

NPAFC

Doc. 437

Rev. 1

Estimates of Salmon Harvests and Hatchery Releases
in Washington, Oregon, California, and Idaho,
1993-1998

by

Aloysius J. Didier, Jr.

Pacific States Marine Fisheries Commission
45 SE 82nd Drive, Suite 100
Gladstone, OR 97027-2522
USA

submitted to the
NORTH PACIFIC ANADROMOUS FISH COMMISSION

by

THE UNITED STATES

October 1999

THIS PAPER MAY BE CITED IN THE FOLLOWING MANNER:

Didier, A.J. Jr. 1999. Estimates of salmon harvests and hatchery releases in Washington, Oregon, California, and Idaho, 1993-1998. (NPAFC Doc. 437 Rev. 1) 14 p. Pacific States Marine Fisheries Commission, 45 SE 82nd Drive, Suite 100, Gladstone, OR 97027-2522, USA

Table 1. Estimates of commercial salmon catch in Washington, Oregon, California, and Idaho by species and region, in thousands of fish, 1993-1997 and preliminary 1998.

| Region | Year | All Species | Sockeye | Pink | Chum | Coho | Chinook | Steelhead |
|------------|------|-------------|---------|---------|---------|-------|---------|-----------|
| Washington | 1993 | 6,558.5 | 2,727.6 | 2,094.6 | 1,153.8 | 327.8 | 211.4 | 43.5 |
| | 1994 | 3,845.3 | 1,841.0 | 0.2 | 1,315.5 | 492.5 | 157.0 | 39.0 |
| | 1995 | 4,547.8 | 413.8 | 2,742.8 | 745.7 | 462.8 | 148.8 | 33.9 |
| | 1996 | 1,675.9 | 334.5 | 0.1 | 734.3 | 350.9 | 204.2 | 52.0 |
| | 1997 | 4,077.0 | 1,369.5 | 1,873.6 | 417.4 | 171.0 | 197.4 | 48.0 |
| | 1998 | 1,618.3 | 540.9 | 0.9 | 705.8 | 210.1 | 118.1 | 42.5 |
| Oregon | 1993 | 161.7 | 0.0 | 0.0 | 0.0 | 28.7 | 117.2 | 15.8 |
| | 1994 | 93.2 | 0.0 | 0.0 | 0.0 | 62.8 | 21.5 | 8.9 |
| | 1995 | 266.0 | 0.0 | 0.1 | 0.0 | 22.7 | 234.7 | 8.6 |
| | 1996 | 229.3 | 0.0 | 0.0 | 0.0 | 26.5 | 201.4 | 1.4 |
| | 1997 | 187.9 | 0.0 | 0.0 | 0.0 | 19.2 | 167.4 | 1.3 |
| | 1998 | 159.1 | 0.0 | 0.0 | 0.0 | 23.4 | 134.8 | 0.9 |
| California | 1993 | 280.0 | 0.0 | 0.0 | 0.0 | 0.0 | 280.0 | 0.0 |
| | 1994 | 295.8 | 0.0 | 0.0 | 0.0 | 0.0 | 295.8 | 0.0 |
| | 1995 | 679.6 | 0.0 | 0.0 | 0.0 | 0.0 | 679.6 | 0.0 |
| | 1996 | 380.4 | 0.0 | 0.0 | 0.0 | 0.0 | 380.4 | 0.0 |
| | 1997 | 486.5 | 0.0 | 0.0 | 0.0 | 0.0 | 486.5 | 0.0 |
| | 1998 | 226.9 | 0.0 | 0.0 | 0.0 | 0.0 | 226.9 | 0.0 |
| Idaho | 1993 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 1994 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 1995 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 1996 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 1997 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 1998 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Table 2. Estimates of commercial salmon catch in Washington, Oregon, California, and Idaho by species and region, in tonnes (round weight), 1993-1997 and preliminary 1998.

| Region | Year | All Species | Sockeye | Pink | Chum | Coho | Chinook | Steelhead |
|------------|------|-------------|---------|---------|---------|---------|---------|-----------|
| Washington | 1993 | 16,673.6 | 6,281.2 | 3,700.8 | 4,391.2 | 779.8 | 1,330.3 | 190.4 |
| | 1994 | 13,205.8 | 4,807.5 | 0.4 | 5,878.8 | 1,244.8 | 1,114.6 | 159.8 |
| | 1995 | 11,107.1 | 1,045.3 | 4,614.8 | 3,021.1 | 1,312.4 | 980.5 | 132.9 |
| | 1996 | 6,542.7 | 897.4 | 0.1 | 2,864.6 | 1,136.9 | 1,439.9 | 203.9 |
| | 1997 | 10,266.4 | 3,142.7 | 3,203.7 | 1,910.2 | 370.1 | 1,451.2 | 188.5 |
| | 1998 | 6,124.1 | 1,467.9 | 1.5 | 2,944.5 | 675.9 | 859.8 | 174.4 |
| Oregon | 1993 | 837.0 | 0.0 | 0.0 | 0.1 | 94.0 | 675.1 | 67.8 |
| | 1994 | 433.2 | 0.0 | 0.0 | 0.1 | 221.8 | 177.2 | 34.1 |
| | 1995 | 1,296.7 | 0.0 | 0.2 | 0.0 | 86.4 | 1,179.0 | 31.1 |
| | 1996 | 1,288.4 | 0.0 | 0.0 | 0.0 | 98.2 | 1,184.0 | 6.1 |
| | 1997 | 1,016.1 | 0.0 | 0.1 | 0.1 | 68.4 | 943.1 | 4.5 |
| | 1998 | 896.7 | 0.0 | 0.0 | 0.1 | 87.9 | 805.6 | 3.2 |
| California | 1993 | 1,325.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1,325.0 | 0.0 |
| | 1994 | 1,618.9 | 0.0 | 0.0 | 0.0 | 0.0 | 1,618.9 | 0.0 |
| | 1995 | 3,465.9 | 0.0 | 0.0 | 0.0 | 0.0 | 3,465.9 | 0.0 |
| | 1996 | 2,147.3 | 0.0 | 0.0 | 0.0 | 0.0 | 2,147.3 | 0.0 |
| | 1997 | 2,756.2 | 0.0 | 0.0 | 0.0 | 0.0 | 2,756.2 | 0.0 |
| | 1998 | 963.4 | 0.0 | 0.0 | 0.0 | 0.0 | 963.4 | 0.0 |
| Idaho | 1993 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 1994 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 1995 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 1996 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 1997 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 1998 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Table 3. Estimated average weight (kg) of salmon in commercial catches in Washington, Oregon, California, and Idaho by species and region, 1993-1997 and preliminary 1998.

| Region | | Sockeye | Pink | Chum | Coho | Chinook | Steelhead |
|------------|------|---------|------|------|------|---------|-----------|
| Washington | 1993 | 2.30 | 1.77 | 3.81 | 2.38 | 6.29 | 4.38 |
| | 1994 | 2.61 | 1.71 | 4.47 | 2.53 | 7.10 | 4.10 |
| | 1995 | 2.53 | 1.68 | 4.05 | 2.84 | 6.59 | 3.92 |
| | 1996 | 2.68 | 1.22 | 3.90 | 3.24 | 7.05 | 3.92 |
| | 1997 | 2.29 | 1.71 | 4.58 | 2.16 | 7.35 | 3.93 |
| | 1998 | 2.71 | 1.75 | 4.17 | 3.22 | 7.28 | 4.10 |
| Oregon | 1993 | -- | 1.13 | 5.05 | 3.28 | 5.76 | 4.29 |
| | 1994 | -- | -- | 4.44 | 3.53 | 8.22 | 3.84 |
| | 1995 | -- | 1.41 | 4.54 | 3.81 | 5.02 | 3.63 |
| | 1996 | -- | -- | 5.44 | 3.71 | 5.88 | 4.23 |
| | 1997 | -- | -- | 5.97 | 3.57 | 5.63 | 3.51 |
| | 1998 | -- | -- | 5.59 | 3.75 | 5.98 | 3.58 |
| California | 1993 | -- | -- | -- | -- | 4.73 | -- |
| | 1994 | -- | -- | -- | -- | 5.47 | -- |
| | 1995 | -- | -- | -- | -- | 5.10 | -- |
| | 1996 | -- | -- | -- | -- | 5.65 | -- |
| | 1997 | -- | -- | -- | -- | 5.67 | -- |
| | 1998 | -- | -- | -- | -- | 4.25 | -- |
| Idaho | 1993 | -- | -- | -- | -- | -- | -- |
| | 1994 | -- | -- | -- | -- | -- | -- |
| | 1995 | -- | -- | -- | -- | -- | -- |
| | 1996 | -- | -- | -- | -- | -- | -- |
| | 1997 | -- | -- | -- | -- | -- | -- |
| | 1998 | -- | -- | -- | -- | -- | -- |

Table 4. Estimated commercial salmon catch in Washington, Oregon, California, and Idaho by species, month, and region, in numbers of fish, 1997 and preliminary 1998.

| ALL SPECIES - NUMBERS OF FISH | | | | | | | | |
|-------------------------------|------------|-----------|---------|---------|------------|---------|-------|------|
| Month | Washington | | Oregon | | California | | Idaho | |
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| January | 10,790 | 8,178 | 7 | 1 | 199 | 0 | 0 | 0 |
| February | 3,691 | 3,456 | 78 | 20 | 0 | 0 | 0 | 0 |
| March | 4,005 | 3,014 | 0 | 65 | 9 | 0 | 0 | 0 |
| April | 7,947 | 1,233 | 7,178 | 16,541 | 11,942 | 48 | 0 | 0 |
| May | 9,630 | 12,394 | 31,809 | 45,142 | 187,703 | 74,417 | 0 | 0 |
| June | 14,173 | 8,902 | 36,115 | 30,872 | 84,657 | 41,206 | 0 | 0 |
| July | 164,571 | 40,722 | 146 | 3,697 | 153,882 | 74,967 | 0 | 0 |
| August | 1,421,698 | 544,318 | 47,459 | 22,795 | 24,929 | 15,960 | 0 | 0 |
| September | 1,952,745 | 145,374 | 55,729 | 24,785 | 22,549 | 19,587 | 0 | 0 |
| October | 296,223 | 417,657 | 8,711 | 14,246 | 647 | 696 | 0 | 0 |
| November | 183,951 | 382,537 | 691 | 979 | 2 | 25 | 0 | 0 |
| December | 7,533 | 50,471 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 4,076,957 | 1,618,256 | 187,923 | 159,143 | 486,519 | 226,906 | 0 | 0 |

| SOCKEYE - NUMBERS OF FISH | | | | | | | | |
|---------------------------|------------|---------|--------|------|------------|------|-------|------|
| Month | Washington | | Oregon | | California | | Idaho | |
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| January | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| February | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| March | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| April | 97 | 40 | 0 | 0 | 0 | 0 | 0 | 0 |
| May | 1,622 | 764 | 0 | 0 | 0 | 0 | 0 | 0 |
| June | 1,235 | 2,553 | 0 | 0 | 0 | 0 | 0 | 0 |
| July | 157,290 | 39,327 | 0 | 0 | 0 | 0 | 0 | 0 |
| August | 716,819 | 498,140 | 0 | 0 | 0 | 0 | 0 | 0 |
| September | 492,389 | 38 | 0 | 0 | 0 | 0 | 0 | 0 |
| October | 19 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| November | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| December | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 1,369,504 | 540,863 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 4, continued.

| PINK - NUMBERS OF FISH | | | | | | | | |
|------------------------|------------------|------------|-----------|----------|------------|----------|----------|----------|
| Month | Washington | | Oregon | | California | | Idaho | |
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| January | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| February | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| March | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| April | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| May | 2 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| June | 3 | 0 | 19 | 0 | 0 | 0 | 0 | 0 |
| July | 2,587 | 196 | 0 | 0 | 0 | 0 | 0 | 0 |
| August | 620,532 | 648 | 5 | 1 | 0 | 0 | 0 | 0 |
| September | 1,250,449 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| October | 19 | 20 | 0 | 0 | 0 | 0 | 0 | 0 |
| November | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| December | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 1,873,592 | 866 | 48 | 1 | 0 | 0 | 0 | 0 |

| CHUM - NUMBERS OF FISH | | | | | | | | |
|------------------------|----------------|----------------|-----------|----------|------------|----------|----------|----------|
| Month | Washington | | Oregon | | California | | Idaho | |
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| January | 1,986 | 196 | 0 | 0 | 0 | 0 | 0 | 0 |
| February | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| March | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| April | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| May | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| June | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| July | 29 | 13 | 0 | 0 | 0 | 0 | 0 | 0 |
| August | 32 | 52 | 0 | 0 | 0 | 0 | 0 | 0 |
| September | 660 | 2,035 | 2 | 0 | 0 | 0 | 0 | 0 |
| October | 228,886 | 298,523 | 17 | 9 | 0 | 0 | 0 | 0 |
| November | 181,864 | 373,808 | 0 | 0 | 0 | 0 | 0 | 0 |
| December | 3,971 | 31,201 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 417,434 | 705,828 | 19 | 9 | 0 | 0 | 0 | 0 |

Table 4, continued.

| COHO - NUMBERS OF FISH | | | | | | | | |
|------------------------|----------------|----------------|---------------|---------------|------------|----------|----------|----------|
| Month | Washington | | Oregon | | California | | Idaho | |
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| January | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| February | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| March | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| April | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| May | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| June | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| July | 419 | 294 | 0 | 0 | 0 | 0 | 0 | 0 |
| August | 14,054 | 6,896 | 169 | 7 | 0 | 0 | 0 | 0 |
| September | 107,717 | 90,113 | 16,728 | 13,657 | 0 | 0 | 0 | 0 |
| October | 47,303 | 107,981 | 2,268 | 9,777 | 0 | 0 | 0 | 0 |
| November | 1,445 | 3,917 | 0 | 2 | 0 | 0 | 0 | 0 |
| December | 27 | 890 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 170,976 | 210,096 | 19,165 | 23,443 | 0 | 0 | 0 | 0 |

| CHINOOK - NUMBERS OF FISH | | | | | | | | |
|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------|----------|
| Month | Washington | | Oregon | | California | | Idaho | |
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| January | 379 | 68 | 7 | 1 | 199 | 0 | 0 | 0 |
| February | 345 | 14 | 78 | 20 | 0 | 0 | 0 | 0 |
| March | 23 | 8 | 0 | 65 | 9 | 0 | 0 | 0 |
| April | 6,216 | 102 | 7,164 | 16,541 | 11,942 | 48 | 0 | 0 |
| May | 7,569 | 11,052 | 31,799 | 45,142 | 187,703 | 74,417 | 0 | 0 |
| June | 10,644 | 6,203 | 36,096 | 30,872 | 84,657 | 41,206 | 0 | 0 |
| July | 1,969 | 765 | 146 | 3,697 | 153,882 | 74,967 | 0 | 0 |
| August | 64,909 | 38,215 | 46,912 | 22,660 | 24,928 | 15,960 | 0 | 0 |
| September | 89,486 | 49,483 | 38,102 | 10,359 | 22,549 | 19,587 | 0 | 0 |
| October | 15,234 | 10,545 | 6,426 | 4,460 | 647 | 696 | 0 | 0 |
| November | 590 | 1,601 | 691 | 977 | 2 | 25 | 0 | 0 |
| December | 66 | 40 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 197,430 | 118,096 | 167,421 | 134,794 | 486,518 | 226,906 | 0 | 0 |

Table 4, continued.

| STEELHEAD - NUMBERS OF FISH | | | | | | | | |
|-----------------------------|---------------|---------------|--------------|------------|------------|----------|----------|----------|
| Month | Washington | | Oregon | | California | | Idaho | |
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| January | 8,418 | 7,913 | 0 | 0 | 0 | 0 | 0 | 0 |
| February | 3,344 | 3,442 | 0 | 0 | 0 | 0 | 0 | 0 |
| March | 3,950 | 3,006 | 0 | 0 | 0 | 0 | 0 | 0 |
| April | 1,634 | 1,091 | 0 | 0 | 0 | 0 | 0 | 0 |
| May | 429 | 578 | 0 | 0 | 0 | 0 | 0 | 0 |
| June | 2,290 | 142 | 0 | 0 | 0 | 0 | 0 | 0 |
| July | 2,277 | 127 | 0 | 0 | 0 | 0 | 0 | 0 |
| August | 5,352 | 367 | 373 | 127 | 0 | 0 | 0 | 0 |
| September | 12,044 | 3,703 | 897 | 769 | 0 | 0 | 0 | 0 |
| October | 4,762 | 587 | 0 | 0 | 0 | 0 | 0 | 0 |
| November | 52 | 3,211 | 0 | 0 | 0 | 0 | 0 | 0 |
| December | 3,469 | 18,340 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 48,021 | 42,507 | 1,270 | 896 | 0 | 0 | 0 | 0 |

Table 5. Estimated commercial salmon catch in Washington, Oregon, California, and Idaho by species, month, and region, in kilograms, 1997 and preliminary 1998.

| ALL SPECIES – KILOGRAMS | | | | | | | | |
|-------------------------|------------|-----------|-----------|---------|------------|---------|-------|------|
| Month | Washington | | Oregon | | California | | Idaho | |
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| January | 46,245 | 35,638 | 64 | 8 | 1,070 | 0 | 0 | 0 |
| February | 16,782 | 16,990 | 720 | 178 | 0 | 0 | 0 | 0 |
| March | 18,766 | 15,155 | 0 | 499 | 44 | 0 | 0 | 0 |
| April | 54,606 | 5,514 | 44,255 | 97,828 | 66,725 | 291 | 0 | 0 |
| May | 49,120 | 68,848 | 186,541 | 256,846 | 1,010,474 | 287,585 | 0 | 0 |
| June | 55,663 | 42,864 | 207,368 | 186,398 | 469,517 | 157,787 | 0 | 0 |
| July | 392,941 | 114,319 | 908 | 25,242 | 906,725 | 309,287 | 0 | 0 |
| August | 3,207,079 | 1,637,359 | 236,855 | 132,787 | 160,041 | 89,272 | 0 | 0 |
| September | 4,250,717 | 672,005 | 281,632 | 116,158 | 137,458 | 114,857 | 0 | 0 |
| October | 1,309,362 | 1,711,491 | 51,979 | 72,790 | 4,095 | 4,183 | 0 | 0 |
| November | 830,728 | 1,592,666 | 5,741 | 8,009 | 9 | 143 | 0 | 0 |
| December | 34,392 | 211,223 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 10,266,401 | 6,124,072 | 1,016,063 | 896,743 | 2,756,158 | 963,405 | 0 | 0 |

| SOCKEYE – KILOGRAMS | | | | | | | | |
|---------------------|------------|-----------|--------|------|------------|------|-------|------|
| Month | Washington | | Oregon | | California | | Idaho | |
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| January | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| February | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| March | 73 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| April | 211 | 73 | 0 | 0 | 0 | 0 | 0 | 0 |
| May | 3,514 | 1,451 | 0 | 0 | 0 | 0 | 0 | 0 |
| June | 2,511 | 4,973 | 0 | 0 | 0 | 0 | 0 | 0 |
| July | 364,626 | 107,701 | 0 | 0 | 0 | 0 | 0 | 0 |
| August | 1,651,159 | 1,353,507 | 0 | 0 | 0 | 0 | 0 | 0 |
| September | 1,120,533 | 176 | 0 | 0 | 0 | 0 | 0 | 0 |
| October | 38 | 13 | 0 | 0 | 0 | 0 | 0 | 0 |
| November | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| December | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 3,142,667 | 1,467,894 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 5, continued.

| PINK – KILOGRAMS | | | | | | | | |
|------------------|------------------|--------------|-----------|----------|------------|----------|----------|----------|
| Month | Washington | | Oregon | | California | | Idaho | |
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| January | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| February | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| March | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| April | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 |
| May | 2 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| June | 4 | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| July | 5,340 | 250 | 0 | 0 | 0 | 0 | 0 | 0 |
| August | 1,044,741 | 1,170 | 7 | 2 | 0 | 0 | 0 | 0 |
| September | 2,153,535 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| October | 37 | 91 | 0 | 0 | 0 | 0 | 0 | 0 |
| November | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| December | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 3,203,659 | 1,514 | 62 | 2 | 0 | 0 | 0 | 0 |

| CHUM – KILOGRAMS | | | | | | | | |
|------------------|------------------|------------------|------------|-----------|------------|----------|----------|----------|
| Month | Washington | | Oregon | | California | | Idaho | |
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| January | 9,083 | 1,007 | 0 | 0 | 0 | 0 | 0 | 0 |
| February | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| March | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| April | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| May | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| June | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| July | 82 | 45 | 0 | 0 | 0 | 0 | 0 | 0 |
| August | 123 | 184 | 0 | 0 | 0 | 0 | 0 | 0 |
| September | 3,142 | 9,245 | 3 | 0 | 0 | 0 | 0 | 0 |
| October | 1,057,252 | 1,248,407 | 110 | 50 | 0 | 0 | 0 | 0 |
| November | 821,214 | 1,548,161 | 0 | 0 | 0 | 0 | 0 | 0 |
| December | 19,316 | 137,500 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 1,910,235 | 2,944,549 | 113 | 50 | 0 | 0 | 0 | 0 |

Table 5, continued.

| COHO – KILOGRAMS | | | | | | | | |
|------------------|------------|---------|--------|--------|------------|------|-------|------|
| Month | Washington | | Oregon | | California | | Idaho | |
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| January | 31 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| February | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| March | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| April | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| May | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| June | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 |
| July | 693 | 767 | 0 | 0 | 0 | 0 | 0 | 0 |
| August | 24,585 | 18,604 | 528 | 22 | 1 | 0 | 0 | 0 |
| September | 240,781 | 281,368 | 60,858 | 50,262 | 0 | 0 | 0 | 0 |
| October | 100,611 | 354,375 | 6,981 | 37,616 | 0 | 0 | 0 | 0 |
| November | 3,267 | 17,415 | 0 | 10 | 0 | 0 | 0 | 0 |
| December | 104 | 3,370 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 370,093 | 675,911 | 68,367 | 87,909 | 1 | 0 | 0 | 0 |

| CHINOOK – KILOGRAMS | | | | | | | | |
|---------------------|------------|---------|---------|---------|------------|---------|-------|------|
| Month | Washington | | Oregon | | California | | Idaho | |
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| January | 812 | 181 | 64 | 8 | 1,070 | 0 | 0 | 0 |
| February | 854 | 36 | 720 | 178 | 0 | 0 | 0 | 0 |
| March | 149 | 33 | 0 | 499 | 44 | 0 | 0 | 0 |
| April | 47,922 | 388 | 44,233 | 97,828 | 66,725 | 291 | 0 | 0 |
| May | 43,942 | 64,929 | 186,531 | 256,846 | 1,010,474 | 287,585 | 0 | 0 |
| June | 44,807 | 37,292 | 207,345 | 186,398 | 469,517 | 157,787 | 0 | 0 |
| July | 13,950 | 5,042 | 908 | 25,242 | 906,725 | 309,287 | 0 | 0 |
| August | 467,317 | 262,566 | 235,022 | 132,353 | 160,040 | 89,272 | 0 | 0 |
| September | 691,222 | 367,408 | 217,608 | 63,101 | 137,458 | 114,857 | 0 | 0 |
| October | 134,041 | 106,214 | 44,888 | 35,124 | 4,095 | 4,183 | 0 | 0 |
| November | 6,033 | 15,634 | 5,741 | 8,000 | 9 | 143 | 0 | 0 |
| December | 154 | 110 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 1,451,203 | 859,833 | 943,061 | 805,576 | 2,756,157 | 963,405 | 0 | 0 |

Table 5, continued.

| Month | STEELHEAD – KILOGRAMS | | | | | | | |
|-----------|-----------------------|---------|--------|-------|------------|------|-------|------|
| | Washington | | Oregon | | California | | Idaho | |
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| January | 36,319 | 34,445 | 0 | 0 | 0 | 0 | 0 | 0 |
| February | 15,922 | 16,954 | 0 | 0 | 0 | 0 | 0 | 0 |
| March | 18,544 | 15,122 | 0 | 0 | 0 | 0 | 0 | 0 |
| April | 6,473 | 5,053 | 0 | 0 | 0 | 0 | 0 | 0 |
| May | 1,625 | 2,468 | 0 | 0 | 0 | 0 | 0 | 0 |
| June | 8,338 | 592 | 0 | 0 | 0 | 0 | 0 | 0 |
| July | 8,250 | 514 | 0 | 0 | 0 | 0 | 0 | 0 |
| August | 19,154 | 1,328 | 1,297 | 410 | 0 | 0 | 0 | 0 |
| September | 41,504 | 13,805 | 3,162 | 2,795 | 0 | 0 | 0 | 0 |
| October | 17,383 | 2,391 | 0 | 0 | 0 | 0 | 0 | 0 |
| November | 214 | 11,456 | 0 | 0 | 0 | 0 | 0 | 0 |
| December | 14,818 | 70,243 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 188,544 | 174,371 | 4,459 | 3,205 | 0 | 0 | 0 | 0 |

Table 6. Estimated subsistence salmon catch in Washington, Oregon, California, and Idaho by species and region, in numbers of fish, 1993-1997 and preliminary 1998.

| Region | Year | All Species | Sockeye | Pink | Chum | Coho | Chinook | Steelhead |
|-------------------------|------|-------------|---------|-------|---------|-------|---------|-----------|
| Washington ^a | 1993 | 28,206 | 2,438 | 4,153 | 4,246 | 1,776 | 13,707 | 1,886 |
| | 1994 | 63,968 | 3,235 | 6 | 52,535 | 3,488 | 3,024 | 1,680 |
| | 1995 | 29,405 | 1,067 | 1,509 | 20,310 | 2,274 | 2,569 | 1,676 |
| | 1996 | 81,391 | 5,266 | 2 | 65,690 | 1,704 | 6,941 | 1,788 |
| | 1997 | 13,367 | 1,728 | 290 | 3,002 | 1,926 | 5,183 | 1,238 |
| | 1998 | 141,604 | 1,469 | 1 | 127,531 | 5,958 | 6,129 | 516 |
| Oregon ^b | 1993 | 21,205 | 5,013 | 0 | 0 | 35 | 10,215 | 5,942 |
| | 1994 | 15,514 | 472 | 0 | 0 | 324 | 7,916 | 6,802 |
| | 1995 | 26,115 | 445 | 0 | 0 | 113 | 13,062 | 12,495 |
| | 1996 | 39,694 | 1,414 | 0 | 0 | 42 | 24,756 | 13,482 |
| | 1997 | 53,295 | 2,046 | 0 | 0 | 138 | 32,352 | 18,759 |
| | 1998 | 32,785 | 425 | 0 | 0 | 1,314 | 19,152 | 11,894 |
| California ^c | 1993 | 9,811 | 0 | 0 | 0 | 0 | 9,811 | 0 |
| | 1994 | 11,848 | 0 | 0 | 0 | 0 | 11,848 | 0 |
| | 1995 | 19,944 | 0 | 0 | 0 | 0 | 19,944 | 0 |
| | 1996 | 20,512 | 0 | 0 | 0 | 0 | 20,512 | 0 |
| | 1997 | 18,813 | 0 | 0 | 0 | 0 | 18,813 | 0 |
| | 1998 | 12,951 | 0 | 0 | 0 | 0 | 12,951 | 0 |
| Idaho | 1993 | 1,162 | 0 | 0 | 0 | 0 | 1,162 | 0 |
| | 1994 | 108 | 0 | 0 | 0 | 0 | 108 | 0 |
| | 1995 | 2 | 0 | 0 | 0 | 0 | 2 | 0 |
| | 1996 | 40 | 0 | 0 | 0 | 0 | 40 | 0 |
| | 1997 | 3,474 | 0 | 0 | 0 | 0 | 3,474 | 0 |
| | 1998 | 944 | 0 | 0 | 0 | 0 | 944 | 0 |

^a Includes ceremonial, subsistence, and take-home.

^b Includes all ceremonial and subsistence harvest of salmonids by Columbia River Treaty Tribes in the mainstem Columbia River between Bonneville and McNary dams.

^c Estimates are for the Indian subsistence harvest in the Yurok Indian Reservation.

Table 7. Estimated sport salmon harvest in Washington, Oregon, California, and Idaho by species and region, in numbers of fish, 1993-1997.

| Region | | All Species | Sockeye | Pink | Chum | Coho | Chinook | Steelhead |
|-------------------------|------|-------------|---------|---------|--------|---------|---------|-----------|
| Washington | 1993 | 726,360 | 7,525 | 104,626 | 16,773 | 324,148 | 149,002 | 124,286 |
| | 1994 | 279,498 | 256 | 13 | 20,124 | 56,507 | 78,312 | 124,286 |
| | 1995 | 622,794 | 318 | 215,701 | 13,378 | 172,433 | 115,228 | 105,736 |
| | 1996 | 492,369 | 70,780 | 140 | 26,823 | 176,253 | 117,992 | 100,381 |
| | 1997 | 451,425 | 317 | 53,263 | 12,351 | 208,880 | 108,786 | 67,828 |
| Oregon | 1993 | 306,689 | 0 | 31 | 0 | 81,171 | 130,505 | 94,982 |
| | 1994 | 162,865 | 0 | 0 | 0 | 5,433 | 86,392 | 71,040 |
| | 1995 | 224,231 | 0 | 0 | 0 | 19,062 | 130,073 | 75,096 |
| | 1996 | 230,586 | 0 | 0 | 0 | 15,976 | 134,810 | 79,800 |
| | 1997 | 194,908 | 0 | 0 | 0 | 20,128 | 91,783 | 82,997 |
| California ^a | 1993 | 214,193 | 0 | 0 | 0 | 29,800 | 143,908 | 40,485 |
| | 1994 | 290,163 | 0 | 0 | 0 | 500 | 236,837 | 52,826 |
| | 1995 | 440,025 | 0 | 0 | 0 | 900 | 407,701 | 31,424 |
| | 1996 | 218,385 | 0 | 0 | 0 | 600 | 180,040 | 37,745 |
| | 1997 | 228,900 | 0 | 0 | 0 | 0 | 228,900 | NA |
| Idaho | 1993 | 35,128 | 0 | 0 | 0 | 0 | 423 | 34,705 |
| | 1994 | 21,435 | 0 | 0 | 0 | 0 | 0 | 21,435 |
| | 1995 | 22,431 | 0 | 0 | 0 | 0 | 0 | 22,431 |
| | 1996 | 26,238 | 0 | 0 | 0 | 0 | 0 | 26,238 |
| | 1997 | 36,327 | 0 | 0 | 0 | 0 | 3,460 | 32,867 |

NA = Not Available

^a Includes marine harvest of salmon, statewide freshwater harvest of steelhead, and freshwater harvest of chinook salmon in the Klamath/Trinity river systems only.

Table 8. Estimated hatchery releases of salmon in Washington, Oregon, California, and Idaho by species and region, in numbers of fish, 1993-1998.

| Region | Year | All Species | Sockeye | Pink | Chum | Coho | Chinook | Steelhead |
|-------------------------|------|-------------|------------|-----------|------------|------------|-------------|------------|
| Washington ^e | 1993 | 292,947,149 | 3,595,670 | 0 | 64,717,627 | 68,922,679 | 144,925,887 | 10,785,286 |
| | 1994 | 286,907,492 | 8,771,075 | 3,482,400 | 60,418,287 | 60,571,585 | 144,232,643 | 9,431,502 |
| | 1995 | 302,568,801 | 16,302,522 | 0 | 62,292,150 | 56,847,845 | 156,550,765 | 10,575,519 |
| | 1996 | 298,812,769 | 13,181,810 | 4,591,440 | 59,037,180 | 59,437,054 | 151,963,676 | 10,601,609 |
| | 1997 | 286,419,646 | 27,421,112 | 0 | 44,428,830 | 51,860,131 | 151,920,297 | 10,789,276 |
| | 1998 | 279,954,661 | 21,092,144 | 5,082,166 | 44,964,933 | 53,381,517 | 143,289,849 | 12,144,052 |
| Oregon ^f | 1993 | 71,286,254 | 0 | 0 | 900,000 | 16,886,564 | 46,768,943 | 6,730,747 |
| | 1994 | 72,316,507 | 0 | 0 | 0 | 15,013,242 | 50,008,399 | 7,294,866 |
| | 1995 | 80,817,744 | 0 | 0 | 0 | 13,135,609 | 60,864,682 | 6,817,453 |
| | 1996 | 75,919,771 | 20,948 | 0 | 0 | 13,491,138 | 55,907,650 | 6,500,035 |
| | 1997 | 53,982,634 | 0 | 0 | 0 | 10,266,305 | 37,320,239 | 6,396,090 |
| | 1998 | 41,346,423 | 67,392 | 0 | 0 | 8,182,803 | 26,975,076 | 6,121,152 |
| California ^g | 1993 | 55,361,097 | 0 | 0 | 0 | 805,236 | 48,967,178 | 5,588,683 |
| | 1994 | 65,885,005 | 0 | 0 | 0 | 721,598 | 58,759,654 | 6,403,753 |
| | 1995 | 66,774,097 | 0 | 0 | 0 | 847,362 | 60,149,213 | 5,777,522 |
| | 1996 | 64,182,086 | 0 | 0 | 0 | 217,682 | 58,647,305 | 5,317,099 |
| | 1997 | 54,231,695 | 0 | 0 | 0 | 785,608 | 49,710,025 | 3,736,062 |
| | 1998 | 64,035,378 | 0 | 0 | 0 | 852,813 | 59,721,650 | 3,460,915 |
| Idaho ^h | 1993 | 12,699,610 | 0 | 0 | 0 | 0 | 4,925,908 | 7,773,702 |
| | 1994 | 15,852,394 | 14,119 | 0 | 0 | 0 | 7,772,342 | 8,065,933 |
| | 1995 | 17,093,620 | 95,438 | 0 | 0 | 630,312 | 7,699,435 | 8,668,435 |
| | 1996 | 10,742,984 | 0 | 0 | 0 | 0 | 1,795,602 | 8,947,382 |
| | 1997 | 9,375,364 | 0 | 0 | 0 | 0 | 994,482 | 8,380,882 |
| | 1998 | 11,126,252 | 12,000 | 0 | 0 | 0 | 3,289,036 | 7,825,216 |

^e Includes Washington state, Regional Enhancement Group (REG), Western Washington Tribes, and US Fish and Wildlife Service facilities

^f Includes Oregon state, Salmon and Trout Enhancement Program (STEP), and US Fish and Wildlife Service facilities.

^g Includes California state, California Cooperative Fish Rearing Program, and US Fish and Wildlife Service facilities.

^h Includes Idaho state, Nez Perce tribal, and US Fish and Wildlife Service facilities.