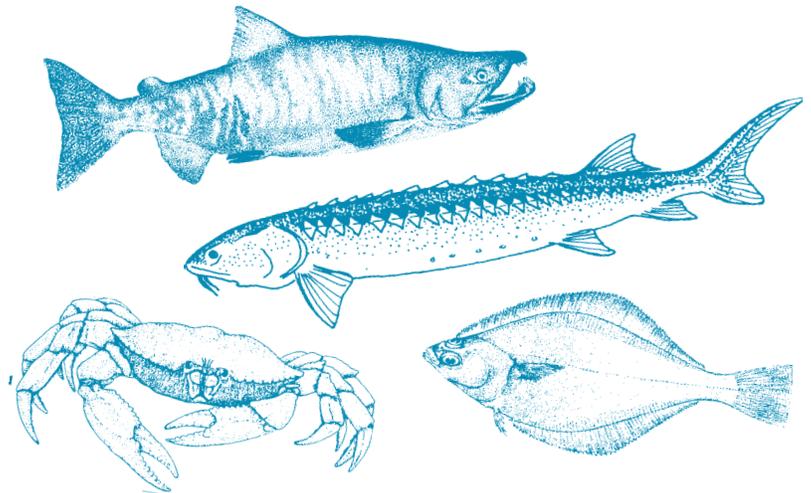


Washington State Sport Catch Report 1997



by Kyong Yi and Terrie Manning



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Science Division

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Introduction

The Washington State Sport Catch report was first published in 1967 by the former Department of Fisheries. The report originally provided salmon catch estimates which were based on data from catch record cards (punch cards). By 1991, catch record card data were collected for salmon, sturgeon and halibut and supplemented with field or creel survey data where and when possible to improve catch estimate accuracy. Over time the report expanded to include shellfish and marine fish estimates. Food fish (salmon, sturgeon, halibut, marine fish and shellfish) estimates are made on a calendar year basis from January 1 through December 31.

Since 1950, the former Department of Game (renamed Department of Wildlife in 1985) has published steelhead harvest reports based on catch record card data and creel surveys. Game fish (steelhead) estimates are summarized from May 1 of one year through April 30 of the next year. This is to better capture the results of steelhead “run years”, which typically span two calendar years.

On March 1, 1994, the former Departments of Fisheries (WDF) and Wildlife (WDW) merged to form the Department of Fish and Wildlife (WDFW). This marks the third combined report covering both “food fish” and “game fish.” Delayed due to budget and staffing constraints, the 1997 edition is being published in December of 1999.

Sport Licenses and Catch Record Cards

In 1997, the following licenses and catch record cards were required to fish in Washington:

- A **personal use food fish license** was required for resident anglers over age 14, and for all non-resident anglers, to fish for anadromous fish (except steelhead) and marine fish. This license was available in resident annual, resident senior (free, ages 70 and over), non-resident annual, three-consecutive-day, and one-day formats. In addition, a free **catch record card** was required of all anglers of all ages to fish for salmon, for halibut in Puget Sound and the Strait of Juan de Fuca, and for sturgeon in the Columbia River, Grays Harbor, Willapa Bay and all tributaries of these three systems.
- A **game fish license** was required for resident anglers over age 14, and for all non-resident anglers, to fish for game fish (warm water species such as bass, panfish, whitefish and trout). This license was available in annual, one-day and three-consecutive-day formats. Reduced-fee licenses were available for non-resident juveniles and resident seniors (ages 70 and older). A steelhead license was required in addition to the gamefish license for all those anglers over 14 who wished to fish for steelhead. A free **catch record card** was also required of anglers of all ages to fish for steelhead.

- A **personal use shellfish/seaweed license** was required for resident and non-resident harvesters over age 14. A non-resident reduced-fee three-consecutive day license and a reduced-fee annual license for resident seniors (ages 70 and over) was available. Unlike salmon, sturgeon and steelhead, catch record cards were not issued with shellfish licenses since field sampling and creel surveys were used to estimate total sport shellfish catch.

Table *I* shows license sales for 1996 and 1997, based on a direct count of sales. Tables *2*, *3* and *4* show the estimated number of salmon, sturgeon and steelhead catch record cards issued. Note that the number of catch record cards issued shown in these tables are estimated from the catch record card databases, therefore cannot be directly compared to the license sales number. These numbers cannot be compared since anglers under 14 and over 70 are required to obtain a catch record card but not a license. Also, not all dealers return their catch record card stubs, nor do all anglers return their catch record cards, therefore, correction factors are applied.

Methods

Sport harvest estimates are made in Washington State using various methods. These include catch record cards for: salmon and steelhead statewide, sturgeon in the Columbia River, Grays Harbor and Willapa Bay and halibut in Puget Sound and the Strait of Juan de Fuca. Estimates from catch records cards are available six months to one year after the end of the season. Creel and mail surveys are carried out for salmon, sturgeon, steelhead, halibut, and shellfish in areas where management requires more timely estimates. Creel surveys consist of checking anglers who are exiting the fishery and asking specific questions about catch and effort. The creel survey estimates for some species and areas are substituted for catch record card estimates (this is noted in the tables).

The methods used produce estimates of sport harvest which have some level of uncertainty. This uncertainty, or variance, is estimated and expressed with confidence levels which are not provided in this report. These variance estimates are available upon request.

Special Area Fisheries (SAF's)

Special area fisheries (SAF's) for salmon occur within a larger designated management unit to provide increased fishing opportunity. These areas often have separate seasons, bag limits and may or may not require caught fish to be released. Since SAF's are located in a small area within the designated management catch area, the catch estimates do not represent the larger area. Two SAF's for salmon occurred in 1997. The SAF's locations were: Tulalip Bay from August 1 - September 30, and area 5 from August 1 - September 15.

Ocean Quota vs True 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 1st and continuing through week 53 or 54 December 31st. 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 1997, the statistical month of January begins on January 1st and ends February 2nd and the statistical month of February starts on February 3rd and ends March 2nd. Since some data is reported using statistical months, as opposed to calendar months, some catch may be reported during what appears to be a closed period.

Salmon

Annual sport salmon catch estimates for 1964 through 1997 are shown in Table 5. A total of **295,666** salmon were caught in marine areas, plus an additional **98,519** salmon in freshwater. The marine totals by species for 1996, as shown in Table 6, were: **74,546** chinook; **178,387** coho; **5,838** chum; **36,607** pink; and **262** sockeye. Freshwater species breakdowns show: **34,240** chinook; **30,493** coho; **6,513** chum; **16,656** pink; **55** sockeye; **10,368** jacks (all species combined); and **194** unknown species.

Catch record cards are used to estimate sport salmon catch in marine and freshwater areas with some exceptions. In marine areas, creel survey estimates were substituted for the catch record card estimates in ocean areas 1-4 (excluding area 2.1 Willapa Bay and area 2.2 Grays Harbor), area 5 August 1-September 15 and area 8.2 August 1-September 30. Creel surveys were done in the SAF's and the coho retention fishery in area 5 and results are provided in Table 24. In freshwater areas, creel survey estimates were substituted for the catch record card estimates in the Lower Columbia River February - October. All other estimates are from catch record cards.

Sturgeon

There are two species of sturgeon present in Washington state: the green sturgeon *Acipenser medirostris* and the white sturgeon *Acipenser transmontanus*. Both species are anadromous and spawn in large river systems. Green sturgeon spend most of their lives in the marine

environment and are not readily caught in Washington sport fisheries. They are not believed to spawn in any of the Washington river systems although they are seasonally abundant in Washington coastal bays and estuaries. White sturgeon migrate great distances in the ocean as well but, unlike green sturgeon, are able to complete their life cycle in freshwater. White sturgeon are readily caught in sport fisheries and are popular as a game fighting fish and are considered by many as gourmet fare. They are the largest freshwater fish in North America with historical accounts of individuals approaching 20 feet in length and 1 ton in weight. Sturgeon subsist on a variety of foods including Columbia River smelt, anchovies, lamprey eels, clams, shad, and salmon carcasses. They are known for their longevity with individuals sometimes living over 100 years. White sturgeon are also known for their delayed maturation with males reaching sexual maturity at about 15 years of age (4½- 5 feet in length) and females at about 23 years of age (~6 feet in length). White sturgeon spawn throughout the Columbia River basin, although populations farther upstream are generally not as healthy as those living closer to the ocean. They spawn in the spring and early summer months in the mainstem Columbia River in areas where water velocities are highest. This reliance on high velocity, free-flowing river reaches for spawning is largely responsible for the decreased population abundance and productivity farther upstream in the Columbia River basin where hydroelectric development has most affected sturgeon populations.

The distribution of sturgeon harvest and the amount of restriction on sturgeon harvest within the Columbia River basin generally reflects the relative health and productivity of these sturgeon populations. Sturgeon harvest management relies on extensive research to provide an understanding of the population dynamics and the factors limiting productivity of specific sturgeon populations within the Columbia River. Abundance estimates and population simulation models are used to set long term sustainable harvest limits for the most heavily exploited populations. Management goals are based on allowing enough fish to survive harvest to replenish the older-aged spawning population. The most frequently used sport harvest management strategies are population-specific harvest quotas, slot limits, daily bag limits, and annual possession limits for those sturgeon populations that can sustain a harvest. Harvest management responsibilities in the Columbia River are jointly shared by the state of Oregon and the four Columbia River treaty tribes (Yakama, Umatilla, Warm Springs, and Nez Perce) in those river reaches where there is joint jurisdiction. Specifically, Washington and Oregon share management responsibility from the mouth of the Columbia River upstream to a point approximately 14 miles upstream of McNary Dam and, by policy directive, adopt concurrent regulations for fisheries in those areas. Washington, Oregon, and the four Columbia River treaty tribes coordinate sturgeon management in the three reservoirs between Bonneville and McNary dams through the Sturgeon Management Task Force, which is comprised of technical and policy representatives from each agency and tribe.

In 1997 Washington and Oregon adopted new statewide regulations and a new quota-based management strategy for the lower Columbia River downstream from Bonneville Dam. The tenets of the plan included a three year (1997-1999) allocation plan for lower Columbia sport and commercial sturgeon fisheries (80% of the allowable harvest allocated to sport fisheries and 20%

allocated to commercial fisheries) and new permanent regulations designed to keep harvest within long term sustainable limits, allow enough fish to survive harvest to build broodstock populations to optimal levels, and provide for maximum sport fishing opportunity within these biological constraints. A reduction of the maximum size limit from 66 to 60 inches was adopted statewide (for those areas where sturgeon harvest is allowed) to extend the numerical harvest annually while allowing more long term escapement to the protected broodstock population. This was desired in Washington and Oregon because of the increased effort observed in sturgeon fisheries. A greater numerical harvest allowed a greater opportunity for individual fishers to retain a sturgeon in the face of greater effort in the fishery without compromising future spawning and production. The other permanent regulation adopted statewide in Washington and Oregon was a one fish daily bag limit for sport fisheries in areas where harvest is allowed.

The white sturgeon population in the lower Columbia River downstream from Bonneville Dam is the healthiest in the species' range. Consequently, most of the sturgeon catch and effort in Washington waters occurs in this river reach. In 1997 Washington and Oregon managed for a catch quota of 53,840 white sturgeon in the lower Columbia sport fishery. Sport regulations for this fishery included a 42-60 inch legal size slot, a one fish daily bag limit allowing anglers to continue to catch and release after retaining their one sturgeon, and an annual bag limit of 10 sturgeon per angler. The actual combined white sturgeon catch for Washington and Oregon anglers in the lower Columbia fishery was 38,200. It was believed that high water conditions in the summer estuarial fishery affected the emergence of anchovies and other bait fish into the estuary and thus compromising sport fishing success. It was noted that a significantly greater proportion of the catch was of larger sized fish indicating good survival of sturgeon through the fisheries.

The three lowermost reservoirs in the Columbia River between Bonneville and McNary dams are intensively managed under the auspices of the Sturgeon Management Task Force (SMTF). Sport regulations in Bonneville Reservoir were the same as those in the lower Columbia River downstream from Bonneville Dam. Regulations were more prohibitive in areas upstream from The Dalles Dam where the legal size slot was 48-60 inches. In 1997 the SMTF set annual sport harvest guidelines for white sturgeon of 1,520 in Bonneville Reservoir, 200 in The Dalles Reservoir, and 560 in John Day Reservoir. Washington and Oregon attempted to manage for a stable fishery season that kept harvest within these guidelines with a sturgeon retention season of January 1- June 30. However, this season was ineffective in the two lowermost reservoirs and the states had to prohibit sturgeon retention from April 5- December 31 in Bonneville Reservoir and from May 5- December 31 in The Dalles Reservoir to stay within the prescribed guidelines. The season was extended to September 1 in John Day Reservoir and was therefore closed to sturgeon retention from September 2- December 31. The resulting harvest by reservoir for Washington and Oregon anglers in 1997 was 1,460, 180, and 460 white sturgeon in Bonneville, The Dalles, and John Day reservoirs, respectively.

The reservoir sport fisheries upstream from McNary Dam operated under the same regulations as The Dalles and John Day reservoirs (48-60 inches, 1 fish daily bag limit), with the exception of

Lower Granite Reservoir on the Snake River and the Columbia River and its tributaries upstream from Priest Rapids Dam to the U.S./Canada border where sturgeon retention was closed year round.

Outside the Columbia River basin, there are relatively productive sturgeon fisheries in most of Washington's coastal bays and estuaries. Most notable are the sturgeon fisheries in Willapa Bay and Grays Harbor (including the Chehalis River system). The white sturgeon caught in Washington's coastal areas are thought to originate in the lower Columbia based on tag recoveries from those fisheries. Sport regulations for these fisheries match those in the lower Columbia.

Total sport sturgeon harvest for 1997, based on creel surveys and catch record card returns, was **23,253** fish. Of this total, **20,713** white sturgeon and **29** green sturgeon came from the Columbia River system (Table 29). Another **276** white sturgeon were harvested in the Snake River up to Lower Granite Dam, above which all sturgeon were required to be released.

Other areas for which sturgeon harvest is reported are: Willapa Bay — **1,270** white, **4** green and **15** unknown sturgeon; Grays Harbor — **798** white, **105** green and **43** unknown sturgeon. For monthly catch information, see Table 29.

Steelhead

Steelhead harvest estimates are based on statewide catch record card returns and creel surveys for selected areas. Steelhead harvest is reported by "run year," unlike other sport statewide harvest presented in an annual format. For example, steelhead that make up the 1997 winter/spring spawning season enter Washington rivers as early as March or April of **1996**, but will not spawn until early 1997. Wild steelhead spawning continues into late May or even June. Some of the **1997/98** fish will actually start their spawning run before the **1996/97** fish have finished spawning. For record-keeping purposes, May 1 is used as the starting point for each year's run. Steelhead caught during May through October are treated statistically as "summer-run" fish. Steelhead caught November through April are recorded as "winter-run" fish unless they are caught above the Bonneville Dam in the Columbia River; where they are recorded as "summer-run" fish.

In Table 33, sport harvest of steelhead for **1997/98** is shown geographically by system and stream name. Monthly totals are given for hatchery (**marked** with adipose fin clip) and wild (**unmarked**) fish. This last designation is reliable only where 100% of the hatchery releases are marked. There occasionally are unmarked hatchery releases, usually from non-WDFW hatcheries. Please consult appropriate hatchery release records to confirm.

Marine Fish

Marine fish are those species commonly called “bottomfish” (though not all are necessarily caught on the bottom). This category includes all the rockfish (9 species are reported here); cabezon; lingcod and kelp greenling; Pacific halibut and other flatfish (sole, flounder, etc.); Pacific cod and other cod-like species (pollock, hake); sea perch (surf and pile); skates and rays; plus miscellaneous species.

Recreational ocean harvest of marine fish in catch areas 1-4, including halibut, is estimated from creel surveys. Table 37 shows the 1997 totals. These figures are compiled for the four defined marine fishing areas: Ilwaco (Columbia River mouth), Westport (Grays Harbor and Willapa Bay), La Push (Quillayute River mouth) and Neah Bay (just inside the Strait of Juan de Fuca).

The Puget Sound recreational harvest of marine fish, excluding halibut, is estimated using a statistical model that takes advantage of the previously documented relationship between sport salmon catch and effort, and marine fish catch and effort. These estimates, given in Table 38, depend on the salmon catch record card estimates and the field survey sampling for catch per unit of effort for salmon and marine fish.

Sport catch of Pacific halibut in Puget Sound was estimated from halibut catch record cards. These figures can be found in Table 37.

Shellfish

Recreational shellfish harvest is estimated based on creel and flight sampling by WDFW personnel. The sport crab pot fishery is surveyed only in odd years, and therefore included in this report only during odd years.

Table 40 shows razor clam sport harvest estimates for the following areas: Long Beach Peninsula, Twin Harbors/Grayland, Copalis, Mocrocks (Copalis north to Moclips), and Kalaloch (began in Fall 1995). Population sampling for razor clams showed a significant increase in the number of clams available for harvest providing more digging opportunities. The 1997 fall and winter season shows **89,000** digger trips yielding **903,000** clams, for an average of more than **9.9** clams per trip. The 1998 spring season produced an estimated **931,000** clams for **75,000** harvester trips, or **12.4** clams per trip.

Puget Sound recreational clam and oyster harvest estimates are shown in Table 41. Harvest totals for Manila and native littleneck clams, butter clams, cockles, softshell clams, horse clams, geoducks and oysters are shown for 27 areas. Estimates show **235,345** sport harvester trips gathered **691,239** total pounds of clams, and **1,080,642** oysters in 1997.

The Hood Canal sport shrimp fishery produced an estimated **89,870** pounds of shrimp for **19,280** pots. This yields an average of **4.66** pounds per pot. These estimates are shown in Table **42**.

The sport crab pot fishery in 23 Puget Sound areas is summarized in Table **43**. A total of **484,030** pot days produced an estimated harvest of **469,290** dungeness crabs.

Sport Licenses

Table 1. Number and Value of Sport Personal Use Foodfish and Gamefish Licenses Sold in Washington, 1996 - 1997

Type of License	1996			1997		
	Price	Number	Value ¹	Price	Number	Value ¹
Resident Personal Use Foodfish (Ages 15-69)	\$8.00	299,526	\$1,837	\$8.00	233,708	\$1,870
Resident Senior Foodfish	\$3.00	15,600	\$47	\$3.00	18,211	\$55
Non-Resident Personal Use Foodfish (All Ages)	\$20.00	6,756	\$135	\$20.00	7,932	\$159
Three Consecutive Day Foodfish (Resident or Non-Resident)	\$5.00	107,002	\$535	\$5.00	98,251	\$491
Resident Gamefish (Ages 15-69; includes combination Hunt and Fish)	\$29.00 \$17.00	96,019 383,584	\$2,785 \$6,521	\$29.00 \$17.00	85,474 366,423	\$2,479 \$6,229
Resident Senior Gamefish	\$3.00	31,965	\$96	\$3.00	28,322	\$85
Resident, Three Consecutive Day Gamefish	\$9.00	12,645	\$114	\$9.00	12,598	\$113
Resident One-day Gamefish	\$3.00	25,069	\$75	\$3.00	25,564	\$77
Non-Resident Gamefish (Ages 15 and Older)	\$48.00	7,562	\$363	\$48.00	7,305	\$351
Non-Resident, Three Consecutive Day Gamefish	\$17.00	15,757	\$268	\$17.00	14,466	\$246
Non-Resident, One-day Gamefish	\$7.00	23,841	\$167	\$7.00	21,852	\$153
Resident and Non-resident Steelhead Permit (Adult Ages 15-69)	\$18.00	83,462	\$1,502	\$18.00	80,418	\$1,448
Resident and Non-Resident Steelhead Permit (Juvenile under 15)	\$6.00	5,931	\$36	\$6.00	6,241	\$37
Resident, Personal Use Shellfish (Ages 15-69)	\$5.00	209,815	\$1,050	\$5.00	193,684	\$968
Non-Resident, Personal Use Shellfish (All Ages)	\$20.00	4,556	\$91	\$20.00	4,684	\$94
Three Consecutive Day Shellfish (Resident or Non-Resident)	\$5.00	18,634	\$93	\$5.00	19,433	\$97
Resident Senior Shellfish (Ages 70 and Older)	\$3.00	15,619	\$47	\$3.00	13,326	\$40
Recreational Fisheries Puget Sound Enhancement Stamp	\$10.00	142,345	\$1,424	\$10.00	140,252	\$1,403
TOTAL	N/A	1,505,758	\$17,186	N/A	1,378,144	\$16,395

Note: Catch Record Cards (also known as "Punch Cards") are issued free to anglers. A Foodfish License is required for each new Salmon Catch Record Card obtained except for residents under 15 years of age.

¹ Value in thousands.

² The Regional Fisheries Enhancement Account receives \$1.00 from each foodfish license sale.

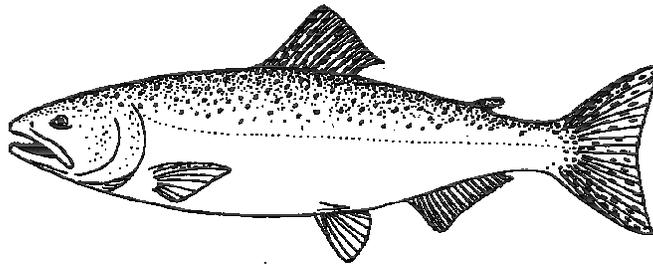
Table 2. Number of Sport Salmon Catch Record Cards Issued 1965-1997	
Year	Number of Catch Record Cards Issued
1965	387,875
1966	392,850
1967	472,225
1968	456,675
1969	471,525
1970	591,025
1971	541,600
1972	536,750
1973	568,825
1974	562,375
1975	576,075
1976	660,150
1977	641,050
1978	580,375
1979	487,875
1980	433,700
1981	463,561
1982	481,915
1983	481,025
1984	364,286
1985	403,523
1986	431,898
1987	475,459
1988	486,356
1989	509,534
1990	497,215
1991	489,394
1992	419,986
1993	447,986
1994	244,629
1995	416,707
1996	333,773
1997	331,511

Table 3. Number of Sport Sturgeon Catch Record Cards Issued 1988-1997	
Year	Number of Cards Issued
1988	33,195
1989	35,576
1990	32,421
1991	32,396
1992	37,615
1993	43,067
1994	54,837
1995	62,572
1996	69,639
1997	76,806

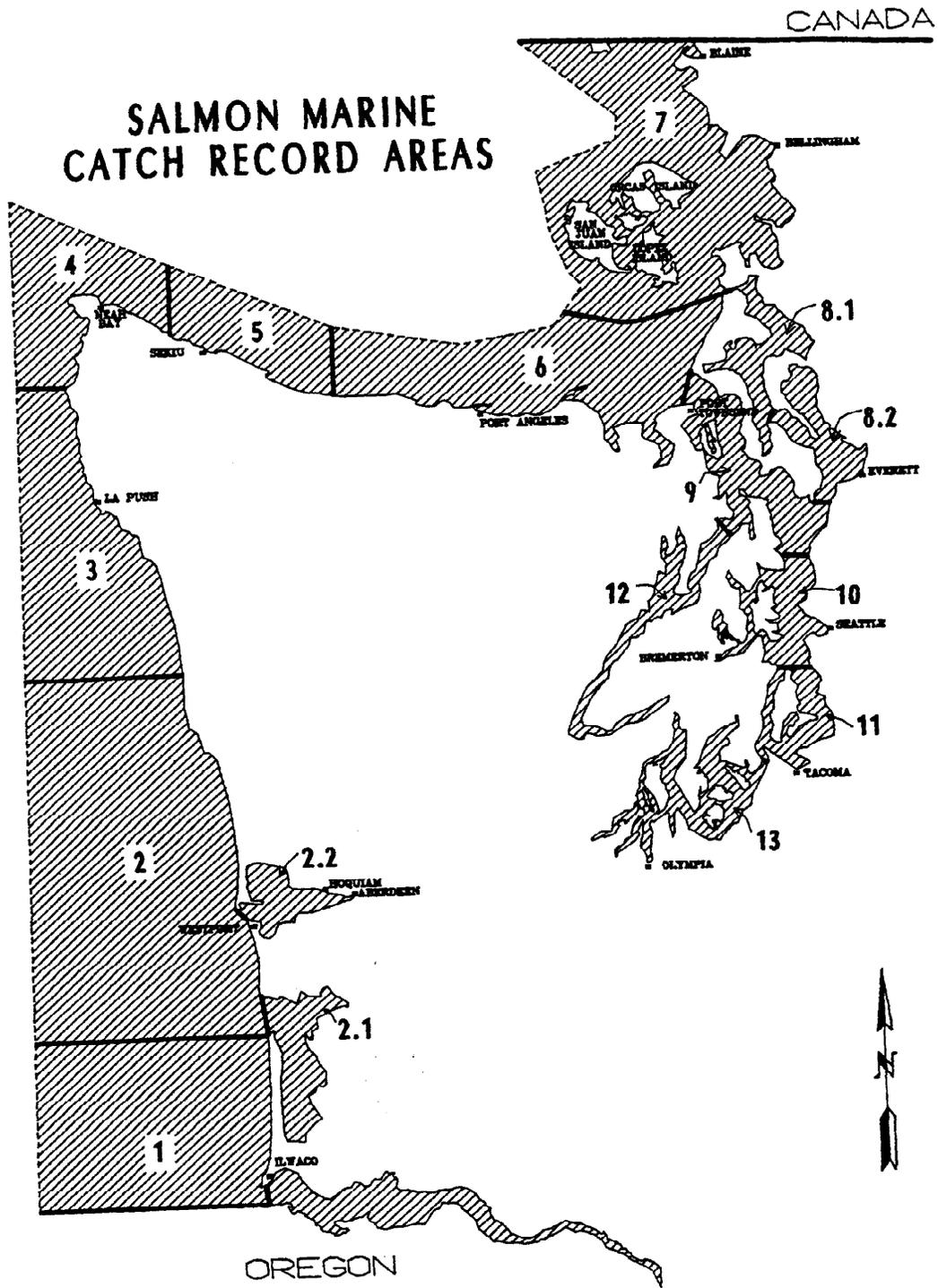
Table 4. Number of Sport Steelhead Catch Record Cards Issued 1948-1997

Year	Number of Catch Record Cards Issued
1948-49	40,000
1949-50	50,000
1950-51	50,000
1951-52	62,500
1952-53	77,500
1953-54	89,341
1954-55	90,392
1955-56	88,500
1956-57	85,350
1957-58	85,425
1958-59	84,461
1959-60	87,878
1960-61	93,350
1962	144,980
1963	151,692
1964	160,375
1965	171,400
1966	187,525
1967	202,666
1968	202,750
1969	200,050
1970	142,610
1971	145,647
1972	153,977
1973	165,671
1974	145,051
1975-76	missing
1976-77	missing
1977-78	missing
1978-79	130,000
1979-80	136,000
1980-81	139,500
1981-82	132,000
1982-83	100,000
1983-84	101,800
1984-85	133,400
1985-86	121,500
1986-87	100,500
1987-88	102,000
1988-89	108,182
1989-90	106,666
1990-91	98,362
1991-92	98,328
1992-93	98,933
1993-94	94,913
1994-95	87,093
1995-96	101,303
1996-97	92,858
1997-98	68,341

Salmon



SALMON MARINE CATCH RECORD AREAS



Description of Salmon Catch Record Card Areas

- | | | |
|------|------------------------------------|--|
| 1. | ILWACO | West of Megler-Astoria Bridge, 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 line from Leadbetter Point to Buoy 8 and then to Cape Shoalwater Light. |
| 2.2 | GRAYS HARBOR | East of the true north-south line through Grays Harbor Channel Marker 13. |
| 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 & PILLAR POINT | From the 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.), Navigation Buoy BW "R" Smith Island , Point Colville, Langley Point, and West of the Initiative 77 Line fronting Deception Pass. |
| 7. | SAN JUAN ISLANDS | All marine waters north of the Trial Island Line described under Area 6 to the United States - Canadian boundary. |
| 8.1. | DECEPTION PASS, HOPE ISLAND | East of line from West Pt. on Whidbey Island to Reservation Head on Fidalgo Island through Deception Pass, south of railroad bridges at north end of Swinomish Channel, north of Hwy 535 Bridge between Camano Island and mainland, and west of line from East Pt. Light on Whidbey Island to light on Camano Island (Saratoga Pass Light #2 Fl Red 4 Sec.). |
| 8.2. | PORT SUSAN/PORT GARDNER | East of line from East Pt. Light on Whidbey Island to light on Camano Island (Saratoga Pass Light #2 Fl Red 4 Sec.) and north of line from south tip Possession Pt. 110 degrees true to shipwreck on opposite shore. |
| 9. | ADMIRALTY INLET | All waters inside and south of Partridge Point - Point Wilson Line, south and west of a line from Possession Point 110 degrees true to the shipwreck, north of the Hood Canal Bridge, and north of the Apple Cove Point - Edwards Point line. |
| 10. | SEATTLE-BREMERTON AREA | From the Apple Cove Point - Edwards Point line to the line through the north tip of Vashon Island east - west. |
| 11. | TACOMA-VASHON ISLAND | From the north tip of Vashon Island to the Tacoma Narrows Bridge. |
| 12. | HOOD | All waters south of the Hood Canal Bridge. |
| 13. | SOUTH PUGET SOUND | All waters south of the Tacoma Narrows Bridge. |

FRESHWATER AREAS: RIVERS, STREAMS OR LAKES -Name of river, stream or lake, **except** for the **Columbia River**

BUOY 10	From Buoy 10 Line to Megler-Astoria Bridge
LOWER COLUMBIA	From Megler-Astoria Bridge to Bonneville Dam
MID-COLUMBIA	From Bonneville Dam to McNary Dam
UPPER COLUMBIA	Above McNary Dam

Year	Total	Freshwater	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9	Area 10	Area 11	Area 12	Area 13
1964	475,662	28,988	111,385	103,094	11,055	45,051	46,309	13,912	16,186	5,528	40,289	21,466	24,476	7,923	-----
1965	942,223	54,509	279,225	275,457	23,694	57,606	53,620	23,477	18,803	10,253	58,004	28,368	43,077	14,130	-----
1966	756,896	52,948	203,806	176,447	28,262	78,016	33,887	23,748	23,575	5,729	60,135	22,533	24,235	23,575	-----
1967	1,063,440	135,250	315,594	214,661	53,325	84,871	55,401	32,601	29,878	6,125	61,662	18,564	20,861	34,303	-----
1968	877,276	61,663	210,693	284,923	23,075	73,556	67,734	36,245	25,489	3,621	45,511	17,785	19,135	7,846	-----
1969	876,648	79,905	200,379	270,777	21,054	80,945	75,902	46,227	23,748	3,695	28,059	16,589	19,976	9,392	-----
1970	978,395	135,974	269,232	303,372	36,894	46,659	30,579	26,027	21,842	5,690	43,648	23,200	24,265	11,013	-----
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	760,115	58,139	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	115,838	158,005	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	98,599	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	79,792	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	93,927	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	156,275	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	744,284	110,636	123,441	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	719,409	168,594	142,979	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	834,426	121,417	157,701	100,000	2,405	44,600	164,580	64,766	19,078	23,165	63,724	36,748	24,561	4,588	7,093
1990	824,171	107,934	114,722	102,984	5,809	48,329	223,012	54,848	12,797	14,865	57,875	47,519	25,555	1,618	6,304
1991	932,371	153,719	230,582	107,362	5,615	43,357	216,816	42,812	16,602	20,337	40,390	32,229	15,549	3,225	3,866
1992	573,102	90,032	86,754	71,684	2,332	25,906	108,876	30,894	12,515	15,131	47,157	51,338	18,198	6,303	5,982
1993	599,381	145,579	67,582	60,993	3,469	31,154	80,496	44,174	35,697	24,320	41,949	36,699	14,130	3,540	9,599
1994	156,825	61,142	1,069	60,358	Closed	Closed	518	1,184	8,322	5,218	6,978	23,279	25,360	8,905	10,305
1995	524,232	190,158	28,697	31,857	1,990	15,604	53,553	20,617	23,801	66,403	22,920	28,560	28,242	5,200	6,630
1996	391,202	161,424	21,391	29,059	1,901	8,750	41,820	18,103	15,486	15,580	20,343	18,972	25,417	6,408	6,548
1997	394,185	98,519	34,417	18,122	1,260	2,577	52,889	23,614	35,016	43,543	24,356	25,277	22,146	7,089	5,360

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 and catch Area 2 was subdivided into Areas 2, 2.1 and 2.2. For comparative purposes, the catch for Areas 8.1 and 8.2 are totaled and entered under Area 8. Similarly, the catch in Areas 2, 2.1 and 2.2 are included in the total catch for Area 2.

Table 6. Total 1997 Sport Salmon Catch

Marine Area	Number of Chinook	Number of Coho	Number of Chum	Number of Pink	Number of Sockeye	Number of Jacks	Number of Unknown	Total Salmon	Marine Angler Trips	Salmon per Trip
Ilwaco-Ocean (Area 1)	397	11,570		9				11,976	7,276	1.65
Ilwaco-Buoy 10 (Area 1)	8,848	13,593						22,441	35,703	0.63
Westport (Area 2)	2,991	12,640		629				16,261	16,465	0.99
Willapa Bay (Area 2.1)	221	188	1					428	N/A	N/A
Grays Harbor (Area 2.2)	1,118	307				19		1,433	N/A	N/A
LaPush (Area 3)	56	980		223		8		1,260	965	1.32
Neah Bay (Area 4)	490	1,538	1	549				2,577	4,729	0.54
Subtotal Coast	14,121	40,816	2	1,410	0	27	0	56,376	65,138	*0.84
Sekiu-Pillar Point (Area 5)	9,921	35,186	2	7,781				52,889	62,683	0.84
East Juan de Fuca (Area 6)	2,317	16,600	15	4,661	21			23,614	30,845	0.77
San Juan Islands (Area 7)	9,155	20,801	37	4,815	208			35,016	58,323	0.60
Deception Pass, Hope Island (Area 8.1)	1,225	3,008		1,661				5,894	15,557	0.38
Port Susan & Port Gardner (Area 8.2)	5,894	20,494		11,261				37,649	68,950	0.55
Admiralty Inlet (Area 9)	10,641	9,567	35	4,113				24,356	56,643	0.43
Seattle-Bremerton (Area 10)	8,920	16,111	37	188	21			25,277	61,714	0.41
Tacoma-Vashon Island (Area 11)	9,602	12,210	74	248	12			22,146	79,305	0.32
Hood Canal (Area 12)	592	1,192	4,836	469				7,089	22,154	0.32
South Puget Sound (Area 13)	2,158	2,402	800					5,360	32,462	0.17
Subtotal Puget Sound	60,425	137,571	5,836	35,197	262	0	0	239,290	488,636	0.49
Marine Area Totals	74,546	178,387	5,838	36,607	262	27	0	295,666	553,774	0.53
Freshwater Totals	34,240	30,493	6,513	16,656	55	10,368	194	98,519	-----	-----
Grand Totals	108,786	208,880	12,351	53,263	317	10,395	194	394,185	553,774	-----

* Salmon per trip is calculated using the Coast salmon subtotal minus Grays Harbor and Willapa Bay catch.

Table 7. 1997 SPORT SALMON CATCH, Area 1 - Ilwaco: Ocean

Week Ending	Number of Chinook	Number of Coho	Number of Pink	Number of Sockeye	Number of Chum	Total Salmon	Marine Angler Trips	Salmon Per Trip
July 27	65	3,596				3,670	2,404	1.53
August 3	147	4,255	9			4,402	2,738	1.61
August 10	185	3,719				3,904	2,134	1.83
TOTAL	397	11,570	9			11,976	7,276	1.65

Note: Catch by species is presented by actual catch area and therefore may not correspond with catch by quota area statistics reported prior to 1995.

Table 8. 1997 Sport Salmon Catch, Area 1 - Ilwaco: River

Week Ending	Number of Chinook	Number of Coho	Number of Pink	Number of Sockeye	Number of Chum	Total Salmon	Marine Angler Trips	Salmon Per Trip
August 3		269				292		
August 10	23	297				540		
August 17	243	373				1,639		
August 24	1,266	2,091				4,620		
August 31	2,529	5,797				8,834		
September 7	3,037	3,186				4,561		
September 14	1,375	1,222				1,596		
September 21	374	284				285		
September 28	1	61				61		
Sept. 29 - October 26		13				13		
TOTAL **	8,848	13,593				22,441		

Note: Catch by species is presented by actual catch area and therefore may not correspond with catch by quota area statistics reported prior to 1995.
** Includes some catch just above the Megler-Astoria Bridge.

Table 9. 1997 Sport Salmon Catch, Area 2 - Westport

Week Ending	Number of Chinook	Number of Coho	Number of Pink	Number of Sockeye	Number of Chum	Total Salmon	Marine Angler Trips	Salmon Per Trip
July 27	864	2,146	388		1	3,399	4,201	0.81
August 3	283	3,328	123			3,734	3,201	1.17
August 10	170	2,805	57			3,032	2,895	1.05
August 17	465	1,943	17			2,425	2,169	1.12
August 24	706	1,481	19			2,206	1,743	1.27
August 31	222	516	3			741	1,340	0.55
September 7	281	421	22			724	916	0.79
TOTAL	2,991	12,640	629		1	16,261	16,465	0.99

Note: Catch by species is presented by actual catch area and therefore may not correspond with catch by quota area statistics reported prior to 1995.

Table 10. 1997 Sport Salmon Catch, Area 2.1 - Willapa Bay

Statistical Month	Number of Chinook	Number of Coho	Number of Pink	Number of Sockeye	Number of Chum	Number of Jack	Total Salmon
July	19					19	19
August	37	38					75
September	147	131					278
October	18	19					56
TOTAL	221	188				19	428

Table 11. 1997 SPORT SALMON CATCH, Area 2.2 - Grays Harbor							
Statistical Month	Number of Chinook	Number of Coho	Number of Chum	Number of Pink	Number of Sockeye	Number of Jack	Total Salmon
September	1,114	138	4				1,256
October	3	168	4				175
November	1	1					2
TOTAL	1,118	307	8				1,433

Table 12. 1997 Sport Salmon Catch, Area 3 – La Push								
Week Ending	Number of Chinook	Number of Coho	Number of Pink	Number of Sockeye	Number of Chum	Total Salmon	Marine Angler Trips	Salmon Per Trip
July 27	32	557	120		1	710	570	1.25
August 3	24	423	103			550	395	1.39
TOTAL	56	980	223		1	1,260	965	1.31

Note: Catch by species is presented by actual catch area and therefore may not correspond with catch by quota area statistics reported prior to 1995.

Table 13. 1997 Sport Salmon Catch, Area 4 – Neah Bay

Week Ending	Number of Chinook	Number of Coho	Number of Pink	Number of Sockeye	Number of Chum	Total Salmon	Marine Angler Trips	Salmon Per Trip
July 27	483	42	24			549	2,835	0.19
August 3		3	27			30	72	0.42
August 10	3	31	235			269	253	1.06
August 17		26	151			177	177	1.00
August 24		3	78			81	86	0.94
August 31	4	1,433	34			1,471	1,306	1.13
TOTAL	490	1,538	549			2,577	4,729	0.55

Note: Catch by species is presented by actual catch area and therefore may not correspond with catch by quota area statistics reported prior to 1995.

Table 14. 1997 Sport Salmon Catch, Area 5 - Sekiu - Pillar Point

Statistical Month	Number of Chinook	Number of Coho	Number of Pink	Number of Sockeye	Number of Chum	Total Salmon	Marine Angler Trips	Salmon Per Trip
February	245					245	997	0.25
March	45					0	185	0.25
April	473					473	1,926	0.25
May	1,530					1,530	2,341	0.65
June	7,421	365				7,786	23,865	0.33
July	57	80	650			787	1,309	0.6
August	87	25,712	6,449			32,248	24,016	1.34
September	62	9,027	682			9,770	7,944	1.23
October	1	2			2	5	100	0.05
TOTAL	9,921	35,186	7,781		2	52,889	62,683	0.84

Note: Estimates for August 1 - September 15 are from creel surveys; all other estimates are from catch record cards. Refer to Table 24 for creel survey estimates during August 1 - September 15, 1997.

Table 15. 1997 Sport Salmon Catch, Area 6 - East Juan De Fuca Strait								
Statistical Month	Number of Chinook	Number of Coho	Number of Pink	Number of Sockeye	Number of Chum	Total Salmon	Marine Angler Trips	Salmon Per Trip
January	232					232	619	0.38
February	217					217	579	0.38
March	46					46	124	0.38
April	201					201	537	0.38
May	31					31	82	0.38
June	1,403					1,403	6,053	0.23
July	139	408	53			600	3,230	0.19
August	30	10,796	4,011	21	14	14,872	13,708	1.08
September	18	5,334	597			5,949	4,653	1.28
October		62				62	1,240	0.05
November					1	1	20	0.05
TOTAL	2,317	16,600	4,661	21	15	23,614	30,845	0.77

Table 16. 1997 Sport Salmon Catch, Area 7 - San Juan Islands								
Statistical Month	Number of Chinook	Number of Coho	Number of Pink	Number of Sockeye	Number of Chum	Total Salmon	Marine Angler Trips	Salmon Per Trip
January	570					570	1,658	0.34
February	1,049					1,049	2,244	0.47
March	709					709	2,279	0.31
April	911					911	2,932	0.31
May	528			9		537	3,895	0.14
June	669			12		681	4,937	0.14
July	1,309	1,492	56	28		2,885	11,236	0.26
August	982	8,740	3,446	32		13,200	12,565	1.05
September	297	9,412	1,313	127		11,149	10,384	1.07
October	1,176	895			26	2,097	3,885	0.54
November	345	262			7	614	1,138	0.54
December	610				4	614	1,170	0.53
TOTAL	9,155	20,801	4,815	208	37	35,016	58,323	0.60

Table 17. 1997 Sport Salmon Catch, Area 8.1 - Deception Pass / Hope Island

Statistical Month	Number of Chinook	Number of Coho	Number of Pink	Number of Sockeye	Number of Chum	Total Salmon	Marine Angler Trips	Salmon Per Trip
January	262					262	1,127	0.23
February	161					161	692	0.23
March	37					37	159	0.23
April	77					77	333	0.23
May	1					1	4	0.23
June	1	1				2	9	0.23
July	1	1	2			4	17	0.23
August		171	1,066			1,237	5,581	0.22
September		1,893	593			2,486	2,898	0.80
October	529	830				1,359	3,956	0.34
November	50	42				92	269	0.34
December	106	70				176	512	0.34
TOTAL	1,225	3,008	1,661			5,894	15,557	0.38

Table 18. 1997 Sport Salmon Catch, Area 8.2 - Port Susan / Port Gardner

Statistical Month	Number of Chinook	Number of Coho	Number of Pink	Number of Sockeye	Number of Chum	Total Salmon	Marine Angler Trips	Salmon Per Trip
January	401					401	815	0.49
February	773					773	3,183	0.24
March	293					293	1,577	0.19
April	494					494	2,659	0.19
May	201	22				223	1,201	0.19
June	1	1				2	28	0.07
July	129	624	42			795	1,884	0.42
August	1,885	2,202	7,713			11,800	28,269	0.42
September	1,247	16,370	3,498			21,115	24,981	0.85
October	400	1,085	7			1,492	3,705	0.40
November	21	56				77	191	0.40
December	49	134	1			184	457	0.40
TOTAL	5,894	20,494	11,261			37,649	68,950	0.55

Note: Estimates are from catch record cards (CRC) except in August and September creel survey estimates replace CRC estimates. Refer to Table 24 for creel survey estimates in the Tulalip Bay Special Area Fishery (SAF), August 1 to September 30, 1997.

Table 19. 1997 Sport Salmon Catch, Area 9 - Admiralty Inlet								
Statistical Month	Number of Chinook	Number of Coho	Number of Pink	Number of Sockeye	Number of Chum	Total Salmon	Marine Angler Trips	Salmon Per Trip
January	1,265					1,265	2,280	0.55
February	926					926	2,473	0.37
March	605					605	1,162	0.52
April	1,517	7				1,524	4,024	0.38
May	1,454	43				1,497	5,021	0.30
June	1,528	36	12			1,576	8,304	0.19
July	76	424	191			691	4,056	0.17
August	317	6,306	3,686			10,309	16,759	0.62
September		2,719	224			2,943	3,037	0.97
October	1,767	32			16	1,815	5,476	0.33
November	473				8	481	1,615	0.30
December	713				11	724	2,436	0.30
TOTAL	10,641	9,567	4,113		35	24,356	56,643	0.43

Table 20. 1997 Sport Salmon Catch, Area 10 - Seattle / Bremerton								
Statistical Month	Number of Chinook	Number of Coho	Number of Pink	Number of Sockeye	Number of Chum	Total Salmon	Marine Angler Trips	Salmon Per Trip
January	446					446	1,486	0.30
February	538					538	1,792	0.30
March	337	2				339	1,415	0.24
April	230	1				231	965	0.24
May	525					525	2,271	0.23
June	812	16				828	4,762	0.17
July	1,649	574	40	21		2,284	12,206	0.19
August	2,652	1,559	106			4,317	15,099	0.29
September	762	11,638	42			12,442	12,555	0.99
October	534	2,295			37	2,866	6,734	0.43
November	289	17				306	1,614	0.19
December	146	9				155	815	0.19
TOTAL	8,920	16,111	188	21	37	25,277	61,714	0.41

Table 21. 1997 Sport Salmon Catch, Area 11 - Tacoma/Vashon Island

Statistical Month	Number of Chinook	Number of Coho	Number of Pink	Number of Sockeye	Number of Chum	Total Salmon	Marine Angler Trips	Salmon Per Trip
January	263					263	1,500	0.18
February	154					154	875	0.18
March	262					262	1,494	0.18
April	245					245	1,397	0.18
May	477					477	4,578	0.10
June	693					693	6,654	0.10
July	2,290	278	12	12		2,592	13,495	0.19
August	3,850	989	101			4,940	23,834	0.21
September	770	9,656	135		31	9,592	16,472	0.58
October	229	2,278			34	2,541	4,945	0.51
November	250	6			6	262	2,753	0.09
December	119	3			3	125	1,308	0.09
TOTAL	9,602	12,210	248	12	74	22,146	79,305	0.28

Table 22. 1997 Sport Salmon Catch, Area 12 - Hood Canal

Statistical Month	Number of Chinook	Number of Coho	Number of Pink	Number of Sockeye	Number of Chum	Total Salmon	Marine Angler Trips	Salmon Per Trip
January	124					124	1,026	0.92
February	156					156	1,288	0.94
March	107					107	887	0.12
April	77					77	638	0.12
May	47					47	386	0.12
June	30					30	250	0.12
July	1	43	18			62	324	0.19
August	9	349	147			505	2,648	0.19
September	19	722	304			1,045	5,475	0.19
October		64			1,089	1,153	2,451	0.47
November		14			3,508	3,522	6,325	0.56
December	22				239	261	456	0.57
TOTAL	592	1,192	469		4,836	7,089	22,154	0.32

Table 23. 1997 Sport Salmon Catch, Area 13 - South Puget Sound

Statistical Month	Number of Chinook	Number of Coho	Number of Pink	Number of Sockeye	Number of Chum	Total Salmon	Marine Angler Trips	Salmon Per Trip
January	36	11				47	324	0.14
February	70	22				92	639	0.14
March	142	44				186	1,287	0.14
April	95	29				124	861	0.14
May	12	4				16	105	0.14
June	12	4				16	108	0.14
July	318	98				416	2,882	0.14
August	1,103	271				1,374	7,827	0.18
September	305	1,567				1,872	10,792	0.17
October	54	294			669	1,017	6,382	0.16
November	6	31			70	107	672	0.16
December	5	27			61	93	583	0.16
TOTAL	2,158	2,402			800	5,360	32,462	0.17

Table 24. 1997 Sport Catch: Puget Sound Special Area Fisheries and Area 5

Catch Area	Month / Day	Number of Boats	Number of Anglers	Number of Chinook	Number of Coho	Number of Chum	Number of Pink	Number of Sockeye	Total Salmon
Area 5									
Pink only fishery	August 1 - 10	1,162	2,907	8	95	0	2,390	0	2,493
Chinook non retention	August 11 - September 7	11,405	29,458	146	34,680	0	5,065	0	39,891
Catch and Release	September 8 - 15	80	178	0	0	0	0	0	0
Total	August 1 - September 15	12,647	32,543	154	34,775	0	7,455	0	42,384
Area 8-2									
Tulalip Bay (inside)	August 1 - September 30	10,500	21,312	2,902	668	0	926	0	4,496
Tulalip Bay (outside)	August 1 - September 30	25,062	53,917	359	18,528	0	10,327	0	29,214
Total	August 1 - September 30	35,562	75,229	3,261	19,196	0	11,253	0	33,710
Note: Estimates in this table are from creel surveys. The creel survey estimates for area 5 and area 8-2 were substituted for catch record card estimates.									

Table 25. 1997 Freshwater Salmon Catch - Statistical Months

Catch Area	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Fish
Columbia River Systems														
Columbia River, Lower*	Chinook	2							1,674	2,371	29	21		1,097
	Chum											2		2
	Coho								47	367	116	7		537
	Jack, Chinook								68	193	2			263
	Jack, Coho									370	89	2		461
	Total		2							1,789	3,301	236	32	
Columbia River, Mid-	Chinook							3	137	1,094	475	17		2,026
	Chum										3			3
	Coho							3	7	187	532	17		746
	Jack, Chinook							3	13	44	75	7		142
	Jack, Coho									65	108	7		180
	Total								9	457	1,390	1,193	48	
Columbia River, Upper	Chinook				14	476	162	7	61	1,474	3,258	29	4	5,485
	Coho								11	25	116	26		178
	Jack, Chinook					18	11	18	83	141	673	4		948
	Jack, Coho									4	33			37
	Total				14	494	173	25	155	1,644	4,080	59	4	6,648
	Cowlitz River	Chinook		3	8	6	5	3	25	181	982	165	25	
Chum									3			3		6
Pink										5	8			13
Coho		8					3	3	20	919	3,014	401	36	4,404
Sockeye									3					3
Jack, Chinook			3					3	23	145	86	3		263
Jack, Coho									3	177	670	199	6	1,055
Total		8	6	8	6	5	6	31	233	2,228	3,943	631	42	7,147
Elochoman River	Chinook									143	10			153
	Coho									100	181	26		307
	Jack, Chinook									21	2			23
	Jack, Coho									5	23	7		35
	Total									269	216	33		518

Table 25. 1997 Freshwater Salmon Catch - Statistical Months (continued)

Catch Area	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Fish
Columbia River Systems														
Lewis River	Chinook		5	20	114	329	248	56	18	23	3			816
	Chum										3			3
	Pink								3					3
	Coho							3	28	618	2,725	334	33	3,741
	Sockeye									3				3
	Jack, Chinook						16	8		5	18	8	3	58
	Jack, Coho									123	366	63	3	555
Total			5	20	114	329	264	67	49	772	3,115	405	39	5,179
Little White Salmon River	Chinook				589	688	1	10	83	157	107			1,635
	Coho								13	87	53			153
	Jack, Chinook					3			10	23	17			53
	Jack, Coho									137	60			197
	Total				589	691	1	10	106	404	237			2,038
Snake River	Coho												1	1
	Total												1	1
Tilton River	Coho								3	5	236	89	58	391
	Jack, Chinook										6	3		9
	Jack, Coho									3	47	10	5	65
	Total								3	8	289	102	63	465
Toutle River	Chinook									12				12
	Coho								3	4	3			10
	Total								3	16	3			22
Washougal River	Chinook						4	8	185	724	23	4		948
	Chum									4	4			8
	Pink								4	19				23
	Coho									47	69	12		128
	Jack, Chinook								12	12				24
	Total						4	8	201	806	96	16		1,131

Table 25. 1997 Freshwater Salmon Catch - Statistical Months (continued)

Catch Area	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Fish
Columbia River Systems														
Wind River	Chinook				817	2,022	444	7	40	50	7			3,387
	Coho									33				33
	Jack, Chinook					13			3					16
	Total				817	2,035	444	7	43	83	7			3,436
White Salmon River	Chinook				113	60	6	37	63	100	30			409
	Coho								7	90	33			130
	Jack, Chinook									10				10
	Jack, Coho									50	23			73
Total				113	60	6	37	70	250	86			622	
COLUMBIA RIVER SYSTEM	Chinook	2	13	28	1,673	3,852	1,837	192	3,131	8,692	4,500	107	4	24,031
	Chum								3	4	10	5	2	24
	Pink								7	24	8			39
	Coho	15					3	9	147	3,182	7,962	1,036	134	14,488
	Sockeye								3	3				6
	Jack, Chinook		3			34		36	221	657	933	25	3	1,946
	Jack, Coho	4							3	990	1,575	366	14	2,952
TOTALS		21	16	28	1,673	3,886	1,874	237	3,515	13,552	14,988	1,539	157	41,486

* In the lower Columbia River Catch Record Card estimates from February-October are replaced by creel survey estimates. Does not include some catch just above the Megler-Astoria Bridge from August-October. The excluded catch is shown in the Area 1 catch estimate from August-October.

Table 25. 1997 Freshwater Salmon Catch - Statistical Months

Catch Area	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Fish
Coastal River Systems														
Bear River	Chum										20			20
	Coho										3			3
	Total										23			23
Bogachiel River	Chinook							7		23	33	13		76
	Chum										3			3
	Coho										10	13		23
	Jack, Unknown											3		3
	Jack, Coho										3	3		6
Total								7		23	49	32	111	
Calawah River	Chinook										3	3		6
	Coho									3				3
	Total									3	3	3		9
Chehalis River	Chinook					17	87	56	8	123	11			302
	Jack, Chinook						3			8				11
	Jack, Coho									3				3
	Total					17	90	56	8	135	11			316
Clearwater River	Chinook							5			16			21
	Total							5			16			21
Dickey River	Chum	3												3
	Total	3												3
Hoh River	Chinook					29	62	215	25	11	113	40		495
	Chum										4			4
	Coho									4				4
	Jack, Chinook						7		4		4			15
	Jack, Coho									4		4		8
Total					29	69	215	29	19	121	44		526	

Table 25. 1997 Freshwater Salmon Catch - Statistical Months (continued)

Catch Area	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Fish
Coastal River Systems														
Humptulips River	Chinook								3	266	448	11		728
	Chum										14			14
	Coho		3						6	356	572	11		948
	Unknown							3			3			6
	Jack, Unknown									22	6			28
	Jack, Chinook									17	8			25
	Jack, Coho									73	45			118
	Total			3					3	9	734	1,096	22	
Joe Creek	Coho									11	34			45
	Total									11	34			45
Johns River	Chum									6				6
	Total									6				6
Naselle River	Chinook							3	183	551	710	81	3	1,531
	Chum										27	7		34
	Coho	3							10	47	98	51	61	270
	Jack, Unknown									3	7			10
	Jack, Chinook									7	3			10
	Jack, Coho									34	7			41
Total		3						3	193	642	852	139	64	1,896
Nemah River	Chinook										17			17
	Chum										112	3		115
	Coho										7			7
Total										136	3			139
North River	Chinook										3			3
	Coho									3	51	7		61
	Jack, Coho										24	3		27
	Total									3	78	10		91

Table 25. 1997 Freshwater Salmon Catch - Statistical Months (continued)

Catch Area	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Fish
Coastal River Systems														
Queets River	Chinook				3		13	16	16	37	103	16	3	207
	Pink									5				5
	Coho								16	5	8			29
	Unknown											3		3
	Jack, Unknown								3	18		3		24
	Jack, Chinook								5	103				108
	Jack, Coho									414	50			464
	Total					3		13	16	40	577	166	22	3
Quillayute River	Chinook					3				3	7	3		16
	Total					3				3	7	3		16
Quinault River	Chinook										4	19		23
	Chum											8		8
	Coho									11				11
	Jack, Chinook											4		4
Total										15	31			46
Salmon River	Chinook									8	29	16		53
	Coho									16	61			77
	Jack, Chinook									5	5			10
	Jack, Coho									100	24			124
	Total									129	119	16		264
Satsop River	Chinook									6	437			443
	Chum									6	291	3		300
	Pink										6			6
	Coho								3		275	3		281
	Unknown										6			6
	Jack, Chinook										3			3
	Jack, Coho										17			17
	Total								3	12	1,035	6		1,056

Table 25. 1997 Freshwater Salmon Catch - Statistical Months (continued)

Catch Area	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Fish
Coastal River Systems														
Smith Creek	Chinook									3				3
	Chum										3			3
	Coho										10	3		13
	Jack, Coho									10				10
	Total									13	13	3		29
Sol Duc River	Chinook				23	99	89	26	13	26	79	116		471
	Chum					3					7			10
	Pink										3			3
	Coho								10	7	10			27
	Sockeye								7	10				17
	Jack, Unknown						3	7	3			13		26
	Jack, Chinook					3	7	10	3	3	3			29
	Jack, Coho						3			10	10	23		46
Total				23	105	102	43	36	56	112	152		629	
Willapa River	Chinook								27	267	271	61	3	629
	Coho								3	88	37	41	95	264
	Unknown				3									3
	Jack, Unknown									7	3			10
	Jack, Chinook								7	30	7			44
	Jack, Coho									30	20			53
Total				3				37	422	338	102	101	1,003	
Wynoochee River	Chinook								6	11	239			256
	Chum										8			8
	Coho								11					11
	Jack, Unknown									3				3
	Jack, Chinook										3			3
	Jack, Coho										3			3
Total								17	14	253			284	

Table 25. 1997 Freshwater Salmon Catch - Statistical Months (continued)

Catch Area	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Fish
Coastal River Systems														
	Chinook				26	148	251	328	281	1,335	2,523	379	9	5,280
	Chum	3				3				12	489	21		528
	Pink										14			14
	Coho	3	3						59	540	1,187	129	156	2,077
	Sockeye								7	10				17
	Unknown				3			3			9	3		18
	Jack, Unknown						3	7	6	53	16	19		104
	Jack, Chinook					3	17	10	19	173	36	4		262
	Jack, Coho						3			678	203	33	3	920
COASTAL RIVER SYSTEMS	TOTALS	6	3		29	154	274	348	372	2,801	4,477	588	168	9,220

Table 25. 1997 Freshwater Salmon Catch - Statistical Months

Catch Area	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Fish
Puget Sound River Systems														
Carbon River	Chinook								3	191	3	14	3	214
	Chum										7	399	7	413
	Coho									413	416	38		867
	Unknown									3		7		10
	Jack, Unknown									35				35
	Jack, Chinook									17	21			38
	Jack, Coho									284	302	24		610
	Total									3	943	749	482	10
Chambers Creek	Chinook								4	4				8
	Coho									4				4
	Total								4	8				12
Dakota Creek	Coho										14			14
	Jack, Coho										20	3		23
	Total										34	3		37
Deschutes River-Capitol Lake	Chinook								42	183	78			303
	Unknown										7			7
	Coho									7	7			14
	Jack, Unknown									7	35			42
	Jack, Chinook									14	7			21
	Jack, Coho									7				7
	Total								42	218	134			
Duckabush River	Chum											46	8	54
	Total											46	8	54
Dungeness River	Chinook										2			2
	Coho								3	10	375	118		506
	Unknown										3			3
	Jack, Coho										10			10
	Total								3	10	390	118		521

Table 25. 1997 Freshwater Salmon Catch - Statistical Months (continued)

Catch Area	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Fish
Puget Sound River Systems														
Elwha River	Chinook						4					4		8
	Coho									27	65			92
	Jack, Coho										15			15
	Total						4			27	80	4		115
Green-Duwamish River	Chinook							3	16	551	314			884
	Chum										26	105	31	162
	Coho							13		183	1,286	89	3	1,574
	Unknown									5	8			13
	Jack,										8			8
	Unknown									3	13			16
	Jack, Chinook Jack, Coho									16	355	16		387
Total							16	16	758	2,010	210	34	3,044	
Hoko River	Chinook						4			4				8
	Unknown				4				23					27
	Total				4		4		23	4				35
Kennedy Creek	Chum										159	209		368
	Coho										8			8
	Unknown											8		8
Total										167	217		384	
Lk Washington-Lk Sammamish	Chinook									4	8			12
	Coho										323			323
	Unknown								4		4			8
	Jack, Coho										4			4
Total								4	4	339			347	
Lyre River	Coho										4			4
	Total										4			4

Table 25. 1997 Freshwater Salmon Catch - Statistical Months (continued)

Catch Area	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Fish
Puget Sound River Systems														
McAllister Creek	Chinook									18				18
	Jack, Chinook								24	10				34
	Jack, Coho									3	3			6
	Total								24	31	3			58
Nisqually River	Chinook						3	8	131	183				325
	Chum	107										3	73	183
	Coho							5	10	31	13			59
	Unknown	3												3
	Jack, Unknown									5				5
	Jack, Chinook							3	39	138	16			196
	Jack, Coho									18	18			36
Total	110						3	16	180	375	47	3	73	807
Nooksack River	Chinook									109	48		3	160
	Chum										14	119	106	239
	Pink								10	20				30
	Coho								7	290	1,153	420	89	1,959
	Unknown				3						3	17		23
	Jack, Unknown									10				10
	Jack, Chinook									41	24			65
Jack, Coho									85	420	167	14	686	
Total					3				17	555	1,662	723	212	3,172
Puyallup River	Chinook								10	49	21	7	3	90
	Chum	3										153	135	291
	Coho								55	673	458	17	10	1,213
	Unknown									3		10		13
	Jack, Unknown							10		142	28			180
	Jack, Chinook								3	7	14			24
	Jack, Coho								107	690	253		3	1,053
Total	3							10	175	1,564	774	187	151	2,864
Quilcene River	Chinook										4			4
	Total										4			4

Table 25. 1997 Freshwater Salmon Catch - Statistical Months

Catch Area	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Fish
Puget Sound River Systems														
Samish River	Chinook								174	2,165	130	3		2,472
	Chum										7	3		10
	Pink									7		7		14
	Coho								17	160	481			658
	Unknown									3				3
	Jack, Unknown										14	3		17
	Jack, Chinook								3	92	10			105
	Jack, Coho								7	38	136			181
Total								201	2,479	767	13			3,460
Sauk River	Pink									4				4
	Total									4				4
Skagit River	Chinook							4	28	44	12	8		96
	Chum								20	32	56	351	104	563
	Pink							28	5,973	8,563	259	24		14,847
	Coho	4							291	682	2,438	96		3,511
	Sockeye								4	28				32
	Unknown											4		4
	Jack, Chinook									4				4
	Jack, Coho	4							16	28	92	4		144
Total		8						32	6,332	9,381	2,857	487	104	19,201
Skokomish River	Chinook									4				4
	Chum											296		296
	Coho									53	15	46		114
	Jack, Chinook									11	8			19
	Jack, Coho									11	8			19
Total									79	31	342		452	
Skykomish River	Chinook									3	3			6
	Chum										37	228	25	290
	Pink								3	12	3			18
	Coho								9	422	1,462	86	9	1,988
	Unknown											3		3
	Jack, Coho									22	18			40
Total								12	459	1,523	317	34	2,345	

Table 25. 1997 Freshwater Salmon Catch - Statistical Months (continued)

Catch Area	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Fish
Puget Sound River Systems														
Snohomish River	Chum									4	9	22	6	41
	Pink									3				3
	Coho								3	967	1,111	46	3	2,130
	Jack, Coho									22	46	6		74
	Total								3	996	1,166	74	9	2,248
Snoqualmie River	Chinook									3	6			9
	Chum	3										18	25	46
	Coho									49	468	145	43	705
	Jack, Unknown										6	3		9
	Jack, Chinook			3										3
	Jack, Coho										6	6	3	15
Total		3	3							52	486	172	71	787
Stillaguamish River	Chinook									6				6
	Chum											3		3
	Pink							6	600	1,053	28			1,687
	Coho										3	9		12
	Jack, Unknown								3					3
Total							6	603	1,059	31	12		1,711	
Whatcom Creek	Chinook								24	92	167	14		297
	Chum									7	604	2,265	126	3,002
	Coho										126	48	3	177
	Unknown										3	38	10	51
	Jack, Chinook										10	3		13
	Jack, Coho										24	3		27
Total								24	99	934	2,371	139	3,567	
White (Stuck) River	Chinook									3				3
	Total									3				3

Table 25. 1997 Freshwater Salmon Catch - Statistical Months (continued)														
Catch Area	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Fish
Puget Sound River Systems														
	Chinook						11	15	432	3,616	796	50	9	4,929
	Chum	113							20	43	919	4,220	646	5,961
	Pink							34	6,586	9,662	290	31		16,603
	Coho	4						18	395	3,971	10,225	1,158	157	15,928
	Sockeye								4	28				32
	Unknown	3			7				27	14	28	87	10	176
	Jack, Unknown							10	3	213	80	3		309
	Jack, Chinook		3					3	69	337	123	3		538
	Jack, Coho	4							130	1,224	1,730	229	20	3,337
PUGET SOUND RIVER SYSTEMS	TOTALS	124	3		7		11	80	7,666	19,108	14,191	5,781	842	47,813

Table 26. 1997 Washington Sport Salmon Fishing, by Residence

County of Residence	# Catch Record Cards	Population by County	% Catch Record Card Holders	Total Freshwater Salmon Catch	Total Marine Salmon Catch	Total Salmon	Average Catch per Catch Record Card
Adams	384	15,800	2.43	145	246	391	1.02
Asotin	71	19,700	0.36	36		36	0.51
Benton	4,863	13,4100	3.63	2,109	1,080	3,189	0.66
Chelan	1,507	62,200	2.42	1,673	663	2,336	1.55
Clallam	8,547	66,400	12.87	818	24,204	25,022	2.93
Clark	19,468	316,800	6.15	8,219	6,937	15,156	0.78
Columbia	28	4,200	0.67	200		200	7.14
Cowlitz	9,954	92,000	10.82	5,691	3,469	9,160	0.92
Douglas	967	30,800	3.14	618	379	997	1.03
Ferry	142	,7300	1.95	218		218	1.54
Franklin	1,280	43,900	2.92	546	398	944	0.74
Grant	1,024	68,300	1.50	218	910	1,128	1.10
Grays Harbor	7,494	68,300	10.97	1,418	3,184	4,602	0.61
Island	9,826	71,600	13.72	727	15,846	16,573	1.69
Jefferson	3,114	26,300	11.84	364	5,724	6,088	1.96
King	62,855	1,646,200	3.82	10,328	60,596	70,924	1.13
Kitsap	16,951	229,400	7.39	327	18,025	18,352	1.08
Kittitas	1,010	31,500	3.21	400	114	514	0.51
Klickitat	1,209	19,000	6.36	891	95	986	0.82
Lewis	4,935	68,300	7.23	4,455	4,075	8,530	1.73
Lincoln	85	9,800	0.87	109		109	1.28
Mason	3,982	47,900	8.31	746	5,118	5,864	1.47
Okanogan	299	38,400	0.78	182	133	315	1.05
Pacific	3,612	21,300	16.96	1,164	2,350	3,514	0.97
Pend Oreille	71	11,200	0.63		57	57	0.80
Pierce	34,329	674,300	5.09	6,728	32,317	39,045	1.14
San Juan	1,991	12,500	15.93		4,625	4,625	2.32
Skagit	16,254	96,900	16.77	11,656	10,292	21,948	1.35
Skamania	384	9,900	3.88	109	303	412	1.07
Snohomish	36,149	551,200	6.56	8,728	36,980	45,708	1.26
Spokane	3,370	409,900	0.82	1,691	1,952	3,643	1.08
Stevens	398	37,400	1.06		114	114	0.29
Thurston	11,675	197,600	5.91	2,728	9,908	11,636	1.00
Wahkiakum	626	3,900	16.05	309	588	897	1.43
Walla Walla	896	54,000	1.66	255	322	577	0.64
Whatcom	11,234	156,200	7.19	8,383	9,553	17,936	1.60
Whitman	256	41,200	0.62		341	341	1.33
Yakima	7,665	208,700	3.67	5,873	2,028	7,901	1.03
Unknown USA	142	n/a	n/a				
Washington Total	289,047	5,606,800	5.16	88,062	261,926	349,988	1.21
Other State Total	31,527	n/a	n/a	5,091	17,760	22,851	0.73
Canada	1,081	n/a	n/a	55	531	586	0.54
Unknown	9,855	n/a	n/a	5,310	15,448	20,758	2.11
Grand Total	331,511	n/a	n/a	98,519	295,666	394,185	1.19

Table 27. 1997 Frequency Distribution of Estimated Salmon Catch Record Cards and Catch

# Salmon per Catch Record Card	# of Cards	Cumulative # of Cards	Percent Cards	Cumulative Percent Cards	Total Catch	Cumulative Total Catch	Percent Catch	Cumulative Percent Catch
0	217,623	217,623	65.65	65.65	0	0	0.00	0.00
1	31,337	248,960	9.45	75.10	26,209	26,209	6.65	6.65
2	25,666	274,646	7.75	82.85	42,966	69,175	10.90	17.55
3	11,594	286,240	3.50	86.34	29,089	98,264	7.38	24.93
4	11,459	297,699	3.46	89.80	38,334	136,598	9.72	34.65
5	5,335	303,034	1.61	91.41	22,311	158,909	5.66	40.31
6	5,808	308,842	1.75	93.16	29,146	188,505	7.39	47.71
7	3,264	312,106	0.98	94.15	19,111	207,166	4.85	52.56
8	3,512	315,618	1.06	95.21	23,497	230,663	5.96	58.52
9	2,656	318,274	0.80	96.01	19,995	250,658	5.07	63.59
10	2,544	320,818	0.77	96.77	21,276	271,934	5.40	68.99
11	1,508	322,326	0.46	97.23	13,876	285,810	3.52	72.51
12	1,396	323,722	0.42	97.65	14,008	299,818	3.55	76.06
13	1,441	325,163	0.43	98.09	15,665	315,483	3.97	80.03
14	1,261	326,424	0.38	98.47	14,761	330,244	3.74	83.78
15	4,953	331,377	1.49	99.96	62,133	392,377	15.76	99.54
16	135	331,511	0.04	100.00	1,807	394,185	0.46	100.00
Total	331,511		100.00		394,185		100.00	

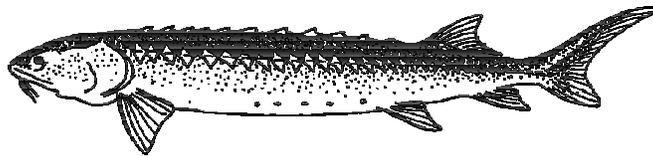
Note: The figures do not accurately multiply across because of a bias adjustment factor.

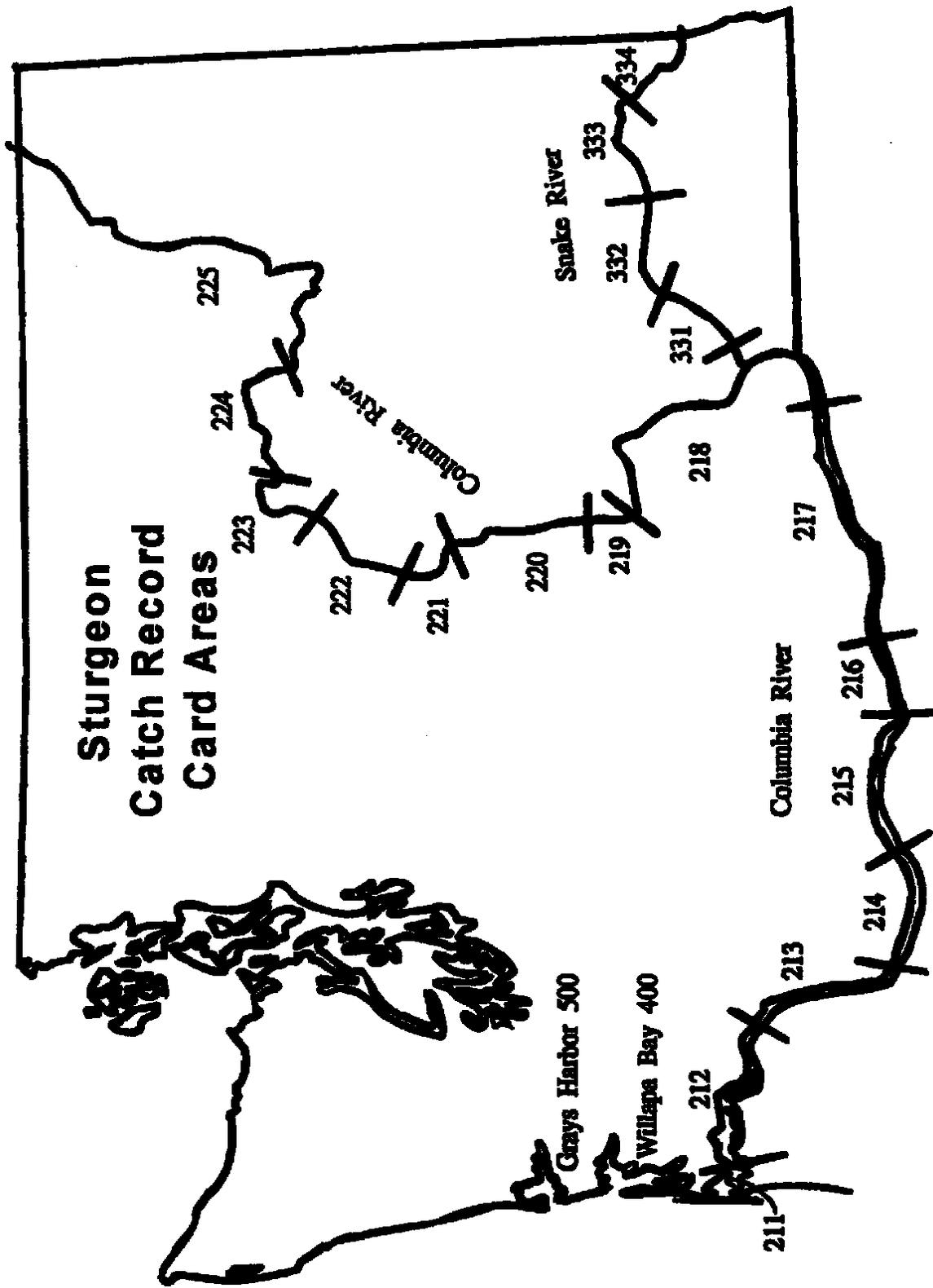
Table 28A. 1997 Sport Salmon Technical Catch Data	
Records on File	Estimates and Calculations
Name and Address File	23,371
Catch Record Cards in Sample Returns	14,726
Correction Data	
Correction Factor Percentage of voluntarily returned catch records with matching names and addresses	4,510 / 5,072 = 0.889
Name/Address Corrected for Dealer Non-Response	23,371 / 0.899 = 26,289
Estimated Number of Catch Records Issued	13,777 x 24.06269 = 331,511
Catch Expansion Factor	331,511 / 14,726 = 22.51

Table 28B. 1997 Inventory of Catch Record Cards Received											
Response Code*	Number of Cards with Catch		Number of Cards without Catch		Total Cards	Number of Salmon			Catch Per Card		
	Catch Records	Reminder Letters	Catch Records	Reminder Letters		Catch Records	Reminder Letters	Total Salmon	Catch Records	Reminder Letters	Total Salmon
1	217	0	150	0	367	306	0	306	.83	0	.83
2	469	540	477	1,982	3,468	658	733	1,391	.70	.29	.40
4	91	184	119	830	1,224	130	261	391	.62	.26	.32
6	1,848	1,003	1,710	3,844	8,405	2,566	1,428	3,994	.72	.29	.48
7	690	0	556	0	1,246	929	0	929	.75	0	.75
8	16	0	0	0	16	18	0	18	1.13	0	1.13
Total	3,331	1,727	3,012	6,656	14,726	4,607	2,422	7,029	.73	.29	.48

*Response Codes
 1 Prior to any reminder sent
 2 After second reminder
 4 After third reminder
 6 After first reminder
 7 From sporting goods dealer
 8 Return date unknown

Sturgeon





Description of Sturgeon Catch Record Card Areas

Columbia River

- 211 Buoy 10 to Astoria Bridge
- 212 Astoria Bridge to Longview Bridge
- 213 Longview Bridge to I-5 Bridge
- 214 I-5 Bridge to Bonneville Pool
- 215 Bonneville Pool to the Dalles Pool
- 216 The Dalles Pool to John Day Pool
- 217 John Day Pool to McNary Pool
- 218 McNary Pool to Priest Rapids Pool
- 219 Priest Rapids Pool to Wanapum Pool
- 220 Wanapum Pool to Rock Island Pool
- 221 Rock Island Pool to Rocky Reach Pool
- 222 Rocky Reach Pool to Wells Pool
- 223 Wells Pool to Chief Joseph Pool
- 224 Chief Joseph Pool to Grand Coulee Pool
- 225 Grand Coulee Pool to Canadian Border

Snake River

- 331 Ice Harbor Pool to Lower Monumental Pool
- 332 Lower Monumental Pool to Little Goose Pool
- 333 Little Goose Pool to Lower Granite Pool
- 334 Lower Granite Pool to Idaho Border

Other

- 400 Willapa Bay
- 500 Grays Harbor
- 299 Unknown Area (Statewide)

Table 29. 1997 Sport Sturgeon Catch, by Area and Month

Catch Area	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Fish
Columbia River System														
Buoy 10 to	White	0	32	213	146	423	1,062	1,426	1,048	100	9	9	4	4,472
	Green	0	0	0	0	1	5	5	18	0	0	0	0	29
Astoria Bridge	Total	0	32	213	146	424	1,067	1,431	1,066	100	9	9	4	4,501
Astoria Bridge to	White	0	73	482	332	959	2,405	3,229	2,372	226	22	22	8	10,130
Longview Bridge	Total	0	73	482	332	959	2,405	3,229	2,372	226	22	22	8	10,130
Longview Bridge to	White	38	140	102	74	0	10	5	2	6	83	127	256	843
I-5 Bridge	Total	38	140	102	74	0	10	5	2	6	83	127	256	843
I-5 Bridge to	White	44	176	449	455	379	374	226	123	472	292	270	17	3,277
Bonneville Dam	Total	44	176	449	455	379	374	226	123	472	292	270	17	3,277
Bonneville Dam to	White	100	258	370	43	12	35	4	15	8	8	31	4	888
The Dalles Dam	Total	100	258	370	43	12	35	4	15	8	8	31	4	888
The Dalles Dam to	White	15	31	15	35	4	8	0	0	0	0	0	0	108
John Day Dam	Total	15	31	15	35	4	8	0	0	0	0	0	0	108
John Day Dam to	White	0	8	42	12	23	39	116	39	4	0	0	0	283
McNary Dam	Total	0	8	42	12	23	39	116	39	4	0	0	0	283
McNary Dam to	White	4	8	27	35	42	119	181	131	39	19	4	4	613
Priest Rapids Dam	Total	4	8	27	35	42	119	181	131	39	19	4	4	613
Priest Rapids Dam to	White	0	0	0	0	0	4	8	0	0	4	0	0	16
Wanapum Dam	Total	0	0	0	0	0	4	8	0	0	4	0	0	16
Wanapum Dam to	White	0	0	0	0	0	0	0	0	4	0	0	0	4
Rock Island Dam	Total	0	0	0	0	0	0	0	0	4	0	0	0	4
Rock Island Dam to	White	0	0	0	0	8	0	8	8	0	4	0	0	28
Rocky Reach Dam	Total	0	0	0	0	8	0	8	8	0	4	0	0	28
Wells Dam to	White	0	8	0	0	0	0	4	0	0	0	0	4	16
Chief Joseph Dam	Total	0	8	0	0	0	0	4	0	0	0	0	4	16
Grand Coulee Dam to	White	0	0	0	0	0	0	35	0	0	0	0	0	35
Canadian border	Total	0	0	0	0	0	0	35	0	0	0	0	0	35
COLUMBIA RIVER	White	201	734	1,700	1,132	1,850	4,056	5,242	3,738	859	441	463	297	20,713
	Green	0	0	0	0	1	5	5	18	0	0	0	0	29
SYSTEM	Total	201	734	1,700	1,132	1,851	4,061	5,247	3,756	859	441	463	297	20,742

Table 29. 1997 Sport Sturgeon Catch, by Area and Month (continued)

Catch Area	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Fish
Snake River System														
Ice Harbor Dam to Lower Monumental Dam	White	0	0	0	0	12	50	16	12	0	0	0	0	90
	Total	0	0	0	0	12	50	16	12	0	0	0	0	90
Lower Monumental Dam to Little Goose Dam	White	0	0	0	4	8	4	35	15	0	0	0	0	66
	Total	0	0	0	4	8	4	35	15	0	0	0	0	66
Little Goose Dam to Lower Granite Dam	White	0	0	0	0	12	23	23	27	4	0	0	0	89
	Total	0	0	0	0	12	23	23	27	4	0	0	0	89
Lower Granite Dam to Idaho Border	White	0	0	0	0	4	12	15	0	0	0	0	0	31
	Total	0	0	0	0	4	12	15	0	0	0	0	0	31
SNAKE RIVER SYSTEM	White	0	0	0	4	36	89	89	54	4	0	0	0	276
	Total	0	0	0	4	36	89	89	54	4	0	0	0	276
Grays Harbor System														
GRAYS HARBOR SYSTEM	White	42	100	104	77	39	39	89	100	58	23	50	77	798
	Green	4	4	8	4	12	19	15	12	8	15	4	0	105
	Unknown	4	8	0	8	4	0	15	4	0	0	0	0	43
	Total	50	112	112	89	55	58	119	116	66	38	54	77	946
Willapa Bay System														
WILLAPA BAY SYSTEM	White	119	85	219	173	108	58	77	69	19	135	58	150	1,270
	Green	0	0	4	0	0	0	0	0	0	0	0	0	4
	Unknown	0	0	0	15	0	0	0	0	0	0	0	0	15
	Total	119	85	223	188	108	58	77	69	19	135	58	150	1,289
Statewide Catch Areas														
STATEWIDE CATCH AREAS	White	362	919	2,023	1,386	2,033	4,242	5,497	3,961	940	599	571	524	23,057
	Green	4	4	12	4	13	24	20	30	8	15	4	0	138
	Unknown	4	8	0	23	4	0	15	4	0	0	0	0	58
	Total	370	931	2,035	1,413	2,050	4,266	5,532	3,995	948	614	575	524	23,253

Table 30. 1997 Washington Sport Sturgeon Fishing, by Residence

County of Residence	Number of Catch Record Cards	Population by County	Percentage of Catch Record Card Holders	Total Sturgeon	Average Catch per Catch Record Card
Adams	273	15,800	1.70	76	0.28
Asotin	173	19,700	0.90	56	0.32
Benton	3,655	134,100	2.70	434	0.12
Chelan	215	62,200	0.30	23	0.11
Clallam	229	66,400	0.30	116	0.51
Clark	17,779	316,800	5.60	5,415	0.30
Columbia	28	4,200	0.70	3	0.11
Cowlitz	8,909	92,000	9.70	2,724	0.31
Douglas	168	30,800	0.50	20	0.12
Ferry	5	7,300	0.10	0	0.00
Franklin	1,164	43,900	2.70	166	0.14
Garfield	21	2,400	0.90	3	0.14
Grant	550	68,300	0.80	50	0.09
Grays Harbor	4,140	68,300	6.10	656	0.16
Island	54	71,600	0.10	13	0.24
Jefferson	42	26,300	0.20	13	0.31
King	4,340	1,646,200	0.30	1,518	0.35
Kitsap	816	229,400	0.40	235	0.29
Kittitas	138	31,500	0.40	17	0.12
Klickitat	681	19,000	3.60	275	0.40
Lewis	2,661	68,300	3.90	779	0.29
Lincoln	33	9,800	0.30	3	0.09
Mason	947	47,900	2.00	229	0.24
Okanogan	65	38,400	0.20	17	0.26
Pacific	3,414	21,300	16.00	2,575	0.76
Pend Oreille	28	11,200	0.30	3	0.11
Pierce	3,302	674,300	0.50	1,107	0.34
San Juan	14	12,500	0.10	0	0.00
Skagit	187	96,900	0.20	33	0.18
Skamania	362	9,900	3.70	80	0.22
Snohomish	1,294	551,200	0.20	411	0.32
Spokane	1,078	409,900	0.30	235	0.22
Stevens	168	37,400	0.45	20	0.12
Thurston	2,967	197,600	1.50	1,060	0.36
Wahkiakum	686	3,900	17.60	381	0.56
Walla Walla	751	54,000	1.40	99	0.13
Whatcom	177	156,200	0.10	63	0.36
Whitman	91	41,200	0.20	20	0.22
Yakima	3,918	208,700	1.90	600	0.15
Unknown USA	23	n/a	n/a	0	0.00
Washington Total	65,532	5,606,800	1.20	19,600	0.30
Other State Total	8,921	n/a	n/a	3,426	0.38
Canada	44	n/a	n/a	13	0.30
Foreign	2	n/a	n/a	0	0.00
Unknown	2,307	n/a	n/a	285	0.12
Grand Total	76,806	n/a	n/a	23,253	0.30

Table 31. 1997 Frequency Distribution of Estimated Sturgeon Catch Record Cards and Catch

Number of 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	61,264	61,264	79.77	79.77	0	0	0.00	0.00
1	9,553	70,817	12.44	92.20	7,546	7,546	32.45	32.45
2	2,778	73,595	3.62	95.82	4,389	11,935	18.88	51.33
3	1,295	74,890	1.69	97.51	3,068	15,003	13.19	64.52
4	771	75,661	1.00	98.51	2,436	17,438	10.47	74.99
5	424	76,085	0.55	99.06	1,674	19,112	7.20	82.19
6	297	76,382	0.39	99.45	1,406	20,518	6.05	88.24
7	158	76,540	0.21	99.65	874	21,392	3.76	92.00
8	104	76,644	0.14	99.79	658	22,050	2.83	94.83
9	96	76,740	0.13	99.91	685	22,735	2.96	97.77
10	66	76,806	0.09	100.00	517	23,253	2.23	100.00
Total	76,806		100.00		23,253		100.00	

Table 32A. 1997 Sturgeon Technical Catch Data	
Records on File	Estimates and Calculations
Name and Address File	32,675
Catch Record Cards in Sample Returns	19,931
Correction Data	
Correction Factor Percentage of voluntarily returned catch records with matching names and addresses	1,276 / 1,499 = .851
Name/Address Corrected for Dealer Non-Response	32,675 / .851 = 38,396
Estimated Number of Catch Records Issued	38,396 x 2 = 76,806
Catch Expansion Factor	76,806 / 19,931 = 3.85

Table 32B. 1997 Sport Sturgeon Inventory of Catch Record Cards Received											
Response Code*	Number of Cards with Catch		Number of Cards without Catch		Total Cards	Number of Salmon			Catch Per Card		
	Catch Records	Reminder Letters	Catch Records	Reminder Letters		Catch Records	Reminder Letters	Total Sturgeon	Catch Records	Reminder Letters	Total Sturgeon
1	613	0	1,531	0	2,144	1,154	0	1,154	.54	0	0.54
2	612	958	1,494	6,640	9,704	1,151	1,649	2,800	.55	.22	0.29
4	207	490	522	3,098	4,317	358	818	1,176	.49	.23	0.27
7	1,153	0	2,613	0	3,766	2,509	0	2,509	.67	0	0.67
Total	2,585	1,448	6,160	9,738	19,931	5,172	2,467	7,639	.59	.22	0.38
<p>*Response Codes</p> <p>1 Prior to any reminder sent</p> <p>2 After first reminder</p> <p>4 After second reminder</p> <p>7 From sporting goods dealer</p>											

Steelhead

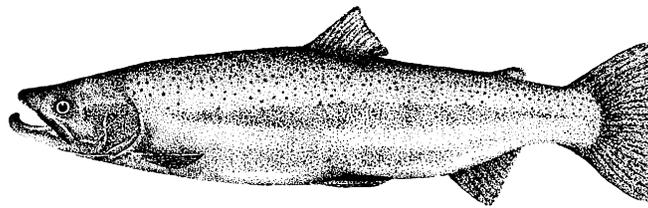


Table 33. 1997-98 Steelhead Sport Catch, by Area and Month (continued)

Columbia River and Tributaries ¹																
System	Catch Area	Marked/ Unmarked	Summer 1997						Winter 1998						Total	
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Summer	Winter
COLUMBIA RIVER SYSTEM (cont.)	Columbia River System	Marked	193	1213	3164	3309	746	677	713	508	336	399	276	5	11520	19
		Unmarked	0	12	46	76	9	17	9	2	6	0	7	0	183	1
		Total	193	1225	3210	3385	755	694	722	510	342	399	283	5	11703	20
COWLITZ RIVER SYSTEM	Coweeman River	Marked				3	15			8	6	17			18	31
		Unmarked				0	0			0	0	0			0	0
		Total				3	15			8	6	17			18	31
	Cowlitz River	Marked	34	53	115	123	69	25	17	36	111	31	8	3	419	206
		Unmarked	15	3	0	0	5	3	0	6	0	0	3	5	26	14
		Total	49	56	115	123	74	28	17	42	111	31	11	8	445	220
	Cowlitz River above Cowlitz Falls	Marked								3				3		6
		Unmarked								0				0		0
		Total								3				3		6
	Cowlitz River below Mayfield Dam	Marked	192	346	826	865	450	171	133	451	748	209	231	156	2850	1928
		Unmarked	13	10	31	20	10	8	3	14	17	19	0	0	92	53
		Total	205	356	857	885	460	179	136	465	765	228	231	156	2942	1981
	Cowlitz, Mayfield to Cowlitz Falls Dams	Marked		3	3				3						6	3
		Unmarked		0	0				0						0	0
		Total		3	3				3						6	3
Green River	Marked		31	18	10	20	5	14						84	14	
	Unmarked		0	2	0	0	3	0						5	0	
	Total		31	20	10	20	8	14						89	14	
Lacamas Creek	Marked									3					3	
	Unmarked									0					0	
	Total									3					3	
Olequa Creek	Marked											0			0	
	Unmarked											3			3	
	Total											3			3	
Tilton River	Marked			0						0				0	0	
	Unmarked			3						3				3	3	
	Total			3						3				3	3	
Toutle River	Marked							3							3	
	Unmarked							0							0	
	Total							3							3	
Toutle River, South Fork	Marked		146	163	46	3		3	8	3	3	3		358	20	
	Unmarked		0	3	0	0		0	0	0	0	0		3	0	
	Total		146	166	46	3		3	8	3	3	3		361	20	
Cowlitz River System	Marked	226	579	1125	1047	557	201	173	506	871	260	242	162	3735	2214	
	Unmarked	28	13	39	20	15	14	3	20	20	19	6	5	129	73	
	Total	254	592	1164	1067	572	215	176	526	891	279	248	167	3864	2287	

Table 33. 1997-98 Steelhead Sport Catch, by Area and Month (continued)																
Columbia River and Tributaries ¹																
System	Catch Area	Marked/ Unmarked	Summer 1997						Winter 1998						Total	
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Summer	Winter
ELOCHOMAN RIVER SYSTEM	Elochoman River	Marked	72	52	25	30	36	82	88	340	115	44	215	669		
		Unmarked	0	0	0	0	5	0	0	0	0	0	5	0		
		Total	72	52	25	30	41	82	88	340	115	44	220	669		
GERMANY CREEK SYSTEM	Germany Creek	Marked								4	2			6		
		Unmarked								0	0			0		
		Total								4	2			6		
GRANDE RONDE SYSTEM	Grande Ronde River	Marked	0				37	725	1031	633	395	596	859	235	4511	
		Unmarked	3				3	25	31	3	3	12	6	0	86	
		Total	3				40	750	1062	636	398	608	865	235	4597	
GRAYS RIVER SYSTEM	Grays River and West Fork	Marked							2	6	2	4	0		14	
		Unmarked							0	0	0	0	4		4	
		Total							2	6	2	4	4		18	
HAMILTON CREEK SYSTEM	Hamilton Creek	Marked								2	2	4			8	
		Unmarked								0	0	0			0	
		Total								2	2	4			8	
KALAMA RIVER SYSTEM	Gobar Creek	Marked	2				2	31	52	30	4		4	35	90	
		Unmarked	0				0	0	0	0	0		0	0	0	
		Total	2				2	31	52	30	4		4	35	90	
	Kalama River	Marked	21	25	17	4						4		67	4	
		Unmarked	0	0	0	0						0		0	0	
		Total	21	25	17	4						4		67	4	
	Kalama River above Kalama Falls Hatchery	Marked	2	4	4	8	2							20		
		Unmarked	0	0	0	0	0							0		
		Total	2	4	4	8	2							20		
	Kalama River below Kalama Falls Hatchery	Marked	81	203	359	131	44	6	41	41	33	15	7	59	824	196
		Unmarked	0	0	2	0	0	0	0	4	0	0	0	0	2	4
		Total	81	203	361	131	44	6	41	45	33	15	7	59	826	200
Kalama River System	Marked	83	230	388	156	52	37	93	71	37	19	11	59	946	290	
	Unmarked	0	0	2	0	0	0	0	4	0	0	0	0	2	4	
	Total	83	230	390	156	52	37	93	75	37	19	11	59	948	294	
KLUCKITAT RIVER SYSTEM	Klickitat River	Marked	8	54	212	346	268	123	51					1062		
		Unmarked	0	0	5	8	5	0	0	0					18	
		Total	8	54	217	354	273	123	51						1080	
LEWIS RIVER SYSTEM	Cedar Creek	Marked												5		
		Unmarked												0		
		Total												5		
	Lewis River	Marked	7	17	45	35	5		5	5				109	10	
		Unmarked	0	0	0	0	0		3	0				0	3	
		Total	7	17	45	35	5		8	5				109	13	

Table 33. 1997-98 Steelhead Sport Catch, by Area and Month (continued)																
Columbia River and Tributaries ¹																
System	Catch Area	Marked/ Unmarked	Summer 1997						Winter 1998						Total	
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Summer	Winter
LEWIS RIVER SYSTEM (continued)	Lewis River, East Fork	Marked	40	52	52	28	19	7	22	38	27	41	19	16	198	163
		Unmarked	0	2	0	0	2	0	0	0	8	0	0	0	4	8
		Total	40	54	52	28	21	7	22	38	35	41	19	16	202	171
	Lewis River, North Fork	Marked	21	130	135	85	47	24	14	41	139	16	3	3	442	216
		Unmarked	0	7	7	7	0	0	0	3	0	0	0	0	21	3
		Total	21	137	142	92	47	24	14	44	139	16	3	3	463	219
	Lewis River System	Marked	68	199	232	148	71	36	36	84	171	57	22	19	754	389
		Unmarked	0	9	7	7	2	0	0	6	8	0	0	0	25	14
		Total	68	208	239	155	73	36	36	90	179	57	22	19	779	403
LITTLE WHITE SALMON RIVER SYSTEM	Drano Lake	Marked				9	6							15		
		Unmarked				8	0							8		
		Total				17	6							23		
	Little White Salmon River	Marked			160	2643	1399	50			3				4255	
		Unmarked			8	62	11	3			0				84	
		Total			168	2705	1410	53			3				4339	
Little White Salmon River System	Marked			160	2652	1405	50			3				4270		
	Unmarked			8	70	11	3			0				92		
	Total			168	2722	1416	53			3				4362		
METHOW RIVER SYSTEM	Methow River	Marked				15	60							75		
		Unmarked				0	0							0		
		Total				15	60							75		
OKANOGAN RIVER SYSTEM	Similkameen River	Marked											5	5		
		Unmarked												0	0	
		Total												5	5	
	Okanogan River System	Marked												5	5	
		Unmarked													0	0
		Total												5	5	
ROCK CREEK SYSTEM	Rock Creek	Marked				5						10		15		
		Unmarked				0						0		0		
		Total				5						10		15		
SALMON CREEK SYSTEM	Salmon Creek	Marked							2		12				14	
		Unmarked							0		0				0	
		Total							2		12				14	
SKAMOKAWA CREEK SYSTEM	Skamokawa Creek	Marked							4	0		2	2		8	
		Unmarked							0	2		0	0		2	
		Total							4	2		2	2		10	

Table 33. 1997-98 Steelhead Sport Catch, by Area and Month (continued)

Columbia River and Tributaries ¹																	
System	Catch Area	Marked/ Unmarked	Summer 1997						Winter 1998						Total		
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Summer	Winter	
SNAKE RIVER MAINSTEM SYSTEM	Below Ice Harbor Dam	Marked					10	30	47	80	27	7					201
		Unmarked					0	0	0	0	3	6					9
		Total					10	30	47	80	30	13					210
	Ice Harbor Dam to Lwr Monumental Dam	Marked					97	579	1222	499	100	63	100	0			2660
		Unmarked					0	7	17	3	0	4	27	3			61
		Total					97	586	1239	502	100	67	127	3			2721
	Lwr Monumental Dam to Little Goose Dam	Marked					415	1473	1179	429	211	191	392			4290	
		Unmarked					0	7	17	10	7	0	23			64	
		Total					415	1480	1196	439	218	191	415			4354	
Little Goose Dam to Lower Granite Dam	Marked					23	147	342	198	171	157	178			1216		
	Unmarked					0	0	0	0	7	14	10			31		
	Total					23	147	342	198	178	171	188			1247		
Lower Granite Dam to Clarkston	Marked					0	158	733	761	188	191	104	47			2182	
	Unmarked					3	3	51	13	13	7	10	7			107	
	Total					3	161	784	774	201	198	114	54			2289	
Snake River above Clarkston	Marked					7	127	1983	1574	408	171	94	33	3			4400
	Unmarked					0	0	7	34	17	10	0	0	0			68
	Total					7	127	1990	1608	425	181	94	33	3			4468
Snake River above Lower Granite Dam	Marked					3			3	3		17	10			36	
	Unmarked					0			0	0		0	0			0	
	Total					3			3	3		17	10			36	
Snake River System	Marked					10	830	4945	5128	1805	871	633	760	3			14985
	Unmarked					3	3	72	81	43	34	34	67	3			340
	Total					13	833	5017	5209	1848	905	667	827	6			15325
TUCANNON RIVER SYSTEM	Tucannon River	Marked		3	5		46	124	272	199	51	24	24			748	
		Unmarked		0	0		0	0	0	0	0	0	0			0	
		Total		3	5		46	124	272	199	51	24	24			748	
WALLA WALLA RIVER SYSTEM	Mill Creek	Marked						4	7	21	7	18	11			68	
		Unmarked						0	0	0	0	0	0			0	
		Total						4	7	21	7	18	11			68	
Touchet River	Marked							7	88	57	57	141	127	32			509
	Unmarked							0	0	0	0	4	0	0			4
	Total							7	88	57	57	145	127	32			513

Table 33. 1997-98 Steelhead Sport Catch, by Area and Month																	
Columbia River and Tributaries ¹																	
System	Catch Area	Marked/ Unmarked	Summer 1997						Winter 1998						Total		
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Summer	Winter	
WALLA WALLA RIVER SYSTEM (continued)	Walla Walla River	Marked					152	675	399	255	110	209	53	4	1857		
		Unmarked					0	18	0	7	0	0	0	0	25		
		Total					152	693	399	262	110	209	53	4	1882		
	Walla Walla River System	Marked					152	686	494	333	174	368	191	36	2434		
		Unmarked					0	18	0	7	0	4	0	0	29		
		Total					152	704	494	340	174	372	191	36	2463		
WASHOUGAL RIVER SYSTEM	Washougal River	Marked	41	13	44	13		13		7	22	15	2	0	124	46	
		Unmarked	0	0	0	0		0		0	0	0	0	2	0	2	
		Total	41	13	44	13		13		7	22	15	2	2	124	48	
	Washougal River, West Fork	Marked		13	19	3	13			2		2				48	4
		Unmarked		0	0	0	0			0		0				0	0
			Total		13	19	3	13		2		2				48	4
	Washougal River System	Marked	41	26	63	16	13	13	2	7	24	15	2	0	172	50	
		Unmarked	0	0	0	0	0	0	0	0	0	0	0	2	0	2	
Total		41	26	63	16	13	13	2	7	24	15	2	2	172	52		
WENATCHEE RIVER SYSTEM	Wenatchee River	Marked				20	40	20		5					85		
		Unmarked				0	0	0		0					0		
		Total				20	40	20		5					85		
WHITE SALMON RIVER SYSTEM	Big White Salmon River	Marked	3	3	222	1135	372	9			3		3		1750		
		Unmarked	0	0	3	17	9	0			0		0		29		
		Total	3	3	225	1152	381	9			3		3		1779		
WIND RIVER SYSTEM	Wind River	Marked				31		5							36		
		Unmarked				5		0							5		
		Total				36		5							41		
	Wind River above Shipherd Falls	Marked		3	28	8	3									42	
		Unmarked		0	0	2	0									2	
			Total		3	28	10	3								44	
	Wind River below Shipherd Falls	Marked	3	3		289	105	3							403		
		Unmarked	0	2		3	0	0							5		
		Total	3	5		292	105	3						408			
Wind River System	Marked	3	6	28	328	108	8							481			
	Unmarked	0	2	0	10	0	0							12			
	Total	3	8	28	338	108	8							493			
YAKIMA RIVER SYSTEM	Bumping River	Marked						5					5		10		
		Unmarked						0					0		0		
		Total						5					5		10		
	Tieton River	Marked						5	20						25		
		Unmarked						0	0						0		
		Total						5	20						25		

Table 33. 1997-98 Steelhead Sport Catch, by Area and Month (continued)

Columbia River and Tributaries¹																			
System	Catch Area	Marked/ Unmarked	Summer 1997						Winter 1998						Total				
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Summer	Winter			
YAKIMA RIVER SYSTEM (continued)	Yakima River	Marked									5	10					15		
		Unmarked									0	0					0		
		Total									5	10					15		
	Yakima River System	Marked							10	20	5	10		5			50		
		Unmarked							0	0	0	0		0			0		
		Total						10	20	5	10		5			50			
COLUMBIA RIVER AND TRIBUTARY SYSTEMS TOTALS		Marked	625	2385	5676	9217	4787	7705	8140	4252	3305	2511	2443	522	47883	3685			
		Unmarked	31	36	110	211	57	154	124	87	71	69	90	10	950	100			
		Total	653	2421	5786	9428	4844	7859	8264	4339	3376	2580	2533	532	48833	3785			
Coast Rivers and Marine Catch Areas																			
System	Catch Area	Marked/ Unmarked	Summer 1997						Winter 1998						Total				
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Summer	Winter			
BEAR RIVER SYSTEM	Bear River	Marked										3						3	
		Unmarked										0						0	
		Total										3						3	
CEDAR CREEK SYSTEM*	Cedar Creek	Marked											3					3	
		Unmarked											0					0	
		Total											3					3	
CHEHALIS RIVER SYSTEM*	Chehalis River above Black River	Marked			3	3						6	11	3			6	20	
		Unmarked			0	0						0	0	0			0	0	
		Total			3	3						6	11	3			6	20	
	Chehalis River below Black River	Marked					3	14				3	39	90	116			17	248
		Unmarked					0	0				0	0	6	0			0	6
		Total					3	14				3	39	96	116			17	254
	Newaukum River & North Fork	Marked			6								3	6	39			6	48
		Unmarked			0								0	0	3			0	3
		Total			6								3	6	42			6	51
	Satsop River, Middle & East Fk	Marked										3	8	14	8				33
		Unmarked										0	0	6	0				6
		Total										3	8	20	8				39
Skookumchuck River	Marked		3	3							3	3	87	287	180		6	560	
	Unmarked		0	0							0	0	9	3	6		0	18	
	Total		3	3							3	3	96	290	186		6	578	
Wishkah River	Marked						3						11	11			3	22	
	Unmarked						0						0	0			0	0	
	Total						3						11	11			3	22	

Table 33. 1997-98 Steelhead Sport Catch, by Area and Month (continued)

Coast Rivers and Marine Catch Areas																
System	Catch Area	Marked/ Unmarked	Summer 1997						Winter 1998						Total	
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Summer	Winter
CHEHALIS RIVER SYSTEM (continued)	Wynoochee River	Marked	6	469	304	108	28	45	14	104	220	208	358		960	904
		Unmarked	0	14	3	0	0	0	0	3	3	9	11		17	26
		Total	6	483	307	108	28	45	14	107	223	217	369		977	930
	Chehalis River System	Marked	9	478	307	117	42	45	14	113	279	427	822	180	998	1835
		Unmarked	0	14	3	0	0	0	0	3	3	30	17	6	17	59
		Total	9	492	310	117	42	45	14	116	282	457	839	186	1015	1894
ELK RIVER SYSTEM*	Elk River	Marked								6	9				15	
		Unmarked								0	0				0	
		Total								6	9				15	
GOODMAN CREEK SYSTEM*	Goodman Creek	Marked								3					3	
		Unmarked								0					0	
		Total								3					3	
HOH RIVER SYSTEM*	Hoh River	Marked				3				4	7	4			3	15
		Unmarked				0				3	0	0			0	3
		Total				3				7	7	4			3	18
	Hoh River above Hwy. 101	Marked		3	6	3	3				11	36	7		15	54
		Unmarked		0	0	0	0				0	7	0		0	7
		Total		3	6	3	3				11	43	7		15	61
	Hoh River below Hwy. 101	Marked		3	3		6	3		4	14	164	118	18	15	318
		Unmarked		3	0		0	0		0	0	0	0	0	3	0
		Total		6	3		6	3		4	14	164	118	18	18	318
	Hoh River System	Marked		6	9	6	9	3		4	18	182	158	25	33	387
		Unmarked		3	0	0	0	0		0	3	0	7	0	3	10
		Total		9	9	6	9	3		4	21	182	165	25	36	397
HOQUIAM RIVER SYSTEM*	Hoquiam River	Marked								3	6				9	
		Unmarked								0	0				0	
		Total								3	6				9	
HUMPTULIPS RIVER SYSTEM*	Humptulips River	Marked		39	26	13	13	13	3	80	122	22		104	227	
		Unmarked		3	0	0	3	0	0	0	0	0		6	0	
		Total		42	26	13	16	13	3	80	122	22		110	227	
	Humptulips River East Fork	Marked				3					2	2			3	4
		Unmarked				0					0	0			0	0
		Total				3					2	2			3	4
	Humptulips River West Fork	Marked				3					2				3	2
		Unmarked				0					0				0	0
Total					3					2				3	2	

Table 33. 1997-98 Steelhead Sport Catch, by Area and Month (continued)																	
Coast Rivers and Marine Catch Areas																	
System	Catch Area	Marked/ Unmarked	Summer 1997						Winter 1998						Total		
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Summer	Winter	
HUMPTULIPS RIVER SYSTEM (continued)	Stevens Creek	Marked				3	3					3	32	10	2	6	47
		Unmarked				0	0					0	0	0	0	0	0
		Total				3	3					3	32	10	2	6	47
HUMPTULIPS RIVER SYSTEM	Humptulips River System	Marked		39	26	22	16	13		3	83	158	34	2	116	280	
		Unmarked		3	0	0	3	0		0	0	0	0	0	6	0	
		Total		42	26	22	19	13		3	83	158	34	2	122	280	
JOHNS RIVER SYSTEM*	Johns River	Marked									6	12				18	
		Unmarked									0	0				0	
		Total									6	12				18	
KALALOCH CREEK SYSTEM*	Kalaloch Creek	Marked									0					0	
		Unmarked									3					3	
		Total									3					3	
MOSQUITO RIVER SYSTEM*	Mosquito Creek	Marked									3	12				15	
		Unmarked									0	0				0	
		Total									3	12				15	
NASELLE RIVER SYSTEM	Naselle River System	Marked					2				3	6	3	9	2	21	
		Unmarked					0				0	3	3	0	0	6	
		Total					2				3	9	6	9	2	27	
NEMAH RIVER SYSTEM	Nemah River System	Marked									15	6				21	
		Unmarked									0	0				0	
		Total									15	6				21	
NORTH RIVER SYSTEM	North River	Marked									3	3	6			12	
		Unmarked									3	0	0			3	
		Total									6	3	6			15	
	Smith Creek	Marked											6			6	
		Unmarked											3			3	
		Total											9			9	
North River System	Marked										3	3	12			18	
	Unmarked										3	0	3			6	
	Total										6	3	15			24	
OZETTE RIVER SYSTEM*	Big River	Marked										3				3	
		Unmarked										0				0	
		Total										3				3	
PALIX RIVER SYSTEM	Palix River	Marked									9		0			9	
		Unmarked									0		3			3	
		Total										9		3		12	

Table 33. 1997-98 Steelhead Sport Catch, by Area and Month (continued)

Coast Rivers and Marine Catch Areas																
System	Catch Area	Marked/ Unmarked	Summer 1997						Winter 1998						Total	
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Summer	Winter
QUEETS RIVER SYSTEM*	Clearwater River	Marked									3	3	19		3	25
		Unmarked									0	3	6		0	9
		Total									3	6	25		3	34
	Queets River	Marked		3			11		3	15	6		6	3	14	33
Unmarked			0			0		0	31	6		0	0	0	37	
Total			3			11		3	46	12		6	3	14	70	
Salmon River	Marked				3		3	12	34	34	6		6	86		
	Unmarked				0		0	3	18	24	6		0	51		
	Total				3		3	15	52	58	12		6	137		
Queets River System	Marked		3		3	11	6	15	49	43	9	25	3	23	144	
	Unmarked		0		0	0	0	3	49	30	9	6	0	0	97	
	Total		3		3	11	6	18	98	73	18	31	3	23	241	
QUILLAYUTE RIVER SYSTEM*	Bogachiel River	Marked	3	0	6	3	3	20	130	110	49	33	8	15	350	
		Unmarked	0	3	0	0	0	0	8	0	4	16	57	3	85	
		Total	3	3	6	3	3	20	138	110	53	49	65	18	435	
	Calawah River, and South Fork	Marked	3	28	59	28	48	17	20	57	122	12	4	0	183	215
		Unmarked	0	0	0	0	0	0	0	4	0	0	0	28	0	32
		Total	3	28	59	28	48	17	20	61	122	12	4	28	183	247
	Dickey River	Marked												0	0	
		Unmarked												4	4	
		Total												4	4	
	Quillayute River	Marked				2				4	41	47	41	2	133	
Unmarked					0				4	0	4	0	0	8		
Total					2				8	41	51	41	2	141		
Sol Duc River	Marked		5	17	17	17	20	41	16	16	8	8	4	76	93	
	Unmarked		3	0	0	0	0	4	12	12	29	8	12	3	77	
	Total		8	17	17	17	20	45	28	28	37	16	16	79	170	
Quillayute River System	Marked	6	33	82	50	68	37	81	207	289	116	86	12	276	791	
	Unmarked	0	6	0	0	0	0	4	28	12	37	24	101	6	206	
	Total	6	39	82	50	68	37	85	235	301	153	110	113	282	997	
QUINAULT RIVER SYSTEM*	Quinault River, Lower and Cook Ck. ²	Marked							410	277	180	123	11		1001	
		Unmarked							0	1	45	190	98		334	
		Total							410	278	225	313	109		1335	
Quinault River, Upper	Marked								0	0	5	15		20		
	Unmarked								10	5	0	5		20		
	Total								10	5	5	20		40		
Quinault River System	Marked								410	277	185	138	11		1021	
	Unmarked								10	6	45	195	98		354	
	Total								420	283	230	333	109		1375	

Table 33. 1997-98 Steelhead Sport Catch, by Area and Month (continued)

Coast Rivers and Marine Catch Areas																	
System	Catch Area	Marked/ Unmarked Total	Summer 1997						Winter 1998						Total		
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Summer	Winter	
RAFT RIVER SYSTEM*	Raft River	Marked															
		Unmarked															
		Total															
WILLAPA RIVER SYSTEM	Willapa River	Marked		2	4			2	2				9		11		
		Unmarked		0	0			0	0				0		4		
		Total		2	4			2	2				9		15		
	Willapa River, South Fork	Marked									6		15				
		Unmarked									0		0				
		Total									6		15				
	Willapa River System	Marked		2	4			2	2		6	9	15	11		10	
		Unmarked		0	0			0	0		0	0	0	4		0	
		Total		2	4			2	2		6	9	15	15		10	
	MARINE CATCH AREAS	Area 1: Ledbetter Point	Marked					2									6
			Unmarked					2									2
			Total					4									8
Area 2: Westport*		Marked					0	1								1	
		Unmarked					2	0								2	
		Total					2	1								3	
Area 2A: Willapa Bay		Marked						1								1	
		Unmarked						0								0	
		Total						1								1	
Area 2B: Grays Harbor*		Marked								1	4	2	2			1	8
		Unmarked								0	0	0	0			0	0
		Total								1	4	2	2			1	8
Area 4: Cape Flattery*	Marked				1										1		
	Unmarked				0										0		
	Total				1										1		
Marine Waters Totals	Marked			1	2	2	5			4	2	2			10		
	Unmarked			0	4	0	0			0	0	0			4		
	Total			1	6	2	5			4	2	2			14		
COAST RIVERS/STREAMS, AND MARINE AREAS	Marked		15	561	429	200	152	111		127	927	1317	964	1107	206	1468	
	Unmarked		0	26	3	4	3	0		7	99	54	141	242	205	36	
	Total		15	587	432	204	155	111		134	1026	1371	1105	1349	411	1504	

1997-98 Steelhead Sport Catch, by Area and Month (continued)

Puget Sound and Strait of Juan De Fuca River Systems and Marine Catch Areas

System	Catch Area	Marked/ Unmarked	Summer 1997						Winter 1998						Total			
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Summer	Winter		
LYRE RIVER SYSTEM*	Lyre River	Marked		2	15	24	19	11		5	18	50	14			71	87	
		Unmarked		0	3	0	0	0		0	0	0	0			3	0	
		Total		2	18	24	19	11		5	18	50	14			74	87	
MORSE CREEK SYSTEM*	Morse Creek	Marked		7	0						16	17	35			7	68	
		Unmarked		0	3						0	5	0			3	5	
		Total		7	3						16	22	35			10	73	
NISQUALLY RIVER SYSTEM*	Nisqually River	Marked											3	5			8	
		Unmarked											2	0			2	
		Total											5	5			10	
NOOKSACK RIVER SYSTEM*	Nooksack River, Middle Fork	Marked											3				3	
		Unmarked											0				0	
		Total											3				3	
	Nooksack River, North Fork	Marked				0											0	
		Unmarked				3											3	
		Total				3											3	
	Nooksack River, Mainstem	Marked										5	25	14				44
		Unmarked										0	5	5				10
Total											5	30	19				54	
Nooksack River System	Marked				0						5	28	14			0	47	
	Unmarked				3						0	5	5			3	10	
	Total				3						5	33	19			3	57	
PUYALLUP RIVER SYSTEM*	Carbon River	Marked						5			7	14	14			5	35	
		Unmarked						0			0	0	0			0	0	
		Total						5			7	14	14			5	35	
	Puyallup River	Marked						2			7	22	36	25	14		2	104
		Unmarked						0			0	0	0	0	0		0	0
		Total						2			7	22	36	25	14		2	104
	Stuck (White) River	Marked										7	4	4				15
		Unmarked										0	0	0				0
Total											7	4	4				15	
Puyallup River System	Marked						7			7	29	47	43	28		7	154	
	Unmarked						0			0	0	0	0	0		0	0	
	Total						7			7	29	47	43	28		7	154	
PYSHT RIVER SYSTEM*	Pysht River	Marked								0	0	5	5	3			13	
		Unmarked								5	5	0	0	0			10	
		Total								5	5	5	5	3			23	

Table 33. 1997-98 Steelhead Sport Catch, by Area and Month (continued)

Puget Sound and Strait of Juan De Fuca River Systems and Marine Catch Areas																
System	Catch Area	Marked/ Unmarked	Summer 1997						Winter 1998						Total	
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Summer	Winter
SNOHOMISH RIVER SYSTEM*	Pilchuck River	Marked									5	18	31			54
		Unmarked									5	5	5			15
		Total									10	23	36			69
	Raging River	Marked					3	49	21	5	28	8			52	62
		Unmarked					0	0	0	0	0	0			0	0
		Total					3	49	21	5	28	8			52	62
	Skykomish River	Marked	3	410	542	1119	361	251	167	111	206	352	36	0	2688	872
		Unmarked	0	5	22	5	0	0	3	15	5	13	3	5	32	44
		Total	3	415	564	1124	361	251	170	126	211	365	39	5	2718	916
	Skykomish River, North Fork	Marked		11	13	35	37		8	26	8	13			96	55
		Unmarked		0	0	3	3		2	0	2	2			6	6
		Total		11	13	38	40		10	26	10	15			102	61
	Skykomish River, South Fork	Marked		8	3		0				5				11	5
		Unmarked		0	2		3				0				5	0
		Total		8	5		3				5				16	5
Snohomish River	Marked		140	200	22	3	13	10	20	180	39	10		378	259	
	Unmarked		3	0	0	0	0	0	3	5	0	0		3	8	
	Total		143	200	22	3	13	10	23	185	39	10		381	267	
Snoqualmie River	Marked	3	30	94	127	59	43	33	157	172	103	28		356	493	
	Unmarked	0	0	0	11	11	0	3	13	3	5	0		22	24	
	Total	3	30	94	138	70	43	36	170	175	108	28		378	517	
Sultan River	Marked		3		3		8	5	8	23	10			14	46	
	Unmarked		0		0		0	0	0	3	0			0	3	
	Total		3		3		8	5	8	26	10			14	49	
Tokul Creek	Marked									18	13	72	5		108	
	Unmarked									0	0	0	0		0	
	Total									18	13	72	5		108	
Tolt River	Marked									28	13	15			56	
	Unmarked									5	0	0			5	
	Total									33	13	15			61	
Wallace River	Marked					3	3			13	31	13		6	57	
	Unmarked					0	0			0	0	0		0	0	
	Total					3	3			13	31	13		6	57	
Snohomish River System	Marked	6	602	852	1306	466	367	544	391	697	656	79	0	3599	2067	
	Unmarked	0	8	24	19	17	0	8	41	23	25	3	5	68	105	
	Total	6	610	876	1325	483	367	552	432	720	681	82	5	3667	2172	

Table 33. 1997-98 Steelhead Sport Catch, by Area and Month (continued)

Puget Sound and Strait of Juan De Fuca River Systems and Marine Catch Areas																	
System	Catch Area	Marked/ Unmarked Total	Summer 1997						Winter 1998						Total		
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Summer	Winter	
SQUALICUM CREEK SYSTEM*	Squalicum Creek	Marked															
		Unmarked										3					
		Total										3					3
STILLAGUAMISH RIVER SYSTEM*	Canyon Creek	Marked		4					14	0	6	6	12			18	24
		Unmarked		0					0	2	2	0	0			0	4
		Total		4					14	2	8	6	12			18	28
	Jim Creek	Marked	4									2				4	2
		Unmarked	0									0				0	0
		Total	4									2				4	2
	Pilchuck Creek	Marked									2						2
		Unmarked									0						0
Total										2						2	
Stillaguamish River	Marked				7	0				4					7	4	
	Unmarked				0	4				0					4	0	
	Total				7	4				4					11	4	
Stillaguamish River, North Fork	Marked	18	28	116	88	109	25		22	45	34	31	12	2	384	146	
	Unmarked	3	0	3	0	0	0		2	6	0	4	2	4	6	18	
	Total	21	28	119	88	109	25		24	51	34	35	14	6	390	164	
Stillaguamish River, South Fork	Marked			39		14	7		2	2	4	4			60	12	
	Unmarked			3		0	0		0	2	0	0			3	2	
	Total			42		14	7		2	4	4	4			63	14	
Stillaguamish River System	Marked	22	32	155	95	123	46		24	59	46	47	12	2	473	190	
	Unmarked	3	0	6	0	4	0		4	10	0	4	2	4	13	24	
	Total	25	32	161	95	127	46		28	69	46	51	14	6	486	214	
WEST TWIN RIVER SYSTEM*	West Twin River	Marked		3	3			7							13		
		Unmarked		0	0			0							0		
		Total		3	3			7								13	
WHATCOM CREEK SYSTEM*	Whatcom Creek	Marked				3					5				3	5	
		Unmarked				0					0				0	0	
		Total				3					5				3	5	
MARINE CATCH AREAS*	Area 5: West Juan de Fuca Strait	Marked									8					8	
		Unmarked									0					0	
		Total									8					8	
	Area 6: East Juan de Fuca Strait	Marked			7						4	0				7	4
Unmarked				0						0	4				0	4	
Total				7						4	4				7	8	

Table 33. 1997-98 Steelhead Sport Catch, by Area and Month (continued)

Puget Sound and Strait of Juan De Fuca River Systems and Marine Catch Areas

System	Catch Area	Marked/ Unmarked	Summer 1997						Winter 1998						Total		
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Summer	Winter	
MARINE CATCH AREAS* (continued)	Area 8: Skagit Bay-Port Susan	Marked														44	
		Unmarked														0	
		Total						44								44	
	Area 9: Admiralty Inlet	Marked							8	24	37	12	8				89
Unmarked								0	0	0	4	0				4	
Total								8	24	37	16	8				93	
Area 11: Puget Sound, Middle	Marked			7											7		
	Unmarked			0											0		
	Total			7											7		
Marine Catch Areas	Marked			14				8	28	45	12	8			58	101	
	Unmarked			0				0	0	4	4	0			0	8	
	Total			14				8	28	49	16	8			58	109	
PUGET SOUND, STRAIT OF JUAN DE FUCA RIVER SYSTEMS AND MARINE CATCH AREAS		Marked	37	776	1267	1700	759	579	448	729	1248	1199	248	28	5118	3900	
		Unmarked	3	20	82	39	39	16	35	101	68	53	27	9	199	293	
		Total	40	796	1349	1739	798	595	483	830	1316	1252	275	37	5317	4193	

Table 33. 1997-98 Steelhead Sport Catch, by Area and Month (continued)

Statewide Steelhead Harvest Summary, 1997-98															
System	Run Type	Marked/ Unmarked	Summer 1997					Winter 1998					Total		
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb		Mar	Apr
NON-BOLDT CASE AREAS	SUMMER 1997	Marked	625	2387	5680	9219	4793	7711	7744	3486	1832	2030	2117	279	47903
		Unmarked	31	36	110	215	57	154	121	55	42	50	80	3	954
		Total	656	2423	5790	9434	4850	1865	7865	3541	1874	2080	2197	282	48857
	WINTER 1997-98	Marked							402	796	1527	513	335	243	3816
		Unmarked							3	35	32	32	10	7	119
		Total							405	831	1559	545	345	250	3935
BOLDT CASE AREAS*	SUMMER 1997	Marked	52	1335	1692	1898	905	684							6566
		Unmarked	3	46	85	39	42	16							231
		Total	55	1381	1777	1937	947	700							6797
	WINTER 1997-98	Marked							569	1626	2511	2131	1346	234	8417
		Unmarked							42	197	119	181	269	214	1022
		Total							611	1823	2630	2312	1615	448	9439
TOTAL	SUMMER 1997	Marked	677	3722	7372	11117	5698	8395	7744	3486	1832	2030	2117	279	54469
		Unmarked	34	82	195	254	99	170	121	55	42	50	80	3	1185
		Total	711	3804	7567	11371	5797	8565	7865	3541	1874	2080	2197	282	55654
	WINTER 1997-98	Marked							971	2422	4038	2644	1681	477	12233
		Unmarked							45	232	151	213	279	221	1141
		Total							1016	2654	4189	2857	1960	698	13374
TOTAL RIVERS ³			25	53	58	73	73	66	67	93	106	98	64	25	801

* Boldt case area river/stream system (Western Washington only).
¹ The majority of the Columbia River System steelhead are summer-runs.
² Winter steelhead catches are from angler surveys conducted by the Quinault Indian Nation.
³ Total number of rivers where steelhead were harvested during that month.

Table 34. 1997 Washington Sport Steelhead Fishing, by Residence

County of Residence	Number of Catch Record Cards	Population by County	Percentage of Catch Record Card Holders	Total Steelhead	Average Catch per Catch Record Card
Adams	282	15,800	1.78	409	1.45
Asotin	915	19,700	4.64	2,387	2.61
Benton	3,964	134,100	2.96	5,109	1.29
Chelan	399	62,200	0.64	205	0.51
Clallam	1,916	66,400	2.89	944	0.49
Clark	5,779	316,800	1.82	2,455	0.42
Columbia	173	4,200	4.12	645	3.73
Cowlitz	3,928	92,000	4.27	3,667	0.93
Douglas	262	30,800	0.85	425	1.62
Ferry	8	7,300	0.11	0	0.00
Franklin	1,036	43,900	2.36	1,390	1.34
Garfield	20	2,400	0.83	0	0.00
Grant	274	68,300	0.40	184	0.67
Grays Harbor	1,428	68,300	2.09	1,484	1.03
Island	375	71,600	0.52	121	0.32
Jefferson	194	26,300	0.74	121	0.62
King	11,082	1,646,200	0.67	8,383	0.76
Kitsap	1,428	229,400	0.62	404	0.28
Kittitas	149	31,500	0.47	73	0.49
Klickitat	573	19,000	3.02	456	0.80
Lewis	1,726	68,300	2.53	1,464	0.85
Lincoln	113	9,800	1.15	220	1.95
Mason	460	47,900	0.96	241	0.52
Okanogan	65	38,400	0.17	5	0.08
Pacific	371	21,300	1.74	220	0.59
Pend Oreille	48	11,200	0.43	16	0.33
Pierce	4,702	674,300	0.70	2,702	0.57
San Juan	36	12,500	0.29	10	0.28
Skagit	1,327	96,900	1.37	876	0.66
Skamania	113	9,900	1.14	31	0.27
Snohomish	5,122	551,200	0.93	3,242	0.63
Spokane	2,730	409,900	0.67	5,094	1.86
Stevens	89	37,400	0.24	63	0.71
Thurston	2,351	197,600	1.19	918	0.39
Wahkiakum	432	3,900	11.08	1,348	3.12
Walla Walla	1,561	54,000	2.89	4,296	2.75
Whatcom	1,282	156,200	0.82	1,485	1.16
Whitman	436	41,200	1.06	813	1.86
Yakima	3,823	208,700	1.83	6,248	1.63
Unknown USA	4	n/a	0.00	0	0.00
Washington Total	60,980	5,606,800	1.09	58,138	0.95
Other State Total	4,489	n/a	n/a	3,478	0.77
Canada	52	n/a	n/a	26	0.50
Foreign	8	n/a	n/a	0	0.00
Unknown	2,726	n/a	n/a	7,386	2.71
Grand Total	68,255	n/a	n/a	69,028	1.01

Table 35. 1997-98 Frequency Distribution of Estimated Steelhead Cards and Catch

# of Steelhead Per Catch Record Card	# of Cards	Cumulative # of Cards	% Cards	Cumulative %Cards	Total Catch	Cumulative Total Catch	% Catch	Cumulative % Catch
0	50,765	50,765	74.28	74.28	0	0	0.00	0.00
1	6,679	57,444	9.77	84.05	6,915	6,915	10.02	10.02
2	3,700	61,144	5.41	89.47	7,661	14,576	11.10	21.12
3	1,879	63,023	2.75	92.22	5,835	20,411	8.45	29.57
4	1,173	64,196	1.72	93.93	4,859	25,270	7.04	36.61
5	828	65,024	1.21	95.14	4,285	29,555	6.21	42.82
6	554	65,578	0.81	95.96	3,443	32,998	4.99	47.81
7	468	66,046	0.68	96.64	3,391	36,389	4.91	52.72
8	396	66,442	0.58	97.22	3,279	39,668	4.75	57.47
9	345	66,787	0.51	97.73	3,219	42,887	4.66	62.13
10	281	67,068	0.41	98.14	2,906	45,793	4.21	66.34
11	180	67,248	0.26	98.40	2,049	47,842	2.97	69.31
12	101	67,349	0.15	98.55	1,252	49,094	1.81	71.12
13	122	37,471	0.18	98.73	1,550	50,644	2.25	73.37
14	115	67,586	0.17	98.90	1,669	52,313	2.42	75.79
15	94	67,680	0.14	99.04	1,453	53,766	2.10	77.89
16	101	67,781	0.15	99.19	1,669	55,435	2.42	80.31
17	58	67,839	0.08	99.27	1,013	56,448	1.47	81.78
18	79	67,918	0.12	99.39	1,475	57,923	2.14	83.92
19	57	67,975	0.08	99.47	991	58,914	1.44	85.36
20	43	68,018	0.06	99.53	894	59,808	1.30	86.66
21	29	68,047	0.04	99.57	626	60,434	0.91	87.57
22	36	68,083	0.05	99.62	820	61,254	1.19	88.76
23	43	68,126	0.06	99.68	1,028	62,282	1.49	90.25
24	58	68,184	0.08	99.76	1,431	63,713	2.07	92.32
25	14	68,198	0.02	99.78	373	64,086	0.54	92.86
26	36	68,234	0.05	99.83	969	65,055	1.40	94.26
27	29	68,263	0.04	99.87	805	65,860	1.17	85.43
28	7	68,270	0.01	99.88	306	66,166	0.44	95.87
29	29	68,299	0.04	99.92	864	67,030	1.25	97.12
30	43	68,342	0.06	100.00	1,997	69,028	2.88	100.00
Total	68,342		100.00		69,028		100.00	

Note: The figures do not accurately multiply across because of bias adjustment factor and rounding of numbers.

Table 36A. 1997-98 Sport Steelhead Technical Catch Data	
Records on File	Estimates and Calculations
Name and Address File	16,283
Catch Record Cards in Sample Returns	9,495
Correction Data	
Correction Factor Percentage of voluntarily returned catch records with matching names and addresses	$826 / 836 = .988$
Name/Address Corrected for Dealer Non-Response	$16,283 / 0.988 = 16,481$
Estimated Number of Catch Records Issued	$909 / .988 \times 18.57 \times 4 = 68,341$
Catch Expansion Factor	$68,341 / 9,495 = 7.20$
Non-response bias adjustment based on telephone survey	1.02

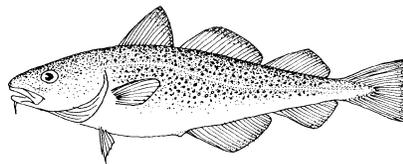
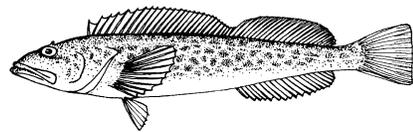
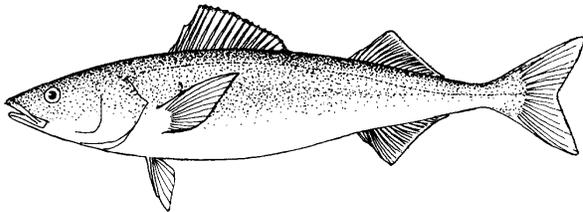
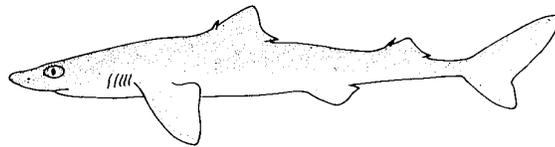
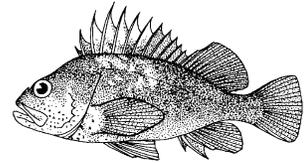
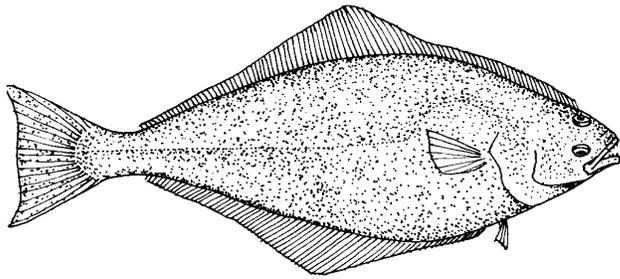
Table 36B. 1997-98 Sport Steelhead Inventory of Catch Record Cards Received											
Response Code*	Number of Cards with Catch		Number of Cards without Catch		Total Cards	Number of Steelhead			Catch Per Card		
	Catch Records	Reminder Letters	Catch Records	Reminder Letters		Catch Records	Reminder Letters	Total Steelhead	Catch Records	Reminder Letters	Total
1	505	0	599	0	1,104	2,587	0	2,587	2.34	0	2.34
2	714	383	1,597	1,891	4,585	3,175	1,431	4,606	1.37	.63	1.00
4	246	199	376	1,119	1,940	832	756	1,588	1.34	.57	.82
7	755	0	1,105	0	1,860	4,377	0	4,377	2.35	0	2.35
8	6	0	0	0	6	21	0	21	3.50	0	3.50
Total	2,226	582	3,677	3,010	9,495	10,992	2,187	13,179	1.86	.61	1.39

Note: This table includes insample kept and released fish.

***Response Codes**

- 1 Prior to any reminder sent
- 2 After first reminder
- 4 After second reminder
- 7 From sporting goods dealer
- 8 Unknown return date

Marine Fish



Species	Ilwaco	Westport	La Push	Neah Bay	Total
Black Rockfish	10,439	131,059	3,605	43,754	188,857
Canary Rockfish	331	4,904	253	3,785	9,273
China Rockfish	85	184	28	2,393	2,690
Yelloweye Rockfish	127	2,173	360	2,085	4,745
Blue Rockfish	517	1,274	249	4,217	6,257
Yellowtail Rockfish	290	16,572	481	3,654	20,997
Copper Rockfish	4	63	16	1,626	1,709
Quillback Rockfish	25	516	91	2,233	2,865
Bocaccio Rockfish	9	35	2	52	98
Vermillion Rockfish	62	15	5	247	329
Tiger Rockfish	12	48	16	188	264
Cabezon	298	280	56	2,124	2,758
Lingcod	629	6,884	807	11,177	19,497
Kelp Greenling	146	442	138	4,213	4,939
Pacific Halibut	55	87	0	0	142
Flatfish (general)	14	101	3	516	634
Pacific Cod	0	2	80	1,407	1,417
Cod (general)	0	7		45	52
Surfperch (general)	1,400	190	0	15	1,605
Skates & Rays	4	46	5	32	87
Rockfish (general)	210	186	0	120	516
Tuna	1,947	15,884	41	0	17,872
Miscellaneous	123	2,306	227	2,895	5,551
TOTAL	16,727	183,258	6,391	86,778	293,154

Year	South Coast Catch Areas 1-2	North Coast Catch Areas 3-4
1989	368	11,373
1990	392	4,958
1991	433	4,823
1992	1,740	6,870
1993	539	5,009
1994	651	2,876
1995	884	4,224
1996	877	4,431
1997	1,455	5,996

Table 39. 1997 Sport Bottomfish Catch by Boat-based Anglers in Puget Sound

Species	Catch Record Area									Puget Sound Total
	5	6	7	8	9	10	11	12	13	
Pacific halibut										2,816
Flatfishes except halibut	209	19	172	9,490	9,680	9,030	10,975	21,781	10,756	72,112
Sablefish										0
Lingcod	3,351	225	403	163	135	76	134	47	205	4,739
Rockfishes	25,919	6,272	5,151	7,444	1,457	3,386	1,093	5,205	1,224	57,151
Pacific cod	428	180		13	23	30				674
Walleye pollock										0
Surfperches		5,107	593	13,496		1,634	7			20,837
Sculpins	617	5	1,054	95	52	71	432		1,441	3,767
Spiny dogfish		330	221	23	366	224	4		614	1,782
Misc. bottomfish	2,033	993	1,362	6,985	105	35	151		71	11,735
Total	32,557	13,131	8,956	37,709	11,818	14,486	12,796	27,033	14,311	175,613

Note: The catch of Pacific halibut is estimated by a catch record for halibut, and catches are not available for individual Catch Areas. The Puget Sound catch of halibut includes fish caught between Sekiu and Cape Flattery (Catch Record Area 4B). Since 1994, extensive seasonal closures of the recreational fishery in Puget Sound have prevented the estimation of bottomfish catch during many peak months in many catch areas.

Shellfish

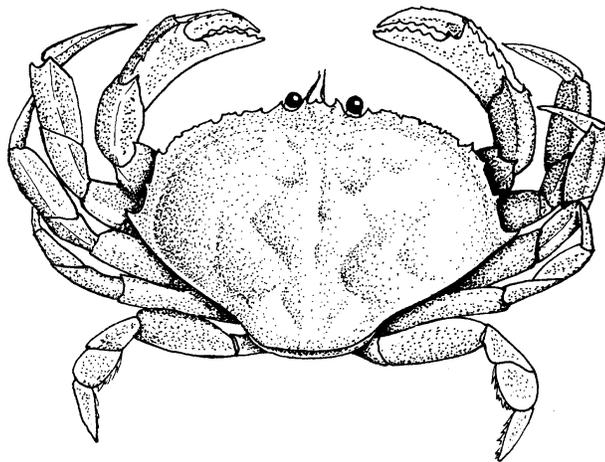


Table 40. Seasonal Summary of Sport Razor Clam Digging on the Ocean Beaches (1)

Location	Fall 1997				Spring 1998			
	Digger Trips	Clams Per Trip	Percent Wastage (2)	Number of Clams (4)	Digger Trips	Clams Per Trips	Percent Wastage (2)	Number of Clams (4)
Long Beach	38,000	9.3	n/a	256,000	16,000	8.8	0	139,000
Twin Harbors	31,000	11.4	6.2	384,000	33,000	12.5	5.0	433,000
Copalis	9,000	14.1	12.0	147,000	0			0
Mocrocks	10,000	9.6	8.0	104,000	21,000	14.8	4.0	317,000
Kalaloch(3)	1,000	12.2	n/a	12,000	5,000	8.7	0	42,000
Total	89,000			903,000	75,000			931,000

Note:

1. Seasonal summary from fall of one year through Spring of the next year. Detailed information available in WDFW Razor Clam progress report.
2. Percent wastage is the percent of damaged/dead clams found in holes.
3. Data collection at Kalaloch began in the fall 1995.
4. Total number of clams includes wastage.

Table 41. 1997 Recreational Use and Harvest Estimates from Intertidal Areas East of Dungeness Spit (1)

Catch Area Code and Description (2)		User Trips (3)	Pounds of Clams Harvested							Number of Oysters	Pounds of Oysters (4)	
			Manila Littleneck	Native Littleneck	Butter	Cockle	Soft Shell	Horse	Geoduck			Total Clams
20A	Gulf of Georgia	24,666	2,769	32,291	38,346	1,765	294	4,683		80,148	15,567	709
20B	North San Juan Islands	518	55	611	827	42	7	116		1,658	351	16
21A	Bellingham Bay	209	22	243	335	17	3	47		667	145	7
21B	Samish Bay	1,864	117	1,383	2,048	110	13	332		4,003	860	39
22A	South San Juan Islands	2,752	266	3,147	3,552	159	31	448		7,603	1,298	59
22B	Padilla Bay	2,321	217	2,607	3,695	197	24	603		7,343	1,519	69
23B	Northwest Whidbey Island	237	27		377	19	3	46		472	167	8
24A	Skagit Bay	2,867	8	1,998	3,465	271	3	220		5,965	1,499	68
24B	Port Susan	1,975	12	2,647	5,045	455	5	344		8,508	9	0.4
24C	Saratoga Passage	29,778	80	39,691	72,573	7,225	78	4,158		123,805	50	5
24D	Holmes harbor	3,410	20	4,929	87	702	8	561		6,307	11	0.5
25A	Eastern Juan de Fuca Strait	5,776	851	6,640	4,301	2,028	60	3,020	8	16,908	17,566	800
25B	Admiralty Inlet	11,774	2,934	12,952	12,775	3,918	178	6,503	33	39,260	11,420	520
25C	North Hood Canal	17,473	10,334	12,730	13,341	8,194	345	10,985	10	55,939	89,252	4,065
25D	Port Townsend Bay	640	151	429	602	153	7	660	1	2,003	168	8
25E	Discovery Bay	219	52	145	199	53	2	231		682	37	2
26A	Useless Bay/Possession Sound	9,971	48	10,815	21,344	1,308	21	1,974		35,510	71	3
26B	Seattle/Elliot Bay/Pt Madison	4,629	23	6,522	11,190	951	10	755		19,451	18	0.8
26C	Port Orchard	4,731	26	6,766	11,713	926	11	750		20,192	14	0.6
26D	Vashon/Commencement Bay	4,400	22	5,942	10,528	865	10	687		18,054	16	0.7
27A	North Central Hood Canal	37,755	54,399	5,488	5,255	5,100	482	2,831	106	73,661	392,876	17,895
27B	Central Hood Canal	10,755	8,284	3,518	3,441	2,053	244	1,664	11	19,215	107,345	4,889
27C	South Hood Canal	33,961	9,162	12,979	13,261	9,238	1,101	1,096	6	46,843	371,256	16,910
28A	Nisqually/Fox Island	5,451	1,964	4,592	15,601	53	249	2,979	1,280	26,718	17,428	794
28B	Carr Inlet	6,351	2,391	2,808	8,881	36	116	2,969	223	17,424	13,139	598
28C	Case Inlet	6,505	3,179	5,167	22,788	56	354	2,934	1,295	35,773	19,048	868
28D	Budd, Eld & Totten Inlet	4,357	1,319	4,178	9,005	32	184	1,866	543	17,127	19,514	889
Total		235,345	98,728	191,504	303,214	45,294	3,843	53,458	3,515	691,239	1,080,642	49,221

Note:

1. Includes both public and private tidelands.
2. Boundaries of geographic areas are those prescribed by catch areas.
3. Includes combined clam and oyster users.
4. Estimated weight of shucked meats.

Date	Pots Fished	Pounds	CPUE
May 17	6,050	28,870	4.77
May 21	3,580	17,160	4.80
May 24	4,910	21,440	4.36
May 28	3,010	13,680	4.55
June 4	1,740	8,720	5.02
Total	19,280	89,870	4.66

Catch Code and Catch Area		Pot Days	Number of Dungeness Crabs
20A	Gulf of Georgia	53,140	73,960
20B	North of San Juan Islands	3,350	4,670
21A	Bellingham Bay	7,140	11,760
21B	Samish Bay	11,290	13,300
22A	San Juan Islands	77,940	53,530
22B	Anacortes	13,380	19,940
23D	Port Angeles Harbor	13,520	19,540
24A	Skagit Bay	54,710	31,360
24B	Port Susan	11,880	3,280
24C	Saratoga Passage	33,400	40,510
24D	Holmes Harbor	7,470	1,890
25A	Dungeness & Sequim Bays	28,960	23,680
25B	Admiralty Inlet	280	140
25C	Port Ludlow/Port Gamble	17,050	24,930
25D	Port Townsend Bay	16,900	9,090
25E	Discovery Bay	3,370	2,920
26A	Useless Bay, Port Gardner	14,910	14,770
26B	Seattle, Kingston	17,570	15,910
26C	Port Orchard	1,350	1,220
26D	Colvos Pass, East Pass	2,970	2,690
27A	Upper Hood Canal	42,520	39,870
27B	Central Hood Canal	9,060	17,860
27C	Lower Hood Canal	41,870	45,470
Total		484,030	469,290



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