

ALASKA PENINSULA - ALEUTIAN ISLANDS SALMON FISHERY
REPORT TO THE BOARD OF FISHERIES

By

Arnie Shaul

Regional Information Report¹ No. 4K89-4

Alaska Department of Fish and Game
Division of Commercial Fisheries
211 Mission Road
Kodiak, Alaska 99615

February 1989

¹The Regional Information Report Series was established in 1987 to provide an information access system for all unpublished divisional reports. The reports frequently serve diverse ad hoc informational purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series may contain preliminary data; this information may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without prior approval of the author or the Division of Commercial Fisheries.

INTRODUCTION

The Alaska Peninsula and Aleutian Islands Management Areas include all of the Aleutian Islands, and the Alaska Peninsula (including nearby islands) located west of Cape Menshikof on the Bering Sea side and Kupreanof Point on the south side. The Aleutian Islands Area includes the Aleutians west of Unimak Island. The Bering Sea side of Unimak Island and the Alaska Peninsula is referred to as the North Peninsula while the Pacific side of Unimak Island and Alaska Peninsula (including nearby islands) is the South Peninsula.

During June of 1988, the total units of gear used by Area M permit holders was 89 seines, 162 drift gill-nets, and 97 set gill-nets. Some fishermen have permits for more than one gear and change types later in the season. The Inner Port Heiden, Outer Port Heiden, and Cinder River Sections (also the Ilnik Section after July) compose an overlap area where Area T (Bristol Bay) permit holders may fish the open season during May, June, August, and September. During 1988 total units of gear used by Area T fishermen in the Alaska Peninsula Area were 61 drift gill-nets, and 14 set gill-nets.

The 1988 all species catch for the entire Alaska Peninsula and Aleutian Islands Areas was twelve and one half million fish worth roughly \$85,000,000 to the fishermen.

NORMAL SEASONAL SEQUENCE OF SALMON FISHERIES

SOUTH PENINSULA

By regulation, the season opens June 1 along the South Peninsula. However fishing periods (which are established by emergency order on the South Peninsula) are often not allowed until mid June.

During June, all effort is concentrated in three fisheries which target on migrating sockeye. The South Unimak and Shumagin Islands June fisheries are managed on the basis of Bristol Bay runs while the Southeastern District Mainland set gill-net fishery is managed in regard to Chignik stocks. These fisheries are discussed later in the report.

When the South Unimak fishery begins winding down, the drift gill-net fleet begins moving to the North Peninsula, basically Port Moller. By early July virtually all of the drift gill-net fleet has moved to Port Moller.

The first days of July are a very slow time for the seiners as the South Peninsula is closed. Several try fishing at Port Moller but are often unsuccessful. Some seining occurs in the Northwestern District at this time but it's usually too early for good fishing.

The South Peninsula (outside of the Southwest Mainland) is opened on a local stock basis around July 6. Fishing is usually very slow at this time but increases as the season progresses. Early fishing is concentrated in the Shumagins with some amount of gear at South Unimak, and in Pavlof and Canoe Bays. The Southeastern District Mainland is limited to set gill-net only through July 10 and except for a small portion is managed using a board approved management plan based on Chignik sockeye through July 25.

As the season progresses effort spreads out over the entire South Peninsula with some of the seiners moving to the Aleutians.

During July and August, fishing occurs both in the terminal bays and along the capes on stocks traveling into the area. Most of the cape fishing is done in the Shumagins and to a lesser degree at South Unimak. A few drift-netters return to South Unimak, after the peak of the Port Moller sockeye run (after July 10). The cape fisheries are an important indicator of run strength to both the Department and the industry. The quality of pink and chum salmon caught along the capes is higher than those taken later in the bays. Despite intensive effort on mixed stocks destined for various South Peninsula bays, the local runs have remained very healthy.

Fishing periods are established on the basis of escapements and catch strength.

During late August (or earlier during weak runs) the entire area is usually closed to achieve escapement goals. This is necessary as fish mill in saltwater a long time before going into the streams.

The fishery is reopened in September with coho and late sockeye the target species. Most effort occurs in the Southeastern District and between King Cove and False Pass. Both effort and catches are low during September.

All fishing periods on the South Peninsula are established by emergency order.

ALEUTIAN ISLANDS

Unalaska is the only island in the Aleutian Islands Management Area with a developed commercial salmon fishery.

Except for the Kashega Bay Section, the area is closed to commercial salmon fishing until July 10. The only effort prior to mid-July is usually 1 or 2 boats working the small sockeye runs.

Pink salmon, the only major (for commercial purposes) salmon species in the area, arrive about July 20. If the run is strong, there is a movement of seiners from the South Peninsula to Unalaska. The run peaks during the last week in July and the first 10 days of August. By August 25 the run is over, except for a few stragglers which may continue to arrive until mid September.

4 Prior to July 19 weekly fishing periods are 5 days per week when the season is open. Effective July 19 fishing periods are established by emergency order.

NORTH PENINSULA

The North Peninsula has a variety of salmon fisheries with diverse regulations.

The season begins with king salmon fisheries in Nelson Lagoon, Port Moller, and Port Heiden during late May or early June. The Uria Bay sockeye fishery begins in early June and continues into early July if not closed by emergency order. During late June and early July, sockeye fisheries at Nelson Lagoon and in the area from Port Moller to Strogonof Point are the dominant activities. During early July, chum salmon fisheries in the Izembek-Moffet Bay Section and Herendeen Bay are getting underway.

North Peninsula sockeye and chum fisheries continue into mid August with Bear River producing sockeye catches well into September.

From mid August until mid September, coho fisheries occur at Nelson Lagoon, Swanson Lagoon, Ilnik, Port Heiden and Cinder River. The coho runs usually peak during the last week in August through the first week in September.

Most North Peninsula fishermen with Area M permits participate in the South Unimak fishery during June.

SOUTH UNIMAK AND SHUMAGIN ISLANDS JUNE FISHERIES

The Shumagin Islands fishery takes place primarily along Popof, Unga and Korovin Islands in the northern Shumagins. Popof Head is usually the center of activity. The South Unimak (also called False Pass) fishery occurs in two locations along the south side of Unimak Island. One area is from Ikatan Bay to Cape Lazaref on the southeast end of the island while the other is the vicinity of Cape Lutke on the southwest end. Table 1 lists the Shumagin Islands and South Unimak sockeye and chum salmon catches from 1960 through 1988.

SOUTH UNIMAK

The South Unimak June fishery dates back to at least 1911. Records prior to Statehood are sporadic.

Traps were operated in Ikatan and Morzhovoi bays with 36 reported in 1919. Their numbers gradually decreased through the 1920's and 1930's and settled at 5-6 through the 1940's and 1950's.

Records first reflect seine gear catches in 1935 (19 vessels), and indicate a little over a dozen seine vessels seasonally through 1940. We understand seine effort increased to around 50 vessels in the early 1950's though the records reflect only half-a-dozen seiners from the mid 1940's through the 1950's.

From 1960 through 1975 seine effort has ranged from 5-17 vessels. Since 1975 effort has risen until a total of about 85 vessels fished during one day at South Unimak (when the Shumagins were closed) in 1983.

Gill-net catches prior to 1960 are not clear in the records, although gill-net gear evidently was used in this fishery. Gill-net effort (almost entirely drift nets) generally ran between 20-45 vessels in 1960 - 1965, increased to 80-110 in 1970 - 1973, and fell to 65-72 in 1975. The number of gill-nets has since increased to about 153 drift-netters and 9 set-netters at South Unimak during 1986. In 1988, 147 drift gill-netters and 11 set gill-netters participated in the South Unimak fishery.

Set gill-netters account for a negligible portion (less than 4%) of the South Unimak catch although their numbers have increased from 0-1 in 1970 - 1973 to 5-11 in 1980 - 1988.

SHUMAGIN ISLANDS

The Shumagin Islands June fishery dates back to at least 1911. However this fishery seems to not have developed significantly until 1922 when 550,000 sockeye were harvested. As with the case of South Unimak information prior to Statehood is sporadic.

Traps were first recorded in the Shumagin Islands in 1919 and generally totaled 3-6 units (peaked at 8 in 1937). Seine catches have been recorded since 1911 and over 30 seiners fished the islands in 1943 and 1944. From 1962 through 1975, the seine effort usually totaled 15-25 vessels. In June 1983 the peak number of seiners fishing the Shumagins during June was 33. Some of the vessels move to South Unimak during late June. Due to only a few prime fishing spots in the Shumagins, most of the increased effort during recent years has been concentrated at South Unimak.

The number of set gill-netters fishing the Shumagins during June was normally 3-8. This increased to 30-40 during periods when the Southeast Mainland was closed in 1985 and 1986, and to 50 during 1987 (when the Southeastern District Mainland was closed).

Drift gill-net gear is not allowed in the Shumagin Islands. The 1960 - 1988 South Unimak and Shumagin sockeye and chum catches are listed in Table 1.

During the late 1960's and early 1970's much controversy arose between Peninsula-Aleutians and Bristol Bay fishermen in regard to the South Unimak and Shumagin Islands June fisheries.

Beginning in 1975, the Board of Fish and Game established guideline harvest levels (GHL's) based on average historic catch levels. The GHL for the Shumagins is 1.5% of the latest inshore Bristol Bay projected harvest, while the South Unimak fishery was allocated 6.8% of the Bristol Bay inshore catch forecast. The guideline harvest levels were further broken down into four time period harvest levels so that the catches would be spread out over the month of June.

During the 14 years that the present allocation scheme has been in effect, the Bristol Bay forecast has been low 12 years, thereby causing the guideline harvest levels to be set too low. The exceptions were 1982 and 1988 (Tables 2 and 3).

During 1982 and 1983 unusually large numbers of chum salmon were caught incidental to sockeye. This caused concern by fishermen in the Arctic-Yukon-Kuskokwim Region. Beginning with the 1984 season, the Board of Fisheries placed a limit not to exceed 96 hours per week and not more than 72 consecutive hours in order to allow "escapement windows". Due to the high sockeye catch rate during 1984 and 1985, these restrictions did not come into use.

In 1986 the Board of Fisheries 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 quota period, June 26-30 (along with the sockeye quota for that period). These restrictions were for 1986 only. The additional restrictions during 1986 were the primary reasons for less than half of the combined South Unimak-Shumagin sockeye allocation being taken.

In 1987, no restrictions were placed on the fishery that were additional to 1985 regulations. However, beginning in 1988 an annual 500,000 chum salmon catch ceiling has been placed on both fisheries combined.

In 1988, in an attempt to lower the chum catch, no fishing was allowed until June 11 (last day of the first quota period) when 14 hours were allowed in both South Unimak and Shumagin Islands fisheries. Effort on June 11 was very light due to a price dispute and concern (by fishermen) of catching an excessive number of chums in relation to sockeye. In the Shumagins, most of the set gill-net fishermen fished due to the fact that this gear type takes very few migrant chums. At South Unimak, the set gill-netters and many of the drift gill-net fishermen fished. The seiners did not participate until June 18 when a price settlement was reached. The June 11 catch consisted of 8,000 sockeye and 800 chums in the Shumagins and 11,500 sockeye and 18,500 chums at South Unimak. The June 1-11 sockeye quota were 25,000 and 63,000 for the Shumagins and South Unimak, respectively.

Due to the high chum to sockeye ratio on June 11 at South Unimak, the next fishing period was delayed until June 15. From June 15 through June 18 (last day of second quota period) 78 hours of fishing time was allowed in the Shumagins, resulting in a catch of 98,800 sockeye and 20,000 chums. Purse seiners participated

during the last 16 hours when 67,700 sockeye and 16,000 chums were harvested. The June 12-18 quota was 78,000.

The South Unimak fishery was open for 38 hours during June 15 and 16 resulting in a harvest of 122,000 sockeye and 105,900 chums. South Unimak was open again for 6 hours during June 18, this time with all the drift gill-netters and seiners participating. The June 18 catch was 58,900 sockeye and 49,900 chums, bringing the total June 12-18 catch to 181,000 sockeye and 155,800 chums. The June 12-18 sockeye quota was 366,000.

By the end of June 18, the combined chum catch was 195,000.

The next fishing day was June 21 when 12 hours were allowed in the Shumagin fishery resulting in a catch of 38,600 sockeye and 8,500 chums. The June 21 (15 hours) South Unimak fishing period resulted in a harvest of 82,200 sockeye and 64,700 chums.

A 42 hour fishing period during June 23 and 24 in the Shumagins produced a harvest of 102,400 sockeye and 23,700 chums. This period brought the June 19-25 Shumagin sockeye harvest to 141,000 as compared to the quota of 115,000 for the period.

At South Unimak, a 31 hour fishing period during June 22-23 produced a harvest of 151,900 sockeye and 138,300 chums. This brought the June 19-25 South Unimak sockeye harvest to 234,100, far below the period quota of 644,000.

The accumulated Shumagin-South Unimak chum harvest through June 25 stood at 403,500, less than 100,000 remained to be taken before the chum ceiling was reached. Less than one day of fishing could be allowed during the June 26-30 quota period.

A 12 hour fishing period during June 27 in the Shumagins produced a harvest of 34,500 sockeye and 8,900 chums. This brought the

season Shumagin harvest to 282,200 sockeye, exceeding the quota of 279,000. The season Shumagin chum harvest was 61,900.

At South Unimak, 16 hours of fishing were allowed during June 27 resulting in a harvest of 47,800 sockeye and 87,500 chums. The June 27 catch brought the accumulated South Unimak sockeye harvest to 474,500, less than 40% of the allocation (1,263,000 sockeye). The season South Unimak chum catch was 464,800 bringing the combined Shumagin-South Unimak harvest to 526,700. With the 500,000 chum salmon ceiling exceeded, the 1988 South Unimak salmon fishery was terminated.

Key points from the 1988 Shumagin Islands-South Unimak season are:

1. Chum abundance was very high, approximating that of sockeye.
2. The Shumagin Islands fishery had much less difficulty taking it's sockeye allocation than was the case at South Unimak.
3. South Unimak had a sockeye to chum ratio of only 1.02:1 while in the Shumagins the radio was 4.56:1. Major factors contributing to the difference between the two fisheries are:
 - a. Set gill-netters catch a low percent of chums when fishing on traveling stocks along the South Peninsula. In the Shumagins set gill-net gear accounted for 37% of the sockeye harvest versus 3% at South Unimak.
 - b. Due to Shumagin seiners having to take turns setting, it was feasible to release chums before making another set. This is not the case at South Unimak where seiners fish non-stop. Consequently many seine caught chums were released in the Shumagin fishery. Drift

gill-netters released chums early in the season at South Unimak but stopped when buyers began paying higher prices.

4. Fishermen demonstrated they will release chums in order to minimize the impact of chum catches on sockeye allocations. While releasing seine caught chums in good condition may be a feasible method of minimizing chum catches, survival of gill-net caught salmon is questionable. There was no indication of fishermen dumping dead fish.

Had only regulations (windows) other than the 500,000 chum ceiling been in place, the approximate harvest would have been as follows:

	<u>Sockeye</u>	<u>Chums</u>
South Unimak	1,098,000	1,164,000
Shumagin Islands (actual)	<u>282,000</u>	<u>62,000</u>
Total	1,380,000	1,226,000

(117,000 sockeyes below combined sockeye allocation, 700,000 chums above actual chum catch.)

Approximate sockeye harvest had no restrictions been in place to reduce chum harvest:

	<u>Sockeye</u>	<u>Chums</u>
South Unimak	1,263,000	1,389,000
Shumagin Islands (actual)	<u>282,000</u>	<u>62,000</u>
Total	1,545,000	1,451,000

(Chum harvest 225,000 over projected harvest with only windows in effect and 925,000 fish over projected harvest with 500,000 chum ceiling in effect.)

Purse seiners harvested 62.8 percent of the sockeye and 69.7 percent of the chums in the Shumagins with set gill-netters taking the balance. At South Unimak, the percent of total catch by gear type was as follows:

	<u>Purse Seine</u>	<u>Drift Gill-net</u>	<u>Set Gill-net</u>
Sockeye	29.8	67.0	3.2
Chum	33.6	65.8	0.6

The number of purse seiners participating in the South Peninsula June fisheries totaled 89 as compared to 84 in 1987 and 102 in 1986. A total of 147 drift gill-net vessels fished at South Unimak during June as compared to 140 and 153 in 1987 and 1986 respectively.

The number of set gill-net permits being used at South Unimak and in the Shumagins during June was 63, an increase of one over 1987. Eleven set gill-netters fished South Unimak with the balance operating in the Shumagins. The 1976-88 South Peninsula gear levels are listed in Table 6.

SOUTHEASTERN DISTRICT MAINLAND FISHERY

The Southeastern District Mainland fishery, also referred to as Stepovak or Balboa-Stepovak, includes the Beaver Bay, Balboa Bay, Southwest Stepovak, Northwest Stepovak, East Stepovak, and Stepovak Flats Sections (Figure 2). Effort during June and most of July is primarily targeted on Chignik destined sockeye. There is also a local sockeye run (Orzenoi or Orzinski Bay run) in the Northwest Stepovak Section and early July chums in the Stepovak Flats Section. Therefore the Northwest Stepovak and Stepovak Flats Sections are managed on a local stock basis throughout the season while the other sections are managed on Chignik bound sockeye. After July 25, the entire area is managed for local stocks.

During late July through mid August pink and chum runs are peaking. The fishery is usually closed during mid and late August to top off escapements and is opened again in September to

harvest coho. Traveling sockeye are moving through the area throughout the season.

Through July 25 as near as possible to 6 percent of the total estimated Chignik destined sockeye catch is allowed to be taken in that portion of the Southeastern District Mainland located outside the Northwest Stepovak Section. However, if it appears that the Chignik Area sockeye catch will not reach 600,000 through July 25, then there will be no fishery targeted on Chignik sockeye in the Southeastern District Mainland or in the Cape Igvak Section of the Kodiak Area. No fishing is targeted on Chignik stocks in the Southeastern District Mainland or Cape Igvak fisheries until the run passing through those locations is assessed to be in excess of escapement needs. The assessment is made at Chignik.

The total Chignik destined sockeye catch is estimated by adding 80 percent of the Southeastern District Mainland (excluding Northwest Stepovak Section) catch to 80 percent of the Cape Igvak catch plus the entire Chignik Area sockeye catch.

The present management plan was first used for the Southeastern District Mainland during the 1985 season. A similar plan has been used at Cape Igvak since 1978.

Historically, the Southeastern District Mainland fishery has been minor. During 1974 through 1977, the fishery was open on a day to day basis with Chignik Lagoon. During some seasons, such as 1977 when little fishing time was required to harvest large runs in Chignik Lagoon and daily interception rates were low, it was a disaster for Southeast Mainland fishermen.

For the 1978 season, the Board of Fisheries allowed three days per week in the Southeastern District Mainland fishery through July 10 and made set gill-nets the only legal gear during that

period. Interception rates were low despite strong Chignik runs and catches were poor for the few set gill-netters in the Southeast Mainland fishery. Up through this time a maximum of 12-15 gill-netters participated in this fishery.

During the winter of 1978-79, the Board of Fisheries increased fishing time to five days per week but specified that not more than 60,000 estimated Chignik sockeye could be taken through July 10. However, the fishery could be closed if it became apparent that a closure was needed to assure the attainment of Chignik escapement needs. Also, if the Chignik Area catch exceeded 1,000,000 sockeye before July 10, the Southeastern District Mainland fishery could continue beyond the 60,000 ceiling. This provision was a major factor during the 1984 season.

During 1979 through 1982 Southeastern District Mainland fishermen experienced good seasons even though closures were needed at times because of weak Chignik escapements. During this period, gear level increased to 20-25.

During 1983, the gear level did not change drastically but the fishery demonstrated its ability to catch a large number of fish during a short period of time when the July 7-8 total sockeye catch was approximately 49,000. The 1983 season was an outstanding one for Southeastern District Mainland fishermen with the season estimated interception of Chignik destined sockeye reaching 217,000. Most of the sockeye were taken between July 10 and August 10.

The 1984 season saw a dramatic increase of set gill-net gear, with the total reaching approximately 48. Several of the units of gear were operated by purse seine fishermen who also had set-net permits. Consequently there were roughly 43 full time set-net fishermen. Due to the huge early Chignik run, the large number of these fish available in the Southeastern District Mainland, and the large amount of gear, only 6 days were required

to harvest 60,000 estimated Chignik destined sockeye. However, the fishery was closed for only 3 days before the Chignik catch reached 1,000,000. The Southeastern District Mainland fishery was reopened on June 14 using the fishing periods listed in the regulation book (5 days/week).

It was anticipated that the 1984 second Chignik sockeye run would be very strong. This later proved to be untrue. The Chignik escapement goal was reached on the second run only after considerable curtailment of Southeast Mainland, Chignik and Cape Igvak (Kodiak Area) fisheries during mid July.

The 1984 Southeastern District Mainland interception of Chignik destined sockeye through July 25 was 385,000.

In addition to the gear increase, another major reason for the large sockeye catches in the Southeastern District Mainland fishery in 1983, 1984, and 1986 appears to be an increase in the proportion of the Chignik run migrating through this area rather than coming from the east.

The 1985, 1986, and 1987 catch of Chignik destined sockeye salmon through July 25 was 51,000 (5.88%), 118,000 (6.70%), and 147,000 (6.91%) respectively.

The early Chignik run was weak during 1988 and Chignik did not reach it's 600,000 catch until close to July 25. Therefore fishing was not targeted on Chignik stocks in the Southeastern District Mainland fishery until July 24 and 25. Approximately 5,400 Chignik sockeye were taken incidental to fishing for local chum salmon in the Stepovak Flats Section during July 11-23. For the season through July 25, the Southeastern District Mainland fishery harvested an estimated 19,000 Chignik destined sockeye, 2.70% of the entire Chignik destined harvest.

Table 4 lists the percentages of Chignik destined sockeye catches taken by Chignik, Cape Igvak, and Southeastern District Mainland fisheries.

Table 5 lists the approximate amount of gear fishing along the South Peninsula during June 1960-1988.

1988 SOUTH PENINSULA JULY - SEPTEMBER FISHERIES

The 1988 South Peninsula pink salmon catch after June was 6,826,000 fish, well above the previous 10 year average of 5,179,000. The indexed total escapement of 2.84 million pink salmon was the third highest on record (beginning in 1962).

The July - September 1988 chum salmon return was very strong resulting in a harvest of 1,379,000 fish, second highest in at least 25 years. The indexed total escapement of 496,000 was above the previous 10 year average of 436,000.

Large numbers of sockeye and coho were taken during July and August when fishing was being managed for pinks and chums. The total South Peninsula post June sockeye and coho catches were 716,000 (including Southeastern District Mainland) and 506,000 respectively. A total of 158,000 sockeye were taken along the Southeastern District Mainland, leaving a post June balance of 558,000 sockeye taken in the remainder of the South Peninsula.

The post June Shumagin Islands catches of sockeye and coho were 416,000 and 347,000 respectively. At South Unimak, 71,000 sockeye and 84,000 coho were taken after June. The Shumagin post June catch of pinks and chums was 3,358,000 and 413,000 respectively, while 245,000 pinks and 133,000 chums were harvested at South Unimak.

The indexed total South Peninsula sockeye escapement was 74,000. Coho escapement information is very incomplete, but based on available information was probably in the 50,000 to 100,000 range.

Factors contributing to the high incidental catches of sockeye and coho during July and August were:

1. A very high abundance of both sockeye and coho along the South Peninsula.
2. Large pink and chum salmon runs to South Peninsula streams, therefore fishing time was liberal.
3. A total of 155,000 sockeye were taken along the west side of Unga Island and at Mountain Point on Nagai Island. Very little fishing effort, if any, occurred in these areas prior to 1986. However, the West Unga-Mountain Point coho catch was only 29,000 as compared to 318,000 in the more traditional Shumagin fishing areas. The West Unga-Mountain Point post June pink and chum salmon harvests were 899,000 and 92,000 respectively.

Except for West Unga-Mountain Point, the Shumagin sockeye and coho catches came from the same locations fished extensively during the previous 70 to 80 years. Fishing along the South Peninsula capes enables the fleet to harvest pinks and chums while fish quality is still high, prevents processors from being glutted, and allows assessment of stock strength of fish.

In 1986, a substantial amount of fishing effort was exerted on the west side of Unga Island. Catch statistics for West Unga are not accurate for 1986, but the sockeye catch was probably in the vicinity of 50,000 fish. In 1987, fishing occurred at Mountain Point (southwest tip of Nagai Island) as well as West Unga. The 1987 post-June West Unga-Mountain Point catch was 90,000 sockeye, 1,000 coho, 35,000 pinks, and 71,000 chums. An additional 15,000 sockeye and 1,000 chums were taken in June.

In 1988, the West Unga-Mountain Point post-June harvest was 155,000 sockeye, 29,000 cohos, 899,000 pinks, and 92,000 chums. The June catch totaled less than one thousand fish of each species.

The West Unga-Mountain Point 1988 sockeye and coho harvest greatly exceeded that of 1987 due to the much larger pink salmon runs and therefore more fishing time allowed in 1988. Pink salmon and not sockeye attracted much of the 1988 effort.

Salmon seem to be traveling in a southeasterly direction when arriving at West Unga-Mountain Point.

4 In 1987 the entire post-June salmon catch at West Unga-Mountain Point was taken during July. In 1988, 59% of the sockeye, 24% of the coho, 32% of the pinks, and 61% of the chums were taken in July.

Table 6 lists the Alaska Peninsula-Aleutian Islands Areas salmon catches from 1922-1988. The large coho catches from 1924 to 1946 were probably taken in the same locations as during recent years.

ALEUTIAN ISLANDS

The Unalaska Island pink salmon run was by far the strongest since 1984. Most Unalaska Bay and Makushin Bay Section streams received good escapements and spot openings in portions of Unalaska Bay resulted in a harvest of 183,000 pinks. Pink salmon escapements in the Kashega Bay Section were disappointing, though better than those of the parent year (1986). The peak escapements of pink salmon in traditional Aleutian Islands Area fishing areas (Unalaska Bay, Makushin Bay, and Kashega Bay Sections) totaled 402,000 as compared to less than 75,000 in 1986.

If environmental conditions are favorable, a large pink salmon harvest can be anticipated in the Unalaska Bay and Makushin Bay Sections during 1990.

NORTH PENINSULA

The North Peninsula king salmon catch totaled 16,800 fish down from the previous 10 year average of 19,800. The indexed total escapement of king salmon was 10,700 which was well below the previous 10 year average of 14,900.

The sockeye salmon catch along the North Peninsula totaled 1,528,000 as compared to the 1978-1987 average of 1,766,000. The indexed total escapement of 615,000 was on target but below the previous 10 year average of 968,000 (sockeye escapement goals were greatly exceeded during late 1970's and early 1980's).

A total of 401,268 sockeye were harvested in that portion of the Ilnik Section near Strogonof Point. The total Ilnik Section sockeye harvest was 494,616. The Strogonof Point fishery is becoming a source of controversy as Area T fishermen feel many of the fish are destined for Bristol Bay Area streams. A stock

separation study (using scale analysis) is being done for the first time but the 1988 results won't be available for at least several months.

The North Peninsula chum salmon catch totaled 393,000 fish which was below the previous 10 year average of 474,000. The 500,000 indexed total chum escapement was 68,000 above the 1978-1987 average. Izembek-Moffet Bay Section accounted for 304,000 of the escapement. The fleet left Izembek-Moffet early to participate in the large South Peninsula pink salmon harvest.

The North Peninsula coho catch of 234,000 was the second highest on record. As usual, Nelson Lagoon with a catch of 95,400 had the highest coho catch of any section on the North Peninsula. Other sections with harvests over 25,000 fish were Ilnik (35,000), Cinder River (28,500), and Inner Port Heiden (27,300). North Peninsula coho escapement data is very incomplete but based on available information is estimated to be in the 200,000 to 300,000 range.

During the fall season, 19 Area T vessels in addition to the local Port Heiden fleet fished the overlap area off Port Heiden down to Three Hills. This compares with 17 in 1987 and 18 in 1986.

A total of 19 Area T drift gill-netters and 7 set gill-netters fished the Cinder River Section exclusively. This was up from 10 drift-netters and 5 set-netters during 1987.

OUTLOOK FOR 1989

The North Peninsula sockeye catch is projected to be 1,900,000 fish, which is a 20 percent increase over the 1988 harvest and slightly above the 1979-1988 average.

Based on the most recent Bristol Bay sockeye harvest projection the Shumagin Islands and South Unimak sockeye allocations will be 264,000 and 1,199,000 respectively. If the Chignik forecast is accurate, approximately 87,000 Chignik destined sockeye will be harvested along the Southeastern District Mainland.

The South Peninsula pink salmon catch is projected to be 3,000,000 during July and August which is well below the 1988 harvest of 6,826,000 and the 1979-1988 average of 5,177,000 fish.

Aleutian pink salmon runs are still projected to be weak, possibly providing a 50,000 harvest.

The North Peninsula chum harvest is anticipated to be 500,000 fish which is 21 percent above the 1988 harvest and slightly above the 1979-1988 average of 466,000.

The post-June South Peninsula chum salmon harvest is projected to be 1,300,000 which is only slightly below the 1988 harvest of 1,379,000 and 20 percent above the 1979-1988 average.

King and coho runs will likely be similar to 1988 levels except that the July-August South Peninsula coho catch should be much lower due to significantly less anticipated fishing time for pink salmon.

MANAGEMENT STRATEGY FOR 1989

If no regulation changes are made, management strategy during 1989 dealing with migrant fisheries will be similar to that of 1988. The amount of chums allowed to be taken in the South Unimak-Shumagin Islands June fishery during each sockeye quota period will be kept in approximate proportion to the sockeye allocation for that period if it is likely that the chum ceiling will be reached.

Strategy for local stocks fisheries will be very similar to that of 1988, based on escapement and catch rates.

Figure 1. ALASKA PENINSULA AND ALEUTIAN ISLANDS FROM CAPE MENSHIKOF TO UNALASKA ISLAND.

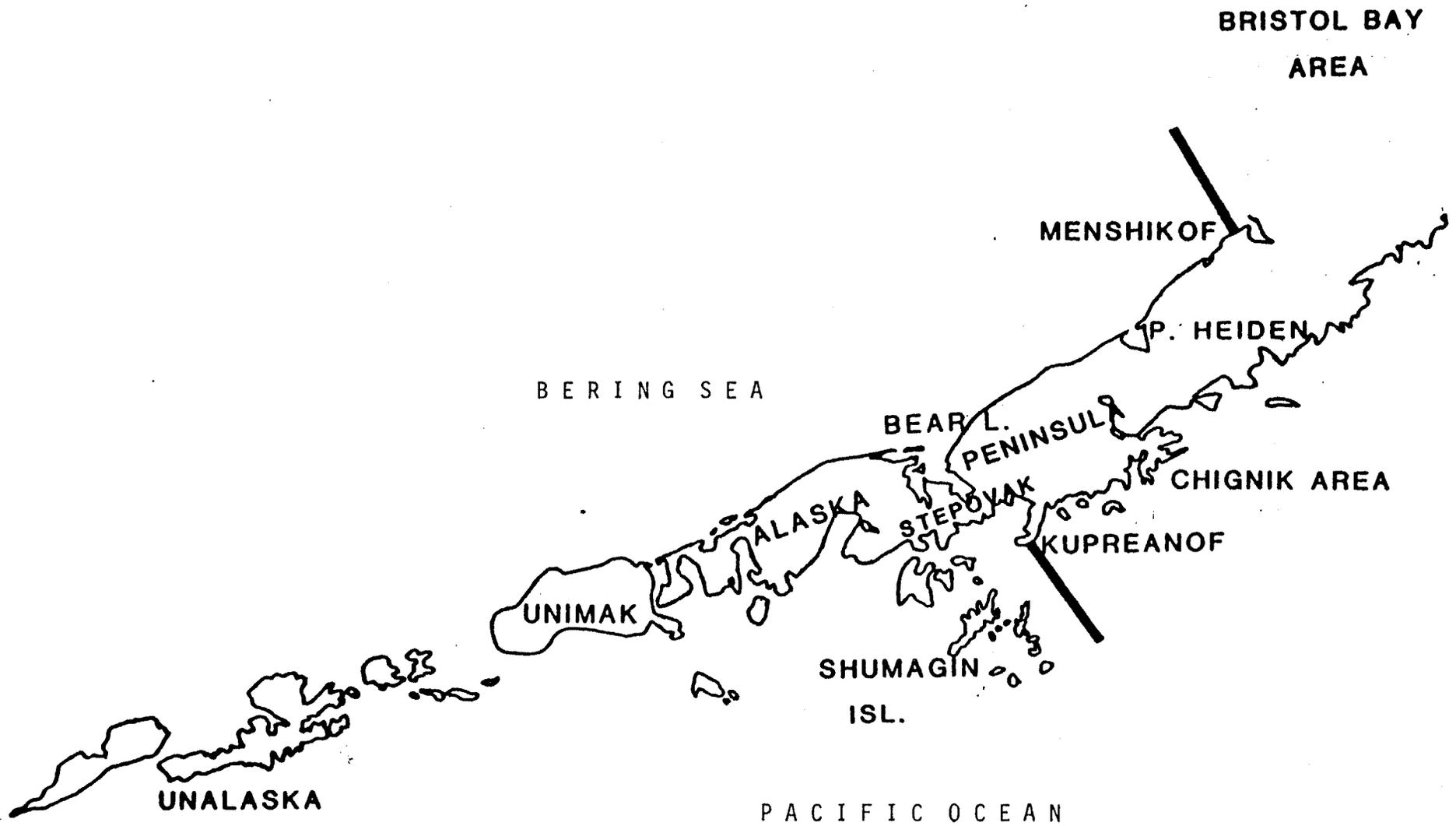


Figure 2. SOUTHEASTERN DISTRICT

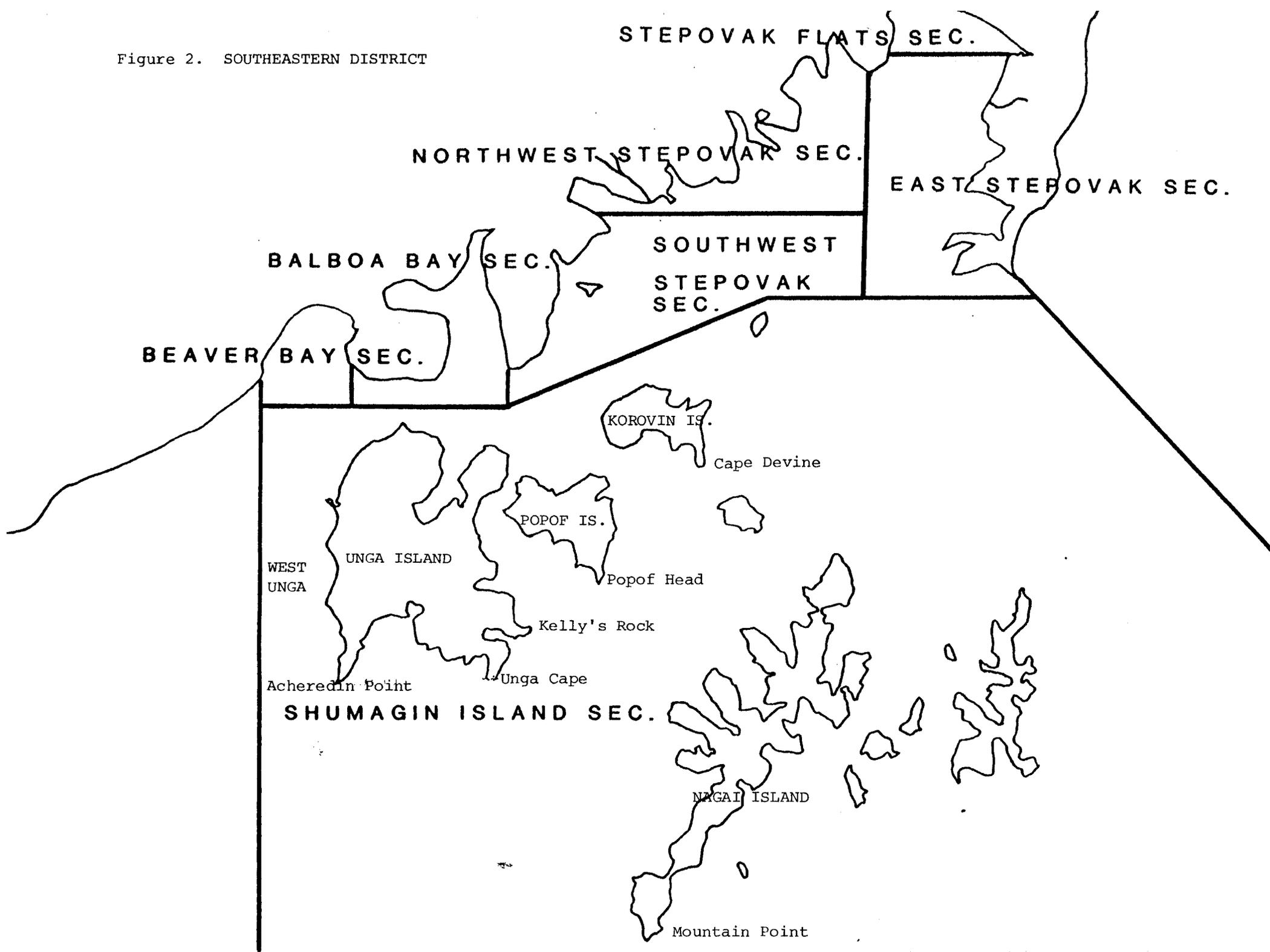


Table 1. SHUMAGIN ISLAND AND SOUTH UNIMAK JUNE FISHERIES* (Fish in Thousands)

Year	Sockeye			Chum		
	Shumagins	South Unimak	Total	Shumagins	South Unimak	Total
1960	19	137	156	11	84	95
1961	55	199	254	36	157	193
1962	54	272	326	61	209	270
1963	33	116	149	36	81	117
1964	85	159	244	67	161	228
1965	207	568	775	45	121	166
1966	54	528	582	17	215	232
1967	69	186	255	51	73	124
1968	233	342	575	51	115	166
1969	76	781	857	13	254	267
1970	153	1,530	1,683	49	403	452
1971	45	565	610	115	554	669
1972	76	443	519	108	468	576
1973	23	239	263	23	189	212
1974	NF	NF	NF	NF	NF	NF
1975	49	190	239	36	65	101
1976	72	235	307	74	327	401
1977	46	193	239	22	93	115
1978	68	419	487	18	105	123
1979	179	683	862	41	64	105
1980	572	2,731	3,303	71	457	528
1981	351	1,474	1,825	54	521	575
1982	451	1,670	2,121	160	934	1,094
1983	416	1,545	1,961	169	615	784
1984	257	1,131	1,388	109	228	337
1985	367	1,495	1,862	134	345	479
1986	156	314	470	99	252	351
1987	141	652	793	37	406	443
1988	282	474	756	62	465	527

*The South Unimak figures include some early July catches.

Table 2. SOUTH UNIMAK JUNE FISHERY VS. ACTUAL BRISTOL BAY HARVEST SOCKEYE SALMON

Year	Guideline Harvest Level (GHL)	GHL % of Actual Bristol Bay Catch	Actual S. Unimak Catch	S. Unimak % of Actual Bristol Bay Catch	Actual Bristol Bay Catch	S. Unimak GHL if Actual Bristol Bay Catch Was Forecasted
1975	165,000	3.37	190,000	3.88	4,899,000	333,000
1976	350,000	6.23	235,000	3.18	5,619,000	382,000
1977	195,000	4.00	193,000	3.96	4,878,000	332,000
1978	428,000	4.31	419,000	4.22	9,928,000	675,000
1979	900,000	4.20	683,000	3.19	21,429,000	1,457,000
1980*	2,513,000	10.58	2,731,000	11.49	23,762,000	1,616,000
1981	1,442,000	5.63	1,474,000	5.76	25,603,000	1,741,000
1982	1,850,000	12.21	1,670,000	11.03	15,146,000	1,030,000
1983	1,469,000	3.93	1,545,000	4.13	37,372,000	2,541,000
1984	1,111,000	4.50	1,132,000	4.58	24,710,000	1,680,000
1985	1,380,000	5.82	1,495,000	6.31	23,703,000	1,612,000
1986**	907,000	5.71	314,000	1.98	15,889,000	1,080,000
1987	635,000	3.96	652,000	4.06	16,048,000	1,091,000
1988**	1,263,000	9.01	474,000	3.38	14,011,000	883,000

* 1980 Bristol Bay sockeye catch would have been much larger had it not been for a lengthy strike.

**The guideline harvest level if chum salmon restrictions were not placed on the fishery.

Target percentage is 6.8

NOTE: 1986 through 1988 Bristol Bay catch figures are preliminary.

Table 3. SHUMAGIN ISLANDS JUNE FISHERY VS. ACTUAL BRISTOL BAY HARVEST SOCKEYE SALMON

Year	Guideline Harvest Level (GHL)	GHL % of Actual Bristol Bay Catch	Actual Shumagins Catch	Shumagins % of Actual Bristol Bay Catch	Actual Bristol Bay Catch	Shumagin GHL if Actual Bristol Bay Catch Was Forecasted
1975	50,000	1.02	49,000	1.00	4,899,000	73,000
1976	75,000	1.33	72,000	1.28	5,619,000	84,000
1977	42,000	0.86	46,000	0.94	4,878,000	73,000
1978	94,000	0.95	68,000	0.68	9,928,000	149,000
1979	200,000	0.93	179,000	0.84	21,429,000	321,000
1980*	555,000	2.34	572,000	2.41	23,762,000	356,000
1981	318,000	1.24	351,000	1.37	25,603,000	384,000
1982	408,000	2.70	451,000	2.99	15,104,000	227,000
1983	324,000	0.87	416,000	1.11	37,372,000	561,000
1984	245,000	0.99	257,000	1.04	24,710,000	371,000
1985	305,000	1.29	367,000	1.55	23,703,000	356,000
1986**	200,000	1.26	156,000	0.98	15,889,000	238,000
1987	140,000	0.87	141,000	0.88	16,048,000	241,000
1988**	279,000	1.99	282,000	2.01	14,011,000	210,000

* 1980 Bristol Bay sockeye catch would have been much larger had it not been for a lengthy strike.

**The guideline harvest level if chum salmon restrictions were not placed on the fishery.

Target percentage is 1.5.

NOTE: 1986 through 1988 Bristol Bay catch figures are preliminary.

Table 4. CHIGNIK SOCKEYE RUN CATCHES^{1/} 1964 - 1988 (Numbers of Fish in Thousands)

	Chignik Area		Cape Igvak		Balboa-Stepovak ^{3/}		Total Catch
	Catch	%	Catch	%	Catch	%	
1964 ^{2/}	561	90.63	15	2.42	43	6.95	619
1965 ^{2/}	635	90.46	11	1.57	56	7.98	702
1966 ^{2/}	225	88.24	18	7.06	12	4.71	255
1967 ^{2/}	473	91.67	23	4.46	20	3.88	516
1968 ^{2/}	878	80.92	136	12.53	71	6.54	1,085
1969 ^{2/}	310	74.70	98	23.61	7	1.69	415
1970 ^{2/}	1,426	70.04	542	26.62	68	3.34	2,036
1971 ^{2/}	1,016	76.97	253	19.17	51	3.86	1,320
1972 ^{2/}	379	86.33	42	9.57	18	4.10	439

<p>1964-72 catch and percentage figures are total for the entire season. Catch figures and percentages after 1972 are only through July 25.</p>							

1973 ^{3/}	768	89.41	53	6.17	38	4.42	859
1974 ^{3/}	517	73.12	122	17.26	68	9.62	707
1975 ^{3/}	115	81.56	24	17.02	2	1.42	141
1976 ^{3/}	760	82.25	118	12.77	46	4.98	924
1977 ^{3/}	1,543	90.39	129	7.56	35	2.05	1,707
1978 ^{4/5/}	1,452	85.36	227	13.35	22	1.29	1,701
1979 ^{4/6/}	799	91.11	15	1.71	63	7.18	877
1980 ^{4/6/}	662	91.31	1	0.14	62	8.55	725
1981 ^{4/6/}	1,605	79.97	284	14.15	118	5.88	2,007
1982 ^{4/6/}	1,251	83.90	172	11.54	68	4.56	1,491
1983 ^{4/6/}	1,451	73.06	318	16.01	217	10.93	1,986
1984 ^{4/6/}	2,476	74.47	464	13.95	385	11.58	3,325
1985 ^{4/7/}	692	79.72	125	14.40	51	5.88	868
1986 ^{4/7/}	1,456	82.63	188	10.67	118	6.70	1,762
1987 ^{4/7/}	1,660	78.01	322	15.08	147	6.91	2,128
1988 ^{4/7/}	675	95.74	11	1.56	19	2.70	705

Footnotes are listed on following page.

Table 4.

CHIGNIK SOCKEYE RUN CATCH FOOTNOTES

- 1/ The Cape Igvak and Balboa-Stepovak figures represent 80% of the total sockeye catches for those areas as it is estimated that roughly 80% of the sockeye caught in the Cape Igvak section and Balboa-Stepovak are destined for Chignik.
- 2/ Prior to 1973, Cape Igvak and Balboa-Stepovak fisheries were regulated by set weekly fishing periods in the regulation book, usually 5 days per week. The situation was sometimes modified due to poor escapements at Chignik.
- 3/ During 1973 through 1977 all three fisheries were managed on a day for day basis.
- 4/ Beginning with the 1978 season, the current Cape Igvak Fishery Management Plan still in effect today was implemented. The Cape Igvak fishery was allocated 15 percent of the total Chignik destined sockeye catch.
- 5/ During 1978, seining prior to July 11 was disallowed in Beaver, Balboa, and Stepovak Bays. The set gillnet fishery was allowed to fish 3 days per week through July 10 after which the fishery was managed on the basis of local stocks.
- 6/ During 1979-1984, 5 days per week were allowed at Balboa-Stepovak (including Beaver Bay) with a ceiling of 60,000 estimated Chignik destined sockeye, prior to July 11. If the Chignik Area sockeye catch was 1,000,000 or more before July 11, the 60,000 ceiling was to be dropped.
- 7/ Beginning in 1985, Balboa-Stepovak was placed on an allocation of 6.2 percent of the total estimated Chignik sockeye catch through July 25. After July 25, Balboa-Stepovak is managed on a local stock basis. The allocation was changed to an even 6 percent beginning in 1988. Seining is still not allowed prior to July 11.
- 8/ Balboa-Stepovak includes Beaver Bay. This fishery is also referred to as the Southeastern District Mainland fishery.

Table 5. SALMON GEAR ON SOUTH SIDE OF ALASKA PENINSULA
AREA DURING JUNE

<u>Year</u>	<u>Purse Seine</u>	<u>Drift Gill Net</u>	<u>Set Gill Net</u>
1976	25	94	16
1977	15	98	16
1978	22	106	17
1979	33	100	22
1980	51	123	24
1981	74	126	32
1982	85	126	33
1983	92	139	41
1984	104	143	52
1985	105	140	51
1986	102	153	50
1987	84	140	62
1988	89	147	63

During the peak of the South Unimak-Shumagin June fishery (June 12-25), approximately 30-40 seiners fish the Shumagins. During the few occasions when South Unimak is open and Shumagins closed, nearly the entire purse seine fleet is at Unimak. Drift net effort declines after June 20 as the fleet begins moving to Port Moller.

Table 6. ALASKA PENINSULA - ALEUTIAN ISLANDS SALMON CATCHES (Fish in Thousands)
(Continued)

YEAR		KINGS	SOCKEYES	COHOS	PINKS	CHUMS	TOTAL
1922	South Peninsula	6.9	3,376.8	2.2	756.7	349.3	4,491.9
	North Peninsula	10.4	667.9	0	0	42.9	721.2
	Aleutians	<u>0</u>	<u>14.0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>14.0</u>
	Total	17.3	4,058.7	2.2	756.7	392.2	5,227.1
1923	South Peninsula	4.1	1,827.2	75.3	143.6	538.9	2,589.1
	North Peninsula	9.1	731.7	0.1	0	25.8	766.7
	Aleutians	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
	Total	13.2	2,558.9	75.4	143.6	564.7	3,355.8
1924	South Peninsula	3.9	1,352.0	127.3	3,931.3	1,330.7	6,745.2
	North Peninsula	10.5	701.7	0	0	48.4	760.6
	Aleutians	<u>0</u>	<u>24.9</u>	<u>0</u>	<u>673.8</u>	<u>0.1</u>	<u>698.8</u>
	Total	14.4	2,078.6	127.3	4,605.1	1,379.2	8,204.6
1925	South Peninsula	10.7	820.5	127.1	382.1	1,116.8	2,457.2
	North Peninsula	10.6	400.2	0	0	53.9	464.7
	Aleutians	<u>0</u>	<u>18.6</u>	<u>0</u>	<u>3.8</u>	<u>9.1</u>	<u>31.5</u>
	Total	21.3	1,239.3	127.1	385.9	1,179.8	2,953.4
1926	South Peninsula	9.5	3,071.5	193.8	3,719.7	1,179.8	8,174.3
	North Peninsula	23.9	672.9	0	0	71.5	768.3
	Aleutians	<u>0</u>	<u>1.3</u>	<u>0</u>	<u>521.7</u>	<u>7.8</u>	<u>530.8</u>
	Total	33.4	3,745.7	13.8	4,241.4	1,259.1	9,473.4
1927	South Peninsula	9.6	714.7	125.3	1,455.5	1,299.7	3,604.8
	North Peninsula	16.5	230.6	0.1	0	87.0	334.2
	Aleutians	<u>0</u>	<u>17.3</u>	<u>0</u>	<u>334.6</u>	<u>0</u>	<u>351.9</u>
	Total	26.1	962.6	125.4	1,790.1	1,386.7	4,290.9
1928	S. Pen & Aleutians	7.7	971.5	96.6	900.9	2,416.3	4,393.0
	North Peninsula	<u>4.6</u>	<u>855.6</u>	<u>0</u>	<u>0</u>	<u>83.5</u>	<u>943.7</u>
	Total	12.3	1,827.1	96.6	900.9	2,499.8	5,336.7
1929	S. Pen & Aleutians	10.5	935.8	84.5	1,793.5	2,429.0	5,253.3
	North Peninsula	<u>4.1</u>	<u>878.0</u>	<u>0</u>	<u>0</u>	<u>145.2</u>	<u>1,027.3</u>
	Total	14.6	1,813.8	84.5	1,793.5	2,574.2	6,280.6

Table 6. ALASKA PENINSULA - ALEUTIAN ISLANDS SALMON CATCHES (Fish in Thousands)
(Continued)

YEAR		KINGS	SOCKEYES	COHOS	PINKS	CHUMS	TOTAL
1930	S.Pen & Aleutians	10.9	935.2	161.1	6,094.8	1,278.1	8,480.1
	North Peninsula	<u>3.8</u>	<u>167.7</u>	<u>0</u>	<u>0</u>	<u>93.4</u>	<u>265.2</u>
	Total	14.7	1,102.9	161.1	6,094.8	1,371.8	8,745.3
1931	S.Pen & Aleutians	11.0	1,863.2	128.7	997.9	1,216.0	4,211.8
	North Peninsula	<u>1.3</u>	<u>761.0</u>	<u>0</u>	<u>0</u>	<u>54.9</u>	<u>817.2</u>
	Total	12.3	2,624.2	128.7	997.9	1,265.9	5,029.0
1932	S.Pen & Aleutians	17.4	2,977.3	112.3	3,604.8	817.3	7,529.1
	North Peninsula	<u>3.2</u>	<u>977.1</u>	<u>0</u>	<u>0</u>	<u>56.3</u>	<u>1,036.6</u>
	Total	20.6	3,954.4	112.3	3,604.8	873.6	8,565.7
1933	S.Pen & Aleutians	12.6	1,996.7	190.0	3,109.2	1,173.9	6,482.4
	North Peninsula	<u>1.1</u>	<u>350.1</u>	<u>0</u>	<u>0</u>	<u>16.0</u>	<u>367.2</u>
	Total	13.7	2,346.8	190.0	3,109.2	1,189.9	6,849.6
1934	S.Pen & Aleutians	17.6	1,372.4	247.1	6,538.5	1,940.3	10,115.9
	North Peninsula	<u>1.6</u>	<u>1,091.3</u>	<u>0</u>	<u>0.4</u>	<u>13.0</u>	<u>1,106.3</u>
	Total	19.2	2,463.7	247.1	6,538.9	1,953.3	11,222.2
1935	S.Pen & Aleutians	13.9	978.4	117.2	5,386.2	2,003.1	8,498.8
	North Peninsula	<u>1.0</u>	<u>479.2</u>	<u>0</u>	<u>0.1</u>	<u>33.8</u>	<u>514.1</u>
	Total	14.9	1,457.6	117.2	5,386.3	2,036.3	9,012.9
1936	S.Pen & Aleutians	14.4	3,662.6	284.6	9,471.0	2,310.9	15,743.5
	North Peninsula	<u>1.0</u>	<u>610.7</u>	<u>0</u>	<u>2.8</u>	<u>19.0</u>	<u>633.5</u>
	Total	15.4	4,273.3	284.6	9,473.8	2,329.9	16,377.0
1937	S.Pen & Aleutians	9.3	1,558.0	73.9	9,302.0	1,506.7	12,449.9
	North Peninsula	<u>1.6</u>	<u>860.9</u>	<u>0</u>	<u>0.1</u>	<u>65.6</u>	<u>928.2</u>
	Total	10.9	2,418.9	73.9	9,302.1	1,572.3	13,378.1
1938	S.Pen & Aleutians	6.4	772.1	220.7	7,169.1	1,476.6	9,644.9
	North Peninsula	<u>5.9</u>	<u>1,009.6</u>	<u>0</u>	<u>0</u>	<u>34.7</u>	<u>1,050.2</u>
	Total	12.3	1,781.7	220.7	7,169.1	1,511.3	10,695.1

Table 6. ALASKA PENINSULA - ALEUTIAN ISLANDS SALMON CATCHES (Fish in Thousands)
(Continued)

YEAR		KINGS	SOCKEYES	COHOS	PINKS	CHUMS	TOTAL
1939	S.Pen & Aleutians	16.5	1,881.7	98.9	6,005.3	1,440.6	9,443.0
	North Peninsula	<u>3.9</u>	<u>746.2</u>	<u>0</u>	<u>0</u>	<u>82.2</u>	<u>882.3</u>
	Total	20.4	2,627.9	98.9	6,005.3	1,522.8	10,275.3
1940	S.Pen & Aleutians	9.1	1,040.3	184.2	7,182.8	2,326.3	10,472.7
	North Peninsula	<u>0.7</u>	<u>678.9</u>	<u>0</u>	<u>0</u>	<u>65.6</u>	<u>745.2</u>
	Total	9.8	1,719.2	184.2	7,182.8	2,391.9	11,487.9
1941	S.Pen & Aleutians	13.0	1,072.0	183.0	5,347.0	1,542.0	8,157.8
	North Peninsula	<u>0.7</u>	<u>491.7</u>	<u>0</u>	<u>3.2</u>	<u>30.2</u>	<u>525.8</u>
	Total	13.7	1,563.7	183.0	5,350.2	1,572.2	8,682.8
1942	S.Pen & Aleutians	4.8	810.1	123.0	6,762.6	1,321.1	9,021.6
	North Peninsula	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
	Total	4.8	810.1	123.0	6,762.6	1,321.1	9,021.6
1943	S.Pen & Aleutians	21.7	2,397.7	90.6	4,360.2	924.5	7,794.7
	North Peninsula	<u>0.2</u>	<u>567.4</u>	<u>0</u>	<u>1.3</u>	<u>50.4</u>	<u>619.3</u>
	Total	21.9	2,965.1	90.6	4,361.5	974.9	8,414.0
1944	S.Pen & Aleutians	9.9	538.6	238.7	2,653.8	985.6	4,426.6
	North Peninsula	<u>0.1</u>	<u>414.7</u>	<u>0</u>	<u>2.6</u>	<u>157.9</u>	<u>575.3</u>
	Total	10.0	953.3	238.7	2,656.4	1,143.5	5,001.9
1945	S.Pen & Aleutians	21.4	813.4	116.1	3,639.6	948.9	5,539.4
	North Peninsula	<u>0.1</u>	<u>394.4</u>	<u>0</u>	<u>2.5</u>	<u>335.1</u>	<u>732.1</u>
	Total	21.5	1,207.8	116.1	3,642.1	1,284.0	6,271.5
1946	S.Pen & Aleutians	6.1	752.3	151.4	1,964.0	1,219.9	4,093.7
	North Peninsula	<u>2.5</u>	<u>697.7</u>	<u>0.3</u>	<u>0</u>	<u>36.0</u>	<u>736.5</u>
	Total	8.6	1,450.0	151.7	1,964.0	1,255.9	4,830.2
1947	S.Pen & Aleutians	3.4	1,137.1	55.8	2,319.6	1,219.2	4,735.1
	North Peninsula	<u>0.1</u>	<u>357.7</u>	<u>0.1</u>	<u>0.1</u>	<u>75.0</u>	<u>433.0</u>
	Total	3.5	1,491.8	55.9	2,319.7	1,294.2	5,168.1
1948	S.Pen & Aleutians	1.2	285.9	39.2	1,683.7	1,139.6	3,149.6
	North Peninsula	<u>1.2</u>	<u>477.6</u>	<u>17.2</u>	<u>0</u>	<u>161.7</u>	<u>658.7</u>
	Total	3.4	763.5	56.4	1,683.7	1,301.3	3,808.3

Table 6. ALASKA PENINSULA - ALEUTIAN ISLANDS SALMON CATCHES (Fish in Thousands)
(Continued)

YEAR		KINGS	SOCKEYES	COHOS	PINKS	CHUMS	TOTAL
1949	S. Pen & Aleutians	3.8	637.5	19.5	1,544.0	560.9	2,765.7
	North Peninsula	<u>0.7</u>	<u>137.1</u>	<u>25.7</u>	<u>0</u>	<u>40.7</u>	<u>204.2</u>
	Total	4.5	774.6	45.2	1,544.0	601.6	2,969.9
1950	S. Pen & Aleutians	4.0	1,745.3	70.7	1,613.7	562.5	3,996.2
	North Peninsula	<u>1.1</u>	<u>127.8</u>	<u>37.8</u>	<u>0</u>	<u>217.6</u>	<u>284.3</u>
	Total	5.1	1,873.1	108.5	1,613.7	780.1	4,380.5
1951	South Peninsula	1.5	264.2	55.7	2,844.8	683.1	3,849.3
	North Peninsula	1.2	358.9	32.9	20.4	203.0	616.4
	Aleutians	<u>0</u>	<u>11.7</u>	<u>0.4</u>	<u>0.5</u>	<u>94.5</u>	<u>107.1</u>
	Total	2.7	634.8	89.0	2,865.7	980.6	4,572.8
1952	South Peninsula	9.2	894.5	39.2	908.5	1,040.8	2,892.2
	North Peninsula	0.7	354.8	54.2	1.4	246.9	658.0
	Aleutians	<u>0.2</u>	<u>42.8</u>	<u>0</u>	<u>31.8</u>	<u>25.7</u>	<u>100.5</u>
	Total	10.1	1,292.1	93.4	941.7	1,313.4	3,650.7
1953	South Peninsula	7.2	1,039.2	47.9	2,743.9	1,464.6	5,302.8
	North Peninsula	0.8	537.3	26.2	18.3	224.4	807.0
	Aleutians	<u>0</u>	<u>4.2</u>	<u>0.5</u>	<u>69.2</u>	<u>0.8</u>	<u>74.7</u>
	Total	8.0	1,580.7	74.6	2,831.4	1,689.8	6,184.5
1954	South Peninsula	4.2	636.3	49.4	2,033.3	1,413.4	4,136.6
	North Peninsula	3.4	354.7	35.0	18.5	405.0	816.6
	Aleutians	<u>0</u>	<u>6.3</u>	<u>0.8</u>	<u>566.5</u>	<u>0.2</u>	<u>573.8</u>
	Total	7.6	997.3	85.2	2,618.3	1,818.6	5,527.0
1955	South Peninsula	5.4	550.1	44.8	2,529.2	688.2	3,817.7
	North Peninsula	4.1	586.6	6.2	0.9	129.6	727.4
	Aleutians	<u>0</u>	<u>12.6</u>	<u>0.1</u>	<u>31.1</u>	<u>0.4</u>	<u>44.2</u>
	Total	9.5	1,149.3	51.1	2,561.2	818.2	4,589.3
1956	South Peninsula	4.8	641.4	61.9	2,740.7	1,618.7	5,067.5
	North Peninsula	4.2	1,370.9	8.2	28.5	427.4	1,839.2
	Aleutians	<u>0</u>	<u>0.4</u>	<u>0</u>	<u>33.9</u>	<u>0</u>	<u>34.3</u>
	Total	9.0	2,012.7	70.1	2,803.1	2,046.1	6,941.0

Table 6. ALASKA PENINSULA - ALEUTIAN ISLANDS SALMON CATCHES (Fish in Thousands)
(Continued)

YEAR		KINGS	SOCKEYES	COHOS	PINKS	CHUMS	TOTAL
1957	South Peninsula	5.8	341.9	49.9	913.1	1,281.4	2,592.1
	North Peninsula	1.0	327.9	18.3	3.3	274.9	625.4
	Aleutians	<u>2.3</u>	<u>27.3</u>	<u>0.1</u>	<u>0.5</u>	<u>13.9</u>	<u>44.1</u>
	Total	9.1	697.1	68.3	916.9	1,570.2	3,261.6
1958	South Peninsula	0.8	186.1	70.6	1,385.2	841.0	2,483.7
	North Peninsula	15.0	473.8	57.1	60.4	254.8	861.1
	Aleutians	<u>0</u>	<u>0.3</u>	<u>0</u>	<u>613.2</u>	<u>3.7</u>	<u>617.2</u>
	Total	15.8	660.2	127.7	2,058.8	1,099.5	3,962.0
1959	South Peninsula	0.9	217.5	8.5	915.6	711.7	1,854.2
	North Peninsula	28.7	634.9	59.1	9.6	404.7	1,137.0
	Aleutians	<u>0</u>	<u>6.1</u>	<u>0</u>	<u>12.0</u>	<u>0.1</u>	<u>18.2</u>
	Total	29.6	858.5	67.6	937.2	1,116.5	3,009.4
1960	South Peninsula	1.7	379.0	1.8	1,197.5	904.4	2,484.4
	North Peninsula	10.4	692.8	44.0	34.7	607.2	1,389.1
	Aleutians	<u>0</u>	<u>7.6</u>	<u>0</u>	<u>444.9</u>	<u>0.3</u>	<u>452.8</u>
	Total	12.1	1,079.4	45.8	1,677.1	1,511.9	4,326.3
1961	South Peninsula	0.9	456.8	10.4	1,727.8	748.6	2,944.5
	North Peninsula	6.1	387.7	24.6	3.0	153.3	574.7
	Aleutians	<u>0</u>	<u>2.7</u>	<u>0</u>	<u>94.0</u>	<u>0.2</u>	<u>96.9</u>
	Total	7.0	847.2	35.0	1,824.8	902.1	3,616.1
1962	South Peninsula	3.3	420.0	12.5	1,965.5	824.8	3,226.1
	North Peninsula	5.4	249.7	35.2	31.2	34.9	356.4
	Aleutians	<u>0</u>	<u>5.5</u>	<u>0.1</u>	<u>2,001.7</u>	<u>1.2</u>	<u>2,008.5</u>
	Total	8.7	675.2	47.8	3,998.4	860.9	5,591.0
1963	South Peninsula	1.9	204.4	16.5	2,367.7	461.3	3,051.8
	North Peninsula	3.6	225.2	40.5	6.9	49.9	326.1
	Aleutians	<u>0</u>	<u>4.5</u>	<u>0</u>	<u>93.9</u>	<u>0.3</u>	<u>98.7</u>
	Total	5.5	434.1	57.0	2,468.5	511.5	3,476.6
1964	South Peninsula	2.0	370.8	13.6	2,740.4	751.0	3,877.8
	North Peninsula	3.6	250.8	36.6	6.8	139.0	436.8
	Aleutians	<u>0</u>	<u>0.2</u>	<u>0</u>	<u>194.1</u>	<u>2.3</u>	<u>196.6</u>
	Total	5.6	621.7	50.2	2,941.3	892.3	4,511.2

Table 6. ALASKA PENINSULA - ALEUTIAN ISLANDS SALMON CATCHES (Fish in Thousands)
(Continued)

YEAR		KINGS	SOCKEYES	COHOS	PINKS	CHUMS	TOTAL
1965	South Peninsula	2.1	915.7	34.2	2,884.1	556.4	4,392.5
	North Peninsula	6.1	199.5	34.5	2.1	69.7	311.9
	Aleutians	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
	Total	8.2	1,115.2	68.7	2,886.2	626.1	4,704.4
1966	South Peninsula	1.4	606.2	6.3	302.3	494.4	1,410.6
	North Peninsula	5.6	245.3	37.3	16.0	82.8	387.0
	Aleutians	<u>0</u>	<u>1.0</u>	<u>0</u>	<u>63.5</u>	<u>0.7</u>	<u>65.2</u>
	Total	7.0	852.5	43.6	381.8	577.9	1,862.8
1967	South Peninsula	1.6	294.1	2.9	77.8	245.2	621.6
	North Peninsula	5.5	224.7	46.8	0.7	41.3	319.0
	Aleutians	<u>0</u>	<u>0.2</u>	<u>0</u>	<u>7.9</u>	<u>0</u>	<u>8.1</u>
	Total	7.1	519.0	49.7	86.4	286.5	948.7
1968	South Peninsula	1.4	699.8	31.1	1,287.1	325.3	2,344.7
	North Peninsula	4.5	237.1	64.9	0.2	73.5	380.2
	Aleutians	<u>0</u>	<u>2.0</u>	<u>0.1</u>	<u>902.8</u>	<u>0.8</u>	<u>905.7</u>
	Total	5.9	938.9	96.1	2,190.1	399.6	3,630.6
1969	South Peninsula	1.9	912.8	10.9	1,219.4	389.2	2,534.2
	North Peninsula	4.8	321.3	49.1	0.1	28.1	403.4
	Aleutians	<u>0</u>	<u>1.9</u>	<u>0</u>	<u>242.2</u>	<u>1.5</u>	<u>245.6</u>
	Total	6.7	1,236.0	60.0	1,461.7	418.8	3,183.2
1970	South Peninsula	1.8	1,794.6	32.2	1,723.4	981.7	4,533.7
	North Peninsula	3.2	213.0	26.4	7.8	50.2	300.6
	Aleutians	<u>0</u>	<u>0.2</u>	<u>0.1</u>	<u>672.5</u>	<u>3.3</u>	<u>676.1</u>
	Total	5.0	2,007.8	58.7	2,403.7	1,035.2	5,510.4
1971	South Peninsula	2.2	715.5	16.8	1,450.1	1,366.6	3,551.2
	North Peninsula	2.2	354.2	8.2	0.3	64.2	429.1
	Aleutians	<u>0</u>	<u>0.3</u>	<u>0</u>	<u>45.5</u>	<u>0.1</u>	<u>45.9</u>
	Total	4.4	1,070.0	25.0	1,495.9	1,430.9	4,026.2
1972	South Peninsula	1.3	557.8	8.0	78.0	727.5	1,372.6
	North Peninsula	1.8	179.5	9.6	0	84.7	275.6
	Aleutians	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>2.8</u>	<u>0</u>	<u>2.9</u>
	Total	3.1	737.4	17.6	80.8	812.2	1,651.1

Table 6. ALASKA PENINSULA - ALEUTIAN ISLANDS SALMON CATCHES (Fish in Thousands)
(Continued)

YEAR		KINGS	SOCKEYES	COHOS	PINKS	CHUMS	TOTAL
1973	South Peninsula	0.4	330.2	6.6	58.0	293.0	688.2
	North Peninsula	4.4	171.8	26.9	0.3	155.7	359.1
	Aleutians	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>7.0</u>	<u>0</u>	<u>7.1</u>
	Total	4.8	502.1	33.5	65.3	448.7	1,054.4
1974	South Peninsula	0.5	204.7	9.4	99.7	71.5	385.8
	North Peninsula	5.1	247.9	24.0	10.5	35.3	322.8
	Aleutians	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
	Total	5.6	452.6	33.4	110.2	106.8	708.6
1975	South Peninsula	0.1	268.4	0	61.7	132.9	463.1
	North Peninsula	2.1	233.5	28.2	0.3	8.7	272.8
	Aleutians	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
	Total	2.2	501.9	28.2	62.0	141.6	735.9
1976	South Peninsula	2.1	375.0	0.2	2,367.0	532.5	3,276.8
	North Peninsula	4.9	641.1	26.0	0.6	73.6	746.2
	Aleutians	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
	Total	7.0	1,016.1	26.2	2,367.6	606.1	4,023.0
1977	South Peninsula	0.5	311.7	2.1	1,448.6	243.2	2,006.1
	North Peninsula	5.5	471.1	34.1	0.9	129.1	640.7
	Aleutians	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
	Total	6.0	782.8	36.2	1,449.5	372.3	2,646.8
1978	South Peninsula	0.8	579.5	60.7	5,608.8	547.0	6,796.8
	North Peninsula	14.2	896.2	63.3	466.6	163.2	1,603.5
	Aleutians	<u>0</u>	<u>1.8</u>	<u>0</u>	<u>38.1</u>	<u>0</u>	<u>39.9</u>
	Total	15.0	1,477.5	124.0	6,113.5	710.2	8,440.2
1979	South Peninsula	2.1	1,149.7	356.5	6,570.5	483.0	8,561.8
	North Peninsula	17.1	1,979.5	112.8	5.0	65.7	2,180.1
	Aleutians	<u>0</u>	<u>12.2</u>	<u>0</u>	<u>539.4</u>	<u>0.2</u>	<u>551.8</u>
	Total	19.2	3,141.4	469.3	7,114.9	548.9	11,293.7
1980	South Peninsula	4.8	3,613.0	274.2	7,961.5	1,351.2	13,104.7
	North Peninsula	16.8	1,397.1	127.9	301.7	700.2	2,543.7
	Aleutians	<u>0</u>	<u>9.2</u>	<u>0</u>	<u>2,597.5</u>	<u>4.9</u>	<u>2,611.6</u>
	Total	21.6	5,019.3	402.1	10,760.7	2,056.3	18,260.0

Table 6. ALASKA PENINSULA - ALEUTIAN ISLANDS SALMON CATCHES (Fish in Thousands)
(Continued)

YEAR		KINGS	SOCKEYES	COHOS	PINKS	CHUMS	TOTAL
1981	South Peninsula	10.2	2,255.2	162.2	5,035.9	1,770.3	9,233.8
	North Peninsula	18.3	1,844.9	155.4	11.2	706.8	2,736.6
	Aleutians	<u>0</u>	<u>5.4</u>	<u>0.2</u>	<u>302.8</u>	<u>6.6</u>	<u>315.0</u>
	Total	28.5	4,105.5	317.8	5,349.9	2,483.7	12,285.4
1982	South Peninsula	9.8	2,346.0	256.0	6,734.9	2,272.5	11,619.2
	North Peninsula	30.1	1,435.3	238.0	12.3	331.1	2,046.8
	Aleutians	<u>0</u>	<u>2.7</u>	<u>0</u>	<u>1,447.8</u>	<u>6.1</u>	<u>1,456.6</u>
	Total	39.9	3,784.0	494.0	8,195.0	2,609.7	15,122.6
1983	South Peninsula	26.9	2,556.6	127.7	2,827.6	1,707.1	7,245.9
	North Peninsula	29.5	2,093.4	75.1	3.4	348.7	2,550.1
	Aleutians	<u>0</u>	<u>4.4</u>	<u>0</u>	<u>2.0</u>	<u>11.4</u>	<u>17.8</u>
	Total	56.4	4,654.4	202.8	2,833.0	2,067.2	9,813.8
1984	South Peninsula	9.2	2,318.0	309.1	11,589.3	1,656.5	15,882.1
	North Peninsula	23.0	1,734.9	198.6	27.4	796.7	2,780.6
	Aleutians	<u>0</u>	<u>67.2</u>	<u>0</u>	<u>2,309.7</u>	<u>33.9</u>	<u>2,410.8</u>
	Total	32.2	4,120.1	507.7	13,926.4	2,487.1	21,073.5
1985	South Peninsula	7.9	2,214.6	172.5	4,433.7	1,393.1	8,221.8
	North Peninsula	23.5	2,600.5	167.8	3.1	671.1	3,466.0
	Aleutians	<u>0</u>	<u>2.8</u>	<u>0</u>	<u>0.1</u>	<u>14.2</u>	<u>17.1</u>
	Total	31.4	4,817.9	340.3	4,436.9	2,078.4	11,704.9
1986	South Peninsula	5.6	1,223.0	235.9	4,031.5	1,749.7	7,245.7
	North Peninsula	11.7	2,436.7	164.1	22.6	271.2	2,933.3
	Aleutians	<u>0</u>	<u>7.7</u>	<u>0.1</u>	<u>42.6</u>	<u>38.8</u>	<u>89.2</u>
	Total	17.3	3,694.4	400.1	4,096.7	2,059.7	10,268.2
1987	South Peninsula	9.2	1,449.8	224.7	1,208.6	1,376.3	4,268.6
	North Peninsula	14.2	1,209.4	171.8	3.5	368.7	1,767.6
	Aleutians	<u>0</u>	<u>0.1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.1</u>
	Total	23.4	2,659.3	396.5	1,212.1	1,745.0	6,036.3
1988	South Peninsula	11.1	1,472.9	505.5	7,044.8	1,905.2	10,939.5
	North Peninsula	16.8	1,528.1	234.0	65.2	393.5	2,237.6
	Aleutians	<u>0</u>	<u>4.3</u>	<u>0</u>	<u>183.1</u>	<u>0.5</u>	<u>187.9</u>
	Total	27.9	3,005.3	739.5	7,293.1	2,299.2	13,365.0

The Alaska Department of Fish and Game administers all programs and activities free from discrimination based on race, color, national origin, age, sex, religion, marital status, pregnancy, parenthood, or disability. The department administers all programs and activities in compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972.

If you believe you have been discriminated against in any program, activity, or facility, or if you desire further information please write to ADF&G, P.O. Box 25526, Juneau, AK 99802-5526; U.S. Fish and Wildlife Service, 4040 N. Fairfax Drive, Suite 300 Webb, Arlington, VA 22203 or O.E.O., U.S. Department of the Interior, Washington DC 20240.

For information on alternative formats for this and other department publications, please contact the department ADA Coordinator at (voice) 907-465-6077, (TDD) 907-465-3646, or (FAX) 907-465-6078.