

From  
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## South Unimak and Shumagin Islands June commercial salmon fisheries history, 1962-2010

### Appendix B2

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Prior to 1973, fishing time was liberal and was not based on the strength of the forecasted Bristol Bay sockeye salmon run (Shaul 2000). During the late 1960s and early 1970s, controversy arose between Alaska Peninsula-Aleutians Islands and Bristol Bay fishermen concerning the South Unimak and Shumagin Islands June fisheries (Appendices B3-B7).

Beginning in 1975, the Alaska Board of Fisheries (BOF) established guideline harvest levels (GHLs) based on average historic catches. The GHL for the Shumagin Islands was 1.5% of the latest inshore Bristol Bay projected sockeye salmon harvest, while the South Unimak fishery was allocated 6.8% of the Bristol Bay inshore projected sockeye salmon harvest. The total GHLs for each fishery were further broken down into four time period GHLs, to distribute the catches throughout the month of June (Shaul 2000).

Although chum salmon have always been caught during the June fisheries, the unusually large chum salmon catches in 1982 and 1983 caused concern by fishermen in the Arctic-Yukon-Kuskokwim (AYK) Region. Beginning with the 1984 season, the BOF placed a limit on fishing time, not to exceed 96 hours per week and not more than 72 consecutive hours in order to allow "escapement windows". The purpose of the "windows" was to limit the chum salmon harvest. Due to the high sockeye salmon catch rate (and low chum to sockeye catch ratios) during 1984 and 1985, these restrictions were not implemented because the GHLs were easily met (Shaul 2000).

In 1986, the BOF placed a 400,000 chum salmon catch ceiling on both fisheries combined, eliminated fishing during the first 10 days of June, and eliminated fishing during the last GHL time period, June 26-30 (along with the sockeye salmon allocation for that period). These restrictions applied to the 1986 season only. Additional restrictions during 1986 were the primary reasons for less than half of the combined South Unimak-Shumagin Islands sockeye salmon allocation being harvested in that year (Poetter 2007).

The regulations for the 1987 season were the same as those used in 1985. However, during 1988 and 1989 the BOF placed an annual 500,000 chum salmon catch ceiling on both fisheries combined.

In 1988, the abundance of chum salmon was about equal to sockeye salmon at South Unimak. This resulted in less than 40% of the South Unimak sockeye allocation being harvested before the chum salmon ceiling was reached. Sockeye salmon abundance seemed higher in the Shumagin Islands and that fishery was able to harvest its allocation (Poetter 2007).

In 1989, sockeye salmon abundance was very high and sockeye salmon allocations were exceeded with relatively little fishing time (Appendices B3 and B7). The Shumagin Islands sockeye salmon catch was 396,958 with an allocation of 264,000, while 1,347,547 sockeye salmon were harvested at South Unimak

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With an allocation of 1,199,000 fish (Poetter 2007; Appendix B1). A total of only 72 hours fishing time was allowed in the Shumagin Islands during four days (Appendices B3 and B7). At South Unimak, 84 hours of fishing time was allowed with openings occurring during five separate days. The 1989 chum salmon catch was 47,528 in the Shumagin Islands and 407,635 at South Unimak for a total of 455,163 fish (Appendix B1).

The ratio of sockeye to chum salmon was low during the early part of the fishery and became unusually high towards the end (Shaul et al. 1990).

After the 1989 season, the BOF made the following changes in regards to the South Unimak and Shumagin Islands June fisheries:

- (1) The starting date of the fishery was delayed until June 13 because the sockeye salmon to chum salmon ratio is normally lower during early June.
- (2) The chum salmon ceiling for both fisheries combined was raised from 500,000 to 600,000.
- (3) The "window regulations" were eliminated as there did not seem to be a need for both a chum salmon ceiling and windows.
- (4) The sockeye salmon allocation periods and allocations were changed. The percent of the total allocation by period were the same for each fishery.

Period Allocation

June 13-18	35%
June 19-25	45%
June 26-30	20%
Total	100%

If catches in either fishery fell below the guidelines in the June 13-18 period, those unharvested sockeye salmon, up to a maximum of 5% of the total allocation for that fishery, could be harvested during the June 19-25 period. The June 26-30 period could not be used to make up for under-harvest during the first two periods. A 1987 salmon tagging study showed that sockeye salmon stock composition between the first two periods was very similar; however, the June 26-30 stock composition at South Unimak-Shumagin Islands could be dominated by fewer and later stocks (Eggers et al. 1991).

- (5) Unlimited seine leads were eliminated at South Unimak and leads of no more than 150 fathoms were determined to be the only legal lengths for the entire Alaska Peninsula.
- (6) For the first time, maximum depth restrictions were placed on seine and gillnet gear. For the entire Alaska Peninsula Area seine gear could not exceed 375 meshes in depth. Seine mesh size could not exceed 3-1/2 inches except the first 25 meshes above the lead line could not be more than 7 inches

(5 AAC 09.332)(a). No gillnet gear used along the South Peninsula could exceed 90 meshes in depth (5 AAC 09.331)(b)(1)(C).

(7) The area comprising the South Unimak fishery was expanded to include the following portions of Southwestern District located outside the Ikaton Bay Section:

- (a) all waters north and west of a line from Cape Pankof Light to Thin Point.
- (b) all waters enclosed by a line from Thin Point to Stag Point on Deer Island to Dolgoi Cape and from Bluff Point on Dolgoi Island to Arch Point.

In 1990, sockeye salmon were not available in large numbers in the Shumagin Islands or at South Unimak despite the fact that Bristol Bay experienced one of its largest runs on record (Shaul et al. 1991). If the Bristol Bay run had been forecasted correctly the sockeye salmon GHL for the Shumagin Islands and South Unimak would have been 497,000 and 2,255,000 respectively (Shaul et al. 1991). Windy weather plagued fishing operations but fish abundance also seemed low, especially in view of the huge run that arrived in Bristol Bay.

Harvesting the total sockeye salmon allocations in the South Unimak and Shumagin Islands June fisheries with a chum salmon cap in place was often difficult and sometimes impossible, especially when sockeye salmon allocations were large. At the fall 1991 BOF meeting, the chum salmon cap was changed to 40% of the combined South Unimak and Shumagin Islands sockeye salmon allocation, not to exceed 900,000 fish (Shaul 2000). This change generated much controversy from fishermen in the AYK Region because the chum salmon cap was likely to be 900,000 fish in 1992-1994, based on initial long range Bristol Bay sockeye salmon projections. The BOF addressed the chum salmon cap issue again at their spring 1992 meeting and changed the cap to 700,000 chum salmon, regardless of the sockeye salmon allocation. The BOF also stipulated that unless the chum salmon cap was in danger of being exceeded, set gillnet fishing periods would not be less than 16 hours even if it was necessary to restrict seine and drift gillnet gear periods to less than 16 hours due to chum salmon conservation (Appendix B22). This was due to set gillnet gear selectivity favoring sockeye salmon. Regardless of gear selectivity, the BOF directed the Alaska Department of Fish and Game (ADF&G) to manage the fishery so that the cap would not be exceeded.

In 1992, the respective sockeye salmon allocations were 1,959,000 and 432,000 fish for the South Unimak and Shumagin Islands fisheries (Poetter 2007). The fishery was delayed until June 15 because of the high number of chum salmon caught in the Shumagin Islands test fishery. From June 15 until the end of the fishery on June 26, sockeye to chum salmon ratios were very high (Poetter 2007). A total of 2,046,022 sockeye salmon were harvested at South Unimak while the Shumagin Islands harvest was 411,834 fish (Appendix B1). The chum salmon harvest from both fisheries combined was 426,203 fish.

In 1993, South Unimak and Shumagin Islands sockeye salmon allocations were 2,375,000 and 524,000 fish, respectively (Poetter 2007). Test fishing in the Shumagin Islands during June 7-11 indicated sockeye to chum salmon ratios greater than 2.0. Consequently, fishing began on June 13, the earliest date allowed by the South Unimak and Shumagin Islands June Management Plan.

In 1993, AYK chum salmon stocks were at low levels resulting in very little commercial fishing targeting chum salmon (Francisco et al. 1994). Subsistence fishing for AYK chum salmon was not allowed in some locations. Consequently, during 1993 and 1994, the BOF conducted two out of cycle meetings devoted to the South Unimak-Shumagin Islands June fishery. The first meeting was non-regulatory but resulted in the second meeting in which regulatory changes were made.

During its spring 1994 meeting, the BOF allowed the ADF&G to open the South Unimak-Shumagin Islands fisheries prior to June 13 if sockeye to chum salmon ratios were greater than 2.0, and eliminated the time period allocations. Elimination of time period allocations would have resulted in a substantially lower harvest of chum salmon in 1993 (McCullough and Pengilly 1994).

The 1994 sockeye salmon allocations were a record high, totaling 2,938,000 fish at South Unimak and 648,000 fish in the Shumagin Islands (Poetter 2007). Test fishing in the Shumagin Islands indicated that sockeye to chum salmon ratios were low and no fishing was allowed in the Shumagin Islands until June 18. Test fishing indicated that sockeye to chum salmon ratios at South Unimak on June 15 and 16 were higher than those in the Shumagin Islands and fishing started on June 17.

The 1994 fishery was characterized by low catch rates of sockeye and chum salmon but record June pink salmon catches (Appendix B4). Sockeye to chum ratios were slightly better than two to one during most of the fishery and were lower at the end of June (Poetter 2007). Total sockeye salmon harvest was very disappointing to industry in the Alaska Peninsula Area. At South Unimak, 1,001,250 sockeye salmon (34% of allocation) were harvested. In the Shumagin Islands 460,013 sockeye salmon (71% of allocation) were harvested. The combined chum salmon catch was 582,165 fish (Appendix B1).

The 1994 Bristol Bay sockeye salmon run was below forecast but still a very strong run and produced an inshore harvest of over 35 million fish. However, sockeye salmon were not available in large numbers in the South Unimak and Shumagin Islands fisheries. Fishermen reported a drastic change in currents and colder inshore water temperatures, which they believe may have affected the migratory pattern of sockeye salmon.

Large numbers of chum salmon were reported to be in the South Unimak fishery throughout June but fishermen avoided areas with high chum salmon concentrations. These tactics apparently not only decreased the chum salmon catch but reduced the fleets' ability to harvest sockeye salmon because the two species were reported to be traveling together in large numbers at some locations.

Following the 1994 season, the BOF implemented the following changes to the management plan.

1. June fishery cannot begin prior to June 11.
2. After June 24, in either the South Unimak or Shumagin Islands fisheries, if the sockeye salmon guideline harvest level and the maximum allowable harvest of chum salmon have not been attained, and if the ratio of sockeye to chum salmon is two to one or less on any day, the next daily fishing period for seine and drift gillnet gear shall be of six hour duration in that fishery. After June 24, the South