A Report to the Alaska Board of Fisheries

Summary of the Recreational Fisheries of the Prince William Sound Management Area, 2002

by

Matt Miller

December 2002

Alaska Department of Fish and Game **Division of Sport Fish**

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MANAGEMENT AREA DESCRIPTION

The Prince William Sound Management Area (PWSMA) includes all waters of the Gulf of Alaska and its drainages west of the longitude of Cape Suckling (143° 53' W), and east of the longitude of Cape Puget (148° 26' 30" W); excluding the Copper River drainage upstream of a line crossing the Copper River between the south bank of the confluence of Haley Creek and the south bank of the confluence of Canyon Creek in Wood's Canyon (Figure 1).

The PWSMA includes the communities of Valdez, Cordova, Whittier, Chenega and Tatitlek. Until recently, Valdez offered the only road access to the communities of Prince William Sound (PWS). With the opening of the Anton Anderson Memorial Tunnel in 2000, Whittier also became accessible via the Alaska Highway System. The Alaska Marine Highway ferries travelers to Valdez, Whittier, Cordova, with whistle stops scheduled to Tatitlek and Chenega. With the exception of some road-accessible streams, virtually all sport fisheries in the PWSMA are remote and relatively difficult to access. Principal land managers in the PWSMA include the U.S. Forest Service; various native corporations; the cities of Valdez, Cordova and Whittier; the Bureau of Land Management; and the State of Alaska.

CHARACTER OF FISHERIES

Participation in PWS fisheries has been relatively stable during the last 10 years (Table 1). Recreational fisheries in the PWSMA offer a variety of fishing opportunities for anglers ranging from road-accessible salmon, Dolly Varden and trout fisheries to remote boat or fly-in only accessible fisheries. Charter boat fleets operating from Valdez, Whittier, Cordova, and Seward account for most of the angling participation in PWSMA. Anglers primarily target halibut, and hatchery-released coho and pink salmon (Figure 2). Most fishing occurs from boats with shore angling or freshwater fishing occurring in systems near the communities of Valdez, Whittier, and Cordova. Until the tunnel opened to Whittier in 2000, Valdez held the distinction of being the only road-accessible community in PWSMA. Effects of the tunnel on fisheries in western PWSMA are being monitored. In the more remote waters of PWSMA anglers participate from private vessels, drop offs from air taxis, and lodges.

STOCKING PROGRAM INVENTORY

Programs directed toward enhancing sport fisheries currently include the stocking of rainbow trout, grayling, and chinook salmon raised at one of the state-operated hatcheries (Fort Richardson or Elmendorf) and the release of coho and pink salmon raised at private nonprofit (PNP) hatcheries. The PNP salmon targeted heavily by recreational anglers consist of pink and coho salmon in Valdez Arm released by the Valdez Fisheries Development Association (VFDA), and coho salmon at Whittier and at Fleming Spit in Cordova released by the Prince William Sound Aquaculture Corporation (PWSAC). The chinook salmon stocking program at PWSAC has been phased out recently, with the last releases at Whittier in 1997 and at Cordova in 1998. This program has been continued by the state hatcheries since 1999 with releases at Valdez, Cordova and Whittier. Other hatchery-reared salmon releases include pink, chum, and sockeye salmon at various locations throughout PWSMA. Pink salmon are released from three PWSAC

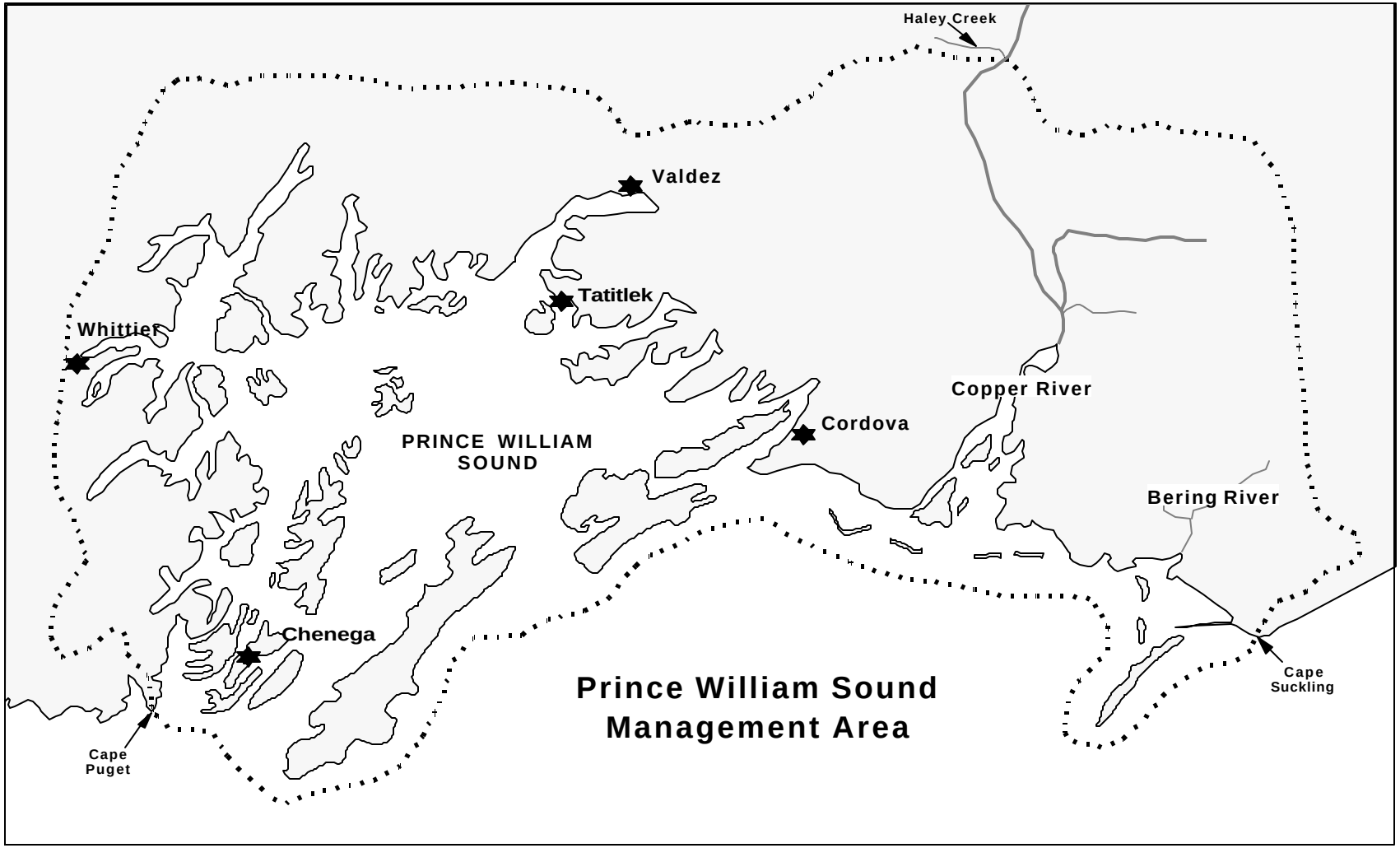
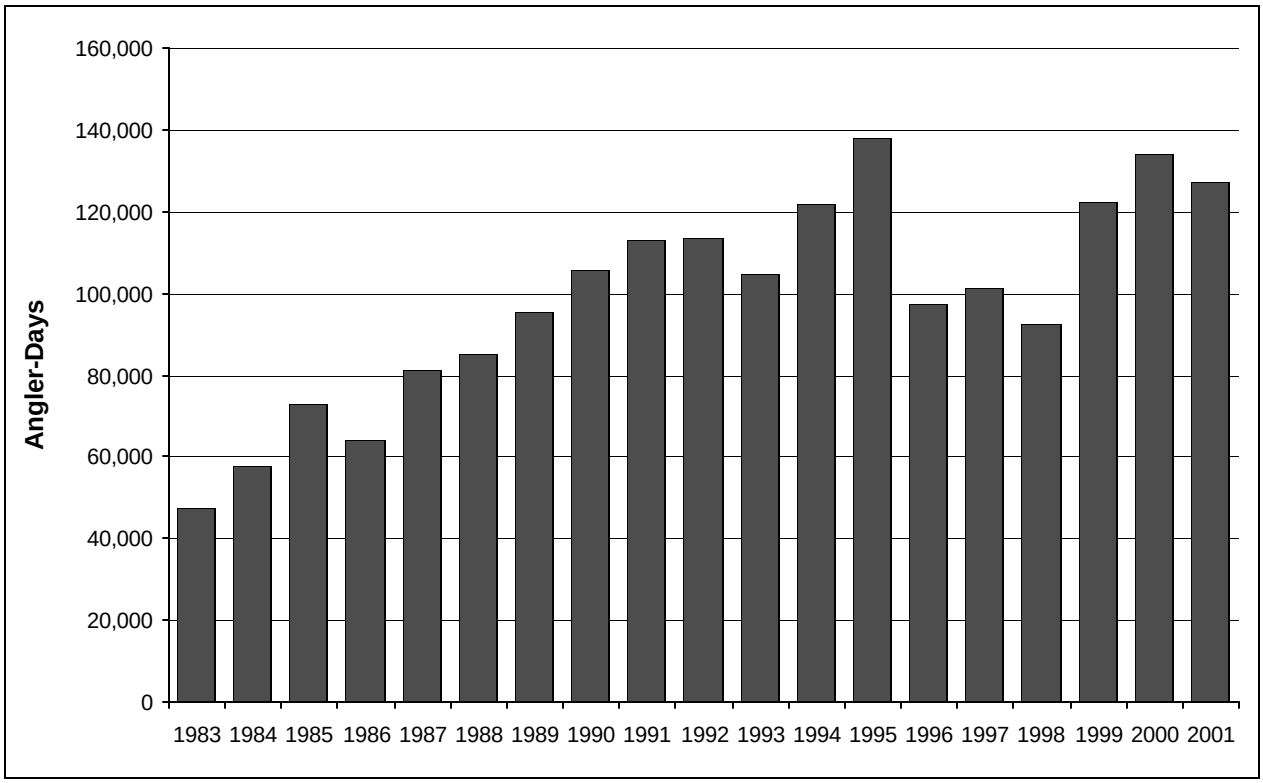


Figure 1.-Prince William Sound Management Area.

Table 1.-Number of angler-days of effort in PWSMA, 1983-2001.



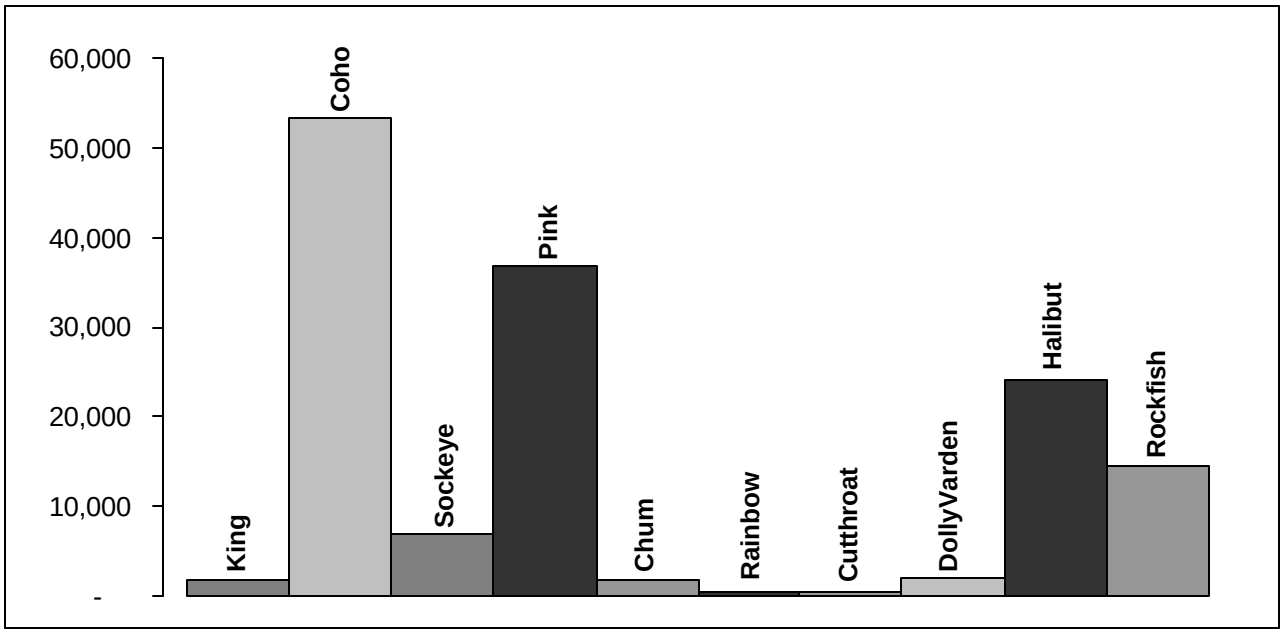


Figure 2.-Average annual harvest, by species, in PWSMA, 1992-2001.

hatcheries and one VFDA hatchery. Sockeye salmon are reared in two PWSAC hatcheries and released from several remote sites in PWSMA. Chum salmon are reared in two hatcheries and released from those two hatcheries and one remote location by PWSAC. Stocking programs are detailed by species in Appendix A.

COHO SALMON FISHERY

Recreational coho salmon fisheries in PWSMA are supported by both wild and hatchery fish, although the majority of the harvest is hatchery fish. The average annual coho harvest in PWSMA has grown significantly over the last 10 years from an estimated annual harvest of 25,259 fish in 1992 to 111,085 fish in 2001 (Table 2, Figure 3). This growth in coho salmon harvest can partially be attributed to the success of the hatchery programs developed to increase angler opportunity.

Hatchery Stock Fisheries

Coho salmon smolt are released in waters adjacent to the communities of Valdez, Cordova, Chenega and Whittier. Adult salmon returns from these releases provide sport fishing opportunity. Terminal Harvest Areas (THA) have been established adjacent to these communities. Within the THAs bag and possession limits on returning enhanced adult coho salmon are liberal at 6 per day and 12 in possession. Outside the THAs the bag and possession limits are 3 per day and 3 in possession to insure sustainability of wild stocks.

Since 1988, the majority of the harvest of coho salmon in Valdez Arm has been from fish produced by the nonprofit Valdez Fisheries Development Association (VFDA) hatchery located on Solomon Gulch Creek. The Valdez Arm recreational fishery grew in popularity as documented by an increase in the coho salmon catch from 22,071 fish in 1994 to 50,907 fish in 1995. In 2000, 77% of the coho salmon harvest from PWSMA was from Valdez Arm (Table 2). Recreational coho salmon fishing in Port Valdez largely takes place in salt water from boats and the shoreline near Allison Point since most of the freshwater drainages of Port Valdez are closed to salmon fishing.

The Whittier area sport fishery (Northwest PWSMA) for coho salmon depends largely on returning hatchery fish. The coho salmon smolt release program has produced annual harvests ranging from 640 to 8,569 coho salmon for 1991-2000. The 10-year average harvest (1991-2000) is 2,747 fish (Table 2). This fishery takes place in and around the Whittier boat harbor, and near the mouths of Shakespeare and Cove creeks. Both shoreline and boat anglers participate in this fishery. Anglers out of Whittier also target coho salmon in the marine fresh-water systems.

The remainder of the PWSMA harvest of coho salmon comes from sites other than the three major ports (Table 2). These fisheries occur primarily on mixed stocks of hatchery and wild coho in marine waters and on wild stocks in fresh water in the non-road-accessible areas of PWSMA.

Wild Stock Fisheries

Wild coho salmon return to PWS streams from mid-August through October. Peak immigration typically occurs during mid-September and spawning generally occurs in streams beginning in October. Coho salmon fisheries along the Cordova road system are popular fisheries in PWSMA. From 1991-2000 anglers fishing this area accounted for an average of 13% of the

Table 2.-Coho salmon catch and harvest by geographical regions in Prince William Sound, 1983-2001.

	Cordova Road System		Copper River Delta		Northwest PWS		Valdez Arm Area		Other Sites in PWS		PWS Total	
Year	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest
1983		2,139		52		294		4,710		3,210		10,405
1984		2,506		150		561		5,138		2,008		10,363
1985		564		76		1,725		8,020		1,248		11,633
1986		3,440		244		2,981		6,911		2,522		16,098
1987		2,351		651		2,262		8,884		2,532		16,680
1988		5,311		291		1,600		10,241		1,819		19,262
1989		4,248		207		1,238		18,143		1,795		25,631
1990	6,762	3,900	14	14	3,606	2,200	29,828	18,630	3,715	1,895	43,925	26,639
1991	7,634	4,943	164	68	3,310	2,799	12,761	10,393	2,160	1,580	26,029	19,783
1992	7,256	5,150	1,028	113	777	640	22,705	17,580	3,625	1,776	35,391	25,259
1993	8,313	5,056	138	78	1,846	1,558	14,799	12,841	3,626	2,260	28,722	21,793
1994	8,782	5,933	346	266	2,979	2,317	22,071	18,633	5,484	3,424	39,662	30,573
1995	7,286	4,279	814	39	1,918	943	50,907	37,265	8,572	4,590	69,497	47,116
1996	16,287	8,182	4,244	439	4,616	3,282	66,594	42,822	11,896	5,209	103,637	59,934
1997	9,032	4,575	12,801	302	3,051	1,745	51,429	36,311	12,156	6,212	88,469	49,145
1998	8,567	5,026	139	119	3,994	3,235	55,222	37,088	5,032	2,505	72,954	47,973
1999	14,264	8,763	3,538	577	2,991	2,385	50,045	36,125	10,580	5,239	81,418	53,089
2000	9,559	5,586	2,566	514	12,385	8,569	95,097	67,563	12,523	5,235	132,130	87,467
2001 [a]											179,197	111,085
91-00 Avg.	9,698	5,749	2,578	252	3,787	2,747	44,163	31,662	7,565	3,803	67,791	44,213

From: Mills 1984-1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. *In prep* , Jennings et al. *In prep*.

[a] SWHS regions changed in 2001 limiting the ability to compare historical regions.

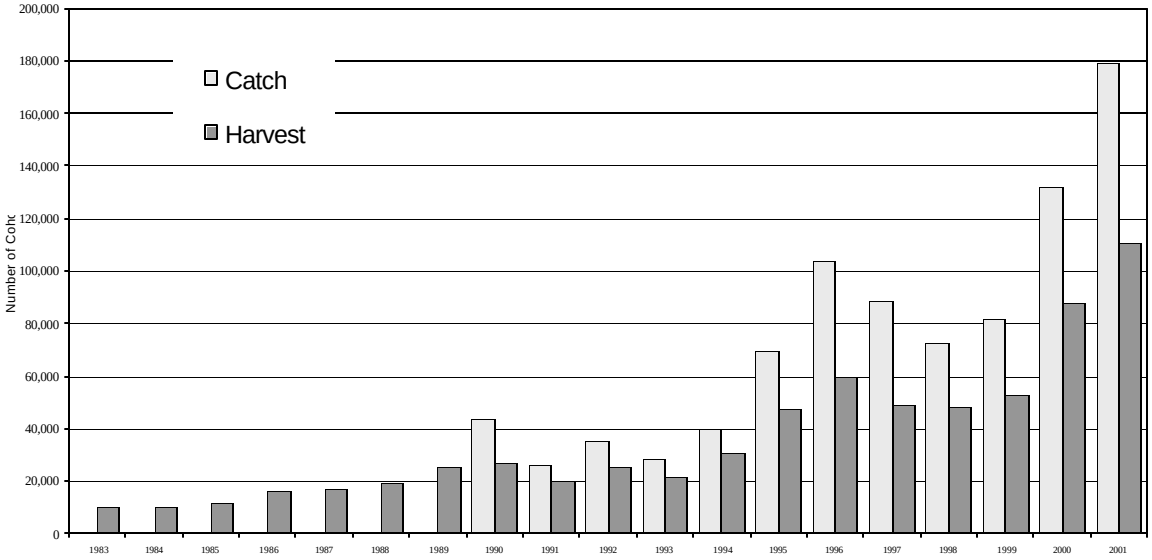


Figure 3.-Coho salmon catch and harvest for Prince William Sound, 1983-2001.

PWS recreational coho salmon harvest (Table 2). The recreational harvest of coho salmon along the Cordova road system is composed of both wild stocks and hatchery fish returning to Fleming Spit. The wild stock component of the harvest is taken from the tributaries accessible from the Copper River Highway between Eyak River and the Million Dollar Bridge. Eyak River is the most popular fishing location for coho salmon along the Cordova road system and has accounted for an average 47% of the Cordova harvest from 1991-2000.

Recent Fishery Performance

The sport harvest of coho salmon from all PWSMA waters for 2000 and 2001 are the two highest on record with an estimated 87,467 fish harvested in 2000 and 111,085 fish in 2001. This is a significant increase over the 1991-2000 average of 44,213 fish. The fisheries of Valdez once again supported the largest harvest of coho salmon in PWSMA in 2000 and 2001. For the first time, the coho salmon fisheries in northwestern PWS, accessed largely by anglers out of Whittier, reported a greater coho harvest than the fisheries along the Cordova road system (Table 2). This increase in Whittier area coho harvest is largely attributable to the opening of the Whittier Tunnel that gave easier access to the local developing coho stocking program and other northwest coho fisheries. As the PWSMA coho fisheries become more popular and more anglers access PWSMA through Whittier, we can expect to see increased effort and harvest.

Although SWHS data are not yet available for 2002, it appears to have been a good coho year throughout PWSMA. Hatchery returns to VFDA were weaker than recent years affecting sport catches and commercial harvests. Other hatchery returns to Cordova and Whittier fisheries were good in 2002 with strong returns in August. Returns of wild stocks along the Cordova road system were very strong resulting in an emergency order raising the coho salmon bag and possession limit from 3 per day and 3 in possession to 6 per day and 12 in possession.

Recent Board of Fisheries Actions

In 1999 the Board reduced the bag and possession limits for coho from 6 per day and 12 in possession to 3 per day and 3 in possession in all marine waters of PWSMA. THAs were established adjacent to adult coho salmon return sites in which a 6 per day and 12 in possession bag limit was established. THAs include:

Cordova-all marine waters north of a line from Odiak Slough to Stump Point, and south of a line from Orca Cannery to Knot Point.

Whittier-all marine waters west of a line from Blackstone Point to Pigot Point (Passage Canal).

Valdez-all marine waters north of a line from Potato Point to Entrance Point.

Chenega-all marine waters inside the entrance of Sawmill and Crab bays (Evans Island).

Other new coho regulations in 1999 that affected specific fisheries include: (1) a reduction of the daily bag and possession limit of coho salmon in Shelter Bay to 1, and (2) a year-round closure of salmon fishing upstream of the Carbon Mountain Bridge on Clear Creek (Mile 42 on the Copper River Highway).

Current Proposals

Proposal 67 Page 50

This proposal would increase the bag limit for coho salmon in fresh waters of Prince William Sound from 3 fish per day and 3 in possession to 3 fish per day with 6 in possession.

Proposal 68 Page 51

This proposal would increase the bag limit for coho salmon in marine waters of Prince William Sound from 3 per day and 3 in possession to 6 fish per day and 12 in possession.

Proposal 69 Page 52

This proposal would increase the limit for coho salmon in the Cordova THA to 12 per day and 12 in possession.

Proposal 70 Page 52

This housekeeping proposal would clarify that from October 1 through May 31 snagging is allowed in the Fleming Spit Lagoon.

Proposal 71 Page 53

Prohibit anglers using salmon roe from participating in the catch and release fishery of coho salmon along the Copper River Highway.

Proposal 72 Page 53

Adoption of the proposal would increase the area of the Valdez THA to include marine waters north of a line from Point Freemantle to Rocky Point, excluding Jack Bay, Sawmill Bay and Galena Bay.

Proposal 73 Page 54

Adoption of the proposal would increase the area of the Valdez THA to include marine waters north of a line from Point Freemantle to Rocky Point, including Jack Bay, Sawmill Bay and Galena Bay.

KING SALMON FISHERY

There is very little wild production of king salmon west of the Copper River in PWSMA, and the sport fishery is supported almost entirely by hatchery-produced fish. King salmon smolt have been stocked at Valdez, Cordova, and Whittier, and returns from these releases have established sport fisheries as the adults return from mid-May through June.

The mean harvest of king salmon in PWSMA prior to the development of a king hatchery program (1983-1991) was 570 salmon. The mean harvest of king salmon from 1992-2001 is 1,823 fish (Table 3, Figure 4). The average catch for that 10-year period is 3,086 fish. Since 1988 various hatchery programs have supplemented king salmon fisheries in the Valdez area. King salmon smolt were released from Glacier Creek Pit in Valdez in 1999 and 2000, and from a net pen in the harbor in 2001 and 2002.

The sharp increase in the king salmon harvest in the Cordova area can be largely attributed to the stocking program that began in 1990. The release of hatchery-reared smolt at Fleming Spit has produced a healthy king salmon fishery in Orca Inlet. The average king salmon harvest from 1983-1991 was 15 fish a year, and jumped to a 541 fish average harvest for 1992-2000 (Table 3). The stocking program was suspended in 1996, but has been continuous since 1999.

The Whittier area sport fishery for king salmon is supported primarily by returning hatchery fish. The king salmon smolt release program has produced variable returns to the Whittier area and correspondingly, the sport catch and harvest have also fluctuated. Since 1990 the harvest

Table 3.-King salmon catch and harvest in Prince William Sound, 1983-2001.

	Outer Islands		Cordova Area		Northwest PWS		Valdez Area		Other sites in PWS		PWS Total	
Year	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest
1983		0		21		0		241		314		576
1984		0		0		212		125		74		411
1985		0		0		22		326		0		348
1986		0		11		22		168		301		502
1987		0		0		321		360		184		865
1988		0		9		160		227		47		443
1989		210		0		199		526		368		1,093
1990	85	56	79	34	192	85	367	220	108	79	746	418
1991	0	0	191	59	59	59	400	353	6	6	656	477
1992	47	47	416	321	609	367	437	317	191	111	1,653	1,116
1993	47	47	369	302	585	353	660	405	661	284	2,275	1,344
1994	0	0	1,046	764	296	220	483	394	376	346	2,201	1,724
1995	0	0	479	303	262	161	378	333	263	180	1,382	977
1996	0	0	822	779	470	224	1,055	971	85	53	2,432	2,027
1997	39	39	1,133	692	1,047	548	1,787	1,193	453	270	4,420	2,703
1998	75	0	606	470	860	444	998	571	212	137	2,676	1,622
1999	66	55	1,085	787	454	299	848	421	366	256	2,753	1,763
2000	26	26	649	448	410	323	4,128	1,229	898	388	6,085	2,388
2001 [a]											4,982	2,565
91-00 Avg.	30	21	680	493	505	300	1,117	619	351	203	2,653	1,614

From: Mills 1984-1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. *In prep*, Jennings et al. *In prep*.

[a] SWHS regions changed in 2001 limiting the ability to compare historical regions.

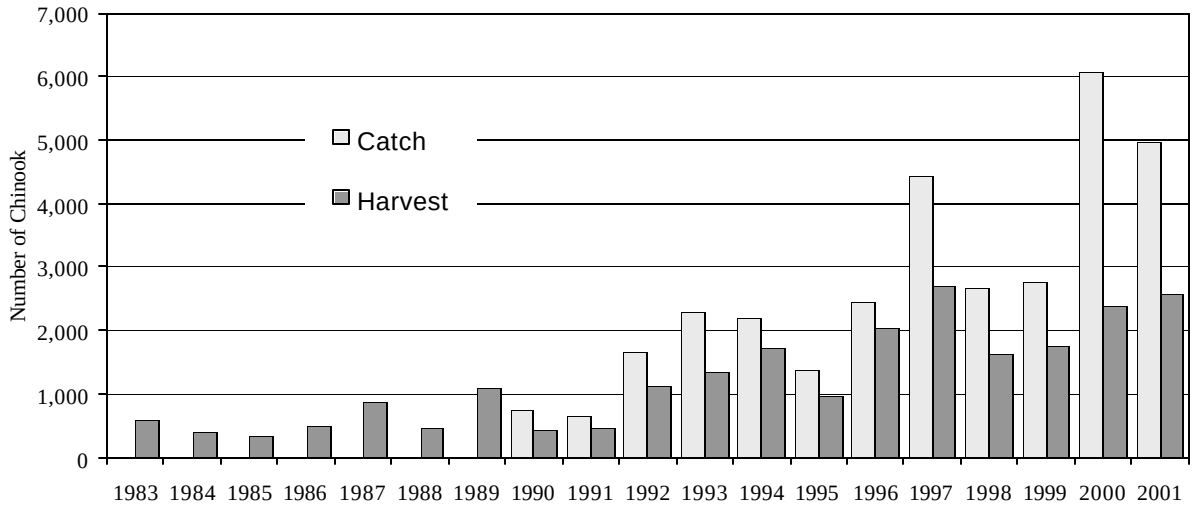


Figure 4.-King salmon catch and harvest in Prince William Sound, 1983-2001.

reported in northwestern PWS has ranged from 59 to 548 king salmon, and averaged 300 kings harvested annually for the 10-year period from 1991-2000 (Table 3). This fishery takes place from Pigot Point to the Whittier boat harbor, and near the mouths of Shakespeare and Cove creeks. Both shoreline and boat anglers participate in this fishery.

Recent Fishery Performance

The sport harvest of king salmon from PWSMA waters has varied a great deal since 1983, but began to grow in the 1990s due largely to hatchery enhanced runs returning to the major ports. The mean harvest of king salmon for PWSMA for the 10-year period from 1992-2001 is 1,823 with an average annual catch for that same 10-years of 3,086 king salmon (Table 3).

Recent Board of Fisheries Actions

At the January 2001 meeting in Anchorage, the Board passed a statewide regulation that defined "jack" king salmon in fresh waters as follows:

> In all fresh waters open to king salmon fishing the bag and possession limit for king salmon less than 20 inches is 10 fish. This bag and possession limit is in addition to any bag and possession limits for king salmon 20 inches or greater in length. King salmon less than 20 inches in length shall not count against any annual or seasonal king salmon harvest limit. King salmon less than 20 inches in length shall not count against any Guideline Harvest Limits or harvest caps established by the Board of Fisheries, except in the Nushagak River drainage.

Current Proposals

Proposal 75 Page 56

This proposal would change the saltwater king salmon limit to 2 per day and 4 in possession, no size limit.

SOCKEYE SALMON FISHERY

Sockeye salmon return to PWSMA streams from June through August, with peak run timing varying by stream. Spawning occurs from mid-July through September. Historically the major fisheries for sockeye salmon in PWSMA have occurred at Eshamy Creek, Eyak River (Cordova), Robe River (Valdez), Coghill River and Main Bay. From 1992 through 2001, the average harvest of sockeye salmon from PWSMA was 7,027 fish with an annual catch of 12,648 sockeye salmon (Table 4, Figure 5). After several years of poor runs in the early 1990s, sockeye salmon fisheries at Coghill and Eshamy have shown strong returns in recent years. Coghill sockeye salmon returns have exceeded mid point escapement goals since 1995 and Eshamy returns have exceeded the upper end of the range 2 of the last 4 years (1999-2002). The Eshamy weir was not operating in 1998.

The increase in the sockeye salmon harvest by the recreational fishery in 1992 was largely the result of a harvest of enhanced fish at the remote area near Davis Lake. Sockeye salmon smolt were released into Davis Lake in 1990 in an attempt to build a brood source for Coghill Lake egg takes and to possibly create another off-station release location for the commercial fishery. Because of concerns for wild stocks of sockeye salmon returning to Coghill Lake in 1992, the commercial fishery operated in the vicinity of Golden Lagoon and recreational anglers were afforded an excellent opportunity to harvest hatchery-produced sockeye salmon. The fishery

Table 4.-Sockeye salmon catch and harvest in Prince William Sound, 1983-2001.

	Cordova Area		Northwestern PWS		Valdez Area		Other Sites in PWS		PWS Total	
Year	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest
1983		1,082		932		343		2,767		5,124
1984		112		660		811		2,494		4,077
1985		130		759		1,085		934		2,908
1986		321		2,890		413		1,254		4,878
1987		507		1,884		1,756		742		4,889
1988		600		728		1,582		1,873		4,783
1989		661		1,172		881		1,225		3,939
1990	708	466	1,213	533	2,823	1,630	1,672	933	6,416	3,562
1991	2,050	806	871	444	1,746	1,471	1,128	1,033	5,795	3,754
1992	3,641	1,578	2,752	1,947	2,506	2,153	3,757	2,680	12,656	8,358
1993	2,204	1,321	1,505	1,152	1,706	1,235	2,210	1,561	7,625	5,269
1994	6,101	3,066	1,707	601	4,159	2,368	1,334	913	13,301	6,948
1995	2,472	590	1,365	739	1,791	1,358	2,169	1,024	7,797	3,711
1996	5,076	2,235	2,295	1,246	2,600	1,367	2,087	648	12,058	5,496
1997	2,265	972	3,039	1,374	1,669	1,077	3,681	1,663	10,654	5,086
1998	5,600	2,015	4,311	2,328	1,595	566	4,972	3,403	16,478	8,312
1999	5,541	2,855	4,366	2,942	3,510	2,220	3,474	2,649	16,891	10,666
2000	3,816	2,189	4,085	2,447	7,101	3,550	2,348	1,644	17,350	9,830
2001 [a]									11,668	6,591
91-00 Avg.	3,877	1,763	2,630	1,522	2,838	1,737	2,716	1,722	12,061	6,743

From: Mills 1984-1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. *In prep*, Jennings et al. *In prep* .

[a] SWHS regions changed in 2001 limiting the ability to compare historical regions.

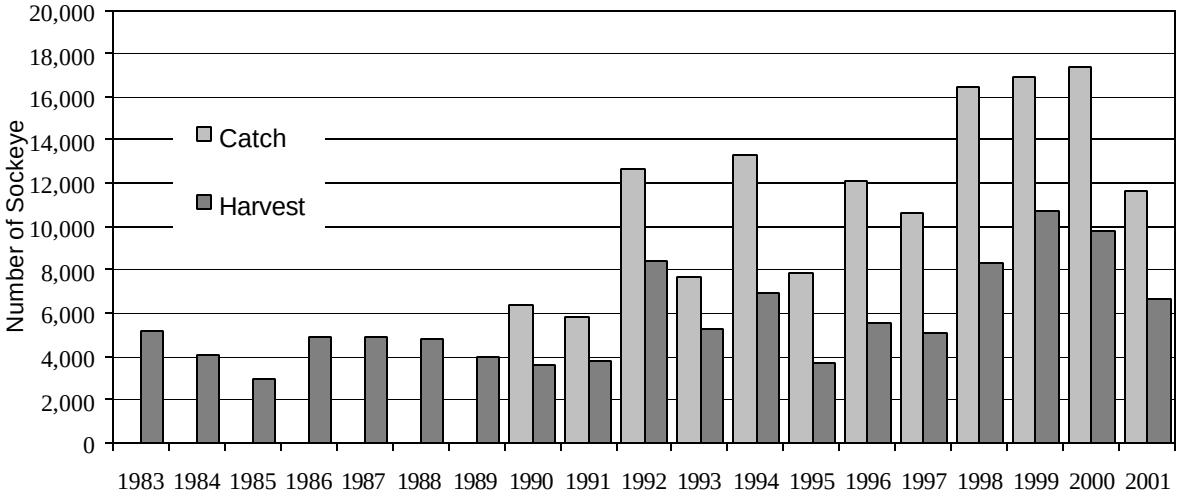


Figure 5.-Sockeye salmon catch and harvest in Prince William Sound, 1983-2001.

proved to be successful for sport fishing and was popular with not only private boat owners but also aircraft charter operators based in Anchorage. This program was discontinued in 1993 due to concerns over Coghill stock interception.

Recent Fishery Performance

The sport harvest of sockeye salmon in PWSMA for 2001 of 6,591 fish was just below the 1991-2000 mean harvest of 6,743 fish (Table 4, Figure 5). In 2000, catch and harvest estimates for Coghill were significantly below the previous 10-year average (1990-1999), while Eshamy estimates were within or slightly above the mean. Catch and harvest in streams defined as "Other" grew substantially in 1998 and 1999, and remained above the 10-year average in 2000.

SWHS data for 2002 is not available yet, but sockeye runs seemed to have been average to good. Main Bay Hatchery had a good return during the summer of 2002. Eshamy and Coghill, both considered recovering fisheries, had strong returns exceeding escapement goals in both systems in 2002. Eshamy (escapement goal range of 30,000-40,000 fish) had a strong season and finished with a total of 40,478 sockeye salmon past the weir, prompting increases in commercial time and area, and an emergency order opening the marine waters of Eshamy Lagoon to snagging. Coghill River (escapement goal range of 20,000-30,000 sockeye) also reached the management objective and finished in the upper part of the range with an estimated 28,319 salmon past the weir. Returns to the streams along the Copper River Highway were good in 2002, surpassing escapement goals based on aerial surveys flown by the Division of Commercial fisheries.

Recent Board of Fisheries Actions

No specific actions were taken by the Board with respect to this fishery during the 1999 meeting.

Current Proposals

Proposal 74 Page 55

This proposal would prohibit the snagging of sockeye in the marine waters of PWS from June 1- July 31.

PINK SALMON FISHERY

There are over 200 streams in PWSMA that support wild returns of pink salmon. In addition, there are four PNP hatcheries that produce pink salmon. Pink salmon return to PWSMA from mid-June through late August, with the peak of the return occurring in late July.

The pink salmon sport fishery harvest in PWSMA has been the largest in the state nearly every year since 1985 (Jennings et al. *In prep*). The 1991-2000 average sport harvest of pink salmon in PWSMA is 38,475 fish. Historically, over 90% of this harvest has been from the marine fishery in Valdez Arm and shorebased anglers have accounted for 63% of that harvest. The fishery in Valdez Arm targets early-run pink salmon returning to the VFDA Solomon Gulch Hatchery. Returning pink salmon are harvested by recreational and commercial fishers and utilized for cost recovery at the Solomon Gulch Hatchery. Other significant fisheries for pink salmon in PWSMA occur throughout PWS including Passage Canal outside of Whittier.

Recent Fishery Performance

The sport harvest of pink salmon from PWSMA waters in 2001 of 35,859 fish is close to the average harvest for the previous 10 years (1991-2000). Strong pink returns in recent years are reflected in

commercial pink salmon harvests. Record commercial catches of 45 million pink salmon were reported in 1999, and along with 2000 and 2001 filled out three of the top four harvests in the last 10 years (1992-2001). The 2002 SWHS data for the recreational fisheries are not available at this time but 2002 appears to have been a relatively weak year for pink salmon returns throughout PWSMA.

Recent Board of Fisheries Actions

No specific actions were taken by the Board with respect to this fishery during the 1999 meeting.

Current Proposals

There are no proposals currently before the Board directed at recreational pink salmon fisheries.

CHUM SALMON FISHERY

Historically chum salmon have not generally been targeted by recreational anglers in the PWSMA, but have been taken incidental to other salmon species. In recent years chum salmon returning to Wally Noerenberg Hatchery on Esther Island have been targeted. An average of 1,805 chum salmon have been harvested annually by sport anglers from PWSMA waters from 1991 through 2000, although the chum salmon harvest has remained relatively stable since 1990 from a low of 964 fish in 1992 to a peak harvest of 2,758 fish in 2000. The annual catch rates have varied widely. This trend is probably related to the natural cycle of the chum returns and general availability of the fish. The 2001 estimates of 11,037 chum salmon caught and 1,805 harvested falls within the normal ranges of catch and harvest for the previous 10 years.

Recent Board of Fisheries Actions

No specific actions were taken by the Board with respect to this fishery during the 1999 meeting.

CUTTHROAT AND RAINBOW TROUT FISHERIES

Cutthroat and rainbow trout are present throughout the year in the PWSMA; however, peak fishing opportunities typically occur as the fish migrate to and from overwintering and spawning areas. This typically occurs from mid-June through September. Spawning begins in April and lasts into June. There is a seasonal sport fishing closure from April 15-June 14 to protect spawning cutthroat trout. Currently rainbow/steelhead and cutthroat trout have separate bag and possession limits. In the fresh waters of PWSMA the limit for rainbow/steelhead is 5 per day and 10 in possession with only 1 per day and 2 in possession 20 inches or longer. The cutthroat trout limit is 2 per day and 2 in possession with no size limit. The exception is along the fresh waters crossed by the Copper River Highway where the limit for cutthroat trout is 5 per day and 5 in possession with only one 1 per day and in possession over 10 inches in length.

The waters of Prince William Sound (PWS) are generally recognized as the most northern and western range of the cutthroat trout. Cutthroat and rainbow stocks exist in the drainages of the Copper River Delta and recent genetics work conducted by the U. S. Forest Service (USFS) confirms the presence of cutthroat/rainbow hybrids in many of these systems. Cutthroat trout stocks in western PWS were listed as a species impacted by effects of the *Exxon Valdez* oilspill and their recovery status remains unknown.

The average annual harvest of cutthroat trout from 1992-2001 is 599 trout (Table 5 Figure 6). The catch during that same period averaged 2,605 trout. Approximately 23% of caught fish are harvested.

This has remained fairly steady and reflects the catch-and-release nature of the cutthroat fisheries in PWSMA. There are three primary harvest areas for cutthroat trout in

Table 5.-Trout catch and harvest by species for Prince William Sound, 1992-2001.

	Cutthroat		Rainbow		Steelhead	
	Catch	Harvest	Catch	Harvest	Catch	Harvest
1992	3,051	1,015	1,141	318	0	0
1993	4,641	940	592	136	0	0
1994	2,011	612	792	457	0	0
1995	632	122	1,946	777	0	0
1996	2,771	707	1,714	336	206	0
1997	4,115	642	3,444	425	131	46
1998	3,279	717	1,241	337	106	9
1999	1,232	449	4,447	1,355	216	72
2000	2,795	355	5,720	506	156	0
2001	1,518	426	2,151	486	11	11
92-01 avg	2,605	599	2,319	513	83	14

From: Mills 1993, 1994; Howe et al. 1995, 1996, 2001a-d; Walker et al. *In prep* ; Jennings et al. *In prep* .

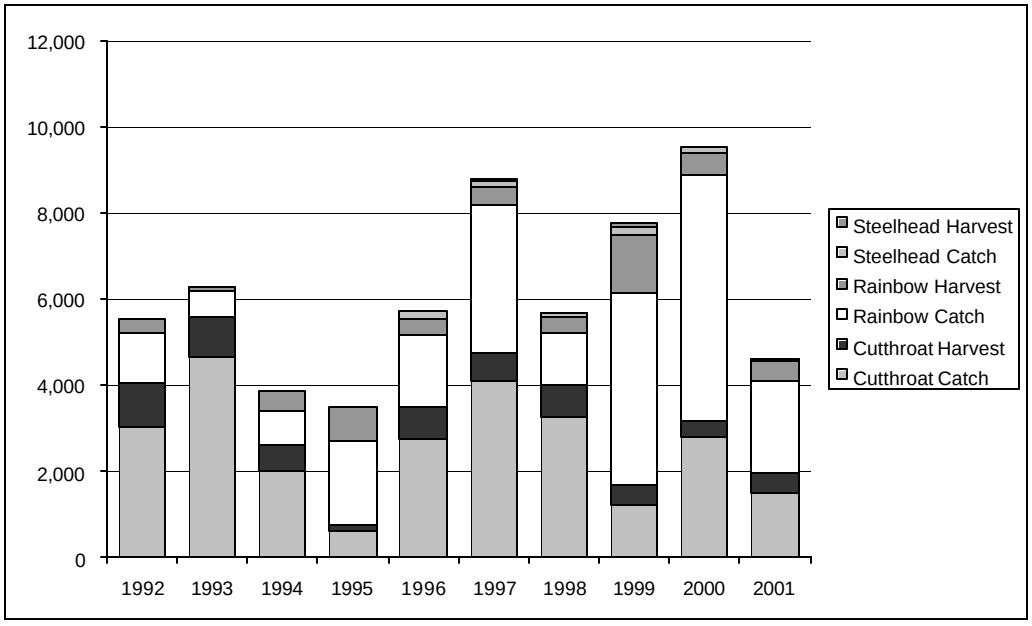


Figure 6.-Trout catch and harvest by species for Prince William Sound, 1992-2001.

PWSMA: (1) Eshamy drainage, (2) Eyak drainage, and (3) other Cordova road-accessible streams.

Wild stocks of rainbow trout in PWSMA are primarily in systems of the Copper River Delta, but rainbows have been stocked in landlocked lakes near Valdez and Cordova to diversify opportunities for recreational anglers. The average harvest of rainbow trout (largely from stocked lakes) from 1992-2001 is 513 trout (Table 5, Figure 6). Historically, 18 sites in the PWSMA were stocked with rainbow trout. Since 1990, the number of sites has been reduced to four. The majority of the angler effort was from Ruth, Blueberry, and Worthington lakes located near Valdez. Worthington Lake was dropped from the stocking program in 1999 because it is an open system. Crater Lake was last stocked with rainbow trout fingerlings in 1994 (Appendix A1) and was officially dropped from the stocking program in 2000

Recent Fishery Performance

The sport harvest of cutthroat and rainbow trout in PWSMA for 2001 falls within the normal ranges of catch and harvest for the previous 10 years.

Recent Board of Fisheries Actions

In November 1999 the Board created the Copper River Special Management Area for Trout. This area designated all fresh waters south of Miles Glacier and east of the Copper River (excluding the Clear Creek drainage) and all the waters draining into the Gulf of Alaska west of Cape Suckling as catch and release, only unbaited, single-hook, artificial lures year-round waters.

Current Proposals

Proposal 92 Page 66

This proposal would combine wild rainbow/steelhead/cutthroat trout bag, possession and size limits.

DOLLY VARDEN FISHERY

Dolly Varden are available to anglers throughout the year in the PWSMA; however, peak fishing opportunities typically occur as the fish migrate to and from overwintering and spawning areas. Peak harvest typically occurs in May and from mid-July through September. Spawning begins in September and lasts into November.

Within PWSMA, significant fisheries for Dolly Varden include Valdez Arm area and the Cordova roadside streams. The major producer in the Valdez Arm area was historically Robe River and Lake, however changes in the overwintering habitat in Robe Lake have reduced this annual harvest. Along the Cordova road system the Eyak River drainage has supported the largest Dolly Varden fishery with popular fisheries at Power Creek and Clear Creek. The 1991-2000 harvest of Dolly Varden in the salt and fresh waters of PWSMA is 2,223 fish annually with a catch of 8,149. This difference reflects the catch-and-release nature of this fishery.

Recent Fishery Performance

After a large increase in Dolly Varden catch and harvest in 1996, both indicators have been on the decline. Estimates for 2001 indicate catch and harvest estimates are below the 1991-2000 average.

Recent Board of Fisheries Actions

No specific actions were taken by the Board with respect to this fishery during the 1999 meeting.

HALIBUT FISHERY

Halibut are one of the most popular targets of recreational anglers fishing the marine waters of the PWSMA. The majority of halibut are harvested from May through early September. Halibut are caught throughout most marine waters of PWS. The average annual sport harvest of halibut from PWSMA waters from 1991-2000 was 21,912 halibut (Table 6, Figure 7). During this period, catch and harvest rates have increased dramatically. The sport harvest of halibut from the PWSMA during 2000 was the highest on record, but dropped to the lowest harvest in 5 years in 2001. Historically the majority of the PWS halibut harvest (40% for 1991-2000) was from anglers fishing out of Valdez (Table 6). Seward-based chartered anglers also account for a significant harvest, although most of this harvest is reported in Seward. Management issues and stock status are discussed by Meyer and Stock (2002) in the *Management Report for Southcentral Alaska Recreational Halibut and Groundfish Fisheries, 2001*.

Management Authority

Halibut and their fisheries are managed under an international treaty, the Halibut Convention of 1982 and the 1979 Protocol (McCaughran and Hoag 1992). Under this treaty, the International Pacific Halibut Commission (IPHC) was formed to assure the optimal sustained yield of the North Pacific halibut resource. The IPHC does not, however, have the authority to allocate the catch quota amongst the various fisheries exploiting the halibut stock in United States waters. In U.S. waters, the responsibility for allocation of the catch quota among fisheries falls to the North Pacific Fishery Management Council (NPFMC) via the Magnuson-Stevens Fishery Conservation and Management Act of 1996. The Alaska Department of Fish and Game, Division of Sport Fish, provides technical data and other information to both the IPHC and the NPFMC to aid in making management and allocation decisions. The State of Alaska does not have direct management authority over halibut and halibut fisheries off Alaska.

ROCKFISH FISHERY

Rockfish are a popular target of recreational anglers fishing PWSMA marine waters. Waters fished in PWSMA include all inside waters as well as the entrances to PWS, with most of the effort occurring at the entrances A variety of rockfishes, species of the genera *Sebastes* and *Sebastolobus*, inhabit the marine waters of the PWSMA. For management purposes, these rockfishes are usually categorized into the following groups based on habitat preferences: slope, demersal shelf, and pelagic shelf. The recreational fishery primarily targets the demersal and pelagic rockfish groups, with slope rockfish only occasionally being harvested. Although many species of rockfish have been identified in the PWSMA, the most commonly harvested *Sebastes* species are yelloweye rockfish *S. ruberrimus* (demersal), black *S. melanops* (pelagic), quillback *S. maliger* (demersal), and copper rockfish *S. caurinus* (demersal). Management, current issues and stock status are discussed by Meyer and Stock (2002) in the *Management Report for Southcentral Alaska Recreational Halibut and Groundfish Fisheries, 2001*.

Table 6.-Sport catch and harvest of halibut in Prince William Sound, 1983-2001.

	Outer Islands		Cordova Area		Valdez Arm Area		Other Sites in PWS		PWS Total	
Year	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest	Catch	Harvest
1983		0		0		1,846		0		3,493
1984		0		237		1,322		0		4,428
1985		0		33		3,310		0		4,451
1986		91		596		3,669		0		8,239
1987		78		253		2,185		0		4,147
1988		649		963		4,599		0		9,027
1989		540		809		4,231		0		7,754
1990	2,239	1,075	769	486	10,837	6,045	4,294	2,712	18,139	10,318
1991	1,940	1,227	2,581	1,463	8,120	6,122	4,632	3,613	17,273	12,425
1992	2,840	1,553	3,450	2,305	12,973	8,379	7,347	4,868	26,610	17,105
1993	6,128	2,727	3,807	2,165	14,664	8,457	10,508	5,676	35,107	19,025
1994	5,800	3,239	4,213	2,488	10,910	7,457	12,875	8,913	33,798	22,097
1995	7,227	3,410	6,126	2,627	12,968	9,087	15,264	8,943	41,585	24,067
1996	5,239	2,599	7,165	3,176	14,227	8,029	12,596	7,780	39,227	21,584
1997	10,924	5,572	4,955	2,636	17,168	9,918	16,079	9,196	49,126	27,322
1998	5,008	2,805	5,785	3,310	15,961	9,337	12,547	7,891	39,301	23,343
1999	6,098	3,290	6,864	3,339	20,792	11,348	13,154	8,734	46,908	26,711
2000	6,696	4,482	7,188	3,290	20,549	12,198	15,208	10,119	49,641	30,089
2001 [a]									33,496	21,912
91-00 Avg.	5,790	3,090	5,213	2,680	14,833	9,033	12,021	7,573	37,858	22,377

From: Mills 1984-1994, Howe et al. 1995, 1996, 2001a-d, Walker et al. *In prep* , Jennings et al. *In prep*.

[a] SWHS regions changed in 2001 limiting the ability to compare historical regions.

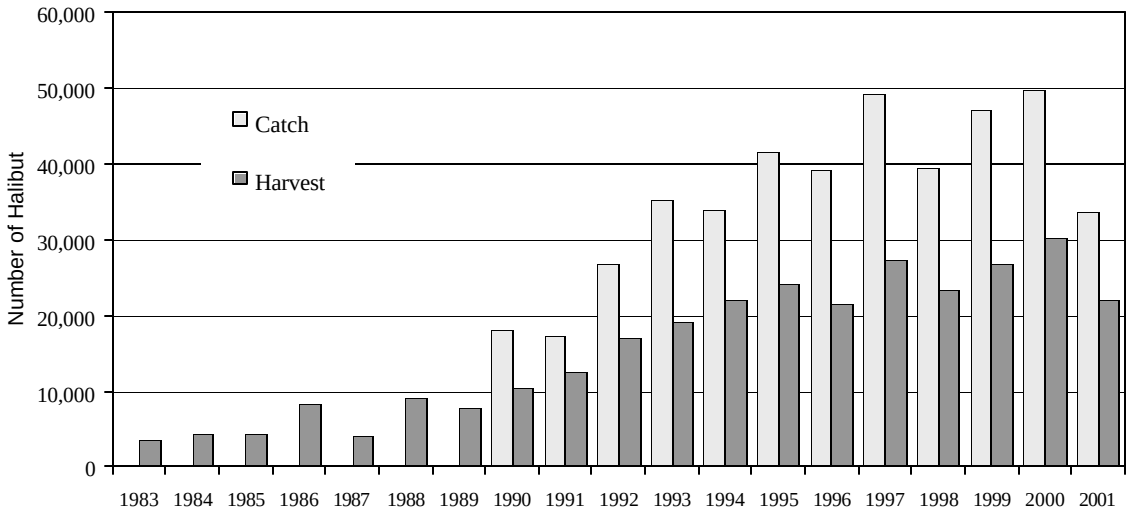


Figure 7.-Sport catch and harvest of halibut in Prince William Sound, 1983-2001.

Although available year-round, most rockfish are harvested in the sport fishery from May through early September. The average annual sport harvest of rockfish from PWSMA waters from 1991-2000 was 13,827 fish. The sport harvest of rockfish from PWSMA waters during 2001 of 16,947 fish was the second highest on record, surpassed only by the 2000 harvest. Most of the harvest was landed at Valdez and is largely due to charter effort from this port.

Recent Board of Fisheries Actions

In 1999, the Board mandated that year-round, only 2 rockfish per day and 2 in possession may be non-pelagic. In addition, the first two non-pelagic rockfish that are removed from the water must be retained as part of the bag limit of the person originally hooking them. These actions were taken to assure harvests would remain sustainable.

A proposal passed by the BOF out of cycle in the January 2001 meeting established definitions of "pelagic rockfishes" and "non-pelagic rockfishes" in statewide sport fishing regulations as follows: AAC 75.995. Definitions. "Pelagic rockfishes" includes dusky *Sebastes ciliatus*, widow *S. entomelas*, yellowtail *S. flavidus*, black *S. melanops*, and blue *S. mystinus* rockfish. "Non-pelagic rockfishes" includes all other rockfish species in the genus *Sebastes*.

LINGCOD FISHERY

Lingcod are a relatively minor component of the PWSMA sport harvest, but are increasing in popularity in recent years. Lingcod are taken primarily by guided anglers and most of the harvest is from areas near the two main entrances of PWS. Catch and harvest estimates for lingcod were not available from the Statewide Harvest Survey data until 1991. Since then the average annual harvest for the PWSMA recreational lingcod fishery has been 2,190 fish. The 2001 estimate of 3,217 lingcod caught was within the upper range of the 1991-2000 average. A complete history of the recreational and commercial fisheries for lingcod in the north Gulf of Alaska through 1992 is provided in Vincent-Lang and Bechtol (1992), Meyer (1993), and Hepler et al. (1993b). Management, current issues and stock status are discussed by Meyer and Stock (2002) in the *Management Report for Southcentral Alaska Recreational Halibut and Groundfish Fisheries, 2001*. These reports also summarize the actions taken by the Board of Fisheries to manage these stocks for sustained yield and the rationale the Board used towards taking these actions.

SHARK FISHERY

The shark fisheries in PWSMA are relatively new and developing fisheries. The three most common sharks in the PWSMA are the salmon shark *Lamna ditropis*, spiny dogfish *Squalis acanthias*, and the Pacific sleeper shark *Somniosus pacificus*. Although all three species are caught incidentally or as bycatch in commercial gear, there is a growing interest in targeting the salmon shark as a sport fish. The daily bag and possession limits of 1 shark of any species, and an annual limit of 2 sharks were enacted statewide in 1997. In addition, sport harvest of all sharks must be recorded on the license or harvest card.

A few charter operators from Valdez, Cordova, and Whittier target salmon sharks in the waters of the PWSMA. Charter operators from Seward also target salmon sharks in the marine waters of PWSMA. In addition, a small number of unguided anglers target sharks. Most sharks caught in the recreational fishery are released. The 2001 estimated harvest of 196 is well above the 1996-2000 annual average

of 79 sharks harvested (Figure 8). These catch and harvest data only account for sharks caught by anglers returning to ports in PWSMA, not Seward.

Current Proposals

Proposal 18 Page 19

This proposal would amend regulations to allow archery as a legal method of sport harvest for sharks in PWSMA.

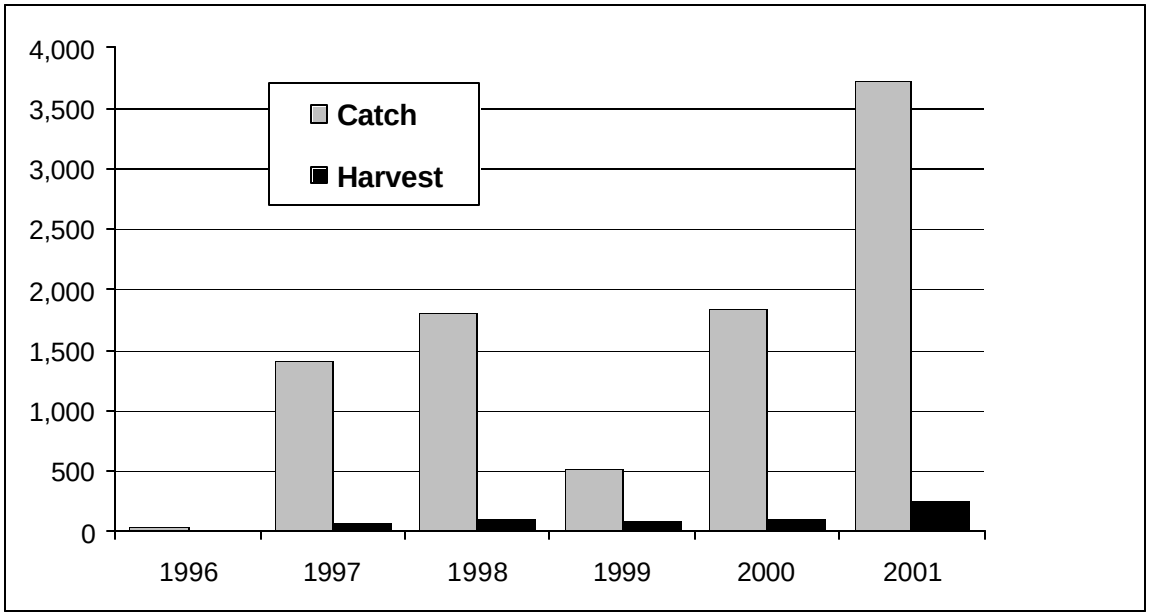


Figure 8.-Shark catch and harvest (all species) in Prince William Sound, 1996-2001.

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APPENDIX A. SUMMARY OF STOCKING IN PWS

Appendix A1.-Rainbow trout stocking in PWS by year and stocking site.

Release Site:	22 M. Lake	Beaver Lake	Blueberry Lake	Cabin Lake	Cordova Res. # 1	Cordova Res. #2	Crater Lake	Elsner Lake	Granite Bay 171	Island Lake	Lower Beaver L.	Middle Lake	Middleton Is. Lake	Pipeline Lake #1	Pipeline Lake #4	Ruth Lake	Scout Lake	Worthington Lake[a]
Year:							**Fire Lake Hatchery**											
1966	3,700		2,000		930	850												5,000
1967	discon't	3,000	0	2,000	1,000	1,000						1,000						0
1968		0	2,000	0	discon't	0	2,600			650	0	650	500				1,300	5,000
1969		3,000	0	3,000		0	0			0	0	0	500				discon't	0
1970		discon't	3,000	0		0	0			0	0	0	0					5,000
1971			0	1,198		0	0			1,200	1,200	1,198	500					0
1972			3,000	0		0	0			0	0	0	0					7,000
1973			0	0		3,000	4,000	3,000		0	0	0	0					0
1974			3,000	0		discon't	0	discon't		0	0	0	0					7,000
1975			0	11,400			0			0	0	0	0					0
1976			3,000	discon't			0			discon't	discon't	discon't	500					4,000
													discon't					
							Fort Richardson Hatchery/ Elemendorf Hatchery											
1977			0				3,500											0
1978			0				0											0
1979			0				0											0
1980			1,950				0											3,950
1981			0				0											0
1982			3,000 [b]				0											0
1983			0				0											10,000
1984			2,100 [b]				5,000 [b]											0
1985			0				0											9,980
1986			1,500				5,000											0
1987			0				0											0
1988			2,463				5,762									545		0
1989			0				0									1,002		7,946
1990			2,000				5,009		6,677					1,056	5,200	728		0
1991			0				0		discon't					discon't	discon't	1,052		8,014
1992			2,000				3,400									1,021		0
1993			0				0									504		8,000
1994			2,000				1,600									518		0
1995			1,038				0									1,710		5,002
1996			980				0									1,028		990
1997			1,000				0									1,500		1,000
1998			500				0									1,596		1,000
1999			480				0									1,481		discon't
2000			500				0									1,750		
2001			544				0									1,000		

Note: Unless noted separately, all rainbow releases after 1976 were reared at Ft. Richardson Hatchery

[a] Stocking efforts in Worthington Lake for rainbow trout and Arctic char began in 1954

[b] Reared at Elmendorf Hatchery

Appendix A2.-Arctic grayling stocking in PWS by year and stocking site.

Release Site:		Big Echo Lake	Corser Lake	8.5 M. Creek	22 M. Lake	28.5 M. Lake	Alaganik Sl. Lake	Pipeline Lake #1	Pipeline Lake #2	Pipeline Lake #4	Quarry Lake	Sheridan Dike 1	Sheridan Dike 2	Thompson Lake	Ruth Pond
						Fire Lake Hatchery									
Year:	1967		10,000						10,000						
	1968	5,000	discon't						10,000		5,000	5,000			
	1969	discon't							0		2,000	3,000			
	1970								7,000		discon't	7,000			
	1971								0			0			
	1972								0			0			
	1973								7,500			7,500			
	1974				2,500				0			2,500		10,000	
	1975				0				0			0		0	
	1976				0				0			0		0	
	1977			2,000	10,000				0			3,000		0	
	1978			discon't	discon't				0			discon't		10,000	
	1979								0			0		0	
	1980								0			0		0	
	1981								0			0		11,579	
	1982								0			0		0	
						Clear Creek Hatchery									
	1983					10,000			0			10,000		9,500	
	1984					0			0			0		0	
	1985					5,000			0			1,000		10,000	
	1986					10,000			0			1,000		0	
	1987					0			0			0		10,000	
	1988					10,000			0			10,000		10,000	
	1989					0			10,000			0	10,000	10,000	
	1990					10,000	10,000	1,100	discon't			10,000	10,000	0	
	1991					10,000	10,000	10,000		10,000		10,000	10,000	10,000	
	1992					10,000	0	10,000		10,000		0	10,000	0	
	1993					10,000	0	10,000		10,000		0	10,000	10,000	
	1994					10,000	0	10,000		10,000		0	10,000	0	
	1995					discon't	discon't	discon't		discon't		15,000	discon't	10,000	
	1996											discon't		0	
	1997													0	
	1998													0	
	1999													0	
	2000													1,117	
	2001													1,045	1,000

Appendix A3.-Chinook salmon stocking in PWS by year and stocking site.

	Elmendorf Hatchery			Solomon Gulch/ Ft. Richardson/ W. Noerenberg Hatcheries									
Year	Cove Creek	Passage Canal	Wells Passage	6.5 M. Rich. Hy[a]	Anderson Bay[b]	Chenega Lake[c]	Fleming Spit	Glacier Cr Pit[b]	Valdez Harbor[b]	Granite Bay[b]	Logging Camp Cr.[b]	W Noerenberg Hatchery[c]	Shakespeare Creek
1981	109,850												
1982	0												
1983	112,020												
1984	117,590												
1985	61,400	70,757			139,888								
1986	discon't	85,164			113,535					25,072	49,850	115,088	
1987		discon't	50,143		discon't					discon't	discon't	0	
1988			discon't									44,790	
1989												145,000	
1990							19,991 [c]					118,618	
1991				192,465			59,730 [c]					239,624	99,811 [c]
1992				94,748			102,116 [c]					274,754	102,024 [c]
1993				196,947			113,325 [c]					273,429	85,677 [c]
1994				discon't		50,318	99,334 [c]					539,195	98,311 [c]
1995						49,990	89,197 [c]					395,850	102,095 [c]
1996						49,900	0					36,515	0
1997						49,733	46,111 [c]					0	0
1998						43,400	35,627					35,600	0
1999						discon't	49,723 [b]	49,853				discon't	49,853 [b]
2000							45,000 [b]	115,582					119,389 [b]
2001							94,812 [b]	0	94,701				95,823 [b]

[a] Reared at Solomon Gulch Hatchery

[b] Reared at Ft. Richardson Hatchery

[c] Reared at W. Noerenberg Hatchery

Appendix A4.-Coho salmon stocking in PWS by year and stocking site.

	Cannery Creek/ Elmendorf/ W. Noerenberg/Ft. Richardson Hatcheries											Solomon Gulch Hatchery	
Year	18 M. Creek	Chenega Lake[c]	Cove Creek	Culross Lake	Fleming Spit	Lake Bay[c]	Otter Lake[a]	Passage Canal	Surprise Cove #1[d]	Surprise Cove #2[d]	Whittier Sites[e]	Boulder Bay	Solomon Gulch
1979			6,450 [d]								124,795 [b]		
1980			50,057 [d]								0		
1981			84,022 [d]					25,876 [d]			63,333 [d]		
1982			9,750 [b]					0			0		
1983	57,003 [a]		0	95,130 [a]			29,253	93,235 [b]			95,130 [d]		
1984			41,661 [b]	61,261 [d]	0		discon't	0 [b]		0			
1985	20,512 [d]		discon't	96,900 [d]	0			108,500	77,000	66,646	0		94,700
1986	49,990 [d]			99,600 [d]	44,470 [d]	98,778		discon't	20,053	38,698	104,796 [b]		231,538
1987	discon't			42,516 [d]	58,213 [d]	376,000			21,605	40,158	55,546 [b]		86,300
1988				discon't	0	871,000			discon't	discon't	107,428 [b]		822,000
1989					75,113 [d]	2,499,000					82,379 [d]		987,000
1990					54,815 [d]	2,390,000					40,912 [d]	20,000	787,153
1991					40,000 [c]	2,083,292					99,990 [c]	30,761	962,872
1992					124,000 [c]	1,564,000					143,800 [c]	19,568	1,206,476
1993					99,848 [c]	1,103,278					99,951 [c]	0	461,388
1994					98,628 [c]	1,281,837					103,471 [c]	13,784	901,303
1995					100,260 [c]	1,861,922					101,775 [c]	20,000	1,305,316
1996					49,845 [c]	176,913					48,648 [c]	20,000	1,855,823
1997					49,583 [c]	104,944					49,124 [c]	21,768	1,293,415
1998					102,955 [c]	205,518					99,242 [c]	16,388	1,732,098
1999		56,500			99,943	830,243					81,685 [c]	19,810	1,843,718
2000		47,395			93,000	187,775					47,500 [c]	20,000	1,605,599
2001		50,341			98,599	47,861					49,861 [c]	16,000	1,503,328

[a] Reared at Cannery Creek Hatchery
[b] Reared at Elmendorf Hatchery
[c] Reared at W. Noerenberg Hatchery
[d] Reared at Ft. Richardson Hatchery
[e] Whittier Sites include data from "Whittier Harbor," "Army Dock," and "Wells Passage"

Appendix A5.-Pink salmon stocking in PWS by year and stocking site.

	AFK Hatchery	Cannery Creek/ W. Noerenberg/ Main Bay Hatcheries						Solomon Gulch/ Nerka Hatcheries		
Year	Port San Juan	Eaglek Bay[a]	Cannery Creek[a]	Derickson Bay[a]	Hobo Bay[a]	Lake Bay[b]	Main Bay	Boulder Bay[d]	Perry Island	Solomon Gulch H.[d]
1975										
1976										
1977	11,792,000									
1978	16,940,678									
1979	22,774,595		2,151,432						115,000 [e]	
1980	21,641,757		990,859		1,690,712				250,000 [e]	
1981	69,662,000		14,388,752		6,950,000				113,000 [e]	
1982	70,118,000		13,932,987		discon't		33,700,561 [a]		500,000 [d]	7,400,000
1983	87,384,533		22,184,862				25,751,531 [c]		discon't	5,600,000
1984	76,746,000	1,561,750	29,271,000				41,945,403 [c]			8,390,000
1985	103,531,000	discon't	36,497,996	2,003,800			29,286,498 [c]			51,263,063
1986	112,529,000		58,216,842	2,000,000		34,437,214	32,728,663 [c]			54,630,942
1987	116,177,000		42,653,000	discon't		75,933,000	2,660,000 [c]			59,739,000
1988	110,037,000		95,572,691			195,322,000	0	16,960,000		114,030,000
1989	160,000,000		58,969,539			159,890,000	10,200,000 [c]	14,380,000		114,034,000
1990	113,800,000		143,660,000			233,260,000	0	47,026,093		75,177,816
1991	115,750,000		141,510,000			205,728,876	9,235,154 [b]	48,416,027		82,879,067
1992	112,830,588		132,166,231			163,591,000	discon't	discon't		86,902,415
1993	113,337,400		140,030,396			172,087,494				141,865,235
1994	92,078,951		84,616,614			162,386,766				149,473,648
1995	108,583,112		130,339,451			168,864,536				205,371,130
1996	108,636,977		140,441,172			169,508,993				223,088,327
1997	51,562,609		136,838,852			106,440,456				188,862,094
1998	105,974,000		137,572,000			103,675,000				195,162,063
1999	133,200,000		131,200,000			123,900,000				213,906,642
2000	142,537,692		132,236,317			116,069,339				195,763,690
2001	150,287,930		139,226,716			127,651,881				203,897,201

[a] Reared at Cannery Creek Hatchery

[b] Reared at W. Noerenberg Hatchery

[c] Reared at Main Bay Hatchery

[d] Reared at Solomon Gulch Hatchery

[e] Reared at Nerka (Perry Island) Hatchery

Appendix A6.-Chum salmon stocking in PWS by year and stocking site.

	AFK Hatchery	Cannery Creek Hatchery		Main Bay Hatchery		W. Noerenberg Hatchery		Solomon Gulch Hatchery
Year	Port San Juan	Cannery Creek	Unakwik Inlet	Lake Bay	Main Bay	Lake Bay	Port Chalmers	Solomon Gulch
1977	10,000							
1978	1,014,000							
1979	247,548	20,309						
1980	395,000	462,849						
1981	745,668	2,448,611						
1982	7,616,000	866,890						400,000
1983	0	0			8,644,179			617,000
1984	7,654,000	1,796,000		7,355,000	7,490,291			900,000
1985	10,944,308	760,000		12,559,082	11,033,065	12,466,732		2,146,017
1986	0	278,900		4,251,497	5,258,175	15,172,261		2,256,291
1987	0	34,800		discon't	76,646,750	36,479,000		3,419,000
1988	0	200,000			discon't	68,388,000		1,614,000
1989	0	discon't	4,487,000			79,845,000		2,900,000
1990	0		discon't			46,980,000		3,100,000
1991	0					76,843,000		1,607,000
1992	0					97,953,492		2,690,414
1993	9,484,200					108,026,724		17,670,620
1994	0					82,029,558	18,078,640	6,088,063
1995	0					72,254,939	24,211,065	1,393,586
1996	0					79,543,524	22,770,999	discon't
1997	8,524,584					77,399,969	17,272,475	
1998	10,121,000					77,839,000	22,106,000	
1999	0					75,000,000	24,300,000	
2000	0					79,306,351	24,045,577	
2001	0					57,712,566	18,403,759	

Appendix A7.-Sockeye salmon stocking in PWS by year and stocking site.

	Main Bay/ W. Noerenberg/ Trail Lake Hatcheries								
Year	Coghill Lake[a]	Davis Lake[a]	Eshamy Lake	Esther Pass Lake[a]	Eyak Lake[a]	Main Bay[a]	Marsha Lake[a]	Pass Lake[a]	Solf Lake[a]
1986			516,000 [c]						
1987			396,000 [b]						
1988		657,287	764,000 [b]	153,031		330,025		594,210	
1989		discon't	2,055,000 [b]	154,644		3,925,357		603,219	
1990			0	25,000		2,616,498		100,121	
1991	443,000		1,279,475 [a]	discon't	47,609	2,363,337		discon't	
1992	720,875		1,043,356 [a]		0	1,914,927	691,405		
1993	806,218		966,750 [a]		0	2,597,284	0		
1994	1,219,354		691,633 [a]		discon't	2,400,666	0		
1995	865,020		discon't			5,348,092	215,944		
1996	discon't					3,227,685			
1997						1,215,716			
1998						2,666,000			109,800
1999						6,970,000			0
2000						8,181,502			116,473
2001						7,379,733			116,144

[a] Reared at Main Bay Hatchery

[b] Reared at W. Noerenberg Hatchery

[c] Reared at Trail Lake Hatchery