combined on a single card.
**Starting with the 2007-2008 season, separate cards were issued for Dungeness Crab, for both the summer season and the fall/winter season.

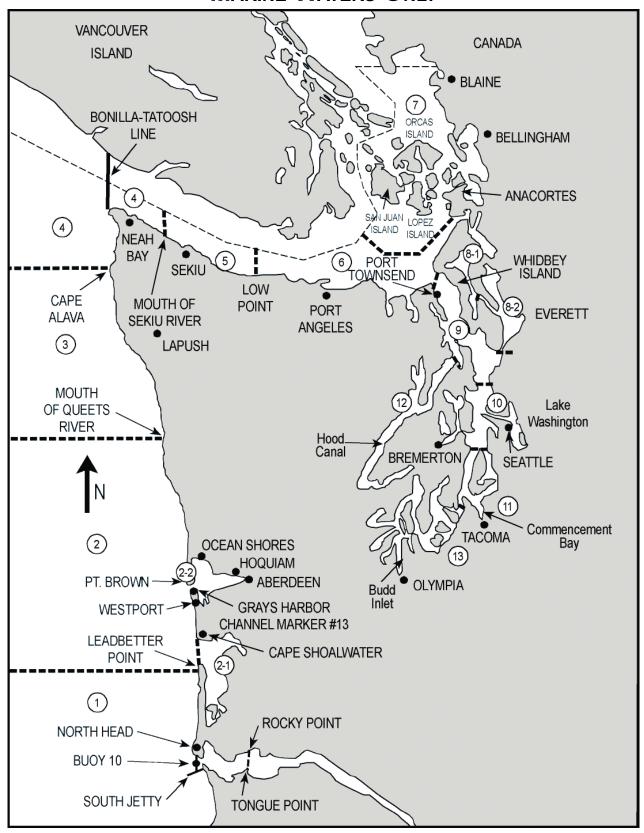
Table 3. 2018-2019 Catch Record Card Technical Data

Cards Issued	498,791
In-sample cards	124,698
In-sample cards returned	41,950
Expansion Factor (Cards Issued / In-sample Returns)	11.89
Non-reporting bias correction factors	
Salmon - Marine Area 5	1.00
Salmon - Puget Sound Marine Areas	1.46
Salmon - Freshwater, Grays Harbor, Willapa Bay	1.20
Steelhead	0.98
Sturgeon	1.00

Salmon



MAP OF SALMON CATCH RECORD CARD AREAS MARINE WATERS ONLY



1	ILWACO	West of the Buoy 10 line at the Columbia River mouth, north to Leadbetter Point.
2	WESTPORT-OCEAN SHORES	From Leadbetter Point north to the Queets River, excluding Willapa Bay and Grays Harbor.
2-1	WILLAPA BAY	East of a line from Leadbetter Point to Cape Shoalwater.
2-2	GRAYS HARBOR	East of a line from the tip of the North Jetty to exposed end of the South Jetty.
3	LA PUSH	From the Queets River north to Cape Alava.
4	NEAH BAY	From Cape Alava north and inside Juan de Fuca Strait to the Sekiu River.
5	SEKIU AND PILLAR POINT	From mouth of the Sekiu River east to Low Point, mouth of the Lyre River.
6	EAST JUAN DE FUCA STRAIT	From Low Point east to the Partridge Point - Point Wilson line north to the line from Trial Island (near Victoria B.C.) - Vessel Traffic Separation Buoy "R" - Smith Island to the Lawson Reef Buoy to Northwest Island to the Initiative 77 marker on Fidalgo Island.
7	SAN JUAN ISLANDS	All marine waters north of the Trial Island line described under Area 6 to the United States-Canada boundary.
8-1	DECEPTION PASS, SKAGIT BAY	From West Point to Reservation Head eastward through Deception Pass, including all waters of Swinomish Slough and Skagit Bay, and the portion of Saratoga Passage north and west of a line from East Point Light to light on Camano Island (Saratoga Pass Light #4FI Red 4 Sec.).
8-2	PORTS SUSAN AND GARDNER	East of East Point Light-Camano Island Light line (described in 8-1 above) and north of the Possession Point-Shipwreck line (described in 9 below).
9	ADMIRALTY INLET	All waters inside and south of the Partridge Point - Point Wilson line, south and west of a line from Possession Point 110° true to shipwreck, north of the Hood Canal Bridge, and north of the Apple Cove Point-Edwards Point line.
10	SEATTLE-BREMERTON AREA	South from the Apple Cove Point-Edwards Point line to a line projected true east- west through the north tip of Vashon Island.
11	TACOMA-VASHON ISLAND	South from a line projected true east west through the north tip of Vashon Island to the Tacoma Narrows Bridge.
12	HOOD CANAL	All waters south of the Hood Canal Bridge.
13	SOUTH PUGET SOUND	All waters south of Tacoma Narrows Bridge.
FRESI	HWATER AREAS	RIVERS OR STREAMS OR LAKES - Name of river, stream or lake, except for Buoy 10
BUOY	10 (1A)	From Buoy 10 Line to Rocky Point-Tongue Point Line

Ia	ble 4. /	<u>Annua</u>	I Spo	<u>rt Sal</u>	mon (<u>Catch</u>	<u> 1971-</u>	<u>2018</u>													
Year	Total	Fresh- water	Un- known	Area 1	Area 1A	Area 2	Area 2-1	Area 2-2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 8-1	Area 8-2	Area 9	Area 10	Area 11	Area 12	Area 13
1971	1,344,818	145,904		342,928		446,738			39,682	87,184	71,947	39,573	28,355	5,189			54,920	35,225	27,332	19,841	
1972	1,138,926	121,432		307,938		353,113			31,278	61,704	45,446	45,058	29,536	3,097			42,968	32,942	35,962	28,452	
1973	1,095,360	147,554		236,385		348,406			49,900	48,645	33,347	40,308	14,852	3,966			52,935	42,574	61,919	14,569	
1974	1,320,420	88,048		334,664		320,467			74,832	80,362	50,319	53,222	36,318	5,491			76,518	69,341	105,110	25,728	
1975	1,399,375	101,531		308,475		331,565			57,356	59,451	48,975	74,336	37,626	7,726			100,089	78,832	162,072	31,341	
1976	1,749,560	100,601		433,026		543,295			70,133	68,670	63,966	102,639	55,396	21,688			88,737	62,607	61,562	24,405	52,835
1977	1,191,414	96,843		248,518		321,888			38,359	86,186	73,106	61,568	31,709	17,792			64,651	39,372	44,657	22,020	44,745
1978	1,107,852	86,845		220,548		269,338			24,439	52,270	59,400	68,849	36,293	13,229			73,187	56,479	48,018	26,801	72,156
1979	1,123,809	88,659		167,478		174,365			24,160	53,840	134,354	70,839	48,101	33,835			104,619	71,167	71,495	20,006	60,891
1980	852,879	105,461		158,883		163,748			19,146	29,500	39,587	52,663	24,457	18,432			60,072	52,128	57,751	17,138	53,913
1981	760,104	58,128		142,879		151,301			1,734	36,883	55,900	56,318	21,826	16,986			67,838	42,602	42,175	14,989	50,545
1982	749,995	91,849		102,769	13,069				9,857	42,716	67,611	33,870	12,947	9,940			49,853	49,727	51,975	8,672	47,135
1983	860,623	108,783		95,593	3,006	100,791			7,318	58,469	62,486	74,311	29,844	23,268			98,485	54,228	72,772	11,756	59,513
1984	561,428	142,170		23,927	55,865	16,631			167	6,604	39,276	67,246	29,985	17,442			79,526	24,130	28,781	5,158	24,520
1985	686,333	107,734		75,013	18,914	93,620			2,062	26,878	101,920	45,342	23,798	25,427			75,193	33,019	38,157	4,897	14,359
1986	830,644	115,469		69,915	86,360	98,421			2,553	25,027	138,951	71,544	27,550	26,822			79,730	33,686	33,891	3,460	17,265
1987	782,834	110,636		62,393	61,048	71,458			3,005	29,418	107,138	82,377	27,152	31,421			86,270	42,179	32,753	8,947	26,639
1988	703,088	168,594		22,960	120,019	62,001			3,341	19,576	107,935	47,483	22,225	16,514			47,109	28,020	22,202	2,420	12,689
1989	832,214	121,417		87,755	67,734	100,000			2,405	44,600	164,580	64,766	19,078	23,165			63,724 57,875	36,748	24,561	4,588	7,093
1990	824,143	107,934		97,844	16,850	102,984	4.005	0.047	5,809	48,329	223,012	54,848	12,797	14,865	0.500	40.000		47,519	25,555	1,618	6,304
1991	943,473	153,719		77,608	152,974	107,362	1,965	9,047	5,615	43,357	216,816	42,812	16,602		3,528	16,809	40,390	32,229	15,549	3,225	3,866
1992 1993	569,195	90,032		48,356	37,157	67,427	1,978 2,260	740	2,031 3,469	25,820	108,876	30,894 44,174	12,515 35,697		3,295	11,836 18,170	47,157	51,338	18,198 14,130	6,303 3,540	5,982 9,599
1993	599,361 156,896	145,579 61,142		49,587	17,975 1,069	57,990 71	2,260	743 1,971	Closed	31,154 Closed	80,496 518	1,184	8,322		6,150 1,917	3,301	41,949 6,978	36,699 23,279	25,360	8,905	10,305
1994	524,232	190,158		3,743	24,954	29,122	936	1,799	1,990	15,604	53,553	20,617	23,801		23,503	42,900	22,920	28,560	28,242	5,200	6,630
1996	390,660	161,108		17,882	3,509	23,089	2,422	2,601	1,990	8,750	41,820	18,103	15,486		2,350	13,968	20,343	18,972	25,417	6,408	6,531
1997	394,868	98,220		11,976	22,441	16,261	409	1,433	1,260	2,577	52,890	23,614	35,016		5,894	37,649	24,356	25,277	23,146	7,089	5,360
1998	235,466	78,664		4,738	5,364	9,348	1,329	2,970	762	8,045	24,509	6,657	5,801		2,095	12,409	24,334	16,674	17,272	7,782	6,723
1999	239,317	92,611		21.989	11,222	19,056	2,137	1,207	4,387	6,650	24,546	3,509	5,765		1,519	8,805	9,228	4,009	14,517	4,046	4,114
2000	401,180	191,805	4,228	27,889	16,335	34,636	870	2,736	2,519	11,652	29,883	4,334	7,178		2,105	12,798	12,608	15,681	14,212	4,580	5,131
2001	1,056,395	405,590	11,042	82,641	80.701	85,645	1,255	5,784	4,188	21,991	87,639	12,081	17,268		17,685	74,947	70,259	26,448	27,761	17,677	5,793
2002	551,479	306,424	6,443	53,015	00,701	61,715	960	3,530	3,736	13,523	35,100	1,418	8,326		1,544	8,609	12,731	11,885	12,044	7,039	3,437
2003	810,616	342,884	6,940	83,164		64,733	1,953	2,135	6,537	32,207	88,885	13,781	12,409		10,573	51,784	44,697	16,541	17,719	10,898	2,776
2004	474,929	214,116	2,562	59,321		38,616	1,759	6,017	5,152	34,760	45,000	2,511	3,428		1,117	7,606	15,024	13,766	13,944	7,293	2,937
2005	451,411	200,535	1,789	38,490		32,823	3,580	1,910	4,316	15,297	58,621	3,295	5,934		1,691	18,846	24,125	12,866	15,022	8,392	3,879
2006	288,716	174,224	1,212	21,254		14,506	3,368	1,812	3,754	7,136	13,244	1,601	4,486		378	2,280	6,398	11.193	12,024	6,214	3,632
2007	545,737	231,800	2,501	49,108		28,694	1,473	1,635	3,545	16,057	75,084	6,626	9,961	i i	1,513	21,604	41,906	20,149	22,602	6,955	4,524
2008	251,975	160,431	1,491	11,729		16,983	2,788	1,001	1,356	3,415	14,765	1.437	3,651	i i	580	1,303	6,982	8.007	9,598	3,124	3,334
2009	1,074,938	571,230	16,885	69,430		60,414	5,975	5,257	10,437	69,692	73,767	16,056	10,173	i i	6,207	32,774	63,436	30,738	26,325	4,081	2,061
2010	335,931	204,196	3.881	24,191		39,821	1,893	2,122	2,196	6,934	19,540	3,014	4,543		234	961	7,786	6,369	4,621	2,415	1,214
2011	906,876	572,283	15,699	26,948		34,069	6,314	3,327	5,558	13,024	62,003	20,257	19,305		12,935	23,979	35,631	23,810	22,540	5,738	3,456
2012	584,694	285,247	4,624	17,131		31,417	4,358	9,030	3,804	12,787	72,396	17,494	9,228		2,549	13,863	53,679	25,308	12,690	6,855	2,234
2013	1,125,794	732,850	8,557	23,121		35,062	2,756	2,660	6,117	18,368	65,534	26,851	26,506		10,227	26,038	85,769	31,508	15,574	5,541	2,755
2014	698,126	346,446	6,772	67,498		77,815	14,583	7,397	7,484	10,248	52,908	21,705	11,222		3,743	9,414	36,758	14,032	4,693	3,544	1,864
2015	1,047,693	522,102	11,060	45,127		51,905	19,051	2,475	4,041	18,228	81,907	34,792	40,107		10,743	37,910	117,477	31,481	12,217	4,331	2,739
2016	305,960	220,736	2,687	21,034		8,352	7,452	819	164	3,415	4,224	7,317	6,205		517	1,143	5,754	1,635	2,167	9,675	2,664
2017	388,305	220,195	2,655	21,544		21,498	6,192	2,494	2,025	11,732	13,318	5,852	13,055		517	1,496	14,286	25,579	8,726	11,397	5,744
2018	337,807	152,856	1,766	15,063		20,122	1,969	1,289	1,130	8,225	19,505	14,972	13,867		1,640	11,646	15,924	32,650	12,468	8,228	4,487
			· ·		anged res											_			catch Ar		

Note: In 1976, several area boundary lines were changed resulting in thirteen catch areas instead of twelve. The changes were mostly reflected in catch Areas 8, 9,10 and new Area 13. In 1989, catch Area 8 was subdivided into Areas 8.1 and 8.2 are totaled and entered under Area 8 unit 1990. Beginning in 1991, Areas 8.1 and 8.2 are totaled and entered under Area 8 unit 1990. Beginning in 1991, Areas 8.1 and 8.2 are totaled and entered under Area 8 unit 1990. Beginning in 1991, Areas 8.1 included in the total catch for Area 1 unit 1990. Beginning in 1991, Areas 8.1 included in the total catch for Area 1 unit 1991. Starting in 1982, they are reported separately. The total catch for Area 1 unit 1991. Starting in 1992, Area 14 catch is included in the freshwater total.

Note: Prior to 1999, sport salmon estimates were based on calendar years. In 1999, the sport estimates cover January 1, 1999 - March 31, 2000. Starting in 2000, sport salmon estimates are based on the fishing license year which runs from April 1 to March 31.

Marine Area	Chinook	Coho	Chum	Pink	Sockeye	Chinook Jacks	Coho Jacks	Total Salmon	Marine Angler Trips	Salmon per Trip
Ilwaco-Ocean (Area 1)	1,578	13,485						15,063	22,496	0.67
Westport (Area 2)	4,793	15,329						20,122	22,771	0.88
Willapa Bay (Area 2.1)	1,229	622				98	20	1,969	N/A	
Grays Harbor (Area 2.2)	288	782	31				188	1,289	N/A	
LaPush (Area 3)	352	778						1,130	1,921	0.59
Neah Bay (Area 4)	3,109	5,116						8,225	8,638	0.95
Subtotal Coast*	11,349	36,112	31			98	208	47,798	55,826	0.80
Sekiu-Pillar Point (Area 5)	5,152	14,303	5		45			19,505	32,140	0.61
East Juan de Fuca (Area 6)	9,881	5,091						14,972	16,377	0.91
San Juan Islands (Area 7)	8,900	4,764		5	198			13,867	32,272	0.43
Deception Pass, Hope Island (Area 8-1)	458	1,182						1,640	3,925	0.42
Port Susan & Port Gardner (Area 8-2)	1,901	9,743	2					11,646	18,840	0.62
Admiralty Inlet (Area 9)	9,778	6,111	26	9				15,924	37,354	0.43
Seattle-Bremerton (Area 10)	6,048	26,305	277		20			32,650	43,149	0.76
Tacoma-Vashon Island (Area 11)	7,007	5,454	7					12,468	37,396	0.33
Hood Canal (Area 12)	3,213	640	4,375					8,228	6,960	1.18
South Puget Sound (Area 13)	2,928	475	1,084					4,487	5,024	0.89
Subtotal Puget Sound	55,266	74,068	5,776	14	263			135,387	233,437	0.58
Marine Area Totals*	66,615	110,180	5,807	14	263	98	208	183,185	289,263	0.63
Freshwater Totals	64,928	34,668	8,317		29,590	9,107	8,012	154,622	N/A	
Grand Totals	131,543	144,848	14,124	14	29,853	9,205	8,220	337,807	N/A	

^{*}Salmon per trip is calculated after subtracting the catch totals for Willapa Bay and Grays Harbor, where angler trip data is not available.

Table 6. 2018 Sport Salmon Catch, Area 1 - Ilwaco: Ocean

Week Ending	Year	Chinook	Coho	Pink	Sockeye	Chum	Total Salmon	Angler Trips	Salmon per Trip
June 24	2018	302	61				363	675	0.54
July 1	2018	158	196				354	881	0.40
July 8	2018	58	898				956	1,652	0.58
July 15	2018	84	720				804	785	1.02
July 22	2018	95	1,053				1,148	1,422	0.81
July 29	2018	270	2,014				2,284	3,084	0.74
August 5	2018	197	4,175				4,372	6,152	0.71
August 12	2018	393	4,279				4,672	7,107	0.66
August 19	2018								
August 26	2018								
September 2	2018	13	55				68	532	0.13
September 9	2018	8	33				41	207	0.20
Total		1,578	13,485				15,063	22,496	0.67

Table 7. 2018 Sport Salmon Catch, Area 1 - Ilwaco: River (Buoy 10)

Week Ending	Year	Chinook	Coho	Pink	Sockeye	Chum	Total Salmon	Angler Trips	Salmon per Trip
August 5	2018	105	14				119	845	0.14
August 12	2018	249	46				295	2,536	0.12
August 19	2018	2,206	452				2,658	8,553	0.31
August 26	2018	797	1,133				1,930	7,601	0.25
September 2	2018	3	648				651	2,776	0.23
September 9	2018	2	65				67	807	0.08
September 16	2018		6				6	113	0.05
Total		3,362	2,364				5,726	23,231	0.25

Table 8.	2018 Sport	: Salmon Catch,	Area 2 - Westport
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Week Ending	Year	Chinook	Coho	Pink	Sockeye	Chum	Total Salmon	Angler Trips	Salmon per Trip
July 1	2018	210	44				254	500	0.51
July 8	2018	589	74				663	1,810	0.37
July 15	2018	239	142				381	1,465	0.26
July 22	2018	479	419				898	1,760	0.51
July 29	2018	946	940				1,886	2,637	0.72
August 5	2018	735	2,055				2,790	2,798	1.00
August 12	2018	778	2,348				3,127	2,750	1.14
August 19	2018	240	1,054				1,294	2,171	0.60
August 26	2018	320	3,300				3,620	2,417	1.50
September 2	2018	227	4,721				4,949	4,073	1.22
September 9	2018	30	230				260	390	0.67
Total		4,793	15,329				20,122	22,771	0.88

Table 9. 2018-2019 Sport Salmon Catch, Area 2-1 - Willapa Bay

Calendar Month	Year	Chinook	Coho	Pink	Sockeye	Chum	Chinook Jacks	Coho Jacks	Total Salmon
July	2018	101	2						103
August	2018	865	197				69		1,131
September	2018	263	383				29	10	685
October	2018		30					10	40
December	2018		10						10
Total		1,229	622				98	20	1,969

NOTE: Estimates from July-September are from creel surveys; all other estimates are from catch record cards.

Table 10. 2018-2019 Sport Salmon Catch, Area 2-2 - Grays Harbor

Statistical Month	Year	Chinook	Coho	Pink	Sockeye	Chum	Chinook Jacks	Coho Jacks	Total Salmon
July	2018	10	10						20
August	2018	80							80
September	2018	198	228					188	614
October	2018		534						534
November	2018					31			31
December	2018		10						10
Total		288	782			31		188	1,289

Table 11. 2018 Sport Salmon Catch, Area 3 - La Push

Week Ending	Year	Chinook	Coho	Pink	Sockeye	Chum	Total Salmon	Marine Angler Trips	Salmon per Trip
June 24	2018	20					20	40	0.50
July 1	2018	7	1				8	40	0.19
July 8	2018	14	10				24	89	0.27
July 15	2018	10	16				26	94	0.27
July 22	2018	2	5				8	55	0.14
July 29	2018	21	30				51	162	0.31
August 5	2018	35	15				50	174	0.29
August 12	2018	52	47				99	226	0.44
August 19	2018	56	74				130	290	0.45
August 26	2018	49	254				302	321	0.94
September 2	2018	84	305				389	410	0.95
September 9	2018	2	21				23	20	1.15
Total		352	778				1,130	1,921	0.59

Table 12.	2018 Sport	Salmon	Catch, A	Area 4 -	Neah Bay
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Week Ending	Year	Chinook	Coho	Pink	Sockeye	Chum	Total Salmon	Angler Trips	Salmon per Trip
June 24	2018	159	126				285	433	0.66
July 1	2018	196	447				643	736	0.87
July 8	2018	316	1,076				1,392	1,378	1.01
July 15	2018	481	612				1,092	1,508	0.72
July 22	2018	699	1,009				1,708	1,688	1.01
July 29	2018	819	506				1,326	1,399	0.95
August 5	2018	332	881				1,213	949	1.28
August 12	2018	102	454				556	542	1.03
August 19	2018								
August 26	2018	5	5				11	5	2.11
Total		3,109	5,116				8,225	8,638	0.95

Table 13. 2018-2019 Sport Salmon Catch, Area 5 - Sekiu - Pillar Point

Statistical Month	Year	Chinook	Coho	Pink	Sockeye	Chum	Total Salmon	Angler Trips	Salmon per Trip
April	2018	482					482	611	0.79
June	2018	12					12	15	0.80
July	2018	2,840	448		4		3,292	10,696	0.31
August	2018	1,053	3,081		22	5	4,161	6,321	0.66
September	2018	357	10,774		19		11,150	14,042	0.79
February	2019	96					96	75	1.28
March	2019	312					312	380	0.82
Total		5,152	14,303		45	5	19,505	32,140	0.61

NOTE: Estimates for July-September are from creel surveys; other estimates are from catch record cards.

Table 14. 2018-2019 Sport Salmon Catch, Area 6 - East Juan de Fuca Strait

Statistical Month	Year	Chinook	Coho	Pink	Sockeye	Chum	Total Salmon	Angler Trips	Salmon per Trip
April	2018	128					128	269	0.48
July	2018	5,732	22				5,754	5,901	0.98
August	2018	2,143	409				2,552	2,295	1.11
September	2018	228	4,652				4,880	4,089	
October	2018		8				8	25	0.32
February	2019	863					863	1,258	
March	2019	787					787	2,540	0.31
Total		9,881	5,091				14,972	16,377	0.91

NOTE: Estimates for April, February, and March are from creel surveys; other estimates are from catch record cards.

Table 15. 2018-2019 Sport Salmon Catch, Area 7 - San Juan Islands

Statistical Month	Year	Chinook	Coho	Pink	Sockeye	Chum	Total Salmon	Angler Trips	Salmon per Trip
April	2018	249					249	1,319	0.19
July	2018	2,475	20		5		2,500	10,764	0.23
August	2018	2,539	1,139	5	167		3,850	4,793	0.80
September	2018	61	3,605		26		3,692	3,162	1.17
January	2019	2,122					2,122	6,674	0.32
February	2019	594					594	1,905	0.31
March	2019	860					860	3,655	0.24
Total		8,900	4,764	5	198		13,867	32,272	0.43

NOTE: Estimates for April, July, and January-March are from creel surveys; other estimates are from catch record cards.

Table 16. 2018-2019 Sport Salmon Catch, Area 8-1 - Deception Pass / Hope Island

Statistical Month	Year	Chinook	Coho	Pink	Sockeye	Chum	Total Salmon	Angler Trips	Salmon per Trip
April	2018	73					73	583	0.13
August	2018	6	175				181	250	0.72
September	2018		1,007				1,007	1,106	0.91
December	2018	127					127	656	0.19
January	2019	53					53	212	0.25
February	2019	67					67	233	0.29
March	2019	132					132	885	0.15
Total		458	1,182				1,640	3,925	0.42

NOTE: Estimates for April and December-March are from creel surveys; other estimates are from catch record cards.

Table 17. 2018-2019 Sport Salmon Catch, Area 8-2 - Port Susan / Port Gardner

Statistical Month	Year	Chinook	Coho	Pink	Sockeye	Chum	Total Salmon	Angler Trips	Salmon per Trip
April	2018	86					86	1,009	0.09
May	2018	49					49	125	0.39
June	2018	99					99	187	0.53
July	2018	273	8				281	515	0.55
August	2018	110	790				900	1,234	0.73
September	2018	27	8,869				8,896	9,027	0.99
October	2018		76				76	131	0.58
December	2018	333				2	335	2,002	0.17
January	2019	333					333	1,727	0.19
February	2019	181					181	940	0.19
March	2019	410					410	1,943	0.21
Total		1,901	9,743			2	11,646	18,840	0.62

NOTE: Estimates for April and December-March are from creel surveys; other estimates are from catch record cards.

Table 18. 2018-2019 Sport Salmon Catch, Area 9 - Admiralty Inlet

Statistical Month	Year	Chinook	Coho	Pink	Sockeye	Chum	Total Salmon	Angler Trips	Salmon per Trip
April	2018	427					427	1,078	0.40
May	2018	8					8	8	1.00
June	2018	58					58	58	1.00
July	2018	6,256	602	9			6,867	17,751	0.39
August	2018	173	2,033				2,206	3,608	0.61
September	2018	26	3,468			26	3,520	5,331	0.66
October	2018		8				8	10	0.80
November	2018	57					57	68	0.84
December	2018	74					74	87	0.85
January	2019	1,248					1,248	4,254	0.29
February	2019	493					493	1,620	0.30
March	2019	958					958	3,481	0.28
Total		9,778	6,111	9		26	15,924	37,354	0.43

NOTE: Estimates from April, July 16-29, and January-March are from creel surveys; all other estimates are from catch record cards.

Table 19. 2018-2019 Sport Salmon Catch, Area 10 - Seattle / Bremerton

Statistical Month	Year	Chinook	Coho	Pink	Sockeye	Chum	Total Salmon	Angler Trips	Salmon per Trip
April	2018	8					8	10	0.80
May	2018		17				17	20	0.85
June	2018	131	2,497				2,628	1,728	1.52
July	2018	2,782	5,175		3		7,960	14,563	0.55
August	2018	2,244	4,578		12	3	6,837	10,757	0.64
September	2018	25	13,258		5	10	13,298	12,456	1.07
October	2018	50	754			33	837	1,202	0.70
November	2018					231	231	693	0.33
January	2019	792	26				818	1,700	0.48
March	2019	16					16	20	0.80
Total		6,048	26,305		20	277	32,650	43,149	0.76

NOTE: Estimates from July 16-August 16, and January are from creel surveys; all other estimates are from catch record cards.

Table 20.	2018-2019 Sport Salmo	n Catch, Area 11	∣ -Tacoma /	Vashon Island

Statistical Month	Year	Chinook	Coho	Pink	Sockeye	Chum	Total Salmon	Angler Trips	Salmon per Trip
April	2018	580	4				584	591	0.99
June	2018	1,794	27				1,821	8,636	0.21
July	2018	1,399	210				1,609	10,127	0.16
August	2018	2,490	1,365				3,855	13,724	0.28
September	2018	42	3,807				3,849	3,545	1.09
October	2018	197	38			3	238	262	0.91
November	2018	186	1			3	190	168	1.13
December	2018	32				1	33	37	0.89
January	2019	74					74	97	0.76
February	2019	41					41	30	1.37
March	2019	172	2				174	179	0.97
Total		7,007	5,454			7	12,468	37,396	0.33

NOTE: Estimates for June-August 25 are from creel surveys; other estimates are from catch record cards.

Table 21. 2018-2019 Sport Salmon Catch, Area 12 - Hood Canal

Statistical Month	Year	Chinook	Coho	Pink	Sockeye	Chum	Total Salmon	Angler Trips	Salmon per Trip
April	2018	74					74	119	0.62
July	2018	107					107	186	0.58
August	2018	1,196	91				1,287	1,570	0.82
September	2018	1,208	549				1,757	2,416	0.73
October	2018	65				705	770	590	1.31
November	2018	4				3,670	3,674	1,350	2.72
December	2018	66					66	105	0.63
January	2019	197					197	301	0.65
February	2019	49					49	66	0.74
March	2019	247					247	257	0.96
Total		3,213	640			4,375	8,228	6,960	1.18

Table 22. 2018-2019 Sport Salmon Catch, Area 13 - South Puget Sound

Statistical Month	Year	Chinook	Coho	Pink	Sockeye	Chum	Total Salmon	Angler Trips	Salmon per Trip
April	2018	63	20				83	78	1.06
May	2018	198					198	223	0.89
June	2018	272					272	300	0.91
July	2018	181	34				215	327	0.66
August	2018	1,649	45				1,694	2,312	0.73
September	2018	524	219				743	797	0.93
October	2018		45			219	264	210	1.26
November	2018		23			788	811	582	1.39
December	2018		6			77	83	71	1.17
January	2019		42				42	42	1.00
February	2019		41				41	41	1.00
March	2019	41					41	41	1.00
Total		2,928	475			1,084	4,487	5,024	0.89

Table 23. 2018-2019 Freshwater Salmon Sport Catch by Area and Month (cont	tinued)
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				1	CO	ASTAL F	RIVER	SYSTE	MS							
System	Catch Area	CRC				'		2018						2019		-
		Code		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Grays	Hoquiam River	355	Coho							10						10
Harbor			Jackcoho							30						30
			Total							40						40
	Humptulips River	358	Chinook					138	2,584	685		ļ				3,407
			Chum							40	237					277
			Coho						208	784	148	10				1,150
			Jackchin						99	49						148
			Jackcoho							49	10					59
			Total					138	2,891	1,607	395	10				5,041
	Johns River	367	Coho								10					10
			Total								10	1				10
	Wishkah River	335	Chum								20					20
	Wichitan Favor		Coho							89		ĺ			ĺ	89
			Jackcoho							20						20
			Total							109	20					129
Chehalis R	. Chehalis River	315	Chinook	10		10										20
System			Coho							630	531	ĺ			j	1,161
•			Jackchin						128	177						305
			Jackcoho						413	856	10					1,279
			Total	10		10			541	1,663	541					2,765
	Quigg Lake	370	Coho							10		İ				10
	199		Total							10		ĺ			į	10
	Satsop River	329	Chum							177	256	İ				433
			Coho							528	259	ĺ			j	787
			Jackchin							49						49
			Jackcoho							285	10				İ	295
			Total							1,039	525					1,564
	Skookumchuck	333	Coho							20	39					59
	River		Total							20	39	j			į	59
	Wynoochee	337	Chum							10		İ				10
	River		Coho							39	10	j			į	49
			Total							49	10					59
Copalis R.	Copalis River	339	Coho						-	12	1	İ				13
System			Jackcoho							2		j			į	2
			Total							14	1					15

Table 23. 2018-2019 Freshwater Salmon Sport Catch by Area and Month (continued)

					CO	ASTAL F	RIVER	SYSTEM	IS							
System	Catch Area	CRC	Species					2018					- :	2019		Tota
		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	iota
Hoh R.	Hoh River above	348	Chinook		9					19						28
System	Oxbow Launch		Coho							46	28					74
			Total		9					65	28					102
	Hoh River below	350	Chinook				9		19	56					ļ	84
	Oxbow Launch		Chum							9						9
			Coho					9	46	260	19					334
			Jackchin						9	28						37
			Jackcoho						19							19
			Total				9	9	93	353	19					483
Queets R.	Clearwater River	392	Chinook						10			ļ			ļ	10
System			Coho						10							10
			Total						20							20
	Queets River	394	Coho						174			ļ			ļ	174
			Jackcoho						48							48
			Total						222							222
	Salmon River	396	Jackcoho						10			ļ			ļ	10
	(Jefferson Co)		Total						10							10
Quillayute	Bogachiel River	398	Chinook		-				29	137						166
R. System			Coho						39	107	49					195
			Jackchin						68	59						127
			Jackcoho						10	39	10					59
			Total						146	342	59					547
	Calawah River	400	Coho							20						20
			Total							20						20
	Dickey River	402	Coho							20						20
	(Clallam Co)		Jackchin						10							10
			Total						10	20					i	30
	Quillayute River	404	Chinook				20	20	68	352						460
			Coho				20	49	195	977		ĺ			ĺ	1,241
			Jackchin						117	68						185
			Jackcoho						49	156						205
			Total				40	69	429	1,553						2,091

Table 23. 2018-2019 Freshwater Salmon Sport Catch by Area and Month (continued)

					CO	ASTAL I	RIVER	SYSTEM	/IS							
System	Catch Area	CRC	Species					2018						2019		Tota
		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	TOLA
Quillayute	Sol Duc River	406	Chinook	89	385	207	59	30	30	109	10					919
R. System			Coho				10	21	31	114	146					322
(cont.)			Jackchin	10	29		39		98	98						274
			Jackcoho						26	39	13					78
			Total	99	414	207	108	51	185	360	169					1,593
Quinault	Cook Creek	408	Coho					1								1
R.			Total					1_								1
System	Quinault River	410	Coho							1	5	- !				6
			Jackcoho								1					1
			Total							1 10	6	-			-	/ 10
Willapa	Bear River	305	Coho							10					ł	10
Bay	(Pacific Co)		Total							10						10
	Naselle River	375	Chinook					290	590							880
			Chum								10					10
			Coho					20	140	460	250	100				970
			Jackchin						20							20
			Jackcoho							20	30	10				60
			Total					310	750	480	290	110				1,940
	Nemah River	379	Chinook				10	640	1,621							2,271
			Chum							10						10
			Coho						20	50						70
			Jackchin					30	40							70
			Jackcoho							10						10
			Total				10	670	1,681	70						2,431
	North River	382	Coho							20	20					40
			Jackcoho							50		j			j	50
			Total							70	20					90

Table 23. 2018-2019 Freshwater Salmon Sport Catch by Area and Month (continued)

					CO	ASTAL	RIVER	SYSTE	MS .							
System	Catch Area	CRC	0					2018						2019		T-4-1
•		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Willapa	Smith Creek	384	Coho	'						20						20
Bay (cont.)	(Pacific Co)		Jackchin							10						10
			Jackcoho							50						50
			Total							80						80
	Willapa River	424	Chinook					140	540	70						750
			Coho						42	136	199	73				450
			Jackchin					10	50							60
			Jackcoho						10		10					20
			Total					150	642	206	209	73				1,280
Coastal Riv	er Totals		Chinook	99	394	217	98	1,258	5,491	1,428	10					8,995
			Chum							246	523	1				769
			Coho				30	100	905	4,363	1,714	183				7,295
			Jackchin	10	29		39	40	639	538						1,295
			Jackcoho						585	1,606	94	10				2,295
			Total	109	423	217	167	1,398	7,620	8,181	2,341	193				20,649

Table 23. 2018-2019 Freshwater Salmon Sport Catch by Area and Month (continued)

					OCO	LAUS/IIBN IA	RIVER	SYSTE	MS							
System	Catch Area	CRC						2018						2019		
		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Columbia	B10 Line	519	Chinook	53	5		105	3,255	2	30					10	3,460
R.	- Rocky Pt -		Coho				14	2,279	71							2,364
Mainstem	Tongue Pt Line		Jackchin												10	10
			Total	53	5		119	5,534	73	30					20	5,834
	Columbia -	521	Chinook	2,047	280	1,203		2,111	2,792					2	190	8,625
	below		Coho					91	217							308
	Bonneville		Sockeye				52									52
			Jackchin	10	12	28	35	106	231							422
			Jackcoho						15							15
			Total	2,057	292	1,231	87	2,308	3,255					2	190	9,422

Table 23. 2018-2019 Freshwater Salmon Sport Catch by Area and Month (continued)

					0000		RIVER S	SYSTE	MS							
System	Catch Area	CRC	Ci					2018						2019		Tota
		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	iota
Cowlitz R.	Blue Creek	507	Chinook						9							Ç
System			Total						9							9
	Cispus River	555	Coho						9	47	37	ļ			ļ	93
			Jackcoho							84	56	19	75			234
			Total						9	131	93	19	75			327
	Cowlitz R. below	561	Chinook	582	353	19	29	285	363	41						1,672
	Mayfield Dam		Coho					49	170	309	76	28	9			641
			Jackchin	47	28	9		19	84	9		9			9	214
			Jackcoho					9	450	1,499	309					2,267
			Total	629	381	28	29	362	1,067	1,858	385	37	9		9	4,794
	Cowlitz R. above	559	Chinook								28					28
C	Cowlitz Falls		Coho							28	37	37				102
	Dam		Jackchin							9	19					28
			Jackcoho							47	65	19				131
			Total							84	149	56				289
	Mill Cr. (Lewis	625	Chinook		9											9
	Co.)		Total		9										ĺ	g
	Tilton River	571	Chinook							9		i			ĺ	9
			Coho							280	56	37			į	373
			Jackchin						19	56						75
			Jackcoho							299	103	37			İ	439
			Total						19	644	159	74			İ	896
	Toutle River	573	Chinook						47							47
		0.0	Coho İ						37	9	9	į			į	55
			Jackchin						28			İ			İ	28
			Jackcoho						9			İ			İ	ç
			Total						121	9	9					139
	Toutle River, No	575	Chinook			-	-		47	19						66
	Fork		Jackchin						37			i			i	37
			Total						84	19						103

Table 23. 2018-2019 Freshwater Salmon Sport Catch by Area and Month (continued)

					OCOU	OISVIEN EN EN	RIVER S	SYSTE	MS							
System	Catch Area	CRC	C					2018						2019		T-4-1
		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Lewis R.	Lewis River	611	Chinook	75	37		9	56	65	37	9					288
System			Coho						9	47						56
			Jackchin					19		47						66
			Jackcoho							9	9					18
			Total	75	37		9	75	74	140	18					428
	Lewis River,	615	Chinook	106	220	10	19	134	277	124	10					900
	North		Coho					20	295	266	69	89				739
	Fork		Jackchin					10	110	141	10					271
			Jackcoho					164	588	174						926
			Total	106	220	10	19	328	1,270	705	89	89				2,836
Lower	Deep River	580	Chinook	10												10
Columbia	(Wahkiakum Co)		Total	10												10
	Elochoman River	584	Jackcoho								10					10
	above Foster Rd		Total								10					10
	Bridge		01.1													00
	Grays River	594	Chinook						39							39
	below Barr Rd		Jackchin							10						10
	Bridge		Total						39	10						49
	Kalama River	604	Chinook	110	110	20	10	408	209	32					10	909
	below Modrow		Coho						10	96	10					116
	Bridge		Jackchin	10												10
			Total	120	110	20	10	408	219	128	10				10	1,035
	Kalama River	603	Chinook	108	226	10	10	30	49	120	10				10	423
	between Modrow	003	Coho							39	20					59
	Bridge and				40					33	20					
	Kalama		Jackchin		10											10
	Falls		Total	108	236	10		30	49	39	20					492
	Hatchery															
	Washougal R.,	665	Chinook						10							10
	West Fork		Total						10							10
	Washougal	668	Chinook							10						10
	River above		Coho							10		İ				10
	County Line		Jackchin							10						10
	Access		Total							30						30

	Table 23.	2018-2019 Freshwater	Salmon Sport	t Catch by Ai	rea and Month (continued)
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					CCCC	VARAILSA IV	RIVER	SYSTE	MS							
System	Catch Area	CRC	Cmasias					2018						2019		Tatal
		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Lower	Washougal River	667	Chinook						148	20						168
Columbia			Coho						30	89						119
(cont.)	,		Total						178	109						287
Lower Colu	ower Columbia System Total		Chinook	3,091	1,240	1,262	172	6,279	4,057	322	47			2	210	16,682
			Coho				14	2,439	848	1,220	314	191	9			5,026
			Sockeye				52									52
			Jackchin	67	50	37	35	154	509	282	29	9			19	1,191
			Jackcoho					173	1,062	2,112	552	75	75			4,049
			Total	3,158	1,290	1,299	273	9,045	6,476	3,936	942	275	84	2	229	27,000

Table 23. 2018-2019 Freshwater Salmon Sport Catch by Area and Month (continued)

					CCCC	US/IIB NIA i	RIVER S	SYSTE	MS							
System	Catch Area	CRC						2018						2019		
•		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Big White	Big White	508	Chinook		2											2
Salmon	Salmon		Coho						1			1				1
River	River		Sockeye				2									2
			Total		2		2		1							5
Klickitat	Klickitat River	608	Chinook	9	28	38	9		189	151						424
River	above Fishway 5		Coho							9	123	1				132
			Jackchin						19	57						76
			Jackcoho								19					19
			Total	9	28	38	9		208	217	142					651
	Klickitat River	607	Chinook		66			66	971	566	28					1,697
	below Fishway 5		Coho						38	575	396	283	47			1,339
			Jackchin						330	349	28			9		716
			Jackcoho						75	481	47	57	19			679
			Total		66			66	1,414	1,971	499	340	66	9		4,431
Little	Little White	618	Chinook	464	1,522	69	59	326	731	158						3,329
White	Salmon		Coho					10	183	71		- 1				264
Salmon	River & Drano		Jackchin		49			49	361	225						684
River &	Lake		Jackcoho							107						107
Drano Lake			Total	464	1,571	69	59	385	1,275	561						4,384

Table 23. 2018-2019 Freshwater Salmon Sport Catch by Area and Month (continued)

					CCCO	ON SAUBAITY I	RIVER S	SYSTE	MS							
System	Catch Area	CRC	0					2018						2019		T-4-
		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Tota
Mid	Columbia	527	Chinook	99	217	39	10	276	306	10						957
Columbia	Bonneville Dam		Coho					20	20							40
	to		Jackchin		10			20		10						40
	The Dalles Dam		Total	99	227	39	10	316	326	20						1,037
	Columbia The	529	Chinook	137	29			29	264	39						498
	Dalles Dam to		Coho						49							49
	John		Jackchin						59							59
	Day Dam		Total	137	29			29	372	39						606
	Columbia John	531	Chinook	39	10	49			10	20						128
	Day		Coho							10		ĺ			ĺ	10
	Dam to McNary		Sockeye				20									20
	Dam		Jackchin		10				10							20
			Total	39	20	49	20		20	30						178
Wind R.	Wind River	677	Chinook		48	19										67
System	above		Jackchin		19											19
	Shipherd Falls		Total		67	19										86
	Wind River	680	Chinook	343	856	48			29							1,276
	below		Coho						57	10		ĺ			ĺ	67
	Shipherd Falls		Jackchin		29	10		10	19						ĺ	68
			Total	343	885	58		10	105	10					İ	1,411
Middle Col	umbia System To	tals	Chinook	1,091	2,778	262	78	697	2,500	944	28					8,378
			Coho					30	348	675	519	283	47		Ì	1,902
			Sockeye				22									22
			Jackchin		117	10		79	798	641	28	İ		9		1,682
			Jackcoho						75	588	66	57	19			805
			Total	1,091	2,895	272	100	806	3,721	2,848	641	340	66	9		12,789

Table 23. 2018-2019 Freshwater Salmon Sport Catch by Area and Month (continued)

					0000	ALEMTE LA	RIWERS	SYSTIE	W§S							
System	Catch Area	CRC	Cmasias					2018						2019		Tota
		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Iota
Entiat	Entiat River	586	Chinook	,			78	118	118							31
River			Total				78	118	118							314
Okanogan	Okanogan River	627	Chinook					1								
R. System	-		Total					1_								
	Similkameen	629	Chinook			_	3								- !	;
	River		Jackchin			5	7									1:
			Total Chinook			5	10		39	19						15 58
Upper Columbia	Columbia McNary	533	; ;						39	19		-				39
Columbia	Dam to Hwy 395		Coho						39							38
	Bridge		Total						78	19						97
	Columbia Hwy	534	Chinook			20		10	366	287						683
	395		Sockeye			19	195									214
	Bridge to I-182		Jackchin						78	97						175
	Bridge		Total			39	195	10	444	384						1,072
	Columbia I-182	535	Chinook			98	69	20	1,735	1,509						3,43
	Bridge-old		Coho							19						19
	Hanford townsite		Sockeye			196	1,031			10						1,237
	townsite		Jackchin			10	10		287	346						653
			Jackcoho							49						49
			Total			304	1,110	20	2,022	1,933						5,389
	Columbia Old	536	Chinook				20	20	3,309	2,372						5,72
	Hanford		Sockeye			19	97		10	10						136
	townsite-Priest		Jackchin						297	337						634
	Rapids Dam		Jackcoho							10						10
			Total			19	117	20	3,616	2,729						6,50
	Columbia Priest	537	Chinook			68	302	19	448	507						1,344
	Rapids to		Sockeye			127	984	10				İ			j	1,12
	Wanapum Dam		Jackchin			10	29		10	39						88
			Total			205	1,315	29	458	546						2,553

Table 23. 2018-2019 Freshwater Salmon Sport Catch by Area and Month (continued)

					OCO	TO SUIDAN TO	RIVER	SYSTE	as							
System	Catch Area	CRC	6					2018						2019		T-4-
-		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Tota
Upper	Columbia	539	Chinook				58	19	117	107						301
Columbia	Wanapum to		Sockeye				10									10
(cont.)	Rock		Jackchin							19		İ				19
	Island Dam		Total				68	19	117	126						330
	Columbia Rock	541	Chinook			36	55									91
	Island to Rocky		Sockeye			187	1,056	20				ĺ	20			1,283
	Reach Dam		Jackchin						10							10
			Total			223	1,111	20	10				20			1,384
	Columbia Rocky	543	Chinook			348	1,242	407	20							2,017
	Reach to Wells	0.0	Sockeye			190	1,447	20				j			İ	1,657
	Dam		Jackchin				58	68								126
			Total			538	2,747	495	20							3,800
	Columbia Wells	545	Chinook	-		21	631	671	62							1,385
	to Chief Joseph	040	Sockeye				16,433	971				İ			İ	17,404
	Dam		Jackchin				117	49	10							176
			Total			21		1,691	72							18,965
Wenatchee	Wenatchee	674	Chinook				2	4								10,000
R. System	River	0, ,	Total				2	4				j			İ	6
Yakima R.	Yakima River	690	Chinook		53	38			15	107						213
System	Takina Tavoi		Coho						8	38		į			j	46
•			Jackchin			8			8							16
			Jackcoho							8						8
			Total		53	46			31	153		İ				283
Upper Colu	mbia System Tot	als	Chinook		53	629	2,460	1,289	6,229	4,908		İ				15,568
	-		Coho						47	57						104
			Sockeye			738	21,253	1,021	10	20			20			23,062
			Jackchin			33	221	117	700	838						1,909
			Jackcoho							67						67
			Total		53	1,400	23,934	2,427	6,986	5,890			20			40,710

Table 23. 2018-2019 Freshwater Salmon Sport Catch by Area and Month (continued)

					CO	ASTAL F	RIVER	SYSTEM	IS							
System	Catch Area	CRC						2018						2019		-
•		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Snake R.	Snake River:	640	Chinook		143	57										200
System	below		Jackchin		11	8			10							29
	Ice Harbor		Total		154	65			10							229
	Snake River: Ice	642	Chinook							10						10
	Harbor to Lower Monumental Dam		Total							10						10
	Snake River:	644	Chinook	3	409	94	10		20	30		İ			ĺ	566
	Lower		Jackchin	1	36	9			10	80		ĺ			ĺ	136
	Monumental to Little Goose Dam		Total	4	445	103	10		30	110						702
	Snake River:	648	Chinook		31	5	10	10	159	30						245
	Lower Granite to		Jackchin						10							10
	Interstate Bridge		Total		31	5	10	10	169	30						255
	Snake River:	650	Chinook						40							40
	upstream of		Jackchin						10	20						30
	Interstate Bridge		Total						50	20						70
Snake Riv	er System Totals		Chinook	3	583	156	20	10	219	70		İ			ĺ	1,061
	,		Jackchin	1	47	17			40	100		İ			ĺ	205
			Total	4	630	173	20	10	259	170						1,266

Table 23, 2018-2019 Freshwater Salmon Sport Catch by Area and Month (continued)

					PU G E	ASTOLUNE	BIKEVE	SYSYIET	MESMS							
System	Catch Area	CRC	Smaaiaa					2018						2019		T-4-
		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Tota
Chambers	Chambers Creek	714	Jackchin					1	1							:
Cr. System			Total					1	1							2
Dewatto R.	Dewatto River	732	Coho	,						2						
System			Total							2						2
Dunge-	Dungeness	738	Coho							172	40	İ			ĺ	212
ness River			Total							172	40					212
Green-	Green -	746	Chinook					58	329	10					İ	397
Duwamish	Duwamish		Chum							369	1,884	97	29		ĺ	2,379
R. System	River		Coho					39	1,035	784	184					2,042
			Jackchin						106	10						116
			Jackcoho						48	77						125
			Total					97	1,518	1,250	2,068	97	29			5,059
Kennedy	Kennedy Creek	754	Chum							141	241				ļ	382
Cr. System			Total							141	241					382
Lake	Lake	764	Coho							10		ļ			10	20
Washing-	Sammamish		Total							10					10	20
ton	Lake	762	Coho						291							291
	Washington		Jackcoho						10							10
			Total						301							301
Minter Cr.	Minter Creek	778	Chum							107	3,784	320				4,211
System			Coho							87	78					165
			Jackcoho							404	10	200				10
			Total Chinook						47	194	3,872	320				4,386
Nisqually	McAllister Creek	770	Chinook Total						47 47			ł				47
R. System	Nieguelly Biver	786	Chinook				66	1,793	1,850							3,709
	Nisqually River	786	Coho				00	1,133	1,030			ł				3,708
			Jackchin			9	28	727	699							1,463
			Jackcoho			ū			19							19
			Total			9	94	2,520	2,578							5,201

Table 23. 2018-2019 Freshwater Salmon Sport Catch by Area and Month (continued)

					PU G E	ASTOLUNI	BIREVE	RYSYIS:	MESMS							
System	Catch Area	CRC	Smaaiaa					2018						2019		Tata
		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Tota
Nooksack	Dakota Creek	724	Coho							19						19
Samish R.	(Whatcom Co)		Total							19						19
System	Nooksack River	788	Chinook						44	44						88
			Chum								87	10			ĺ	97
			Coho					127	1,549	2,451	353					4,480
			Jackchin					10								10
			Jackcoho					10	10	29						49
			Total					147	1,603	2,524	440	10				4,724
	Samish River	816	Chinook					2,214	3,856	291						6,361
			Chum							29	19	- 1				48
			Coho					10	48	155	19					232
			Jackchin					116	136							252
			Total					2,340	4,040	475	38					6,893
	Whatcom Creek	884	Chum							58	155	ļ			ļ	213
			Total							58	155					213
Puyallup	Carbon River	802	Chinook					180	1,010						ļ	1,190
R. System			Coho						358	641						999
			Jackchin					30	276							306
			Jackcoho						59	39						98
			Total					210	1,703	680						2,593
	Puyallup River	804	Chinook					603	250	20					!	873
			Chum					704	0.570	440	89	49				138
			Coho					721	2,576	413	10	20				3,740
			Sockeye					007	1							1
			Jackchin					207	158	4.4	46					365
			Jackcoho					71	163	41	10					285
			Total				20	1,602	3,148	474	109	69				5,402
Quilcene	Quilcene River	812	Coho				30	1,265	1,225	30		ŀ			-	2,550
R. System			Jackcoho Total				30	1,265	10	30						10 2,560

Table 23. 2018-2019 Freshwater Salmon Sport Catch by Area and Month (continued)

					PUGE	ASTOWN A	ARDI VREVRE	SYSYS	MESMS							
System	Catch Area	CRC	Smaaiaa					2018						2019		Tatal
•		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Skagit R.	Baker Lake	825	Sockeye				5,035	1,146	19							6,200
System			Total				5,035	1,146	19							6,200
	Cascade River	826	Chinook		57	163	29									249
			Coho						498	958	38					1,494
			Jackchin			19	19									38
			Jackcoho							10						10
			Total		57	182	48		498	968	38					1,791
	Skagit River	830	Chinook		19	29										48
			Coho					87	1,531	833	116	19				2,586
			Sockeye			57	96			10						163
			Jackcoho					10	77	29						116
			Total		19	86	96	97	1,608	872	116	19				2,913
Skokomish	Skokomish River	834	Chum								1					1
R. System			Coho								1	ĺ				1
•			Total								2					2
Skykomish	Skykomish River	844	Chinook		50	179	139									368
River			Coho						169	109	20					298
			Jackchin		11	42	106									159
			Jackcoho							20						20
			Total		61	221	245		169	129	20					845
	Snohomish River	850	Coho						497							497
			Jackcoho						20			ĺ				20
			Total						517							517
	Snoqualmie	852	Coho						10							10
	River		Total						10			ĺ				10
	Wallace River	860	Coho						32	107						139
	vvaliace ravei	000	Total						32	107		i				139
Puget Sour	nd System Totals		Chinook		126	371	234	4,848	7,386	365						13,330
i aget ooui	ia Oystonii Totais		Chum					,	,	704	6,260	476	29			7,469
			Coho				30	2.249	9,829	6,771	859	39			10	19.787
			Sockeye			57	5,131	1,146	20	10					. •	6,364
			Jackchin		11	70	153	1,091	1,376	10						2,711
			Jackcoho			. 3		91	416	245	20					772
			Total		137	498	5,548			8,105	7,139	515	29		10	

Table 23. 2018-2019 Freshwater Salmon Sport Catch by Area and Month (continued)

COABTANORIME RISEY ASEMS																
System	Catch Area	CRC	0					2018					- :	2019		T-4-1
		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Unknown	Area Totals		Chinook	13	26	45	96	294	263	142	1		27	3	4	914
			Chum								79					79
			Coho			18	112	134	187	80	14					545
			Sockeye				90									90
			Jackchin		1		21	21	24	47						114
			Jackcoho					19	1	4						24
			Total	13	27	63	319	468	475	273	94		27	3	4	1,766

Table 23. 2018-2019 Freshwater Salmon Sport Catch by Area and Month (continued)

	COSA TSATAME VIRILDINE PROSTANCIOSE MIS															
System	Catch Area	CRC						2018					- :	2019		-
•		Code	Species	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Statewide	Totals		Chinook	4,297	5,200	2,942	3,158	14,675	26,145	8,179	86		27	5	214	64,928
			Chum							950	6,862	476	29			8,317
			Coho			18	186	4,952	12,164	13,166	3,420	696	56		10	34,668
			Sockeye			795	26,548	2,167	30	30			20			29,590
			Jackchin	78	255	167	469	1,502	4,086	2,456	57	9		9	19	9,107
			Jackcoho					283	2,139	4,622	732	142	94			8,012
			Total	4,375	5,455	3,922	30,361	23,579	44,564	29,403	11,157	1,323	226	14	243	154,622

Table 24. 2018-2019 Washington Sport Salmon Fishing, by Residence

1able 24. 2010							
County of Residence	Number Catch Record Cards	Population by County	% Catch Record Card Holders	Total Freshwater Salmon Catch	Total Marine Salmon Catch	Total Salmon	Average Catch per Card
Adams	1,189	19,759	6	744	23	767	0.65
Asotin	1,607	22,610	7.1	71		71	0.04
Benton	14,109	201,877	7	6,962	1,227	8,189	0.58
Chelan	5,473	77,036	7.1	4,907	1,093	6,000	1.1
Clallam	9,424	76,737	12.3	1,612	16,516	18,128	1.92
Clark	33,764	481,857	7	12,258	4,047	16,305	0.48
Columbia	442	4,059	10.9	115		115	0.26
Cowlitz	16,144	108,987	14.8	6,297	2,166	8,463	0.52
Douglas	2,543	42,907	5.9	2,037	1,295	3,332	1.31
Ferry	334	7,649	4.4	301	57	358	1.07
Franklin	6,170	94,347	6.5	2,649	281	2,930	0.47
Garfield	295	2,247	13.1	53	178	231	0.78
Grant	4,671	97,331	4.8	3,020	1,083	4,103	0.88
Grays Harbor	10,397	73,901	14.1	4,021	6,296	10,317	0.99
Island	10,064	84,460	11.9	1,187	4,287	5,474	0.54
Jefferson	3,692	31,729	11.6	797	3,134	3,931	1.06
King	84,205	2,233,163	3.8	18,422	38,642	57,064	0.68
Kitsap	21,469	269,805	8	2,683	13,764	16,447	0.77
Kittitas	2,749	47,364	5.8	1,010	717	1,727	0.63
Klickitat	2,557	22,107	11.6	1,958	30	1,988	0.78
Lewis	9,292	79,604	11.7	2,294	2,543	4,837	0.52
Lincoln	706	10,740	6.6	186	119	305	0.43
Mason	6,090	65,507	9.3	709	3,286	3,995	0.66
Okanogan	2,519	42,132	6	3,091	173	3,264	1.3
Pacific	3,765	22,036	17.1	1,869	2,456	4,325	1.15
Pend Oreille	516	13,602	3.8	177	44	221	0.43
Pierce	55,209	891,299	6.2	15,916	20,930	36,846	0.67
San Juan	2,158	17,128	12.6	45	1,806	1,851	0.86
Skagit	15,415	128,206	12	5,766	4,104	9,870	0.64
Skamania	1,067	11,924	8.9	540	59	599	0.56
Snohomish	53,717	814,901	6.6	10,681	25,822	36,503	0.68
Spokane	12,765	514,631	2.5	6,519	1,780	8,299	0.65
Stevens	3,469	45,260	7.7	726	64	790	0.23
Thurston	20,276	286,419	7.1	7,147	8,560	15,707	0.77
Wahkiakum	1,015	4,426	22.9	274	403	677	0.67
Walla Walla	3,933	60,922	6.5	1,319	93	1,412	0.36
Whatcom	16,961	225,685	7.5	6,023	3,340	9,363	0.55
Whitman	1,501	49,791	3	177	211	388	0.26
Yakima	13,074	251,446	5.2	5,464	1,353	6,817	0.52
Unknown WA	1,054			514	132	646	0.61
Washington Total	455,800	7,535,591	6	140,541	172,114	312,655	0.69
Other State Total	40,856			13,869	10,975	24,844	0.61
Canada	1,627			213	44	257	0.16
Other	510				51	51	0.1
Grand Total	498,793			154,623	183,184	337,807	0.68

Source: Table 1: Annual Estimates of the Resident Population for Counties of Washington: April 1, 2010 to July 1, 2018. Source: Population Division, U.S. Census Bureau. Release Date: April 2019

#Salmon per Catch Record Card	Number of Cards	Cumulative Number of Cards	Percent Cards	Cumulative Percent Cards	Total Catch	Cumulative Total Catch	Percent Catch	Cumulative Percent Catch
0	416,952	416,952	83.6%	83.6%	0	0	0.0%	0.0%
1	28,296	445,248	5.7%	89.3%	28,296	28,296	8.4%	8.4%
2	18,971	464,219	3.8%	93.1%	37,942	66,238	11.2%	19.6%
3	7,732	471,951	1.6%	94.6%	23,196	89,434	6.9%	26.5%
4	5,697	477,648	1.1%	95.8%	22,788	112,222	6.7%	33.2%
5	3,483	481,131	0.7%	96.5%	17,415	129,637	5.2%	38.4%
6	3,190	484,321	0.6%	97.1%	19,140	148,777	5.7%	44.0%
7	2,010	486,331	0.4%	97.5%	14,070	162,847	4.2%	48.2%
8	2,067	488,398	0.4%	97.9%	16,536	179,383	4.9%	53.1%
9	1,424	489,822	0.3%	98.2%	12,816	192,199	3.8%	56.9%
10	1,221	491,043	0.2%	98.4%	12,210	204,409	3.6%	60.5%
11	1,001	492,044	0.2%	98.6%	11,011	215,420	3.3%	63.8%
12	830	492,874	0.2%	98.8%	9,960	225,380	2.9%	66.7%
13	757	493,631	0.2%	99.0%	9,841	235,221	2.9%	69.6%
14	586	494,217	0.1%	99.1%	8,204	243,425	2.4%	72.1%
15	635	494,852	0.1%	99.2%	9,525	252,950	2.8%	74.9%
16	366	495,218	0.1%	99.3%	5,856	258,806	1.7%	76.6%
17	448	495,666	0.1%	99.4%	7,616	266,422	2.3%	78.9%
18	391	496,057	0.1%	99.5%	7,038	273,460	2.1%	81.0%
19	326	496,383	0.1%	99.5%	6,194	279,654	1.8%	82.8%
20	260	496,643	0.1%	99.6%	5,200	284,854	1.5%	84.3%
21	220	496,863	0.0%	99.6%	4,620	289,474	1.4%	85.7%
22	171	497,034	0.0%	99.6%	3,762	293,236	1.1%	86.89
23	212	497,246	0.0%	99.7%	4,876	298,112	1.4%	88.2%
24	260	497,506	0.1%	99.7%	6,240	304,352	1.8%	90.1%
25	228	497,734	0.0%	99.8%	5,700	310,052	1.7%	91.8%
26	952	498,686	0.2%	100.0%	24,752	334,804	7.3%	99.1%
27	57	498,743	0.0%	100.0%	1,539	336,343	0.5%	99.6%
28	16	498,759	0.0%	100.0%	448	336,791	0.1%	99.7%
29	8	498,767	0.0%	100.0%	232	337,023	0.1%	99.8%
30 or more	24	498,791	0.0%	100.0%	784	337,807	0.2%	100.0%
Total	498,791		100.0%		337,807		100.0%	

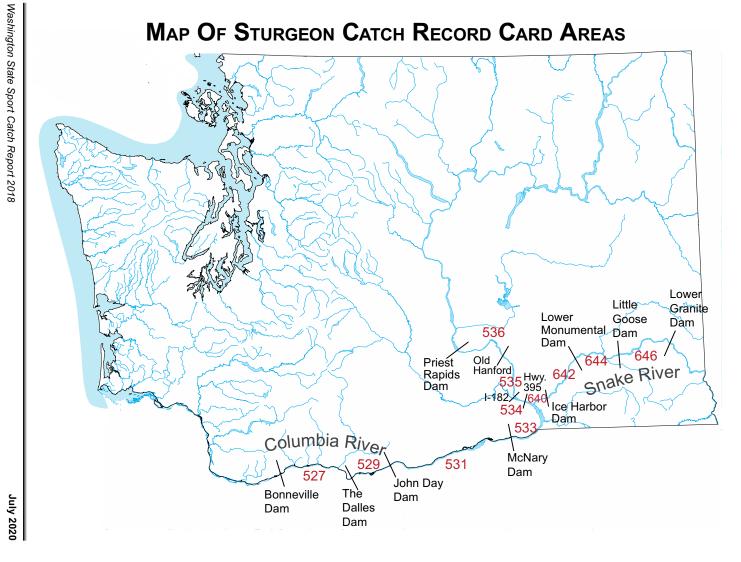
^{*}Note: A single card has room for twenty-six salmon entries. Cards showing more than that were filled out incorrectly, with more than one salmon per line.

Table 26. 2018-2019 Sport Salmon Inventory of Catch Record Cards Received

Response Type	With Catch	No catch	Total Reports	Number of Salmon	Catch per Card
Prior to reminder	3,648	6,246	9,894	14,557	1.47
After 1st reminder postcard	5,944	8,814	14,758	25,162	1.70
After 2nd reminder postcard	462	17,984	18,446	1,788	0.10
Total	10,054	33,044	43,098	46,019	1.07

Sturgeon





DESCRIPTION OF STURGEON CATCH RECORD CARD AREAS

Columbia River

527	Bonneville to the Dalles Dam
529	The Dalles Dam to John Day Dam
531	John Day to McNary Dam
533	McNary Dam to Highway 395 Bridge at Pasco
534	Highway 395 Bridge at Pasco to I-82 Bridge
535	I-82 Bridge to Old Hanford Townsite
536	Old Hanford Townsite to Priest Rapids Dam

Snake River

640	Below Ice Harbor Dam
642	Ice Harbor to Lower Monumental Dam
644	Lower Monumental to Little Goose Dam
646	Little Goose to Lower Granite Dam

Table 27. 2018-2019 Sport Sturgeon Catch, by Area and Month

	COLUMBIA	RIVER	SYS	ГЕМЅ										
Outst. Aug.	0					2018						2019		T-4-1
Catch Area	Species	Apr I	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Columbia R 01: Buoy 10 to Tongue PtRocky Pt.	White		256	357										613
Columbia R 02: Tongue Pt. Rocky Pt. to Longview Br.	White		265	369			51							685
Columbia R 03: Longview Br. to I-5 Br.	White						350							350
Columbia R 04: I-5 Br. to Bonneville Dam	White						84							84
Columbia R 05: Bonneville to The Dalles Dam	White			83							76		13	172
Columbia R 06: The Dalles to John Day Dam	White			19							24			43
Columbia R 07: John Day to McNary Dam	White												13	13
Columbia R 08: McNary Dam - Hwy 395 Bridge in Pasco	White		12	24	12								12	59
Columbia R 09: Hwy 395 Bridge to I-182 Bridge	White			12										12
Columbia R 09: Old Hanford townsite to Priest Rapids Dam	White			36	24								24	83
Columbia R 16: above Grand Coulee Dam (Lake Roosevelt)	White			178	155	155								488
Cowlitz R. below Mayfield Dam	White						83							83
Total	White		533 1	,078	191	155	568				100		62	2,685
	STATE	WIDE T	OTAL	s										
Statewide Totals	White		533 1	,078	191	155	568				100		62	2,685

Table 28. 2018-2019 Washington Sport Sturgeon Fishing, by Residence

County of Residence	Number Catch Record Cards	Population by County	% Catch Record Holders	Total Sturgeon	Average Catch per Catch Record Card
Adams	1,189	19,759	6	10	0.01
Asotin	1,607	22,610	7.1		
Benton	14,109	201,877	7	79	0.01
Chelan	5,473	77,036	7.1		
Clallam	9,424	76,737	12.3	10	0.00
Clark	33,764	481,857	7	568	0.02
Columbia	442	4,059	10.9		
Cowlitz	16,144	108,987	14.8	467	0.03
Douglas	2,543	42,907	5.9		
Ferry	334	7,649	4.4		
Franklin	6,170	94,347	6.5		
Garfield	295	2,247	13.1		
Grant	4,671	97,331	4.8	10	0.00
Grays Harbor	10,397	73,901	14.1	30	0.00
Island	10,064	84,460	11.9		
Jefferson	3,692	31,729	11.6		
King	84,205	2,233,163	3.8	49	0.00
Kitsap	21,469	269,805	8	10	0.00
Kittitas	2,749	47,364	5.8		
Klickitat	2,557	22,107	11.6	69	0.03
Lewis	9,292	79,604	11.7	210	0.02
Lincoln	706	10,740	6.6		0.02
Mason	6,090	65,507	9.3	10	0.00
Okanogan	2,519	42,132	6		0.00
Pacific	3,765	22,036	17.1	228	0.06
Pend Oreille	516	13,602	3.8	30	0.06
Pierce	55,209	891,299	6.2	110	0.00
San Juan	2,158	17,128	12.6		0.00
Skagit	15,415	128,206	12		
Skamania	1,067	11,924	8.9	40	0.04
Snohomish	53,717	814,901	6.6	40	0.00
Spokane	12,765	514,631	2.5	149	0.01
Stevens	3,469	45,260	7.7	209	0.06
Thurston	20,276	286,419	7.1	69	0.00
Wahkiakum	1,015	4,426	22.9	49	0.05
Walla Walla	3,933	60,922	6.5	30	0.01
Whatcom	16,961	225,685	7.5	- 55	0.01
Whitman	1,501	49,791	3		
Yakima	13,074	251,446	5.2	89	0.01
Unknown WA	1,054	201,770	0.2	55	0.01
Washington Total	455,800	7,535,591	6	2,565	0.01
Other State Total	40,856	1,000,001		120	0.00
Canada	1,627			120	0.00
Other	510				
Grand Total	498,793			2,685	0.01

Note: The figures do not accurately multiply across because of the bias adjustment factor and rounding of numbers. Source: Table 1: Annual Estimates of the Resident Population for Counties of Washington: April 1, 2010 to July 1, 2018. Source: Population Division, U.S. Census Bureau. Release Date: April 2019

Table 29. 2018-2019 Frequency Distribution of Estimated Sturgeon Catch Record Cards and Catch

#Sturgeon per Catch Record Card	Number of Cards	Cumulative Number of Cards	Percent Cards	Cumulative Percent Cards	Total Catch	Cumulative Total Catch	Percent Catch	Cumulative Percent Catch
0	496,454	496,454	99.5%	99.5%	0	0	0.0%	0.0%
1 1	1,989	498,443	0.4%	99.9%	1,989	1,989	74.1%	74.1%
2	348	498,791	0.1%	100.0%	696	2,686	25.9%	100.0%
Total	498,791		100.0%		2,685		100.0%	

Table 30. 2018-2019 Sport Sturgeon Inventory of Catch Record Cards Reported

Response Type	With Catch	No Catch	Total Reports	Number of Sturgeon	Catch per Card
Prior to reminder	61	13,397	13,458	67	0.005
After 1st reminder postcard	156	14,290	14,446	182	0.013
After 2nd reminder postcard	18	15,181	15,199	21	0.001
Total	235	42,868	43,103	270	0.006

Steelhead



Table 31. 2018-2019 Steelhead Sport Catch, by Area and Month (continued)

		CO	ASTAL RI	VERS A	AND M	ARINE	CATC	H ARE	EAS							
System	River	Code	Run					2018						2019		Tota
System	Kivei	Code	IXUII	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	1016
Chehalis R. System	Chehalis R. above Black R.	315	W									3	47	50	44	14
	Chehalis R. below Black R.	317	S				3									
			W									3	108	40	13	16
	Chehalis River, So. Fork	319	W										7	10		1
	Cloquallam Creek	321	S			6										
	Newaukum River	325	W											3	3	
	Satsop River	329	S			9	12			3						2
			W									3	101	104	134	34
	Satsop River, West Fork	331	W										7	3		1
	Skookumchuck River	333	S			12				3						1:
			W	77								3	188	175	299	74:
	Van Winkle Creek	419	S			3	3									(
			W									3				
	Wynoochee River	337	S			383	386	130	97	24						1,02
			W								13	94	608	316	202	1,23
	Chehalis R. System Totals		S			413	404	130	97	30						1,07
			W	77							13	109	1,066	701	695	2,66
Copalis R. System	Copalis River	339	S							6						
Hoh R. System	Hoh River above Oxbow	348	S					3								
	Launch		W										10	69	59	13
	Hoh River below Oxbow	350	S			3	5	3								1
	Launch		W									20		39	39	9
	Hoh River, So. Fork	352	W											30		3
	Hoh R. System Totals		S			3	5	6								1-
			W									20	10	138	98	26
Hoquiam R. System	Hoquiam River	355	W										3			;
Humptulips R.	Humptulips River	358	S			43	98	114	98	28						38
System			W								9	184	148	36	9	38
	Humptulips River, E. Fork	361	S			4		4								
	Stevens Creek	364	W									4	13			1
	Humptulips R. System		S			47	98	118	98	28						38
	Totals		W								9	188	161	36	9	40

Table 31. 2018-2019 Steelhead Sport Catch, by Area and Month (continued)

		CO	ASTAL RI	VERS A	ND M	ARINE	CATC	H ARE	EAS							
System	River	Code	Run					2018						2019		Tota
System	Rivei	Code	Kuli	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Tota
Kalaloch Cr. System	Kalaloch Creek	369	W											5		
Marine Water	Area 1: Col R - Ledbetter	1	S							44						44
			W								13	3	3		3	22
Marine Water	Area 2: Westport	2	S				13									13
	Area 2-2: Grays Harbor	22	W										3			
	Area 3: La Push	3	S		6											(
			W	3												;
	Marine Water Totals		S		6		13									19
			W	3									3			(
Naselle R. System	Naselle River	375	S					13								13
			W									3	5	3		1
	Salmon Creek (Pacific Co.)	377	W										10			10
	Naselle R. System Totals		S					13								13
			W									3	15	3		2
Nemah R. System	Nemah River	379	W												3	:
North R. System	North River	382	W									136	263	107		506
	Smith Creek (Pacific Co.)	384	S			61										6
	North R. System Totals		S			61										6
			W									136	263	107		506
Palix R. System	Niawiakum River	389	W								5					
Queets R. System	Clearwater River	392	W												7	1
	Queets River	394	W									10	44	61	24	139
	Salmon River (Jefferson Co.)	396	W									34	157	15		206
	Queets R. System Totals		W									44	201	76	31	352
Quillayute R. System	Bogachiel River	398	S				6		3	3						12
			W								131	124	62	14	31	362
	Calawah River	400	S			29	51	32	51	19						182
			W								55	41	21			11
	Quillayute River	404	S			6								-		
			W								3	7			7	1

Table 31. 2018-2019 Steelhead Sport Catch, by Area and Month (continued)

		co	ASTAL RI	VERS A	AND M	ARINE	CATC	H ARE	AS							
Sustam	River	Code	Run					2018						2019		Total
System	River	Code	Kun	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Iotai
Quillayute R. System	Sol Duc River	406	S					6	10							16
(cont.)			W	3							3	3				9
	Quillayute R. System Totals		S			35	57	38	64	22						216
			W	3							192	175	83	14	38	505
Quinault R. System	Cook Creek	408	W									3	3			6
	Quinault R, Upper (above L.	412	S					6								6
	Quinault)		W										3	5	8	16
	Quinault R. System Totals		S					6								6
			W									3	6	5	8	22
Willapa R. System	Willapa River	424	W									31	48	3	3	85
Coastal Rivers/Strean	ns and Marine Carch Area T	otals	S		6	559	577	311	259	130						1,842
			W	83							232	712	1,862	1,088	888	4,865

Table 31. 2018-2019 Steelhead Sport Catch, by Area and Month (continued)

		CO	A SCTONLLURM	REARBIX	KER MI	AUR INFE	BLATA	RHEASRE	AS							
0	Divers	0 - 1 -	D					2018						2019		T-4-1
System	River	Code	Run	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Abernathy Cr. System	Abernathy Creek	501	W												2	2
Chinook R. System	Chinook River	515	S		2											2
Columbia R.	Columbia R 01: Buoy 10 to	519	S		7	47	60	8								122
Mainstem	Tongue PtRocky Pt.		W	4												4
	Columbia R 02: Tongue Pt.	521	S		287	970	874	366								2,497
	Rocky Pt. to Longview Br.		W	12												12
	Columbia R 03: Longview	523	S		22	209	416	340								987
	Br. to I-5 Br.		W	4												4
	Columbia R 04: I-5 Br. to	525	S			8	310	95	3							416
	Bonneville Dam		W	9												9
	Columbia R 05: Bonneville to The Dalles Dam	527	S				71	89					7			167
	Columbia R 06: The Dalles	529	S				4	7					7			18

Table 31. 2018-2019 Steelhead Sport Catch, by Area and Month (continued)

		COA	SCTONLLIN	IBEARBIX		AURITH	BUATA	CRIPAS	EAS							
System	River	Code	Run					2018						2019		Tota
System	River	Code	Kuli	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	TOLA
Columbia R. Mainstem (cont.)	Columbia R 07: John Day to McNary Dam	531	S			11		7					22		26	
	Columbia R 08: McNary Dam - Hwy 395 Bridge @ Pasco	533	S				7	4					74	7	7	99
	Columbia R 09: Hwy 395 Bridge to I-182 Bridge	534	S										7			-
	Columbia R 09: I-182 Bridge to old Hanford townsite	535	S	108			11	19	4	63	48		4		71	328
	Columbia R 09: Old Hanford townsite to Priest Rapids Dam	536	S						4	4						8
	Columbia R 11: Wanapum to Rock Island Dam	539	S										4			
	Columbia R 14: Wells to Chief Joseph Dam	545	S				4									-
	Columbia R. Mainstem		S	108	316	1,245	1,757	935	11	67	48		125	7	104	4,723
	Totals	ĺ	W	29												29
Cowlitz R. System	Blue Creek (Lewis Co.)	507	S						2							- 2
			W											2	8	10
	Coweeman River	557	W										56	11		6
	Cowlitz R. above Cowlitz Falls Dam	559	W											4		4
	Cowlitz R. below Mayfield	561	S		203	648	1,914	1,457	478	274						4,974
	Dam		W	1,084							135	4	68	244	1,260	2,79
	Cowlitz R. between May- field & Cowlitz Falls Dams	563	W												8	
	Green River (Cowlitz Co.) above Toutle Hatchery	566	W												4	
	Green River (Cowlitz Co.) below Toutle Hatchery	565	S				12	4								16
	Lacamas Creek (Lewis Co.)	567	S				4									
	Toutle River	573	S			66	54	4	21	8						153
	Toutle River, So. Fork	577	S		8	129	58	42	87	108						432
			W								45	11			4	6
	Cowlitz R. System Totals		S	1	211	843	2,042	4,507	586	390						8,57
			W	1.084							180	15	124	259	1,276	2,93

Table 31. 2018-2019 Steelhead Sport Catch, by Area and Month (continued)

		COA	A SET DALLUM	REARBIX		AUR ITVE	BLATIAC	RHEASRE	EAS							
System	River	Code	Run					2018						2019		Tota
System	River	Code	Kun	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	iota
Elochoman R.	Elochoman River above	584	S		7	35	1		2							4
System	Foster Rd Bridge		W								64	119	137	37		357
	Elochoman River below	583	S		2	5										7
	Foster Rd Bridge		W									18				18
	Elochoman R. System		S		9	40	1		2							52
	Totals		W								64	137	137	37		375
Germany Cr. System	Germany Creek	589	W										2			2
Grande Ronde R. System	Grande Ronde River	592	S	27					9	89	89	18	54	103	291	680
Grays R. System	Grays River above Barr Rd	595	S				2									2
	Bridge		W											2		2
	Grays River, West Fork	596	W									2				2
	Grays R. System Totals		S				2									2
			W									2		2		4
Kalama R. System	Kalama River above Kalama Falls Hatchery	602	S			5			10	5	5	5				30
	Kalama River below Mod-	604	S		47	68	84	63	31	10						303
	row Bridge		W	2							2	2	4	2	5	17
	Kalama River between Modrow Bridge and Kalama	603	S		152	241	115	73	142	63						786
	Falls Hatchery		W	4							16	14	12	2	14	62
	Kalama R. System Totals		S		199	314	199	136	183	78	5	5				1,119
			W	6							18	16	16	4	19	79
Klickitat R. System	Klickitat River above Fishway 5	608	S			122	38	237	174	45	45					661
	Klickitat River below Fishway 5	607	S	14	21	24	10	28	49	49	10		3			208
	Klickitat R. System Totals		S	14	21	146	48	265	223	94	55		3			869
Lewis R. System	Cedar Creek (Clark Co.)	609	S		5	5			15							25
	Lewis River (below E. Fork)	611	S			15	77	31	21	5						149
			W								9	36	9		9	63
	Lewis River, E. Fork	613	S					5								Ę
			W												18	18

		COA	SCTONLLIRM	REARRIX	(NR AN)	AIR INR	RIATA	RHASE	-AS							
								2018						2019	I	
System	River	Code	Run	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Tota
Lewis R. System	Lewis River, No. Fork	615	S		31	386	1,045	551	139	36						2,188
(cont.)			W	18							45	45	27			135
	Lewis R. System Totals		S		36	406	1,122	587	175	41						2,367
			W	18							54	81	36		27	216
Little White Salmon River System	Little White Salmon River & Drano Lake	618	S			5	699	726	9	5					5	1,449
Mill Cr. System (Cowlitz)	Mill Creek (Cowlitz Co.)	624	S					4								4
Rock Cr. System (Skamania)	Rock Creek (Skamania Co.)	632	S							2						2
Salmon Cr. System (Clark)	Salmon Creek (Clark Co.)	635	W									4	8	4	2	18
Snake R. Mainstem	Snake R 1: below Ice Harbor Dam	640	S						9	26	13	43	13	4	4	112
	Snake R 2: Ice Harbor to Lower Monumental Dam	642	S			9			486	1,264	469	284	82	21	60	2,675
	Snake R 3: Lower Monumental to Little Goose Dam	644	S			4	4		138	275	142	86	90	9	17	765
	Snake R 4: Little Goose to Lower Granite Dam	646	S						9	52	52	47	34	17	9	220
	Snake R 5: Lower Granite Dam to Interstate Bridge, Clarkston	648	S					4	189	460	408	189	133	4		1,387
	Snake R 6: upstream of the Interstate Bridge, Clarkston	650	S					4	43	597	352	116	52	39		1,203
	Snake R. Mainstem Totals		S			13	4	8	874	2,674	1,436	765	404	94	90	6,362
Walla Walla R.	Touchet River	657	S	31											2	33
System	Walla Walla River	659	S							31	2		4			37
	Walla Walla R. System Totals		S	31						31	2		4		2	70
Washougal R.	Washougal River above	668	S					7								7
System	County Line Access		W								4	6				10
	Washougal River below	667	S		13	101	94		20							228
	County Line Access		W	2							23	29	17	4	4	79
	Washougal R. System		S		13	101	94	7	20							235
	Totals		W	2							27	35	17	4	4	89

Table 31. 2018-2019 Steelhead Sport Catch, by Area and Month (continued)

		CO	A SCTOALLURM	BEARBIX		MADE ITATE	BLATA	TRI EASR E	EAS							
System	River	Code	Run					2018						2019		Total
System	Kivei	Code	Kuii	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	iotai
White Salmon R.	Big White Salmon River	508	S				11	36	7	4						58
System			W									2				2
Wind R. System	Wind River above Shipherd Falls	677	S		2	2										4
	Wind River below Shipherd Falls	680	S		2		7	29				2				40
	Wind R. System Totals		S		4	2	7	29				2				44
	Tributary System Totals (All	non-	S	180	811	3,115	5,986	4,240	2,101	3,475	1,635	790	590	204	492	23,619
Boldt)			W	1,139							343	292	340	312	1,338	3,764

Table 31. 2018-2019 Steelhead Sport Catch, by Area and Month (continued)

	PUGET SOUND AND	STRAI	T OF JUA	N DE F	UCA F	RIVER	SYSTE	EMS A	ND MA	RINE	CATC	1 ARE	AS			
Sustam.	Diver	C-4-	Dun					2018						2019		Tatal
System	River	Code	Run	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Marine Water	Area 9: Admiralty Inlet	9	S		16	3	3									22
			W	20												20
Dungeness R.	Dungeness River	738	S							3						3
System			W								20	7	7			34
Green-Duwamish R.	Green (Duwamish River)	746	S				3									3
System	(King Co.)		W								1	1				2
Hoko R. System	Hoko River	752	W									7	14	7	7	35
Lyre R. System	Lyre River	768	W									7				7
Nooksack R. System	Nooksack River, No. Fork	790	W								7			7		14
	Nooksack River, below North Fork	794	W								7		20			27
	Nooksack R. System Totals		W								14		20	7		41
Sekiu R. System	Sekiu River	818	W									7				7

Table 31. 2018-2019 Steelhead Sport Catch, by Area and Month (continued)

	PUGET SOUND AND	STRAI	T OF JUA	N DE F	UCA F	RIVER	SYSTE	EMS A	ND MA	RINE	CATC	IARE	AS			
System	River	Code	Run					2018						2019		Tota
- Cystem	Mivei	Oode	IXUII	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	1010
Skagit R. System	Cascade River	826	W								7					,
	Sauk River	828	S					6	3							!
			W												7	
	Skagit River	830	S							6						(
			W	7									7			14
	Skagit R. System Totals		S					6	3	6						1
			W	7							7		7		7	2
Snohomish R.	Skykomish River	844	S			1,943	349	36	75	78						2,48
System			W								44	93	87	3		22
	Skykomish River, No. Fork	846	S			46	28	4								78
			W									3				;
	Skykomish River, So. Fork	848	S			4		7								1
	Snohomish River	850	S			32	18			11						6
			W								3	9	6			18
	Snoqualmie River	852	W								3	32	3			38
	Tokul Creek	856	W								3		17			2
	Wallace River	860	S						14	4						18
		1 [W								9	9	9			2
	Snohomish R. System		S			2,025	395	47	89	93						2,64
	Totals		W								62	146	122	3		33
Stillaguamish R.	Canyon Creek	866	S				3									;
System			W									7				
	Pilchuck Creek (Stillagua- mish System)	870	W									20		-		20
	Stillaguamish R, No. Fork	872	W								20	20		7		4
	Stillaguamish R. System		S				3									;
	Totals		W								20	47		7		7.
Puget Sound, Strait	of Juan de Fuca River Syste	ms	S		16	2,028	404	53	92	102						2,69
and Marine Catch A Areas)	rea Totals (All are Boldt Case	•	W	27							124	222	170	24	14	58

Table 31. 2018-2019 Steelhead Sport Catch, by Area and Month (continued)

COASTAL RIV errisk nigrivm (Arribles SCATCH AREAS																
System River Code		Code	Run					2018					2019		Total	
System	River	Code	Kuii	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Iotai
Unknown Area Tota	Unknown Area Totals					6	12	12	6							36
			W								21		21		11	53

Table 31. 2018-2019 Steelhead Sport Catch, by Area and Month (continued)

1051C 01. 2010-2	e de la cometa opor	Coun	,, by A	ca an	u 1110	(,0111111	ucuj								
	COASTAL RIVSERS ENVIOUS ATRINALS ATCH AREAS															
System	System River Co							2018					2019			Total
System	Code	Run	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	TOTAL	
Statewide Totals			S	180	833	5,708	6,979	4,616	2,458	3707	1635	790	590	204	492	28,192
			W	1249							720	1226	2,393	1424	2,251	9,263
			Grand Total	1,429	833	5708	6979	4616	2458	3707	2,355	2016	2,983	1628	2,743	37,455

Table 32. 2018-2019 Washington Sport Steelhead Fishing, by Residence

County of Residence	Number of Catch Record Cards	Population by County	% Catch Record Card Holders	Total Steelhead	Average Catch per Card
Adams	1,189	19,759	6.0	46	0.04
Asotin	1,607	22,610	7.1	730	0.45
Benton	14,109	201,877	7.0	1,176	0.08
Chelan	5,473	77,036	7.1	11	0.00
Clallam	9,424	76,737	12.3	343	0.04
Clark	33,764	481,857	7.0	4,465	0.13
Columbia	442	4,059	10.9	274	0.62
Cowlitz	16,144	108,987	14.8	3,882	0.24
Douglas	2,543	42,907	5.9	23	0.01
Ferry	334	7,649	4.4	23	0.07
Franklin	6,170	94,347	6.5	2,067	0.34
Garfield	295	2,247	13.1	46	0.16
Grant	4,671	97,331	4.8	137	0.03
Grays Harbor	10,397	73,901	14.1	2,192	0.21
Island Jefferson	10,064 3,692	84,460 31,729	11.9 11.6	80	0.01
King	84,205	2,233,163	3.8	4,134	0.05
Kitsap	21,469	269,805	8.0	274	0.03
Kittitas	2,749	47,364	5.8	57	0.02
Klickitat	2,557	22,107	11.6	331	0.13
Lewis	9,292	79,604	11.7	1,462	0.16
Lincoln	706	10,740	6.6	.,	
Mason	6,090	65,507	9.3	183	0.03
Okanogan	2,519	42,132	6.0	46	0.02
Pacific	3,765	22,036	17.1	229	0.06
Pend Oreille	516	13,602	3.8	69	0.13
Pierce	55,209	891,299	6.2	3,357	0.06
San Juan	2,158	17,128	12.6		
Skagit	15,415	128,206	12.0	274	0.02
Skamania	1,067	11,924	8.9	69	0.06
Snohomish	53,717	814,901	6.6	1,838	0.03
Spokane	12,765 3,469	514,631	2.5 7.7	1,142 23	0.09 0.01
Stevens Thurston	20,276	45,260 286,419	7.1	1,496	0.01
Wahkiakum	1,015	4,426	22.9	434	0.43
Walla Walla	3,933	60,922	6.5	411	0.10
Whatcom	16,961	225,685	7.5	229	0.01
Whitman	1,501	49,791	3.0	434	0.29
Yakima	13,074	251,446	5.2	1,622	0.12
Unknown WA	1,054	,		57	0.05
Washington Total	455,800	7,535,591	6.0	33,666	0.07
Other State Total	40,856			3,757	0.09
Canada	1,627			23	0.01
Other	510			11	0.02
Grand Total	498,793			37,457	0.08

Source: Table 1: Annual Estimates of the Resident Population for Counties of Washington: April 1, 2010 to July 1, 2018.

Source: Population Division, U.S. Census Bureau. Release Date: April 2019

Table 33. 2018-2019 Frequency Distribution of Estimated Steelhead Catch Record Cards and Catch

#Steelhead per Catch Record Card	Number of Cards	Cumulative Number of Cards	Percent Cards	Cumulative Percent Cards	Total Catch	Cumulative Total Catch	Percent Catch	Cumulative Percent Catch
0	484,684	484,684	97.2%	97.2%	0	0	0.0%	0.0%
1	7,391	492,075	1.5%	98.7%	7,391	7,391	19.7%	19.7%
2	2,783	494,858	0.6%	99.2%	5,566	12,957	14.9%	34.6%
3	1,243	496,101	0.2%	99.5%	3,729	16,686	10.0%	44.5%
4	878	496,979	0.2%	99.6%	3,512	20,198	9.4%	53.9%
5	411	497,390	0.1%	99.7%	2,055	22,253	5.5%	59.4%
6	262	497,652	0.1%	99.8%	1,572	23,825	4.2%	63.6%
7	182	497,834	0.0%	99.8%	1,274	25,099	3.4%	67.0%
8	160	497,994	0.0%	99.8%	1,280	26,379	3.4%	70.4%
9	171	498,165	0.0%	99.9%	1,539	27,918	4.1%	74.5%
10	103	498,268	0.0%	99.9%	1,030	28,948	2.7%	77.3%
11	57	498,325	0.0%	99.9%	627	29,575	1.7%	79.0%
12	46	498,371	0.0%	99.9%	552	30,127	1.5%	80.4%
13	114	498,485	0.0%	99.9%	1,482	31,609	4.0%	84.4%
14	57	498,542	0.0%	100.0%	798	32,407	2.1%	86.5%
15	23	498,565	0.0%	100.0%	345	32,752	0.9%	87.4%
16	34	498,599	0.0%	100.0%	544	33,296	1.5%	88.9%
17	11	498,610	0.0%	100.0%	187	33,483	0.5%	89.4%
18	46	498,656	0.0%	100.0%	828	34,311	2.2%	91.6%
19	23	498,679	0.0%	100.0%	437	34,748	1.2%	92.8%
20	34	498,713	0.0%	100.0%	680	35,428	1.8%	94.6%
24	11	498,724	0.0%	100.0%	264	35,692	0.7%	95.3%
25	34	498,758	0.0%	100.0%	850	36,542	2.3%	97.6%
26	11	498,769	0.0%	100.0%	286	36,828	0.8%	98.3%
28	11	498,780	0.0%	100.0%	308	37,136	0.8%	99.1%
29	11	498,791	0.0%	100.0%	319	37,455	0.9%	100.0%
Total	498,791		100.0%		37,455		100.0%	

Table 34. 2018-2019 Sport Steelhead Inventory of Catch Record Cards Reported

Response Type	With Catch	No Catch	Total Reports	Number of Steelhead	Catch per Card
Prior to reminder	352	9,608	9,960	1,070	0.11
After 1st reminder postcard	806	13,732	14,538	2,022	0.14
After 2nd reminder postcard	75	18,530	18,605	192	0.01
Total	1,233	41,870	43,103	3,284	0.08

Marine Fish



Table 35. 2018 Coastal Marine Fish Catch

			Catch Area			
Species	Area 1 Ilwaco	Area 2 Westport	Area 3 La Push	Area 4 Neah Bay (Ocean)	Area 4B Neah Bay (Strait)	Total
Black Rockfish	10,000	135,238	27,135	38,473	20,665	231,511
Blue Rockfish	19	65	109	389	263	845
Yellowtail Rockfish	9,368	17,317	1,034	516	75	28,310
China Rockfish	18	14	198	871	96	1,197
Quillback Rockfish	83	494	88	265	92	1,022
Copper Rockfish	61	81	73	769	169	1,153
Canary Rockfish	261	2,286	126	864	117	3,654
Yelloweye Rockfish			4			4
Tiger Rockfish	32	22	45	66	6	171
Vermillion Rockfish	1	17	32	548	11	609
Other Rockfish		14	24	131	23	192
Boccaccio	28	30	44	5		107
Lingcod	2,114	24,429	6,974	7,272	2,804	43,593
Kelp Greenling	186	106	216	788	959	2,255
Pacific Cod	7			57	12	76
Other Cod	7		2	31	14	7
Cabezon	315	375	519	1,141	440	2,790
Flatfish	1,503	3,967	7	685	132	6,294
Surf Perch		12	1	5	3	21
Albacore Tuna	18,586	6,698				25,284
Sharks and Skates	4	9	14	9		36
Miscellaneous	3,936	918	117	1,271	108	6,350

Table 36. Coastal Washington Recreational Pacific Halibut Catch 2000-2018

Year	Columbia Catch Area 1	South Coast Catch Area 2	North Coast Catch Areas 3-4
2000	370	1,980	4,286
2001	387	2,085	5,752
2002	347	1,644	5,219
2003	327	2,482	5,576
2004	447	3,455	5,627
2005	518	2,981	5,046
2006	693	2,377	4,562
2007	585	2,017	3,136
2008	667	2,375	4,408
2009	391	2,328	4,841
2010	428	2,259	5,438
2011	480	2,613	4,931
2012	350	2,588	5,130
2013	292	2,664	5,387
2014	540	2,465	6,064
2015	590	2,557	5,247
2016	702	2,543	6,003
2017	949	3,835	5,683
2018	931	3,258	6,365

Table 37. 2018 Sport Bottomfish Catch by Boat-Based Anglers in Puget Sound

O					Marin	e Area					Puget Sound
Species	5	6	7	8-1	8-2	9	10	11	12	13	Sound Total
Pacific Halibut	996	567	121			42					1,726
Starry Flounder	6	62	19		29	74		622		1,308	2,120
Soles	29	8	166		596	1,511	342	1,678		792	5,122
Sanddabs		40	12		1,101	2,423	7,637	2,145		1,901	15,258
Misc. Flatfish	19	13	40	44	5,662	7,542	7,434	7,735	38	1,624	30,150
Sablefish	157		25								182
Lingcod	279	163	2,144	240	12	690	72	39		319	3,959
Greenlings	118	144	1,370	585		83		6			2,307
Copper Rockfish	56							63			119
Quillback Rockfish	20		6		6						32
Brown Rockfish											0
Black Rockfish	3,904										3,904
Blue Rockfish	7										7
Yellowtail Rockfish											0
Vermillion Rockfish											0
Yelloweye Rockfish											0
Canary Rockfish											0
China Rockfish	5										5
Other Rockfishes	4		63			2	13				83
Pacific Cod	16										16
Walleye Pollock											0
Pacific Tomcod	2										2
Pacific Hake											0
Cabezon	112	43	143	7		89					394
Other Sculpins	5	3	6		2	6	204	313			538
Perches			6	7	129	867	103	61			1,174
Spiny Dogfish		15	33		91	366	1,057	92		117	1,771
Ratfish							8				8
Skates								3			3
Total	5,732	1,058	4,155	884	7,629	13,694	16,868	12,756	38	6,061	68,876



Table 38. 2018-2019 Seasonal Summary of Sport Razor Clam Digging on Ocean Beaches

		Fall/Winter ¹		Spring ²					
Location	Digger Trips	Clams Per Trip	Number of Clams	Digger Trips	Clams Per Trip	Number of Clams			
Long Beach	10,121	11.3	114,139	33,775	14.8	500,423			
Twin Harbors	65,650	11.5	755,778	29,886	12.6	376,041			
Copalis	43,940	13.3	583,321	18,098	13.7	248,708			
Mocrocks	39,500	13.6	536,206	35,823	13.8	493,879			
Kalaloch	721	3.8	2,720	289	3.0	878			
Total	159,932	12.5	1,992,164	117,871	13.7	1,619,929			

¹ During the 2018/2019 Season, Fall and Winter openers occur on evening (PM) tides that occured between October 11, 2018 and March 21, 2019.

² During the 2018/2019 Season, Spring openers occured on the morning (AM) tides that occur between March 22, 2019 and May 20, 2019.

Table 39. 2018 Clam and C	lyster Recreational Use and Harvest Estimates from Intertidal Areas East of Dungeness Spit	t

Marine	Beach Name	User			Pour	nds of Cla	ms Harves	ted			Number
Areas	Beach Name	Trips	Manila	Littleneck	Butter	Cockle	Softshell	Horse	Geoduck	Total	of Oysters
6	Sequim Bay SP	2,378	199	3,819	35	3,357	64	1,125		8,599	24,344
7	Birch Bay SP	18,610	4,941	7,461	74,647	3,987	115	5,346		96,497	3,175
	Drayton West	374	620	150	384	33	6	1		1,194	682
8-1	West Penn Cove	530	14	86	2,109	336	1	43		2,589	2,303
	Freeland CP	301	359	143	393	8	10			913	
9	Fort Flagler SP	1,557		1,286	5,280	823	59	1,586	125	9,159	
	Oak Bay CP	789	209	106	3,575	383	9	664	1	4,947	21
	Indian Island CP	1,360	1,725	120	1,917	103	26	349		4,240	171
	Port Gamble	2,119	3,829	920	1,235	531	180	1,440	31	8,166	14,479
	Wolfe + Shine SP	5,116	4,954	704	7,842	2,184	153	4,024	29	19,890	25,160
12	Dabob Broad Spit	373	863	61	2	63		71	397	1,457	1,024
	Quilcene Bay WDFW Tidelands	2,232	3,439				5			3,444	13,507
	Dosewallips SP	23,415	45,760	198	12	110	202			46,282	155,473
	Pt. Whitney Tidelands	834	584	53	54	3	1	9		704	6,525
	Pt. Whitney Lagoon	98	98							98	720
	Eagle Creek	1,862	150	36	10	212	11	2	55	476	17,257
	DNR-44A W Dewatto	715	1,243	303	111	98	2	19		1,776	8,508
	Rendsland Creek	263	113	44	2	29				188	3,349
	Potlatch SP	15,529	13,838	3,370	5,950	3,615	74	433		27,280	121,202
	Belfair SP	6,460	7,090				26			7,116	58,945
	Duckabush	581	526	8	21	83	5	2	34	679	4,536
	Triton Cove Tidelands	527	102	11	12	10				135	5,706
	Lilliwaup SP	819	2	101	1,346	221		24		1,694	8,022
	Twanoh SP	3,772	1,486	3	1	441	3			1,934	44,654
13	North Bay	1,160	2,405	179	13	18	10	1		2,626	8,796
Total		91,774	94,549	19,162	104,951	16,648	962	15,139	672	252,083	528,559

Table 40. 2018 Puget Sound and Hood Canal Sport Spot Shrimp Fishery

Area	Date	Angler Trips	Pounds	CPUE (lbs. per trip)
4, 5	May-September 15	425	1,300	3.1
6	May-July 6	2,514	17,047	6.8
6 (Discovery Bay)	May (4 days)	646	2,441	3.8
7	May-July 6	10,298	51,304	5.0
8-1 & 8-2	May (2 days)	3,644	17,970	4.9
9	May (2 days)	1,128	5,448	4.8
10	May (1 day)	1,403	7,972	5.7
11	May (1 day)	508	1,841	3.6
12	May-August (9 days)	23,195	87,234	3.8
13	May (2 days)	534	318	0.6
Total		44,295	192,875	4.4

Table 41. 2018 Sport Dungeness Crab Catch (all gear types)

Areas 11 and 13 were closed for both summer and winter seasons.

Areas 10 and 12 were closed during the winter season.

Marine Area and location		Summer Season (lb. of crab)	Fall/Winter Season (lb. of crab)
4	Neah Bay	663	119
5	Sekiu/Pillar Point	3,575	286
6	Port Angeles Harbor, Dungeness & Sequim Bays, Discovery Bay	93,926	12,694
7	Gulf of Georgia, North of San Juan Islands, Bellingham Bay, Samish Bay, San Juan Islands, Anacortes	428,012	78,775
8-1	Skagit Bay, North Saratoga Passage, Holmes Harbor	308,569	13,222
8-2	South Saratoga Passage, Port Susan, Port Gardner	319,117	21,750
9 ¹	Admiralty Inlet, Port Townsend Bay, Useless Bay	78,414	11,848
10	Seattle/Kingston, Port Orchard	44,138	2
11	Colvos Pass, East Pass	224	
12, 9 ²	Port Ludlow/Port Gamble, Upper Hood Canal, Central Hood Canal, Lower Hood Canal	82,421	9
13	South Puget Sound	126	
Total		1,359,185	138,705

¹ Excluding all waters of Marine Area 9 south of a line from Foulweather Bluff to Olele Point.

² Including all waters of Marine Area 9 south of a line from Foulweather Bluff to Olele Point.

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