

**Recent History of Chinook Salmon Harvests in  
Marine Waters of Southcentral Alaska:  
A Compilation of Harvest, Size, and Coded Wire  
Tag Data by Fishery, 1980–1995 and  
Recommendations for Future Assessment**

by

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April 1998



## Symbols and Abbreviations

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Weights and measures (metric)		General		Mathematics, statistics, fisheries	
centimeter	cm	All commonly accepted abbreviations.	e.g., Mr., Mrs., a.m., p.m., etc.	alternate hypothesis	$H_A$
deciliter	dL			base of natural logarithm	e
gram	g	All commonly accepted professional titles.	e.g., Dr., Ph.D., R.N., etc.	catch per unit effort	CPUE
hectare	ha	and	&	coefficient of variation	CV
kilogram	kg	at	@	common test statistics	F, t, $\chi^2$ , etc.
kilometer	km	Compass directions:		confidence interval	C.I.
liter	L			correlation coefficient	R (multiple)
meter	m	east	E	correlation coefficient	r (simple)
metric ton	mt	north	N	covariance	cov
milliliter	ml	south	S	degree (angular or temperature)	°
millimeter	mm	west	W	degrees of freedom	df
		Copyright	©	divided by	÷ or / (in equations)
		Corporate suffixes:			
		Company	Co.	equals	=
		Corporation	Corp.	expected value	E
		Incorporated	Inc.	fork length	FL
		Limited	Ltd.	greater than	>
		et alii (and other people)	et al.	greater than or equal to	≥
		et cetera (and so forth)	etc.	harvest per unit effort	HPUE
		exempli gratia (for example)	e.g.,	less than	<
		id est (that is)	i.e.,	less than or equal to	≤
		latitude or longitude	lat. or long.	logarithm (natural)	ln
		monetary symbols (U.S.)	\$, ¢	logarithm (base 10)	log
		months (tables and figures): first three letters	Jan,...,Dec	logarithm (specify base)	log <sub>2</sub> , etc.
		number (before a number)	# (e.g., #10)	mid-eye-to-fork	MEF
		pounds (after a number)	# (e.g., 10#)	minute (angular)	'
		registered trademark	®	multiplied by	x
		trademark	™	not significant	NS
		United States (adjective)	U.S.	null hypothesis	$H_0$
		United States of America (noun)	USA	percent	%
		U.S. state and District of Columbia abbreviations	use two-letter abbreviations (e.g., AK, DC)	probability	P
				probability of a type I error (rejection of the null hypothesis when true)	$\alpha$
				probability of a type II error (acceptance of the null hypothesis when false)	$\beta$
				second (angular)	"
				standard deviation	SD
				standard error	SE
				standard length	SL
				total length	TL
				variance	Var
<b>Weights and measures (English)</b>					
cubic feet per second	ft <sup>3</sup> /s				
foot	ft				
gallon	gal				
inch	in				
mile	mi				
ounce	oz				
pound	lb				
quart	qt				
yard	yd				
Spell out acre and ton.					
<b>Time and temperature</b>					
day	d				
degrees Celsius	°C				
degrees Fahrenheit	°F				
hour (spell out for 24-hour clock)	h				
minute	min				
second	s				
Spell out year, month, and week.					
<b>Physics and chemistry</b>					
all atomic symbols					
alternating current	AC				
ampere	A				
calorie	cal				
direct current	DC				
hertz	Hz				
horsepower	hp				
hydrogen ion activity	pH				
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

***FISHERY MANAGEMENT REPORT NO. 98-1***

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IN MARINE WATERS OF SOUTHCENTRAL ALASKA:  
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BY FISHERY, 1980–1995 AND RECOMMENDATIONS FOR FUTURE  
ASSESSMENT**

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April 1998

The Fishery Management Report series was established in 1989 for the publication of an overview of Division of Sport Fish management activities or management goals in a specific geographic area. Fishery Management Reports are intended for fishery and other technical professionals, as well as lay persons. Distribution is to state and local publication distribution centers, libraries and individuals and, on request, to other libraries, agencies, and individuals. This publication has undergone editorial and peer review.

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*This document should be cited as:*

*Lafferty, Robert, Suzanne Hayes, Timothy R. McKinley, and Robert A. Clark. 1998. Recent history of chinook salmon harvests in marine waters of Southcentral Alaska: a compilation of harvest, size, and coded wire tag data by fishery, 1980–1995 and recommendations for future assessment. Alaska Department of Fish and Game, Fishery Management Report No. 98-1, Anchorage.*

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## EXECUTIVE SUMMARY

This report extends the previous work of Clark et al. (1994) in providing a single source for harvests and stock composition of chinook salmon fisheries in the marine waters of southcentral Alaska. Harvest and coded wire tag (CWT) recovery data are summarized from 1980 to 1995. Additionally, programmatic changes made in response to previous recommendations are documented, and additional recommendations for assessment are made.

Overall, marine harvests of chinook salmon have increased since 1980. From 1980 to 1987 marine annual harvest averaged approximately 108,000 fish, increasing to approximately 138,000 fish during 1988-1995. The peak harvest of 188,000 fish occurred in 1993 (Figure A).

Sport harvest of chinook salmon grew from approximately 2,500 fish in 1980 to a peak of 33,000 fish in 1993. During the period from 1980 to 1987,

marine sport harvest averaged approximately 7,000 fish per year, increasing to approximately 20,000 fish per year during 1988-1995 (Figure B). Most of this growth occurred in the Lower and Upper Cook Inlet areas. Increased harvest in these fisheries can be attributed to increased enhancement activities in Homer and Seward,

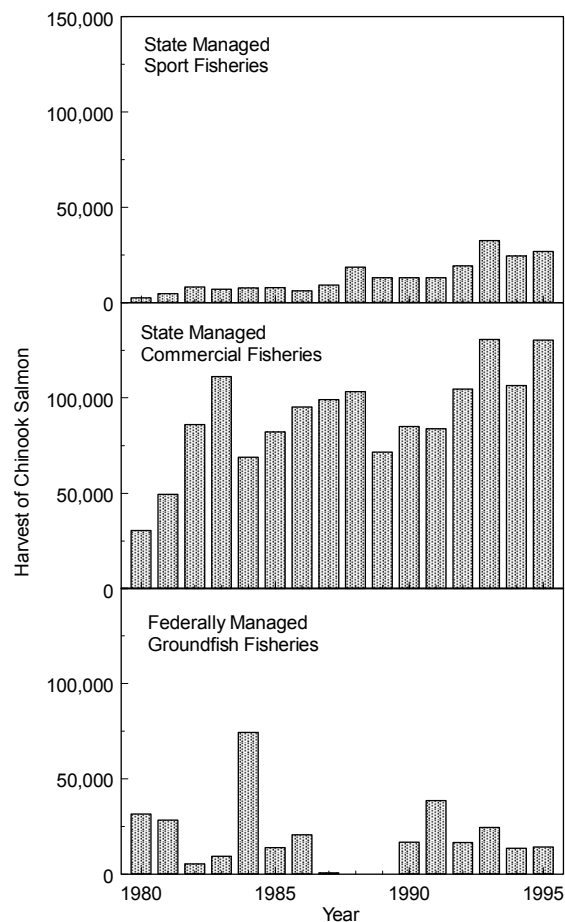


Figure A.-Harvest of chinook salmon (numbers of fish) in fisheries in marine waters of southcentral Alaska, 1980-1995.

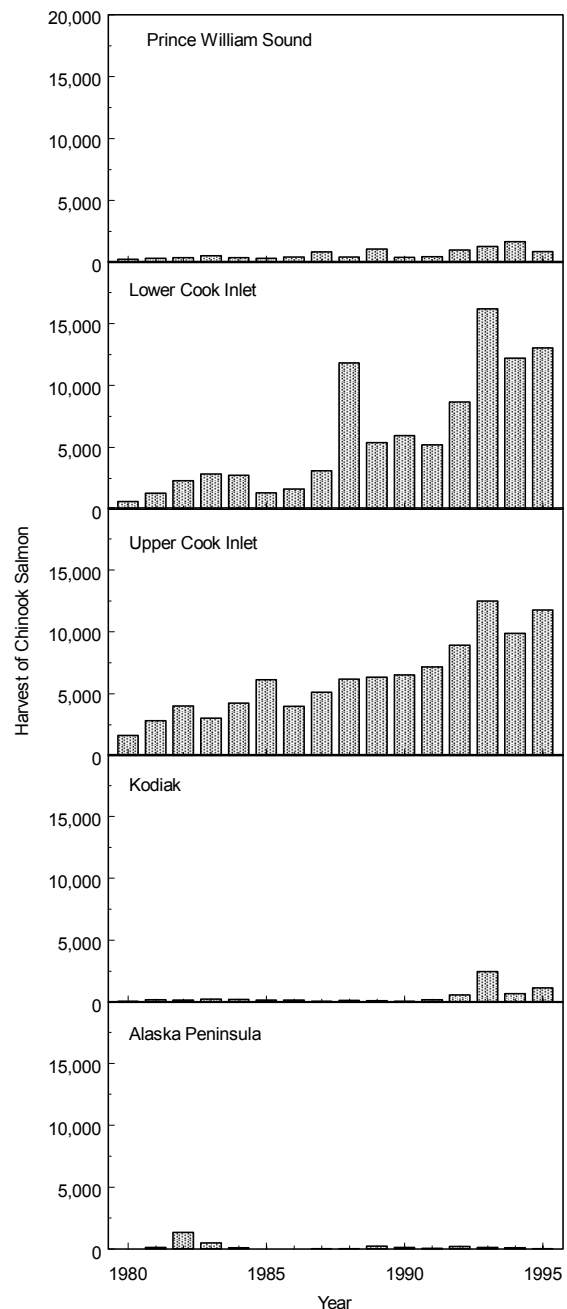


Figure B.-Harvest of chinook salmon (numbers of fish) in sport fisheries in marine waters of southcentral Alaska, 1980-1995.

as well as increased fishing effort in boat fisheries operating off of Anchor Point, Whiskey Gulch, and Deep Creek. CWT recoveries in these boat fisheries indicate that an unknown level of nonlocal stocks are harvested along with local stocks. Quantitative estimates of stock composition in these fisheries are needed to provide better information on marine harvests of local stocks and migratory information on nonlocal stocks.

Sport harvest in Prince William Sound and Kodiak experienced growth, but harvests in these areas continue to number in the hundreds. Sport harvest in the Alaska Peninsula decreased somewhat and continues to number in the hundreds.

Harvest of chinook salmon in state-managed commercial fisheries increased from approximately 30,500 fish in 1980 to a peak of approximately 130,000 fish in 1993 and 1995. During the period from 1980 to 1987 commercial harvest averaged approximately 78,000 fish per year, increasing to approximately 102,000 fish per year during 1988-1995 (Figure C).

Most of the growth in harvest occurred in Kodiak and Chignik fisheries. Harvest of chinook salmon in Kodiak increased from an average of approximately 3,200 fish during 1980-1987 to an average of approximately 21,400 fish during 1988-1995. Harvests in Chignik averaged approximately 3,500 fish during 1980-1987 and averaged approximately 8,000 fish during 1988-1995. CWT recoveries in Kodiak and Chignik indicate an unknown level of nonlocal stocks are harvested along with local stocks. Data from a pilot study in 1994 are being utilized to design quantitative CWT recovery programs in Kodiak. We recommend that quantitative estimates of Chignik CWT recoveries be sought.

Commercial harvest of chinook salmon in Prince William Sound remained relatively stable during 1980-1995. CWT recoveries from Prince William Sound indicate that most Alaskan origin recoveries are from local hatchery releases. Quantitative estimates of harvest of CWT stocks indicate that the level of nonlocal harvest in Prince William Sound is likely small.

Overall, commercial harvest of chinook salmon in Cook Inlet remained stable during 1980-1995, although harvests in Lower Cook Inlet have grown since 1988. CWT recovery programs already exist for major set net fisheries in Upper Cook Inlet (East Central and Northern districts). We recommend that a CWT recovery program be implemented for fisheries in Lower Cook Inlet.

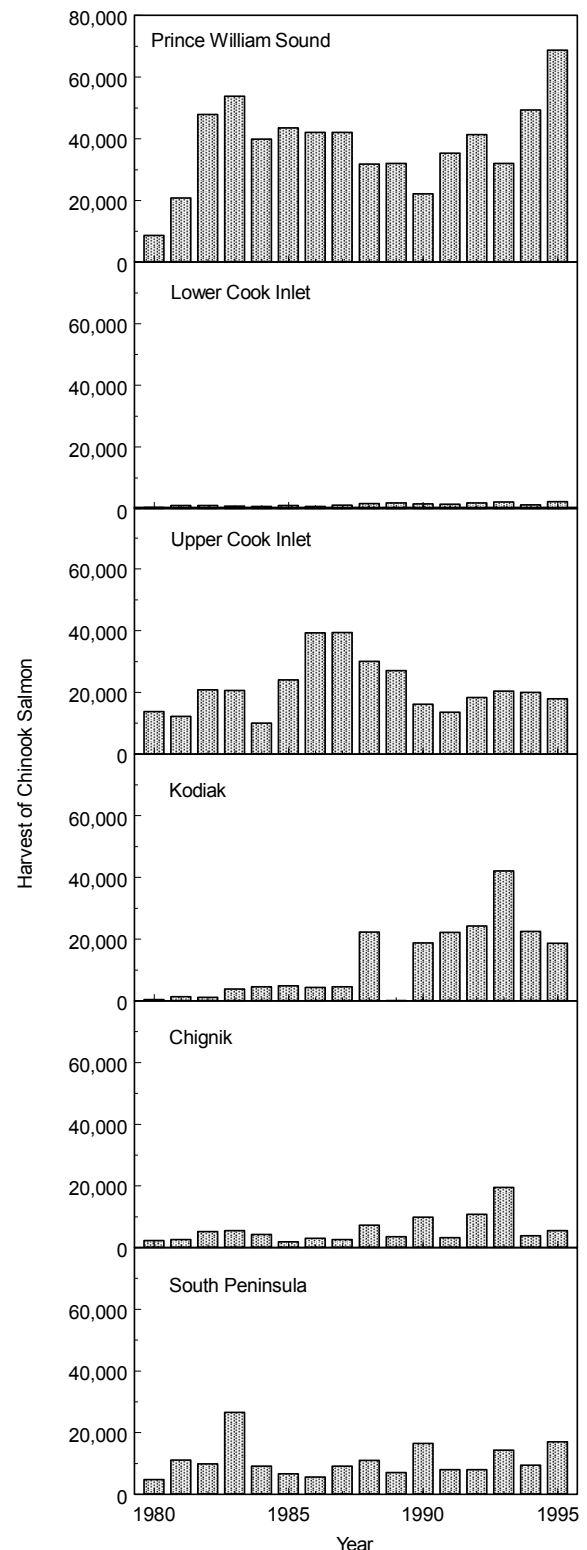


Figure C.-Harvest of chinook salmon (numbers of fish) in commercial fisheries in marine waters of southcentral Alaska, 1980-1995.

Although commercial harvest of chinook salmon in South Peninsula has remained relatively stable during 1980-1995, virtually nothing is known of time/area trends or stock composition of the harvest. We recommend that a CWT recovery program be implemented in South Peninsula.

Bycatch of chinook salmon in federally managed groundfish fisheries west of Yakutat (areas 610-640) has been highly variable, ranging from no fish reported during 1989 to approximately 74,000 fish during 1984 (Figure D). Since implementation of the observer program for the domestic fleet in 1990, harvests have ranged from approximately 13,600 to 38,700 fish annually. Recoveries of CWTs indicate mixed harvests of chinook salmon originating from Alaska, British Columbia, Yukon Territory, Washington, Oregon, and California. We recommend that data from the observer program be used to estimate precision of harvest estimates and contributions from coded wire tagged stocks.

Stock identification of chinook salmon harvested in southcentral Alaska continues to suffer from a lack of marking programs for wild stocks and a lack of quantitative programs to collect CWTs and estimate harvests. Since 1994, CWT marking programs have been implemented in all hatchery releases and on five wild stocks (Kenai River, Deep Creek, Willow Creek, Deshka River, and Copper River). CWT recovery programs have also been implemented in Lower and Upper Cook Inlet sport fisheries, Upper Cook Inlet commercial fisheries, and Kodiak commercial and sport fisheries. Marked increases in harvest in Kodiak and Chignik commercial fisheries necessitate CWT marking programs on local wild stocks in these areas. Additionally, CWT recovery programs are needed in Chignik and South Peninsula commercial fisheries. While data exist to estimate mixed stock harvests of chinook salmon in federally managed groundfish fisheries, no attempt has been made to analyze these data.

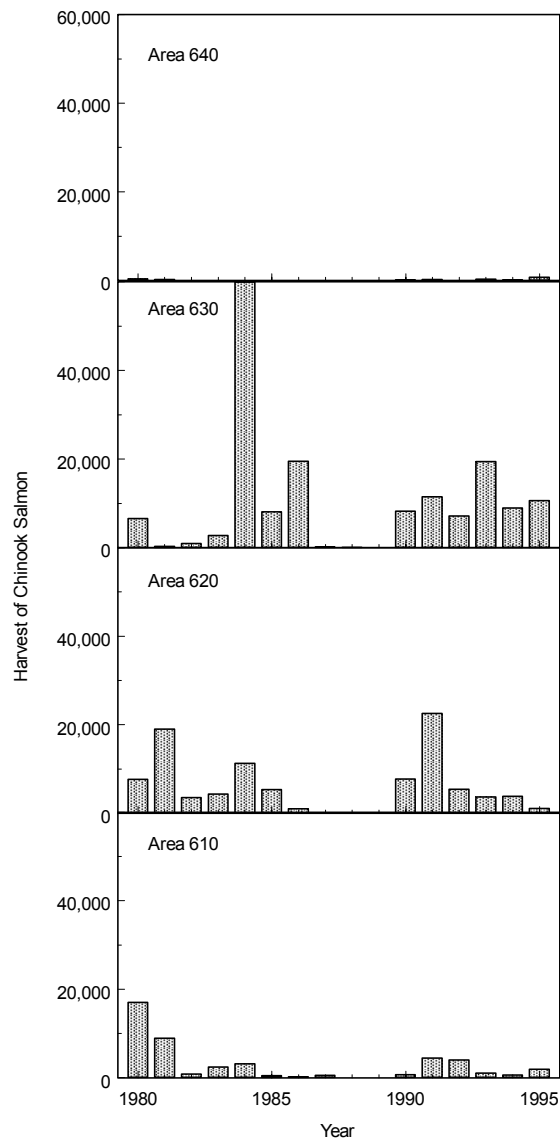


Figure D.-Harvest of chinook salmon (numbers of fish) in federally managed groundfish fisheries in marine waters of southcentral Alaska, 1980-1995

## INTRODUCTION

Regional management of highly migratory fish like chinook salmon *Oncorhynchus tshawytscha* in the Northwest Pacific continues to foster conflict between Canadian and United States governments. Despite intensive investigations on organized coastal fisheries, and Japanese mothership and landbased fisheries, our understanding of ocean migratory and distribution patterns of chinook salmon is still very sketchy (Healey 1991). Our lack of understanding of the migratory nature of chinook salmon in the Northern Pacific Ocean has complicated fishery management, because chinook salmon are harvested beyond the political bounds of their natal streams. These harvests often cause conflicts between competing users, adjacent states, provinces, and national governments. People of the Northwest Pacific region face major issues concerning chinook salmon, such as the implementation of the Endangered Species Act and Pacific Salmon Treaty negotiations. The Pacific States Marine Fisheries Commission (PSMFC) is dedicated to resolving fishery issues. The PSMFC does not have regulatory or management authority, but works to build coastwide consensus on fisheries issues with state and federal authorities. PSMFC addresses issues that fall outside state or regional management council jurisdiction. Additionally, PSMFC coordinates and coalesces coastwide stock-specific information from coastwide coded wire tagging, inriver PIT (passive integrated transponders) tag experiments, and commercial fish catches from states and provinces. Information from these databases maintained by PSMFC are utilized in treaty agreements and allocation disputes by competing users.

Currently, 67 state, federal, Native, and private entities in the USA and Canada are participating in a massive coastwide coded wire tagging effort to provide essential data for assessment and management of Pacific salmon stocks. This information forms the basis for monitoring fisheries and allocating harvest rights among competing users. These data play a key role in formulating or establishing Pacific Salmon Treaty allocations and management of transboundary stocks (Johnson 1990). The State of Alaska contributes to this coastwide database by providing harvest statistics, as well as release and recovery information from chinook salmon tagged with coded wire tags.

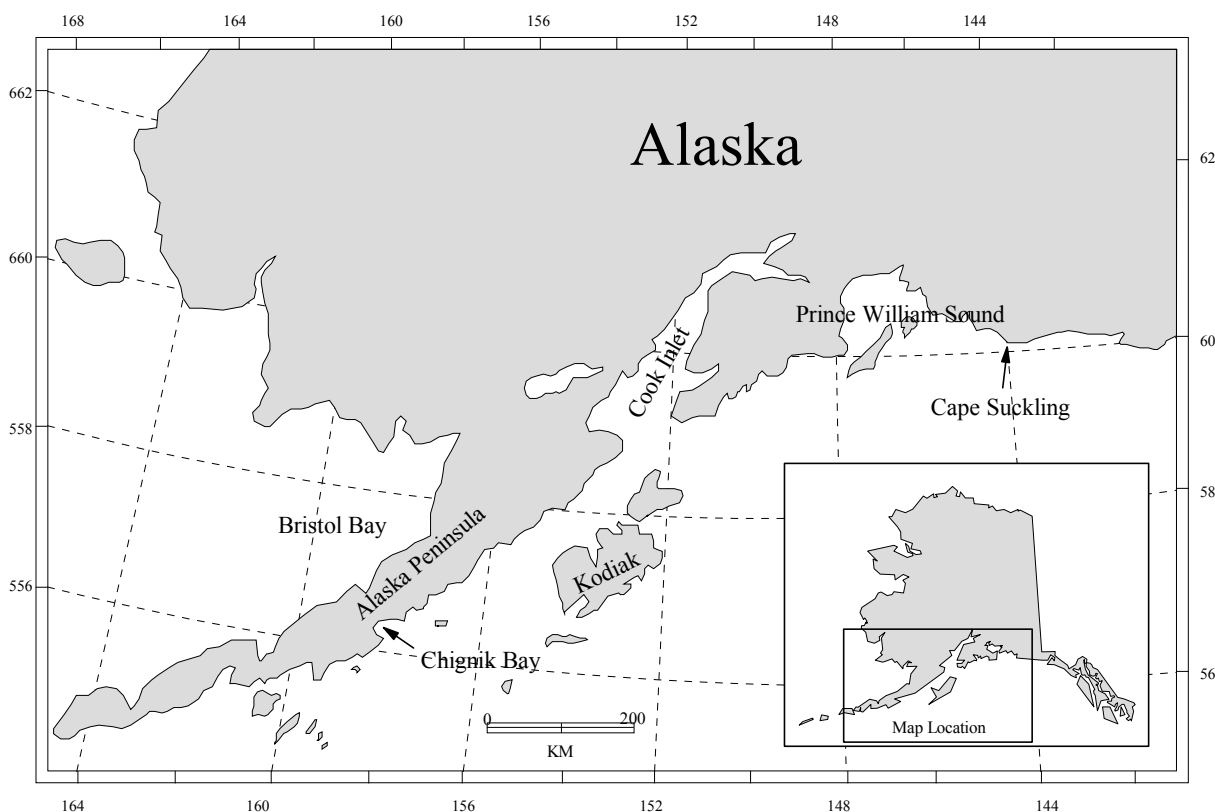
To further complicate the management of chinook salmon, chinook salmon life history displays two strategies that makes stock assessment complex. Chinook salmon are classified by the season when adults return to spawn and by their juvenile residence in fresh water. Stream-type chinook salmon spend a year or two in freshwater and migrate to the sea in the spring of their second or third year of life. Ocean-type chinook salmon migrate to the sea during their first year of life after rearing several months in the river (NRC 1996). Stream-type chinook salmon tend to migrate to open-ocean waters, whereas ocean-type chinook salmon have a more coastal marine distribution. Ocean-type chinook salmon also spend more time in estuaries than do stream-type chinook salmon (Healey 1991). In the Pacific Northwest, stream-type juveniles are often spring-run adults, and ocean-type juveniles are more often fall-run adults. Stream-type chinook salmon are more prevalent in northern stocks of chinook salmon (NRC 1996) and most of the chinook salmon stocks in southcentral Alaska are considered to have a stream-type life history. Stream-type chinook salmon are fished primarily during their return to fresh water from their extensive offshore oceanic migrations. Ocean-type chinook salmon, however, are vulnerable to recreational and commercial fisheries much of their lives because they spend most of their oceanic life in coastal waters (Healey 1991).



Fisheries management for chinook salmon based on traditional sustained yield principles becomes more complex when immature chinook salmon are vulnerable to marine harvests for up to 5 years. Cumulative fishing mortality on immature chinook salmon can quickly accelerate to excessive levels, particularly if coupled with intense terminal fisheries (Hankin and Healy 1986). Because female chinook salmon mature later than males, they are exposed to additional exploitation. Therefore, female chinook salmon decline in abundance more rapidly as exploitation increases. Excessive marine harvest of immature chinook salmon has resulted in decreased size and age-at-return (Ricker 1980). Decreasing size and age-at-return is often a precursor to stock collapse and raises concern about harvests of chinook salmon in mixed-stock fisheries.

Chinook salmon are harvested in commercial, sport, personal use, and subsistence marine fisheries along the coastline of Southeast, Southcentral, and Western Alaska. Two agencies manage these fisheries. Commercial Fisheries Management and Development (CFMD) Division, Alaska Department of Fish and Game (ADF&G), manages all commercial and subsistence, and some personal use fisheries within state waters. Sport Fish Division, ADF&G is responsible for all sport and some personal use fisheries within state waters. The National Marine Fisheries Service (NMFS) manages fisheries outside state-managed waters but within U.S. territorial waters.

This document and a previous compilation by Clark et al. (1994) are endeavors to summarize recent harvests of chinook salmon and to make recommendations to improve our knowledge of chinook salmon in the marine waters of southcentral Alaska. This report also provides a general description of the area fisheries that harvest chinook salmon in the marine waters of southcentral Alaska. The term “marine waters of southcentral Alaska” refers to all marine waters north and west of Cape Suckling and south and east of the terminus of the Alaska Peninsula (Figure 1). This area includes those portions of the Gulf of Alaska commonly referred to as Prince William Sound, Cook Inlet, Kodiak Island waters, Chignik, and the south side of the Alaska Peninsula.



**Figure 1.-Map of southcentral Alaska.**

We organized chinook salmon harvests by specific user groups in geographic locations in Southcentral Alaska. Tables and figures remain in similar format to the previous report (Clark et al. 1994). Area management reports (AMR) have been cited to provide additional information on area fisheries and their impacts on chinook salmon. Each geographic location has an area description, brief fisheries history, the larger harvests of chinook salmon are discussed, coded wire tagging programs are reported, and recommendations are made concerning future assessment.

## METHODS

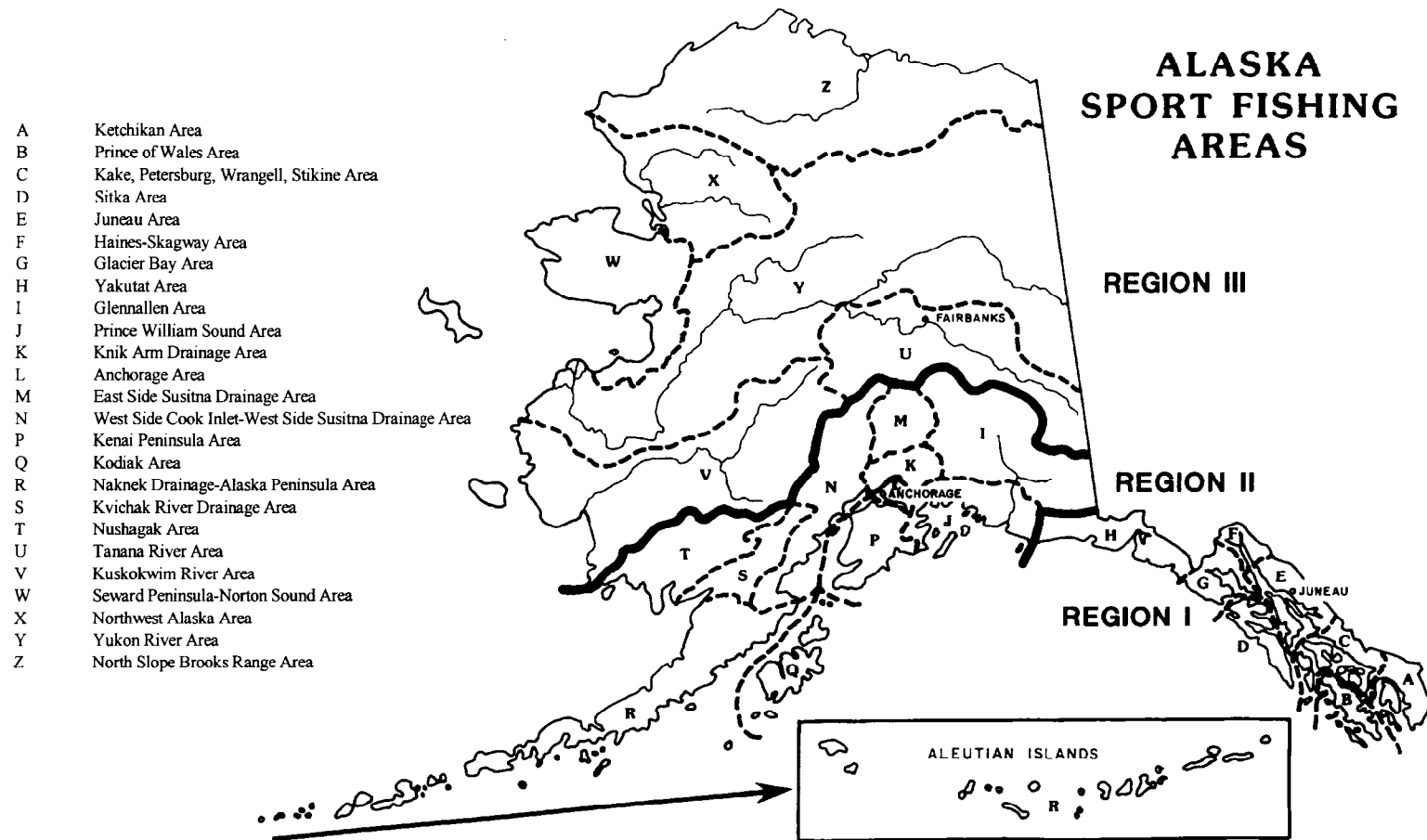
Methods used to compile and report on chinook salmon harvests in southcentral Alaska were similar to those described by Clark et al. (1994) in their compilation of harvests from 1980-1993. We updated harvest data with 1994 and 1995 data. To evaluate harvest trends, we present average harvests for 1980-1987 and for 1988-1995. As an aid to the reader, methods from Clark et al. (1994) are reproduced here with minor modifications. However, one major change in our methodology was in designation of harvested chinook salmon as mature or immature. Clark et al. (1994) refer to "small" chinook salmon in sport fisheries and chinook salmon weighing under 20 lb in commercial fisheries as "immature." Based on our personal experience with marine harvest of chinook salmon, maturity is very difficult to assess relative to the length or weight of fish harvested. Maturity is best determined by examination of gonads, but presence of nonlocal

stocks of chinook salmon deduced from coded wire tag recoveries provides evidence of harvest of immature fish. We have omitted references to maturity in the methods section and simply provide summaries of length and weight data for the reader to evaluate. A thorough analysis of length and weight in relation to maturity is needed if maturity data are to be used in future studies of chinook salmon harvests.

## **STATE MANAGED SPORT FISHERIES**

We compiled estimates of marine sport harvests of chinook salmon for the period 1980 through 1995 from Statewide Harvest Surveys (SWHS) by Mills (1981-1994) and Howe et al. (1995, 1996). Since 1977, the Alaska Department of Fish and Game, Division of Sport Fish, has estimated annual sport harvests of chinook salmon and other fish species from mail surveys. Questionnaires are mailed to a random sample of households containing one or more individuals who purchased Alaskan sport fishing licenses. Respondents are asked to record the number of anglers, trips, days fished, number of fish caught and number kept, and locations fished. Harvest, catch, and effort are then estimated from responses. Multiple mailings of questionnaires are used to remove nonresponse bias from the survey (Pollock et al. 1994) with methods similar to those of Drane et al. (1993).

We present harvest by the following areas: Prince William Sound (PWS), Lower Cook Inlet, Upper Cook Inlet, Kodiak, Alaska Peninsula, and total marine waters of southcentral Alaska. Prince William Sound was further divided into Eastside and Westside areas; Lower Cook Inlet was divided into the Homer and Seward areas. The areas we used did not correspond exactly with the large reporting areas from the SWHS (Figure 2). Our Westside area of Prince William Sound included Passage Canal, Esther Island, Other Saltwater, Boat-Other, and Shoreline Other from the SWHS; our Eastside area included all other saltwater locations (Appendix A1). Estimates of sport harvest for Lower Cook Inlet came from the SWHS table for Kenai Peninsula Saltwater. Resurrection Bay (charter boat, private boat, and shoreline summed) was used for our Seward Area; all other locations were summed across charter boat, private boat and shoreline, to provide estimates of sport harvest for our Homer Area (Appendix A2). Our Upper Cook Inlet



From: Mills 1993

**Figure 2.-Map of Alaska sport fishing regions and areas used in the Alaska Statewide Harvest Survey.**

area included the saltwater estimates from several SWHS areas, including the Knik Arm Drainage, Anchorage, West Cook Inlet-West Susitna, and Kenai Peninsula (Appendix A3). For Kodiak, the “All Saltwater” subtotal was used (Appendix A4); for the Alaska Peninsula, we also used the “All Saltwater” subtotal from the SWHS (Appendix A5).

From 1980-1992, the SWHS presented harvest of chinook salmon by “small” and “large” sizes. The definition of small and large varied by location (Table 1). Additionally, harvest was not calculated by size for Prince William Sound in the SWHS prior to 1989. For data from 1980-1992, we present harvest by size, and calculate the percent of the sport harvest that was “small” for each year and area.

## STATE MANAGED COMMERCIAL FISHERIES FOR SALMON

We compiled estimates of the annual harvests of chinook salmon in commercial salmon fisheries by area (Prince William Sound, Upper Cook Inlet, Lower Cook Inlet, Kodiak, Chignik, and South Peninsula) and within area, by fishing district for the years 1980-1995 based on data obtained from computer runs of the State of Alaska, Department of Fish and Game, Fish Ticket Database Reporting System. Fish tickets are sales receipts filled out by processors when purchasing commercially harvested fish from harvesters. Information recorded on fish tickets includes number of fish by species purchased, weight of purchased fish, date of transaction, harvest gear type, and fishing district where the fish were caught. Our computer runs of the fish ticket data included the number of chinook salmon harvested by gear type by fishing district by year, total weight of chinook salmon in the gear-district-year strata, and mean weight of chinook salmon harvested in the strata. Tables in this report that provide harvest and mean weight statistics include footnotes listing the specific file numbers that were used as a source for the fish ticket information. In a few instances, the gear type or district for a particular harvester-processor transaction (individual fish ticket) was not recorded or was recorded in an illegible manner. When this occurred, we made an assumption concerning the appropriate gear type or district; these choices are specifically footnoted in the tables.

**Table 1.-Definition of “small” and “large” chinook salmon harvested in sport fisheries in southcentral Alaska, as reported in the Statewide Harvest Survey.**

Statewide Harvest Survey Location	Small	Large
Prince William Sound	< 16 inches	≥ 16 inches
Kenai Peninsula	< 16 inches	≥ 16 inches
Knik Arm	< 16 inches	≥ 16 inches
Anchorage	< 16 inches	≥ 16 inches
West Cook Inlet-West Susitna	< 16 inches	≥ 16 inches
Kodiak	< 20 inches	≥ 20 inches
Alaska Peninsula	< 28 inches	≥ 28 inches

From: Mills 1981-1994.

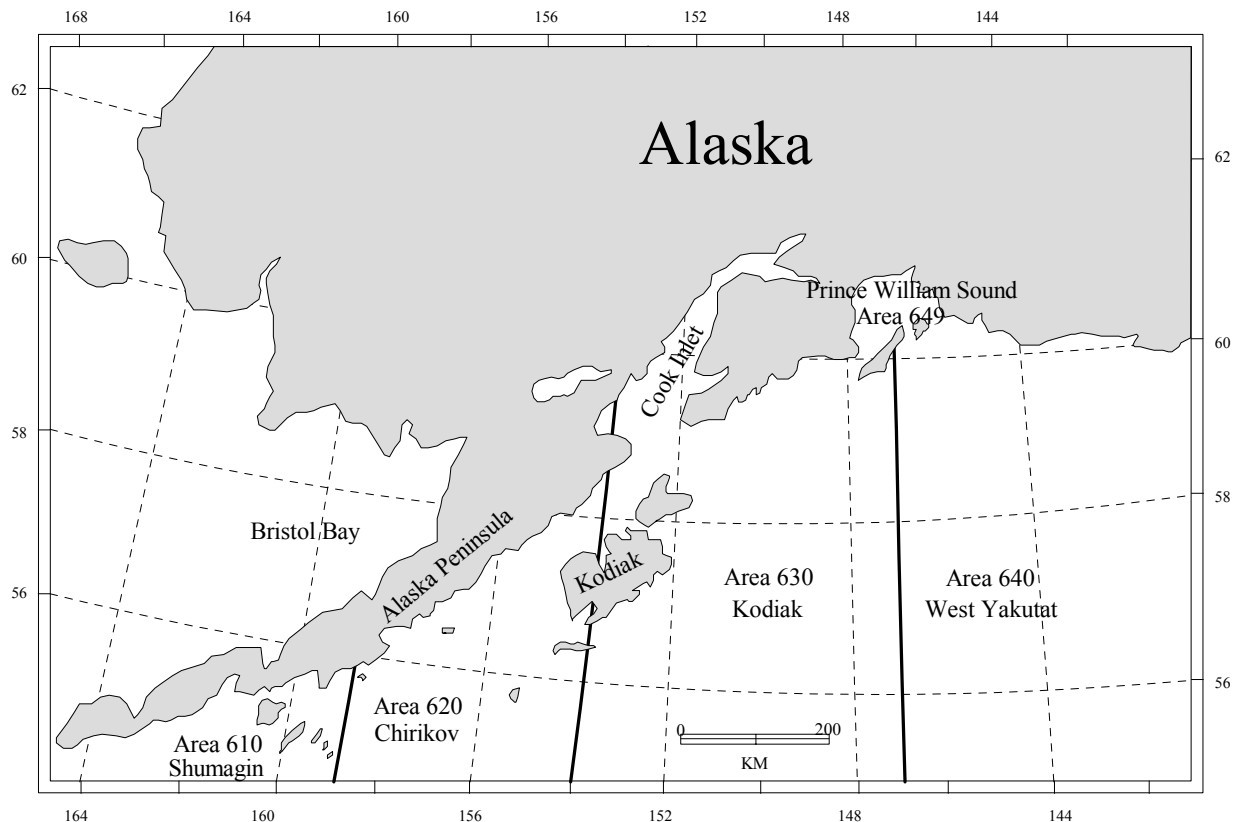
## FEDERALLY MANAGED COMMERCIAL FISHERIES FOR GROUND FISH

Fisheries occurring outside state managed waters but within U.S. territorial waters are managed by the National Marine Fisheries Service (NMFS). We compiled data from federally managed marine fisheries of southcentral Alaska from NMFS reporting areas 640, 649, 630, 620, and 610 (Figure 3). Area 640 (West Yakutat Area) includes all marine waters from 140° to 147° W longitude; area 649 is the waters of Prince William Sound. Area 630 (Kodiak Area) includes waters from 147° W longitude to 154° W longitude; area 620 (Chirikov Area) is from 154° to 159° W longitude. Area 610 (Shumagin Area) includes waters from 159° to 170° W longitude.

Chinook salmon are caught incidentally in federally managed commercial fisheries that target other fish species in the marine waters of southcentral Alaska. Most incidental catches of chinook salmon occur in offshore trawl fisheries, although a few chinook salmon are likely caught on longlines, jigs, and with other miscellaneous gear types. We coalesced estimates of incidental chinook salmon bycatch for groundfish fisheries in marine waters of southcentral Alaska, exclusive of waters off Southeast and Yakutat, for the years 1980-1995. Available data include bycatch by foreign fishermen, joint-venture fisheries, and domestic fisheries. Federal regulations prohibit the retention of chinook salmon in the groundfish fisheries in marine waters of southcentral Alaska, and all chinook salmon caught must be returned as quickly as possible to the ocean (i.e., discarded; Pacific Associates 1994). However, a special program allows for the donation of salmon harvested in these fisheries to a food bank program. Many of the shorebased fisheries do not sort “at sea,” so it is common for chinook salmon in the catch to be retained and delivered to the processing plant. Chinook salmon delivered to the processing plant are then either discarded or donated to the food bank program.

Chinook salmon were harvested incidentally by foreign fishermen in Alaskan waters from 1980-1986. Foreign fishermen ceased operations following the 1986 season, and in 1986 only longlines were used and no salmon were estimated to have been caught. Data sources used to document incidental chinook salmon bycatch by foreign fishermen for 1980-1988 include Nelson (1983) and Berger and Nelson (1984, 1985, and 1987). Chinook salmon were also harvested incidentally during joint-venture fisheries from 1980 through 1988. Data sources used to document chinook salmon bycatch by joint-venture fishermen for 1980-1986 include Nelson (1983), Berger and Nelson (1984, 1985, and 1987), Berger et al. (1988), and Berger and Weikart (1988 and 1989).

Chinook salmon have also been harvested incidentally by domestic commercial fishermen in offshore waters since 1980. However, comprehensive monitoring of the domestic fishery by observers did not occur until 1990. The chinook salmon bycatches for the domestic fishery that we included in this report are for the years 1990-1995. Data sources include a published report by Guttormsen et al. (1992), a draft report by Guttormsen et al. (1994), and information obtained from a National Marine Fisheries Service database query (Steven Pennoyer, NMFS, Juneau, AK, personal communication, 3/30/94). There is no sampling strategy specific to collecting data on harvested chinook salmon in these fisheries; observers collect data on all species that are harvested, and chinook salmon are only one of many. The total chinook salmon catch is estimated by expanding observed rates of chinook salmon bycatch by the total groundfish catch. The coverage rate varies depending on the size of the fishing vessel. Vessels that are 125 ft or larger have an observer whenever they are operating; observers on these vessels generally sample from 40% to 60% of the hauls. Vessels > 60 ft in length but < 125 ft have observers onboard



**Figure 3.-Map of southcentral Alaska, showing National Marine Fisheries Service reporting areas 610-649.**

30% of the time. Most of the shoreside fleet operating in the Gulf of Alaska are in this smaller size category. For most shore deliveries all of the salmon are counted; when only partial hauls are counted these data are further expanded.

In some cases, the source reports only provided direct estimates of the number of total salmon of all species harvested as bycatch for specific fishing areas (West Yakutat, Kodiak, Chirikov, and Shumagin) rather than the number of chinook salmon harvested. In these cases we used the species composition of salmon bycatches in the Gulf of Alaska as a whole to estimate annual chinook salmon bycatches with the inherent assumption that salmon species composition was similar from area to area. When these types of calculations were made, the tables are footnoted so that readers can review the basic raw data used to make these estimates. In some cases, both mean weight and mean length of chinook salmon bycatches were provided for specific user-area-year strata and in other cases only mean length data were provided. When mean weight data were not provided, we used a length-weight equation for ocean bright chinook salmon (Ben Van Alen, ADF&G, Douglas, AK, personal communication) to estimate mean weight for years prior to 1994. Footnotes on tables presented in this report identify when such length-weight conversions were made.

## RECOVERIES OF CHINOOK SALMON WITH CODED WIRE TAGS

We summarized recoveries of chinook salmon with coded wire tags harvested in Alaskan waters from 1980 to 1995. Because Alaska is a signatory to the Pacific States Marine Fisheries Commission, the Commercial Fisheries Management and Development Division (CFMD) of the Alaska Department of Fish and Game maintains a Statewide Coded Wire Tag database. This database contains comprehensive information on all coded wire tagged fish released and recovered in California, Oregon, Idaho, Washington, Canada, and Alaska. We obtained two subsets of the Statewide Coded Wire Tag database. The first subset of the database contained all chinook salmon with coded wire tags recovered by ADF&G personnel from 1980-1995 (806 recoveries); the second contained all chinook salmon recovered by NMFS observers during that period (539 recoveries). Fields included in the first subset (ADF&G) of the database were: year, head number, tag code, brood year, hatchery or wild stock, release site, release state, agency, number marked, number released, date of release, recovery date, sample type, port, sample source, gear, district/subdistrict, length, length type, and preferred source contribution. Fields included in the second (NMFS) subset were: tag code, replicate, brood year, release location, state, agency, number released, release date, recovery date, recovery latitude degrees, recovery latitude minutes, recovery longitude degrees, recovery longitude minutes, length, weight, gonad weight, sex, and gear.

When harvests of fish were examined for adipose clips in catch sampling programs, estimates of contribution of groups of chinook salmon tagged with CWTs to fisheries were calculated. Prince William Sound was the only area within marine waters of southcentral Alaska in which catch sampling programs were conducted consistently. Contributions of groups of chinook salmon tagged with CWTs to sampled Prince William Sound fisheries were estimated according to methods of Bernard and Clark (1996), and were provided in the ADF&G subset in the field "preferred source contribution." Contributions of individual recoveries were summed to estimate contribution by gear, district, and year. In 1994, commercial catch sampling was performed under a pilot program in Kodiak fisheries. Source contributions for Kodiak are not reported in the CWT database, but are discussed in a summary of the pilot program by Swanton (1997).

Coded wire tags were also recovered by Division of Sport Fish, CFMD, and NMFS personnel on an opportunistic basis from 1980-1995. CWTs were recovered in Kodiak, Chignik, Upper and Lower Cook Inlet, and NMFS areas 610, 620, 630, 640, and 649. These recoveries occurred while personnel were conducting other sampling activities and when sport anglers or commercial fishermen voluntarily turned in chinook salmon with adipose clips. Numbers of CWTs for each cohort recovered in a year were stratified by district. Recoveries in a stratum were expanded upward for each cohort by the fraction of that cohort with CWTs to produce what we term "relative mark."

Length or weight (or both) was recorded for most chinook salmon recovered by NMFS observers and for about 75% of those recovered by ADF&G personnel. For state recoveries, lengths consisted of mid-eye to fork-of-tail, tip-of-nose to fork-of-tail, and total length. We converted mid-eye to fork-of-tail and total lengths to tip-of-nose to fork-of-tail lengths using relationships calculated by Pahlke (1989). Tip-of-nose to fork-of-tail lengths were then converted to weight (lb) using a length-weight equation (Ben Van Alen, ADF&G, Douglas, AK, personal communication). For NMFS recoveries, weight in grams was converted to pounds. Complete listings of CWT recoveries used for this report are in Appendix B and Appendix C.



## **RESULTS, CONCLUSIONS AND RECOMMENDATIONS**

Harvest of chinook salmon in the marine waters of southcentral Alaska averaged 107,680 fish from 1980-1987 and then averaged 137,782 fish from 1988-1995. The relatively fastest growing segment of this harvest came from the sport fishery; approximately tripling from an average harvest of 6,738 fish during 1980-1987 to an average harvest of 20,167 fish during 1988-1997 (Table 2, Figures 4 and 5). Much of the growth in sport harvest came from the Lower Cook Inlet and Upper Cook Inlet management areas (Figure 6). The largest increases in harvest of chinook salmon occurred in state managed commercial fisheries, as they averaged 77,826 fish from 1980-1987 and 102,007 fish from 1988-1995 (Table 3, Figures 4 and 7). Much of the growth in state managed commercial harvest came from the Kodiak management area (Table 3 and Figure 7). Bycatch of chinook salmon in federally managed commercial fisheries decreased during 1980-1995; averaging 23,117 fish from 1980-1987 and 17,838 fish during 1988-1995 (Table 4, Figures 4 and 8). Coded wire tag recoveries of chinook salmon have been made in every management area of southcentral Alaska except South Peninsula (Tables 5 and 6). The majority of non-Alaskan recoveries are from British Columbia.

### **PRINCE WILLIAM SOUND**

The Prince William Sound management area (PWS) comprises all coastal waters and inland drainages entering into the northcentral Gulf of Alaska between Cape Suckling and Cape Fairfield (Morstad et al. 1996 and Figure 9). This area is bounded by the Lower Cook Inlet management area to the west and southeast Alaska management areas to the east. There are 11 commercial salmon fishing districts in PWS (Figure 9). Management authority for these fisheries are located at the area office of the CFMD Division, Cordova, Alaska. Sport fishing is managed in an area similar to PWS (see Hoffmann 1996 and Figure 2). Management authority for the recreational fishery is located at the regional office of the Sport Fish Division, Anchorage, Alaska.

#### **Local Stocks of Chinook Salmon**

The Copper River drainage supports the only naturally occurring chinook salmon stocks in the PWS area. Systems within the Copper River drainage with known runs of chinook salmon are the Chistochina, Gulkana, Tazlina, Klutina, and Tonsina rivers. Although the Copper River drainage currently has no biological escapement goal (BEG), escapements in the aforementioned rivers have been monitored by aerial survey since 1970 (see Morstad et al. 1996 and Szarzi 1996). Aerial escapement indices for all systems combined have ranged from 1,057 to 5,314 fish during 1980 to 1995 (Szarzi 1996). Inriver recreational harvest of chinook salmon in the Copper River drainage has ranged from 1,717 to 8,217 fish during the same time period. Inriver personal use and subsistence fisheries also harvest chinook salmon, with harvests ranging from 1,958 to 6,596 fish during 1980-1995 (Szarzi 1996).

There are also hatchery releases of chinook salmon in the PWS area. Private nonprofit hatcheries have released chinook salmon at Solomon Gulch Hatchery (discontinued in 1993), in the vicinity of the city of Valdez at 6.5 Mile Creek (discontinued in 1993), Fleming Spit near the city of Cordova (discontinued in 1995), Shakespeare Creek near the city of Whittier (discontinued in 1995), Lake Bay, and Chenega.

**Table 2.-Total sport harvest of chinook salmon (numbers) from marine waters of southcentral Alaska, 1980-1995.**

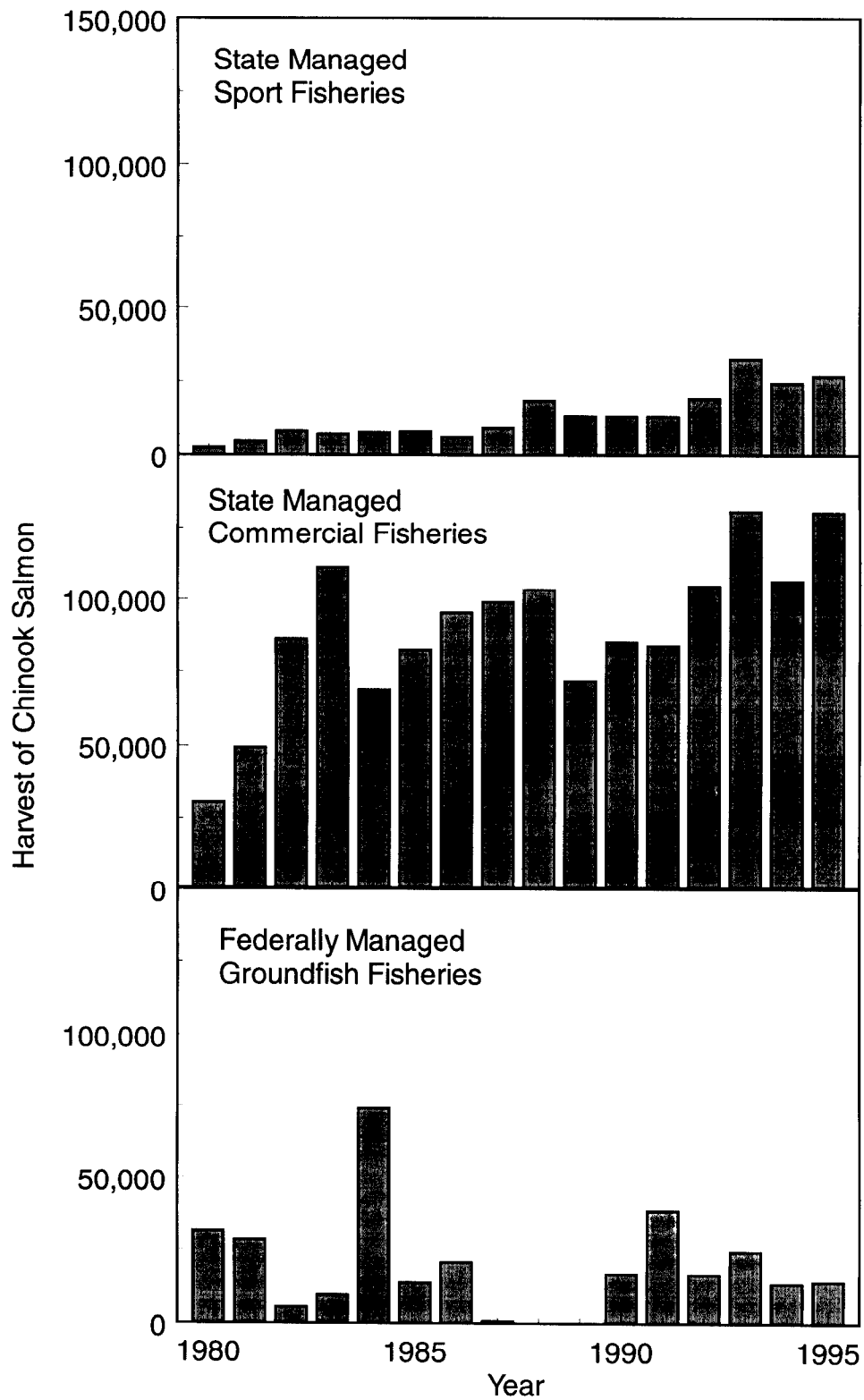
Year	Small	Large	Total	% Small
1980	0	0	2,593	
1981	365	4,090	4,779	8
1982	1,282	6,559	8,240	16
1983	707	5,913	7,175	10
1984	460	6,867	7,701	6
1985	520	7,117	7,985	7
1986	793	5,002	6,230	13
1987	690	7,642	9,197	8
1988	2,012	16,169	18,624	11
1989	1,446	11,710	13,156	11
1990	931	12,170	13,101	7
1991	1,301	11,788	13,089	10
1992	2,818	16,588	19,406	15
1993 <sup>a</sup>			32,549	
1994 <sup>a</sup>			24,559	
1995 <sup>a</sup>			26,852	

From: Mills 1981-1994 and Howe et al. 1995 & 1996.

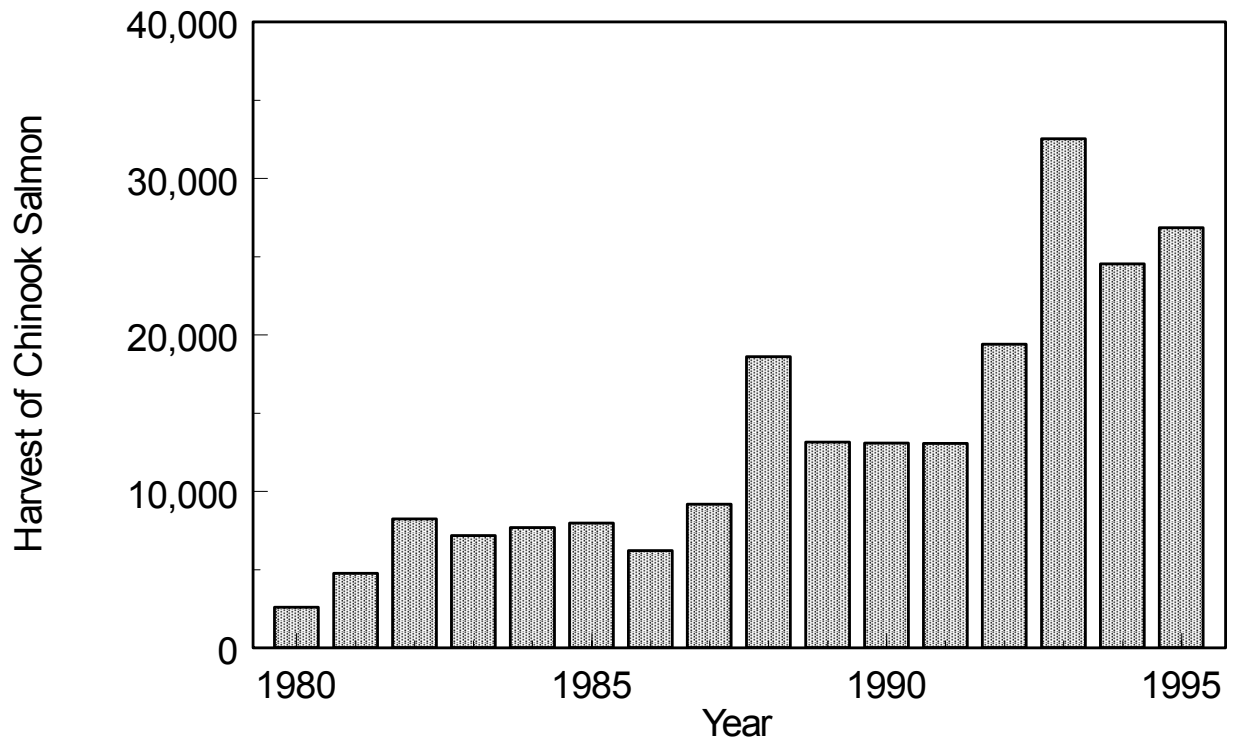
<sup>a</sup> Harvest not estimated by size in 1993-1995.

### **Fishery Description**

Purse seine, and drift and set gillnets are legal commercial salmon fishing gear in PWS (Morstad et al. 1996). Purse seine gear is allowed in all PWS districts except 200, 212, and 225 (see Figure 9). Drift gillnet gear is allowed in Districts 200, 212, 223, 225, and 229. Set gillnets are only allowed in District 225. Pink *Oncorhynchus gorbuscha* and sockeye salmon *O. nerka* are the primary species harvested in most commercial districts and gear types in PWS. The majority of pink salmon harvest occurs in purse seine fisheries that do not target chinook salmon. A directed chinook salmon harvest does occur with drift gillnets in District 212 (Copper River). This fishery also harvests sockeye salmon bound for streams in the Copper River drainage. Throughout the period covered in this report, greater than 95% of the commercial chinook salmon harvest has occurred in District 212, as well as a majority of the sockeye salmon harvested in PWS. Small (generally less than 1,000 fish per year) harvests of chinook salmon have occurred in purse seine and gillnet fisheries in the remainder of PWS. There were 731 permits fished in PWS during 1995, of which 518 were drift gillnet permits (Morstad et al. 1996).



**Figure 4.-Harvest of chinook salmon (numbers of fish) in fisheries in marine waters of southcentral Alaska, 1980-1995.**

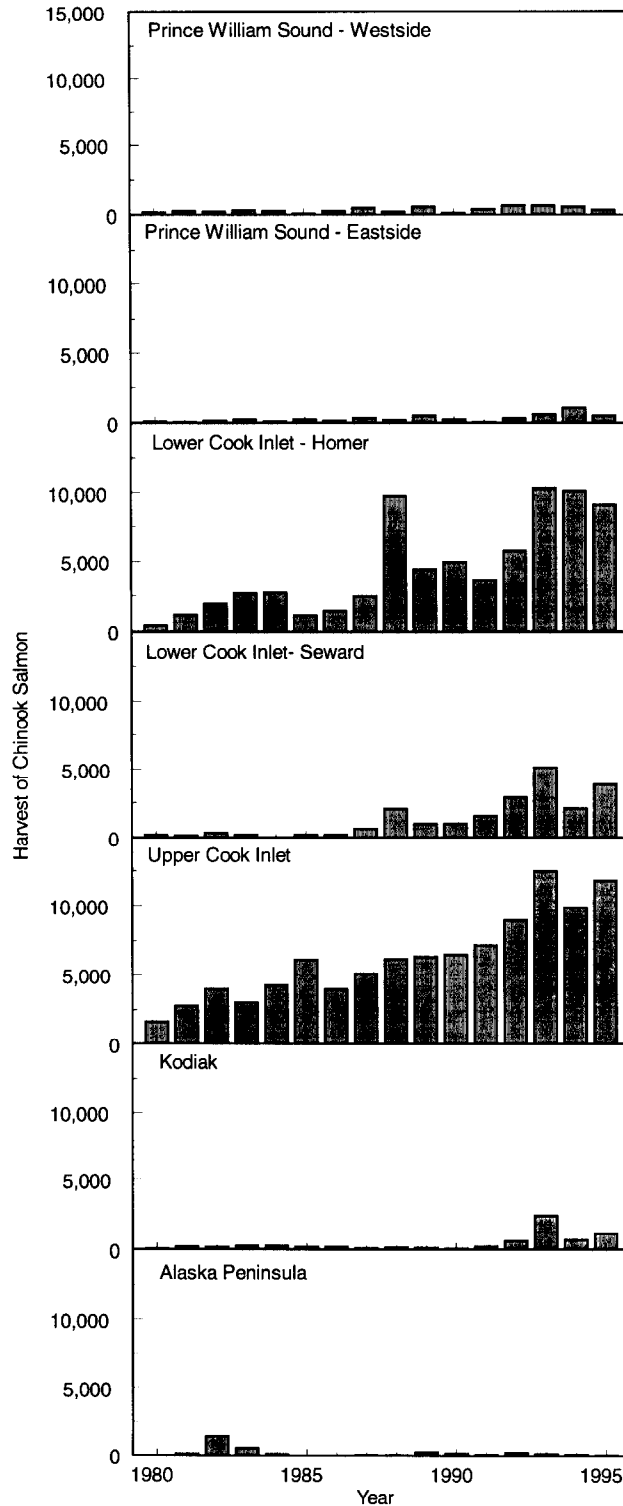


**Figure 5.-Total sport harvest of chinook salmon (numbers of fish) from marine waters of southcentral Alaska, 1980-1995.**

The majority of sport harvested chinook salmon are taken in fresh water from the aforementioned systems of the Copper River drainage (Szarzi 1996). However in marine waters, sport harvests of hatchery-reared chinook salmon occur primarily in the vicinity of Valdez (Hoffmann 1996). Recent increases in harvest of chinook salmon have also occurred in Cordova, primarily in response to returns of hatchery chinook salmon to Fleming Spit (see Hoffmann 1996).

### **Chinook Salmon Harvests**

Chinook salmon are predominantly harvested in commercial fisheries, especially commercial drift gillnets. During the period 1980-1995, commercial harvest averaged 38,222 fish, of which an average 37,673 (99%) were harvested in drift gillnets (Tables 7 and 8; Figure 10). Harvest of chinook salmon by drift gillnet occurs primarily in District 212 (Copper River), with harvests ranging from 8,454 to 67,363 fish during 1980-1995 (Table 8). Harvest of chinook salmon in District 212 has remained relatively stable during the period, with harvests averaging 36,433 fish prior to 1988 and 37,868 fish from 1988-1995 (Table 8). Harvests of chinook salmon by drift gillnet in other districts of PWS have been small, ranging from 0 to 714 fish in District 200 (Bering River; Table 8), from 93 to 617 fish in District 223 (Coghill; Table 9), from 0 to 163 fish in District 225 (Eshamy; Table 9), and from 0 to 31 in District 229 (Unakwik; Table 9). There is also a small setnet harvest of chinook salmon in District 225, ranging from 0 to 101 fish during 1980-1995 (Table 9).

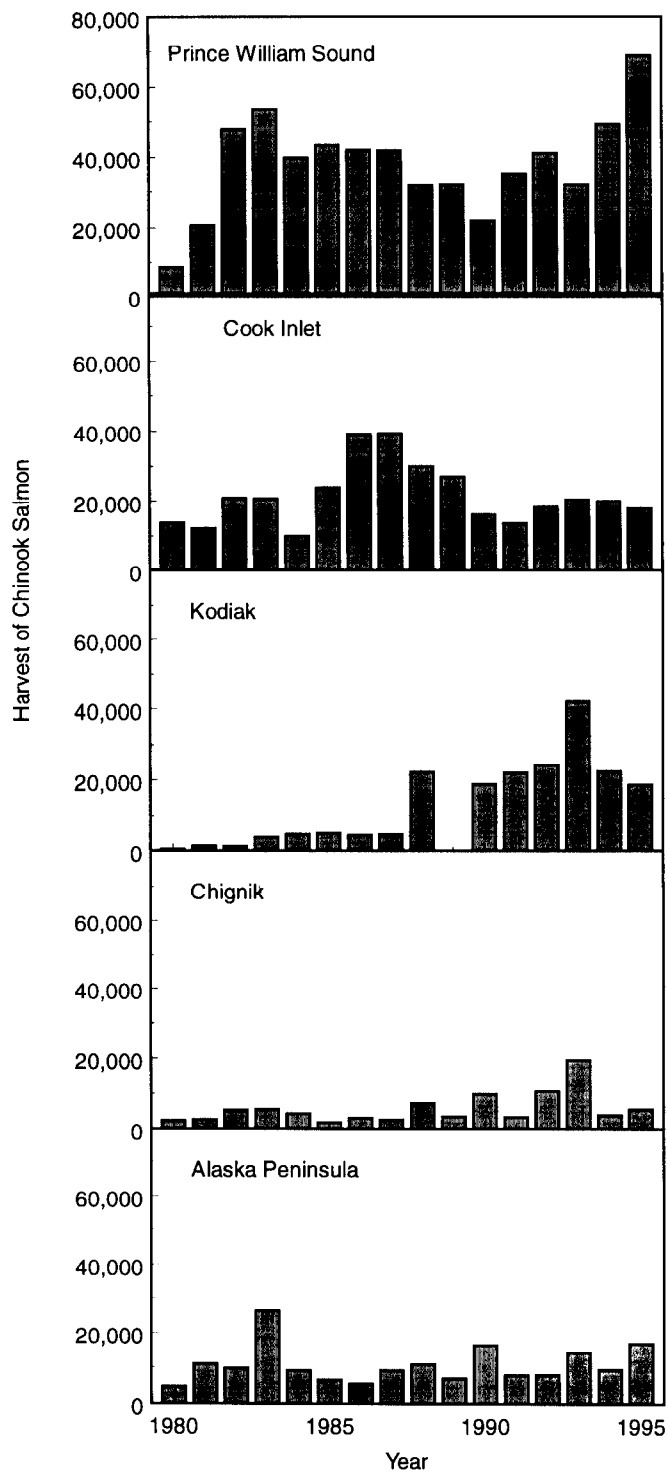


**Figure 6.-Sport harvest of chinook salmon (numbers of fish) in seven management areas of southcentral Alaska, 1980-1995.**

**Table 3.-Total numbers of chinook salmon harvested in all state-managed commercial salmon fisheries in marine waters of southcentral Alaska, 1980-1995.**

Year	Prince William Sound	Cook Inlet	Kodiak	Chignik	South Peninsula	Total
1980	8,643	14,222	529	2,344	4,794	30,532
1981	20,782	13,326	1,418	2,694	11,182	49,402
1982	47,871	21,936	1,214	5,236	9,845	86,102
1983	53,879	21,507	3,839	5,488	26,571	111,284
1984	39,914	10,776	4,661	4,318	9,198	68,867
1985	43,529	25,097	4,970	1,880	6,642	82,118
1986	42,140	40,049	4,381	3,037	5,589	95,196
1987	42,050	40,619	4,613	2,651	9,174	99,107
1988	31,805	31,775	22,394	7,296	11,075	103,345
1989	32,006	28,985	106	3,542	7,065	71,704
1990	22,163	17,671	18,806	9,901	16,522	85,063
1991	35,355	14,967	22,234	3,288	7,975	83,819
1992	41,306	20,188	24,299	10,832	8,026	104,651
1993	32,005	22,617	42,199	19,515	14,413	130,749
1994	49,325	21,195	22,574	3,901	9,474	106,469
1995	68,783	20,199	18,704	5,493	17,078	130,257

Data Source: Data taken from State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Reports dated 4/20/94 (File T03936.PRN, T03933.PRN, T03934.PRN, T03929.PRN, T03930.PRN, T03931.PRN, and T03932.PRN), and Fish Ticket Database Reporting System Report dated 11/15/96 (Request No. T10327, T10328, T10326, T10336, T10330, T10331, T10337, T10333, T10334, and T103335).



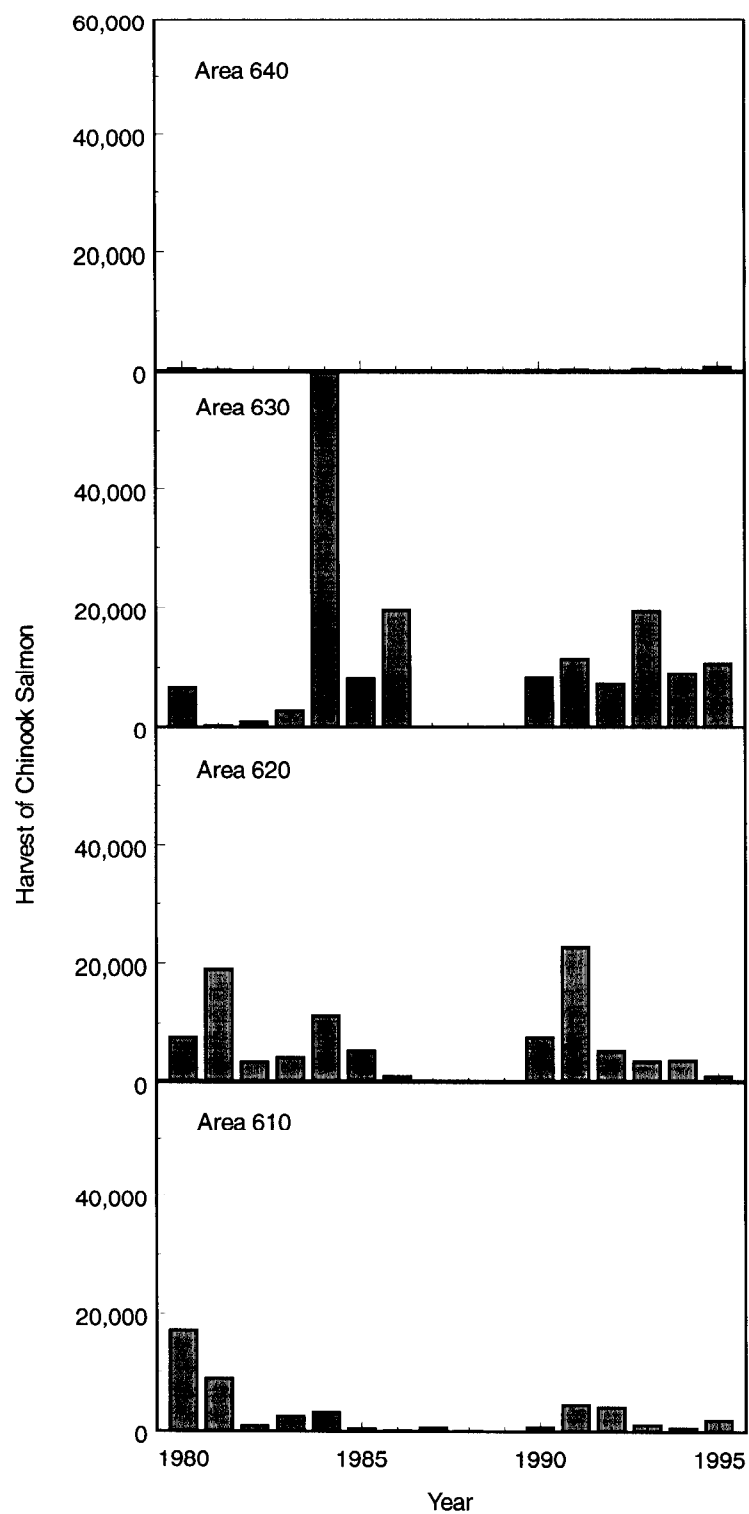
**Figure 7.-Harvest of chinook salmon in state-managed commercial fisheries in marine waters of southcentral Alaska, 1980-1995.**

**Table 4.-Estimated bycatch of chinook salmon (numbers of fish) taken in all offshore fisheries (foreign, joint-venture, and domestic) of southcentral Alaska west of Yakutat, 1980-1995.**

Year	Shumagin Area	Chirikov Area	Kodiak Area	West Yakutat Area	Total
	Area 610	Area 620	Area 630	Area 640	
1980	17,023	7,718	6,591	356	31,688
1981	8,889	19,002	319	204	28,414
1982	849	3,586	968	5	5,408
1983	2,441	4,348	2,755	0	9,544
1984	3,102	11,307	59,961	0	74,370
1985	479	5,403	8,108	0	13,990
1986	199	1,039	19,521	0	20,759
1987	592	31	138	0	761
1988	1	24	64	0	89
1989					
1990	728	7,752	8,272	125	16,877
1991	4,427	22,603	11,492	195	38,717
1992	4,040	5,439	7,191	40	16,710
1993	1,097	3,720	19,410	305	24,532
1994	603	3,877	8,979	146	13,605
1995	1,886	1,097	10,660	691	14,334

Note: Comprehensive estimates of the chinook bycatch in the domestic offshore fishery are not available prior to 1990; as a result, the chinook bycatches for the 1980s are underestimated, this is particularly acute during the latter 1980s.





**Figure 8.-Harvest of chinook salmon in federally-managed groundfish fisheries in marine waters of southcentral Alaska, 1980-1995.**

**Table 5.-Total numbers of coded wire tags, by area recovered and state/province of origin, that were recovered from chinook salmon harvested in state-managed sport, commercial, and cost recovery fisheries in marine waters of southcentral Alaska, 1980-1995.**

Area Recovered	State/Province of Origin	Number Tags Recovered	Relative Mark
Kodiak	AK	14	111
	BC	78	930
	OR	2	5
	WA	8	15
Chignik	BC	8	40
	OR	1	12
Lower Cook Inlet	AK	23	83
	BC	100	1,223
	OR	11	31
	WA	5	38
Upper Cook Inlet	AK	16	112
	BC	8	112
Prince William Sound	AK	196	1,037
	BC	103	1,193
	OR	53	449
	WA	45	301

Note: Districts are Commercial Fishery Districts. Data from State of Alaska, Department of Fish and Game, Statewide Coded Wire Tag database (11/15/96).

**Table 6.-Total numbers of coded wire tags, by area recovered and state/province of origin, that were recovered from chinook salmon bycatches in federally-managed groundfish fisheries in southcentral Alaska, 1980-1995.**

Area Recovered	State/Province of Origin	Number Tags Recovered	Relative Mark <sup>a</sup>
West Yakutat/Prince William Sound	BC	1	8
(640/649)	WA	1	1
	OR	1	1
Kodiak (630)	AK	47	255
	BC	188	1,867
	CA	1	1
	OR	54	149
	WA	61	296
Chirikov (620)	AK	37	165
	BC	46	576
	OR	24	61
	WA	21	75
Shumagin (610)	AK	5	29
	BC	14	276
	OR	3	11
	WA	1	1
	YK	1	6
Unknown	AK	4	30
Unknown	BC	19	170
Unknown	OR	4	11
Unknown	WA	4	8

Source: Data from State of Alaska, Department of Fish and Game, Statewide Coded Wire Tag database (11/15/96).

<sup>a</sup> Relative marks from this table may not equal other tables summed because of rounding, and inclusion of Areas 640/649 in this table.

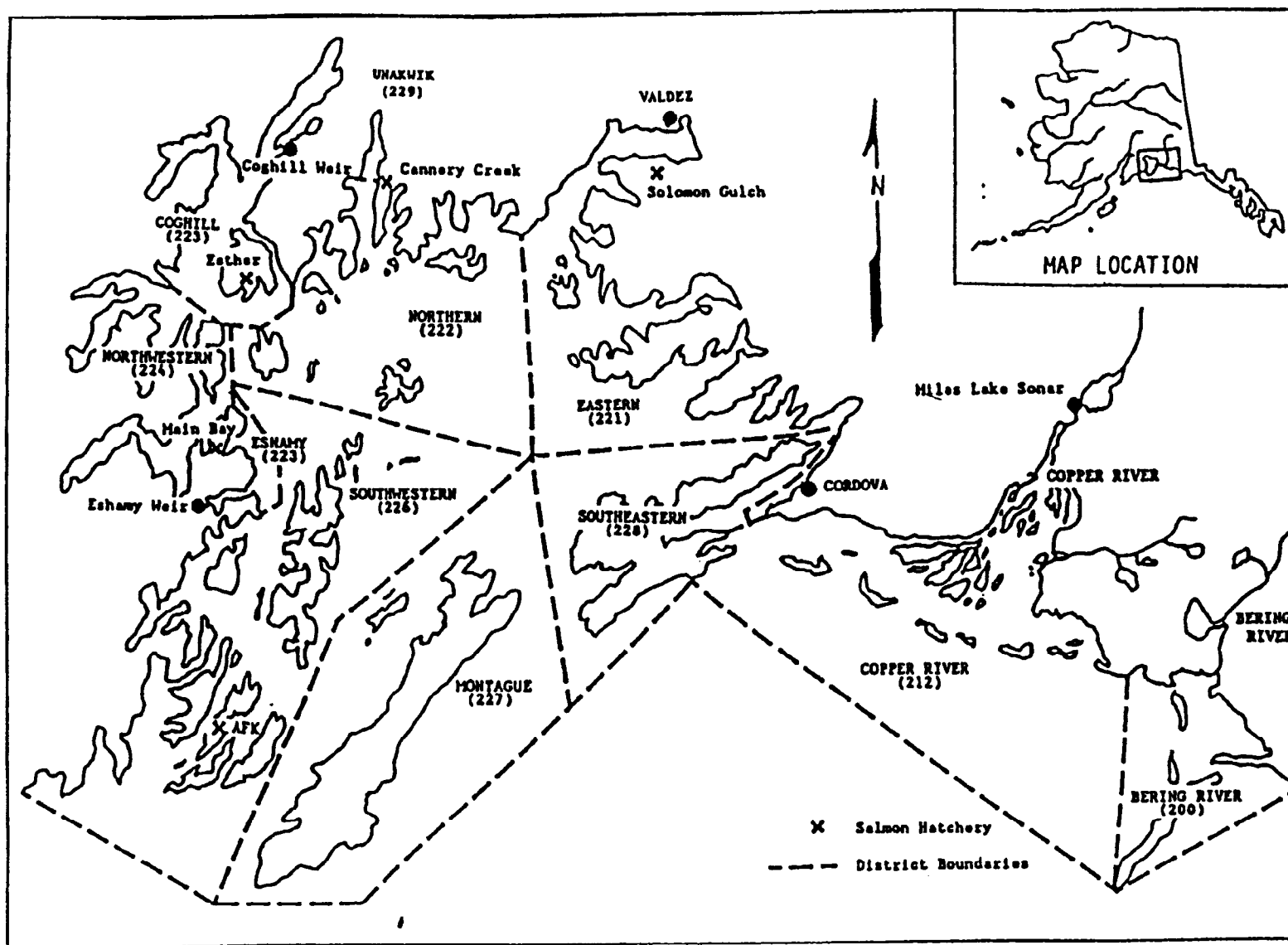


Figure 9.-Map of commercial fishing districts in Prince William Sound.

**Table 7.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in all commercial salmon fisheries in the Prince William Sound Area, 1980-1995.**

Year	Copper/Bering Districts Gill Nets		PWS Districts Gill Nets		PWS Districts Purse Seines		Totals	
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.
1980	8,454	29.2	107	10.7	82	19.7	8,643	28.8
1981	20,378	26.0	152	9.1	252	15.9	20,782	25.7
1982	47,616	26.1	128	14.1	127	14.1	47,871	26.1
1983	53,214	25.9	345	10.5	320	17.9	53,879	25.7
1984	39,334	29.2	465	16.9	80	16.7	39,914 <sup>a</sup>	29.0
1985	42,429	27.8	406	14.8	694	16.1	43,529	27.5
1986	40,798	26.3	643	13.3	699	10.2	42,140	25.8
1987	41,165	27.5	396	13.1	489	11.9	42,050	27.1
1988	30,760	26.8	718	12.7	327	11.5	31,805	26.3
1989	30,903	26.6	395	16.6	708	15.5	32,006	26.3
1990	21,750	25.9	296	14.1	117	12.5	22,163	25.7
1991	34,910	22.7	289	15.4	156	11.1	35,355	22.6
1992	39,831	25.1	509	14.5	966	17.8	41,306	24.7
1993	29,858	21.5	651	16.1	1,496	14.7	32,005	21.1
1994	47,945	22.5	418	13.4	962	11.9	49,325	22.2
1995	67,418	24.2	517	15.1	848	14.2	68,783	24.0

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03936.PRN) and Fish Ticket Database Reporting System Report dated 11/15/96 (Request No. T10328, T10326, T10327).

Data Notes:

<sup>a</sup> In 1984, 35 chinook salmon were caught with troll gear in the Montague District (mean weight = 25.5 lb).

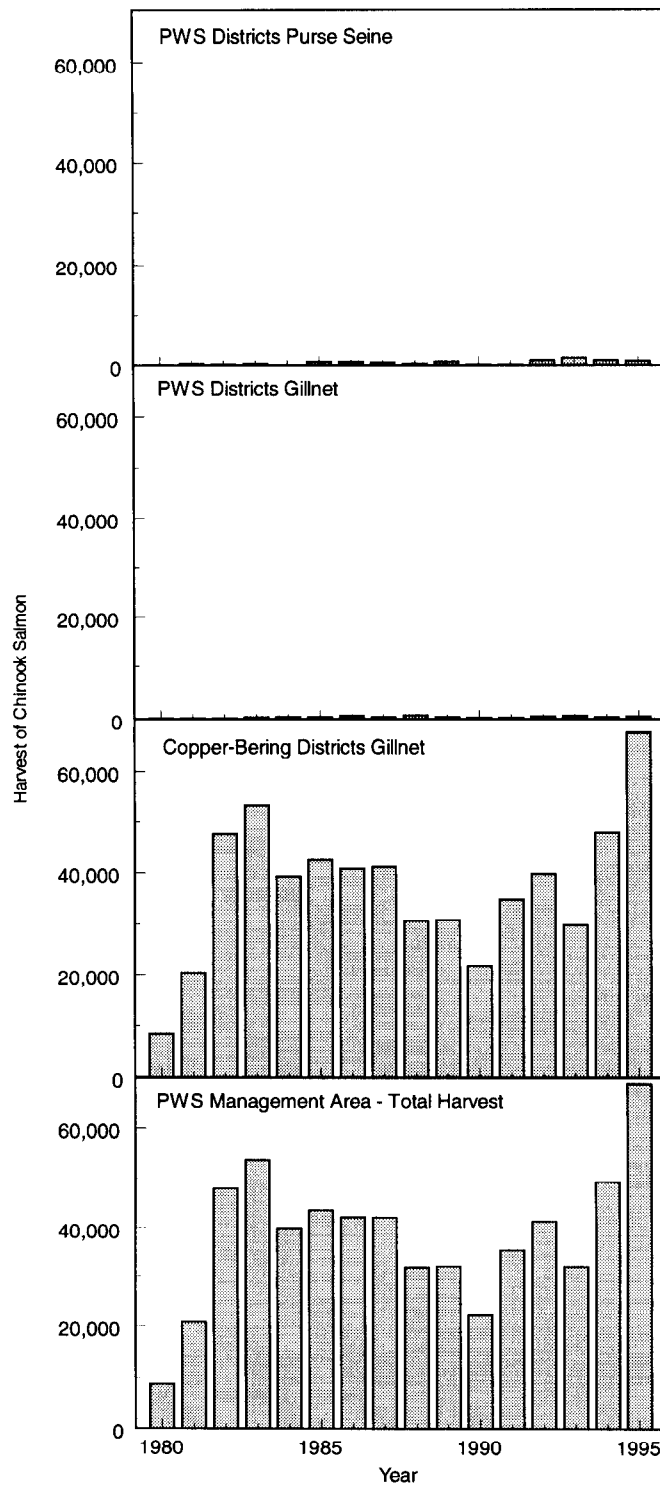
**Table 8.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial drift gillnet fisheries in the Bering River and Copper River districts of the Prince William Sound Area, 1980-1995.**

	Bering River District		Copper River District		Districts Combined	
	(District 200)		(District 212)			
	Number	Mean Wt.	Number	Mean Wt.	Number	Mean Wt.
1980	0		8,454	29.2	8,454	29.2
1981	200	17.0	20,178	26.1	20,378	26.0
1982	254	18.7	47,362	26.2	47,616	26.1
1983	714	15.8	52,500	26.0	53,214	25.9
1984	377	21.2	38,957	29.3	39,334	29.2
1985	215	20.9	42,214	27.9	42,429	27.8
1986	128	24.0	40,670	26.3	40,798	26.3
1987	34	27.5	41,131 <sup>a</sup>	27.5	41,165	27.5
1988	19	25.8	30,741	26.8	30,760	26.8
1989	30	23.3	30,873 <sup>b</sup>	26.6	30,903	26.6
1990	14	25.3	21,736 <sup>c</sup>	25.9	21,750	25.9
1991	28	21.3	34,882	22.7	34,910	22.7
1992	21	19.8	39,810	25.1	39,831	25.1
1993	130	20.8	29,728	21.5	29,858	21.5
1994	133	21.1	47,812	22.5	47,945	22.5
1995	55	16.5	67,363	24.2	67,418	24.2

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03936.PRN) and Fish Ticket Database Reporting System Report dated 11/15/96 (Request No. T10326g).

Data Notes:

- <sup>a</sup> One 47 lb chinook salmon was listed without a district designation in 1987; the fish was added to the reported catch for the Copper District; 4 chinook were reportedly caught with ring net gear in 1987 in the Copper River District (mean weight = 31.0 lb) and these 4 fish were also included in the reported drift gillnet harvest of 41,126 fish (mean weight = 27.5 lb).
- <sup>b</sup> Ten chinook salmon were harvested with purse seine gear in 1989 in the Copper River District (mean weight = 25.8 lb). These fish were added to the reported drift gillnet harvest of 30,863 chinook salmon (mean weight = 26.6 lb).
- <sup>c</sup> Two chinook salmon were caught in the Copper District in 1990 (mean weight = 31.0 lb) and gear was not recorded; they were assumed to have been caught with drift gillnet gear and were added to the recorded drift gillnet harvest of 21,734 chinook salmon (mean weight = 25.9 lb).



**Figure 10.-Harvest of chinook salmon (numbers of fish) in commercial fisheries in the Prince William Sound management area, 1980-1995.**

**Table 9.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial gillnet fisheries in the Coghill, Eshamy, and Unakwik districts of the Prince William Sound Area, 1980-1995.**

Year	Coghill District Drift Gill Net		Eshamy District Drift Gill Net		Eshamy District Set Gill Net		Unakwik District Drift Gill Net		Total	
	District 223		District 225		District 225		District 229			
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.
1980	107	10.7	0		0		0		107	10.7
1981	152	9.1	0		0		0		152	9.1
1982	127	14.0	0		0		0		128 <sup>a</sup>	14.1
1983	340	10.2	1	28.0	1	42.0	0		345 <sup>b</sup>	10.5
1984	431	16.9	1	7.0	1	10.0	0		465 <sup>c</sup>	16.9
1985	378	14.6	1	6.0	1	11.0	0		406 <sup>d</sup>	14.8
1986	617	12.9	0		9	18.2	0		643 <sup>e</sup>	13.3
1987	357	13.0	2	11.0	34	13.8	0		396 <sup>f</sup>	13.1
1988	508	11.8	94	15.2	101	15.2	0		718 <sup>g</sup>	12.7
1989	364	16.5	0		0		31	17.5	395	16.6
1990	126	14.3	111	14.7	56	12.9	3	9.0	296	14.1
1991	93	16.0 <sup>h</sup>	107	15.6	76	15.2	13	11.5	289	15.4
1992	242	16.4	163	12.9	101	12.6	3	12.0	509	14.5
1993	577	16.1	14	12.9	55	15.9	5	19.2	651	16.1
1994	407	13.3	2	10.5	9	16.0	0		418	13.4
1995	468	15.6	21	12.3	19	12.1	9	11.4	517	15.1

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03936.PRN), and Fish Ticket Database Reporting System Report dated 11/15/96 (Request No. T10327).

Data Notes:

- <sup>a</sup> One chinook salmon (weight = 27 lb) was caught in the Northern District with a drift gill net in 1982.
- <sup>b</sup> Three chinook salmon (mean weight = 23.7 lb) were caught in the Northern District with drift gillnet gear in 1983.
- <sup>c</sup> Twenty-nine chinook salmon (mean weight = 17.9 lb) were caught in the Northern District with drift gillnet gear in 1984; 3 chinook salmon (mean weight = 8.3 lb) were caught in the Northwestern District with drift gillnet gear in 1984.
- <sup>d</sup> Twenty-six chinook salmon (mean weight = 17.4 lb) were caught in the Northern District with drift gillnet gear in 1985.
- <sup>e</sup> Five chinook salmon (mean weight = 17.6 lb) were caught in the Northern District with drift gillnet gear in 1986; 12 chinook salmon (mean weight = 27.7 lb) were caught in the Northwestern District with set gillnet gear in 1986.
- <sup>f</sup> Two chinook salmon (mean weight = 14.0 lb) were caught in the Northern District with drift gillnet gear in 1987; 1 chinook salmon (weight = 8.0 lb) was caught in the Southeastern District with drift gillnet gear in 1987.
- <sup>g</sup> Fifteen chinook salmon (mean weight = 11.1 lb) were caught in the Northern District with drift gillnet gear in 1988.
- <sup>h</sup> One chinook salmon (weight = 8.0 lb) was caught in the Coghill District in 1991 with unknown gear; the fish is assumed to have been caught with drift gillnet gear and was added to the recorded drift gillnet harvest of 92 chinook salmon (mean weight = 16.04 lb).



Harvest of chinook salmon by purse seine ranged from 80 to 1,496 fish from 1980 to 1995 (Table 10). Prior to 1988, approximately 40% of these fish were harvested in District 221, with less than 15% of the harvest from District 223. From 1988 to 1995, approximately 75% of the harvest occurred in District 223, with less than 20% in District 221.

Sport harvest of chinook salmon, although small in comparison to commercial harvests, increased during 1980-1995. Harvest of chinook salmon in PWS ranged from 268 to 1,684 fish from 1980-1995. Harvest averaged 446 fish prior to 1988 and 908 fish from 1988-1995 (Table 11 and Figure 6). Harvest occurs in roughly equal proportion between the west side (near Whittier) and east side (near Valdez and Cordova) of PWS (see Appendix A1 for descriptions of west side and east side).

### **CWT Recoveries**

Extensive recoveries of coded wire tagged chinook salmon were made in commercial fishery catch sampling programs in PWS from 1984-1995. CFMD recovered 398 tags (random and nonrandom) from the commercial fishery during 1980-1995. After adjusting for relative marking ratios, the percentage of CWT chinook salmon of known origin by area was: 35% Alaska, 40% British Columbia, 15% Oregon, and 10% Washington (Tables 12 and 13). Using only random recoveries and expanding from catch sampling programs, the percentage of CWT chinook salmon of known origin by area was: 40% Alaska, 4% British Columbia, 20% Oregon, and 6% Washington. Of 2,911 Alaska origin chinook salmon that were harvested in PWS, 1,990 fish (68%) were from hatchery production in southcentral Alaska and 1,716 fish (59%) were from hatchery production in PWS. Although most tag recoveries (70%) were made in districts other than 212, most of the contribution (76%) of coded wire tagged chinook to harvests in PWS came from District 212 (Table 13). Of the total harvest of 611,556 chinook salmon from 1980-1995, only 7,355 (1%) fish were from stocks tagged with CWTs (Table 13).

There were 99 recoveries of coded wire tagged chinook salmon in cost recovery fisheries in PWS. After adjusting for relative marking ratios, the percentage of CWT chinook salmon of known origin by area was: 90% Alaska, 10% British Columbia, 0% Oregon, and 0% Washington (Tables 13 and 14). Using only random recoveries and expanding from catch sampling programs, the percentage of CWT chinook salmon of known origin by area was: 97% Alaska, 3% British Columbia, 0% Oregon, and 0% Washington. Of 1,790 Alaska origin chinook salmon that were harvested in PWS cost recovery fisheries, all were of PWS origin.

There were 23 recoveries of coded wire tagged chinook salmon in sport fisheries in PWS. After adjusting for relative marking ratios, the percentage of CWT chinook salmon of known origin by area was: 79% Alaska, 20% British Columbia, <1% Oregon, and <1% Washington (Table 15). Of the 113 relative marks of Alaska origin, 111 (98%) were of PWS origin. The remaining two relative marks (2%) were from southeast Alaska. Contribution estimates were not available because there are no CWT recovery programs for sport fisheries in PWS.

### **Conclusions**

The following conclusions are supported by harvest and coded wire tag data:

1. Commercial harvest of chinook salmon in PWS has remained large and relatively stable, averaging 37,351 fish during 1980-1987 and 39,094 fish during 1988-1995. The majority of the harvest comes from District 212 (Copper River), averaging 36,433 fish during 1980-1987 and 37,868 fish during 1988-1995.

**Table 10.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial purse seine fisheries in the Prince William Sound Area, 1980-1995.**

Year	Eastern		Northern		Coghill		Northwest		Southwest		Total	
	District		District		District		District		District			
	District 221		District 222		District 223		District 224		District 226			
No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	
1980	24	20.2	2	18.0	0		0		34	18.2	82 <sup>a</sup>	19.7
1981	75	17.3	53	7.4	1	50.0	22	10.1	72	18.9	252 <sup>b</sup>	15.9
1982	56	11.6	5	15.4	23	11.2	11	18.5	29	19.0	127 <sup>c</sup>	14.1
1983	58	18.6	137	12.8	0		15	16.9	34	18.1	320 <sup>d</sup>	17.9
1984	26	19.5	1	16.0	0		18	15.7	32	13.6	80 <sup>e</sup>	16.7
1985	281	14.3	69	19.7	85	12.9	91	16.6	93	18.0	694 <sup>f</sup>	16.1
1986	370	11.7	24	7.4	186	8.3	29	9.1	90	9.4	699	10.2
1987	193	12.6	56	9.1	58	9.9	83	10.0	85	12.7	489 <sup>g</sup>	11.9
1988	104	13.1	64	9.0	63	9.8	18	9.9	77	12.4	327 <sup>h</sup>	11.5
1989	552	16.9	86	12.1	61	8.9	4	9.0	0		708 <sup>i</sup>	15.5
1990	61	14.7	36	8.2	2	8.5	2	10.0	16	14.3	117	12.5
1991	129	11.3	7	9.0	11	11.0	0		9	10.0	156	11.1
1992	3	10.3	5	7.2	855	18.6	0		103	11.6	966	17.8
1993	5	15.4	1	4.0	1,478	14.7	0		12	17.5	1,496	14.7
1994	45	15.3	16	9.9	885	11.6	0		16	21.8	962	11.9
1995	72	14.4	22	11.8	737	14.2	0		17	16.9	848	14.2

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03936.PRN) and Fish Ticket Database Reporting System Report dated 11/15/96 (Request No. T10328).

Data Notes:

- <sup>a</sup> In 1980, 22 chinook salmon were caught in the Southeastern District (mean weight = 21.6 lb).
- <sup>b</sup> In 1981, 29 chinook salmon were caught in the Southeastern District (mean weight = 24.0 lb).
- <sup>c</sup> In 1982, 3 chinook salmon were caught in the Southeastern District (mean weight = 24.0 lb).
- <sup>d</sup> In 1983, 73 chinook salmon were caught in the Southeastern District (mean weight = 27.3 lb); and 3 chinook salmon were caught in the Montague District (mean weight = 13.3 lb).
- <sup>e</sup> In 1984, 3 chinook salmon were caught in the Southeastern District (mean weight = 31.0 lb).
- <sup>f</sup> In 1985, 58 chinook salmon were caught in the Southeastern District (mean weight = 18.7 lb); and 17 chinook salmon were caught in the Montague District (mean weight = 26.8 lb).
- <sup>g</sup> In 1987, 10 chinook salmon were caught in the Southeastern District (mean weight = 30.3 lb); and 4 chinook salmon were caught in the Montague District (mean weight = 21.0 lb).
- <sup>h</sup> In 1988, 1 chinook salmon (54 lb) was caught in the Southeastern District.
- <sup>i</sup> In 1989, 5 chinook salmon were caught in the Southeastern District (mean weight = 9.0 lb).

**Table 11.-Sport harvest of chinook salmon (numbers) from Prince William Sound, 1980-1995.**

Year	Westside				Eastside				PWS Total			
	Small <sup>a</sup>	Large <sup>b</sup>	Total	% Small <sup>a</sup>	Small <sup>a</sup>	Large <sup>b</sup>	Total	% Small <sup>a</sup>	Small <sup>a</sup>	Large <sup>b</sup>	Total	% Small <sup>a</sup>
1980			147				121				268	
1981			248				76				324	
1982			210				189				399	
1983			314				241				555	
1984			249				125				374	
1985			66				282				348	
1986			267				168				435	
1987			505				360				865	
1988			207				236				443	
1989 <sup>c</sup>	70	497	567	12	76	450	526	14	146	947	1,093	13
1990	79	62	141	56	40	231	271	15	119	293	412	29
1991	110	290	400	28	12	53	65	18	122	343	465	26
1992	89	570	659	14	44	304	348	13	133	874	1,007	13
1993 <sup>c</sup>			668				620				1,288	
1994 <sup>c</sup>			604				1080				1,684	
1995 <sup>c</sup>			332				543				875	

Source: Mills 1981-1994 and Howe et al. 1995 & 1996. See Appendix A1 for specific tables and page numbers.

<sup>a</sup> Chinook salmon less than 16 inches.

<sup>b</sup> Chinook salmon greater than or equal to 16 inches.

<sup>c</sup> Harvest not estimated by size in 1989 and 1993-1995.

**Table 12.-Numbers of coded wire tags recovered from chinook salmon, and estimated contribution to sampled commercial fisheries in Prince William Sound from chinook salmon groups tagged with coded wire tags, 1980-1995.**

Year	Fishery District Recovered <sup>a</sup>	State/ Province of Origin	Number Tags Recovered <sup>b</sup>	Relative Mark	Estimated Contribution <sup>c</sup>
1980	No Tags Recovered				
1981	Copper	OR	1	1	
1982-1983 No Tags Recovered					
1984	Copper	OR	1	1	11
1984	Copper	WA	1	20	
1985	Copper	AK	1	1	24
1985	Eastern	WA	1	1	
1985	Southeast	AK	1	1	10
1986	Coghill	BC	1	2	36
1986	Coghill	OR	1	3	
1986	Copper	AK	2	4	31
1986	Copper	OR	1	3	20
1986	Eastern	AK	1	5	
1986	Eastern	BC	1	2	
1986	Eastern	WA	4	62	
1987	Coghill	AK	3	15	
1987	Coghill	BC	3	48	
1987	Coghill	WA	4	13	
1987	Copper	OR	2	12	165
1987	Copper	WA	1	2	10
1987	Eastern	AK	20	106	
1987	Eastern	BC	1	20	
1987	Eastern	OR	2	6	
1987	Northern	BC	3	6	5
1987	Northern	OR	1	16	73
1987	Southeast	AK	1	1	
1987	Southwest	AK	1	7	
1987	Southwest	BC	2	26	69
1987	Southwest	OR	2	6	7
1987	Unknown	AK	1	6	
1987	Unknown	OR	1	1	

-continued-

**Table 12.-Page 2 of 4.**

Year	Fishery District Recovered <sup>a</sup>	State/ Province of Origin	Number Tags Recovered <sup>b</sup>	Relative Mark	Estimated Contribution <sup>c</sup>
1988	Coghill	AK	3	8	32
1988	Coghill	BC	2	41	
1988	Coghill	WA	1	1	2
1988	Copper	AK	1	3	16
1988	Copper	BC	1	3	15
1988	Copper	OR	3	13	66
1988	Copper	WA	3	22	278
1988	Eastern	AK	4	19	9
1988	Eastern	BC	1	8	27
1988	Eastern	OR	1	1	5
1988	Eastern	WA	7	20	68
1988	Eshamy	BC	1	5	
1988	Unknown	AK	1	3	
1988	Unknown	BC	3	55	
1988	Unknown	OR	1	1	
1988	Unknown	WA	1	1	
1989	Coghill	AK	3	12	87
1989	Coghill	BC	2	4	15
1989	Coghill	WA	1	25	31
1989	Copper	OR	1	1	
1989	Copper	WA	3	7	14
1989	Eastern	AK	7	39	286
1989	Eastern	BC	3	55	<1
1989	Northern	BC	5	37	15
1989	Unknown	BC	1	1	
1990	Coghill	AK	1	3	
1990	Coghill	BC	4	76	6
1990	Copper	AK	1	4	
1990	Copper	BC	4	15	1,024
1990	Copper	OR	3	7	68
1990	Copper	WA	3	4	20
1990	Eastern	AK	2	13	2
1990	Eastern	BC	2	29	
1990	Eastern	WA	1	2	
1990	Eshamy	AK	2	12	56
1990	Northern	BC	1	1	
1990	Southwest	BC	1	1	
1990	Unknown	AK	1	1	
1990	Unknown	BC	3	38	

-continued-

**Table 12.-Page 3 of 4.**

Year	Fishery District Recovered <sup>a</sup>	State/ Province of Origin	Number Tags Recovered <sup>b</sup>	Relative Mark	Estimated Contribution <sup>c</sup>
1991	Copper	AK	9	61	126
1991	Copper	BC	12	167	315
1991	Copper	OR	12	259	536
1991	Copper	WA	6	8	18
1991	Eastern	AK	2	11	8
1991	Eastern	BC	7	69	74
1991	Eshamy	AK	3	6	3
1991	Northern	BC	1	57	
1991	Unknown	AK	4	19	
1991	Unknown	BC	4	21	
1991	Unknown	OR	2	25	
1992	Coghill	AK	2	5	17
1992	Coghill	WA	1	32	
1992	Copper	AK	6	35	74
1992	Copper	BC	3	64	316
1992	Copper	OR	4	22	55
1992	Eastern	BC	1	3	3
1992	Eshamy	AK	3	11	43
1992	Eshamy	BC	3	60	127
1992	Unknown	AK	3	20	
1992	Unknown	BC	1	1	
1992	Unknown	OR	1	14	
1993	Coghill	AK	48	204	217
1993	Coghill	BC	9	89	35
1993	Coghill	OR	1	2	
1993	Coghill	WA	3	6	8
1993	Copper	AK	6	19	110
1993	Copper	BC	2	33	227
1993	Copper	OR	4	12	73
1993	Eshamy	AK	4	28	125
1993	Eshamy	BC	1	1	
1993	Southwest	BC	2	9	2
1993	Unakwik	BC	1	6	1
1993	Unknown	AK	20	84	
1993	Unknown	BC	3	9	
1994	Copper	AK	2	22	60
1994	Copper	BC	1	4	18
1994	Copper	OR	1	1	3
1994	Eastern	AK	5	38	13
1994	Eastern	BC	1	9	4

-continued-

**Table 12.-Page 4 of 4.**

Year	Fishery District Recovered <sup>a</sup>	State/ Province of Origin	Number Tags Recovered <sup>b</sup>	Relative Mark	Estimated Contribution <sup>c</sup>
1994	Eastern	WA	1	26	6
1994	Coghill	AK	8	77	177
1994	Coghill	BC	2	18	16
1994	Unknown	AK	1	8	
1994	Unknown	BC	1	5	
1995	Copper	AK	10	102	1,378
1995	Copper	WA	1	21	
1995	Copper	BC	2	18	125
1995	Copper	OR	6	41	411
1995	Northern	OR	1	1	1
1995	Southwest	BC	2	77	13
1995	Southwest	WA	1	22	7
1995	Coghill	AK	2	15	1
1995	Eshamy	AK	1	9	6
1995	Unknown	WA	1	6	

<sup>a</sup> Districts are Commercial Fishery Districts: Copper River = District 212; Eastern = District 221; Northern = District 222; Coghill = District 223; Eshamy = District 225; Southwest = District 226; Southeast = District 228; Unakwik = District 229. Data from State of Alaska, Department of Fish and Game, Statewide Coded Wire Tag database (11/15/96).

<sup>b</sup> Includes all tag recoveries (select and random).

<sup>c</sup> Only random tag recoveries included in contribution estimates.

2. Coded wire tag recoveries indicate that a minor component (1%) of the commercial harvest comprises tagged stocks of chinook salmon. The majority of contributions are from Alaska and British Columbia, with the majority of Alaska contributions from PWS hatchery sources.
3. Annual sport harvest of chinook salmon in PWS is small, but doubled from 446 fish from 1980-1987 to 908 fish from 1988-1995. Coded wire tag data indicate that much of the harvest of tagged stocks comes from local hatchery production.

### **Recommendations**

In a previous summary of marine harvests of chinook salmon Clark et al. (1994) recommended that:

1. No additional work was needed to monitor the sport fishery.
2. A CWT tagging program be implemented on wild chinook salmon stocks in the Copper River drainage.

**Table 13.-Estimated contribution of groups of chinook salmon tagged with coded wire tags to sampled state-managed commercial and cost recovery fisheries in Prince William Sound, by state/province of origin, 1984-1995.**

Prince William Sound Commercial Fisheries																				
State	All PWS Districts					Copper District					Other Districts					Cost Recovery Fisheries				
of	Number	Relative Mark		Contribution		Number	Relative Mark		Contribution		Number	Relative Mark		Contribution		Number	Relative Mark		Contribution	
Origin	Tags	Number	Prop <sup>a</sup> .	Number	Prop.	Tags	Number	Prop.	Number	Prop.	Tags	Number	Prop.	Number	Prop.	Tags	Number	Prop.	Number	Prop.
AK	196	1037	0.35	2,911	0.40	38	251	0.25	1,819	0.32	158	786	0.40	1092	0.62	92	447	0.90	1,790	0.97
BC	103	1,193	0.40	2,488	0.34	25	304	0.30	2,040	0.36	78	889	0.45	448	0.26	7	47	0.10	48	0.03
OR	53	449	0.15	1,494	0.20	39	373	0.37	1,408	0.25	14	76	0.04	86	0.05	0				
WA	45	301	0.10	462	0.06	18	84	0.08	340	0.06	27	217	0.11	122	0.07	0				
Total	397	2,980	1	7,355	1	120	1,012	1	5,607	1	277	1,968	1	1,748	1	99	494	1	1,838	1
<u>Total Commercial Harvest (1984-1995)</u>					611,556	596,763					14,793									

Note: Not all districts and years were sampled.

<sup>a</sup> Proportion



**Table 14.-Numbers of coded wire tags recovered from chinook salmon, and estimated contribution to sampled cost recovery fisheries in Prince William Sound from chinook salmon groups tagged with coded wire tags, 1980-1995.**

Year	Fishery District Recovered <sup>a</sup>	State/Province of Origin	Number Tags Recovered <sup>b</sup>	Relative Mark	Estimated Contribution <sup>c</sup>
1980-1987 No Tags Recovered					
1988	Eastern	AK	1	6	
1989	Eastern	AK	2	11	
1990-1991 No Tags Recovered					
1992	Coghill	AK	18	69	131
1992	Eastern	BC	1	3	1
1993	Coghill	AK	61	272	1,445
1993	Coghill	BC	1	2	43
1993	Eastern	AK	1	2	
1993	Eastern	BC	2	6	2
1993	Unknown	AK	1	4	
1994	Coghill	AK	6	80	211
1994	Coghill	BC	1	7	
1994	Eastern	AK	1	1	17
1994	Eastern	BC	1	9	2
1995	Coghill	AK	1	2	3
1995	Eastern	BC	1	20	

<sup>a</sup> Districts are Commercial Fishery Districts: Eastern = District 221; Coghill = District 223. Data from State of Alaska, Department of Fish and Game, Statewide Coded Wire Tag database (11/15/96).

<sup>b</sup> Includes all tag recoveries (select and random).

<sup>c</sup> Only random tag recoveries included in contribution estimates.

**Table 15.-Numbers of coded wire tags, by district recovered and state/province of origin, that were recovered from chinook salmon harvested in sport fisheries in Prince William Sound, 1980-1995.**

Year	Fishery District Recovered <sup>a</sup>	State/Province of Origin	Number Tags Recovered	Relative Mark
1980-1983	No Tag Recovered			
1984	Eastern	BC	1	4
1984	Southeast	OR	1	1
1985	Eastern	AK	1	2
1986	Eastern	BC	1	1
1987	Eastern	BC	1	21
1988	Eastern	AK	5	28
1988	Eastern	WA	1	1
1989	Eastern	AK	2	11
1989	Southeast	BC	1	1
1990	Southeast	BC	1	1
1991	No Tags Recovered			
1992	Eastern	AK	1	4
1993	Coghill	AK	5	23
1994	No Tags Recovered			
1995	Eastern	AK	2	45

<sup>a</sup> Districts are Commercial Fishery Districts: Eastern = District 221; Coghill = District 223; Southeast = District 228. Data from State of Alaska, Department of Fish and Game, Statewide Coded Wire Tag database (11/15/96).

Recommendation 2 has already been implemented. The Department currently (1997) has a coded wire tagging program in the Copper River drainage. Juvenile chinook salmon are scheduled to be tagged in the five aforementioned drainages of the Copper River during 1997 and 1998. Commercial harvests in PWS will be scanned for these tagged chinook salmon during 2000 through 2003.

Our recommendations are:

1. Continue coded wire tagging programs for all hatchery releases in PWS and wild stocks in the Copper River drainage.
2. Continue coded wire tag recovery programs in commercial and cost recovery fisheries. Increase the sampling rate (currently less than 20%) in these programs to allow analysis of time area trends.
3. Assess the status of local stocks in the Copper River drainage. Stock-specific knowledge of status is limited to inriver harvest and incomplete aerial survey data.
4. Perform a detailed analysis of coded wire tag recovery data. The analysis in this report was limited to broad geographic areas, a combination of years, and no assessment of statistical precision.

## **LOWER COOK INLET**

The Lower Cook Inlet (LCI) commercial fishery management area comprises all waters west of the longitude of Cape Fairfield, north of the latitude of Cape Douglas, and south of the latitude of Anchor Point (Figure 11). This area is bounded by the Upper Cook Inlet management area to the north, the Kodiak management area to the south, and the Prince William Sound management area to the east. Lower Cook Inlet is further divided into four commercial salmon fishing districts: Southern, Outer, Eastern, and Kamishak. The Barren Island District is the only nonsalmon fishing district in LCI. Commercial fishery management authority for this area is located at the CFMD office in Homer, Alaska.

In contrast, there are two sport fishery management areas in Lower Cook Inlet. These management areas are Kenai Peninsula and Central Gulf (Figure 2). The Kenai Peninsula management area encompasses marine waters from a line from Gore Point to Cape Douglas on the south and is bounded by a northern line between East and West Forelands of Cook Inlet and along the northern shore along the Kenai Peninsula to Ingram Creek. This management area also includes marine waters in Upper Cook Inlet (see next chapter). Sport fishery management authority for the Kenai Peninsula area is located at the Sport Fish Division area office in Soldotna, Alaska. The Gulf Coast management area includes marine waters west of the longitude of Cape Suckling and east of the longitude of Gore Point. This management area also includes marine waters in Prince William Sound (see previous chapter). Sport fishery management authority for the Gulf Coast area is located at the Sport Fish Division regional office in Anchorage, Alaska.

## **Local Stocks of Chinook Salmon**

Within the LCI area, there are no known wild stocks of chinook salmon. To provide additional angling opportunity in LCI, Sport Fish Division released chinook salmon smolt at Halibut Cove and Homer Spit in Kachemak Bay, and at Seward in Resurrection Bay during the early 1980s. Later in the 1980s, Seldovia Bay was added to the release sites in Kachemak Bay. Initially, a

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**Figure 11.-Map of commercial fishing districts in Lower Cook Inlet.**

total of 200,000 smolt were released in Kachemak Bay enhancement locations during the 1980s. By the 1990s these releases gradually increased to approximately 500,000 smolt. Smolt releases of 100,000 into Resurrection Bay began during the mid 1980s and have increased to the present level of 300,000 smolt.

### **Fishery Description**

Purse seine fisheries occur in four districts of LCI: Southern, Outer, Eastern, and Kamishak. A set gillnet fishery is allowed only in the Southern District but not in the other districts. LCI commercial salmon harvest relies heavily on fish produced from the Tutka hatchery and enhanced fish production from lake fertilization projects. Approximately 80% of commercial harvest of salmon in this management area can be attributed to hatchery and enhancement production (Bucher and Hammarstrom 1996). Commercial fishing effort has increased during recent years, with 49 seine and 23 set gillnet permits in use during 1995.

The demand for sport fishing opportunities for chinook salmon in LCI has increased in recent years (Nelson 1995). The terminal, enhanced fisheries at Halibut Cove, Homer Spit and Seldovia Bay continued to be very popular with recreational anglers. The Homer Spit fishery won the American League of Anglers and Boaters Sport Fish Award for best project in the nation for 1990 because of the success and popularity of this fishery. In addition to the enhanced terminal fisheries, there is increasing interest in the Kachemak Bay winter chinook salmon fishery. This fishery began in the 1960s and harvests an unknown proportion of sexually immature fish (Tim McKinley, Alaska Department of Fish and Game, Soldotna, personal communication). Although immature chinook salmon are caught throughout the year, angler participation has increased during the winter months when opportunities to participate in other fisheries are minimal. The department has scant data regarding this fishery, particularly estimates of harvest and participation.

### **Chinook Salmon Harvests**

Harvest of chinook salmon in purse seine fisheries of LCI ranged from 51 to 1,079 fish from 1980-1995; most of the harvest occurred in the Southern District (Table 16; Figure 12). Set gillnet harvests ranged from 222 to 2,078 chinook salmon from 1980-1995 (Table 16; Figure 12). The 1988-1995 average of 1,770 chinook salmon harvested in all LCI commercial fisheries was nearly double the 1980-1987 average of 893 (Tables 16 and 17; Figure 12). The large set gillnet harvest in 1995 is probably due to hatchery production at Halibut Cove Lagoon and Seldovia Bay.

Sport anglers account for most of the chinook salmon harvested in LCI. From 1980-1995, the sport harvest averaged 5,856 chinook salmon, which is 81% of the total harvest of chinook salmon in LCI (Table 18). The average annual sport harvest increased from 1,992 chinook salmon (1980-1987) to 9,810 chinook salmon (1988-1995; Table 18). Harvest was especially large in 1988, and 1993-1995. During 1988-1995, harvests at Homer accounted for approximately 75% of the LCI sport harvest of chinook salmon (Table 18).

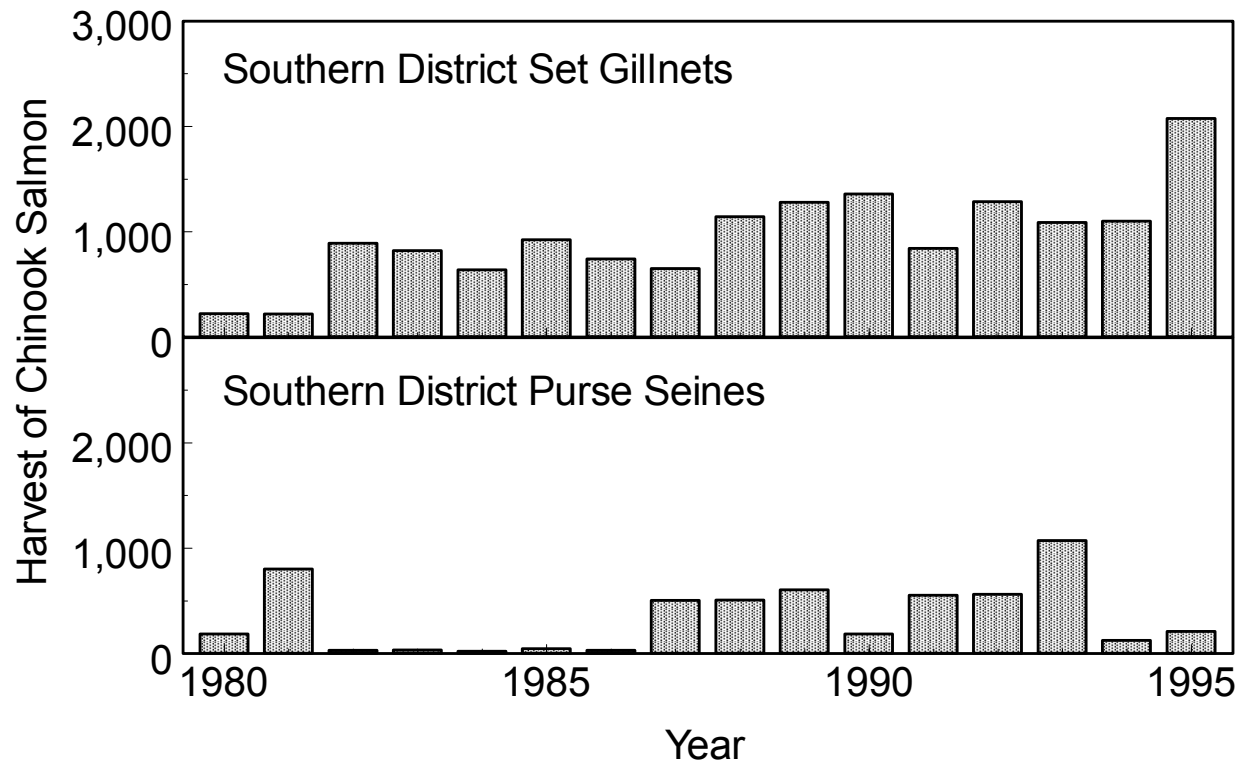
### **CWT Recoveries**

There were no CWT recoveries from commercial salmon fisheries in LCI from 1980-1995.

**Table 16.-Total estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial purse seine fisheries and set gillnet fisheries in Lower Cook Inlet, 1980-1995.**

Year	Purse Seine		Set Gill Net		Lower Cook Inlet Total	
	Number	Wt.	Number	Wt.	Number	Wt.
1980	199	5.3	225	35.7	424	21.4
1981	864	4.6	222	17.7	1,086	7.3
1982	172	12.1	894	22.6	1,066	20.9
1983	51	21.5	822	22.9	873	22.8
1984	75	8.0	639	31.2	714	28.8
1985	85	9.2	924	30.2	1,009	28.4
1986	51	12.1	745	21.2	796	20.6
1987	526	9.7	653	24.8	1,179	18.1
1988	549	12.6	1,145	16.6	1,694	15.3
1989	612	11.3	1,281	15.5	1,893	14.1
1990	199	13.1	1,361	13.8	1,560	13.7
1991	576	6.7	843	16.1	1,419	12.3
1992	603	9.8	1,288	13.5	1,891	12.3
1993	1,079	8.6	1,089	15.4	2,168	12.0
1994	128	12.1	1,103	15.3	1,231	15.0
1995	225	11.3	2,078	18.5	2,303	17.8

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03933.PRN & T03934.PRN). Requested 1994 and 1995 data 11/14/96 (Request No. T10325).



**Figure 12.-Harvest of chinook salmon (numbers of fish) in state-managed commercial fisheries in Lower Cook Inlet, 1980-1995.**

There were 139 recoveries of coded wire tagged chinook salmon in sport fisheries in LCI during 1980-1995. Of these recoveries, 125 were from commercial fishing District 241 (Southern district near the port of Homer). After adjusting for relative marking ratios for Homer-based recoveries, the percentage of CWT chinook salmon of known origin by area was: 5% Alaska, 91% British Columbia, 2% Oregon, and 1% Washington (Table 19). Of the 67 relative marks of Alaska origin, 27 (40%) were from enhancement programs in Homer (Homer Spit and Halibut Cove). The remaining 40 relative marks (60%) were from southeast Alaska.

Of the remaining 14 recoveries, 13 were from the port of Seward in fishing District 231 (Eastern District) and fishing district was unknown for one recovery. Most of these CWT recoveries occurred in 1988 (8 out of 13 tags). After adjusting for relative marking ratios for Seward-based recoveries, the percentage of CWT chinook salmon of known origin by area was: 40% Alaska, 2% British Columbia, 0% Oregon, and 58% Washington (Table 19). Of the 17 relative marks of Alaska origin, six (35%) were from an enhancement program in Seward (Seward Lagoon). The remaining 11 relative marks (65%) were from southeast Alaska.

## Conclusions

The following conclusions are supported by harvest and coded wire tag data:

1. The majority of chinook salmon harvest comes from sport fisheries based in Homer and Seward. Harvests averaged 1,992 fish from 1980-1987 and averaged 9,810 fish from 1988-1995.



**Table 17.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial purse seine fisheries in Lower Cook Inlet, 1980-1995.**

Year	Eastern District		Outer District		Southern District		Kamishak District		Total	
	Purse Seines		Purse Seines		Purse Seines		Purse Seines			
	District 231		District 232		District 241		District 249			
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.		
1980	0		10	7.7	189	5.2	0		199	5.3
1981	0		61	13.6	802	3.9	1	17.0	864	4.6
1982	0		129	12.6	32	13.0	11	3.5	172	12.1
1983	0		14	44.1	36	12.8	1	20.0	51	21.5
1984	47	5.3	3	7.0	22	11.9	3	22.7	75	8.0
1985	11	1.3	19	6.4	49	9.9	6	27.0	85	9.2
1986	0		6	10.7	31	11.9	14	13.4	51	12.1
1987	0		14	8.4	505	9.6	7	20.8	526	9.7
1988	1	18.0	5	17.6	510	11.6	33	27.2	549	12.6
1989	0		1	5.0	608	11.3	3	19.3	612	11.3
1990	0		2	17.0	185	13.0	12	13.7	199	13.1
1991	1	6.0	2	18.0	556	6.4	17	15.0	576	6.7
1992	0		0		564	9.5	39	14.7	603	9.8
1993	0		2	20.0	1,073	8.6	4	13.3	1,079	8.6
1994	1	28.0	0		127	12.0	0		128	12.1
1995	0		12	11.8	211	11.1	2	29.0	225	11.3

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03933.PRN & T03934.PRN). Requested 1994 and 1995 data 11/14/96 (Request No. T10309).

**Table 18.-Sport harvest of chinook salmon (numbers) from Lower Cook Inlet, 1980-1995.**

Year	Homer Area				Seward Area				Total			
	Small <sup>a</sup>	Large <sup>b</sup>	Total	%	Small <sup>a</sup>	Large <sup>b</sup>	Total	%	Small <sup>a</sup>	Large <sup>b</sup>	Total	%
1980 <sup>c</sup>			431				198				629	
1981	184	961	1,145	16	25	137	162	15	209	1,098	1,307	16
1982	161	1,802	1,963	8	42	293	335	13	203	2,095	2,298	9
1983	241	2,423	2,664	9	10	189	199	5	251	2,612	2,863	9
1984	124	2,605	2,729	5	12	12	24	50	136	2,617	2,753	5
1985	185	957	1,142	16	112	75	187	60	297	1,032	1,329	22
1986	502	938	1,440	35	129	78	207	62	631	1,016	1,647	38
1987	380	2,099	2,479	15	90	543	633	14	470	2,642	3,112	15
1988	1,508	8,258	9,766	15	182	1,874	2,056	9	1,690	10,132	11,822	14
1989	830	3,569	4,399	19	214	762	976	22	1,044	4,331	5,375	19
1990	417	4,548	4,965	8	174	830	1,004	17	591	5,378	5,969	10
1991	453	3,212	3,665	12	166	1,381	1,547	11	619	4,593	5,212	12
1992	1,095	4,646	5,741	19	724	2,201	2,925	25	1,819	6,847	8,666	21
1993 <sup>c</sup>			10,334				5,121				16,182	
1994 <sup>c</sup>			10,139				2,078				12,217	
1995 <sup>c</sup>			9,168				3,868				13,036	

Source: Mills 1981-1994 and Howe et al. 1995, 1996. See Appendix A2 for specific tables and page numbers.

<sup>a</sup> Chinook salmon less than 16 inches.

<sup>b</sup> Chinook salmon greater than or equal to 16 inches.

<sup>c</sup> Harvest not estimated by size in 1980 and 1993-1995.

**Table 19.-Numbers of coded wire tags, by district recovered and state/province of origin, that were recovered from chinook salmon harvested in sport fisheries in Lower Cook Inlet, 1980-1995.**

Year	Fishery District Recovered <sup>a</sup>	State/Province of Origin	Number Tags Recovered	Relative Mark
1980	Southern	BC	1	49
1980	Southern	WA	1	5
1981	Southern	AK	1	1
1981	Southern	BC	4	99
1982	Southern	AK	2	2
1982	Southern	OR	2	2
1983	Southern	AK	1	2
1983	Southern	OR	6	6
1984	Southern	BC	1	4
1985	Eastern	AK	2	9
1985	Eastern	WA	1	23
1985	Southern	BC	2	63
1985	Southern	OR	1	9
1985	Southern	WA	1	1
1986	Southern	BC	2	2
1987	Eastern	AK	1	1
1987	Southern	BC	1	24
1988	Eastern	AK	7	7
1988	Eastern	BC	1	1
1988	Southern	BC	4	83
1988	Southern	WA	1	7
1989	No Tags Recovered			
1990	Southern	BC	2	54
1990	Unknown	BC	1	53
1991	Eastern	WA	1	2
1991	Southern	BC	1	1
1992	Southern	AK	1	1
1992	Southern	BC	17	199
1993	Southern	BC	5	33
1994	Southern	BC	26	166
1994	Southern	OR	1	3
1995	Southern	AK	8	60
1995	Southern	BC	32	392
1995	Southern	OR	1	11

<sup>a</sup> Eastern District = Commercial Fishery District 231; Southern District = Commercial Fishery District 241. Data from State of Alaska, Department of Fish and Game, Statewide Coded Wire Tag database (11/15/96).

2. Coded wire tag recoveries indicate a portion of the sport harvest at Seward and Homer are of nonlocal origin.
3. Commercial harvest of chinook salmon in LCI is small, but has approximately doubled from 893 fish per year from 1980-1987 to 1,770 fish per year from 1988-1995.

## **Recommendations**

In a previous summary of marine harvests of chinook salmon Clark et al. (1994) recommended that:

1. A CWT recovery program be implemented in the boat-based sport fishery near Homer.
2. A CWT tagging program be implemented on Lower Cook Inlet hatchery releases.

Recommendation 1 was implemented in 1996. Harvests during spring and summer are sampled for CWTs in Homer. Catches are also examined during the Homer winter derby. Recommendation 2 has been achieved for all chinook salmon releases in Homer, but not in Seward.

Our recommendations are:

1. Continue coded wire tagging programs for all hatchery releases in LCI. Although all hatchery releases in Homer are tagged, we feel that all hatchery releases in Seward should also be tagged. Releases of hatchery fish in Seward and Homer are primarily in salt water. Saltwater releases have been shown to have higher rates of straying than freshwater releases. It would be prudent to monitor straying of releases in Seward by implementing a CWT tagging program.
2. Implement a CWT recovery program in LCI commercial fisheries. Recoveries would allow determination of contribution of local hatchery releases to purse seine harvests near Homer.

## **UPPER COOK INLET**

The Upper Cook Inlet (UCI) commercial fishery management area encompasses marine waters in Cook Inlet north of the latitude of Anchor Point. This area is bounded by the Lower Cook Inlet management area to the south. Upper Cook Inlet is divided into the Central and Northern fishing districts (Figure 13). The Central District is divided into six subdistricts which are further divided into 20 statistical areas. The Northern District is divided into two subdistricts with 11 statistical areas. Commercial fishery management authority for this area is located at the CFMD office in Soldotna, Alaska.

There are three sport fishery management areas in UCI north of Anchor Point. These management areas are Kenai Peninsula, Northern Cook Inlet, and Anchorage. The Kenai Peninsula management area encompasses marine waters from a line from Gore Point to Cape Douglas on the south and is bounded by a northern line between East and West Forelands of Cook Inlet and along the northern shore along the Kenai Peninsula to Ingram Creek. This management area also includes marine waters in LCI (see previous chapter). Management authority for this area is located at the Sport Fish Division area office in Soldotna, Alaska. The Northern Cook Inlet management area has management authority for sport fisheries in the marine waters from the West Forelands to the Eklutna River. Sport fishery management authority for Northern Cook Inlet is located in the Sport Fish Division area office in Palmer, Alaska. The marine waters from the Eklutna River to Ingram Creek in Turnagain Arm are in the Anchorage

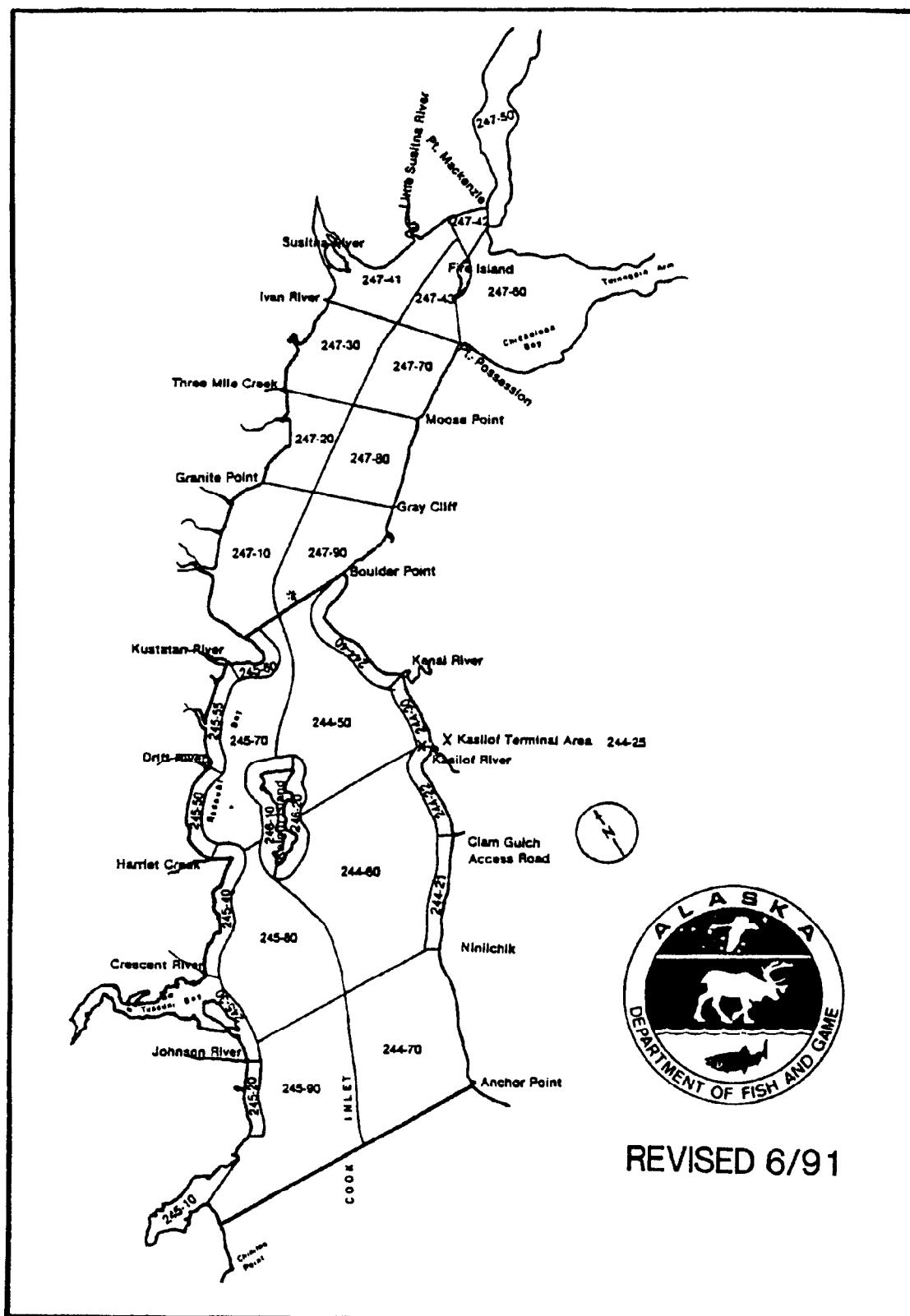


Figure 13.-Map of commercial fishing districts in Upper Cook Inlet.

management area. Sport fishery management authority for the Anchorage area is located in the Sport Fish Division regional office in Anchorage.

### **Local Stocks of Chinook Salmon**

Within the Kenai Peninsula management area, a minimum of seven streams is documented to support spawning chinook salmon (Nelson 1995). Within the Northern Cook Inlet area, 88 streams are documented to support spawning chinook salmon (Lafferty 1997). Within the total UCI area, 25 of these stocks have sufficient production data to be managed with a BEG (Fried 1994). The Susitna and Kenai rivers contain the largest stocks of chinook salmon in UCI. In addition, seven smaller stocks of chinook salmon in tributaries to the Susitna or Kenai rivers are also listed with BEGs (Fried 1994). The 25 chinook salmon BEGs in UCI total 72,370 fish. These BEGs are only indices of chinook salmon production in UCI and do not represent total enumeration of runs. It is our assessment that the annual run exceeds 200,000 chinook salmon into UCI streams.

In addition to wild stocks of chinook salmon in UCI, Sport Fish Division has released chinook salmon smolt at 10 release sites in UCI since 1980. Initially, a total of 250,000 smolt were released at Crooked and Ship creeks. By 1988, chinook salmon smolt releases were approaching 1.5 million at eight sites. Since the 1990s, the number of sites and numbers of chinook salmon smolt released into UCI has decreased to a total of 640,000 smolt at four sites (Crooked, Ship, and Willow creeks, and the Ninilchik River).

### **Fishery Description**

Commercial fisheries in UCI are prosecuted under the Upper Cook Inlet Salmon Management Plan (5 AAC 21.363), with several additional management plans for specific fisheries. Sockeye salmon are the most economically important and abundant species in the commercial harvest in UCI. Since 1986, the Northern District has been open to set gillnets only and is the only directed commercial fishery for chinook salmon of Susitna River stocks in UCI. The Northern District King Salmon Management Plan (5 AAC 21.366) allows a harvest of 12,000 chinook salmon annually. Recent management actions to protect weak returns of Susitna River chinook salmon stocks have reduced the number of fishing periods for the directed fishery in the Northern District. Commercial set gillnetting is allowed in the 13 statistical areas of the Central District located along the beaches of the Central fishing district; the remaining seven statistical areas are open to drift gillnet fishing. Harvest of late-run Kenai River chinook salmon in the East Central District (244) sockeye salmon set gillnet fishery creates substantial controversy between commercial setnetters and recreational anglers.

Because of the glacially turbid waters of UCI, most of the marine recreational fishing occurs along the southern beaches of the Kenai Peninsula (herein referred to as the Deep Creek marine fishery). The Deep Creek marine fishery occurs within 1 mile of the beaches between the latitudes of the Ninilchik River and Bluff Point. Recent regulation changes have been implemented to contain the chinook salmon harvest in this fishery. Historically, recreational harvests of chinook salmon in this fishery have been dependent on local weather and limited boat launching facilities, but the introduction of tractors that allow launching of boats from the beach has greatly improved access to the fishery.

The Deep Creek marine fishery intercepts early- and late-run chinook salmon. Nelson (1995) summarized the difficulties in estimating the marine sport harvest of chinook salmon from the

Statewide Harvest Survey and provided results of onsite creel surveys to apportion harvest between the early and late runs of chinook salmon in the Deep Creek marine fishery. Seventy percent of the chinook salmon harvest occurred during the early run in May and June and the remaining 30% occurred during the late run in July. An additional creel survey, conducted in 1994 (McKinley 1995) to verify the apportionment between early-run harvest and late-run harvest, indicated that 75% of the Deep Creek marine harvest could be apportioned to the early run.

### **Chinook Salmon Harvests**

During 1980 to 1995, harvests of chinook salmon in the East Central District (244) set gillnet fishery averaged 12,400 fish, with a peak harvest exceeding 20,000 chinook salmon during 1987 (Table 20; Figure 14). This harvest averaged 50% of the total commercial harvest of chinook salmon in Lower and Upper Cook Inlet combined (Tables 20 through 22; Figure 15). From 1980-1987, harvest of chinook salmon in the East Central District was 13,946 fish; 10,841 fish in 1988-1995 (Table 20). The Northern District commercial set gillnet fishery ranged from 725 to 15,488 fish from 1980 to 1995 (Table 20; Figure 14). Low harvest of chinook salmon in the Northern District during 1992-1995 was a result of limited fishing periods to provide protection to the weak return of chinook salmon to the Susitna River. Harvests in the Northern District averaged 4,556 chinook salmon from 1980-1987 and 7,145 fish from 1988-1995 (Table 20; Figure 14). Drift gillnet harvests of chinook salmon were much smaller than set gillnet harvests in UCI (Table 22 and 23; Figure 14).

Average harvest of chinook salmon by sport fisheries in UCI doubled from 3,877 fish annually (1980-1987) to 8,657 fish (1989-1995). Harvest was over 11,000 fish in 1993 and 1995 (Table 24).

### **CWT Recoveries**

There were four coded wire tag recoveries made from commercial fisheries in UCI during 1980-1995. Two tags were recovered from the East Central District (District 244) and two from the Northern District (District 247; Table 25). All of these tags were of Alaska origin and all were from Cook Inlet hatchery releases.

There were 20 coded wire tag recoveries from sport fisheries in UCI during 1980-1995. All recoveries were made from the East Central District (District 244; Table 26). After adjusting for relative marking ratios for these recoveries, the percentage of CWT chinook salmon of known origin by area was: 41% Alaska, 59% British Columbia, 0% Oregon, and 0% Washington (Table 26). Of the 79 relative marks of Alaska origin, 66% were from hatchery releases in UCI and LCI in the vicinity of the Deep Creek fishery (Crooked Creek, Twin Falls, and Ninilchik River), 25% were from Deception Creek in the Susitna River drainage of UCI, and 9% were from Seward Lagoon in LCI (Table 26, Appendix B).

### **Conclusions**

The following conclusions are supported by harvest and coded wire tag data:

1. The majority of chinook salmon harvest comes from the sport fishery at Deep Creek and commercial set net fisheries in the East Central and Northern districts. Harvest of chinook salmon in the sport fishery has grown, averaging 3,877 fish from 1980-1987 and 8,657 fish from 1988-1995. Harvest in commercial set net fisheries appears stable, averaging 20,618 fish from 1980-1987 and 19,410 fish from 1988-1995. By district, set net average harvests

**Table 20.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial set gillnet fisheries in Cook Inlet, by district, 1980-1995.**

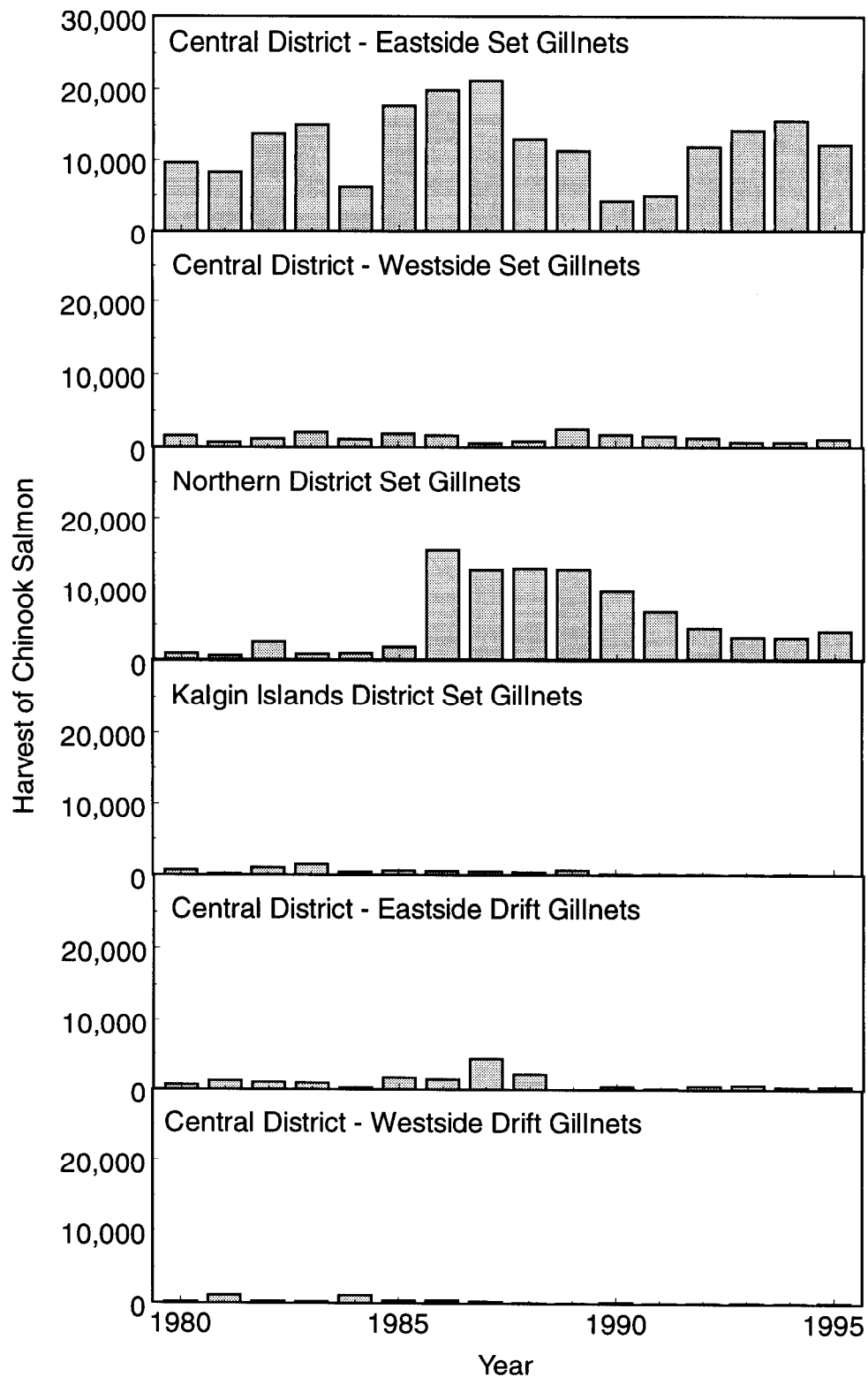
Year	Upper Cook Inlet								Lower Cook Inlet	
	East Central		West Central		Kalgin Is.		Northern		Southern	
	District 244		District 245		District 246		District 247		District 241	
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.
1980	9,643	27.4	1,532	30.5	741	19.2	993	16.6	225	35.7
1981	8,358	27.0	662	22.3	175	33.5	725	15.6	222	17.7
1982	13,658	31.7	1,151	26.2	1,052	21.7	2,716	20.7	894	22.6
1983	15,043	32.3	2,015	24.6	1,519	19.6	933	18.7	822	22.9
1984	6,165	33.3	1,080	29.0	436	28.9	1,004	22.2	639	31.2
1985	17,723	29.2	1,780	27.3	647	23.8	1,890	18.6	924	30.2
1986	19,821	30.5	1,562	26.8	548	24.9	15,488	20.3	745	21.2
1987	21,159	33.8	515	26.3	514	25.8	12,700	20.2	653	24.8
1988	12,859	36.0	773	25.9	375	33.4	12,836	22.8	1,145	16.6
1989	11,261	29.8	2,429	24.5	664	17.7	12,731	19.3	1,281	15.5
1990	4,145	27.5	1,662	24.6	101	20.6	9,582	20.6	1,361	13.8
1991	4,893	25.8	1,476	21.7	71	21.5	6,859	18.5	843 <sup>a</sup>	16.1
1992	11,841	26.0	1,219	23.8	65	24.7	4,554	18.4	1,288	13.5
1993	14,087	29.8	654	25.7	66	24.0	3,277	19.3	1,089	15.4
1994	15,576	34.6	658	24.8	72	23.7	3,193	19.5	1,103	15.3
1995	12,068	29.1	1,061	28.0	40	24.2	4,130	20.5	2,078	18.5

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03933.PRN & T03934.PRN). Requested 1994 and 1995 data 11/14/96 (Request No. T10325).

Data Notes:

- <sup>a</sup> In 1991, 1 chinook salmon was taken in District 241 without gear being recorded (weight = 21.0 lb); this fish was included with set gillnet harvests.





**Figure 14.-Harvest of chinook salmon (numbers of fish) in state-managed commercial fisheries in Upper Cook Inlet, 1980-1995.**

**Table 21.-Total estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial set gillnet fisheries in Upper and Lower Cook Inlet, 1980-1995.**

Year	Lower Cook Inlet		Upper Cook Inlet		Cook Inlet Total	
	Number	Wt.	Number	Wt.	Number	Wt.
1980	225	35.7	12,909	26.5	13,134	26.6
1981	222	17.7	9,920	25.9	10,142	25.7
1982	894	22.6	19,579	29.1	20,471	28.8
1983	822	22.9	19,510	30.3	20,332	29.6
1984	639	31.2	8,685	31.2	9,324	31.2
1985	924	30.2	22,040	28.0	22,964	28.1
1986	745	21.2	37,419 <sup>a</sup>	26.1	38,164	26.0
1987	653	24.8	34,880 <sup>b</sup>	28.7	35,541	28.6
1988	1,145	16.6	26,843	29.3	27,988	28.8
1989	1,281	15.5	27,085 <sup>c</sup>	23.7	28,366	23.6
1990	1,361	13.8	15,490 <sup>d</sup>	22.9	16,851	22.1
1991	843	16.1	13,299	21.6	14,142	21.2
1992	1,288	13.5	17,679	23.9	18,967	23.2
1993	1,089	15.4	18,084	27.7	19,173	27.0
1994	1,103	15.3	19,499	32.9	20,602	32.0
1995	2,078	18.5	17,299	27.0	19,377	26.1

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03933.PRN & T03934.PRN). 1994 and 1995 Data requested 11/14/96 (Request No. T10325).

Data Notes:

- <sup>a</sup> In 1986, 7 chinook salmon were taken in District 244 without gear being recorded (mean weight = 19.6 lb) and 2 chinook salmon were taken in District 245 without gear being recorded (mean weight = 14.5 lb); in both cases these fish were included with set net harvests.
- <sup>b</sup> In 1987, 9 chinook salmon were taken in District 244 without gear being recorded (mean weight = 32.9 lb); these fish were included with set net harvests.
- <sup>c</sup> In 1989, 335 chinook salmon were taken in District 244 without gear being recorded (mean weight = 30.9 lb) and 1 chinook salmon was taken in District 245 without gear being recorded (weight = 24.0 lb); in both cases these fish were included with set net harvests.
- <sup>d</sup> In 1990, 6 chinook salmon were taken in District 244 without gear being recorded (mean weight = 14.0 lb); these fish were included with set net harvests.

**Table 22.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in all commercial salmon fisheries in Cook Inlet, 1980-1995.**

Year	Drift Gill Net		Set Gill Net		Purse Seine		All Commercial	
	Fisheries		Fisheries		Fisheries		Salmon Fisheries	
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.
1980	889	21.6	13,134	26.6	199	5.3	14,222	26.0
1981	2,320	14.4	10,142	25.7	864	4.6	13,326	22.4
1982	1,293	24.8	20,471	28.8	172	12.1	21,936	28.4
1983	1,124	23.3	20,332	29.6	51	21.5	21,507	29.2
1984	1,377	12.0	9,324	31.2	75	8.0	10,776	28.6
1985	2,048	23.9	22,964	28.1	85	9.2	25,097	27.7
1986	1,834	22.8	38,164	26.0	51	12.1	40,049	25.8
1987	4,552	31.6	35,541	28.6	526	9.7	40,619	28.7
1988	2,238	33.8	27,988	28.8	549	12.6	30,775	28.9
1989	7	9.6	28,366	23.6	612	11.3	28,985	23.5
1990	621	15.8	16,851	22.1	199	13.1	17,671	21.8
1991	249	16.7	14,142	21.2	576	6.7	14,967	20.6
1992	618	15.8	18,967	23.2	603	9.8	20,188	22.5
1993	769	21.8	19,173	27.0	1,079	8.6	22,617 <sup>a</sup>	24.4
1994	465	22.8	20,602	23.6	128	12.1	21,195	23.5
1995	597	14.1	19,377	24.1	225	11.3	20,199	23.7

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03933.PRN & T03934.PRN). Requested 1994 and 1995 data 11/14/96 (Request No. T10309, T10324 & T10325).

Data Notes:

<sup>a</sup> In 1993, 1,596 chinook salmon with a mean weight of 5.3 lb were harvested with the aid of a weir in District 244; these fish are included in the total column only.

have grown somewhat in the Northern District while decreasing somewhat in the East Central District.

2. There have been very few recoveries of coded wire tags in commercial fisheries and all recoveries are of local origin.
3. Coded wire tag recoveries in the sport fishery indicate that a portion of the harvest is of nonlocal origin.

### Recommendations

In a previous summary of marine harvests of chinook salmon, Clark et al. (1994) recommended that:

1. A CWT tagging program be implemented in Upper Cook Inlet.
2. A CWT recovery program be implemented in the Deep Creek marine fishery.

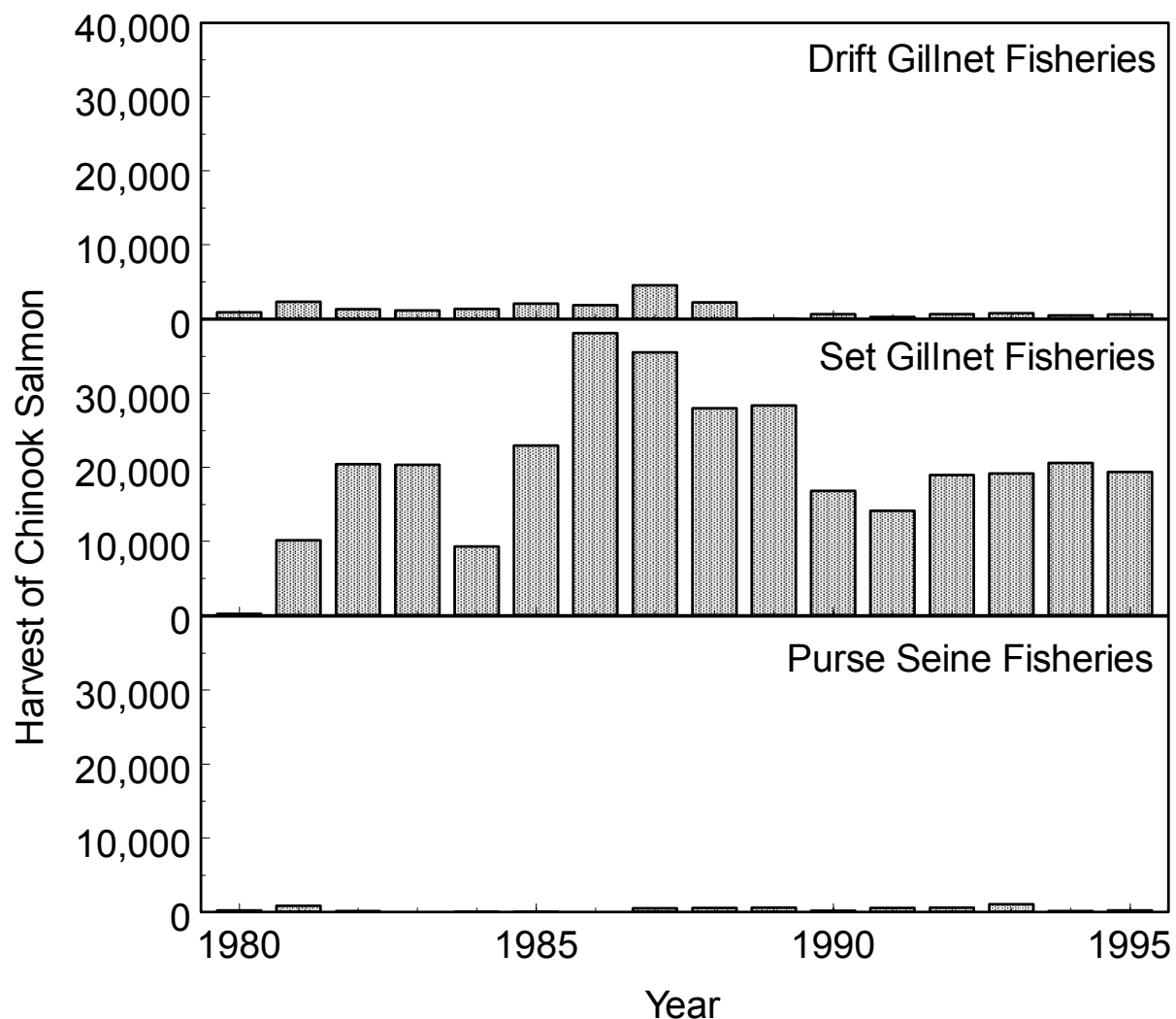


Figure 15.-Harvest of chinook salmon (numbers of fish) in state-managed commercial fisheries in Cook Inlet (Upper and Lower combined), 1980-1995.

**Table 23.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial drift gillnet fisheries in Upper Cook Inlet, 1980-1995.**

Year	Drift Gill Net Fisheries		Drift Gill Net Fisheries		Total	
	East Side of Central		West Side of Central		Drift Gill Net Fisheries	
	District (244)		District (245)		Central District	
	Number	Wt.	Number	Wt.	Number	Wt.
1980	656	21.1	233	23.1	889	21.6
1981	1,244	19.1	1,080	9.0	2,320	14.4
1982	1,008	26.4	285	19.0	1,293	24.8
1983	916	24.0	208	20.1	1,124	23.3
1984	298	22.9	1,079	9.0	1,377	12.0
1985	1,649	24.7	399	20.3	2,048	23.9
1986	1,419	24.7	415	16.3	1,834	22.8
1987	4,290	32.4	262	17.8	4,552	31.6
1988	2,173 <sup>a</sup>	34.2	65	21.6	2,238	33.8
1989	6	10.0	1	6.0	7	9.6
1990	433	16.8	188	13.3	621	15.8
1991	198	17.4	51	13.9	249	16.7
1992	543	16.3	75	12.3	618	15.8
1993	671	22.7	98	15.5	769	21.8
1994	405	23.5	60	18.2	465	22.8
1995	444	15.3	153	10.5	597	14.1

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03933.PRN & T03934.PRN). Requested 1994 and 1995 data 11/14/96 (Request No. T10324).

Data Notes:

<sup>a</sup> In 1988, 1 chinook salmon was taken with drift gill nets in an unspecified fishing district (weight = 10.0 lb); the fish was included with harvests in District 244.

**Table 24.-Sport harvest of chinook salmon (numbers) from Upper Cook Inlet, 1980-1995.**

Year	Small <sup>a</sup>	Large <sup>b</sup>	Total	% Small <sup>a</sup>
1980 <sup>c</sup>			1,636	
1981	38	2,787	2,825	1
1982	0	4,025	4,025	0
1983	131	2,899	3,030	4
1984	175	4,077	4,252	4
1985	198	5,948	6,146	3
1986	162	3,818	3,980	4
1987	184	4,940	5,124	4
1988	291	5,892	6,183	5
1989	168	6,166	6,334	3
1990	159	6,355	6,514	2
1991	481	6,677	7,158	7
1992	689	8,249	8,938	8
1993 <sup>c</sup>			12,478	
1994 <sup>c</sup>			9,873	
1995 <sup>c</sup>			11,778	

Source: Mills 1981-1994 and Howe et al. 1995 and 1996. See Appendix A3 for specific tables and page numbers.

<sup>a</sup> Chinook salmon less than 16 inches.

<sup>b</sup> Chinook salmon greater than or equal to 16 inches.

<sup>c</sup> Harvest not estimated by size in 1980 and 1993-1995.

**Table 25.-Numbers of coded wire tags, by district recovered and state/province of origin, that were recovered from chinook salmon harvested in commercial salmon fisheries in Upper Cook Inlet, 1980-1995.**

Year	Fishery District Recovered <sup>a</sup>	State/Province of Origin	Number Tags Recovered	Relative Mark
1980-1984	No Tags Recovered			
1985	Central	AK	2	17
1986-1989	No Tags Recovered			
1990	Northern	AK	2	16
1991-1995	No Tags Recovered			

<sup>a</sup> Central District = Commercial Fishery Districts 244 and 245; Northern District = Commercial Fishery District 247. Data from State of Alaska, Department of Fish and Game, Statewide Coded Wire Tag database (11/15/96).

Recommendation 1 has been implemented on all hatchery releases of chinook salmon in UCI since 1992. In addition, a program to tag wild stocks in UCI was initiated in 1992. Recommendation 2 was implemented in 1996.

Our recommendations are:

1. Continue coded wire tagging programs for all hatchery releases and selected wild stocks in UCI. Continued tagging is needed to assess contributions of these stocks to marine fisheries in southcentral Alaska.
2. Continue the coded wire tag recovery program in the Deep Creek marine fishery. Assessment of local and nonlocal components of the harvest in this fishery is critical to maintaining and developing sustainable fishing patterns.
3. Implement CWT recovery programs in the East Central and Northern District commercial fisheries. Although chinook salmon harvests in these fisheries are stable, assessment of hatchery programs and wild stocks in UCI require that all major fisheries be sampled for CWTs. CWT recovery programs were implemented in both of these fisheries in 1996.

**Table 26.-Numbers of coded wire tags, by district recovered and state/province of origin, that were recovered from chinook salmon harvested in sport fisheries in Upper Cook Inlet, 1980-1995.**

Year	Fishery District Recovered <sup>a</sup>	State/Province of Origin	Number Tags Recovered	Relative Mark
1980	No Tags Recovered			
1981	Central	AK	1	7
1982-1990	No Tags Recovered			
1991	Central	AK	2	16
1991	Central	BC	3	43
1992	Central	AK	3	22
1992	Central	BC	1	11
1993	Central	AK	1	9
1993	Central	BC	2	20
1994	Central	AK	1	5
1995	Central	AK	4	20
1995	Central	BC	2	38

<sup>a</sup> Central District = Commercial Fishery Districts 244 and 245. Data from State of Alaska, Department of Fish and Game, Statewide Coded Wire Tag database (11/15/96).



## **KODIAK**

Commercial fishing is managed in an area designated as the Kodiak Management Area (KMA). The KMA comprises waters of the western Gulf of Alaska surrounding the Kodiak Archipelago, and along that portion of the Alaska Peninsula which drains into Shelikof Strait between Cape Douglas and Kilokak Rocks at Imuya Bay (Brennen et al. 1997 and Figure 16). This area is bounded by Lower Cook Inlet management area to the north and Chignik management area to the southwest. There are seven commercial salmon fishing districts in the KMA (Figure 16). Management authority for this area is located at the regional office of the CFMD Division in Kodiak, Alaska.

Sport fishing is managed in an area similar to the KMA, with the exception of the mainland of the Alaska Peninsula (Schwarz 1996a and Figure 2). Sport harvests along the Alaska Peninsula are reported on in the South Peninsula section of this document. Management authority for this area is located at the area office of the Sport Fish Division in Kodiak, Alaska.

### **Local Stocks of Chinook Salmon**

The Karluk and Ayakulik rivers support naturally occurring stocks of chinook salmon in the KMA (Brennen et al. 1997). The Karluk River drains Karluk Lake on the southwestern side of Kodiak Island and supports escapements that have ranged from 4,429 to 14,442 chinook salmon during 1981 through 1995 (Schwarz 1996a). The BEG for chinook salmon in the Karluk River is 4,500 to 8,000 fish. Farther south on Kodiak Island, the Ayakulik River supports escapements that have ranged from 3,320 to 21,370 chinook salmon during 1981 through 1995 (Schwarz 1996a). The BEG for chinook salmon in the Ayakulik River is 6,500 to 10,000 fish. There are also small introduced runs of chinook salmon in the Dog Salmon (southern end of Kodiak Island) and Pasagshak (Ugak Bay south of the city of Kodiak) rivers.

### **Fishery Description**

Chinook salmon are not a targeted species of the seine and gillnet commercial fisheries of the KMA. Harvests of chinook salmon are taken incidental to fisheries directed at pink and sockeye salmon (Brennen et al. 1997). Recent increases in sockeye and pink salmon returns to the KMA have brought increased fishing opportunity for these species which, along with increases in returns of local chinook salmon stocks, have increased incidental harvest of chinook salmon, primarily in purse seine fisheries. During 1980 through 1995 there were between 606 and 614 limited entry permits available to be fished in the KMA; permit activity during these years ranged from 75% to 92% of all permits actually fished (Brennen et al. 1997; excludes 1989 datum of 15% fished due to the M/V *Exxon Valdez* oil spill).

The majority of sport harvested chinook salmon are taken in fresh water from the Karluk and Ayakulik rivers (Schwarz 1996a). In marine waters, sport harvests of chinook salmon occur primarily around Chiniak Bay near the city of Kodiak. Although chinook salmon harvests in the past were incidental to halibut and rockfish fishing, anglers are now trolling to target chinook salmon that enter Chiniak Bay to feed. As a result, marine harvest has grown from less than 300 fish annually to over 2,000 fish in 1993. Although this fishery can be characterized as small and opportunistic, harvests are growing and interest in marine salmon fishing will likely continue to increase as recreational anglers and charter boat businesses seek to expand fishing opportunity for chinook salmon.

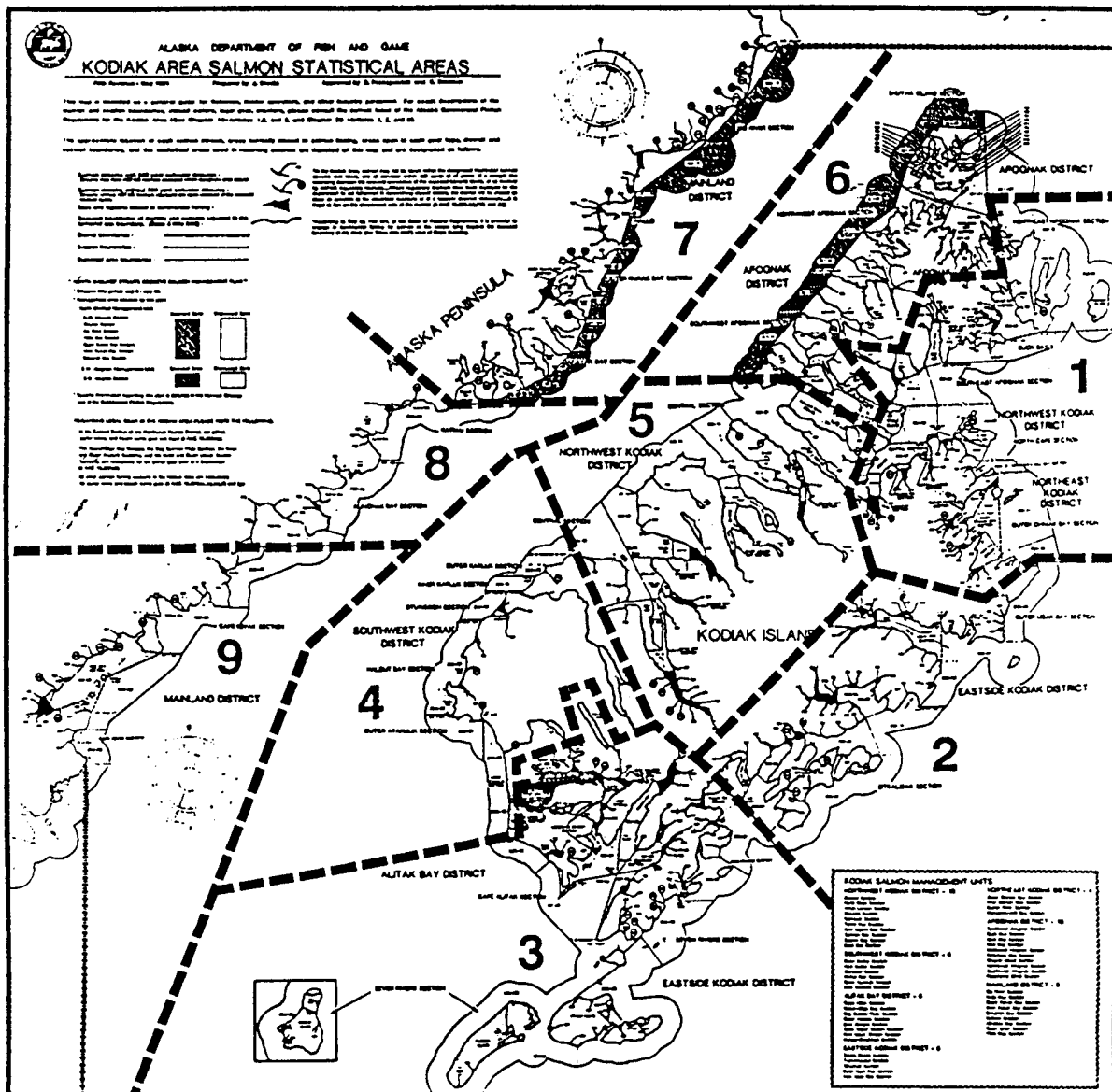


Figure 16.-Map of commercial fishing districts in Kodiak.

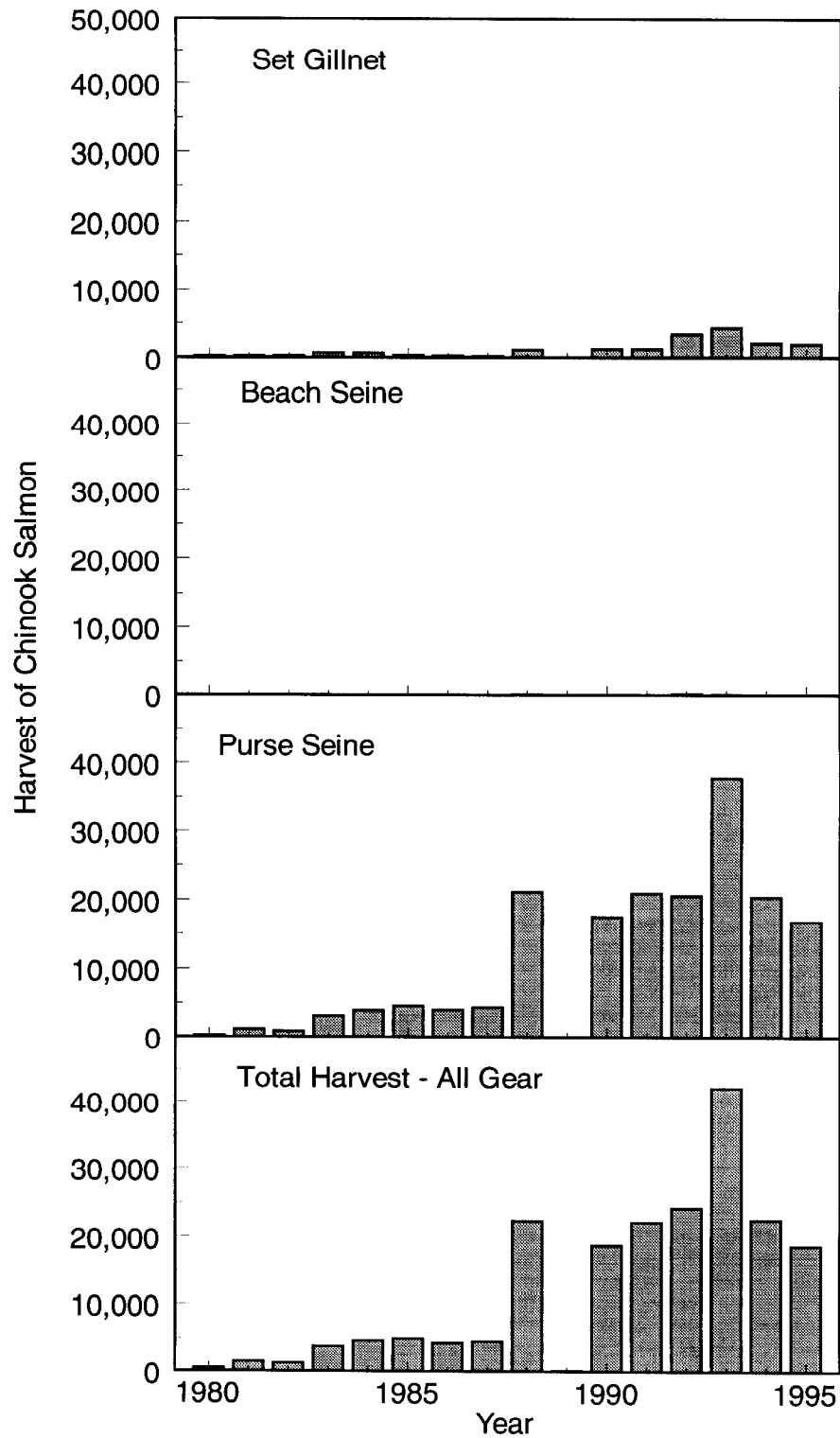
### Chinook Salmon Harvests

During the period 1980-1995, commercial harvest averaged 12,309 fish, of which 11,108 (90%) were harvested in purse seines (Table 27; Figure 17). During 1988 to 1995 (excepting 1989 when fishing was closed due to the M/V *Exxon Valdez* oil spill) harvest by purse seine ranged from 16,775 to 37,802 fish. Prior to 1988, harvest of chinook salmon by purse seine ranged from 266 to 4,570 fish annually (Table 27). Most recently, harvests peaked in 1993 at 37,802 fish and then declined to 20,460 fish in 1994 and 16,775 fish in 1995. More than 40% of the purse seine harvest occurred in District 256 during 1980 to 1987 (Tables 28 and 29, Figure 18). Harvest was more uniformly distributed among districts during the period of increased harvest (1988 and 1990 through 1995), with District 256 accounting for less than 20% of the harvest. Although

**Table 27.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds), by gear type, taken in commercial salmon fisheries in all districts of the Kodiak area, 1980-1995.**

Year	Set Gill Nets		Beach Seines		Purse Seines		All Gear	
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.
1980	257	14.6	6	19.5	266	20.7	529	17.7
1981	245	18.5	23	10.1	1,150	18.8	1,418	18.6
1982	312	12.4	7	8.0	895	13.1	1,214	12.9
1983	721	11.6	22	18.2	3,096	13.2	3,839	12.9
1984	699	20.2	32	14.8	3,930	21.6	4,661	21.3
1985	377	20.4	23	23.3	4,570	19.2	4,970	19.3
1986	318	16.6	21	23.6	4,042	15.1	4,381	15.3
1987	229	14.3	4	13.5	4,380	12.7	4,613	12.8
1988	1,133	17.4	75	17.5	21,186	13.0	22,394	13.2
1989	106	19.2	0		0		106	19.2
1990	1,218	12.1	38	16.9	17,550	12.2	18,806	12.2
1991	1,225	12.2	29	13.0	20,980	12.1	22,234	12.1
1992	3,444	12.2	201	19.3	20,654	14.6	24,299	14.3
1993	4,315	11.5	82	21.1	37,802	11.9	42,199	11.9
1994	2,067	16.0	49	21.7	20,460	13.7	22,574	14.0
1995	1,926	13.8	3	24.7	16,775	13.8	18,704	13.8

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03903.PRN) and Fish Ticket Database Reporting System Report dated 11/15/96 (Request No. T10336, T10330, T10331).



**Figure 17.-Harvest of chinook salmon (numbers of fish) in all state-managed commercial fisheries, by gear type, in the Kodiak management area, 1980-1995.**

**Table 28.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial purse seine fisheries in Districts 256-259 and 262 of the Kodiak area, 1980-1995.**

Year	District 256		District 257		District 258		District 259		District 262	
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.
1980	34	27.4	27	29	39	23.1	42	12.6	5	4.8
1981	469	21.5	39	20.6	55	24.6	137	19.0	189	16.5
1982	276	14.9	30	22.1	26	24.0	155	6.8	109	13.1
1983	662	20.1	137	22.2	130	16.1	491	8.2	496	13.2
1984	1,730	23.0	253	22.9	30	27.6	233	18.1	446	21.7
1985	3,128	20.1	152	22.8	54	24.4	90	18.0	323	16.8
1986	2,065	16.2	111	22.1	43	22.1	199	12.5	291	15.4
1987	1,112	20.2	93	24.5	216	9.6	248	8.3	1,723 <sup>a</sup>	8.5
1988	3,859	17.3	558	22.1	314	20.9	1,837	13.5	7,602	8.4
1989	0		0		0		0		0	
1990	6,395	15.4	666	17.3	1,476	8.0	518	11.1	3,682	8.3
1991	6,198	16.7	740	15.6	4,153	9.1	753	9.9	4,505	9.7
1992	5,906	18.2	962	19.1	1,665	15.2	971	13.5	2,848	10.9
1993	4,540	12.4	1,646	17.8	6,787	10.7	1,809	10.3	9,146	11.6
1994	301	16.1	1,794	18.4	945	14.3	590	10.1	1,285	15.3
1995	2,914	17.7	718	19.6	1,249	14.9	550	14.6	1,315	14.0

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03903.PRN) and Fish Ticket Database Reporting System Report dated 11/15/96 (Request No. T10336).

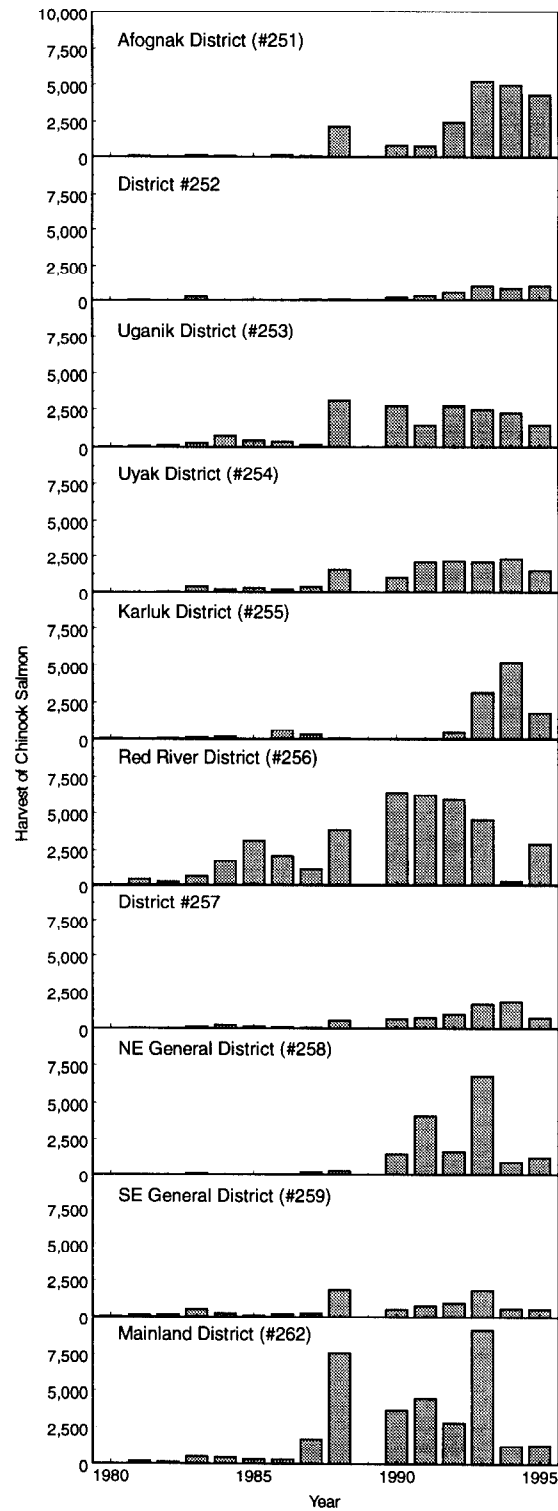
Data Notes:

<sup>a</sup> In 1987, 1 chinook salmon (weight = 37.0 lb) was taken with purse seine gear and the district was not recorded on the fish ticket; this fish was included with the harvest in District 262.

**Table 29.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial purse seine fisheries in Districts 251-255 of the Kodiak area, 1980-1995.**

Year	District 251		District 252		District 253		District 254		District 255	
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.
1980	10	27.3	11	25.5	36	20.0	8	17.6	54	17.1
1981	73	14.2	51	17.4	111	12.9	26	17.5	0	
1982	28	9.0	30	9.5	139	13.7	35	14.0	67	12.9
1983	101	13.8	289	8.5	287	13.1	378	9.4	125	6.1
1984	76	20.4	31	14.6	751	19.2	205	18.6	175	24.2
1985	23	18.4	44	14.9	436	15.7	306	16.6	14	14.1
1986	120	8.6	20	18.0	341	13.8	219	13.5	633	13.1
1987	84	14.0	71	14.9	143	22.4	375	7.6	315	12.3
1988	2,166	15.4	76	20.4	3,151	13.0	1,559	15.5	64	18.9
1989	0		0		0		0		0	
1990	812	13.0	209	12.3	2,721	11.2	1,023	11.0	48	15.4
1991	765	9.2	324	12.2	1,439	11.5	2,059	10.8	44	16.2
1992	2,475	11.9	552	12.3	2,697	13.8	2,129	12.4	449	14.1
1993	5,212	11.1	986	9.5	2,435	13.2	2,058	11.6	3,183	14.5
1994	4,967	11.5	839	9.2	2,213	13.7	2,278	14.4	5,248	14.5
1995	4,307	9.0	984	13.4	1,436	13.4	1,501	14.7	1,801	14.4

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03903.PRN) and Fish Ticket Database Reporting System Report dated 11/15/96 (Request No. T10336).



**Figure 18.-Harvest of chinook salmon (numbers of fish) by fishing district in state-managed commercial purse seine fisheries in the Kodiak management area, 1980-1995.**

local stocks of chinook salmon exist in District 255 (Karluk River) and 256 (Ayakulik River), coded wire tag recoveries (see below) indicate some unknown fraction of the harvest is undoubtedly of nonlocal origin.

Gillnet harvests are smaller in magnitude than purse seine harvests and are restricted to specific districts (see Brennen et al. 1997). Harvests of chinook salmon by gillnet in Kodiak averaged 395 fish during 1980-1987 and increased to an average 1,929 fish during 1988-1995 (Table 27; Figure 19). The majority of chinook salmon harvest by gillnet is in Districts 253 and 254, and to a lesser extent in Districts 257 and 259 (Tables 30 and 31; Figure 19). Harvest of chinook salmon by beach seine has remained small and largely confined to Districts 253, 254, and 259 (Tables 27, 32 and 33).

Sport harvest of chinook salmon in the marine waters of Kodiak remained relatively stable until 1992. Harvest ranged from 54 to 234 fish during 1980 through 1991 (Table 34; Figure 6). From 1992 on, harvest varied from 585 to 2,454 fish (Table 34). As mentioned previously, the majority of this harvest comes from Chiniak Bay.

### **CWT Recoveries**

Ninety chinook salmon with coded wire tags were recovered from commercial fisheries in Kodiak during 1980-1995 (Table 35). Of these recoveries, 51 were made during a pilot CWT recovery program in 1994 (see Swanton 1997) and the additional 39 recoveries were made during 1991 and 1992. After adjusting for relative marking ratios, the percentage of CWT chinook salmon of known origin by area was: 9% Alaska, 88% British Columbia, <1% Oregon, and 2% Washington. None of the Alaska origin CWT recoveries were from releases made in southcentral Alaska. Swanton (1997) expanded 42 CWT recoveries made in 1994 and estimated absolute contributions of 7% Alaska, 91% British Columbia, 1% Oregon, and <1% Washington. Swanton (1997) also found that 33.2% of harvests represented by sampling were of nonlocal hatchery origin. No analysis of CWT recovery by district was possible, but recoveries have been recorded from most districts.

Twelve chinook salmon with coded wire tags were recovered from sport fisheries in Kodiak during 1980-1995 (Table 36). Of these recoveries, 10 have been made since 1992. After adjusting for relative marking ratios, the percentage of CWT chinook salmon of known origin by area was: 20% Alaska and 80% British Columbia. All of the Alaska origin CWT recoveries were from releases made in southeast Alaska. All recoveries were made in District 259.

### **Conclusions**

The following conclusions are supported by harvest and coded wire tag data:

1. Commercial harvest of chinook salmon was small and stable from 1980 through 1987, but increased markedly from 1988 through 1993. Since 1993, harvests have diminished somewhat, but continue to exceed harvest of chinook during 1980 through 1987. Sport harvest of chinook salmon continues to be small, but has increased markedly since 1992. We also anticipate that sport harvest of chinook salmon will continue to grow as anglers and commercial guides recognize increased opportunities to harvest nonlocal stocks in the vicinity of the city of Kodiak.
2. Although there are two local stocks of chinook salmon in the Kodiak area, it is highly likely that a significant fraction of the commercial and sport harvest is of nonlocal origin.



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**Figure 19.-Harvest of chinook salmon (numbers of fish) by fishing district in state-managed commercial set gillnet fisheries in the Kodiak management area, 1980-1995.**

Expanded harvests of chinook salmon in all districts in Kodiak and a high incidence of British Columbia and southeast Alaska coded wire tag recoveries indicate increased interception of nonlocal chinook salmon stocks.

### **Recommendations**

In a previous summary of marine harvests of chinook salmon, Clark et al. (1994) recommended that:

1. A CWT recovery program be implemented in the recreational fishery near the city of Kodiak.
2. A CWT recovery program be implemented in the commercial fishery.
3. A CWT tagging program be implemented on the local hatchery release of chinook salmon.
4. CWT tagging programs be implemented on the Karluk and Ayakulik rivers.
5. Commercial fishery data be analyzed for time/area trends in chinook salmon harvest.
6. The status of local chinook stocks be assessed.

Several of these recommendations have already been implemented. The department currently (1997) has CWT recovery programs for the recreational and commercial fisheries. The local hatchery release of chinook salmon in the Buskin River has been coded wire tagged and returns

**Table 30.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial set gillnet fisheries in Districts 252-255 of the Kodiak area, 1980-1995.**

Year	District 252 <sup>a</sup>		District 253		District 254		District 255	
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.
1980	12	17.9	50	21.9	189	12.5	0	
1981	12	19.1	86	16.2	141	19.6	0	
1982	0		81	15.6	3	9.7	0	
1983	9	9.3	188	12.5	483	11.1	0	
1984	0		334	21.1	331	19.0	0	
1985	2	18.0	164	19.7	170	21.5	0	
1986	0		113	16.3	178	16.2	0	
1987	0		63	19.0	151	11.6	1	15.0
1988	0		476	17.0	539	17.0	3	11.3
1989	0		0		0		0	
1990	0		31	17.2	0		0	
1991	0		660	11.3	471	12.4	0	
1992	0		1,855	12.1	1,477	11.9	0	
1993	0		2,099	12.1	1,975	10.3	0	
1994	0		790	17.2	1,083	14.7	0	
1995	0		1,054	12.8	666	14.0	0	

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03903.PRN) and Fish Ticket Database Reporting System Report dated 11/15/96 (Request No. T10330).

<sup>a</sup> Harvests recorded for District 252 may be purse seine harvests (Bruce Barrett and Dave Prokopowich, Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Kodiak, personal communication, 8/9/94).

**Table 31.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial set gillnet fisheries in Districts 256-262 of the Kodiak area, 1980-1995.**

Year	District 256		District 257		District 258		District 259		District 262	
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.
1980	0		6	12.3	0		0		0	
1981	0		6	25.3	0		0		0	
1982	1	5.0	13	17.7	0		0		0	
1983	0		19	20.8	0		22	8.3	0	
1984	0		32	22.6	0		2	26.5	0	
1985	0		41	18.5	0		0		0	
1986	0		23	19.6	0		4	23.5	0	
1987	0		12	22.3	0		2	9.0	0	
1988	0		67	23.1	0		48	17.1	0	
1989	0		106	19.2	0		0		0	
1990	0		140	20.6	0		3	35.3	0	
1991	0		81	17.8	0		13	13.6	0	
1992	0		92	20.0	0		20	24.6	0	
1993	0		182	16.7	0		59	16.0	0	
1994	0		152	16.9	0		42	21.1	0	
1995	0		130	19.8	0		76	15.9	0	

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03903.PRN) and Fish Ticket Database Reporting System Report dated 11/15/96 (Request No. T10330).

**Table 32.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial beach seine fisheries in Districts 251-255 of the Kodiak area, 1980-1995.**

Year	District 251		District 252		District 253		District 254		District 255	
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.
1980	0		0		0		4	20.0	1	30.0
1981	0		2	8.0	2	25.0	1	30.0	0	
1982	0		0		0		3	9.7	0	
1983	0		0		1	40.0	8	11.3	0	
1984	0		0		6	19.2	6	12.7	0	
1985	0		0		2	18.5	15	22.8	0	
1986	0		0		14	25.5	3	35.0	4	8.3
1987	0		0		1	19.0	2	15.0	0	
1988	0		1	28.0	5	14.4	18	21.8	2	20.0
1989	0		0		0		0		0	
1990	0		0		31	17.2	0		0	
1991	0		1	2.0	9	15.9	10	12.4	0	
1992	0		3	22.7	23	12.6	17	14.6	0	
1993	0		0		2	15.5	79	20.7	0	
1994	0		0		1	18.0	48	21.7	0	
1995	1	26.0	0		0		2	24.0	0	

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03903.PRN) and Fish Ticket Database Reporting System Report dated 11/15/96 T10331g).

**Table 33.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial beach seine fisheries in Districts 256-259 and 262 of the Kodiak area, 1980-1995.**

Year	District 256		District 257		District 258		District 259		District 262	
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.
1980	1	7.0	0		0		0		0	
1981	5	25.2	0		0		13	2.7	0	
1982	0		0		0		4	6.7	0	
1983	0		3	23.3	0		10	20.0	0	
1984	0		5	25.4	2	8.5	13	10.7	0	
1985	0		6	26.0	0	0	0		0	
1986	0		0		0	0	0		0	
1987	0		0		0	0	1	5.0	0	
1988	2	24.5	0		1	30.0	46	15.3	0	
1989	0		0		0		0		0	
1990	0		1	12.0	0		5	18.2	1	8.0
1991	0		0		0		9	12.1	0	
1992	0		2	20.0	108	21.0	48	20.3	0	
1993	0		0		0		1	56.0	0	
1994	0		0		0		0		0	
1995	0		0		0		0		0	

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03903.PRN).

**Table 34.-Sport harvest of chinook salmon (numbers) from Kodiak, 1980-1995.**

Year	Small <sup>a</sup>	Large <sup>b</sup>	Total	% Small <sup>b</sup>
1980 <sup>c</sup>			60	
1981	0	194	194	0
1982	42	125	167	25
1983	94	140	234	40
1984	74	136	210	35
1985	25	137	162	15
1986	0	168	168	0
1987	36	18	54	67
1988	0	145	145	0
1989	36	84	120	30
1990	22	44	66	33
1991	79	119	198	40
1992	53	532	585	9
1993 <sup>c</sup>			2,454	
1994 <sup>c</sup>			668	
1995 <sup>c</sup>			1,138	

Source: Mills 1981-1994 and Howe et al. 1995 & 1996. See Appendix A4 for specific tables and page numbers.

<sup>a</sup> Chinook salmon less than 20 inches.

<sup>b</sup> Chinook salmon greater than or equal to 20 inches.

<sup>c</sup> Harvest not estimated by size in 1980 and 1993-1995.

**Table 35.-Numbers of coded wire tags, by district recovered and state/province of origin, that were recovered from chinook salmon harvested in commercial salmon fisheries near Kodiak, 1980-1995.**

Year	Fishery District Recovered <sup>a</sup>	State/Province of Origin	Number Tags Recovered	Relative Mark
1980-1990	No Tags Recovered			
1991	251	WA	1	1
1991	254	BC	3	14
1991	254	WA	1	1
1991	256	AK	1	8
1991	256	BC	1	35
1991	257	AK	1	8
1991	257	BC	2	20
1991	257	WA	1	5
1991	258	BC	1	60
1991	259	BC	5	49
1991	259	OR	1	2
1991	259	WA	2	5
1991	262	AK	1	1
1991	262	BC	7	147
1991	262	WA	1	1
1992	252	BC	1	2
1992	253	AK	1	4
1992	253	BC	1	2
1992	254	BC	1	5
1992	257	AK	1	1
1992	257	BC	3	13
1992	259	BC	2	7
1993	No Tags Recovered			
1994	254	BC	4	17
1994	257	BC	11	122
1994	Unknown	AK	6	68
1994	Unknown	BC	27	355
1994	Unknown	OR	1	3
1994	Unknown	WA	2	2
1995	No Tags Recovered			

<sup>a</sup> Districts are Commercial Fishery Districts. Data from State of Alaska, Department of Fish and Game, Statewide Coded Wire Tag database (11/15/96).

**Table 36.-Numbers of coded wire tags, by district recovered and state/province of origin, that were recovered from chinook salmon harvested in sport fisheries near Kodiak, 1980-1995.**

Year	Fishery District Recovered <sup>a</sup>	State/Province of Origin	Number Tags Recovered	Relative Mark
1980-1984	No Tags Recovered			
1985	259	AK	2	15
1986-1991	No Tags Recovered			
1992	259	BC	4	26
1993	259	BC	2	37
1994	259	BC	3	19
1995	259	AK	1	6

<sup>a</sup> Districts are Commercial Fishery Districts. Data from State of Alaska, Department of Fish and Game, Statewide Coded Wire Tag database (11/15/96).

will begin in 1997. Swanton (1997) has analyzed commercial harvest trends in Kodiak relative to entry patterns of local chinook salmon stocks. There are currently inriver chinook salmon assessment programs in the Karluk and Ayakulik rivers (see Schwarz 1996b). However, assessment of local stocks of chinook salmon in Kodiak is currently inadequate because these stocks have not been coded wire tagged nor have they been subjected to other methods of stock identification (e.g., scale pattern analysis, genetic stock ID). As a result, our recommendations are:

1. Continue CWT recovery programs in recreational and commercial fisheries.
2. Implement a coded wire tagging program on one or both of the local stocks.

Continued CWT recovery will allow for refinement of nonlocal contributions of chinook salmon to harvests in Kodiak. Complete assessment of local stocks and analysis of time/area trends in harvests will not be possible until local stocks of chinook salmon are coded wire tagged or otherwise identified in mixed stock harvests.



## **CHIGNIK**

Commercial fishing is managed in an area designated as the Chignik Management Area (CMA). The CMA comprises all coastal waters and inland drainages of the northwest Gulf of Alaska between Kilokak Rocks and Kupreanof Point on the Alaska Peninsula (Quimby and Owen 1997 and Figure 20). This area is bounded by the Kodiak management area to the east and the South Peninsula management area to the west. There are five commercial salmon fishing districts in the CMA (Figure 20). Management authority for this area is located at the regional office of the CFMD Division in Kodiak, Alaska.

Sport fishing is managed in an area that includes the CMA, the Kodiak Archipelago, and the remainder of the Alaska Peninsula (Schwarz 1996a and Figure 2). Sport harvests in Chignik are reported on in the South Peninsula section of this report. Management authority for this area is located at the area office of the Sport Fish Division in Kodiak, Alaska.

### **Local Stocks of Chinook Salmon**

The Chignik River supports the only naturally occurring stock of chinook salmon in the CMA (Quimby and Owen 1997). As the only significant producer of chinook salmon on the south side of the Alaska Peninsula, the Chignik River has had escapements that range from 876 to 5,806 fish during 1980 through 1995 (Quimby and Owen 1997, Motis 1997). The inriver goal for chinook salmon in the Chignik River is 1,935 to 2,460 fish to allow an escapement of 1,435 to 1,960 fish and a sport harvest of 500 fish (Motis 1997).

### **Fishery Description**

Chinook salmon are not a targeted species of the purse seine fisheries of the CMA. Peak harvest of chinook salmon occurs in July, incidental to the directed sockeye salmon fishery (Quimby and Owen 1997). Annual harvests of sockeye salmon during 1980-1995 have been fairly stable, ranging from 795,841 to 2,660,619 fish. During 1980 through 1995 there were between 99 and 105 limited entry permits available to be fished in the CMA.

### **Chinook Salmon Harvests**

Although there is no directed fishery for chinook salmon, commercial catches of chinook salmon in the CMA have ranged from 1,880 to 19,515 fish during 1980-1995. Chinook salmon are exclusively harvested in commercial purse seine fisheries. During the period 1980-1995, commercial harvest averaged 5,714 fish (Tables 3 and 37; Figure 21). Prior to 1988, harvest of chinook salmon by purse seine ranged from 1,880 to 5,488 fish annually (Table 37). During 1988 to 1995 (excepting 1989 when fishing was restricted in some districts due to the M/V *Exxon Valdez* oil spill) harvest by purse seine ranged from 3,542 to 19,515 fish (Table 37). Most recently, harvests peaked in 1993 at 19,515 fish and then declined to 3,901 fish in 1994 and 5,493 fish in 1995. More than 70% of the harvest occurred in District 271 (Chignik Bay District) during 1980 to 1987 (Table 37, Figures 20 and 21). Harvest was more uniformly distributed among districts during the period of increased harvest (1988 through 1995), with District 271 accounting for less than 40% of the harvest (Table 37). Most noticeably, harvest of chinook salmon in District 272 (Eastern/Central Districts) increased from less than 500 fish annually prior to 1988 to 1,000 fish or more annually from 1988 on.

### **CWT Recoveries**

Nine chinook salmon with coded wire tags were recovered from commercial fisheries in Chignik during 1980-1995 (Table 38). Of these recoveries, all were made during a pilot CWT recovery

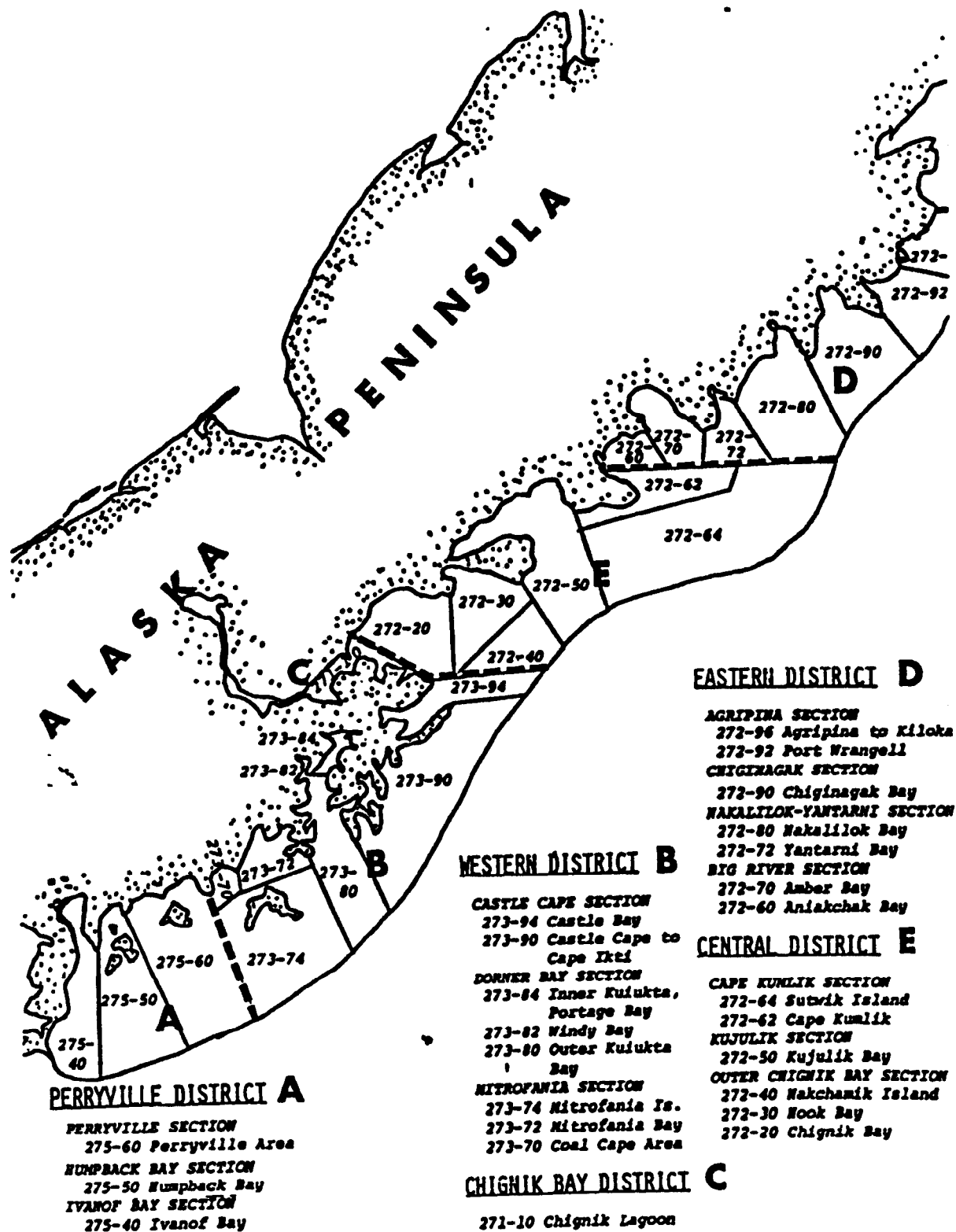


Figure 20.-Map of commercial fishing districts in Chignik.

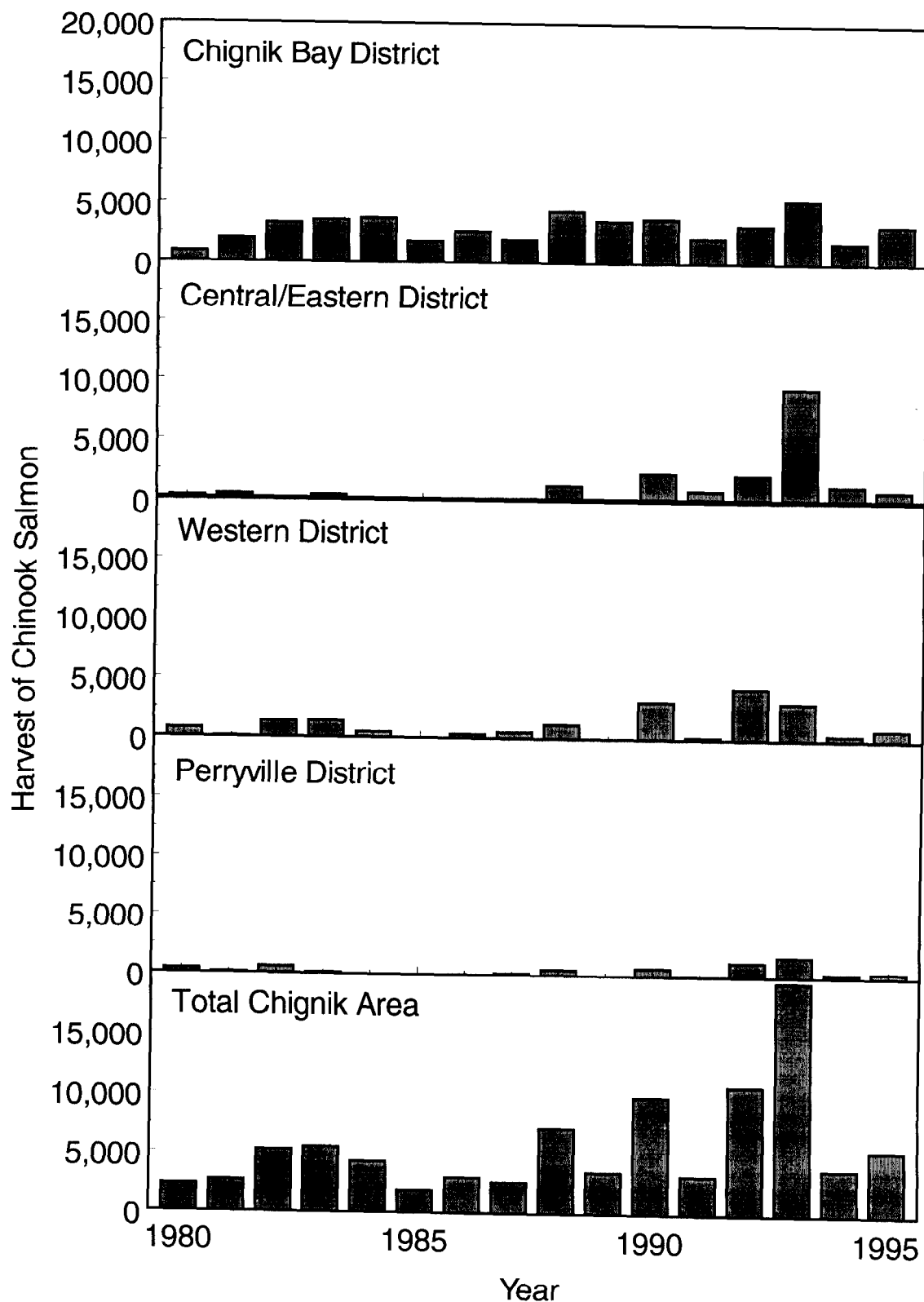
**Table 37.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in all commercial salmon fisheries (all purse seine) in the Chignik area, 1980-1995.**

Year	Chignik Bay District		Central/ Eastern District		Western District		Perryville District		Total	
	District 271		District 272		District 273		District 275			
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.
1980	929	21.5	317	13.7	739	6.5	359	8.8	2,344	13.8
1981	2,006	19.4	490	17.5	99	18.0	99	16.7	2,694	18.9
1982	3,269	13.9	79	18.4	1,354	6.6	534	7.4	5,236	11.4
1983	3,560	22.5	421	13.0	1,390	6.8	117	9.4	5,488	17.5
1984	3,696	25.2	135	21.1	487	7.4	0		4,318	23.0
1985	1,802	23.9	57	19.8	21	18.0	0		1,880	23.7
1986	2,592	23.4	72	21.1	350	11.9	23	16.3	3,037	22.0
1987	1,931	22.2	66	21.2	512	7.3	142	10.7	2,651	18.7
1988	4,331	22.2	1,284	14.0	1,216	8.8	465	8.4	7,296	17.7
1989	3,532	21.6	10	20.7	0		0		3,542	21.6
1990	3,719	21.7	2,350	11.9	3,190	6.4	642	7.6	9,901	13.6
1991	2,127 <sup>a</sup>	23.6	940	17.6	197	13.0	24	15.9	3,288	21.2
1992	3,181 <sup>b</sup>	21.3	2,191	14.3	4,300	6.6	1,160	9.1	10,832	12.7
1993	5,240	16.4	9,433	10.6	3,113	9.3	1,729	11.5	19,515	12.0
1994	1,804	20.4	1,345	17.5	439	14.7	313	15.8	3,901	18.4
1995	3,219	23.8	953	18.3	897	12.1	424	15.0	5,493	20.2

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03929.PRN & T03930.PRN) and Fish Ticket Database Reporting System Report dated 11/15/96 (Request No. T10337).

Data Notes:

- <sup>a</sup> In 1991, 3 chinook salmon were taken in District 271 without gear being recorded (mean weight = 12.3 lb); these fish were included with purse seine harvests.
- <sup>b</sup> In 1992, 2 chinook salmon were taken in District 271 without gear being recorded (mean weight = 4.0 lb); these fish were included with purse seine harvests.
- <sup>c</sup> In 1993, 14 chinook salmon were taken in District 273 without gear being recorded (mean weight = 4.6 lb); these fish were included with purse seine harvests.



**Figure 21.-Harvest of chinook salmon (numbers of fish) in state-managed commercial fisheries in the Chignik management area, 1980-1995.**

**Table 38.-Numbers of coded wire tags, by district recovered and state/province of origin, that were recovered from chinook salmon harvested in commercial salmon fisheries near Chignik, 1980-1995.**

Year	Fishery District Recovered <sup>a</sup>	State/Province of Origin	Number Tags Recovered	Relative Mark
1980-1993	No Tags Recovered			
1994	271-10	OR	1	12
1994	271-10	BC	1	9
1994	272	BC	3	16
1994	Unknown	BC	4	15
1995	No Tags Recovered			

<sup>a</sup> Districts are Commercial Fishery Districts. Data from State of Alaska, Department of Fish and Game, Statewide Coded Wire Tag database (11/15/96).

program in 1994 (Swanton 1997). After adjusting for relative marking ratios, the percentage of CWT chinook salmon of known origin by area was: 0% Alaska, 77% British Columbia, 23% Oregon, and 0% Washington. No analysis of CWT recovery by district was possible, but six of the nine recoveries were recorded from Districts 271 (two recoveries) and 272 (four recoveries). While a local stock of chinook salmon exists in District 271 (Chignik River), these recoveries indicate some unknown fraction of the harvest is of nonlocal origin.

## Conclusions

The following conclusions are supported by harvest and coded wire tag data:

1. Commercial harvest of chinook salmon was small, stable, and largely confined to District 271 during the period from 1980 through 1987, but increased markedly in other districts during the period from 1988 through 1993. Since 1993, harvests have diminished in all districts, but a higher proportion of the harvest continues to come from districts other than 271.
2. Although there is one local stock of chinook salmon in the Chignik area, some of the commercial harvest is of nonlocal origin. Increased harvests of chinook salmon in districts other than 271 and presence of British Columbia and Oregon coded wire tag recoveries during a pilot study in 1994 indicate interception of nonlocal chinook salmon stocks.

## Recommendations

In a previous summary of marine harvests of chinook salmon, Clark et al. (1994) recommended that:

1. A CWT recovery program be implemented in the commercial fishery.
2. A CWT tagging program be implemented on the Chignik River.
3. Commercial fishery data be analyzed for time/area trends in chinook salmon harvest.
4. The status of local chinook salmon stocks be assessed.

To date only one of these recommendations (number 4) has been implemented. There is currently an inriver chinook salmon assessment program in the Chignik River (see Motis 1997). However, assessment of local stocks of chinook salmon in Chignik is currently inadequate because this stock has not been coded wire tagged nor has it been subjected to other methods of stock identification (e.g., scale pattern analysis, genetic stock ID). A pilot study in 1994 recovered nine coded wire tags from nonlocal hatchery stocks. These data were never analyzed and reported on. As a result, our recommendations are:

1. Analyze and report on the 1994 pilot study of coded wire tag recovery.
2. Implement a coded wire tag recovery program in the commercial fisheries of Chignik.
3. Implement a coded wire tagging program on the Chignik River.

## **SOUTH PENINSULA**

Commercial fishing is managed in an area designated as the Alaska Peninsula Management Area. This management area comprises the North Peninsula and South Peninsula areas. Chinook salmon harvests in the North Peninsula are not covered in this report. The South Peninsula comprises waters surrounding the southern shore of the Alaska Peninsula from Kupreanof Point to Scotch Cap on Unimak Island (Campbell et al. 1997 and Figure 22). This area is bounded by Chignik management area to the northeast and the Aleutian Islands management area to the southwest. The South Peninsula area is further divided into four commercial salmon fishing districts (Figure 22). Management authority for this area is located at area offices of the CFMD Division in Sand Point and Cold Bay, Alaska.

Sport fishing is managed in an area that includes the South Peninsula, the Kodiak Archipelago, and the remainder of the Alaska Peninsula (Schwarz 1996a and Figure 2). Sport harvests in South Peninsula and Chignik are reported on in this section of the report. Management authority for this area is located at the area office of the Sport Fish Division in Kodiak, Alaska.

## **Local Stocks of Chinook Salmon**

There are no documented local stocks of chinook salmon in the South Peninsula area (Campbell et al. 1997), although there are several local stocks in the North Peninsula area (see Murphy et al. 1996) and the Chignik River in the Chignik Management Area.

## **Fishery Description**

Chinook salmon are a minor component of commercial salmon harvests in the South Peninsula. Commercial purse seine, drift and set gillnet fisheries target migrating sockeye, pink, chum, and coho salmon during two managed time periods (June and post June). These fisheries primarily harvest migrating salmon. As promulgated in management plans, South Peninsula harvests migrating salmon in the South Unimak and Shumagin Islands fisheries in June, migrating salmon in post June cape fisheries, and “Chignik bound” sockeye salmon in the Southeastern District Mainland fishery (Campbell et al. 1997). The majority of chinook salmon harvest occurs during

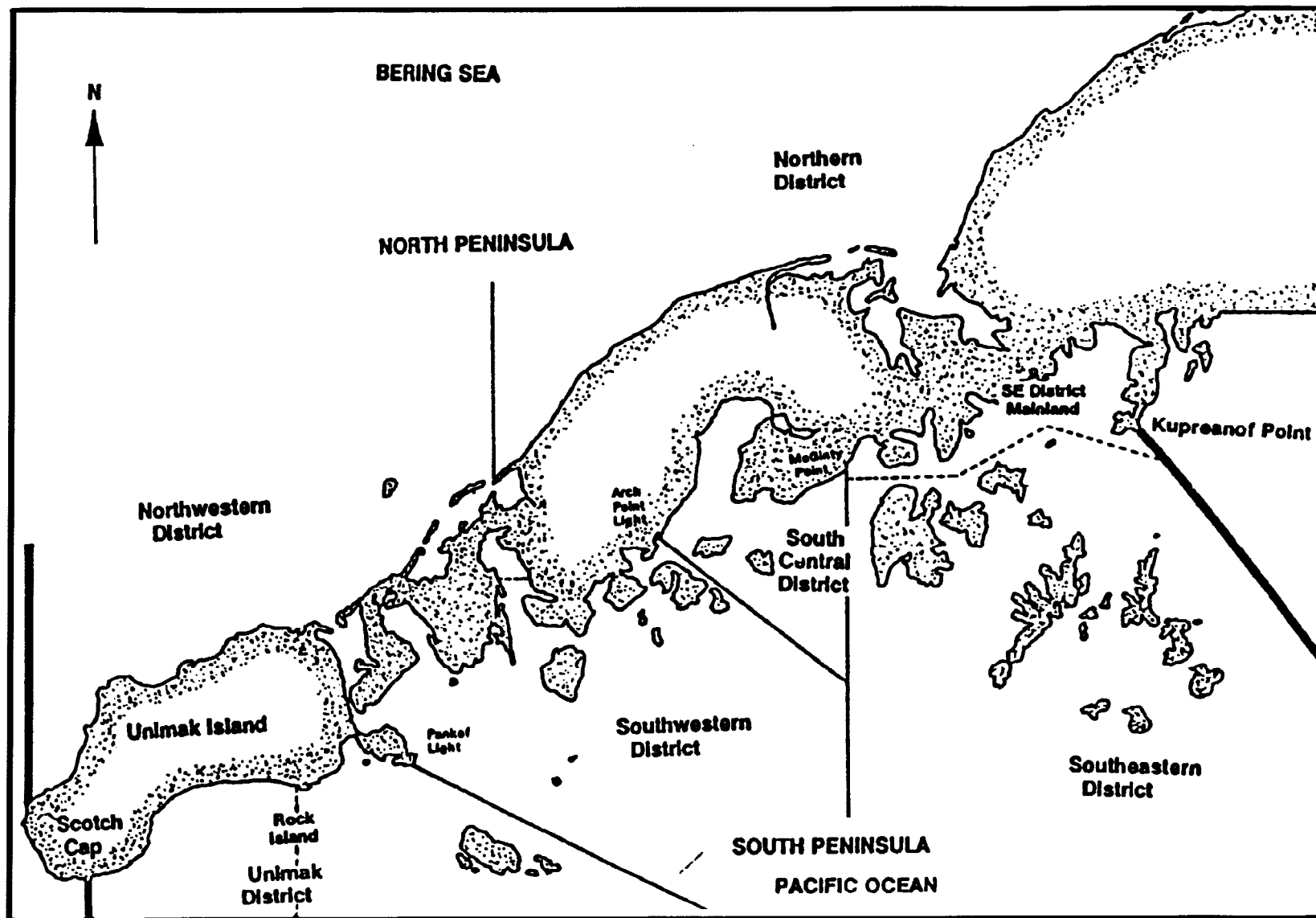


Figure 22.-Map of commercial fishing districts in South Peninsula.

purse seine fisheries in June. Annual harvests of sockeye salmon during 1980-1995 have been fairly stable, ranging from 1,223,089 to 3,689,074 fish. During 1980 through 1995 there were 125 purse seine, 164-165 drift gillnet, and 144 set gillnet permits available to be fished in the South Peninsula. Permit activity during these years ranged from 90% to 98% of all purse seine, 78% to 96% of all drift gillnet, and 39% to 75% of set gillnet permits actually fished (Campbell et al. 1997).

The majority of recreational fishing effort in marine waters of the South Peninsula and Chignik areas occurs in Cold Bay (Schwarz 1996a). Harvest of chinook salmon in these areas is small and much of the harvest cannot be attributed to specific sites due to a small number of responses to the mail survey of Howe et al. (1996).

### **Chinook Salmon Harvests**

Chinook salmon are predominantly harvested in commercial purse seine fisheries. During the period 1980-1995, commercial harvest averaged 10,912 fish, of which 8,713 (82%) were harvested in purse seines (Tables 3 and 39; Figure 23). Prior to 1988, harvest of chinook salmon by purse seine ranged from 4,233 to 23,363 fish annually (Table 39). More than 90% of this harvest occurred in Districts 282 and 284 during 1980 through 1987 (Table 40, Figures 22 and 24). During 1988 to 1995 harvest by purse seine ranged from 5,671 to 12,839 fish (Table 39). During this period harvest of chinook salmon occurred primarily in Districts 282, 284 and 285 (Table 40).

Drift and set gillnet harvests are smaller than purse seine harvests and are restricted to specific districts (see Campbell et al. 1997). Harvest of chinook salmon by drift gillnet in South Peninsula ranged from 442 to 2,626 fish during 1980-1987 and from 672 to 4,148 fish during 1988-1995 (Table 41; Figure 25). The majority of chinook salmon harvest by drift gillnet was in District 284 and more recently in District 285 (Table 41). Harvest of chinook salmon by set gillnet occurs primarily in Districts 281, 282, , and 284 (Table 42).

Sport harvest of chinook salmon in the marine waters of Chignik and South (Alaska) Peninsula has remained relatively small during 1980-1995. Harvest ranged from 0 to 1,351 fish during 1980 through 1987 (Table 43; Figure 6). From 1988 on, harvest varied from 25 to 234 fish (Table 43; Figure 6).

### **CWT Recoveries**

There have been no coded wire tag recoveries made from state managed commercial or recreational fisheries in South Peninsula during 1980-1995. However, recovery of coded wire tagged chinook salmon has occurred in federally managed groundfish fisheries in the same area of the Gulf of Alaska (see Shumagin Area 610 in Table 6).

### **Conclusions**

The following conclusions are supported by harvest and coded wire tag data:

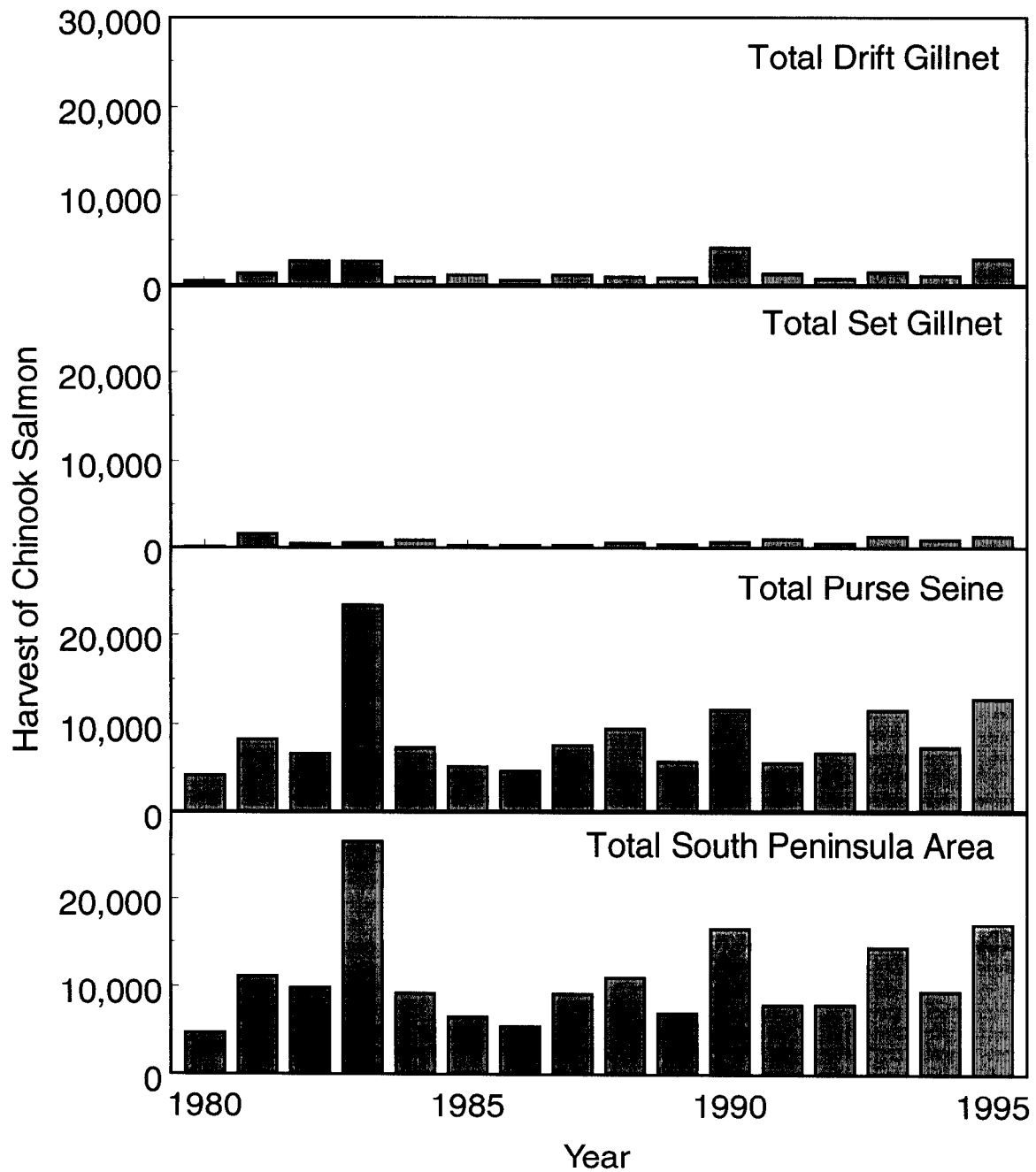
1. Commercial harvest of chinook salmon has been relatively stable during the period from 1980-1995 although there have been some shifts in the districts where harvest occurs.
2. Although no coded wire tags have been recovered, there have been no efforts to examine chinook salmon for tags; coded wire tags have been recovered in federally managed groundfish fisheries in the vicinity (Shumagin Area 610) of the South Peninsula area. There are no documented local stocks of chinook salmon in the area and harvests of other salmon



**Table 39.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds), by gear type, taken in all commercial salmon fisheries in the South Peninsula area, 1980-1995.**

Year	Drift Gill Nets		Set Gill Nets		Purse Seines		All Gear	
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.
1980	442	20.6	119	19.0	4,233	19.4	4,794	19.5
1981	1,280	17.7	1,580	8.9	8,322	15.5	11,182	14.8
1982	2,626	20.0	458	18.8	6,761	20.1	9,845	19.9
1983	2,624	14.6	584	17.2	23,363	14.2	26,571	14.3
1984	842	18.5	879	18.3	7,477	17.6	9,198	17.8
1985	1,116	23.2	300	20.4	5,226	23.2	6,612	23.2
1986	497	21.2	321	20.2	4,771	16.7	5,589	17.3
1987	1,107	22.0	342	20.9	7,725	18.6	9,174	19.1
1988	902	19.1	604	19.9	9,569	16.3	11,075	16.7
1989	803	18.5	442	17.4	5,820	18.6	7,065	18.5
1990	4,148	10.2	681	16.0	11,693	16.2	16,522	14.7
1991	1,299	16.6	1,005	14.2	5,671	16.1	7,975	15.9
1992	672	17.4	554	17.2	6,800	15.5	8,026	15.8
1993	1,462	14.3	1,317	12.8	11,634	15.2	14,413	14.9
1994	1,036	17.3	933	15.1	7,505	18.8	9,474	18.3
1995	2,896	17.9	1,343	15.1	12,839	22.5	17,078	21.1

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03931.PRN & T03932.PRN) and Fish Ticket Database Reporting System Report dated 11/15/96 (Request No. T10333, T10334, and T103335).



**Figure 23.-Harvest of chinook salmon (numbers of fish) in state-managed commercial fisheries in the South Peninsula management area, 1980-1995.**

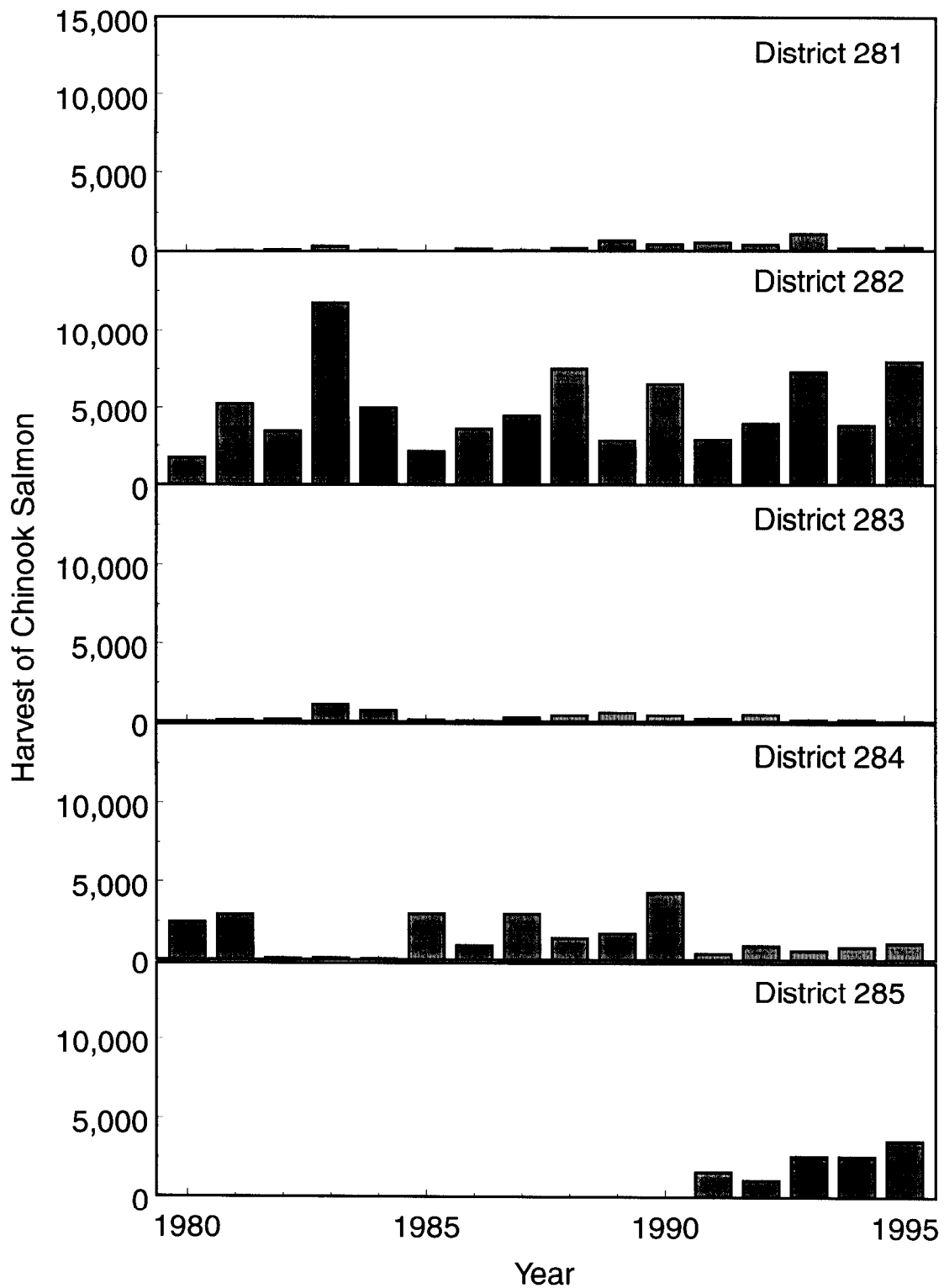
**Table 40.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial purse seine fisheries in the South Peninsula area, 1980-1995.**

Southeastern										
Year	Mainland District		Southeastern District		Southcentral District		Southwestern District		Unimak District	
	District 281		District 282		District 283		District 284		District 285	
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.
1980	20	20.1	1,714	13.3	24	21.9	2,475	21.2	0	
1981	70	16.4	5,235	13.1	95	19.6	2,922	19.6	0	
1982	119	10.7	3,468	18.3	132	17.0	96	19.6	0	
1983	348	10.6	11,768	14.5	1,126	8.1	109	19.4	0	
1984	85	15.5	4,975	17.1	739	15.0	60	20.7	0	
1985	18	8.0	2,121	21.8	107	25.6	2,980	24.2	0	
1986	171	15.1	3,605	15.1	63	18.4	932	23.0	0	
1987	76	10.1	4,442	15.2	237	13.0	2,970	24.3	0	
1988	211	15.3	7,533	15.9	422	18.2	1,403	17.8	0	
1989	656	15.9	2,842 <sup>a</sup>	17.9	588	14.5	1,734	22.3	0	
1990	422	15.9	6,534 <sup>b</sup>	14.5	424	17.8	4,313	18.5	0	
1991	551	13.7	2,916 <sup>c</sup>	16.3	201	14.0	426	18.0	1,577	17.5
1992	397	13.0	3,934 <sup>d</sup>	14.8	481	15.0	928	19.2	1,060	16.2
1993	1,055	11.4	7,288 <sup>e</sup>	15.1	114	13.1	601	17.5	2,576	17.0
1994	168	14.7	3,817	18.2	129	14.6	841	18.6	2,550	20.3
1995	194	14.8	7,961	21.7	29	21.9	1,071	22.4	3,584	24.6

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03931.PRN & T03932.PRN) and Fish Ticket Database Reporting System Report dated 11/15/96 (Request No. T10335).

Data Notes:

- <sup>a</sup> In 1989, 56 chinook salmon were taken in District 282 without gear being recorded (mean weight = 10.5 lb); these fish were included with purse seine harvests.
- <sup>b</sup> In 1990, 25 chinook salmon were taken in District 282 without gear being recorded (mean weight = 10.0 lb); these fish were included with purse seine harvests.
- <sup>c</sup> In 1991, 465 chinook salmon were taken in District 282 without gear being recorded (mean weight = 11.7 lb); these fish were included with purse seine harvests.
- <sup>d</sup> In 1992, 93 chinook salmon were taken in District 282 without gear being recorded (mean weight = 11.5 lb); these fish were included with purse seine harvests.
- <sup>e</sup> In 1993, 330 chinook salmon were taken in District 282 without gear being recorded (mean weight = 11.5 lb); these fish were included with purse seine harvests.

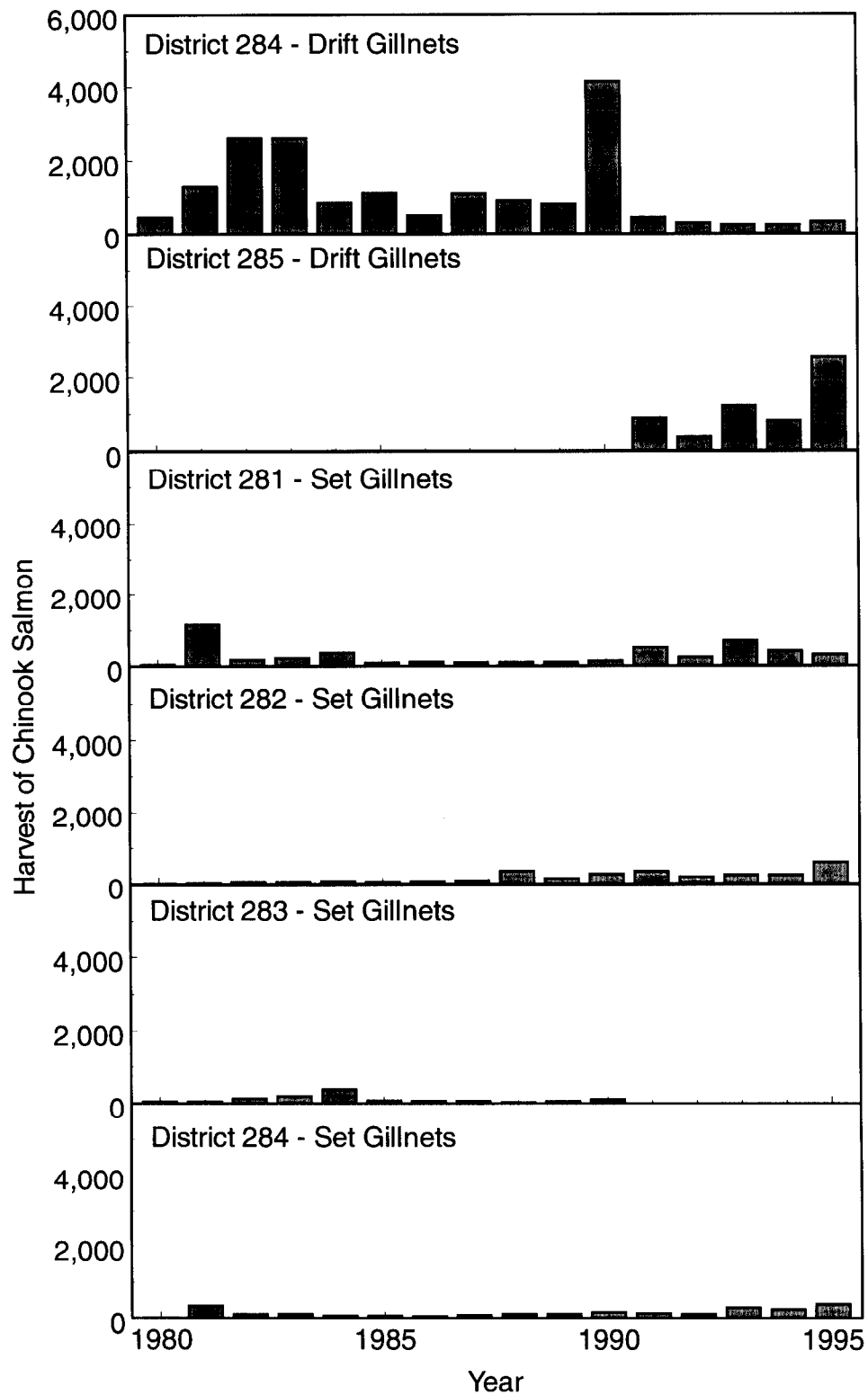


**Figure 24.-Harvest of chinook salmon (numbers of fish) in state-managed commercial purse seine fisheries in the South Peninsula management area, 1980-1995.**

**Table 41.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial drift gillnet fisheries in the South Peninsula area, 1980-1995.**

Year	Southcentral		Southwestern		Unimak		Total	
	District		District		District		South Peninsula	
	District 283		District 284		District 285			
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.
1980	0		442	20.6	0		442	20.6
1981	1	25.0	1,279	17.7	0		1,280	17.7
1982	8	17.6	2,618	20.0	0		2,626	20.0
1983	0		2,624	14.6	0		2,624	14.6
1984	0		842	18.5	0		842	18.5
1985	0		1,116	23.2	0		1,116	23.2
1986	0		497	21.2	0		497	21.2
1987	0		1,107	22.0	0		1,107	22.0
1988	0		902	19.1	0		902	19.1
1989	0		803	18.5	0		803	18.5
1990	0		4,148	10.2	0		4,148	10.2
1991	0		444	16.6	885	16.6	1,299	16.6
1992	0		296	17.9	376	17.0	672	17.4
1993	0		231	14.4	1,231	14.3	1,462	14.3
1994	0		230	17.5	806	17.2	1,036	17.3
1995	0		333	17.5	2,563	17.9	2,896	17.9

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03931.PRN & T03932.PRN) and Fish Ticket Database Reporting System Report dated 11/15/96 (Request No. T10333).



**Figure 25.-Harvest of chinook salmon (numbers of fish) in state-managed commercial drift and set gillnet fisheries in the South Peninsula management area, 1980-1995.**

**Table 42.-Estimated harvest of chinook salmon (numbers of fish and mean weight in pounds) taken in commercial set gillnet fisheries in the South Peninsula area, 1980-1995.**

Year	Southeastern									
	Mainland District		Southeastern District		Southcentral District		Southwestern District		Unimak District	
	District 281		District 282		District 283		District 284		District 285	
	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.	Number	Wt.
1980	41	21.0	8	27.1	60	17.1	10	16.5	0	
1981	1,157	8.4	20	20.1	66	17.4	337	8	0	
1982	175	19.5	55	19.2	132	17.0	96	19.6	0	
1983	217	17.3	56	14.4	202	16.7	109	19.4	0	
1984	356	19.9	77	16.3	386	16.9	60	20.7	0	
1985	93	18.8	66	23.2	81	17.4	60	23.7	0	
1986	120	20.7	76	19.3	76	19.6	49	21.6	0	
1987	100	18.2	92	21.1	76	21.0	74	24.4	0	
1988	101	18.0	361	20.1	32	24.6	110	19.6	0	
1989	106	13.5	155	17.3	67	20.1	114	19.4	0	
1990	138	13.0	275	17.3	109	13.4	159	18.3	0	
1991	512	13.3	352	15.0	1	33.0	134	15.7	6	12.5
1992	234	18.1	203	15.9	2	22.5	108	17.7	7	11.4
1993	709	11.4	255	14.7	1	25.0	290	15	62	12.3
1994	402	13.2	254	17.4	1	18.0	231	15.9	45	14.5
1995	304	17.2	610	12.2	12	24.3	380	17.7	37	15.8

Data Source: Data taken from a State of Alaska, Department of Fish and Game, Commercial Fisheries Management and Development Division, Fish Ticket Database Reporting System Report dated 4/20/94 (File T03931.PRN & T03932.PRN) and Fish Ticket Database Reporting System Report dated 11/15/96 (Request No. T10334).

**Table 43.-Sport harvest of chinook salmon (numbers) from the Alaska Peninsula, 1980-1995.**

Year	Small <sup>a</sup>	Large <sup>b</sup>	Total	% Small <sup>a</sup>
1980 <sup>c</sup>			0	
1981	118	11	129	91
1982	1,037	314	1,351	77
1983	231	262	493	47
1984	75	37	112	67
1985	0	0	0	
1986	0	0	0	
1987	0	42	42	0
1988	31	0	31	100
1989	52	182	234	22
1990	40	100	140	29
1991	0	56	56	0
1992	124	86	210	59
1993 <sup>c</sup>			147	
1994 <sup>c</sup>			117	
1995 <sup>c</sup>			25	

Source: Mills 1981-1994 and Howe et al. 1995 & 1996. See Appendix A5 for specific tables and page numbers.

<sup>a</sup> Chinook salmon less than 28 inches.

<sup>b</sup> Chinook salmon greater than or equal to 28 inches.

<sup>c</sup> Harvest not estimated by size in 1980, 1993-1995.



species are known to occur on migrating stocks originating from outside of the South Peninsula area.

### **Recommendations**

In a previous summary of marine harvests of chinook salmon, Clark et al. (1994) recommended that:

1. A CWT recovery program be implemented in the commercial fishery.
2. Commercial fishery data be analyzed for time/area trends in chinook salmon harvest.
3. The status of local chinook salmon stocks be assessed.

To date none of these recommendations have been implemented. Our recommendations are:

1. Analyze chinook salmon harvest information for time area trends.
2. Implement a coded wire tag recovery program in commercial fisheries of South Peninsula.
3. Drop the recommendation to assess local stocks of chinook salmon.

Although the majority of chinook salmon harvest occurs in June, chinook salmon harvests may be localized in specific subdistricts at specific times with certain gear types. For example, Campbell et al. (1997) reported that approximately one-third of the annual harvest of chinook salmon occurred in a single subdistrict in 1995. A coded wire tag recovery program would allow identification of major nonlocal sources of chinook salmon in the South Peninsula. Assessment of local stocks is not a major concern because no local stocks of chinook salmon have been documented in the South Peninsula area. However, a coded wire tagging program in the Chignik, Karluk, and Ayakulik rivers would allow determination of contribution of these nearby stocks to chinook salmon harvests in the South Peninsula area.

## **FEDERALLY MANAGED COMMERCIAL FISHERIES FOR GROUND FISH**

### **Chinook Salmon Harvests**

Documented annual bycatch of chinook salmon in waters of southcentral Alaska north and west of Yakutat by foreign, joint-venture and domestic fishermen since 1980 peaked at 74,370 fish in 1984 (Table 4 and Figure 8). From 1980-1985, bycatch of chinook salmon by foreign fishermen ranged from 349 to 31,540 chinook salmon (Tables 44 and 45). The foreign fishery ceased operations in the Gulf of Alaska following the 1986 season; in 1986, only longlines were fished and no chinook salmon were caught. Peak annual bycatches in the other areas were: 6,591 chinook salmon in the Kodiak Area (Area 630), 19,002 chinook salmon in the Chirikov Area (Area 620), and 16,878 chinook salmon in the Shumagin Area (Area 610) (Tables 44-46; Figure 8).

Joint-venture fisheries operated in waters of southcentral Alaska during most of the 1980s. Peak bycatch by joint-venture fishermen was 63,270 chinook salmon in 1984 (Tables 46-48; Figure 8). From 1980-1988, joint-venture fishermen did not catch any chinook salmon from the West Yakutat Area. Peak bycatches in the other areas were: 54,033 chinook salmon in the Kodiak Area, 8,732 chinook salmon in the Chirikov Area, and 592 chinook salmon in the Shumagin Area (Table 47; Figure 8).

The domestic fishery supplanted foreign and joint-venture fisheries as they were phased out of southcentral Alaska. Mandatory observer coverage of the foreign and joint-venture fisheries

**Table 44.-Estimated bycatch of chinook salmon (numbers of fish) taken in offshore foreign fisheries of southcentral Alaska west of Yakutat, 1980-1986.**

	Shumagin Area	Chirikov Area	Kodiak Area	West Yakutat Area	
Year	Area 610	Area 620	Area 630	Area 640	Total
1980	16,878	7,715	6,591	356	31,540
1981	8,889	19,002	319	204	28,414
1982	849	2,638	896	5	4,388
1983	2,337	3,063	546	0	5,946
1984	2,597	2,575	5,928	0	11,100
1985	234	15	100	0	349
1986	0	0	0	0	0

**Data Sources:**

1980-1982 data taken from a published report by Nelson (1983); 1980-1982 foreign fishery catch data were provided for salmon as a group by area; chinook salmon catch composition in the foreign fishery throughout the Gulf of Alaska was estimated at 88.0% in 1980, at 92.6% in 1981, and at 81.0% in 1982; these percentages were applied to annual area specific overall salmon catches to estimate chinook specific catches by area and year.

1983 data taken from a published report by Berger et al. (1984); 1983 foreign fishery catch data were provided for salmon as a group by area; chinook salmon catch composition throughout the Gulf of Alaska was estimated at 61.8%; this percentage was applied to area specific overall salmon catches to estimate chinook specific catches by area.

1984 data taken from a published report by Berger et al. (1985); 1984 foreign fishery catch data were provided for salmon as a group by area; chinook salmon catch composition throughout the Gulf of Alaska was estimated at 92.5%; this percentage was applied to area specific overall salmon catches to estimate chinook specific catches by area.

1985 data taken from a published report by Berger et al. (1987); 1985 foreign fishery catch data were provided for salmon as a group by area; chinook salmon catch composition throughout the Gulf of Alaska was estimated at 95.7%; this percentage was applied to area specific overall salmon catches to estimate chinook specific catches by area.

1986: The foreign fishery ceased operations in the Gulf of Alaska following the 1986 season and in 1986, only long-line gear was fished with no salmon caught.

**Table 45.-Estimated mean length (millimeters) and weight (pounds) of chinook salmon bycatch in offshore foreign fisheries in southcentral Alaska, west of Yakutat, 1980-1985.**

Year	Shumagin Area		Chirikov Area		Kodiak Area		West Yakutat Area		Total	
	Area 610		Area 620		Area 630		Area 640		Total	
	Len.	Wt.	Len.	Wt.	Len.	Wt.	Len.	Wt.	Len.	Wt.
1980									600	7.6
1981									610	8.0
1982									630	8.7
1983									604	7.9
1984	494	4.3	506	5	427	2.8			461	3.5
1985	234	0.5	478	4	670	10.5			369	1.8

**Data Sources and Notes:**

1980-1982 data taken from a published report by Nelson (1983); mean length statistics provided for Gulf of Alaska as a whole; mean weight estimated from mean lengths based upon length-weight equation provided by Ben Van Alen (ADF&G, Douglas, AK, personal communication).

1983 data taken from a published report by Berger et al. (1984); mean length and weight statistics provided for Gulf of Alaska as a whole.

1984-1985 data provided to the authors by Renold Narita and Jerald Berger (NOAA, personal correspondence dated 4/5/94); mean weight estimated from mean lengths based upon length-weight equation provided by Ben Van Alen (ADF&G, Douglas, AK, personal communication).

1986-1995: The foreign fishery ceased operations in the Gulf of Alaska following the 1985 season.

insured that bycatches of prohibited species such as chinook salmon were documented. Comprehensive observer coverage of the domestic fishery, on the other hand, was not implemented until 1990. Although some documentation of bycatches of chinook salmon by the domestic fishery is provided in several reports, such as Blackburn (1982, 1983, and 1986), Craig and Watson (1989), and Hare and Wall (1988), comprehensive estimates of chinook salmon bycatches in the domestic fishery are not available prior to 1990. From 1990-1995, bycatch in the domestic fishery ranged from 13,605 to 38,717 chinook salmon (Tables 49 and 50; Figure 8). Domestic fishermen generally caught a few hundred chinook salmon annually from the West Yakutat Area. From 1990-1995, peak bycatch by domestic fishermen was 19,410 chinook salmon in the Kodiak Area, 22,603 chinook salmon in the Chirikov Area, and 4,427 chinook salmon in the Shumagin Area (Table 49; Figure 8). The largest bycatches of chinook salmon came from the Kodiak area in all but one of the years for which estimates are available (Table 49).

**Table 46.-Estimated mean length (millimeters) and weight (pounds) of chinook salmon bycatch in all offshore fisheries (foreign, joint-venture, and domestic) in southcentral Alaska, west of Yakutat, 1980-1995.**

Year	Shumagin Area		Chirikov Area		Kodiak Area		West Yakutat Area		Total	
	Area 610		Area 620		Area 630		Area 640			
	Len.	Wt.	Len.	Wt.	Len.	Wt.	Len.	Wt.	Len.	Wt.
1980									600	7.6
1981									610	8
1982									630	8.7
1983									581	6.9
1984	486	4.1	484	4.1	319	1.2			351	1.6
1985	450	3.3	546	5.8	373	1.9			433	2.9
1986	682	11	494	4.3	261	0.7			276	0.8
1987	556	6.1	619	8.3	537	5.5			555	6
1988			607	7.8	615	8.1			613	8.1
1989										
1990	571	6.6	540	5.6	525	5.1	748	14.4	536	5.5
1991	586	7.1	593	7.3	522	5.1	588	7.2	571	6.6
1992	591	7.3	547	5.8	513	4.8	891	24	543	5.7
1993	584	7	396	2.3	421	2.7	645	9.4	427	2.8
1994	610		603		620		703		616	
1995	681		638		592		681		605	

Note: Prior to 1990, comprehensive estimates of the chinook bycatch and mean size of chinook salmon caught in the domestic offshore fishery are not available; as a result, the mean size estimates of chinook caught in the 1980s relate only to the foreign and joint-venture fisheries.

**Table 47.-Estimated bycatch of chinook salmon (numbers of fish) taken in joint-venture fisheries of southcentral Alaska west of Yakutat, 1980-1988.**

	Shumagin Area	Chirikov Area	Kodiak Area	West Yakutat Area	
Year	Area 610	Area 620	Area 630	Area 640	Total
1980	145	3	0	0	148
1981	0	0	0	0	0
1982	0	948	72	0	1,020
1983	104	1,285	2,209	0	3,598
1984	505	8,732	54,033	0	63,270
1985	245	5,388	8,008	0	13,641
1986	199	1,039	19,521	0	20,759
1987	592	31	138	0	761
1988	1	24	64	0	89

**Data Sources and Notes:**

1980-1982 data taken from a published report by Nelson (1983); 1980-1982 catch data for joint-venture fisheries were provided for salmon as a group by area; chinook salmon catch composition in the foreign fishery throughout the Gulf of Alaska was estimated at 88.0% in 1980, at 92.6% in 1981, and at 81.0% in 1982; these percentages for the foreign fishery were applied to annual area specific overall salmon catches in the joint-venture fisheries to estimate chinook specific catches by area and year.

1983 data taken from a published report by Berger et al. (1984); 1983 catch data for joint-venture fisheries were provided for salmon as a group by area; chinook salmon catch composition throughout the Gulf of Alaska was estimated at 84.61%; this percentage was applied to area specific overall salmon catches to estimate chinook specific catches by area.

1984 data taken from a published report by Berger et al. (1985); 1984 catch data for joint-venture fisheries were provided for salmon as a group by area; chinook salmon catch composition throughout the Gulf of Alaska was estimated at 99.1%; this percentage was applied to area specific overall salmon catches to estimate chinook specific catches by area.

1985 data taken from a published report by Berger et al. (1987); 1985 catch data for joint-venture fisheries were provided for salmon as a group by area; chinook salmon catch composition throughout the Gulf of Alaska was estimated at 99.3%; this percentage was applied to area specific overall salmon catches to estimate chinook specific catches by area.

1986 data taken from a published report by Berger et al. (1988); 1986 catch data for joint-venture fisheries were provided for salmon as a group by area; chinook salmon catch composition throughout the Gulf of Alaska was estimated at 99.71%; this percentage was applied to area specific overall salmon catches to estimate chinook specific catches by area.

1987 data taken from a published report by Berger and Weikart (1988); 1987 catch data for joint-venture fisheries were provided for salmon as a group by area; chinook salmon catch composition throughout the Gulf of Alaska was estimated at 62.36%; this percentage was applied to area specific overall salmon catches to estimate chinook specific catches by area.

1988 data taken from a published report by Berger and Weikart (1989); 1988 catch data for joint-venture fisheries were provided for salmon as a group by area; chinook salmon catch composition throughout the Gulf of Alaska was estimated at 59.62%; this percentage was applied to area specific overall salmon catches to estimate chinook specific catches by area.

1989-1995: Gulf of Alaska joint-venture operations ceased following the 1988 season.

**Table 48.-Estimated mean length (millimeters) and weight (pounds) of chinook salmon bycatch in offshore joint-venture fisheries in southcentral Alaska, west of Yakutat, 1980-1988.**

Year	Shumagin Area		Chirikov Area		Kodiak Area		West Yakutat Area		Total	
	Area 610		Area 620		Area 630		Area 640		Total	
	Len.	Wt.	Len.	Wt.	Len.	Wt.	Len.	Wt.	Len.	Wt.
1980									600	7.6
1981									610	8.0
1982									630	8.7
1983									542	5.5
1984	443	3.1	478	3.9	307	1.1			331	1.3
1985	656	9.8	546	5.8	369	1.8			444	3.2
1986	682	11.0	494	4.3	261	0.7			276	0.8
1987	556	6.1	619	8.3	537	5.5			555	6.0
1988			607	7.8	615	8.1			613	8.1

**Data Sources and Notes:**

1980-1982 data taken from a published report by Nelson (1983) which provided mean lengths of chinook salmon caught in the foreign fishery; these data for the foreign fishery are used herein to provide annual estimates of mean length of chinook salmon during these 3 years for the joint-venture fishery; mean length statistics were provided for Gulf of Alaska as a whole; mean weight estimated from mean lengths based upon length-weight equation provided by Ben Van Alen (ADF&G, Douglas, AK, personal communication).

1983 data taken from a published report by Berger et al. (1984); mean length and weight statistics provided for Gulf of Alaska as a whole.

1984-1988 data provided to the authors by Renold Narita and Jerald Berger (NOAA, personal correspondence dated 4/5/94); mean weight estimated from mean lengths based upon length-weight equation provided by Ben Van Alen (ADF&G, Douglas, AK, personal communication).

1989-1995: Gulf of Alaska joint-venture operations ceased following the 1988 season.

**Table 49.-Estimated bycatch of chinook salmon (numbers of fish) taken in offshore domestic fisheries of southcentral Alaska west of Yakutat, 1980-1995.**

Year	Shumagin Area Area 610	Chirikov Area Area 620	Kodiak Area Area 630	West Yakutat Area Area 640	Total
1980					unknown
1981					unknown
1982					unknown
1983					unknown
1984					unknown
1985					unknown
1986					unknown
1987					unknown
1988					unknown
1989					unknown
1990	728	7,752	8,272	125	16,877
1991	4,427	22,603	11,492	195	38,717
1992	4,040	5,439	7,191	40	16,710
1993	1,097	3,720	19,410	305	24,532
1994	603	3,877	8,979	146	13,605
1995	1,886	1,097	10,660	691	14,334

**Data Sources and Notes:**

1980-1989: comprehensive estimates of the chinook salmon bycatch in the domestic offshore fishery are not available.

1990 data taken from a published report by Guttormsen et al. (1992); 1990 data listed for area 621 were combined with data listed for area 620 and data listed for area 631 were combined with data listed for area 630.

1991 data taken from a draft report by Guttormsen et al. (1994); 1991 data listed for area 621 were combined with data listed for area 620.

1992 and 1993 data were obtained from a NMFS database query and were provided to the authors by Steven Pennoyer (NMFS, personal correspondence dated 3/30/94).

**Table 50.-Estimated mean length (millimeters) and weight (pounds) of chinook salmon bycatch in offshore domestic fisheries in southcentral Alaska, west of Yakutat, 1980-1995.**

Year	Shumagin Area		Chirikov Area		Kodiak Area		West Yakutat Area		Total	
	Area 610		Area 620		Area 630		Area 640			
	Len.	Wt.	Len.	Wt.	Len.	Wt.	Len.	Wt.	Len.	Wt.
1980									unknown	
1981									unknown	
1982									unknown	
1983									unknown	
1984									unknown	
1985									unknown	
1986									unknown	
1987									unknown	
1988									unknown	
1989									unknown	
1990	571	6.6	540	5.6	525	5.1	748	14.4	536	5.5
1991	586	7.1	593	7.3	522	5.1	588	7.2	571	6.6
1992	591	7.3	547	5.8	513	4.8	891	24.0	543	5.7
1993	584	7	396	2.3	421	2.7	645	9.4	427	2.8
1994	610		603		620		703		616	
1995	681		638		592		681		605	

**Data Sources and Notes:**

1980-1989: comprehensive estimates of the chinook salmon bycatch and average size of chinook caught in the domestic offshore fishery are not available.

1990-1993 data provided to the authors by Renold Narita and Jerald Berger (personal correspondence dated 4/5/94); mean weight estimated from mean lengths based upon length-weight equation provided by Ben Van Alen (ADF&G, Douglas, AK, personal communication).

1994-1995 data provided to the authors by Martin Leofladd (NMFS, personal correspondence dated 3/26/97).



Bycatch of chinook salmon in foreign, joint-venture, and domestic fisheries combined in waters of southcentral Alaska averaged about 20,000 fish during the first 4 years of the 1980s (assuming the undocumented domestic fishery bycatches were minor) and averaged about 25,000 fish during the first 4 years of the 1990s, an increase of about 25% (Table 4). However, total harvest in these fisheries has been less than 15,000 fish in 1994 and 1995. The decrease in the bycatch of chinook salmon in recent years is likely due to several factors: (1) the total allowable catch (TAC) for pollock has decreased in recent years; (2) the length of the first-quarter fishery (January through March), when the majority of the chinook salmon are caught, has decreased; and (3) the specific location of the fishery within each statistical area moves around from year to year, depending on where the fish are concentrated. Variability in the bycatch of chinook salmon may be due to these movements within statistical area. Except for 1984 when the bycatch was about 75,000 chinook salmon, these offshore fisheries have accounted for 40,000 or fewer chinook salmon deaths per year. Information collected since 1990, when a mandatory observer program of the domestic fishery was implemented, has probably produced the best estimates of chinook salmon mortality due to these offshore fisheries.

### **CWT Recoveries**

Chinook salmon with CWTs were recovered from all federal reporting areas (Table 6). Numbers of recoveries generally matched the magnitude of the bycatch. For instance, the fewest tags (two) were recovered from Area 640 (West Yakutat), the area of lowest bycatch. After adjusting for relative marking ratios, the percentage of CWT chinook salmon of known origin by area from West Yakutat and Prince William Sound (640 and 649) were: 0% Alaska, 80% British Columbia, 10% Oregon, and 10% Washington (Table 6). After adjusting for relative marking ratios, the percentage of CWT chinook salmon of known origin by area from Kodiak (630) were: 10% Alaska, 73% British Columbia, <1% California, 6% Oregon, and 11% Washington (Table 51). Of 255 relative marks of Alaska origin in Kodiak (630), 24 relative marks (9%) were of southcentral origin. After adjusting for relative marking ratios, the percentage of CWT chinook salmon of known origin by area from Chirikov (620) were: 19% Alaska, 66% British Columbia, 7% Oregon, and 8% Washington (Table 52). Of 165 relative marks of Alaska origin in Chirikov (620), 23 relative marks (14%) were of southcentral origin. After adjusting for relative marking ratios, the percentage of CWT chinook salmon of known origin by area from Shumagin (610) were: 9% Alaska, 85% British Columbia, 3% Oregon, <1% Washington, and 2% Yukon Territory (Table 53). Of 29 relative marks of Alaska origin in Shumagin (610), 24 relative marks (83%) were of southcentral origin.

### **Conclusions**

The following conclusions are supported by harvest and coded wire tag data:

1. Magnitude of the annual bycatch is approximately 20,000 to 40,000 chinook salmon. Annual bycatch has been as high as 75,000 fish, but annual bycatch was less than 15,000 chinook salmon in 1994 and 1995.
2. Coded wire tag recovery data indicate the bycatch of a mixture of stocks from California to the Yukon Territory.
3. Fishery assessment has been poor. A major gap in bycatch estimates exists during the years 1980-1989, and is of major concern during the years 1987-1989, concurrent with buildup of the domestic fishery. The precision and accuracy of the bycatch estimates are unknown.

**Table 51.-Numbers of coded wire tags, by state/province of origin, that were recovered from chinook salmon bycatches in federally-managed groundfish fisheries in the Kodiak Area (630) of southcentral Alaska, 1980-1995.**

Year	State/Province of Origin	Number Tags Recovered	Relative Mark
1980-1983	No Tags Recovered		
1984	AK	17	30
	BC	41	316
	CA	1	1
	OR	23	64
	WA	21	104
1985	AK	1	4
	BC	6	91
	OR	2	4
	WA	2	2
1986	AK	2	9
	BC	6	11
	OR	2	5
	WA	3	13
1987	AK	1	3
	BC	1	7
	WA	1	1
1988	No Tags Recovered		
1989	BC	1	40
1990	AK	2	12
	BC	12	195
	OR	5	6
	WA	4	5
1991	AK	2	18
	BC	14	209
	OR	1	13
	WA	2	6
1992	AK	3	33
	BC	20	148
	OR	3	20
	WA	8	20
1993	AK	8	53
	BC	46	506
	OR	11	22
	WA	16	141
1994	AK	7	76
	BC	29	238
	OR	3	8
	WA	4	4
1995	AK	4	15
	BC	12	107
	OR	4	8
	WA	1	1

Source: Data from State of Alaska, Department of Fish and Game, CWT database report, dated 11/15/96.

**Table 52.-Numbers of coded wire tags, by state/province of origin, that were recovered from chinook salmon bycatches in federally-managed groundfish fisheries in the Chirikov Area (620) of southcentral Alaska, 1980-1995.**

Year	State/Province of Origin	Number Tags Recovered	Relative Mark
1980-1983	No Tags Recovered		
1984	BC	15	261
	OR	5	5
	WA	1	1
1985	AK	11	13
	BC	2	3
	OR	5	8
	WA	10	50
1986-1989	No Tags Recovered		
1990	AK	4	24
	BC	1	1
	OR	7	8
	WA	4	12
1991	BC	1	26
	WA	1	1
1992	AK	3	27
	BC	6	23
	OR	1	9
	WA	1	2
1993	AK	4	18
	BC	19	197
	OR	6	31
	WA	3	8
1994	No Tags Recovered		
1995	AK	3	66
	BC	2	66
	WA	1	1

Source: Data from State of Alaska, Department of Fish and Game, CWT database report, dated 11/15/96.

**Table 53.-Numbers of coded wire tags, by state/province of origin, that were recovered from chinook salmon bycatches in federally-managed groundfish fisheries in the Shumagin Area (610) of southcentral Alaska, 1980-1995.**

Year	State/Province of Origin	Number Tags Recovered	Relative Mark
1980-1983	No Tags Recovered		
1984	AK	1	15
1985	AK	2	3
	OR	2	8
1986	BC	1	21
1987	No Tags Recovered		
1988	AK	1	7
1989	No Tags Recovered		
1990	BC	3	6
1991	BC	3	114
1992	BC	1	1
1993	OR	1	3
1994	AK	1	4
	BC	6	135
	WA	1	1
1995	YK	1	6

Source: Data from State of Alaska, Department of Fish and Game, CWT database report, dated 11/15/96.

## **Recommendations**

In a previous summary of marine harvests of chinook salmon, Clark et al. (1994) recommended that:

1. Precision and accuracy of estimates of bycatch be examined so that efficacy of the observer sampling program can be determined and increased if necessary.
2. Contribution data be estimated from CWT recoveries and estimates of bycatch.
3. Bycatch data be examined for time and area trends.

To date none of these recommendations have been implemented. Our recommendations are identical to those identified by Clark et al. (1994).

## **ACKNOWLEDGEMENTS**

The authors wish to thank Paul Suchanek for his thoughtful review of the manuscript. We also thank Saree Timmons for her help with reorganization of the manuscript. We are indebted to John H. Clark, Doug McBride, and Saree Timmons for compiling and organizing data from 1980-1993.

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## **APPENDIX A**

**Appendix A1.-References, tables, page numbers, and locations used in estimating sport harvest of chinook salmon from Prince William Sound, 1980-1995.**

Reference	Table	Page Number	Locations Included	
			Eastside	Westside
Mills 1981	Table 42	49	Valdez Bay	Passage Canal, Other Saltwater
Mills 1982	Table 46	55	Valdez Bay	Passage Canal, Other Saltwater
Mills 1983	Table 46	54	Valdez Bay	Passage Canal, Other Saltwater
Mills 1984	Table 46	54	Valdez Bay	Passage Canal, Boat-Other, Shoreline-Other
Mills 1985	Table 46	54	Valdez Bay	Passage Canal, Boat-Other, Shoreline-Other
Mills 1986	Table 48	56	Valdez Bay, Valdez Bay-Shoreline	Passage Canal, Boat-Other, Shoreline-Other
Mills 1987	Table 48	56	Valdez Bay, Valdez Bay-Shoreline	Passage Canal, Boat-Other, Shoreline-Other
Mills 1988	Table 48	56	Valdez Bay, Valdez Bay-Shoreline	Passage Canal, Boat-Other, Shoreline-Other
Mills 1989	Table 48	57	Valdez Bay, Orca Inlet, Shoreline-Valdez Bay, Shoreline-Valdez Road System	Passage Canal, Boat-Other, Shoreline-Other
Mills 1990	Appendix A56	66	Valdez Bay, Orca Inlet, Shoreline-Valdez Road System, Shoreline-Valdez Arm	Passage Canal, Boat-Other, Shoreline-Other
Mills 1991	Appendix A65	76	Valdez Bay, Orca Inlet, Shoreline-Valdez Road System, Shoreline-Valdez Arm	Passage Canal, Boat-Other, Shoreline-Other
Mills 1992	Appendix A70	80	Valdez Bay, Orca Inlet, Shoreline-Valdez Road System, Shoreline-Valdez Arm	Passage Canal, Esther Island; Boat-Other, Shoreline-Other
Mills 1993	Appendix A71	84	Valdez Bay, Orca Inlet, Hinchinbrook Island, Shoreline-Valdez Road System, Shoreline-Valdez Arm	Passage Canal, Esther Island; Boat-Other, Shoreline-Other
Mills 1994	Appendix A69	82	Valdez Bay, Orca Inlet, Hinchinbrook Island, Shoreline-Valdez Road System, Shoreline-Valdez Arm	Passage Canal, Esther Island; Boat-Montague Island, Boat-Other, Shoreline-Other
Howe et al. 1995	Appendix A69	80	Boat-Valdez Bay, Boat-Orca Inlet, Boat-Hinchinbrook Island, Shoreline-Valdez Road System, Shoreline-Orca Inlet, Shoreline-Remainder of Valdez Arm	Boat-Passage Canal, Boat-Esther Island; Boat-Montague Island, Boat-Naked Island, Boat-Knight Island Passage, Boat-Other, Shoreline-Passage Canal, Shoreline-Other
Howe et al. 1996	Appendix A69	80	Boat-Valdez Bay, Boat-Orca Inlet, Boat-Hinchinbrook Island, Shoreline-Valdez Road System, Shoreline-Orca Inlet, Shoreline-Remainder of Valdez Arm	Boat-Passage Canal, Boat-Esther Island; Boat-Montague Island, Boat-Other, Shoreline-Other

**Appendix A2.-References, tables, page numbers, and locations used in estimating sport harvest of chinook salmon from Lower Cook Inlet, 1980-1995.**

Reference	Table	Page Number	Locations Included	
			Homer Area	Seward Area
Mills 1981	Table 48	55	Kachemak Bay, Others	Resurrection Bay
Mills 1982	Table 52	61	Kachemak Bay, Others	Resurrection Bay
Mills 1983	Table 52	60	Kachemak Bay, Others	Resurrection Bay
Mills 1984	Table 52	60	Kachemak Bay, Boat-Other, Shoreline-Other	Resurrection Bay
Mills 1985	Table 54	62	Kachemak Bay, Boat-Other, Shoreline-Other	Resurrection Bay
Mills 1986	Table 56	64	Kachemak Bay, Boat-Other, Shoreline-Other	Resurrection Bay
Mills 1987	Table 56	64	Kachemak Bay, Boat-Other, Shoreline-Other	Resurrection Bay
Mills 1988	Table 56	64	Halibut Cove, Tutka Bay, Kachemak Bay, Cook Inlet, Boat-Other, Homer Spit, Shoreline-Other	Resurrection Bay
Mills 1989	Table 56	65	Halibut Cove, Tutka Bay, Kachemak Bay, Cook Inlet, Boat-Other, Homer Spit, Shoreline-Other	Resurrection Bay
Mills 1990	Appendix A64	74	Halibut Cove, Tutka Bay, Kachemak Bay, Cook Inlet, Boat-Other, Homer Spit, Seldovia Bay, Shoreline-Other	Resurrection Bay
Mills 1991	Appendix A81	92	Halibut Cove, Tutka Bay, Kachemak Bay, Cook Inlet, Boat-Other, Homer Spit, Seldovia Bay, Shoreline-Other	Resurrection Bay
Mills 1992	Appendix A88	98	Halibut Cove, Tutka Bay, Kachemak Bay, Seldovia Bay, Boat-Other Cook Inlet, Boat-Other, Homer Spit, Shoreline-Other	Resurrection Bay
Mills 1993	Appendix A89	102	Halibut Cove, Tutka Bay, Kachemak Bay, Seldovia Bay, Other Lower Cook Inlet/Outer Gulf Coast, Boat-Other, Homer Spit, Shoreline-Other	Resurrection Bay
Mills 1994	Appendix A87	100	Halibut Cove, Tutka Bay, Kachemak Bay, Other Lower Cook Inlet/Outer Gulf Coast, Boat-Other, Homer Spit, Shoreline-Other	Resurrection Bay
Howe et al. 1995	Appendix A87	98	Halibut Cove, Tutka Bay, Kachemak Bay, Other Cook Inlet/Gulf Coast West of Gore Point, Boat-Other, Homer Spit, Shoreline-Other	Resurrection Bay
Howe et al. 1996	Appendix A87	98	Halibut Cove, Tutka Bay, Kachemak Bay, Other Cook Inlet/Gulf Coast West of Gore Point, Other Gulf Coast East of Gore Point, Homer Spit, Shoreline-Other	Resurrection Bay

**Appendix A3.-References, tables, page numbers, and locations used in estimating sport harvest of chinook salmon from Upper Cook Inlet, 1980-1995.**

Reference	Table	Page Number	Locations Included
Mills 1981	Table 47	54	all "Saltwater"
	Table 48	55	Saltwater-Deep Creek
Mills 1982	Table 50	59	all "Saltwater"
	Table 52	61	Deep Creek
Mills 1983	Table 50	58	all "Saltwater"
	Table 52	60	Deep Creek
Mills 1984	Table 47	55	all "Saltwater"
	Table 50	58	all "Saltwater"
	Table 52	60	Deep Creek
Mills 1985	Table 47	55	all "Saltwater"
	Table 48	56	all "Saltwater"
	Table 50	58	all "Saltwater"
	Table 54	62	Deep Creek
Mills 1986	Table 49	57	All "Saltwater"
	Table 50	58	All "Saltwater"
	Table 52	60	All "Saltwater"
	Table 56	64	Deep Creek, Anchor River Mouth Boat
Mills 1987	Table 49	57	All "Saltwater"
	Table 50	58	All "Saltwater"
	Table 52	60	All "Saltwater"
	Table 56	64	Anchor River Area-boat, Deep Creek Area-Boat, Whiskey Gulch Area-Boat
Mills 1988	Table 49	57	All "Saltwater"
	Table 50	58	All "Saltwater"
	Table 52	60	All "Saltwater"
	Table 56	64	Deep Creek Area, Cook Inlet, Anchor River Area, Whiskey Gulch Area
Mills 1989	Table 49	57	All "Saltwater"
	Table 49	58	All "Saltwater"
	Table 50	59	All "Saltwater"
	Table 52	61	All "Saltwater"
	Table 56	65	Deep Creek Area, Anchor River Area, Whiskey Gulch Area
Mills 1990	Table A57	67	All "Saltwater"
	Table A58	68	All "Saltwater"
	Table A60	70	All "Saltwater"
	Table A64	74	Deep Creek Area, Anchor River Area, Whiskey Gulch Area
Mills 1991	Table A67	78	All "Saltwater"
	Table A69	80	All "Saltwater"
	Table A73	84	All "Saltwater"
	Table A81	92	Deep Creek Area, Anchor River Area, Whiskey Gulch Area
Mills 1992	Table A72	82	All "Saltwater"
	Table A76	86	All "Saltwater"
	Table A80	90	All "Saltwater"
	Table A88	98	Deep Creek Area, Anchor River Area, Ninilchik River Area, Whiskey Gulch Area

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Reference	Table	Page Number	Locations Included
Mills 1993	Table A73	86	All "Saltwater"
	Table A77	90	All "Saltwater"
	Table A81	94	All "Saltwater"
	Table A89	102	Ninilchik River Area, Kenai River Mouth, Anchor River Area, Whiskey Gulch Area, Deep Creek Area, Other Upper Cook Inlet
Mills 1994	Appendix A71	84	All "Saltwater"
	Appendix A75	88	All "Saltwater"
	Appendix A79	92	All "Saltwater"
	Appendix A87	100	Anchor River, Whiskey Gulch, and Deep Creek Areas, Other Upper Cook Inlet
Howe et al.	Appendix A71	82	All "Saltwater"
	Appendix A75	86	All "Saltwater"
	Appendix A79	90	All "Saltwater"
	Appendix A87	98	Anchor River, Whiskey Gulch, and Deep Creek Areas, Kenai River (Mouth)
Howe et al. 1996	Appendix A71	82	All "Saltwater"
	Appendix A75	86	All "Saltwater"
	Appendix A79	90	All "Saltwater"
	Appendix A87	98	Anchor River, Whiskey Gulch, and Deep Creek Areas, Other Cook Inlet North of Ninilchik River

**Appendix A4.-References, tables, page numbers, and locations used in estimating sport harvest of chinook salmon from Kodiak, 1980-1995.**

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Reference	Table	Page Number	Locations Included
Mills 1981	Table 49	56	All "Saltwater"
Mills 1982	Table 54	63	All "Saltwater"
Mills 1983	Table 54	62	All "Saltwater"
Mills 1984	Table 54	62	All "Saltwater"
Mills 1985	Table 56	64	All "Saltwater"
Mills 1986	Table 58	66	All "Saltwater"
Mills 1987	Table 58	66	All "Saltwater"
Mills 1988	Table 58	66	All "Saltwater"
Mills 1989	Table 58	67	All "Saltwater"
Mills 1990	Appendix A66	76	All "Saltwater"
Mills 1991	Appendix A85	97	All "Saltwater"
Mills 1992	Appendix A91	102	All "Saltwater"
Mills 1993	Appendix A92	106	All "Saltwater"
Mills 1994	Appendix A90	104	All "Saltwater"
Howe et al. 1995	Appendix A90	102	All "Saltwater"
Howe et al. 1996	Appendix A90	102	All "Saltwater"

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**Appendix A5.-References, tables, page numbers, and locations used in estimating sport harvest of chinook salmon from the Alaska Peninsula area, 1980-1995.**

Reference	Table	Page Number	Locations Included
Mills 1981	Table 50	57	All "Saltwater"
Mills 1982	Table 55	64	All "Saltwater"
Mills 1983	Table 55	63	All "Saltwater"
Mills 1984	Table 55	63	All "Saltwater"
Mills 1985	Table 57	65	All "Saltwater"
Mills 1986	Table 59	67	All "Saltwater"
Mills 1987	Table 59	67	All "Saltwater"
Mills 1988	Table 59	67	All "Saltwater"
Mills 1989	Table 59	68	All "Saltwater"
Mills 1990	Appendix A67	77	All "Saltwater"
Mills 1991	Appendix A86	98	All "Saltwater"
Mills 1992	Appendix A93	104	All "Saltwater"
Mills 1993	Appendix A94	108	All "Saltwater"
Mills 1994	Appendix A92	106	All "Saltwater"
Howe et al. 1995	Appendix A92	104	All "Saltwater"
Howe et al. 1996	Appendix A92	102	All "Saltwater"



## **APPENDIX B**

**Appendix B1.-Subset of the Alaska Department of Fish and Game Statewide Coded Wire Tag database used for analyses in this report. Includes all chinook salmon with coded wire tags recovered by personnel of the Alaska Department of Fish and Game from state-managed marine fisheries of southcentral Alaska, 1980-1995.**

Year	Head Number	Tag Code	BR YR'	Recovered Species	Hatchery or Wild Stock	Release Site	Release State <sup>3</sup>	Agency <sup>2</sup>	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Sroe Contrib <sup>6</sup>
1980	02486	021630	76	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	64,550	3,188,072	06/10/77	05/23/80	SELECT	HOMER	SPORT		241		
1980	02487	631662	76	CHINOOK	PRIEST RAPIDS SPAWNING	COLUMBIA RIVER AT PR	WA	WDF	147,338	762,433	06/27/77	06/07/80	SELECT	HOMER	SPORT		241		
1981	19245	071731	77	CHINOOK	MARION FORKS	SANTIAM R & N FK-1	OR	ODFW	49,766	50,995	04/05/79	06/29/81	SELECT	SITKA	COMMERCIAL	GILLNET	212-20	690	
1981	02481	031621	77	CHINOOK	LITTLE PORT WALTER	L PORT WALTER 109-10	AK	NMFS	10,232	10,304	07/15/78	05/13/81	SELECT	HOMER	SPORT		241		
1981	02482	021628	76	CHINOOK	(W) NITINAT LAKE	NITINAT LAKE	BC	CDFO	15,547	16,324	06/01/77	05/13/81	SELECT	HOMER	SPORT		241		
1981	02483	021615	78	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	76,418	3,717,277	06/17/79	05/27/81	SELECT	HOMER	SPORT		241		
1981	02484	021615	78	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	76,418	3,717,277	06/17/79	09/27/81	SELECT	HOMER	SPORT		241		
1981	02485	021732	78	CHINOOK	ATNARKO RIVER	ATNARKO RIVER	BC	CDFO	79,761	79,761	06/03/79	10/03/81	SELECT	HOMER	SPORT		241		
1981	01002	041859	78	CHINOOK	FORT RICHARDSON	CROOKED CR 244-30	AK	ADFG	26,425	197,446	06/01/79	06/03/81	SELECT	JUNEAU	SPORT		244-30		
1982	02480	041938	78	CHINOOK	DEER MOUNTAIN	KETCHIKAN CR 101-47	AK	ADFG	19,485	20,751	05/01/80	08/15/82	SELECT	HOMER	SPORT		241		
1982	02420	041938	78	CHINOOK	DEER MOUNTAIN	KETCHIKAN CR 101-47	AK	ADFG	19,485	20,751	05/01/80	08/15/82	SELECT	HOMER	SPORT		241		
1982	02479	072022	78	CHINOOK	SOUTH SANTIAM HATCHERY	SANTIAM R, S FK	OR	ODFW	34,236	36,038	11/06/79	07/01/82	SELECT	HOMER	SPORT		241		
1982	52421	072022	78	CHINOOK	SOUTH SANTIAM HATCHERY	SANTIAM R, S FK	OR	ODFW	34,236	36,038	11/06/79	07/01/82	SELECT	HOMER	SPORT		241		
1983	02489	042032	80	CHINOOK	ELMENDORF	HALIBUT CV LAG241-15	AK	ADFG	26,000	50,972	06/01/81	06/10/83	SELECT	HOMER	SPORT		241		
1983	02490	072518	80	CHINOOK	MCKENZIE	MCKENZIE R-1	OR	ODFW	34,719	35,904	03/15/82	09/18/83	SELECT	HOMER	SPORT		241		
1983	02491	072517	80	CHINOOK	MCKENZIE	MCKENZIE R-1	OR	ODFW	38,632	38,759	11/05/81	09/24/83	SELECT	HOMER	SPORT		241		
1983	02492	072207	79	CHINOOK	BONNEVILLE HATCHERY	TANNER CR	OR	ODFW	100,717	103,194	06/30/80	09/24/83	SELECT	HOMER	SPORT		241		
1983	56967	072518	80	CHINOOK	MCKENZIE	MCKENZIE R-1	OR	ODFW	34,719	35,904	03/15/82	09/18/83	SELECT	HOMER	SPORT		241		
1983	56969	072207	79	CHINOOK	BONNEVILLE HATCHERY	TANNER CR	OR	ODFW	100,717	103,194	06/30/80	09/25/83	SELECT	HOMER	SPORT		241		
1983	56970	072517	80	CHINOOK	MCKENZIE	MCKENZIE R-1	OR	ODFW	38,632	38,759	11/05/81	09/24/83	SELECT	HOMER	SPORT		241		
1984	71844	072724	81	CHINOOK	MCKENZIE	MCKENZIE R-1	OR	ODFW	29,070	31,091	03/14/83	06/28/84	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	608	11.46
1984	78573	632460	81	CHINOOK	KALAMA FALLS HATCHERY	KALAMA RIVER	WA	WDF	177,112	3,552,888	07/02/82	06/07/84	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	539	
1984	23838	072426	81	CHINOOK	BONNEVILLE HATCHERY	TANNER CR	OR	ODFW	104,966	106,349	08/03/82	03/10/84	SELECT	CORDOVA	SPORT		228-10	432	
1984	20133	022303	81	CHINOOK	QUINSAM RIVER	QUINSAM RIVER	BC	CDFO	49,802	180,173	05/14/82	05/19/84	SELECT	HOMER	SPORT		241		
1984	23839	022303	81	CHINOOK	QUINSAM RIVER	QUINSAM RIVER	BC	CDFO	49,802	180,173	05/14/82	03/24/84	SELECT	CORDOVA	SPORT		221-10		
1985	80109	042054	80	CHINOOK	SNETTISHAM	SPEEL ARM 111-33	AK	ADFG	37,946	39,200	06/18/82	06/22/85	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	865	24.49
1985	80418	632612	82	CHINOOK	PRIEST RAPIDS SPAWNING	COLUMBIA RIVER - GEN	WA	WDF	202,388	203,100	06/22/83	07/03/85	SELECT	CORDOVA	COMMERCIAL	SEINE	221	589	
1985	42137	042430	82	CHINOOK	WHITMAN LAKE	NEETS BAY 101-90	AK	SSRA	10,335	36,049	06/01/84	08/16/85	SELECT	SEWARD	SPORT		231	562	
1985	80476	042223	81	CHINOOK	DEER MOUNTAIN	KETCHIKAN CR 101-47	AK	ADFG	15,784	80,231	05/16/83	08/12/85	SELECT	SEWARD	SPORT		231	622	
1985	76299	632849	82	CHINOOK	ELWHA RIVER SPAWNING	ELWHA RIVER	WA	WDF	25,778	580,169	04/17/84	08/10/85	SELECT	SEWARD	SPORT		231	482	
1985	31390	072141	80	CHINOOK	BONNEVILLE HATCHERY	TANNER CR	OR	ODFW	49,813	430,137	11/09/81	07/04/85	SELECT	HOMER	SPORT		241	787	
1985	77433	042033	80	CHINOOK	ELMENDORF	HALIBUT CV LAG241-15	AK	ADFG	25,389	50,889	06/01/81	07/16/85	RANDOM	KENAI	COMMERCIAL	GILLNET	244-20	816	
1985	77411	311613	82	CHINOOK	ELMENDORF	CROOKED CR 244-30	AK	ADFG	14,000	211,000	05/01/83	07/18/85	RANDOM	KENAI	COMMERCIAL	GILLNET	244-30	629	
1985	08790	B40614	82	CHINOOK	KITOI BAY	LK ROSE TEAD 259-41	AK	ADFG	15,583	119,324	06/01/83	08/03/85	SELECT	KODIAK	SPORT		259-41	677	
1985	08791	B40614	82	CHINOOK	KITOI BAY	LK ROSE TEAD 259-41	AK	ADFG	15,583	119,324	06/01/83	08/03/85	SELECT	KODIAK	SPORT		259-41	747	
1985	80246	031814	82	CHINOOK	LITTLE PORT WALTER	L PORT WALTER 109-10	AK	NMFS	9,129	9,129	05/15/84	07/12/85	RANDOM	CORDOVA	COMMERCIAL	SEINE	228		9.50
1985	31391	021661	80	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	151,278	9,106,259	05/21/81	07/07/85	SELECT	HOMER	SPORT		241		
1985	52691	022203	81	CHINOOK	CONUMA RIVER	CONUMA RIVER	BC	CDFO	64,484	152,000	06/15/82	08/04/85	SELECT	HOMER	SPORT		241		
1985	31389	031733	80	CHINOOK	(M) MIXED COLUMBIA R	COLUMBIA RIVER A #6	WA	NMFS	42,924	42,924	07/31/81	05/24/85	SELECT	HOMER	SPORT		241		
1985	69197	042229	81	CHINOOK	CRYSTAL LAKE	CRYSTAL CR 106-44	AK	ADFG	58,156	137,868	05/16/83		SELECT	VALDEZ	SPORT		221-60		

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# Appendix B1.-Page 2 of 17.

Year	Head Number	Tag Code	BR YR'	Recovered Species	Hatchery or Wild Stock	Release Site	Release State	Agency	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Srce Contrib'
1986	24818	B40908	81	CHINOOK	WHITMAN LAKE	NEETS BAY 101-90	AK	SSRA	37,737	38,507	05/01/83	06/03/86	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	865	11.45
1986	24932	022861	83	CHINOOK	MARBLE RIVER PIP	MARBLE RIVER	BC	CDFO	99,074	242,035	07/01/84	07/05/86	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223	610	35.93
1986	22966	082135	81	CHINOOK	QUINSAM RIVER	QUINSAM RIVER	BC	CDFO	10,394	10,500	05/26/82	07/10/86	SELECT	HOMER	SPORT		241	897	
1986	24829	042503	83	CHINOOK	WHITMAN LAKE	NEETS BAY 101-90	AK	SSRA	30,158	100,228	05/31/85	06/14/86	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212-20	440	19.24
1986	24831	072902	83	CHINOOK	MARION FORKS	SANTIAM R & N FK-1	OR	ODFW	50,195	169,769	03/12/85	06/14/86	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212-20	516	19.59
1986	03019	082058	82	CHINOOK	QUINSAM RIVER	QUINSAM RIVER	BC	CDFO	10,014	10,184	05/26/83	06/27/86	SELECT	HOMER	SPORT		241-11	838	
1986	20066	051244	84	CHINOOK	SPRING CREEK NATIONA	YAKIMA RIVER (LOWER	WA	FWS	26,112	26,376	06/12/85	07/11/86	SELECT	VALDEZ	COMMERCIAL	SEINE	221-50	380	
1986	20068	633331	84	CHINOOK	NASELLE HATCHERY	NASELLE RIVER	WA	WDF	51,677	1,096,464	06/26/85	07/30/86	SELECT	VALDEZ	COMMERCIAL	SEINE	221-50	335	
1986	20063	633120	83	CHINOOK	WILLAPA HATCHERY -	FORK CREEK	WA	WDF	75,251	960,960	06/12/84	06/24/86	SELECT	VALDEZ	COMMERCIAL	SEINE	221-60	490	
1986	68062	072902	83	CHINOOK	MARION FORKS	SANTIAM R & N FK-1	OR	ODFW	50,195	169,769	03/12/85	07/12/86	SELECT	CORDOVA	COMMERCIAL	GILLNET	223		
1986	68061	082359	84	CHINOOK	QUINSAM RIVER	CAMPBELL TRANSITION	BC	CDFO	10,009	10,464	04/24/85	11/20/86	SELECT	CORDOVA	SPORT		221-10		
1986	20065	042511	83	CHINOOK	CRYSTAL LAKE	CRYSTAL CR 106-44	AK	ADFG	9,646	45,000	05/13/85	07/01/86	SELECT	VALDEZ	COMMERCIAL	SEINE	221-50		
1986	20064	023254	84	CHINOOK	KITIMAT RIVER	KITIMAT LOWER	BC	CDFO	49,712	102,056	05/13/85	07/01/86	SELECT	VALDEZ	COMMERCIAL	SEINE	221-50		
1986	20067	633236	84	CHINOOK	COWLITZ SALMON HATCHER	COWLITZ RIVER	WA	WDF	48,246	1,279,993	06/19/85	07/19/86	SELECT	VALDEZ	COMMERCIAL	SEINE	221-50		
1987	88052	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/26/87	SELECT	CORDOVA	COMMERCIAL	SEINE	221	455	
1987	88053	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/26/87	SELECT	CORDOVA	COMMERCIAL	SEINE	221	488	
1987	88054	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/26/87	SELECT	CORDOVA	COMMERCIAL	SEINE	221	405	
1987	88077	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/01/87	SELECT	CORDOVA	COMMERCIAL	SEINE	221	388	
1987	88081	073740	84	CHINOOK	WILLAMETTE HATCHERY	WILLAMETTE R. MID FK	OR	ODFW	10,793	11,161	04/10/86	07/15/87	SELECT	CORDOVA	COMMERCIAL	SEINE	221	448	
1987	73399	040350	84	CHINOOK	WHITMAN LAKE	CARROLL INLET 101-45	AK	SSRA	10,668	10,901	05/29/86	08/10/87	RANDOM	SEWARD	SPORT		231	390	
1987	88026	102540	84	CHINOOK	EAGLE CREEK NFH	EAGLE CR-CLACKAMAS R	OR	UI	20,756	21,509	05/09/86	06/24/87	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	568	14.33
1987	57385	073701	84	CHINOOK	MARION FORKS	SANTIAM R & N FK-1	OR	ODFW	10,599	115,363	03/13/86	06/22/87	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	572	150.58
1987	88479	633226	84	CHINOOK	LYONS FERRY HATCHERY	SNAKE RIVER (BELOW	WA	WDF	78,417	180,053	06/06/85	07/09/87	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	590	10.12
1987	88055	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/03/87	SELECT	CORDOVA	COMMERCIAL	SEINE	221	411	
1987	88076	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/26/87	SELECT	CORDOVA	COMMERCIAL	GILLNET	221	426	
1987	88078	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/02/87	SELECT	CORDOVA	COMMERCIAL	SEINE	221	432	
1987	88079	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/02/87	SELECT	CORDOVA	COMMERCIAL	SEINE	221	398	
1987	88111	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/15/87	SELECT	CORDOVA	COMMERCIAL	SEINE	221	518	
1987	88307	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/16/87	SELECT	CORDOVA	COMMERCIAL	SEINE	221	450	
1987	88080	073653	84	CHINOOK	SOUTH SANTIAM HATCHERY	SANTIAM R. S FK	OR	ODFW	14,255	73,556	11/05/85	07/02/87	SELECT	CORDOVA	COMMERCIAL	SEINE	221	484	
1987	88083	022860	85	CHINOOK	MARBLE RIVER PIP	MARBLE RIVER	BC	CDFO	30,010	85,047	07/04/86	07/23/87	SELECT	CORDOVA	COMMERCIAL	SEINE	222	328	
1987	88322	023633	85	CHINOOK	KITIMAT RIVER	HIRSCH CREEK	BC	CDFO	26,428	56,888	05/20/86	07/22/87	SELECT	CORDOVA	COMMERCIAL	SEINE	222	367	
1987	88084	040321	83	CHINOOK	NEETS BAY	NEETS BAY 101-90	AK	SSRA	31,560	131,704	05/31/85	07/23/87	SELECT	CORDOVA	COMMERCIAL		223	645	
1987	88085	031849	83	CHINOOK	LITTLE PORT WALTER	L PORT WALTER 109-10	AK	NMFS	3,531	5,847	05/15/85	07/23/87	SELECT	CORDOVA	COMMERCIAL		223	605	
1987	88086	471625	83	CHINOOK	TAMGAS CREEK	TAMGAS CR	AK	MIC	42,140	391,248	05/15/85	07/23/87	SELECT	CORDOVA	COMMERCIAL		223	683	
1987	88088	023241	84	CHINOOK	LITTLE QUALICUM R	LITTLE QUALICUM R	BC	CDFO	38,851	566,567	06/20/85	07/23/87	SELECT	CORDOVA	COMMERCIAL		223	560	
1987	88089	023253	84	CHINOOK	KITIMAT RIVER	KITIMAT LOWER	BC	CDFO	49,003	1,513,716	05/22/85	07/23/87	SELECT	CORDOVA	COMMERCIAL		223	580	
1987	11315	633221	84	CHINOOK	PRIEST RAPIDS SPAWNING	COLUMBIA RIVER - GEN	WA	WDF	103,665	710,317	06/11/85	07/30/87	SELECT	CORDOVA	COMMERCIAL		223	548	
1987	88087	051253	84	CHINOOK	LITTLE WHITE SALMON	LITTLE WHITE SAL #2	WA	FWS	21,158	24,602	06/20/85	07/23/87	SELECT	CORDOVA	COMMERCIAL		223	542	
1987	88343	633416	84	CHINOOK	WASHOUGAL HATCHERY	WASHOUGAL RIVER	WA	WDF	51,408	65,742	08/30/85	07/23/87	SELECT	CORDOVA	COMMERCIAL		223	530	
1987	88371	633326	84	CHINOOK	GRAYS RIVER HATCHERY	GRAYS RIVER -WF	WA	WDF	50,401	162,413	10/03/85	07/15/87	SELECT	CORDOVA	COMMERCIAL		223	577	
1987	88082	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/22/87	SELECT	CORDOVA	COMMERCIAL	SEINE	226	346	
1987	75733	022812	83	CHINOOK	NITINAT RIVER	NITINAT RIVER	BC	CDFO	26,869	642,595	06/12/84	06/20/87	SELECT	HOMER	SPORT		241	863	
1987	88258	031927	84	CHINOOK	LITTLE PORT WALTER	L PORT WALTER 109-10	AK	NMFS	4,840	4,859	05/15/86	07/16/87	SELECT	CORDOVA	COMMERCIAL	SEINE	221-30	417	
1987	88118	023229	84	CHINOOK	NITINAT RIVER	NITINAT RIVER	BC	CDFO	37,900	765,338	05/30/85	07/16/87	SELECT	CORDOVA	COMMERCIAL	SEINE	221-40	542	
1987	55451	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/03/87	SELECT	VALDEZ	COMMERCIAL	SEINE	221-50	510	
1987	55452	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/03/87	SELECT	VALDEZ	COMMERCIAL	SEINE	221-50	535	
1987	81825	022834	83	CHINOOK	SNOOTLI CREEK	WANNOCK RIVER	BC	CDFO	50,023	53,318	06/05/84	08/19/87	RANDOM	SEWARD	COMMERCIAL	SEINE	222-50	778	4.97
1987	81826	073326	84	CHINOOK	BONNEVILLE HATCHERY	UMATILLA R	OR	ODFW	206,756	3,223,172	06/20/85	08/19/87	RANDOM	SEWARD	COMMERCIAL	SEINE	222-50	789	72.75

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Year	Head Number	Tag Code	BR YR	Recovered Species	Hatchery or Wild Stock	Release Site	Release State	Agency	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Sree Contrib
1987	81341	023257	84	CHINOOK	SNOOTLI CREEK	ATNARKO RIVER LOWER	BC	CDFO	48,646	275,179	05/16/85	08/06/87	RANDOM	SEWARD	COMMERCIAL	SEINE	226-50	610	14.85
1987	81348	023133	84	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	8,628	178,769	06/17/85	08/06/87	RANDOM	SEWARD	COMMERCIAL	SEINE	226-50	625	54.39
1987	10339	102526	83	CHINOOK	EAGLE CREEK NFH	EAGLE CR-CLACKAMAS R	OR	UI	46,100	47,995	04/29/85	07/30/87	RANDOM	SEWARD	COMMERCIAL	SEINE	226-50	687	1.19
1987	10490	073024	83	CHINOOK	MARION FORKS	SANTIAM R & N FK-1	OR	ODFW	26,553	127,266	11/08/84	07/28/87	RANDOM	SEWARD	COMMERCIAL	SEINE	226-50	755	5.48
1987	88194	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/23/87	RANDOM	SEWARD	COMMERCIAL	SEINE	PWS	443	
1987	10249	H50702	84	CHINOOK	SPRING CREEK NATONA	COLUMBIA R-5	OR	FWS	99,169	109,591	05/17/85	07/30/87	SELECT	CORDOVA	COMMERCIAL		PWS	520	
1987	88107	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/09/87	SELECT	CORDOVA	COMMERCIAL	SEINE	221		
1987	88334	023254	84	CHINOOK	KITIMAT RIVER	KITIMAT LOWER	BC	CDFO	49,712	102,056	05/13/85	07/23/87	SELECT	CORDOVA	COMMERCIAL		223		
1987	55453	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/25/87	SELECT	VALDEZ	COMMERCIAL	SEINE	221-50		
1987	55454	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/25/87	SELECT	VALDEZ	COMMERCIAL	SEINE	221-50		
1987	55455	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/25/87	SELECT	VALDEZ	COMMERCIAL	SEINE	221-50		
1987	55456	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/25/87	SELECT	VALDEZ	COMMERCIAL	SEINE	221-50		
1987	55457	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/25/87	SELECT	VALDEZ	COMMERCIAL	SEINE	221-50		
1987	55458	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/25/87	SELECT	VALDEZ	COMMERCIAL	SEINE	221-50		
1987	55461	023133	84	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	8,628	178,769	06/17/85	08/14/87	SELECT	VALDEZ	SPORT		221-60		
1987	11390	036306	82	CHINOOK	LITTLE PORT WALTER	L PORT WALTER 109-10	AK	NMFS	8,515	8,636	05/15/84	07/22/87	SELECT	CORDOVA	COMMERCIAL	SEINE	228-40		
1988	41457	B41413	83	CHINOOK	TRAIL LAKES	SEWARD LAGOON 231-30	AK	ADFG	52,997	53,587	06/01/85	08/01/88	SELECT	SEWARD	SPORT		231	1015	
1988	41458	B41413	83	CHINOOK	TRAIL LAKES	SEWARD LAGOON 231-30	AK	ADFG	52,997	53,587	06/01/85	08/01/88	SELECT	SEWARD	SPORT		231	1000	
1988	41459	B41413	83	CHINOOK	TRAIL LAKES	SEWARD LAGOON 231-30	AK	ADFG	52,997	53,587	06/01/85	07/29/88	SELECT	SEWARD	SPORT		231	900	
1988	41460	B41413	83	CHINOOK	TRAIL LAKES	SEWARD LAGOON 231-30	AK	ADFG	52,997	53,587	06/01/85	07/30/88	SELECT	SEWARD	SPORT		231	900	
1988	41462	031919	84	CHINOOK	LITTLE PORT WALTER	L PORT WALTER 109-10	AK	NMFS	5,450	5,472	05/15/86	08/05/88	SELECT	SEWARD	SPORT		231	550	
1988	41465	B41413	83	CHINOOK	TRAIL LAKES	SEWARD LAGOON 231-30	AK	ADFG	52,997	53,587	06/01/85	08/05/88	SELECT	SEWARD	SPORT		231	855	
1988	41470	B41413	83	CHINOOK	TRAIL LAKES	SEWARD LAGOON 231-30	AK	ADFG	52,997	53,587	06/01/85	08/12/88	SELECT	SEWARD	SPORT		231	935	
1988	41487	024013	85	CHINOOK	DEVEREUX CREEK	DEVEREUX CREEK	BC	CDFO	26,247	26,570	06/14/86	08/13/88	SELECT	SEWARD	SPORT		231	500	
1988	29553	042503	83	CHINOOK	WHITMAN LAKE	NEETS BAY 101-90	AK	SSRA	30,158	100,228	05/31/85	06/10/88	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	914	16.00
1988	29551	023212	84	CHINOOK	CONUMA RIVER	TLUPANA RIVER	BC	CDFO	22,346	69,459	06/11/85	06/10/88	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	847	14.97
1988	29150	102644	84	CHINOOK	EAGLE CREEK NFH	EAGLE CR-CLACKAMAS R	OR	UI	25,237	26,934	05/09/86	06/03/88	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	620	12.06
1988	29401	073701	84	CHINOOK	MARION FORKS	SANTIAM R & N FK-1	OR	ODFW	10,599	115,363	03/13/86	06/10/88	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	755	52.41
1988	29022	633831	85	CHINOOK	WASHOUGAL HATCHERY	WASHOUGAL RIVER	WA	WDF	48,981	64,498	09/02/86	05/28/88	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	491	17.81
1988	29021	633544	85	CHINOOK	ELWHA RIVER SPAWNING	ELWHA RIVER	WA	WDF	26,097	501,503	06/10/86	05/28/88	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	560	260.01
1988	30301	633412	84	CHINOOK	(W) LEWIS RIVER STOC	LEWIS RIVER	WA	WDF	34,621	35,545	06/21/85	06/24/88	SELECT	CORDOVA	COMMERCIAL	GILLNET	212	650	
1988	31919	073754	85	CHINOOK	BONNEVILLE HATCHERY	TANNER CR	OR	ODFW	50,021	50,610	10/17/86	07/12/88	RANDOM	CORDOVA	COMMERCIAL	SEINE	221	554	5.22
1988	31918	633112	85	CHINOOK	TURTLE ROCK REARING	COLUMBIA RIVER - GEN	WA	WDF	208,492	237,467	05/05/87	07/12/88	RANDOM	CORDOVA	COMMERCIAL	SEINE	221	469	5.88
1988	30840	231930	85	CHINOOK	(M) MIXED COLUMBIA R	COLUMBIA RIVER A #6	WA	NMFS	9,959	9,959	07/15/86	06/29/88	RANDOM	CORDOVA	COMMERCIAL	GILLNET	221	597	
1988	25119	232131	86	CHINOOK	BONNEVILLE HATCHERY	COLUMBIA RIVER @ NOR	WA	NMFS	18,202	19,849	07/04/87	08/16/88	VOLUNT	VALDEZ	SPORT		221	450	
1988	29923	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/22/88	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223	787	31.56
1988	30771	023634	85	CHINOOK	KITIMAT RIVER	KILDALA RIVER	BC	CDFO	25,305	127,577	05/06/86	07/20/88	SELECT	CORDOVA	COMMERCIAL	GILLNET	225	721	
1988	56546	023229	84	CHINOOK	NTINAT RIVER	NTINAT RIVER	BC	CDFO	37,900	765,338	05/30/85	07/18/88	VOLUNT	HOMER	SPORT		241	845	
1988	31956	040331	84	CHINOOK	WHITMAN LAKE	HERRING COVE 101-45	AK	SSRA	10,818	24,130	05/19/86	07/12/88	SELECT	CORDOVA	COMMERCIAL	SEINE	221-20	705	
1988	30833	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/29/88	RANDOM	CORDOVA	COMMERCIAL	SEINE	221-50	799	9.22
1988	31058	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/29/88	SELECT	VALDEZ	COMMERCIAL	SEINE	221-50	775	
1988	31392	633451	84	CHINOOK	COWLITZ SALMON HATCH	COWLITZ RIVER	WA	WDF	49,935	236,973	10/09/85	07/12/88	SELECT	CORDOVA	COMMERCIAL	SEINE	221-50	722	
1988	32102	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/25/88	SELECT	CORDOVA	COMMERCIAL	SEINE	221-61	735	
1988	31751	024648	86	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	20,840	21,078	05/22/87	08/18/88	RANDOM	VALDEZ	COMMERCIAL		223-40	396	
1988	09117	633221	84	CHINOOK	PRIEST RAPIDS SPAWNING	COLUMBIA RIVER - GEN	WA	WDF	103,665	710,317	06/11/85	06/08/88	VOLUNT	HOMER	SPORT		241-11	863	
1988	47058	023203	84	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	28,083	1,020,886	06/10/85	07/06/88	VOLUNT	HOMER	SPORT		241-60	851	
1988	51271	023260	84	CHINOOK	SNOOTLI CREEK	ATNARKO RIVER LOWER	BC	CDFO	51,672	135,408	05/29/85	09/20/88	VOLUNT	HOMER	SPORT		241-60	762	
1988	29939	024361	86	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	23,973	1,267,502	05/30/87	07/06/88	RANDOM	CORDOVA	COMMERCIAL		PWS	392	
1988	31968	024515	86	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	19,981	20,141	05/22/87	07/12/88	SELECT	CORDOVA	COMMERCIAL	SEINE	PWS	368	
1988	31969	024514	86	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	20,615	20,779	05/22/87	07/12/88	SELECT	CORDOVA	COMMERCIAL	SEINE	PWS	369	

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Year	Head Number	Tag Code	BR YR	Recovered Species	Hatchery or Wild Stock	Release Site	Release State	Agency	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Srce Contrib
1988	31913	073904	85	CHINOOK	WILLAMETTE HATCHERY	WILLAMETTE R, MID FK	OR	ODFW	15,957	16,605	10/10/86	07/13/88	RANDOM	CORDOVA	COMMERCIAL		PWS	455	
1988	31375	211904	85	CHINOOK	QUINULT NATIONAL FI	COOK CREEK (QUINULT	WA	COOP	201,209	297,434	07/31/86	07/06/88	SELECT	CORDOVA	COMMERCIAL	SEINE	PWS	470	
1988	06657	023725	85	CHINOOK	CONUMA RIVER	BURMAN RIVER	BC	CDFO	52,297	94,044	06/02/86	06/13/88	VOLUNT	HOMER	SPORT			584	
1988	06658	022726	83	CHINOOK	THORNTON CR CDP	KENNEDY RIVER LOWER	BC	CDFO	17,709	17,834	07/02/84	06/23/88	VOLUNT	HOMER	SPORT			1000	
1988	31701	073636	85	CHINOOK	BONNEVILLE HATCHERY	TANNER CR	OR	ODFW	47,250	47,637	10/17/86	08/16/88	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	1.68	
1988	31114	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/09/88	VOLUNT	VALDEZ	SPORT		221		
1988	31117	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/09/88	VOLUNT	VALDEZ	SPORT		221		
1988	30445	232139	86	CHINOOK	BONNEVILLE HATCHERY	COLUMBIA RIVER @ NOR	WA	NMFS	17,803	19,892	07/08/87	07/06/88	RANDOM	WHITTIER	COMMERCIAL	SEINE	221	3.95	
1988	30444	B10308	85	CHINOOK	WELLS DAM SPAWNING C	COLUMBIA RIVER - GEN	WA	WDF	51,233	131,585	04/24/87	07/06/88	RANDOM	WHITTIER	COMMERCIAL	SEINE	221	9.09	
1988	30462	634125	86	CHINOOK	WILLAPA HATCHERY -	FORK CREEK	WA	WDF	211,092	1,864,500	05/20/87	07/12/88	RANDOM	SEWARD	COMMERCIAL	SEINE	221	45.63	
1988	31267	232001	86	CHINOOK	(M) MIXED COLUMBIA R	COLUMBIA RIVER A #6	WA	NMFS	9,392	9,392	07/30/87	07/06/88	RANDOM	CORDOVA	COMMERCIAL	SEINE	221-40	3.54	
1988	31268	022859	85	CHINOOK	MARBLE RIVER PIP	MARBLE RIVER	BC	CDFO	30,799	233,249	06/25/86	07/05/88	RANDOM	CORDOVA	COMMERCIAL	SEINE	221-50	26.79	
1988	31757	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	08/24/88	SELECT	VALDEZ	COST RECOVERY		221-60		
1988	29786	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/08/88	VOLUNT	VALDEZ	SPORT		221-62		
1988	29787	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/08/88	VOLUNT	VALDEZ	SPORT		221-62		
1988	29788	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/08/88	VOLUNT	VALDEZ	SPORT		221-62		
1988	30161	031956	85	CHINOOK	LITTLE PORT WALTER	L PORT WALTER 109-10	AK	NMFS	15,327	25,642	07/08/86	07/09/88	SELECT	VALDEZ	COMMERCIAL		223-30		
1988	30172	031934	84	CHINOOK	LITTLE PORT WALTER	L PORT WALTER 109-10	AK	NMFS	4,353	4,353	05/15/86	07/09/88	SELECT	VALDEZ	COMMERCIAL		223-30		
1988	31635	024541	86	CHINOOK	NITINAT RIVER	NITINAT RIVER	BC	CDFO	26,000	1,035,020	05/19/87	08/13/88	RANDOM	VALDEZ	COMMERCIAL		223-40		
1988	31174	232217	86	CHINOOK	BONNEVILLE HATCHERY	COLUMBIA RIVER @ NOR	WA	NMFS	18,930	20,377	07/18/87	08/18/88	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	2.42	
1988	09118	022654	83	CHINOOK	NITINAT RIVER	NITINAT RIVER	BC	CDFO	26,879	640,774	06/03/84	06/08/88	VOLUNT	HOMER	SPORT		241-11		
1988	31157	042825	85	CHINOOK	CARROLL INLET	CARROLL INLET 101-45	AK	SSRA	41,399	117,200	06/10/87	08/14/88	SELECT	VALDEZ	COMMERCIAL		PWS		
1989	27401	023731	85	CHINOOK	WHITEHORSE	MITCHIE CREEK	BC	CDFO	76,732	78,170	05/29/86	06/15/89	RANDOM	OTHER ALAS	COMMERCIAL	GILLNET	334-20	705	
1989	27402	023731	85	CHINOOK	WHITEHORSE	MITCHIE CREEK	BC	CDFO	76,732	78,170	05/29/86	06/22/89	RANDOM	OTHER ALAS	COMMERCIAL	GILLNET	334-20	675	
1989	62015	633317	84	CHINOOK	SOLEDUCK HATCHERY	SOLEDUCK RIVER	WA	WDF	75,233	75,611	08/08/85	07/10/89	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	964	2.27
1989	55238	633835	85	CHINOOK	COWLITZ SALMON HATCHER	COWLITZ RIVER	WA	WDF	48,034	213,853	04/01/87	07/04/89	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	724	11.77
1989	59057	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/21/89	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223	1021	79.74
1989	59056	024647	86	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	16,952	17,146	05/22/87	06/21/89	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223	555	14.58
1989	61747	232220	86	CHINOOK	BONNEVILLE HATCHERY	COLUMBIA RIVER @ NOR	WA	NMFS	18,529	20,431	07/18/87	07/18/89	SELECT	CORDOVA	COMMERCIAL	GILLNET	212-30	601	
1989	59075	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/28/89	RANDOM	VALDEZ	COMMERCIAL	SEINE	221-50	876	31.30
1989	59076	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/28/89	RANDOM	VALDEZ	COMMERCIAL	SEINE	221-50	947	31.30
1989	59077	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/28/89	RANDOM	VALDEZ	COMMERCIAL	SEINE	221-50	941	31.30
1989	62051	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/29/89	RANDOM	VALDEZ	COMMERCIAL	SEINE	221-50	852	31.30
1989	56652	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/28/89	SELECT	VALDEZ	COST RECOVERY		221-60	700	
1989	62428	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/12/89	RANDOM	VALDEZ	COMMERCIAL	SEINE	221-61	887	57.68
1989	62429	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/12/89	RANDOM	VALDEZ	COMMERCIAL	SEINE	221-61	954	57.68
1989	90827	024163	86	CHINOOK	PALLANT CREEK	PALLANT CREEK	BC	CDFO	19,400	20,725	06/15/87	12/26/89	VOLUNT	CORDOVA	SPORT		228-10	762	
1989	51032	043101	86	CHINOOK	CARROLL INLET	CARROLL INLET 101-45	AK	SSRA	41,644	395,290	05/21/88	10/27/89	SELECT	KODIAK	COMMERCIAL			492	
1989	60645	075016	86	CHINOOK	WILLAMETTE HATCHERY	WILLAMETTE R, MID FK	OR	ODFW	19,050	20,707	03/01/88	07/18/89	SELECT	CORDOVA	COMMERCIAL	GILLNET	212		
1989	63258	024809	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	29,554	336,216	05/31/88	07/28/89	RANDOM	VALDEZ	COMMERCIAL	SEINE	222	13.58	
1989	62818	025328	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,640	509,827	05/31/88	07/28/89	RANDOM	VALDEZ	COMMERCIAL		222		
1989	62819	025503	87	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	31,410	101,610	05/16/88	07/28/89	RANDOM	VALDEZ	COMMERCIAL		222		
1989	62845	024937	87	CHINOOK	ROBERTSON CREEK	CHINA CREEK	BC	CDFO	27,033	27,446	05/22/88	07/28/89	RANDOM	VALDEZ	COMMERCIAL		222		
1989	55938	043363	85	CHINOOK	HIDDEN FALLS	KASNYKU BAY 112-11	AK	ADFG	25,069	25,373	05/22/87	07/03/89	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223	1.27	
1989	62150	311726	85	CHINOOK	ELMENDORF	HALIBUT CV LAG241-15	AK	ADFG	20,197	101,331	06/07/86	07/03/89	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223	6.27	
1989	55917	634128	86	CHINOOK	PRIEST RAPIDS SPAWNING	COLUMBIA RIVER - GEN	WA	WDF	201,779	4,946,000	06/25/87	07/03/89	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223	30.64	
1989	62220	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/05/89	RANDOM	VALDEZ	COMMERCIAL	SEINE	221-50	45.29	
1989	60559	024163	86	CHINOOK	PALLANT CREEK	PALLANT CREEK	BC	CDFO	19,400	20,725	06/15/87	07/05/89	SELECT	CORDOVA	COMMERCIAL	SEINE	221-50		
1989	62053	024361	86	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	23,973	1,267,502	05/30/87	07/05/89	SELECT	VALDEZ	COMMERCIAL	SEINE	221-50		
1989	56601	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	06/19/89	SELECT	VALDEZ	SPORT		221-60		

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Year	Head Number	Tag Code	BR YR	Recovered Species	Hatchery or Wild Stock	Release Site	Release State	Agency	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Sree Contrib
1989	56605	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	07/03/89	RANDOM	VALDEZ	SPORT		221-60		
1989	77844	024950	87	CHINOOK	ROBERTSON CREEK	CHINA CREEK	BC	CDFO	26,264	26,264	05/22/88	08/23/89	RANDOM	VALDEZ	COMMERCIAL	SEINE	221-61		0.08
1989	82230	311733	85	CHINOOK	FORT RICHARDSON	DECEPTION + ANDERSON	AK	ADFG	29,507	163,203	06/02/86	08/21/89	SELECT	VALDEZ	COST RECOVERY		221-62		
1989	63404	024804	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	28,912	28,912	05/31/88	07/29/89	RANDOM	VALDEZ	COMMERCIAL	SEINE	222-20		1.19
1989	62775	025503	87	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	31,410	101,610	05/16/88	07/28/89	SELECT	VALDEZ	COMMERCIAL		223-40		
1989	55550	024016	85	CHINOOK	DEVEREUX CREEK	DEVEREUX CREEK	BC	CDFO	26,535	29,531	06/30/86	07/03/89	SELECT	CORDOVA	COMMERCIAL	GILLNET	PWS		
1990	38574	042814	86	CHINOOK	MEDVEJIE	BEAR COVE 113-41	AK	NSRA	19,834	88,876	05/13/88	08/14/90	SELECT	CORDOVA	COMMERCIAL	GILLNET	212	640	
1990	91170	024950	87	CHINOOK	ROBERTSON CREEK	CHINA CREEK	BC	CDFO	26,264	26,264	05/22/88	05/25/90	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	578	82.72
1990	91171	024809	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	29,554	336,216	05/31/88	05/25/90	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	618	940.99
1990	91178	075011	86	CHINOOK	WILLAMETTE HATCHERY	WILLAMETTE R. MID FK	OR	ODFW	18,615	19,350	05/12/88	06/01/90	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	596	12.07
1990	97101	075042	87	CHINOOK	SOUTH SANTIAM HATCHERY	WILLAMETTE R-1	OR	ODFW	25,178	111,693	11/17/88	06/12/90	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	641	44.64
1990	98396	634416	86	CHINOOK	SOLEDUCK HATCHERY	SOLEDUCK RIVER	WA	WDF	175,753	183,280	05/09/88	07/06/90	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	652	7.29
1990	40248	023304	84	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	50,365	2,644,200	06/13/85	08/25/90	VOLUNT	HOMER	SPORT		241	1118	
1990	88727	311758	87	CHINOOK	FORT RICHARDSON	DECEPTION CR 247-41	AK	ADFG	20,936	201,091	07/12/88	06/11/90	SELECT	ANCHORAGE	COMMERCIAL		247	490	
1990	88728	311759	87	CHINOOK	FORT RICHARDSON	MONTANA CR 247-41	AK	ADFG	21,588	132,503	07/05/88	06/11/90	SELECT	ANCHORAGE	COMMERCIAL		247	495	
1990	91110	232060	86	CHINOOK	BONNEVILLE HATCHERY	COLUMBIA RIVER @ NOR	WA	NMFS	15,991	17,213	06/25/87	05/29/90	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212-10	633	12.50
1990	42312	211904	85	CHINOOK	QUINULT NATIONAL FI	COOK CREEK (QUINULT	WA	COOP	201,209	297,434	07/31/86	08/28/90	SELECT	CORDOVA	COMMERCIAL	GILLNET	212-20	976	
1990	91006	024803	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	31,791	31,791	05/31/88	05/18/90	SELECT	CORDOVA	COMMERCIAL	GILLNET	212-30	596	
1990	97026	074537	87	CHINOOK	BONNEVILLE HATCHERY	UMATILLA R	OR	ODFW	23,403	25,493	11/04/88	06/15/90	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212-31	595	10.96
1990	97204	043013	87	CHINOOK	MEDVEJIE	BEAR COVE 113-41	AK	NSRA	80,264	388,550	05/19/89	06/28/90	RANDOM	VALDEZ	COMMERCIAL	SEINE	221-50	410	1.82
1990	96131	024937	87	CHINOOK	ROBERTSON CREEK	CHINA CREEK	BC	CDFO	27,033	27,446	05/22/88	07/05/90	SELECT	SEWARD	COMMERCIAL	SEINE	221-60	657	
1990	98343	043142	87	CHINOOK	CARROLL INLET	CARROLL INLET 101-45	AK	SSRA	43,677	352,093	05/25/89	07/06/90	SELECT	VALDEZ	COMMERCIAL	SEINE	221-61	505	
1990	24575	043108	86	CHINOOK	WHITMAN LAKE	HERRING COVE 101-45	AK	SSRA	51,575	151,000	05/14/88	08/07/90	RANDOM	VALDEZ	COMMERCIAL		223-40	732	
1990	24155	025228	87	CHINOOK	KINCOLITH CDP	KINCOLITH RIVER	BC	CDFO	8,900	10,361	06/07/89	08/10/90	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	505	1.16
1990	41499	025430	87	CHINOOK	PALLANT CREEK	PALLANT CREEK	BC	CDFO	26,722	40,773	06/09/88	09/06/90	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223-40	685	4.58
1990	42101	024961	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,921	916,897	05/31/88	08/21/90	SELECT	CORDOVA	COMMERCIAL	SEINE	223-40	589	
1990	96550	024162	86	CHINOOK	PALLANT CREEK	PALLANT CREEK	BC	CDFO	21,007	22,452	06/15/87	08/18/90	SELECT	SEWARD	COMMERCIAL	SEINE	226-51	870	
1990	56900	024362	86	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	26,805	1,415,747	05/30/87	06/21/90	VOLUNT	HOMER	SPORT		LCI	743	
1990	99596	041762	87	CHINOOK	HIDDEN FALLS	KASNYKU BAY 112-11	AK	NSRA	42,742	53,768	05/28/89	08/04/90	RANDOM	VALDEZ	COMMERCIAL	GILLNET	PWS	512	
1990	41663	024803	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	31,791	31,791	05/31/88	08/17/90	SELECT	CORDOVA	COMMERCIAL	SEINE	PWS	652	
1990	99595	024958	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,913	924,498	05/31/88	08/04/90	RANDOM	VALDEZ	COMMERCIAL	GILLNET	PWS	590	
1990	94375	024220	86	CHINOOK	KITIMAT RIVER	HIRSCH CREEK	BC	CDFO	26,490	51,650	04/21/87	08/03/90	SELECT	CORDOVA	COMMERCIAL	GILLNET	212		
1990	97136	043001	86	CHINOOK	SNETTISHAM	FISH CR 111-50	AK	ADFG	26,204	74,000	06/05/88	06/13/90	RANDOM	VALDEZ	COMMERCIAL	GILLNET	225		12.84
1990	01119	024163	86	CHINOOK	PALLANT CREEK	PALLANT CREEK	BC	CDFO	19,400	20,725	06/15/87	09/10/90	VOLUNT	HOMER	SPORT		241		
1990	38930	026055	88	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,330	702,240	06/05/89	08/18/90	SELECT	CORDOVA	COMMERCIAL	SEINE	221-40		
1990	98856	213135	88	CHINOOK	LONESOME CREEK HATCHER	QUILLAYUTE RIVER (C	WA	QUIL	197,558	410,000	09/18/89	07/06/90	SELECT	VALDEZ	COMMERCIAL	SEINE	221-60		
1990	93640	025304	88	CHINOOK	P.HARDY/STEPHENS CDP	ALICE LAKE OUTLET	BC	CDFO	21,587	25,212	06/13/89	07/23/90	SELECT	CORDOVA	COMMERCIAL	SEINE	222-20		
1990	94061	025839	88	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,298	961,819	06/05/89	08/02/90	SELECT	CORDOVA	COMMERCIAL	SEINE	223-40		
1990	91568	043101	86	CHINOOK	CARROLL INLET	CARROLL INLET 101-45	AK	SSRA	41,644	395,290	05/21/88	06/15/90	RANDOM	CORDOVA	COMMERCIAL	GILLNET	225-21		43.14
1990	46584	024163	86	CHINOOK	PALLANT CREEK	PALLANT CREEK	BC	CDFO	19,400	20,725	06/15/87	02/22/90	VOLUNT	CORDOVA	SPORT		228-10		
1990	36828	024926	88	CHINOOK	SAN JUAN RIVER CDP	SAN JUAN RIVER	BC	CDFO	20,596	20,804	06/20/89	08/14/90	SELECT	VALDEZ	COMMERCIAL	SEINE	PWS		
1991	55171	032038	87	CHINOOK	LITTLE PORT WALTER	L PORT WALTER 109-10	AK	NMFS	3,706	3,706	05/15/89	06/10/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	570	2.25
1991	57149	311851	89	CHINOOK	FORT RICHARDSON	DECEPTION CR 247-41	AK	ADFG	39,561	219,432	05/23/90	07/16/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	437	3.17
1991	55168	311805	87	CHINOOK	ELMENDORF	CROOKED CR 244-30	AK	ADFG	25,502	118,336	06/03/88	06/07/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	790	8.71
1991	66126	311831	88	CHINOOK	FORT RICHARDSON	MONTANA CR 247-41	AK	ADFG	20,327	200,179	06/07/89	06/07/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	486	18.49
1991	66115	311758	87	CHINOOK	FORT RICHARDSON	DECEPTION CR 247-41	AK	ADFG	20,936	201,091	07/12/88	05/31/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	756	26.26
1991	66415	311830	88	CHINOOK	FORT RICHARDSON	NINILCHIK R 244-20	AK	ADFG	19,413	200,203	06/01/89	05/31/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	564	28.20
1991	55209	311760	88	CHINOOK	FORT RICHARDSON	DECEPTION CR 247-41	AK	ADFG	19,851	240,885	05/31/89	05/20/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	570	32.19
1991	55632	043210	87	CHINOOK	BURNETT INLET	BURNETT INLET 106-22	AK	AAI	19,128	100,000	05/02/89	06/24/91	SELECT	CORDOVA	COMMERCIAL	GILLNET	212	535	

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Year	Head Number	Tag Code	BR YR	Recovered Species	Hatchery or Wild Stock	Release Site	Release State <sup>1</sup>	Agency <sup>2</sup>	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Src Contrib <sup>3</sup>
1991	66502	024806	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	32,201	32,201	05/31/88	06/11/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	620	2.25
1991	66454	025630	88	CHINOOK	ROBERTSON CREEK	STAMP RIVER	BC	CDFO	10,385	10,394	05/17/89	06/21/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	557	2.60
1991	66619	025654	88	CHINOOK	ROBERTSON CREEK	POET'S NOOK	BC	CDFO	10,091	10,100	05/18/89	06/21/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	530	2.60
1991	55163	025654	88	CHINOOK	ROBERTSON CREEK	POET'S NOOK	BC	CDFO	10,091	10,100	05/18/89	05/31/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	550	2.73
1991	57359	024325	86	CHINOOK	CONUMA RIVER	CONUMA RIVER	BC	CDFO	50,855	321,892	05/31/87	07/16/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	725	3.61
1991	66311	025908	88	CHINOOK	PALLANT CREEK	PALLANT CREEK	BC	CDFO	27,330	62,825	06/13/89	05/27/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	554	6.28
1991	55089	025915	88	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	54,092	296,534	05/31/89	05/31/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	532	14.99
1991	66618	025817	88	CHINOOK	QUINSAM RIVER	QUINSAM RIVER	BC	CDFO	25,029	293,909	04/21/89	06/21/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	540	30.48
1991	55601	024818	87	CHINOOK	CONUMA RIVER	CONUMA RIVER	BC	CDFO	51,528	1,763,534	05/10/88	06/11/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	680	77.04
1991	66304	025839	88	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,298	961,819	06/05/89	05/24/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	554	100.86
1991	55299	026057	88	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	24,939	925,987	06/05/89	06/17/91	SELECT	CORDOVA	COMMERCIAL	GILLNET	212	560	
1991	55603	075047	87	CHINOOK	MARION FORKS	SANTIAM R & N FK-1	OR	ODFW	30,076	30,258	03/10/89	06/11/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	610	2.26
1991	66231	073361	84	CHINOOK	LOOKINGGLASS	LOOKINGGLASS CR	OR	ODFW	48,761	87,573	04/02/86	06/04/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	914	3.37
1991	66501	075158	88	CHINOOK	MCKENZIE	MCKENZIE R-1	OR	ODFW	15,287	106,572	11/09/89	06/11/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	477	15.69
1991	67201	073721	88	CHINOOK	MARION FORKS	SANTIAM R & N FK-1	OR	ODFW	15,931	225,255	03/08/90	06/25/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	517	20.59
1991	66601	075161	88	CHINOOK	MCKENZIE	MCKENZIE R-1	OR	ODFW	15,345	221,202	03/08/90	06/14/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	560	32.45
1991	66806	075161	88	CHINOOK	MCKENZIE	MCKENZIE R-1	OR	ODFW	15,345	221,202	03/08/90	06/11/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	480	32.45
1991	55172	075208	88	CHINOOK	DEXTER PONDS	SANTIAM R S FK	OR	ODFW	33,177	479,297	11/15/89	06/10/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	510	32.52
1991	66504	075208	88	CHINOOK	DEXTER PONDS	SANTIAM R S FK	OR	ODFW	33,177	479,297	11/15/89	06/11/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	530	32.52
1991	55909	075162	88	CHINOOK	DEXTER PONDS	WILLAMETTE R, MID FK	OR	ODFW	14,897	407,622	03/07/90	07/02/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	490	60.58
1991	55787	074653	87	CHINOOK	CLACKAMAS HATCHERY	CLACKAMAS R	OR	ODFW	5,795	625,310	03/14/89	06/14/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	670	242.89
1991	66503	634759	87	CHINOOK	SOLEDUCK HATCHERY	SOLEDUCK RIVER	WA	WDF	43,167	141,067	05/08/89	06/11/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	542	7.35
1991	70102	471609	88	CHINOOK	TAMGAS CREEK	TAMGAS CR	AK	MIC	109,656	1,063,778	05/15/90	07/13/91	RANDOM	VALDEZ	COMMERCIAL	SEINE	221	382	6.93
1991	65001	020130	89	CHINOOK	CLAYOQUOT CDP	KENNEDY RIVER LOWER	BC	CDFO	26,979	51,942	06/07/90	07/03/91	RANDOM	SEWARD	COMMERCIAL	SEINE	221	329	2.10
1991	68022	025908	88	CHINOOK	PALLANT CREEK	PALLANT CREEK	BC	CDFO	27,330	62,825	06/13/89	07/03/91	RANDOM	VALDEZ	COMMERCIAL	SEINE	221	593	2.51
1991	68023	025531	88	CHINOOK	KITIMAT RIVER	HIRSCH CREEK	BC	CDFO	27,106	72,205	05/10/89	07/03/91	RANDOM	VALDEZ	COMMERCIAL	SEINE	221	568	2.91
1991	55464	025529	88	CHINOOK	KITIMAT RIVER	KITIMAT UPPER	BC	CDFO	25,160	640,313	05/11/89	07/03/91	RANDOM	CORDOVA	COMMERCIAL	SEINE	221	665	27.82
1991	55504	042717	87	CHINOOK	(W) KELSALL R	KELSALL R 115-32	AK	ADFG	4,553	4,553	10/28/88	07/01/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	225	643	0.71
1991	57108	075162	88	CHINOOK	DEXTER PONDS	WILLAMETTE R, MID FK	OR	ODFW	14,897	407,622	03/07/90	07/12/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212-11	511	22.90
1991	55401	635232	88	CHINOOK	(W) HANFORD REACH ST	COLUMBIA RIVER AT HA	WA	WDF	200,630	205,774	06/10/89	06/14/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212-11	551	2.31
1991	66343	026055	88	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,330	702,240	06/05/89	06/21/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212-15	597	71.97
1991	66344	233135	88	CHINOOK	BONNEVILLE HATCHERY	COLUMBIA RIVER @ NOR	WA	NMFS	29,695	30,125	07/15/89	06/21/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212-15	510	2.63
1991	66617	635252	88	CHINOOK	(W) HANFORD REACH ST	COLUMBIA RIVER AT HA	WA	WDF	200,630	205,774	06/10/89	06/21/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212-15	560	2.66
1991	66616	630456	88	CHINOOK	(W) LEWIS RIVER STOC	LEWIS RIVER	WA	WDF	98,049	104,373	06/13/89	06/21/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212-15	545	2.76
1991	55314	075161	88	CHINOOK	MCKENZIE	MCKENZIE R-1	OR	ODFW	15,345	221,202	03/08/90	06/21/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212-21	520	37.42
1991	55053	043214	87	CHINOOK	PORT ARMSTRONG	JETTY CR 109-10	AK	AKI	21,927	62,929	05/18/89	05/17/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212-31	561	6.88
1991	56124	025014	88	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,393	653,101	05/30/89	07/03/91	RANDOM	CORDOVA	COMMERCIAL	SEINE	221-50	489	28.11
1991	68024	042830	86	CHINOOK	HIDDEN FALLS	KASNYKU BAY 112-11	AK	ADFG	13,961	14,588	05/28/88	07/03/91	RANDOM	VALDEZ	COMMERCIAL	SEINE	221-60	694	1.14
1991	56134	025913	88	CHINOOK	BIG QUALICUM RIVER	DEEP BAY/GSVI	BC	CDFO	51,411	505,482	06/16/89	07/03/91	RANDOM	CORDOVA	COMMERCIAL	SEINE	221-60	602	10.75
1991	72506	020647	89	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,670	1,457,642	06/05/90	08/12/91	RANDOM	VALDEZ	COMMERCIAL	SEINE	222-20	364	
1991	58162	042717	87	CHINOOK	(W) KELSALL R	KELSALL R 115-32	AK	ADFG	4,553	4,553	10/28/88	07/07/91	RANDOM	WHITTIER	COMMERCIAL	GILLNET	225-21	550	0.12
1991	58562	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/23/91	RANDOM	WHITTIER	COMMERCIAL	GILLNET	225-21	450	2.56
1991	21335	043101	86	CHINOOK	CARROLL INLET	CARROLL INLET 101-45	AK	SSRA	41,644	395,290	05/21/88	09/14/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	PWS	800	
1991	55620	032044	87	CHINOOK	LITTLE PORT WALTER	L PORT WALTER 109-10	AK	NMFS	2,054	2,078	05/15/89	06/21/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	PWS	621	
1991	55725	043058	87	CHINOOK	NEETS BAY	NEETS BAY 101-90	AK	SSRA	9,408	75,145	05/14/89	06/18/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	PWS	684	
1991	55408	025304	88	CHINOOK	P.HARDY/STEPHENS CDP	ALICE LAKE OUTLET	BC	CDFO	21,587	25,212	06/13/89	06/21/91	SELECT	CORDOVA	COMMERCIAL	GILLNET	PWS	522	
1991	55562	024802	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	29,450	334,893	05/31/88	06/21/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	PWS	690	
1991	57929	020658	89	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	26,517	160,602	05/30/90	08/05/91	SELECT	CORDOVA	COMMERCIAL	SEINE	PWS	347	
1991	66723	025908	88	CHINOOK	PALLANT CREEK	PALLANT CREEK	BC	CDFO	27,330	62,825	06/13/89	06/21/91	RANDOM	VALDEZ	COMMERCIAL	GILLNET	PWS	540	
1991	55312	075160	88	CHINOOK	MCKENZIE	MCKENZIE R-1	OR	ODFW	14,862	215,243	03/08/90	06/18/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	PWS	430	
1991	55622	075202	88	CHINOOK	CLACKAMAS HATCHERY	CLACKAMAS R	OR	ODFW	31,363	323,283	09/12/89	06/21/91	RANDOM	CORDOVA	COMMERCIAL	GILLNET	PWS	605	

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Year	Head Number	Tag Code	BR YR	Recovered Species	Hatchery or Wild Stock	Release Site	Release State	Agency	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Sorce Contrib
1991	60517	024922	87	CHINOOK	CLAYOQUOT CDP	KENNEDY RIVER LOWER	BC	CDFO	21,634	21,893	06/13/88	08/08/91	RANDOM	CORDOVA	COMMERCIAL	SEINE		710	
1991	62391	024924	87	CHINOOK	CLAYOQUOT CDP	KENNEDY RIVER LOWER	BC	CDFO	21,102	21,355	06/13/88	08/09/91	RANDOM	CORDOVA	COMMERCIAL	SEINE		647	
1991	55248	233156	88	CHINOOK	BONNEVILLE HATCHERY	COLUMBIA RIVER @ NOR	WA	NMFS	29,535	30,092	07/21/89	06/04/91	SELECT	CORDOVA	COMMERCIAL	GILLNET	212	535	
1991	49261	043202	87	CHINOOK	CRYSTAL LAKE	EARL WEST COV 107-40	AK	ADFG	48,105	394,200	05/31/89	07/19/91	SELECT	KODIAK	COMMERCIAL	SEINE	257	690	
1991	49260	025257	87	CHINOOK	TERRACE CDP	HADENCHILD CR	BC	CDFO	16,396	22,614	09/20/88	07/19/91	SELECT	KODIAK	COMMERCIAL	SEINE	257	720	
1991	49262	212549	88	CHINOOK	QUINULT LAKE HATCHERY	QUINULT RIVER	WA	QDNR	147,936	770,200	06/27/89	07/19/91	SELECT	KODIAK	COMMERCIAL	SEINE	257	590	
1991	49264	232113	86	CHINOOK	BONNEVILLE HATCHERY	COLUMBIA RIVER @ NOR	WA	NMFS	17,120	18,896	06/28/87	07/22/91	SELECT	KODIAK	COMMERCIAL	SEINE	251-20	860	
1991	49272	024810	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	29,060	330,595	05/31/88	07/24/91	SELECT	KODIAK	COMMERCIAL	SEINE	254-10	780	
1991	49274	024921	87	CHINOOK	CLAYOQUOT CDP	KENNEDY RIVER LOWER	BC	CDFO	21,332	21,587	06/13/88	07/24/91	SELECT	KODIAK	COMMERCIAL	SEINE	254-10	680	
1991	49275	025958	88	CHINOOK	SNOOTLI CREEK	ATNARKO RIVER LOWER	BC	CDFO	26,470	49,118	06/06/89	07/24/91	SELECT	KODIAK	COMMERCIAL	SEINE	254-10	610	
1991	49273	635235	87	CHINOOK	HUMPTULIPS HATCHERY	STEVENS CREEK	WA	WDF	209,254	312,300	06/27/88	07/24/91	SELECT	KODIAK	COMMERCIAL	SEINE	254-10	760	
1991	49263	043058	87	CHINOOK	NEETS BAY	NEETS BAY 101-90	AK	SSRA	9,408	75,145	05/14/89	07/20/91	SELECT	KODIAK	COMMERCIAL	SEINE	256-30	680	
1991	49265	024960	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	24,425	863,163	05/31/88	07/22/91	SELECT	KODIAK	COMMERCIAL	SEINE	256-30	780	
1991	49280	025327	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	23,657	436,116	05/31/88	07/22/91	SELECT	KODIAK	COMMERCIAL	SEINE	257-40	670	
1991	49290	025836	88	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,389	1,514,826	06/05/89	07/11/91	SELECT	KODIAK	COMMERCIAL	SEINE	258-10	520	
1991	49282	024803	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	31,791	31,791	05/31/88	07/15/91	SELECT	KODIAK	COMMERCIAL	SEINE	259-40	670	
1991	49283	025832	88	CHINOOK	CONUMA RIVER	CONUMA RIVER	BC	CDFO	27,020	181,864	06/01/89	07/15/91	SELECT	KODIAK	COMMERCIAL	SEINE	259-40	580	
1991	49285	024926	88	CHINOOK	SAN JUAN RIVER CDP	SAN JUAN RIVER	BC	CDFO	20,596	20,804	06/20/89	07/15/91	SELECT	KODIAK	COMMERCIAL	SEINE	259-40	560	
1991	49287	025811	88	CHINOOK	NITINAT RIVER	NITINAT RIVER	BC	CDFO	26,677	1,040,250	06/02/89	07/15/91	SELECT	KODIAK	COMMERCIAL	SEINE	259-40	500	
1991	49288	025146	88	CHINOOK	SAN JUAN RIVER CDP	SAN JUAN RIVER	BC	CDFO	21,320	21,535	06/20/89	07/15/91	SELECT	KODIAK	COMMERCIAL	SEINE	259-40	460	
1991	49284	074504	88	CHINOOK	SF KLASANINE POND	YOUNGS R & BAY	OR	ODFW	26,670	54,309	03/06/90	07/15/91	SELECT	KODIAK	COMMERCIAL	SEINE	259-40	510	
1991	49281	635259	88	CHINOOK	HUMPTULIPS HATCHERY	STEVENS CREEK	WA	WDF	206,735	492,150	07/11/89	07/15/91	SELECT	KODIAK	COMMERCIAL	SEINE	259-40	510	
1991	49286	213152	88	CHINOOK	QUINULT NATIONAL FI	COOK CREEK (QUINULT)	WA	FWS	38,928	99,687	07/26/89	07/15/91	SELECT	KODIAK	COMMERCIAL	SEINE	259-40	520	
1991	49267	032135	87	CHINOOK	LITTLE PORT WALTER	L PORT WALTER 109-10	AK	NMFS	8,236	8,327	05/15/89	07/22/91	SELECT	KODIAK	COMMERCIAL	SEINE	262-80	720	
1991	49266	024818	87	CHINOOK	CONUMA RIVER	CONUMA RIVER	BC	CDFO	51,528	1,763,334	05/10/88	07/22/91	SELECT	KODIAK	COMMERCIAL	SEINE	262-80	790	
1991	49268	025402	87	CHINOOK	NITINAT RIVER	NITINAT RIVER	BC	CDFO	53,081	2,101,120	05/05/88	07/22/91	SELECT	KODIAK	COMMERCIAL	SEINE	262-80	750	
1991	49269	025915	88	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	54,092	296,534	05/31/89	07/22/91	SELECT	KODIAK	COMMERCIAL	SEINE	262-80	640	
1991	49270	025839	88	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,298	961,819	06/05/89	07/22/91	SELECT	KODIAK	COMMERCIAL	SEINE	262-80	590	
1991	49271	025014	88	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,393	653,101	05/30/89	07/22/91	SELECT	KODIAK	COMMERCIAL	SEINE	262-80	660	
1991	49276	025503	87	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	31,410	101,610	05/16/88	07/24/91	SELECT	KODIAK	COMMERCIAL	SEINE	262-80	800	
1991	49277	020232	89	CHINOOK	ROBERTSON CREEK	CHINA CREEK	BC	CDFO	17,648	17,648	05/17/90	07/24/91	SELECT	KODIAK	COMMERCIAL	SEINE	262-80	900	
1991	49278	211907	87	CHINOOK	HOKO RIVER POND (MA	HOKO RIVER	WA	MAKA	199,740	239,158	06/03/88	07/25/91	SELECT	KODIAK	COMMERCIAL	SEINE	262-80	820	
1991	65009	020149	89	CHINOOK	ROBERTSON CREEK	TOQUART RIVER	BC	CDFO	17,207	17,207	05/17/90	07/03/91	SELECT	SEWARD	COMMERCIAL	SEINE	221		
1991	94421	635247	88	CHINOOK	LEWIS RIVER HATCHERY	LEWIS RIVER	WA	WDF	113,890	190,800	04/06/90	08/05/91	VOLUNT	SEWARD	SPORT		231		
1991	48442	024943	87	CHINOOK	TERRACE CDP	LEAN-TO-CREEK	BC	CDFO	25,262	33,817	05/10/88	05/29/91	VOLUNT	HOMER	SPORT		241-11		
1991	48418	311742	86	CHINOOK	ELMENDORF	CROOKED CR 244-30	AK	ADFG	34,326	206,179	06/04/87	05/15/91	VOLUNT	HOMER	SPORT		244-10		
1991	48421	311758	87	CHINOOK	FORT RICHARDSON	DECEPTION CR 247-41	AK	ADFG	20,936	201,091	07/12/88	05/20/91	VOLUNT	HOMER	SPORT		244-10		
1991	48413	025329	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,951	522,172	05/31/88	05/12/91	VOLUNT	HOMER	SPORT		244-10		
1991	48420	024810	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	29,060	330,595	05/31/88	05/20/91	VOLUNT	HOMER	SPORT		244-10		
1991	49256	024810	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	29,060	330,595	05/31/88	06/10/91	VOLUNT	HOMER	SPORT		244-10		
1991	28747	032045	87	CHINOOK	LITTLE PORT WALTER	L PORT WALTER 109-10	AK	NMFS	2,033	2,033	05/15/89	06/24/91	RANDOM	ANCHORAGE	COMMERCIAL	GILLNET	PWS		
1992	89121	043142	87	CHINOOK	CARROLL INLET	CARROLL INLET 101-45	AK	SSRA	43,677	352,093	05/25/89	05/30/92	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	900	20.45
1992	89122	043306	88	CHINOOK	NEETS BAY	NEETS BAY 101-90	AK	SSRA	10,208	101,400	05/21/90	05/30/92	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	490	25.20
1992	89364	311852	89	CHINOOK	FORT RICHARDSON	DECEPTION CR 247-41	AK	ADFG	39,427	216,697	05/24/90	06/20/92	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	544	28.76
1992	89154	024921	87	CHINOOK	CLAYOQUOT CDP	KENNEDY RIVER LOWER	BC	CDFO	21,332	21,587	06/13/88	05/15/92	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	975	2.51
1992	74285	020658	89	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	26,517	160,602	05/30/90	06/23/92	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	562	30.19
1992	74115	020647	89	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,670	1,457,642	06/05/90	06/23/92	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	668	283.06
1992	89464	075501	89	CHINOOK	SOUTH SANTIAM HATCHERY	SANTIAM R, S FK	OR	ODFW	127,939	402,459	11/19/90	05/30/92	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	555	7.98
1992	89441	075508	89	CHINOOK	WILLAMETTE HATCHERY	WILLAMETTE R & TRIBS	OR	ODFW	27,546	47,680	02/28/91	06/23/92	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	443	8.62
1992	89045	075501	89	CHINOOK	SOUTH SANTIAM HATCHERY	SANTIAM R, S FK	OR	ODFW	127,939	402,459	11/19/90	06/02/92	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	497	16.68

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Year	Head Number	Tag Code	BR YR <sup>1</sup>	Recovered Species	Hatchery or Wild Stock	Release Site	Release State <sup>2</sup>	Agency <sup>2</sup>	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Sree Contrib <sup>1</sup>
1992	76216	075161	88	CHINOOK	MCKENZIE	MCKENZIE R-1	OR	ODFW	15,345	221,202	03/08/90	07/18/92	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	687	21.62
1992	75746	042710	88	CHINOOK	(W) CHILKAT R 115-32	CHILKAT R 115-32	AK	ADFG	9,778	9,897	11/08/89	07/07/92	RANDOM	VALDEZ	COMMERCIAL	GILLNET	225	520	2.02
1992	74112	311852	89	CHINOOK	FORT RICHARDSON	DECEPTION CR 247-41	AK	ADFG	39,427	216,697	05/24/90	06/16/92	RANDOM	VALDEZ	COMMERCIAL	GILLNET	225	572	23.36
1992	76147	020247	89	CHINOOK	SNOOTLI CREEK	ATNARKO RIVER UPPER	BC	CDFO	23,906	360,467	06/08/90	07/14/92	RANDOM	VALDEZ	COMMERCIAL	GILLNET	225	540	63.33
1992	90679	025409	88	CHINOOK	KITIMAT RIVER	KITIMAT LOWER	BC	CDFO	52,828	1,600,263	05/16/89	07/10/92	SELECT	CORDOVA	COMMERCIAL	GILLNET	225	771	
1992	75752	020344	90	CHINOOK	OWEEKENO CDP	RIVERS INLET SEAPENS	BC	CDFO	27,167	89,888	05/25/91	07/06/92	RANDOM	VALDEZ	COST RECOVERY		221-60	388	1.10
1992	76080	020344	90	CHINOOK	OWEEKENO CDP	RIVERS INLET SEAPENS	BC	CDFO	27,167	89,888	05/25/91	07/16/92	RANDOM	VALDEZ	COMMERCIAL	SEINE	221-60	372	3.31
1992	63801	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/92	RANDOM	ANCHORAGE	COST RECOVERY		223-40	660	4.33
1992	63802	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/92	RANDOM	ANCHORAGE	COST RECOVERY		223-40	710	4.33
1992	63803	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/92	RANDOM	ANCHORAGE	COST RECOVERY		223-40	643	4.33
1992	63804	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/92	RANDOM	ANCHORAGE	COST RECOVERY		223-40	725	4.33
1992	63805	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/92	RANDOM	ANCHORAGE	COST RECOVERY		223-40	748	4.33
1992	63806	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/92	RANDOM	ANCHORAGE	COST RECOVERY		223-40	723	4.33
1992	63807	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/20/92	RANDOM	ANCHORAGE	COST RECOVERY		223-40	714	4.33
1992	63808	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/20/92	RANDOM	ANCHORAGE	COST RECOVERY		223-40	680	4.33
1992	74051	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/92	RANDOM	VALDEZ	COST RECOVERY		223-40	687	9.64
1992	74052	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/92	RANDOM	VALDEZ	COST RECOVERY		223-40	664	9.64
1992	74053	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/92	RANDOM	VALDEZ	COST RECOVERY		223-40	701	9.64
1992	74054	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/92	RANDOM	VALDEZ	COST RECOVERY		223-40	708	9.64
1992	74055	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/92	RANDOM	VALDEZ	COST RECOVERY		223-40	698	9.64
1992	74056	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/92	RANDOM	VALDEZ	COST RECOVERY		223-40	745	9.64
1992	74057	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/92	RANDOM	VALDEZ	COST RECOVERY		223-40	749	9.64
1992	74058	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/92	RANDOM	VALDEZ	COST RECOVERY		223-40	724	9.64
1992	74059	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/92	RANDOM	VALDEZ	COST RECOVERY		223-40	726	9.64
1992	74060	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/92	RANDOM	VALDEZ	COST RECOVERY		223-40	673	9.64
1992	74041	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/92	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	640	17.26
1992	79957	043239	88	CHINOOK	HIDDEN FALLS	LUTAK INLET 115-33	AK	NSRA	20,296	20,543	05/21/90	08/22/92	RANDOM	VALDEZ	COMMERCIAL		223-40	635	
1992	79920	630732	89	CHINOOK	PRIEST RAPIDS SPAWNING	COLUMBIA RIVER - GEN	WA	WDF	194,530	6,230,590	06/19/90	08/20/92	SELECT	VALDEZ	COMMERCIAL	SEINE	223-40	565	
1992	74334	043415	88	CHINOOK	SNETTISHAM	AUKE BAY 111-50	AK	ADFG	30,453	144,609	06/08/90	06/27/92	RANDOM	VALDEZ	COMMERCIAL	GILLNET	225-30	588	17.63
1992	76017	020246	89	CHINOOK	SNOOTLI CREEK	ATNARKO RIVER UPPER	BC	CDFO	24,544	370,086	06/08/90	07/14/92	RANDOM	VALDEZ	COMMERCIAL	GILLNET	225-30	557	63.33
1992	76119	043406	88	CHINOOK	CRYSTAL LAKE	CRYSTAL CR 106-44	AK	ADFG	20,788	246,808	05/16/90	07/10/92	RANDOM	VALDEZ	COMMERCIAL	GILLNET	PWS	522	
1992	76311	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/18/92	RANDOM	VALDEZ	COMMERCIAL	GILLNET	PWS	713	
1992	76312	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/18/92	RANDOM	VALDEZ	COMMERCIAL	GILLNET	PWS	688	
1992	91504	025629	88	CHINOOK	CONUMA RIVER	CONUMA RIVER	BC	CDFO	25,937	26,808	05/09/89	08/21/92	RANDOM	CORDOVA	COMMERCIAL	GILLNET	PWS	690	
1992	74098	075161	88	CHINOOK	MCKENZIE	MCKENZIE R-1	OR	ODFW	15,345	221,202	03/08/90	06/27/92	RANDOM	VALDEZ	COMMERCIAL	GILLNET	PWS	629	
1992	36778	020442	89	CHINOOK	ROBERTSON CREEK	NAHMINT ESTUARY	BC	CDFO	32,634	56,862	05/16/90	06/26/92	SELECT	KODIAK	COMMERCIAL	SEINE	252	620	
1992	36775	020442	89	CHINOOK	ROBERTSON CREEK	NAHMINT ESTUARY	BC	CDFO	32,634	56,862	05/16/90	06/26/92	SELECT	KODIAK	COMMERCIAL	SEINE	253	600	
1992	36772	032037	87	CHINOOK	LITTLE PORT WALTER	L PORT WALTER 109-10	AK	NMFS	4,022	4,022	05/15/89	06/17/92	SELECT	KODIAK	COMMERCIAL	SEINE	257	760	
1992	36771	020150	89	CHINOOK	ROBERTSON CREEK	TOQUART RIVER	BC	CDFO	14,812	14,812	05/17/90	06/17/92	SELECT	KODIAK	COMMERCIAL	SEINE	257	520	
1992	36773	020658	89	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	26,517	160,602	05/30/90	06/17/92	SELECT	KODIAK	COMMERCIAL	SEINE	257	550	
1992	36774	020658	89	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	26,517	160,602	05/30/90	06/17/92	SELECT	KODIAK	COMMERCIAL	SEINE	257	610	
1992	36776	021316	90	CHINOOK	CONUMA RIVER	CONUMA RIVER	BC	CDFO	26,555	27,098	05/23/91	07/24/92	SELECT	KODIAK	COMMERCIAL	SEINE	259	440	
1992	36777	025915	88	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	54,092	296,534	05/31/89	07/24/92	SELECT	KODIAK	COMMERCIAL	SEINE	259	940	
1992	36770	025146	88	CHINOOK	SAN JUAN RIVER CDP	SAN JUAN RIVER	BC	CDFO	21,320	21,535	06/20/89	08/17/92	VOLUNT	KODIAK	SPORT		259	701	
1992	30110	025836	88	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,389	1,514,826	06/05/89	08/16/92	VOLUNT	HOMER	SPORT		241-13	865	
1992	01019	025915	88	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	54,092	296,534	05/31/89	05/28/92	SELECT	KODIAK	COMMERCIAL	SEINE	254-30	605	
1992	02969	043221	87	CHINOOK	SHELDON JACKSON	SITKA SOUND 113-41	AK	SJ	10,839	48,522	05/22/89	06/09/92	SELECT	KODIAK	COMMERCIAL	GILLNET	253	762	
1992	89601	311916	88	CHINOOK	WALLY NOERENBERG	FLEMING SPIT 221-10	AK	PWSA	5,124	20,282	05/18/90	06/09/92	VOLUNT	CORDOVA	SPORT		221		
1992	01001	032040	87	CHINOOK	LITTLE PORT WALTER	L PORT WALTER 109-10	AK	NMFS	3,698	3,789	05/15/89	04/16/92	VOLUNT	HOMER	SPORT		241		
1992	01002	025328	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,640	509,827	05/31/88		VOLUNT	HOMER	SPORT		241		
1992	01003	024925	87	CHINOOK	CLAYOQUOT CDP	KENNEDY RIVER LOWER	BC	CDFO	21,028	21,280	06/13/88	02/29/92	VOLUNT	HOMER	SPORT		241		

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Year	Head Number	Tag Code	BR YR	Recovered Species	Hatchery or Wild Stock	Release Site	Release State	Agency	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Sree Contrib
1992	01004	020645	89	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,653	708,931	06/05/90	03/03/92	VOLUNT	HOMER	SPORT		241		
1992	01005	024924	87	CHINOOK	CLAYOQUOT CDP	KENNEDY RIVER LOWER	BC	CDFO	21,102	21,355	06/13/88	03/12/92	VOLUNT	HOMER	SPORT		241		
1992	01006	024923	87	CHINOOK	CLAYOQUOT CDP	KENNEDY RIVER LOWER	BC	CDFO	21,565	21,823	06/13/88	03/14/92	VOLUNT	HOMER	SPORT		241		
1992	01007	024924	87	CHINOOK	CLAYOQUOT CDP	KENNEDY RIVER LOWER	BC	CDFO	21,102	21,355	06/13/88	03/16/92	VOLUNT	HOMER	SPORT		241		
1992	01008	024922	87	CHINOOK	CLAYOQUOT CDP	KENNEDY RIVER LOWER	BC	CDFO	21,634	21,893	06/13/88	03/21/92	VOLUNT	HOMER	SPORT		241		
1992	01009	025329	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,951	522,172	05/31/88	03/25/92	VOLUNT	HOMER	SPORT		241		
1992	01010	025909	88	CHINOOK	PALLANT CREEK	PALLANT CREEK	BC	CDFO	27,920	64,813	06/06/89	04/05/92	VOLUNT	HOMER	SPORT		241		
1992	01011	025908	88	CHINOOK	PALLANT CREEK	PALLANT CREEK	BC	CDFO	27,330	62,825	06/13/89	04/05/92	VOLUNT	HOMER	SPORT		241		
1992	01012	025837	88	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,026	1,100,530	06/05/89	04/06/92	VOLUNT	HOMER	SPORT		241		
1992	01013	024810	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	29,060	330,595	05/31/88	04/06/92	VOLUNT	HOMER	SPORT		241		
1992	01014	024921	87	CHINOOK	CLAYOQUOT CDP	KENNEDY RIVER LOWER	BC	CDFO	21,332	21,587	06/13/88	04/10/92	VOLUNT	HOMER	SPORT		241		
1992	01015	025957	88	CHINOOK	SNOOTLI CREEK	ATNARKO RIVER LOWER	BC	CDFO	25,595	50,169	06/06/89	04/21/92	VOLUNT	HOMER	SPORT		241		
1992	01016	025831	88	CHINOOK	CONUMA RIVER	CONUMA RIVER	BC	CDFO	24,978	25,156	06/01/89	04/22/92	VOLUNT	HOMER	SPORT		241		
1992	01017	311762	87	CHINOOK	FORT RICHARDSON	NINILCHIK R 244-20	AK	ADFG	30,944	248,586	07/06/88	05/18/92	VOLUNT	HOMER	SPORT		244		
1992	36769	025915	88	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	DC	CDFO	54,092	296,534	05/31/89	08/08/92	VOLUNT	KODIAK	SPORT		259		
1992	74102	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/92	SELECT	VALDEZ	COMMERCIAL	GILLNET	212-15		
1992	74103	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/92	SELECT	VALDEZ	COMMERCIAL	GILLNET	212-15		
1992	74104	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/92	SELECT	VALDEZ	COMMERCIAL	GILLNET	212-15		
1992	30188	025909	88	CHINOOK	PALLANT CREEK	PALLANT CREEK	BC	CDFO	27,920	64,813	06/06/89	07/22/92	VOLUNT	HOMER	SPORT		241-12		
1992	09303	311735	89	CHINOOK	FORT RICHARDSON	NINILCHIK R 244-20	AK	ADFG	39,513	215,804	05/30/90	05/11/92	VOLUNT	HOMER	SPORT		244-10		
1992	09305	311762	87	CHINOOK	FORT RICHARDSON	NINILCHIK R 244-20	AK	ADFG	30,944	248,586	07/06/88	05/11/92	VOLUNT	HOMER	SPORT		244-10		
1992	09304	024810	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	29,060	330,595	05/31/88	05/11/92	VOLUNT	HOMER	SPORT		244-10		
1992	02957	024922	87	CHINOOK	CLAYOQUOT CDP	KENNEDY RIVER LOWER	BC	CDFO	21,634	21,893	06/13/88	11/15/92	VOLUNT	KODIAK	SPORT		259-21		
1992	02958	025327	87	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	23,657	436,116	05/31/88	10/15/92	VOLUNT	KODIAK	SPORT		259-21		
1993	35552	075501	89	CHINOOK	SOUTH SANTIAM HATCHERY	SANTIAM R, S FK	OR	ODFW	127,939	402,459	11/19/90	05/18/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	650	17.09
1993	35653	020632	89	CHINOOK	NITINAT RIVER	NITINAT RIVER	BC	CDFO	27,134	602,938	05/19/90	05/24/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	640	115.99
1993	35727	311916	88	CHINOOK	WALLY NOERENBERG	FLEMING SPIT 221-10	AK	PWSA	5,124	20,282	05/18/90	05/27/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	845	20.66
1993	35728	311734	89	CHINOOK	FORT RICHARDSON	DECEPTION CR 247-41	AK	ADFG	40,531	219,362	05/23/90	05/27/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	830	28.25
1993	35730	075626	90	CHINOOK	DEXTER PONDS HATCHERY	SANTIAM R, S FK	OR	ODFW	158,403	478,559	11/13/91	05/27/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	485	15.77
1993	35571	075504	89	CHINOOK	SOUTH SANTIAM HATCHERY	SANTIAM R, S FK	OR	ODFW	96,647	299,715	03/06/91	06/01/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	575	19.32
1993	35739	043238	88	CHINOOK	HIDDEN FALLS	LUTAK INLET 115-33	AK	NSRA	17,900	18,117	05/21/90	06/01/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	645	6.31
1993	35577	311916	88	CHINOOK	WALLY NOERENBERG	FLEMING SPIT 221-10	AK	PWSA	5,124	20,282	05/18/90	06/04/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	815	24.66
1993	35758	630759	89	CHINOOK	SIMILKAMEEN HATCHERY	SIMILKAMEEN RIVER	WA	WDFW	116,821	203,795	05/21/91	06/08/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223-40	605	2.48
1993	35759	311947	89	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	30,772	241,348	05/28/91	06/08/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223-40	680	11.14
1993	35760	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/08/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223-40	810	5.45
1993	35761	635644	89	CHINOOK	COWLITZ SALMON HATCHER	COWLITZ RIVER	WA	WDFW	34,008	104,232	04/05/91	06/08/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223-40	590	4.35
1993	35777	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223-40	840	5.45
1993	35773	075502	89	CHINOOK	SOUTH SANTIAM HATCHERY	SANTIAM R, S FK	OR	ODFW	129,140	400,083	03/05/91	06/12/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	700	20.77
1993	35786	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/15/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223-40	840	3.69
1993	50218	311916	88	CHINOOK	WALLY NOERENBERG	FLEMING SPIT 221-10	AK	PWSA	5,124	20,282	05/18/90	06/19/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	840	28.98
1993	50153	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/18/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223-40	880	3.69
1993	50056	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/22/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223-40	726	4.69
1993	50057	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/22/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223-40	732	4.69
1993	50233	024940	89	CHINOOK	GOLD RIVER PIP	GOLD RIVER	BC	CDFO	28,636	160,644	05/31/90	06/22/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET		650	
1993	82648	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/25/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223-40	837	4.69
1993	50501	021533	90	CHINOOK	KITIMAT RIVER	KITIMAT UPPER	BC	CDFO	53,806	649,206	05/13/91	06/29/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223-40	634	17.40
1993	50502	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/29/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223-40	801	5.53
1993	50510	311953	89	CHINOOK	WALLY NOERENBERG	WHITTIER-CORDOVA	AK	PWSA	10,008	169,549	05/28/91	06/29/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	225	664	110.12
1993	50938	0401011009	89	CHINOOK	JERRY MYERS	TAHINI R 115-32	AK	ADFG	10,955	11,021	05/14/90	07/06/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	575	1.51
1993	92233	043536	89	CHINOOK	DEER MOUNTAIN	THORNE BAY 102-70	AK	ADFG	9,552	12,378	05/29/91	09/15/93	RANDOM	CORDOVA	COMMERCIAL	GILLNET		598	

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Year	Head Number	Tag Code	BR YR*	Recovered Species	Hatchery or Wild Stock	Release Site	Release State <sup>b</sup>	Agency <sup>c</sup>	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Source Contrib <sup>d</sup>
1993	64445	020130	89	CHINOOK	CLAYOQUOT CDP	KENNEDY R LOWER	BC	CDFO	26,979	51,942	06/07/90	08/17/93	VOLUNT	HOMER	SPORT		241	813	
1993	64446	020653	89	CHINOOK	CONUMA RIVER	CONUMA RIVER	BC	CDFO	26,908	27,017	05/15/90	03/30/93	VOLUNT	HOMER	SPORT		241-12	483	
1993	64447	020653	89	CHINOOK	CONUMA RIVER	CONUMA RIVER	BC	CDFO	26,908	27,017	05/15/90	03/21/93	VOLUNT	HOMER	SPORT		241-12		
1993	64448	020434	89	CHINOOK	KITIMAT RIVER	KITIMAT LOWER	BC	CDFO	27,269	640,693	05/18/90	03/25/93	VOLUNT	HOMER	SPORT		241-12		
1993	64449	020247	89	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	23,906	360,467	06/08/90	05/07/93	VOLUNT	HOMER	SPORT		244-70	737	
1993	64460	025962	88	CHINOOK	OWEEKENO CDP	RIVERS INL SEAPENS	BC	CDFO	26,389	126,659	07/07/89	05/22/93	VOLUNT	HOMER	SPORT		244-70	1041	
1993	64454	311854	89	CHINOOK	ELMENDORF	CROOKED CR 244-30	AK	ADFG	26,475	234,019	06/06/90	05/26/93	VOLUNT	HOMER	SPORT		244-20		
1993	64457	020658	89	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	26,517	160,602	05/30/90	07/05/93	VOLUNT	HOMER	SPORT		241	737	
1993	98373	020645	89	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,653	708,931	06/05/90	07/14/93	VOLUNT	KODIAK	SPORT		259-21		
1993	98374	020656	89	CHINOOK	CONUMA RIVER	CONUMA RIVER	BC	CDFO	26,285	252,708	05/30/90	08/14/93	VOLUNT	KODIAK	SPORT		259-21		
1993	51840	180827	91	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	57,377	479,003	06/10/92	08/10/93	SELECT	SEWARD	COMMERCIAL	SEINE	226-60		
1993	51844	180438	91	CHINOOK	OWEEKENO CDP	RIVERS INL SEAPENS	BC	CDFO	19,320	48,236	05/31/92	08/10/93	RANDOM	SEWARD	COMMERCIAL	SEINE		497	
1993	51845	630759	89	CHINOOK	SIMILKAMEEN HATCHERY	SIMILKAMEEN RIVER	WA	WDFW	116,821	203,795	05/21/91	08/10/93	RANDOM	SEWARD	COMMERCIAL	SEINE		402	
1993	52251	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/10/93	RANDOM	VALDEZ	COST RECOVERY		223-40	845	42.57
1993	52351	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/10/93	RANDOM	VALDEZ	COST RECOVERY		223-40	850	42.57
1993	52252	021533	90	CHINOOK	KITIMAT RIVER	KITIMAT UPPER	BC	CDFO	53,806	649,206	05/13/91	06/10/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	638	17.13
1993	52353	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/11/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	850	5.45
1993	52354	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	869	5.45
1993	52155	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	761	5.45
1993	52156	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	735	5.45
1993	52151	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/11/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	750	5.45
1993	52152	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/11/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	770	5.45
1993	52153	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/11/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	780	5.45
1993	52154	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/11/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	710	5.45
1993	52163	311734	89	CHINOOK	FORT RICHARDSON	DECEPTION CR 247-41	AK	ADFG	40,351	219,362	05/23/90	06/12/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET		835	
1993	52202	180201	90	CHINOOK	GOLD RIVER PIP	GOLD RIVER	BC	CDFO	29,209	29,654	05/29/91	06/12/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET		606	
1993	52157	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET		792	
1993	52159	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET		840	
1993	52355	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET		771	
1993	52263	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/15/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	885	3.69
1993	52166	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/14/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	810	3.69
1993	52167	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/14/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	775	3.69
1993	52168	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/14/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	763	3.69
1993	52170	212012	90	CHINOOK	LONESOME CREEK HATCHER	SOLEDUCK RIVER (C	WA	QUIL	192,168	199,344	09/04/91	06/18/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	589	1.00
1993	52169	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/18/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	853	3.69
1993	52357	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/18/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	225-20	813	14.38
1993	52171	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/18/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET		730	
1993	52172	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/18/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET		724	
1993	52453	311947	89	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	30,772	241,348	05/28/91	06/22/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	660	9.60
1993	52265	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/22/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	760	4.69
1993	52369	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/22/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET		845	
1993	52370	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/22/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET		825	
1993	52173	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/22/93	RANDOM	VALDEZ	COMMERCIAL		223-40	814	
1993	52458	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/25/93	RANDOM	VALDEZ	COMMERCIAL		223-40	870	
1993	52281	020345	90	CHINOOK	OWEEKENO CDP	WANNOK RIVER	BC	CDFO	27,467	57,525	04/26/91	06/26/93	RANDOM	VALDEZ	COST RECOVERY		221-61	528	1.16
1993	52186	180227	90	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	26,415	26,415	05/23/91	06/26/93	RANDOM	VALDEZ	COST RECOVERY		221-61	615	0.56
1993	52478	021546	90	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	52,098	585,398	05/27/91	06/26/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	522	111.11
1993	52435	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/29/93	RANDOM	VALDEZ	COMMERCIAL			872	
1993	52436	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/29/93	RANDOM	VALDEZ	COMMERCIAL			871	
1993	52437	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/29/93	RANDOM	VALDEZ	COMMERCIAL			889	
1993	52438	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/29/93	RANDOM	VALDEZ	COMMERCIAL			829	

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Year	Head Number	Tag Code	BR YR	Recovered Species	Hatchery or Wild Stock	Release Site	Release State	Agency	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Source Contrib
1993	52440	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/29/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET		825	
1993	52307	042812	89	CHINOOK	SHELDON JACKSON	SITKA SOUND 113-41	AK	SJ	10,517	25,249	05/03/91	06/29/93	RANDOM	VALDEZ	COST RECOVERY		221-61	623	
1993	52677	043140	87	CHINOOK	SNETTISHAM	SPEEL ARM 111-33	AK	ADFG	10,195	128,000	05/31/89	07/02/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET		671	
1993	52624	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/02/93	RANDOM	VALDEZ	COMMERCIAL		223-40	854	
1993	52588	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/07/93	RANDOM	VALDEZ	COST RECOVERY		223-40	850	
1993	52591	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/09/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	934	5.48
1993	53427	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/17/93	RANDOM	VALDEZ	COMMERCIAL		223-40	876	
1993	53937	020147	89	CHINOOK	ROBERTSON CREEK	POETT NOOK	BC	CDFO	21,804	21,804	05/19/90	08/06/93	RANDOM	VALDEZ	COMMERCIAL	SEINE	226-60	756	2.00
1993	75376	180225	90	CHINOOK	ROBERTSON CREEK	CHINA CREEK	BC	CDFO	25,901	26,163	05/22/91	08/10/93	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	564	0.17
1993	53948	180343	91	CHINOOK	SHUSWAP RIVER	SHUSWAP R. MIDDLE	BC	CDFO	49,844	410,875	05/13/92	08/10/93	RANDOM	VALDEZ	COMMERCIAL		223-40	366	
1993	53949	076002	91	CHINOOK	COLE RIVERS HATCHERY	NOBLE CR (COOS R)	OR	ODFW	25,335	51,946	10/02/92	08/10/93	RANDOM	VALDEZ	COMMERCIAL		223-40	373	
1993	35745	020128	89	CHINOOK	CLAYOQUOT CDP	KENNEDY R LOWER	BC	CDFO	26,873	51,836	06/07/90	06/04/93	RANDOM	WHITTIER	COST RECOVERY		223-40	635	43.29
1993	35746	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/04/93	RANDOM	WHITTIER	COST RECOVERY		223-40	835	86.10
1993	35747	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/04/93	RANDOM	WHITTIER	COST RECOVERY		223-40	825	86.10
1993	50212	312045	90	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	6,490	274,754	06/08/92	06/06/93	RANDOM	WHITTIER	COST RECOVERY		223-40	400	469.95
1993	52001	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/10/93	RANDOM	WHITTIER	COST RECOVERY		223-40	780	42.57
1993	52002	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/10/93	RANDOM	WHITTIER	COST RECOVERY		223-40	860	42.57
1993	52003	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/10/93	RANDOM	WHITTIER	COST RECOVERY		223-40	770	42.57
1993	52004	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/10/93	RANDOM	WHITTIER	COST RECOVERY		223-40	790	42.57
1993	52005	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/10/93	RANDOM	WHITTIER	COST RECOVERY		223-40	820	42.57
1993	52006	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/10/93	RANDOM	WHITTIER	COST RECOVERY		223-40	850	42.57
1993	52017	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/14/93	RANDOM	WHITTIER	COMMERCIAL	GILLNET	223-40	810	3.69
1993	52018	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/14/93	RANDOM	WHITTIER	COMMERCIAL	GILLNET	223-40	790	3.69
1993	52019	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/14/93	RANDOM	WHITTIER	COMMERCIAL	GILLNET	223-40	880	3.69
1993	52013	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/93	RANDOM	WHITTIER	COMMERCIAL	GILLNET	223-40	855	5.45
1993	52009	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/10/93	RANDOM	WHITTIER	COMMERCIAL	GILLNET	223-40	790	5.45
1993	52010	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/10/93	RANDOM	WHITTIER	COMMERCIAL	GILLNET	223-40	820	5.45
1993	52023	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/14/93	RANDOM	WHITTIER	COMMERCIAL	GILLNET	223-40	890	3.69
1993	52034	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/18/93	RANDOM	WHITTIER	COMMERCIAL	GILLNET		730	
1993	52035	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/18/93	RANDOM	WHITTIER	COMMERCIAL	GILLNET		750	
1993	52025	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/93	RANDOM	WHITTIER	COST RECOVERY		223-40	810	7.65
1993	52026	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/93	RANDOM	WHITTIER	COST RECOVERY		223-40	940	7.65
1993	52027	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/93	RANDOM	WHITTIER	COST RECOVERY		223-40	740	7.65
1993	52028	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/93	RANDOM	WHITTIER	COST RECOVERY		223-40	800	7.65
1993	52029	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/93	RANDOM	WHITTIER	COST RECOVERY		223-40	890	7.65
1993	52030	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/93	RANDOM	WHITTIER	COST RECOVERY		223-40	865	7.65
1993	52031	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/93	RANDOM	WHITTIER	COST RECOVERY		223-40	825	7.65
1993	52055	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/22/93	RANDOM	WHITTIER	COMMERCIAL	GILLNET		820	
1993	21100	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/29/93	RANDOM	WHITTIER	COMMERCIAL	GILLNET		835	
1993	21101	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/29/93	RANDOM	WHITTIER	COMMERCIAL	GILLNET		850	
1993	52098	024921	87	CHINOOK	CLAYOQUOT CDP	KENNEDY R LOWER	BC	CDFO	21,332	21,587	06/13/88	06/25/93	RANDOM	WHITTIER	COMMERCIAL		225	960	
1993	52099	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/25/93	RANDOM	WHITTIER	COMMERCIAL		225	865	
1993	52100	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/25/93	RANDOM	WHITTIER	COMMERCIAL		225	815	
1993	52074	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/25/93	RANDOM	WHITTIER	COMMERCIAL	GILLNET	223-40	760	4.69
1993	52148	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/29/93	RANDOM	WHITTIER	COMMERCIAL	GILLNET	223-40	800	5.53
1993	52149	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/29/93	RANDOM	WHITTIER	COMMERCIAL	GILLNET	223-40	835	5.53
1993	21135	043549	89	CHINOOK	HIDDEN FALLS	KASNYKU BAY 112-11	AK	NSRA	3,814	4,119	06/04/91	07/02/93	RANDOM	WHITTIER	COMMERCIAL	GILLNET	223-40	685	1.56
1993	52042	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/22/93	RANDOM	WHITTIER	COST RECOVERY		223-40	790	13.06
1993	52043	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/22/93	RANDOM	WHITTIER	COST RECOVERY		223-40	810	13.06
1993	52044	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/22/93	RANDOM	WHITTIER	COST RECOVERY		223-40	800	13.06
1993	52045	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/22/93	RANDOM	WHITTIER	COST RECOVERY		223-40	780	13.06

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Year	Head Number	Tag Code	BR YR	Recovered Species	Hatchery or Wild Stock	Release Site	Release State <sup>c</sup>	Agency <sup>c</sup>	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Source	Contrib <sup>b</sup>	
1993	52046	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/22/93	RANDOM	WHITTIER COST RECOVERY				223-40	850	13.06	
1993	52060	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/23/93	RANDOM	WHITTIER COST RECOVERY				223-40	865	13.06	
1993	52101	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/26/93	RANDOM	WHITTIER COST RECOVERY				223-40	840	13.06	
1993	52102	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/26/93	RANDOM	WHITTIER COST RECOVERY				223-40	835	13.06	
1993	52103	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/26/93	RANDOM	WHITTIER COST RECOVERY				223-40	790	13.06	
1993	52104	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/26/93	RANDOM	WHITTIER COST RECOVERY				223-40	830	13.06	
1993	52105	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/26/93	RANDOM	WHITTIER COST RECOVERY				223-40	840	13.06	
1993	21352	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/07/93	RANDOM	WHITTIER COST RECOVERY				223-40	830		
1993	21481	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/13/93	RANDOM	WHITTIER COMMERCIAL			GILLNET	223-40	890	5.31	
1993	21482	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/13/93	RANDOM	WHITTIER COMMERCIAL			GILLNET	223-40	920	5.31	
1993	21542	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/14/93	RANDOM	WHITTIER COST RECOVERY				223-40	770	12.78	
1993	54017	021458	90	CHINOOK	OWEEKENO CDP	RIVERS INL SEAPENS	BC	CDFO	26,777	149,070	07/01/91	07/20/93	RANDOM	WHITTIER COMMERCIAL			GILLNET	229-10	630	0.93	
1993	54171	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/29/93	RANDOM	WHITTIER COST RECOVERY				223-40	845		
1993	54387	180837	91	CHINOOK	SNOOTLI CREEK	SALLOOMT RIVER	BC	CDFO	59,876	70,177	07/12/92	08/06/93	RANDOM	WHITTIER COMMERCIAL				223-40	387		
1993	54388	020310	91	CHINOOK	KITIMAT RIVER	BC	CDFO	110,660	1,337,756	05/07/92	08/06/93	RANDOM	WHITTIER COMMERCIAL				223-40	420			
1993	54389	043644	90	CHINOOK	MEDVEJIE	BEAR COVE 113-41	AK	NSRA	9,885	137,415	05/15/92	08/06/93	RANDOM	WHITTIER COMMERCIAL				223-40	449		
1993	54390	180328	90	CHINOOK	NITINAT RIVER	NITINAT RIVER	BC	CDFO	54,724	2,137,027	05/27/91	08/06/93	RANDOM	WHITTIER COMMERCIAL				223-40	562		
1993	54526	043627	89	CHINOOK	MEDVEJIE	BEAR COVE 113-41	AK	NSRA	9,528	36,219	05/23/91	08/10/93	RANDOM	WHITTIER COMMERCIAL			GILLNET	223-40	743	0.64	
1993	54561	021540	90	CHINOOK	TENDERFOOT CREEK	TENDERFOOT LAKE	BC	CDFO	51,520	102,527	06/14/91	08/10/93	RANDOM	WHITTIER COMMERCIAL			GILLNET	223-40	640	0.33	
1993	54562	020734	89	CHINOOK	BIRKENHEAD RIVER	BIRKENHEAD RIVER	BC	CDFO	24,977	33,285	07/04/90	08/10/93	RANDOM	WHITTIER COMMERCIAL			GILLNET	223-40	630	0.22	
1993	82398	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/12/93	RANDOM	ANCHORAGE COMMERCIAL			GILLNET	223-40	807	5.45	
1993	82399	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/13/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	7.65		
1993	82400	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/13/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	7.65		
1993	82637	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/13/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	7.65		
1993	82638	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/13/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	7.65		
1993	82639	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/13/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	7.65		
1993	82640	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/13/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	7.65		
1993	98490	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/18/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	890	7.65	
1993	98491	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/18/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	808	7.65	
1993	98492	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/18/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	823	7.65	
1993	98493	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/18/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	879	7.65	
1993	98494	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/18/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	820	7.65	
1993	98495	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/18/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	783	7.65	
1993	98496	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/18/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	784	7.65	
1993	98497	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/18/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	786	7.65	
1993	98481	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	845	7.65	
1993	98482	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	844	7.65	
1993	98483	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	828	7.65	
1993	98484	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	756	7.65	
1993	98485	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	818	7.65	
1993	98487	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	838	7.65	
1993	98488	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/16/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	853	7.65	
1993	82644	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/21/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	733	13.06	
1993	82645	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/21/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	787	13.06	
1993	98293	311854	89	CHINOOK	ELMENDORF	CROOKED CR 244-30	AK	ADFG	26,475	234,019	06/06/90	06/28/93	RANDOM	ANCHORAGE COMMERCIAL			GILLNET	223-40	792	12.75	
1993	82340	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/22/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	810	13.06	
1993	82341	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/22/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	816	13.06	
1993	82342	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/22/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	846	13.06	
1993	82344	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/23/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	773	13.06	
1993	55045	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/12/93	RANDOM	ANCHORAGE COST RECOVERY				223-40	785	12.78	
1993	55317	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/24/93	RANDOM	ANCHORAGE COST RECOVERY					874		

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Year	Head Number	Tag Code	BR YR'	Recovered Species	Hatchery or Wild Stock	Release Site	Release State <sup>3</sup>	Agency <sup>2</sup>	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Source Contrib <sup>1</sup>
1993	55463	040702	89	CHINOOK	MEDVEJIE	BEAR COVE 113-41	AK	NSRA	10,752	37,290	05/23/91	08/17/93	RANDOM	ANCHORAGE	COMMERCIAL	GILLNET	223-40	590	2.31
1993	98332	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/09/93	RANDOM	ANCHORAGE	COMMERCIAL	GILLNET	223-40	785	5.48
1993	50801	311947	89	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	30,772	241,348	05/28/91	06/01/93	VOLUNT	WALLYNOER	SPORT		223-40		
1993	50802	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/10/93	VOLUNT	WALLYNOER	SPORT		223-40		
1993	50803	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/11/93	VOLUNT	WALLYNOER	SPORT		223-40		
1993	50804	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/11/93	VOLUNT	WALLYNOER	SPORT		223-40		
1993	50808	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/06/93	VOLUNT	WALLYNOER	SPORT		223-40		
1994	70477	312047	90	CHINOOK	WALLY NOERENBERG	WHITTIER+LAKE BAY	AK	PWSA	5,366	102,024	06/10/92	06/14/94	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223-40	709	19.94
1994	70391	311852	89	CHINOOK	FORT RICHARDSON	DECEPTION CR 247-41	AK	ADFG	39,427	216,697	05/24/90	06/14/94	RANDOM	CORDOVA	COMMERCIAL	GILLNET	223-40	897	5.77
1994	72334	021048	91	CHINOOK	MARBLE RIVER PIP	MARBLE RIVER	BC	CDFO	20,702	77,630	06/12/92	07/11/94	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	553	17.91
1994	75654	043646	90	CHINOOK	MEDVEJIE	BEAR COVE 113-41	AK	NSRA	10,359	137,290	05/21/92	07/25/94	RANDOM	CORDOVA	COMMERCIAL	SEINE	221-61	668	3.06
1994	74732	020345	90	CHINOOK	OWEKENO CDP	WANNOK RIVER	BC	CDFO	27,467	57,525	04/26/91	02/07/94	VOLUNT	CORDOVA	SPORT		221-20		
1994	26951	180202	90	CHINOOK	GOLD RIVER PIP	GOLD RIVER	BC	CDFO	26,674	27,358	06/04/91	07/23/94	VOLUNT	KENAI	SPORT		241-12		
1994	26505	311734	89	CHINOOK	FORT RICHARDSON	DECEPTION CR 247-41	AK	ADFG	40,531	219,362	05/23/90	05/23/94	VOLUNT	KENAI	SPORT		244-70		
1994	00149	020129	89	CHINOOK	CLAYOQUOT CDP	KENNEDY R LOWER	BC	CDFO	27,258	52,222	06/07/90	02/05/94	VOLUNT	ANCHORAGE	SPORT		241-13		
1994	67181	021426	90	CHINOOK	TENDERFOOT CREEK	PORTEAU COVE	BC	CDFO	25,566	46,276	04/24/91	04/09/94	VOLUNT	ANCHORAGE	SPORT		241		
1994	26757	020461	89	CHINOOK	MARBLE RIVER PIP	MARBLE RIVER	BC	CDFO	26,235	37,558	06/01/90	01/06/94	VOLUNT	HOMER	SPORT		241-16		
1994	26755	021318	90	CHINOOK	CONUMA RIVER	CONUMA RIVER	BC	CDFO	27,562	728,365	05/23/91	01/12/94	VOLUNT	HOMER	SPORT		241		
1994	26756	021317	90	CHINOOK	CONUMA RIVER	CONUMA RIVER	DC	CDFO	28,611	29,196	05/23/91	01/12/94	VOLUNT	HOMER	SPORT		241		
1994	26758	180247	90	CHINOOK	CLAYOQUOT CDP	KENNEDY LAKE	BC	CDFO	26,008	127,865	06/07/91	01/15/94	VOLUNT	HOMER	SPORT		241		
1994	26752	020613	90	CHINOOK	SOOKE RIVER PIP	SOOKE RIVER	BC	CDFO	20,968	21,287	06/14/91	01/28/94	VOLUNT	HOMER	SPORT		241-16		
1994	26753	180247	90	CHINOOK	CLAYOQUOT CDP	KENNEDY LAKE	BC	CDFO	26,008	127,865	06/07/91	02/01/94	VOLUNT	HOMER	SPORT		241		
1994	26759	025915	88	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	54,092	296,534	05/31/89	02/26/94	VOLUNT	HOMER	SPORT		241		
1994	26768	020129	89	CHINOOK	CLAYOQUOT CDP	KENNEDY R LOWER	BC	CDFO	27,258	52,222	06/07/90	03/31/94	VOLUNT	HOMER	SPORT		241		
1994	26769	020516	89	CHINOOK	MASSET CDP	YAKOUN RIVER	BC	CDFO	26,735	26,735	06/25/90	03/31/94	VOLUNT	HOMER	SPORT		241		
1994	26772	021458	90	CHINOOK	OWEKENO CDP	RIVERS INL SEAPENS	BC	CDFO	26,777	149,070	07/01/91	03/31/94	VOLUNT	HOMER	SPORT		241		
1994	26773	075626	90	CHINOOK	DEXTER PONDS HATCHERY	SANTIAM R, S FK	OR	ODFW	158,403	478,559	11/13/91	03/31/94	VOLUNT	HOMER	SPORT		241		
1994	26771	020130	89	CHINOOK	CLAYOQUOT CDP	KENNEDY R LOWER	BC	CDFO	26,979	51,942	06/07/90	03/04/94	VOLUNT	HOMER	SPORT		241		
1994	26760	020251	89	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	25,012	326,407	06/07/90	04/17/94	VOLUNT	HOMER	SPORT		241		
1994	26751	025915	88	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	54,092	296,534	05/31/89	06/04/94	VOLUNT	HOMER	SPORT		241-60	750	
1994	26761	180202	90	CHINOOK	GOLD RIVER PIP	GOLD RIVER	BC	CDFO	26,674	27,358	06/04/91	07/18/94	VOLUNT	HOMER	SPORT		241		
1994	26754	020128	89	CHINOOK	CLAYOQUOT CDP	KENNEDY R LOWER	BC	CDFO	26,873	51,836	06/07/90	07/23/94	VOLUNT	HOMER	SPORT		241	937	
1994	26701	043347	89	CHINOOK	(W) KELSALL R	KELSALL R 115-32	AK	ADFG	10,160	10,242	10/15/90	08/25/94	VOLUNT	HOMER	SPORT		241-09	849	
1994	26764	180354	91	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	85,114	1,100,899	06/10/92	09/04/94	VOLUNT	HOMER	SPORT		241		
1994	26765	021316	90	CHINOOK	CONUMA RIVER	CONUMA RIVER	BC	CDFO	26,555	27,098	05/23/91	09/07/94	VOLUNT	HOMER	SPORT		241		
1994	26766	075643	90	CHINOOK	WILLAMETTE HATCHERY	WILLAMETTE R & TRIBS	OR	ODFW	32,470	194,186	03/05/92		VOLUNT	HOMER	SPORT				
1994	26767	021457	90	CHINOOK	NTINAT RIVER	NTINAT RIVER	BC	CDFO	27,738	592,967	05/12/91		VOLUNT	HOMER	SPORT				
1994	26702	180201	90	CHINOOK	GOLD RIVER PIP	GOLD RIVER	BC	CDFO	29,209	29,654	05/29/91	10/25/94	RANDOM	HOMER	SPORT		241	788	
1994	26703	021049	91	CHINOOK	MARBLE RIVER PIP	MARBLE RIVER	BC	CDFO	20,840	77,768	06/12/92	10/29/94	RANDOM	HOMER	SPORT		241	687	
1994	98273	180620	91	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	27,018	996,182	05/22/92	11/05/94	VOLUNT	KENAI	SPORT		241	735	
1994	01701	021048	91	CHINOOK	MARBLE RIVER PIP	MARBLE RIVER	BC	CDFO	20,702	77,630	06/12/92	06/15/94	RANDOM	KODIAK	COMMERCIAL				
1994	01702	180837	91	CHINOOK	SNOOTLI CREEK	SALLOOMT RIVER	BC	CDFO	59,876	70,177	07/12/92	06/15/94	RANDOM	KODIAK	COMMERCIAL				
1994	01704	634527	91	CHINOOK	(W) HANFORD REACH ST	COLUMBIA RIVER AT HA	WA	WDFW	120,507	121,479	06/11/92	06/15/94	RANDOM	KODIAK	COMMERCIAL				
1994	01705	020516	89	CHINOOK	MASSET CDP	YAKOUN RIVER	BC	CDFO	26,735	26,735	06/25/90	06/15/94	RANDOM	KODIAK	COMMERCIAL				
1994	01707	043625	89	CHINOOK	MEDVEJIE	BEAR COVE 113-41	AK	NSRA	10,132	106,697	05/23/91	06/15/94	RANDOM	KODIAK	COMMERCIAL				
1994	01708	180354	91	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	85,114	1,100,899	06/10/92	06/15/94	RANDOM	KODIAK	COMMERCIAL				
1994	01709	180248	90	CHINOOK	CLAYOQUOT CDP	KENNEDY LAKE	BC	CDFO	26,258	128,115	06/07/91	06/15/94	RANDOM	KODIAK	COMMERCIAL				
1994	01710	075626	90	CHINOOK	DEXTER PONDS HATCHERY	SANTIAM R, S FK	OR	ODFW	158,403	478,559	11/13/91	06/15/94	RANDOM	KODIAK	COMMERCIAL				
1994	01712	021208	90	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	26,147	1,779,694	06/07/91	06/16/94	RANDOM	KODIAK	COMMERCIAL				
1994	01713	043646	90	CHINOOK	MEDVEJIE	BEAR COVE 113-41	AK	NSRA	10,359	137,290	05/21/92	06/16/94	RANDOM	KODIAK	COMMERCIAL				

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Year	Head Number	Tag Code	BR YR	Recovered Species	Hatchery or Wild Stock	Release Site	Release State	Agency	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Source Contrib
1994	01714	021318	90	CHINOOK	CONUMA RIVER	CONUMA RIVER	BC	CDFO	27,562	728,365	05/23/91	06/16/94	RANDOM	KODIAK	COMMERCIAL				
1994	01715	180444	91	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	27,481	249,921	05/19/92	06/16/94	RANDOM	KODIAK	COMMERCIAL				
1994	01716	180459	91	CHINOOK	NITINAT RIVER	NITINAT RIVER	BC	CDFO	29,265	1,429,838	05/15/92	06/16/94	RANDOM	KODIAK	COMMERCIAL				
1994	01717	180802	91	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,540	844,449	05/22/92	06/16/94	RANDOM	KODIAK	COMMERCIAL				
1994	01718	043626	89	CHINOOK	MEDVEJIE	BEAR COVE 113-41	AK	NSRA	10,358	37,065	05/23/91	06/16/94	RANDOM	KODIAK	COMMERCIAL				
1994	01719	180248	90	CHINOOK	CLAYOQUOT CDP	KENNEDY LAKE	BC	CDFO	26,258	128,115	06/07/91	06/16/94	RANDOM	KODIAK	COMMERCIAL				
1994	01720	021051	91	CHINOOK	MARBLE RIVER PIP	MARBLE RIVER	BC	CDFO	21,357	78,379	06/12/92	06/16/94	RANDOM	KODIAK	COMMERCIAL				
1994	01721	021050	91	CHINOOK	MARBLE RIVER PIP	MARBLE RIVER	BC	CDFO	21,505	78,433	06/12/92	06/16/94	RANDOM	KODIAK	COMMERCIAL				
1994	01722	180341	91	CHINOOK	SHUSWAP RIVER	SHUSWAP R LOWER	BC	CDFO	50,589	241,120	04/16/92	06/16/94	RANDOM	KODIAK	COMMERCIAL				
1994	01723	043705	90	CHINOOK	NEETS BAY	NEETS BAY 101-90	AK	SSRA	10,252	259,718	05/27/92	06/16/94	RANDOM	KODIAK	COMMERCIAL				
1994	01724	180462	91	CHINOOK	NITINAT RIVER	NITINAT RIVER	BC	CDFO	23,927	464,947	05/26/92	06/16/94	RANDOM	KODIAK	COMMERCIAL				
1994	01726	020130	89	CHINOOK	CLAYOQUOT CDP	KENNEDY R LOWER	BC	CDFO	26,979	51,942	06/07/90	06/19/94	RANDOM	KODIAK	COMMERCIAL	SEINE	257		
1994	01728	021533	90	CHINOOK	KITIMAT RIVER	KITIMAT UPPER	BC	CDFO	53,806	649,206	05/13/91	06/21/94	RANDOM	KODIAK	COMMERCIAL	SEINE	257		
1994	01730	021553	90	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	33,298	1,104,131	06/07/91	06/21/94	RANDOM	KODIAK	COMMERCIAL	SEINE	257		
1994	01731	020249	89	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	25,310	330,296	06/07/90	06/21/94	RANDOM	KODIAK	COMMERCIAL	SEINE	257		
1994	01733	021428	90	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	23,746	366,651	06/13/91	06/23/94	RANDOM	KODIAK	COMMERCIAL				
1994	01734	032209	89	CHINOOK	LITTLE PORT WALTER	L PORT WALTER 109-10	AK	NMFS	12,168	12,454	05/10/91	06/23/94	RANDOM	KODIAK	COMMERCIAL				
1994	01735	180805	91	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	27,238	685,860	05/26/92	06/22/94	RANDOM	KODIAK	COMMERCIAL				
1994	01736	180826	91	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	58,645	258,585	05/27/92	06/22/94	RANDOM	KODIAK	COMMERCIAL				
1994	01738	021546	90	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	52,098	585,398	05/27/91	06/22/94	RANDOM	KODIAK	COMMERCIAL				
1994	01739	180827	91	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	57,377	479,003	06/10/92	06/22/94	RANDOM	KODIAK	COMMERCIAL				
1994	01740	180229	90	CHINOOK	ROBERTSON CREEK	TOQUART RIVER	BC	CDFO	26,106	26,370	05/24/91	06/22/94	RANDOM	KODIAK	COMMERCIAL				
1994	01742	634117	90	CHINOOK	HUMPTULIPS HATCHERY	STEVENS CREEK	WA	WDFW	207,589	212,259	07/10/91	06/22/94	RANDOM	KODIAK	COMMERCIAL				
1994	01744	043604	89	CHINOOK	CRYSTAL LK/EARL WEST	EARL WEST COV 107-40	AK	ADFG	20,103	158,880	05/25/91	06/22/94	RANDOM	KODIAK	COMMERCIAL				
1994	01745	180458	91	CHINOOK	NITINAT RIVER	NITINAT RIVER	BC	CDFO	31,410	1,178,854	05/05/92	07/07/94	RANDOM	KODIAK	COMMERCIAL	SEINE			
1994	01746	180248	90	CHINOOK	CLAYOQUOT CDP	KENNEDY LAKE	BC	CDFO	26,258	128,115	06/07/91	07/07/94	RANDOM	KODIAK	COMMERCIAL	SEINE			
1994	01747	180443	91	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	26,989	245,447	05/19/92	07/07/94	RANDOM	KODIAK	COMMERCIAL	SEINE			
1994	01748	180837	91	CHINOOK	SNOOTLI CREEK	SALLOOMT RIVER	BC	CDFO	59,876	70,177	07/12/92	07/07/94	RANDOM	KODIAK	COMMERCIAL	SEINE			
1994	01749	043647	90	CHINOOK	MEDVEJIE	BEAR COVE 113-41	AK	NSRA	9,598	137,295	05/15/92	07/07/94	RANDOM	KODIAK	COMMERCIAL	SEINE			
1994	01750	180354	91	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	85,114	1,100,899	06/10/92	07/07/94	RANDOM	KODIAK	COMMERCIAL	SEINE			
1994	01751	021319	90	CHINOOK	CONUMA RIVER	CONUMA RIVER	BC	CDFO	25,551	675,221	05/23/91	07/07/94	RANDOM	KODIAK	COMMERCIAL	SEINE			
1994	01752	021545	90	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	51,234	469,192	05/02/91	07/08/94	RANDOM	KODIAK	COMMERCIAL			254	
1994	01753	020517	89	CHINOOK	MASSET CDP	YAKOUN RIVER	BC	CDFO	25,402	25,402	06/25/90	07/08/94	RANDOM	KODIAK	COMMERCIAL			254	
1994	01754	021553	90	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	33,298	1,104,131	06/07/91	06/28/94	SELECT	KODIAK	COMMERCIAL	SEINE	257-20		
1994	01755	021549	90	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	33,896	863,664	06/05/91	07/06/94	RANDOM	KODIAK	COMMERCIAL	SEINE	257-20		
1994	01756	020128	89	CHINOOK	CLAYOQUOT CDP	KENNEDY R LOWER	BC	CDFO	26,873	51,836	06/07/90	07/06/94	RANDOM	KODIAK	COMMERCIAL	SEINE	257-20		
1994	01757	020129	89	CHINOOK	CLAYOQUOT CDP	KENNEDY R LOWER	BC	CDFO	27,258	52,222	06/07/90	07/06/94	RANDOM	KODIAK	COMMERCIAL	SEINE	257-20		
1994	01758	082853	90	CHINOOK	NITINAT RIVER	NITINAT LAKE	BC	CDFO	5,541	8,193	06/13/91	07/06/94	RANDOM	KODIAK	COMMERCIAL	SEINE	257-20		
1994	01761	024940	89	CHINOOK	GOLD RIVER PIP	GOLD RIVER	BC	CDFO	28,636	160,644	05/31/90	07/21/94	RANDOM	KODIAK	COMMERCIAL	GILLNET	254		
1994	01762	180201	90	CHINOOK	GOLD RIVER PIP	GOLD RIVER	BC	CDFO	29,209	29,654	05/29/91	07/21/94	RANDOM	KODIAK	COMMERCIAL	GILLNET	254-10		
1994	01763	180203	90	CHINOOK	GOLD RIVER PIP	GOLD RIVER	BC	CDFO	27,070	44,595	06/08/91	07/28/94	RANDOM	KODIAK	COMMERCIAL	SEINE			
1994	01764	180327	90	CHINOOK	NITINAT RIVER	NITINAT RIVER	BC	CDFO	55,109	1,520,236	06/11/91	07/28/94	RANDOM	KODIAK	COMMERCIAL	SEINE			
1994	01765	021553	90	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	33,298	1,104,131	06/07/91	08/04/94	RANDOM	KODIAK	COMMERCIAL	SEINE	257-20		
1994	01766	020614	90	CHINOOK	SOOKE RIVER PIP	SOOKE RIVER	BC	CDFO	21,262	21,477	06/14/91	08/06/94	RANDOM	KODIAK	COMMERCIAL	SEINE	257		
1994	61881	020517	89	CHINOOK	MASSET CDP	YAKOUN RIVER	BC	CDFO	25,402	25,402	06/25/90	05/28/94	RANDOM	KODIAK	SPORT		259-40		
1994	65751	021523	90	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	18,955	309,014	06/12/91	08/15/94	RANDOM	KODIAK	SPORT		259-40	726	
1994	65701	180431	91	CHINOOK	KITIMAT RIVER	HIRSCH CREEK	BC	CDFO	28,463	65,763	05/04/92	08/15/94	RANDOM	KODIAK	SPORT		259-40	632	
1994	81113	311953	89	CHINOOK	WALLY NOERENBERG	WHITTIER+CORDOVA	AK	PWSA	10,008	169,549	05/28/91	06/03/94	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212		45.98
1994	81115	075923	91	CHINOOK	WILLAMETTE HATCHERY	WILLAMETTE R. M FK-2	OR	ODFW	31,106	38,211	03/12/93	06/06/94	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	510	2.91
1994	81118	312045	90	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	6,490	274,754	06/08/92	06/10/94	RANDOM	VALDEZ	COST RECOVERY		223-40	638	125.56
1994	81212	311947	89	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	30,772	241,348	05/28/91	06/10/94	RANDOM	VALDEZ	COST RECOVERY		223-40	883	23.26

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Year	Head Number	Tag Code	BR YR	Recovered Species	Hatchery or Wild Stock	Release Site	Release State	Agency	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Source Contrib
1994	81213	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	06/10/94	RANDOM	VALDEZ	COST RECOVERY			854	11.37
1994	81214	311947	89	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	30,772	241,348	05/28/91	06/10/94	RANDOM	VALDEZ	COST RECOVERY		223-40	843	23.26
1994	81024	312103	91	CHINOOK	FORT RICHARDSON	DECEPTION CR 247-41	AK	ADFG	33,464	179,724	06/09/92	06/14/94	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	594	13.52
1994	81403	043830	90	CHINOOK	GASTINEAU	GASTINEAU CH 111-40	AK	DIPC	29,894	191,765	10/22/92	06/20/94	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	641	4.44
1994	81150	180354	91	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	85,114	1,100,899	06/10/92	06/20/94	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	585	8.95
1994	81172	043338	89	CHINOOK	(W) TAHINI R	TAHINI R 115-32	AK	ADFG	1,403	1,403	10/08/90	06/23/94	RANDOM	VALDEZ	COST RECOVERY		221-61	818	0.17
1994	81360	181223	92	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	57,949	495,022	06/10/93	06/29/94	RANDOM	VALDEZ	COST RECOVERY		221-62	338	2.14
1994	81363	181222	92	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	61,002	518,559	06/10/93	06/30/94	RANDOM	VALDEZ	COMMERCIAL	SEINE	221-60	323	3.97
1994	81713	312045	90	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	6,490	274,754	06/08/92	07/12/94	RANDOM	VALDEZ	COMMERCIAL	GILLNET	223-40	658	54.44
1994	82549	043926	91	CHINOOK	MEDVEJE	BEAR COVE 113-41	AK	NSRA	9,277	129,350	05/14/93	07/17/94	RANDOM	VALDEZ	COMMERCIAL	SEINE	221-60	347	6.11
1994	83177	180526	91	CHINOOK	NANAIMO RIVER CDP	NANAIMO RIVER	BC	CDFO	27,406	193,546	05/28/92	07/27/94	RANDOM	VALDEZ	COST RECOVERY		223-40	613	
1994	84184	043657	90	CHINOOK	HIDDEN FALLS	TAIYA INLET 115-34	AK	NSRA	9,992	10,032	05/20/92	08/05/94	RANDOM	VALDEZ	COMMERCIAL	SEINE	221-50	651	
1994	89116	180855	92	CHINOOK	SHUSWAP RIVER	SHUSWAP R LOWER	BC	CDFO	73,321	403,000	05/06/93	08/19/94	RANDOM	VALDEZ	COMMERCIAL	SEINE	223-40	313	7.40
1994	71063	311947	89	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	30,772	241,348	05/28/91	06/09/94	RANDOM	WHITTIER	COST RECOVERY		223-40	782	23.26
1994	73117	312045	90	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	6,490	274,754	06/08/92	07/01/94	RANDOM	WHITTIER	COST RECOVERY		223-40	660	
1994	73186	043658	90	CHINOOK	HIDDEN FALLS	TAIYA INLET 115-34	AK	NSRA	9,629	9,668	05/20/92	07/05/94	RANDOM	WHITTIER	COMMERCIAL	GILLNET	223-40	572	1.67
1994	73297	312045	90	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	6,490	274,754	06/08/92	07/08/94	RANDOM	WHITTIER	COMMERCIAL	GILLNET	223-40	685	70.57
1994	73299	311905	88	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	31,717	121,657	06/08/90	07/08/94	RANDOM	WHITTIER	COMMERCIAL	GILLNET	223-40	854	6.39
1994	73364	311947	89	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	30,772	241,348	05/28/91	07/11/94	RANDOM	WHITTIER	COMMERCIAL			924	
1994	73517	312045	90	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	6,490	274,754	06/08/92	07/19/94	RANDOM	WHITTIER	COMMERCIAL	GILLNET	223-40	630	14.10
1994	73643	044027	91	CHINOOK	CRYSTAL LK/EARL WEST	EARL WEST COV 107-40	AK	ADFG	23,455	208,290	05/14/93	07/20/94	RANDOM	WHITTIER	COMMERCIAL	SEINE	221-60	436	3.89
1994	73768	635010	92	CHINOOK	PRIEST RAPIDS (FORME	COLUMBIA RIVER AT PR	WA	WDFW	194,622	5,149,688	06/27/93	07/27/94	RANDOM	WHITTIER	COMMERCIAL	SEINE	221-60	363	6.11
1994	73778	044058	91	CHINOOK	HIDDEN FALLS	TAIYA INLET 115-34	AK	NSRA	10,907	11,233	05/22/93	07/27/94	RANDOM	WHITTIER	COMMERCIAL	SEINE	221-60	445	0.24
1994	77991	180439	91	CHINOOK	OWEKENO CDP	RIVERS INL SEAPENS	BC	CDFO	26,335	135,339	06/11/92	08/09/94	RANDOM	WHITTIER	COMMERCIAL			675	
1994	06001	075021	90	CHINOOK	WILLAMETTE HATCHERY	WILLAMETTE R M FK-1	OR	ODFW	28,547	354,478	11/14/91	06/29/94	RANDOM	CHIGNIK	COMMERCIAL	SEINE	271-10	688	
1994	06002	021545	90	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	51,234	469,192	05/02/91	06/29/94	RANDOM	CHIGNIK	COMMERCIAL	SEINE	271-10	692	
1994	06003	021545	90	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	51,234	469,192	05/02/91	07/01/94	RANDOM	CHIGNIK	COMMERCIAL	SEINE	272	678	
1994	06004	020127	89	CHINOOK	GOLD RIVER PIP	GOLD RIVER	BC	CDFO	26,590	158,170	05/31/90	07/01/94	RANDOM	CHIGNIK	COMMERCIAL	SEINE	272	812	
1994	06005	180202	90	CHINOOK	GOLD RIVER PIP	GOLD RIVER	BC	CDFO	26,674	27,358	06/04/91	07/01/94	RANDOM	CHIGNIK	COMMERCIAL	SEINE	272	718	
1994	06007	180203	90	CHINOOK	GOLD RIVER PIP	GOLD RIVER	BC	CDFO	27,070	44,595	06/08/91	07/02/94	RANDOM	CHIGNIK	COMMERCIAL	SEINE		705	
1994	06008	180201	90	CHINOOK	GOLD RIVER PIP	GOLD RIVER	BC	CDFO	29,209	29,654	05/29/91	07/02/94	RANDOM	CHIGNIK	COMMERCIAL	SEINE		750	
1994	06009	180202	90	CHINOOK	GOLD RIVER PIP	GOLD RIVER	BC	CDFO	26,674	27,358	06/04/91	07/02/94	RANDOM	CHIGNIK	COMMERCIAL	SEINE		833	
1994	06010	021546	90	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	52,098	585,398	05/27/91	07/02/94	RANDOM	CHIGNIK	COMMERCIAL	SEINE		753	
1995	60006	311734	89	CHINOOK	FORT RICHARDSON	DECEPTION CR 247-41	AK	ADFG	40,531	219,362	05/23/90	05/23/95	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	949	38.05
1995	60007	044058	91	CHINOOK	HIDDEN FALLS	TAIYA INLET 115-34	AK	NSRA	10,907	11,233	05/22/93	05/23/95	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	598	7.23
1995	60161	181224	92	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	54,413	766,667	06/10/93	05/23/95	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	608	99.05
1995	60164	021051	91	CHINOOK	MARBLE RIVER PIP	MARBLE RIVER	BC	CDFO	21,357	78,379	06/12/92	05/23/95	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	674	25.79
1995	60165	070128	92	CHINOOK	WILLAMETTE HATCHERY	WILLAMETTE R M FK-2	OR	ODFW	20,521	41,760	02/28/94	05/23/95	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	503	14.30
1995	60262	312307	92	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	19,734	394,606	05/25/94	05/26/95	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	475	140.57
1995	60258	312050	91	CHINOOK	WALLY NOERENBERG	WHITTIER-CORDOVA	AK	PWSA	4,964	85,677	06/11/93	05/26/95	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	717	121.33
1995	60035	044102	91	CHINOOK	CARROLL INLET	CARROLL INLET 101-45	AK	SSRA	53,794	536,240	05/18/93	06/02/95	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	671	123.31
1995	60285	043823	90	CHINOOK	CRYSTAL LAKE	CRYSTAL CR 106-44	AK	ADFG	29,641	343,030	05/14/92	06/06/95	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	585	242.97
1995	60343	070430	92	CHINOOK	MARION FORKS HATCHERY	SANTIAM R & N FK-1	OR	ODFW	13,347	240,979	03/02/94	06/06/95	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212-21	492	379.06
1995	60126	312046	90	CHINOOK	WALLY NOERENBERG	FLEMING SPIT 221-10	AK	PWSA	5,119	102,116	06/02/92	06/09/95	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	660	418.83
1995	60129	032219	90	CHINOOK	LITTLE PORT WALTER	L PORT WALTER 109-10	AK	NMFS	15,841	16,467	05/18/92	06/09/95	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	785	21.81
1995	60136	044062	92	CHINOOK	MEDVEJE	BEAR COVE 113-41	AK	NSRA	9,544	152,159	05/24/94	06/16/95	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	390	247.76
1995	63033	044062	92	CHINOOK	MEDVEJE	BEAR COVE 113-41	AK	NSRA	9,544	152,159	05/24/94	07/18/95	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	463	16.50
1995	63169	635040	92	CHINOOK	WASHOUGAL HATCHERY	WASHOUGAL RIVER	WA	WDFW	86,004	516,900	08/03/93	07/18/95	RANDOM	CORDOVA	COMMERCIAL	GILLNET		490	
1995	63083	075903	92	CHINOOK	CLACKAMAS HATCHERY	CLACKAMAS R	OR	ODFW	46,472	300,602	08/13/93	07/25/95	RANDOM	CORDOVA	COMMERCIAL	GILLNET	212	635	0.50
1995	60851	312051	91	CHINOOK	WALLY NOERENBERG	WHITTIER-CORDOVA	AK	PWSA	4,982	113,325	06/10/93	06/07/95	VOLUNT	CORDOVA	SPORT		221-10		

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Year	Head Number	Tag Code	BR YR	Recovered Species	Hatchery or Wild Stock	Release Site	Release State	Agency	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Source Contrib
1995	60852	312051	91	CHINOOK	WALLY NOERENBERG	WHITTIER+CORDOVA	AK	PWSA	4,982	113,325	06/10/93	06/28/95	VOLUNT	CORDOVA	SPORT		221-10		
1995	52664	312105	91	CHINOOK	WALLY NOERENBERG	LAKE BAY 223-40	AK	PWSA	13,663	273,429	06/03/93	08/14/95	RANDOM	CORDOVA	COST RECOVERY		223-40	725	
1995	52712	070240	92	CHINOOK	MCKENZIE RIVER HATCHERY	MCKENZIE R-1	OR	ODFW	144,006	158,024	03/02/94	08/17/95	RANDOM	CORDOVA	COMMERCIAL	SEINE	222	512	1.10
1995	64061	181539	93	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	25,235	1,604,067	05/18/94	08/06/95	SELECT	CORDOVA	COMMERCIAL	SEINE	226-30		
1995	62041	635015	92	CHINOOK	COWLITZ SALMON HATCHER	COWLITZ RIVER	WA	WDFW	194,073	4,152,100	06/22/93	07/11/95	SELECT	CORDOVA	COMMERCIAL	GILLNET	212	533	
1995	10001	180354	91	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	85,114	1,100,899	06/10/92	01/06/95	RANDOM	HOMER	SPORT		241	682	
1995	10002	180827	91	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	57,377	479,003	06/10/92	01/06/95	RANDOM	HOMER	SPORT		241	693	
1995	10003	180354	91	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	85,114	1,100,899	06/10/92	01/07/95	RANDOM	HOMER	SPORT		241	647	
1995	10004	021430	90	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	24,576	379,467	06/13/91	01/08/95	RANDOM	HOMER	SPORT		241	795	
1995	10005	180354	91	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	85,114	1,100,899	06/10/92	01/13/95	RANDOM	HOMER	SPORT		241	621	
1995	76519	180343	91	CHINOOK	SHUSWAP RIVER	SHUSWAP R. MIDDLE	BC	CDFO	49,844	410,875	05/13/92	08/29/95	SELECT	HOMER	SPORT		241		
1995	76518	180325	91	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	53,468	349,401	04/15/93	08/29/95	SELECT	HOMER	SPORT		241		
1995	76501	0401010303	90	CHINOOK	MEDVEJE	BEAR COVE 113-41	AK	NSRA	33,425	478,400	06/05/92	08/02/95	RANDOM	HOMER	SPORT		241	859	
1995	76508	180443	91	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	26,989	245,447	05/19/92	08/14/95	RANDOM	HOMER	SPORT		241	735	
1995	76505	044057	91	CHINOOK	HIDDEN FALLS	TAIYA INLET 115-34	AK	NSRA	10,875	11,200	05/22/93	08/09/95	RANDOM	HOMER	SPORT		241	735	
1995	76502	180354	91	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	85,114	1,100,899	06/10/92	08/06/95	RANDOM	HOMER	SPORT		241	735	
1995	76503	180248	90	CHINOOK	CLAYOQUOT CDP	KENNEDY LAKE	BC	CDFO	26,258	128,115	06/07/91	08/04/95	SELECT	HOMER	SPORT		241		
1995	76506	180354	91	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	85,114	1,100,899	06/10/92	08/14/95	RANDOM	HOMER	SPORT		241	780	
1995	76504	180462	91	CHINOOK	NITINAT RIVER	NITINAT RIVER	BC	CDFO	23,927	464,947	05/26/92	08/08/95	RANDOM	HOMER	SPORT		241	733	
1995	76511	181540	93	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	26,535	1,038,210	05/27/94	08/14/95	RANDOM	HOMER	SPORT		241	406	
1995	76516	180827	91	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	57,377	479,003	06/10/92	08/27/95	RANDOM	HOMER	SPORT		241	791	
1995	76515	021048	91	CHINOOK	MARBLE RIVER PIP	MARBLE RIVER	BC	CDFO	20,702	77,630	06/12/92	08/26/95	RANDOM	HOMER	SPORT		241	774	
1995	76507	180354	91	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	85,114	1,100,899	06/10/92	08/14/95	RANDOM	HOMER	SPORT		241	786	
1995	76514	181524	93	CHINOOK	NITINAT RIVER	NITINAT LAKE	BC	CDFO	25,597	1,170,282	05/12/94	08/21/95	RANDOM	HOMER	SPORT		241	488	
1995	76517	180827	91	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	57,377	479,003	06/10/92	08/28/95	RANDOM	HOMER	SPORT		241-15	842	
1995	76512	180354	91	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	85,114	1,100,899	06/10/92	08/20/95	RANDOM	HOMER	SPORT		241	765	
1995	76513	180827	91	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	57,377	479,003	06/10/92	08/21/95	RANDOM	HOMER	SPORT		241	703	
1995	99056	021521	90	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	22,021	354,945	06/12/91	03/29/95	RANDOM	HOMER	SPORT		241	851	
1995	99052	021545	90	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	51,234	469,192	05/02/91	02/11/95	RANDOM	HOMER	SPORT		241	810	
1995	99051	180354	91	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	85,114	1,100,899	06/10/92	02/11/95	RANDOM	HOMER	SPORT		241	725	
1995	99055	180437	91	CHINOOK	OWEKENO CDP	RIVERS INL SEAPENS	BC	CDFO	27,832	63,870	05/31/92	02/28/95	VOLUNT	HOMER	SPORT		241		
1995	99054	180827	91	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	57,377	479,003	06/10/92	02/28/95	VOLUNT	HOMER	SPORT		241		
1995	99053	180826	91	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	58,645	258,585	05/27/92	02/28/95	VOLUNT	HOMER	SPORT		241		
1995	99057	180827	91	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	57,377	479,003	06/10/92		VOLUNT	HOMER	SPORT		241		
1995	10174	312145	90	CHINOOK	CROOKED CREEK	HOMER SPIT 241-13	AK	ADFG	20,614	126,130	07/10/92		VOLUNT	HOMER	SPORT		241		
1995	10745	312316	93	CHINOOK	ELMENDORF	HOMER SPIT 241-13	AK	ADFG	25,509	163,963	06/14/94	07/20/95	VOLUNT	HOMER	SPORT		241-13	400	
1995	10746	180805	91	CHINOOK	ROBERTSON CREEK	ROBERTSON CREEK	BC	CDFO	27,238	685,860	05/26/92		VOLUNT	HOMER	SPORT		244-70		
1995	10747	312316	93	CHINOOK	ELMENDORF	HOMER SPIT 241-13	AK	ADFG	25,509	163,963	06/14/94	06/28/95	VOLUNT	HOMER	SPORT		241-13	345	
1995	10748	180354	91	CHINOOK	SNOOTLI CREEK	ATNARKO R UPPER	BC	CDFO	85,114	1,100,899	06/10/92	06/28/95	VOLUNT	HOMER	SPORT		244-70		
1995	10750	180248	90	CHINOOK	CLAYOQUOT CDP	KENNEDY LAKE	BC	CDFO	26,258	128,115	06/07/91	07/15/95	VOLUNT	HOMER	SPORT		232-01		
1995	10752	070253	92	CHINOOK	WILLAMETTE HATCHERY	WILLAMETTE R. M FK-1	OR	ODFW	26,170	278,005	11/08/93	07/18/95	VOLUNT	HOMER	SPORT		241		
1995	10753	180224	90	CHINOOK	ROBERTSON CREEK	CHINA CREEK	BC	CDFO	26,202	26,202	05/22/91	07/18/95	VOLUNT	HOMER	SPORT		241		
1995	10755	180328	90	CHINOOK	NITINAT RIVER	NITINAT RIVER	BC	CDFO	54,724	2,137,027	05/27/91	07/24/95	VOLUNT	HOMER	SPORT		241		
1995	10756	043934	91	CHINOOK	NEETS BAY	NEETS BAY 101-90	AK	SSRA	4,616	45,985	05/13/93	07/24/95	VOLUNT	HOMER	SPORT		241		
1995	10759	044102	91	CHINOOK	CARROLL INLET	CARROLL INLET 101-45	AK	SSRA	53,794	536,240	05/18/93	08/20/95	SELECT	HOMER	SPORT		241		
1995	10760	021419	91	CHINOOK	SHOTBOLT BAY	CHUCKWALLA RIVER	BC	CDFO	21,200	23,237	05/28/92	09/20/95	VOLUNT	HOMER	SPORT		241-15		
1995	10773	312145	90	CHINOOK	CROOKED CREEK	HOMER SPIT 241-13	AK	ADFG	20,614	126,130	07/10/92	08/11/95	SELECT	HOMER	SPORT		241-13		
1995	10776	180827	91	CHINOOK	SNOOTLI CREEK	ATNARKO R LOWER	BC	CDFO	57,377	479,003	06/10/92	08/08/95	SELECT	HOMER	SPORT		241		
1995	10779	312159	92	CHINOOK	FORT RICHARDSON	NINILCHIK R 244-20	AK	ADFG	42,960	184,585	06/08/93	06/20/95	VOLUNT	HOMER	SPORT		244-70		
1995	76651	043918	91	CHINOOK	MEDVEJE	BEAR COVE 113-41	AK	NSRA	10,770	64,795	06/02/93	09/03/95	RANDOM	KODIAK	SPORT		259-21	832	
1995	95206	180806	92	CHINOOK	KITIMAT RIVER	HIRSCH CREEK	BC	CDFO	28,253	59,995	05/07/93	06/23/95	RANDOM	VALDEZ	COST RECOVERY		221-61	564	3.18

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Year	Head Number	Tag Code	BR YR <sup>a</sup>	Recovered Species	Hatchery or Wild Stock	Release Site	Release State <sup>b</sup>	Agency <sup>c</sup>	Number Marked	Number Released	Date of Release	Recovery Date	Sample Type	Port	Sample Source	Gear	District Subdistrict	Length	Pref Source Contrib <sup>d</sup>
1995	97205	070354	92	CHINOOK	CLACKAMAS HATCHERY	SANDY R	OR	ODFW	25,177	344,893	03/22/94	07/18/95	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	539	14.18
1995	97444	070132	92	CHINOOK	WILLAMETTE HATCHERY	WILLAMETTE R. M FK-2	OR	ODFW	24,900	51,136	02/28/94	07/18/95	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	530	2.12
1995	97445	070240	92	CHINOOK	MCKENZIE RIVER HATCHERY	MCKENZIE R-1	OR	ODFW	144,006	158,024	03/02/94	07/18/95	RANDOM	VALDEZ	COMMERCIAL	GILLNET	212	568	1.14
1995	97053	635048	93	CHINOOK	NORTH TOUTLE HATCHERY	GREEN RIVER (TOUTLE	WA	WDFW	91,687	2,044,500	06/20/94	08/04/95	RANDOM	VALDEZ	COMMERCIAL	SEINE	226	366	7.43
1995	96971	180632	93	CHINOOK	CONUMA RIVER	CONUMA ESTUARY	BC	CDFO	26,988	349,738	05/13/94	08/06/95	RANDOM	VALDEZ	COMMERCIAL	SEINE	276	361	12.96
1995	97658	043651	91	CHINOOK	MEDVEJE	BEAR COVE 113-41	AK	NSRA	7,941	112,527	05/14/93	08/05/95	RANDOM	VALDEZ	COMMERCIAL		223-30	626	
1995	97693	044238	92	CHINOOK	CRYSTAL LAKE	CRYSTAL CR 106-44	AK	ADFG	25,255	236,601	05/13/94	08/08/95	RANDOM	VALDEZ	COMMERCIAL	GILLNET	225-30	425	5.76
1995	64142	0401020515	91	CHINOOK	CRYSTAL LAKE	FARRAGUT LK 110-14	AK	ADFG	23,431	32,856	06/11/92	08/05/95	RANDOM	WHITTIER	COMMERCIAL	GILLNET	223-30	630	0.88
1995	99062	311851	89	CHINOOK	FORT RICHARDSON	DECEPTION CR 247-41	AK	ADFG	39,561	219,432	05/23/90	04/29/95	VOLUNT	NINILCHIK	SPORT		244-70		
1995	99063	312146	90	CHINOOK	CROOKED CREEK	SEWARD LAGOON 231-30	AK	ADFG	21,593	146,993	06/30/92	07/25/95	RANDOM	NINILCHIK	SPORT		244-70		
1995	99064	312206	91	CHINOOK	CROOKED CREEK	TWIN FALLS CR 244-70	AK	ADFG	28,392	100,000	07/21/93	07/24/95	SELECT	NINILCHIK	SPORT		244-70		

<sup>a</sup> BR YR = brood year

<sup>b</sup> Release State: also includes Canadian provinces

<sup>c</sup> AAI = Alaska Aquaculture, Inc.

AKI = Armstrong Keta, Inc.

CDFO = Canadian Department of Fisheries and Oceans

COOP = Washington Dept. of Fish and Wildlife - Cooperative

DIPC = Douglas Island Pink and Chum, Inc.

FWS = U.S. Fish and Wildlife Service

MAKA = Makah Tribe

MIC = Metlakatla Indian Community

NSRA = N. SE Regional Aquaculture Assn.

<sup>d</sup> Pref Source Contrib = Preferred source contribution estimates

ODFW = Oregon Department of Fish and Wildlife

PWSA = Prince William Sound Aquaculture Assn.

QDNR = Quinault Department of Natural Resources

QUIL = Quileute Tribe

SSRA = S. SE Regional Aquaculture Assn.

SJ = Sheldon Jackson College

UI = University of Idaho

WDF = Washington Department of Fisheries

WDFW = Washington Department Fish and Wildlife

## **APPENDIX C**

**Appendix C1.-Subset of the Alaska Department of Fish and Game Statewide Coded Wire Tag database used for analyses in this report. Includes all chinook salmon with coded wire tags recovered by NMFS observers from federally-managed marine fisheries of southcentral Alaska, 1980-1995.**

Tag Code	Replicate	Brood	Release Site	State	Agency*	Total		Release Date(mm/yy)	Recovery Date(ymmdd)	Latitude		Longitude		Length (mm)	Weight (g)	Gonad Weight(g)	Sex	Gear	Species	
						# Tagged	# Released			Deg.	Min.	Deg.	Min.							
CeDy		79	COL. R. MCNARY	OR	NMFS	45,582	45,582	0780	840205	57	7	N	155	25	630	3560		F	TRAWL	CHINOOK
020128		89	KENNEDY R. LWR	BC	CDFO	26,873	51,836	0690	930209	57	47	N	154	7	580	2400		M	TRAWL	CHINOOK
020230		89	CHINA CR	BC	CDFO	17,104	17,104	0590	920204	57	30	N	153	W	470	1140		F	TRAWL	CHINOOK
020250		89	ATNARKO R. LWR	BC	CDFO	24,780	324,250	0690	930623	57	16	N	152	32	870	9300		F	TRAWL	CHINOOK
020261		89	QUESNEL R	BC	CDFO	75,744	75,898	1090	930413	56	9	N	153	59	620	2800		F	TRAWL	CHINOOK
020310		90	KITIMAT R. LOWER	BC	CDFO	110,660	1,337,756	0592	940204	57		N	154	W	550	2000		F	TRAWL	CHINOOK
020313		91	RAFT RIVER	BC	CDFO	76,220	145,850	0592	950603	57	20	N	152	30	746	5700		F	TRAWL	CHINOOK
020313		90	RAFT R	BC	CDFO	76,220	145,850	0592	940206	57		N	154	W	510	1500		F	TRAWL	CHINOOK
020314		91	ADAMS R. UPPER	BC	CDFO	75,839	105,850	0592	950306	57	2	N	152	26	710	5200		F	TRAWL	CHINOOK
020314		91	ADAMS R. UPPER	BC	CDFO	75,839	105,850	0592	940217	57		N	152	W	520	1800		F	TRAWL	CHINOOK
020346		89	ATNARKO SPAWING C	BC	CDFO	26,297	57,974	0492	940622	58		N	153	W	590	2400		F	TRAWL	CHINOOK
020434		89	KITIMAT R. LWR	BC	CDFO	27,269	640,693	0590	930611	57	24	N	152	34	810	6100		F	TRAWL	CHINOOK
020438		89	HIRSCH CR	BC	CDFO	33,908	66,742	0590	930217	57	50	N	154	2	650	4100		F	TRAWL	CHINOOK
020442		89	NAHMINT ESTUARY	BC	CDFO	32,634	56,862	0590	921002	56	48	N	152	22	650	3000	10	M	TRAWL	CHINOOK
020462		89	MARBLE R	BC	CDFO	27,509	32,450	0690	930319	58	21	N	148	32	710	4200		M	TRAWL	CHINOOK
020518		89	YAKOUN R	BC	CDFO	25,983	26,245	0690	920709	56	53	N	155	5	520	1850	2	F	TRAWL	CHINOOK
020612		90	SOOKE R	BC	CDFO	20,830	20,935	0691	940228	54		N	164	W	660	2950		F	TRAWL	CHINOOK
020630		89	NITINAT R	BC	CDFO	27,145	571,630	0590	920312	56	35	N	152	18	500	1700		F	TRAWL	CHINOOK
020636		89	NITINAT R	BC	CDFO	28,458	1,252,226	0690	930607	57	57	N	151	56	770	6000		F	TRAWL	CHINOOK
020657		89	CONUMA ESTUARY	BC	CDFO	27,057	163,870	0590	921004	57	2	N	152	31	690	4600		F	TRAWL	CHINOOK
020657		89	CONUMA R - ESTUARY	BC	CDFO	27,057	163,870	0590	930714	57	52	N	152	21	770	5860	200	F	TRAWL	CHINOOK
020658		89	CONUMA ESTUARY	BC	CDFO	26,517	160,602	0590	920427	57	45	N	150	10	530			F	TRAWL	CHINOOK
020658		89	CONUMA ESTUARY	BC	CDFO	26,517	160,602	0590	920613	57	15	N	152	30	652	4200		M	TRAWL	CHINOOK
020742		89	COLDWATER R	BC	CDFO	24,961	36,167	0491	921002	57	6	N	152	30	590	3420		M	TRAWL	CHINOOK
020754		90	WEST ROAD R	BC	CDFO	25,068	36,832	0491	930220	58	1	N	152	30	570	2200		F	TRAWL	CHINOOK
020756		90	WEST ROAD R	BC	CDFO	25,153	37,123	0491	930624	57	55	N	151	55	543	1840		F	TRAWL	CHINOOK
020818		89	NAHMINT R	BC	CDFO	40,743	57,817	0590	920129	58	10	N	153	24	500	1850		F	TRAWL	CHINOOK
020818		89	NAHMINT R	BC	CDFO	40,743	57,817	0590	930209	57	46	N	154	9	720	5000		F	TRAWL	CHINOOK
021010		91	KITSUMKALUM R. LWR	BC	CDFO	25,634	28,025	0592	941007	57		N	152	W	650	3180	50	M	TRAWL	CHINOOK
021042		91	KILBELLA BAY	BC	CDFO	16,127	22,338	0692	950603	57	12	N	152	33	803	6800		F	TRAWL	CHINOOK
021048		91	MARBLE R	BC	CDFO	20,702	77,630	0692	940204	57		N	154	W	540	1750		M	TRAWL	CHINOOK
021050		90	MARBLE R	BC	CDFO	21,505	78,433	0692	940206	57		N	154	W	500	1250		M	TRAWL	CHINOOK
021147		90	CLEARWATER R. UP'D	BC	CDFO	24,416	33,070	0691	930708	57	59	N	151	59	608	2700		M	TRAWL	CHINOOK
021208		90	ROBERTSON CR	BC	CDFO	26,147	1,779,694	0691	940219	54		N	164	W	650	3500		F	TRAWL	CHINOOK
021316		90	CONUMA R	BC	CDFO	26,555	27,098	0591	930218	58	7	N	153	22	450	1150		F	TRAWL	CHINOOK
021317		90	CONUMA R	BC	CDFO	28,611	29,196	0591	930216	57	48	N	154	7	460	1300		F	TRAWL	CHINOOK
021317		90	CONUMA R	BC	CDFO	28,611	29,196	0591	930218	58	7	N	153	22	520	1850		F	TRAWL	CHINOOK
021317		90	CONUMA R	BC	CDFO	28,611	29,196	0591	950702	58	4	N	153	25	880	7710		F	TRAWL	CHINOOK
021319		90	CONUMA R	BC	CDFO	25,551	675,221	0591	930211	57	50	N	154	1	500	1600		M	TRAWL	CHINOOK
021457		90	NITINAT R	BC	CDFO	27,738	592,967	0591	930216	57	59	N	153	38	510	1800		M	TRAWL	CHINOOK
021458		89	RIVERS INLET SEAPENS	BC	CDFO	26,777	149,070	0791	940609	58		N	153	W	772			F	TRAWL	CHINOOK
021516		90	DEEP COVE	BC	CDFO	26,522	60,074	0591	930218	58	12	N	153	17	540	2100		F	TRAWL	CHINOOK
021518		90	HIRSCH CR	BC	CDFO	26,721	45,060	0491	930213	57	49	N	153	39	590	2200		F	TRAWL	CHINOOK
021520		90	HIRSCH CR	BC	CDFO	27,005	45,352	0591	930217	57	43	N	154	10	570	2500		M	TRAWL	CHINOOK
021522		90	ATNARKO R. LWR	BC	CDFO	25,368	405,317	0691	930217	57	7	N	153	32	500	1600		F	TRAWL	CHINOOK
021533		90	KITIMAT R. UPR	BC	CDFO	53,806	649,206	0591	940703	58		N	152	W	800	8200		F	TRAWL	CHINOOK
021535		90	EAGLE R	BC	CDFO	54,447	160,385	0591	930607	57	55	N	152	0	644	3200		F	TRAWL	CHINOOK
021545		90	CONUMA ESTUARY	BC	CDFO	51,234	469,192	0591	930215	57	57	N	153	46	500	1800		M	TRAWL	CHINOOK
021545		90	CONUMA ESTUARY	BC	CDFO	51,234	469,192	0591	930221	57	55	N	153	49	490	1500		F	TRAWL	CHINOOK
021545		90	CONUMA ESTUARY	BC	CDFO	51,234	469,192	0591	930221	57	54	N	153	49	480	1450		F	TRAWL	CHINOOK
021545		90	CONUMA ESTUARY	BC	CDFO	51,234	469,192	0591	930224	58	0	N	153	W	490	1300		F	TRAWL	CHINOOK
021546		90	CONUMA ESTUARY	BC	CDFO	52,098	585,398	0591	921004	57	44	N	154	5	490	1850		F	TRAWL	CHINOOK
021546		90	CONUMA ESTUARY	BC	CDFO	52,098	585,398	0591	930218	57	53	N	153	55	480	1400		F	TRAWL	CHINOOK
021546		90	CONUMA ESTUARY	BC	CDFO	52,098	585,398	0591	930221	57	54	N	153	49	W			F	TRAWL	CHINOOK
021546		90	CONUMA ESTUARY	BC	CDFO	52,098	585,398	0591	930222	57	50	N	154	0	530	2100		M	TRAWL	CHINOOK
021546		90	CONUMA ESTUARY	BC	CDFO	52,098	585,398	0591	940204	57		N	154	W	700	4400		F	TRAWL	CHINOOK
021546		90	CONUMA ESTUARY	BC	CDFO	52,098	585,398	0591	940204	57		N	154	W	640	2750		F	TRAWL	CHINOOK
021549		90	ROBERTSON CR	BC	CDFO	33,896	863,664	0691	930218	57	53	N	153	55	440	1000		F	TRAWL	CHINOOK

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Tag Code	Replicate	Brood	Release Site	State	Agency	Total		Release Date(mm/yy)	Recovery Date(vvmmdd)	Latitude		Longitude		Length (mm)	Weight (g)	Gonad Weight(g)	Sex	Gear	Species
						# Tagged	# Released			Deg.	Min.	Deg.	Min.						
021550		90	ROBERTSON CR	BC	CDFO	33,676	1,953,048	0691	930219	57	44	N	154	12	W	520	1900		F TRAWL CHINOOK
021550		90	ROBERTSON CR	BC	CDFO	33,676	1,953,048	0691	930224	58	13	N	153	21	W	550	2000		TRAWL CHINOOK
021550		90	ROBERTSON CR	BC	CDFO	33,676	1,953,048	0691	950120	57	45	N	154	9	W	780	6800		F TRAWL CHINOOK
021551		90	ROBERTSON CR	BC	CDFO	33,245	1,602,853	0691	930218	58	13	N	153	15	W	510	1550		F TRAWL CHINOOK
021552		90	ROBERTSON CR	BC	CDFO	32,863	732,870	0691	930209	58	8	N	153	24	W	540	2000		M TRAWL CHINOOK
021552		90	ROBERTSON CR	BC	CDFO	32,863	732,870	0691	930221	58	14	N	153	14	W	470	1700		TRAWL CHINOOK
021552		91	ROBERTSON CR	BC	CDFO	32,863	732,870	0691	940204	57		N	154		W	620	2500		F TRAWL CHINOOK
021553		90	ROBERTSON CR	BC	CDFO	33,298	1,104,131	0691	930219	57	44	N	154	12	W	530	2000		F TRAWL CHINOOK
021553		91	ROBERTSON CR	BC	CDFO	33,298	1,104,131	0691	940123	54		N	165		W	700	5400		M TRAWL CHINOOK
021557		90	BONAPARTE R	BC	CDFO	75,359	90,900	0491	921005	57	2	N	152	31	W	520			F TRAWL CHINOOK
021558		90	RAFT R	BC	CDFO	74,440	106,390	0591	930213	57	49	N	153	39	W	564	2600		F TRAWL CHINOOK
021558		90	RAFT R	BC	CDFO	74,440	106,390	0591	930414	56	10	N	153	59	W	540	2050		F TRAWL CHINOOK
021558		91	RAFT R	BC	CDFO	74,440	106,390	0591	940212	54		N	165		W	620	3600		F TRAWL CHINOOK
021560		90	KITIMAT R, LWR	BC	CDFO	85,955	1,549,722	0591	930215	57	58	N	153	38	W	570	2500		M TRAWL CHINOOK
021560		90	KITIMAT R, LWR	BC	CDFO	85,955	1,549,722	0591	930608	58	0	N	154	25	W	620	2800		M TRAWL CHINOOK
021661		80	ROBERTSON CR	BC	CDFO	151,278	9,106,259	0581	840224	57	21	N	155	36	W	620	3100	1	M TRAWL CHINOOK
021661		80	ROBERTSON CR	BC	CDFO	151,278	9,106,259	0581	840303	57	44	N	154	20	W	630	3400		M TRAWL CHINOOK
021717		84	STUART R	BC	CDFO	102,737	164,908	0585	861123	57	0	N	152	32	W	550	1900		F TRAWL CHINOOK
021835		80	BIRKENHEAD R	BC	CDFO	65,557	72,413	0481	840320	57	57	N	154	28	W	670	3300	1	M TRAWL CHINOOK
021863		82	SLIM CR	BC	CDFO	102,087	268,893	0483	841002	55	25	N	158	39	W	430			F TRAWL CHINOOK
021937		80	ROBERTSON CR	BC	CDFO	19,403	19,403	0581	840221	57	53	N	154	21	W	730	4900	5	F TRAWL CHINOOK
021951		80	KITSUMKALUM R	BC	CDFO	44,273	63,115	0681	841127	56	55	N	152	32	W	840	8700	50	F TRAWL CHINOOK
022141		81	KING CR, LOWER	BC	CDFO	24,552	27,951	0782	841016	56	53	N	152	25	W	560	2150	1	M TRAWL CHINOOK
022154		81	ATNARKO R, LWR	BC	CDFO	34,703	35,666	0682	840302	57	42	N	154	30	W	530	2300		F TRAWL CHINOOK
022154		81	ATNARKO R, LWR	BC	CDFO	34,703	35,666	0682	840725	57	20	N	151	19	W	640	4200	9	F TRAWL CHINOOK
022154		81	ATNARKO R, LWR	BC	CDFO	34,703	35,666	0682	841024	58	2	N	153	34	W	770	7500	50	F TRAWL CHINOOK
022159		81	CHILLIWACK R	BC	CDFO	48,188	57,844	0582	840224	57	11	N	155	46	W	660	3800	1	F TRAWL CHINOOK
022159		81	CHILLIWACK R	BC	CDFO	48,188	57,844	0582	840316	56	41	N	155	41	W	600	2200	1	M TRAWL CHINOOK
022201		82	BOWRON R	BC	CDFO	74,916	76,679	0483	841021	56	47	N	152	32	W	470	1810	1	M TRAWL CHINOOK
022203		81	CONUMA R	BC	CDFO	64,484	152,000	0682	840225	57	36	N	155	21	W	500	1500	1	F TRAWL CHINOOK
022203		81	CONUMA R	BC	CDFO	64,484	152,000	0682	841125	55	31	N	158	48	W	580	2640	8	F TRAWL CHINOOK
022215		80	COPPER R	BC	CDFO	18,701	18,998	0881	850202	56	21	N	156	15	W	670	3970	1	F TRAWL CHINOOK
022226		81	SAN JUAN R	BC	CDFO	97,454	187,527	0682	841114	56	48	N	152	23	W	690	5200	1	M TRAWL CHINOOK
022238		81	KAYON CR	BC	CDFO	15,555	16,675	0682	841104	56	37	N	152	30	W	630		4	M TRAWL CHINOOK
022260		82	QUESNEL R	BC	CDFO	66,972	68,339	0483	841020	56	50	N	152	28	W	530	2050	1	M TRAWL CHINOOK
022260		82	QUESNEL R	BC	CDFO	66,972	68,339	0483	841122	56	44	N	152	33	W	480	1480		M TRAWL CHINOOK
022305		81	SOOKE R	BC	CDFO	32,901	38,038	0682	840226	57	36	N	155	13	W	490	1420	1	F TRAWL CHINOOK
022305		81	SOOKE R	BC	CDFO	32,901	38,038	0682	840628	56	6	N	155	52	W	490	1700	6	F TRAWL CHINOOK
022305		81	SOOKE R	BC	CDFO	32,901	38,038	0682	841016	56	53	N	152	25	W	670	4150	50	F TRAWL CHINOOK
022313		81	KITSUMKALUM R	BC	CDFO	29,459	70,400	0582	841020	56	50	N	152	28	W	750	4850	1	F TRAWL CHINOOK
022317		81	SLIM CR	BC	CDFO	26,287	31,341	0782	841023	56	58	N	152	31	W	660	3150	20	M TRAWL CHINOOK
022321		81	DATE CR - KISPIOX R	BC	CDFO	30,978	31,341	0882	841023	56	58	N	152	31	W	550	2100	20	M TRAWL CHINOOK
022321		81	DATE CR - KISPIOX R	BC	CDFO	30,978	33,398	0882	841222	57	0	N	152	37	W	550	2200		M TRAWL CHINOOK
022338		81	COPPER R, UPPER	BC	CDFO	40,534	60,269	0882	841023	56	58	N	152	31	W	550	2000	20	M TRAWL CHINOOK
022354		81	ROBERTSON CR	BC	CDFO	16,374	17,511	0682	841114	56	48	N	152	23	W	660	4500	1	F TRAWL CHINOOK
022355		81	ROBERTSON CR	BC	CDFO	15,953	17,211	0682	840302	57	37	N	154	35	W	560	1950	1	M TRAWL CHINOOK
022356		81	ROBERTSON CR	BC	CDFO	18,549	19,613	0682	840325	57	57	N	154	30	W	570	1950	10	F TRAWL CHINOOK
022358		81	KING CR, UPPER	BC	CDFO	23,899	31,421	1082	841111	56	48	N	152	29	W	480	1550	1	F TRAWL CHINOOK
022360		82	STUART R	BC	CDFO	23,860	25,932	0483	841019	56	37	N	152	30	W	485	1850		F TRAWL CHINOOK
022360		82	STUART R	BC	CDFO	23,764	25,932	0483	841020	56	48	N	152	21	W	482	1600		M TRAWL CHINOOK
022360		82	STUART R	BC	CDFO	23,764	25,932	0483	841020	56	50	N	152	28	W	540	1950	1	M TRAWL CHINOOK
022360		82	STUART R	BC	CDFO	23,764	25,932	0483	841020	56	50	N	152	28	W	500	1600	1	M TRAWL CHINOOK
022360		82	STUART R	BC	CDFO	23,764	25,932	0483	841203	56	47	N	152	21	W	510	1800	17	F TRAWL CHINOOK
022361		82	STUART R	BC	CDFO	25,901	27,497	0483	841017	56	45	N	152	26	W	500	1550	1	M TRAWL CHINOOK
022361		82	STUART R	BC	CDFO	25,901	27,497	0483	841112	56	59	N	152	41	W	540	2100	1	M TRAWL CHINOOK
022405		81	ROBERTSON CR	BC	CDFO	51,797	6,375,242	0682	840222	57	50	N	154	43	W	520	1500	1	M TRAWL CHINOOK
022410		82	BOWRON R	BC	CDFO	72,346	102,892	0483	841114	56	48	N	152	23	W	470	1700	1	F TRAWL CHINOOK
022411		82	BOWRON R	BC	CDFO	77,057	77,835	0483	841111	56	48	N	152	29	W	510	1550	1	M TRAWL CHINOOK
022418		81	BONAPARTE R LOWER	BC	CDFO	15,360	16,000	0482	841020	56	48	N	152	21	W	675	4500		F TRAWL CHINOOK
022424		82	QUESNEL R	BC	CDFO	25,786	26,312	0383	841124	56	45	N	152	20	W	490	1750	20	F TRAWL CHINOOK
022433		82	QUESNEL R	BC	CDFO	23,347	24,831	0583	841126	56	41	N	152	27	W	470	1500		F TRAWL CHINOOK
022435		82	QUESNEL R	BC	CDFO	50,182	50,689	0483	841124	56	45	N	152	20	W	510	2190		M TRAWL CHINOOK
022446		83	STUART R	BC	CDFO	29,107	30,224	0484	851116	56	45	N	152	18	W	450	1380		F TRAWL CHINOOK

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Tag Code	Replicate	Brood	Release Site	State	Agency	Total		Release Date(mm/yy)	Recovery Date(vv/mm/dd)	Latitude		Longitude		Length (mm)	Weight (g)	Gonad Weight(g)	Sex	Gear	Species		
						# Tagged	# Released			Deg.	Min.	Deg.	Min.								
022453		82	HARRIS CR	BC	CDFO	49,868	148,677	0683	841120	56	57	N	152	29	W	470	1600		M	TRAWL	CHINOOK
022506		82	MARBLE R	BC	CDFO	26,482	200,000	0583	841016	56	53	N	152	25	W	510	1600	20	M	TRAWL	CHINOOK
022506		82	MARBLE R	BC	CDFO	26,482	558,711	0583	841111	56	48	N	152	29	W	510	1500	1	F	TRAWL	CHINOOK
022510		82	NITINAT R	BC	CDFO	26,348	558,711	0583	841126	56	41	N	152	27	W	510	1840		M	TRAWL	CHINOOK
022510		82	NITINAT R	BC	CDFO	26,348	558,711	0583	841128	56	55	N	152	25	W	470	1420		F	TRAWL	CHINOOK
022510		82	NITINAT R	BC	CDFO	26,348	558,711	0583	860407	54	51	N	165	29	W	675	4700	27	F	TRAWL	CHINOOK
022511		82	NITINAT R	BC	CDFO	26,254	558,848	0583	841125	56	47	N	152	24	W	510	1750		M	TRAWL	CHINOOK
022512		82	NITINAT R	BC	CDFO	29,376	1,303,713	0583	841015	56	45	N	152	11	W	470	1550	20	F	TRAWL	CHINOOK
022512		82	NITINAT R	BC	CDFO	29,376	1,303,713	0583	841124	56	50	N	152	33	W	520	2100	2	F	TRAWL	CHINOOK
022533		82	CEDAR CR - SKEENA	BC	CDFO	32,924	37,700	0483	841016	56	44	N	152	18	W	510	1500	1	M	TRAWL	CHINOOK
022541		82	ROBERTSON CR	BC	CDFO	87,416	8,116,680	0683	841016	56	53	N	152	25	W	540	1850	1	F	TRAWL	CHINOOK
022559		82	ATNARKO R, LWR	BC	CDFO	68,741	116,866	0683	850203	56	31	N	156	11	W	520	1920	1	M	TRAWL	CHINOOK
022601		82	CONUMA R	BC	CDFO	76,438	485,900	0983	851116	56	45	N	152	18	W	680		10	F	TRAWL	CHINOOK
022618		83	BIRKENHEAD R	BC	CDFO	43,059	153,858	0484	861107	57	42	N	151	54	W	630	2900		M	TRAWL	CHINOOK
022622		83	BOWRON R	BC	CDFO	47,282	435,242	0484	851118	56	46	N	152	22	W	480	1520		M	TRAWL	CHINOOK
022653		83	NITINAT R	BC	CDFO	27,023	657,887	0584	851029	56	48	N	152	20	W	420	1000	1	F	TRAWL	CHINOOK
022654		83	NITINAT R	BC	CDFO	26,879	640,774	0684	851116	56	49	N	152	30	W	450	1240		M	TRAWL	CHINOOK
022662		83	ROBERTSON CR	BC	CDFO	26,543	685,856	0684	851117	56	49	N	152	30	W	450	1250		F	TRAWL	CHINOOK
022750		84	MARBLE R	BC	CDFO	28,109	34,325	0685	861117	56	48	N	153	14	W	510	1450		M	TRAWL	CHINOOK
023055		84	SHUSWAP R, LOWER	BC	CDFO	48,721	51,869	0485	861116	57	4	N	152	21	W	500	1800		F	TRAWL	CHINOOK
023210		84	SUCWOA R	BC	CDFO	25,132	171,864	0585	871002	57	11	N	152	26	W	640	4400		M	TRAWL	CHINOOK
023225		84	CONUMA ESTUARY	BC	CDFO	29,145	50,000	0685	861113	55	50	N	152	44	W	640		1	M	TRAWL	CHINOOK
023308		84	SALMON R - THOMPSON	BC	CDFO	81,497	116,056	0585	861116	57	4	N	152	21	W	420	1050		M	TRAWL	CHINOOK
023639		85	NITINAT R	BC	CDFO	26,238	109,100	0586	900313	56	38	N	151	52	W	880	9850	10	M	TRAWL	CHINOOK
023912		85	BABINE R	BC	CDFO	31,388	41,653	0487	901016	53	21	N	160	20	W	830	7470	100	M	TRAWL	CHINOOK
024257		86	ROBERTSON CR	BC	CDFO	22,396	1,150,729	0587	900520	58	19	N	151	8	W	780	6000		F	TRAWL	CHINOOK
024261		86	BIG QUALICUM R	BC	CDFO	26,822	664,007	0687	910328	58	1	N	148	53	W	960	11900	100	F	TRAWL	CHINOOK
024362		86	ROBERTSON CR	BC	CDFO	26,805	1,415,747	0587	900125	57	8	N	152	29	W	640	4550	1	F	TRAWL	CHINOOK
024515		86	ROBERTSON CR	BC	CDFO	19,981	20,141	0587	900214	57	8	N	152	36	W	690	4500		M	TRAWL	CHINOOK
024541		86	NITINAT R	BC	CDFO	26,000	1,035,020	0587	890313	58	25	N	153	6	W	480	1320		F	TRAWL	CHINOOK
024804		87	ROBERTSON CR SWVI	BC	CDFO	28,912	28,912	0588	901025	56	43	N	153	29	W	650	4900		M	TRAWL	CHINOOK
024806		87	ROBERTSON CR	BC	CDFO	32,201	32,201	0588	900420	55	1	N	160	21	W	490	1400		F	TRAWL	CHINOOK
024809		87	ROBERTSON CR SWVI	BC	CDFO	29,554	336,216	0588	900405	57	59	N	152	21	W	460	1250		M	TRAWL	CHINOOK
024816		87	THOMPSON R, NORTH	BC	CDFO	51,189	566,300	0488	901007	56	55	N	152	35	W	750	7000		F	TRAWL	CHINOOK
024833		87	BULKLEY R UPPER	BC	CDFO	10,624	10,624	0489	910111	57	10	N	152	24	W	550	2200		F	TRAWL	CHINOOK
024911		88	STERLING CR	BC	CDFO	19,405	19,503	0490	921003	57	6	N	152	25	W	820	8000		F	TRAWL	CHINOOK
024924		87	KENNEDY R, LW SWVI	BC	CDFO	21,102	21,355	0688	901025	56	43	N	153	29	W	590			F	TRAWL	CHINOOK
024925		87	KENNEDY R, LW SWVI	BC	CDFO	21,028	21,280	0688	910306	54	42	N	160	27	W	580	3200		M	TRAWL	CHINOOK
024940		89	GOLD R	BC	CDFO	28,636	160,644	0590	930211	57	50	N	154	1	W	640	3400		F	TRAWL	CHINOOK
024948		87	CHINA CR SWVI	BC	CDFO	24,137	24,506	0588	901021	56	27	N	155	35	W	660	4400		F	TRAWL	CHINOOK
025009		87	BABINE R	BC	CDFO	24,132	24,132	0489	920201	53	24	N	166	2	W	580	2450		F	TRAWL	CHINOOK
025009		87	BABINE R	BC	CDFO	24,132	24,132	0489	920709	56	53	N	155	5	W	570	2000		M	TRAWL	CHINOOK
025014		88	ROBERTSON CR	BC	CDFO	25,393	653,101	0589	910131	57	42	N	154	4	W	510	1550		F	TRAWL	CHINOOK
025163		87	NICOLA R	BC	CDFO	21,107	96,174	0588	910109	57	8	N	152	28	W	700	5600		F	TRAWL	CHINOOK
025209		87	DOVE CR UPPER	BC	CDFO	10,406	10,862	0489	901031	57	8	N	151	27	W	560	2600		M	TRAWL	CHINOOK
025246		88	DOVE CR	BC	CDFO	10,494	11,182	0490	930708	57	59	N	151	59	W	818	6790	30	F	TRAWL	CHINOOK
025328		87	ROBERTSON CR SWVI	BC	CDFO	25,640	509,827	0588	900511	58	1	N	153	31	W	480	1150		F	TRAWL	CHINOOK
025328		87	ROBERTSON CR SWVI	BC	CDFO	25,640	509,827	0588	900526	58	4	N	151	52	W	480	1300		M	TRAWL	CHINOOK
025329		87	ROBERTSON CR SWVI	BC	CDFO	25,951	522,172	0588	900513	58	3	N	153	31	W	540	1650		F	TRAWL	CHINOOK
025462		88	CARIBOU CR UPPER	BC	CDFO	25,683	127,359	0489	920312	56	35	N	152	18	W	740	6300		F	TRAWL	CHINOOK
025463		88	CARIBOU CR UPPER	BC	CDFO	24,567	126,442	0489	921005	56	25	N	155	34	W	810	8900		F	TRAWL	CHINOOK
025503		87	CONUMA ESTUARY	BC	CDFO	31,410	101,610	0588	900420	55	1	N	160	21	W	490	1400		F	TRAWL	CHINOOK
025520		88	CHILKO R	BC	CDFO	50,249	381,635	0589	920309	59	15	N	146	16	W	800	6600		F	TRAWL	CHINOOK
025635		88	QUESNEL R	BC	CDFO	48,676	49,931	0590	920312	56	35	N	152	18	W	590	2700		M	TRAWL	CHINOOK
025646		88	STAMP R	BC	CDFO	9,723	9,731	0589	910203	57	52	N	153	52	W	450	1200		F	TRAWL	CHINOOK
025658		88	POETS NOOK	BC	CDFO	9,882	9,891	0589	910129	56	58	N	152	23	W	622			M	TRAWL	CHINOOK
025704		88	CHINA CR	BC	CDFO	9,730	9,738	0589	910130	57	58	N	153	23	W	520	2000		M	TRAWL	CHINOOK
025741		88	CHILLIWACK R	BC	CDFO	26,958	131,144	0589	920312	56	35	N	152	18	W	690	4500		M	TRAWL	CHINOOK
025745		88	DEEP COVE	BC	CDFO	24,847	26,660	0489	911022	57	27	N	151	29	W	550	2800		F	TRAWL	CHINOOK
025801		88	CHEHALIS R	BC	CDFO	26,630	52,832	0589	920312	53	35	N	152	18	W	700	5600		F	TRAWL	CHINOOK
025808		88	NITINAT R	BC	CDFO	24,080	990,028	0589	910112	54	26	N	163	49	W	530	2000		M	TRAWL	CHINOOK
025809		88	NITINAT R	BC	CDFO	26,348	1,083,190	0589	910112	57	5	N	152	38	W	470	1500		M	TRAWL	CHINOOK
025832		88	CONUMA R	BC	CDFO	27,020	181,864	0689	920312	56	35	N	152	18	W	720	5200		F	TRAWL	CHINOOK

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Tag Code	Replicate	Brood	Release Site	State	Agency*	Total		Release Date(mmyy)	Recovery Date(yymmdd)	Latitude		Longitude		Length (mm)	Weight (g)	Gonad Weight(g)	Sex	Gear	Species
						# Tagged	# Released			Deg.	Min.	Deg.	Min.						
025837		88	ROBERTSON CR	BC	CDFO	25,026	1,100,530	0689	920312	56	35 N	152	18 W	690	4300		F	TRAWL	CHINOOK
025838		88	ROBERTSON CR	BC	CDFO	24,734	1,439,341	0689	910112	57	5 N	152	38 W	520	1900		M	TRAWL	CHINOOK
025956		88	ATNARKO R. LWR	BC	CDFO	27,143	915,395	0689	921003	56	50 N	152	27 W	960	13600		M	TRAWL	CHINOOK
026015		90	SALMON R. PR GEORGE	BC	CDFO	25,960	26,222	0591	930321	56	0 N	154	0 W	620	3100		M	TRAWL	CHINOOK
026044		88	KITSUMKALUM R	BC	CDFO	26,849	28,766	0489	920402	56	29 N	155	56 W	740	4700		M	TRAWL	CHINOOK
026056		88	ROBERTSON CR	BC	CDFO	25,079	1,790,253	0689	910110	57	10 N	152	42 W	490	1600		F	TRAWL	CHINOOK
026056		88	ROBERTSON CR	BC	CDFO	25,079	1,790,253	0689	910606	54	42 N	165	4 W	480	1500		F	TRAWL	CHINOOK
026059		88	NAPOLEON CR	BC	CDFO	25,538	82,955	0589	920320	57	46 N	154	7 W	700	4260		M	TRAWL	CHINOOK
026302		88	DEADMAN R	BC	CDFO	18,244	18,244	0490	911021	57	3 N	152	25 W	561	2380		F	TRAWL	CHINOOK
026310		88	BABINE R	BC	CDFO	24,191	24,191	0590	920312	56	35 N	152	18 W	630	3200		M	TRAWL	CHINOOK
026312		88	BABINE R	BC	CDFO	24,088	24,088	0590	911023	56	59 N	152	48 W	577	2800		M	TRAWL	CHINOOK
026312		88	BABINE R	BC	CDFO	24,088	24,088	0590	911023	57	5 N	152	23 W	572	2650		M	TRAWL	CHINOOK
026313		88	BULKLEY R	BC	CDFO	26,397	34,063	0590	911024	57	5 N	152	23 W	510	1700		M	TRAWL	CHINOOK
026313		88	BULKLEY R	BC	CDFO	26,397	34,063	0590	920312	56	35 N	152	18 W	630	3300		F	TRAWL	CHINOOK
031763		81	L PORT WALTER 109-10	AK	NMFS	13,697	13,754	0583	841009	56	54 N	152	43 W	560	3000		M	TRAWL	CHINOOK
031803		81	L PORT WALTER 109-10	AK	NMFS	13,184	13,250	0583	841126	56	41 N	152	27 W	580	3010	20	F	TRAWL	CHINOOK
032113		86	L PORT WALTER 109-10	AK	NMFS	23,407	23,407	0588	910418	57	49 N	137	14 W		9500		F	TRAWL	CHINOOK
032233		91	L PORT WALTER 109-10	AK	NMFS	15,356	15,587	0593	950122	57	35 N	154	39 W	590	3400		M	TRAWL	CHINOOK
032235		91	L PORT WALTER 109-10	AK	NMFS	14,091	14,766	0593	950603	57	8 N	152	25 W	610	3300		F	TRAWL	CHINOOK
040703		89	BEAR COVE 113 - 41	AK	NSRA	8,977	120,510	0591	930608	57	59 N	151	55 W	600	3100		F	TRAWL	CHINOOK
042032		80	HALIBUT COVE LAGOON	AK	ADFG	26,000	50,972	0381	850706	53	13 N	166	26 W	800	6900	250	M	TRAWL	CHINOOK
042040		79	KETCHIKAN CR 101-47	AK	ADFG	15,733	15,893	0581	840128	56	58 N	155	23 W	820	6500		F	TRAWL	CHINOOK
042042		79	CRYSTAL CR 106-44	AK	ADFG	18,530	19,989	0581	840317	56	46 N	155	36 W	720	5900	1	F	TRAWL	CHINOOK
042121		80	KETCHIKAN CR 101-47	AK	ADFG	91,625	100,576	0582	840205	57	11 N	155	20 W	472			M	TRAWL	CHINOOK
042121		80	KETCHIKAN CR 101-47	AK	ADFG	91,625	100,576	0582	840223	57	33 N	155	18 W	560		1	F	TRAWL	CHINOOK
042121		80	KETCHIKAN CR 101-47	AK	ADFG	91,625	100,576	0582	840224	57	21 N	155	36 W	630	2700	1	M	TRAWL	CHINOOK
042121		80	KETCHIKAN CR 101-47	AK	ADFG	91,625	100,576	0582	840307	56	46 N	155	36 W	600	2600	1	F	TRAWL	CHINOOK
042121		80	KETCHIKAN CR 101-47	AK	ADFG	91,625	100,576	0582	840312	56	58 N	155	54 W	541	2200		F	TRAWL	CHINOOK
042121		80	KETCHIKAN CR 101-47	AK	ADFG	91,625	100,576	0582	850223	58	11 N	154	5 W	840	8700	117	F	TRAWL	CHINOOK
042121		80	KETCHIKAN CR 101-47	AK	ADFG	91,625	100,576	0582	850308	58	3 N	154	11 W	850	8430	130	F	TRAWL	CHINOOK
042202		80	CRYSTAL CR 106-44	AK	ADFG	56,660	273,849	0582	840311	57	13 N	155	40 W	560	2290	10	F	TRAWL	CHINOOK
042202		80	CRYSTAL CR 106-44	AK	ADFG	56,660	273,849	0582	841016	56	53 N	152	25 W	820	8600	100	F	TRAWL	CHINOOK
042217		81	KASNYKU BAY 112-11	AK	ADFG	43,299	44,869	0583	841021	56	50 N	152	42 W	570	2250	1	F	TRAWL	CHINOOK
042229		81	CRYSTAL CR 106-44	AK	ADFG	58,156	137,868	0583	841016	57	12 N	151	17 W	520	2330	1	M	TRAWL	CHINOOK
042229		81	CRYSTAL CR 106-44	AK	ADFG	58,156	137,868	0583	841019	56	42 N	152	21 W	600	2300	1	M	TRAWL	CHINOOK
042229		81	CRYSTAL CR 106-44	AK	ADFG	58,156	137,868	0583	841126	56	41 N	152	27 W	500	1900		F	TRAWL	CHINOOK
042229		81	CRYSTAL CR 106-44	AK	ADFG	58,156	137,868	0583	850217	57	16 N	155	16 W	520	2000	20	F	TRAWL	CHINOOK
042230		81	THOMAS BASIN 101-47	AK	ADFG	17,992	18,664	0583	850217	57	16 N	154	53 W	660	4400	1	F	TRAWL	CHINOOK
042255		82	NEETS BAY 101-90	AK	SSRA	20,063	70,656	0684	851118	56	46 N	152	22 W	510	1750		M	TRAWL	CHINOOK
042430		82	NEETS BAY 101-90	AK	SSRA	10,335	36,049	0684	860216	58	5 N	153	45 W	610	2800		F	TRAWL	CHINOOK
042503		83	NEETS BAY 101-90	AK	SSRA	30,158	100,228	0585	871001	57	4 N	152	29 W	760		1	F	TRAWL	CHINOOK
042612		86	MONTANA CR 111-50	AK	ADFG	28,681	52,000	0588	900326	58	4 N	151	52 W	560	2100		M	TRAWL	CHINOOK
042737		87	CRYSTAL CR 106-44	AK	ADFG	26,395	257,044	0589	920120	57	32 N	154	44 W	680	3720		M	TRAWL	CHINOOK
042761		85	SITKA SOUND 113-41	AK	SJ	10,004	10,126	0587	901022	56	28 N	155	35 W	800	6800		F	TRAWL	CHINOOK
042945		90	KETCHIKAN CR 101-47	AK	ADFG	15,976	64,467	0592	941004	53		164		680	3600	5	F	TRAWL	CHINOOK
043107		86	CARROLL INLET 101-45	AK	SSRA	52,353	497,010	0588	910327	58	0 N	148	55 W	790	5850	90	F	TRAWL	CHINOOK
043149		87	NEETS BAY	AK	SSRA	21,460	262,400	0489	901022	58	19 N	150	59 W	590	3000		M	TRAWL	CHINOOK
043202		87	EARL WEST COV 107-40	AK	ADFG	48,105	394,200	0589	920711	56	45 N	155	59 W	805	8150		M	TRAWL	CHINOOK
043225		90	SITKA SOUND 113-41	AK	SJ	10,088	25,347	0591	940622	58		153		830	8700		F	TRAWL	CHINOOK
043252		88	NEETS BAY 101-90	AK	SSRA	51,994	445,000	0590	930706	57	8 N	152	23 W	610			M	TRAWL	CHINOOK
043255		88	NEETS BAY 101-90	AK	SSRA	51,016	735,000	0590	920312	56	35 N	152	18 W	640	3200		M	TRAWL	CHINOOK
043356		88	GASTINEAU CH 111-40	AK	ADFG	20,358	68,981	0690	930319	58	21 N	148	32 W	680	3500		F	TRAWL	CHINOOK
043403		88	LUKE BAY 111-50	AK	ADFG	18,270	64,137	0691	930221	57	54 N	153	49 W				F	TRAWL	CHINOOK
043406		88	CRYSTAL CR 106-44	AK	ADFG	20,788	246,808	0590	930319	57	52 N	149	55 W	670	3710		F	TRAWL	CHINOOK
043428		88	BEAR COVE 113-41	AK	NSRA	10,493	94,323	0590	920129	58	10 N	153	24 W	530	1930		M	TRAWL	CHINOOK
043431		88	BEAR COVE 113-41	AK	NSRA	8,058	72,081	0590	920125	57	30 N	154		370			F	TRAWL	CHINOOK
043536		89	THORNE BAY 102-70	AK	ADFG	5,552	12,378	0591	930409	56	42 N	152	30 W	630	3400		F	TRAWL	CHINOOK
043540		89	BEAR COVE 113-41	AK	NSRA	10,557	17,670	0591	930221	57	55 N	153	49 W	580	2600		F	TRAWL	CHINOOK
043548		89	KASNYKU BAY 112-11	AK	NSRA	9,844	10,631	0691	930609	56	5 N	156	4 W	640	3100		M	TRAWL	CHINOOK
043619		89	JETTY CR 109 - 10	AK	AKI	21,472	62,176	0591	930607	58	2 N	154	21 W	640	3900		M	TRAWL	CHINOOK
043626		89	BEAR COVE 113-41	AK	NSRA	10,358	37,065	0591	930212	57	40 N	154	20 W	705	4200		F	TRAWL	CHINOOK
043628		89	BEAR COVE 113-41	AK	NSRA	6,407	69,539	0591	930209	57	47 N	151	7 W	680			F	TRAWL	CHINOOK
043628		90	BEAR COVE 113-41	AK	NSRA	6,407	69,539	0591	941004	57		152		860	10100		F	TRAWL	CHINOOK

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Tag Code	Replicate	Brood	Release Site	State	Agency	Total		Release Date(mmyy)	Recovery Date(vvmmdd)	Latitude		Longitude		Length (mm)	Weight (g)	Gonad Weight(g)	Sex	Gear	Species	
						# Tagged	# Released			Deg.	Min.	Deg.	Min.							
043643		90	KASNYKU BAY 112-11	AK	NSRA	7,537	140,458	0592	940606	58	N	152	W	670	4400		F	TRAWL	CHINOOK	
043644		90	BEAR COVE 113-41	AK	NSRA	9,885	137,415	0592	940206	57	N	154	W	660	3500		M	TRAWL	CHINOOK	
043646		90	BEAR COVE 113-41	AK	NSRA	10,359	137,290	0592	940702	57	N	153	W	640	3500		F	TRAWL	CHINOOK	
043648		90	BEAR COVE 113-41	AK	NSRA	9,945	118,730	0592	940711	57	N	152	W	640	3500		F	TRAWL	CHINOOK	
043721		91	SITKA SOUND 113-41	AK	SJ	10,199	47,046	0592	940206	57	N	154	W	520	1600		F	TRAWL	CHINOOK	
043917		91	BEAR COVE 113-41	AK	NSRA	8,719	52,458	0693	950702	58	4	N	153	25 W	625	3180		F	TRAWL	CHINOOK
043919		91	BEAR COVE 113-41	AK	NSRA	9,840	59,204	0693	950122		N		W	460	1600		F	TRAWL	CHINOOK	
043929		91	KASNYKU BAY 112-11	AK	NSRA	3,174	186,718	0693	950122		N			580	2900		F	TRAWL	CHINOOK	
044005		80	HERRING COVE 101-45	AK	SSRA	132,463	145,564	0582	840220	57	51	N	154	8 W	590		1	F	TRAWL	CHINOOK
044005		80	HERRING COVE 101-45	AK	SSRA	132,463	145,564	0582	840221	57	46	N	154	12 W	679	4600	10	M	TRAWL	CHINOOK
044005		80	HERRING COVE 101-45	AK	SSRA	132,463	145,564	0582	840221	57	54	N	154	6 W	730	4700	10	M	TRAWL	CHINOOK
044005		80	HERRING COVE 101-45	AK	SSRA	132,463	145,564	0582	840307	57	44	N	154	56 W	610	2790	10	F	TRAWL	CHINOOK
044005		80	HERRING COVE 101-45	AK	SSRA	132,463	145,564	0582	841005	56	56	N	152	30 W	870	9800		M	TRAWL	CHINOOK
044005		80	HERRING COVE 101-45	AK	SSRA	132,463	145,564	0582	841022	56	46	N	152	22 W	750	6000		M	TRAWL	CHINOOK
044005		80	HERRING COVE 101-45	AK	SSRA	132,463	145,564	0582	850204	57	36	N	155	17 W	800	7510	1	F	TRAWL	CHINOOK
044005		80	HERRING COVE 101-45	AK	SSRA	132,463	145,564	0582	850208	57	25	N	155	33 W	760	6600	8	F	TRAWL	CHINOOK
044005		80	HERRING COVE 101-45	AK	SSRA	132,463	145,564	0582	850306	58	7	N	154	0 W	790	8100	1	F	TRAWL	CHINOOK
044033		91	AUKE BAY 111-50	AK	ADFG	28,750	100517	0693	950125		N		W	540	2400		M	TRAWL	CHINOOK	
0501010808		92	YAKIMA R LWR 37.0002	WA	WDFW	244,566	249557	0593	950702	58	4	N	153	25 W	615	2690		M	TRAWL	CHINOOK
051117		82	COOK CR (QUIN)	WA	FWS	46,873	50,838	0683	841111	56	48	N	152	29 W	490	1450	1	M	TRAWL	CHINOOK
051118		82	COOK CR (QUIN)	WA	FWS	46,877	50,460	0983	841130	56	39	N	152	39 W	460	1400		F	TRAWL	CHINOOK
051120		81	CHALAAT CR - HOH	WA	HOH	27,806	34,456	0882	840825	55	31	N	158	48 W	630			M	TRAWL	CHINOOK
051120		81	CHALAAT CR - HOH	WA	HOH	27,806	34,456	0882	841023	56	58	N	152	31 W	680	4150	20	M	TRAWL	CHINOOK
051120		81	CHALAAT CR - HOH	WA	HOH	27,806	34,456	0882	841104	56	37	N	152	33 W	630		20	F	TRAWL	CHINOOK
051122		81	COOK CR (QUIN)	WA	FWS	27,545	28,485	0583	841105	56	45	N	152	24 W	620	3250	1	F	TRAWL	CHINOOK
051424		82	QUINAULT R 21-0398	WA	QDNR	83,490	119,164	0783	841016	56	53	N	152	25 W	440	1150	20	F	TRAWL	CHINOOK
051424		82	QUINAULT R 21-0398	WA	QDNR	83,490	119,164	0783	841207	56	47	N	152	24 W	470	1620	20	F	TRAWL	CHINOOK
051424		82	QUINAULT R 21-0398	WA	QDNR	83,490	119,164	0783	841207	56	44	N	152	24 W	510	1680		M	TRAWL	CHINOOK
051424		82	QUINAULT R 21-0398	WA	QDNR	83,490	119,164	0783	850202	57	34	N	155	9 W	500	1620	1	M	TRAWL	CHINOOK
051424		82	QUINAULT R 21-0398	WA	QDNR	83,490	119,164	0783	851130	56	47	N	154	31 W	700	6000		F	TRAWL	CHINOOK
066218		81	SACRA R, DISCOV. PK	CA	CDFG	89,780	101,676	0582	841113	56	53	N	152	17 W	730	5300	1	M	TRAWL	CHINOOK
070420		92	SALMON R/OR COAST	OR	ODFW	28,386	40,658	0893	950416	57	30	N	150	24 W	600	3200		M	TRAWL	CHINOOK
070421		92	SALMON R/OR COAST	OR	ODFW	40,339	42,829	0893	950415	57	31	N	150	22 W	560	2400		M	TRAWL	CHINOOK
072054		80	MCKENZIE R - I	OR	ODFW	32,518	35,695	0382	840226	57	40	N	155	14 W	600	2500	1	M	TRAWL	CHINOOK
072419		80	WILLAMETTE R. M FK	OR	ODFW	30,717	31,732	0382	840221	57	56	N	154	2 W	660	3750	1	M	TRAWL	CHINOOK
072424		81	TANNER CR	OR	ODFW	105,029	105,876	0682	841126	56	41	N	152	27 W	740	5570		M	TRAWL	CHINOOK
072521		81	MCKENZIE R - I	OR	ODFW	32,253	35,997	1182	841023	56	41	N	152	24 W	660	3950	1	M	TRAWL	CHINOOK
072528		80	SANTIAM R. N	OR	ODFW	50,022	53,158	0382	841113	56	45	N	152	26 W	860	8470	38	F	TRAWL	CHINOOK
072532		80	CEDAR CR - NESTUCCA	OR	ODFW	11,012	11,237	1181	841023	56	41	N	152	24 W	820	7300	20	F	TRAWL	CHINOOK
072612		82	TRASK R	OR	ODFW	23,906	90,794	1083	841015	56	56	N	152	27 W	460	1350	20	M	TRAWL	CHINOOK
072612		82	TRASK R	OR	ODFW	23,906	90,794	1083	841114	56	48	N	152	23 W	450	1400	1	F	TRAWL	CHINOOK
072612		82	TRASK R	OR	ODFW	23,906	90,794	1083	850205	57	37	N	155	11 W	490	1400		F	TRAWL	CHINOOK
072613		82	TRASK R	OR	ODFW	25,117	100,763	1083	841114	56	48	N	152	23 W	450	1450	1	F	TRAWL	CHINOOK
072616		81	CEDAR CR - NESTUCCA	OR	ODFW	15,746	44,117	1082	851116	56	45	N	152	18 W	720	5700	20	F	TRAWL	CHINOOK
072631		82	TRASK R	OR	ODFW	27,565	46,369	0883	841023	56	58	N	152	31 W	490	1500	1	F	TRAWL	CHINOOK
072632		82	TRASK R	OR	ODFW	48,845	284,831	0783	841020	56	47	N	152	23 W	520	1550	1	M	TRAWL	CHINOOK
072632		82	TRASK R	OR	ODFW	48,845	284,831	0783	841028	56	58	N	152	31 W	490	1900	1	F	TRAWL	CHINOOK
072632		82	TRASK R	OR	ODFW	48,845	284,831	0783	841114	56	48	N	152	23 W	480	1700	1	F	TRAWL	CHINOOK
072632		82	TRASK R	OR	ODFW	48,845	284,831	0783	850424	53	12	N	166	52 W	550	2200	1	M	TRAWL	CHINOOK
072633		82	TRASK R	OR	ODFW	37,649	39,958	0883	850202	56	24	N	156	18 W	460	1390	1	F	TRAWL	CHINOOK
072634		82	TRASK R	OR	ODFW	29,165	36,115	0983	841020	56	50	N	152	28 W	460	1150	1	M	TRAWL	CHINOOK
072647		82	SALMON R - OR COAST	OR	ODFW	25,734	50,339	0883	851112	53	10	N	167	0 W	550	2300		M	TRAWL	CHINOOK
072718		81	MCKENZIE R - I	OR	ODFW	36,165	36,165	0383	840223	57	33	N	155	18 W	540		1	F	TRAWL	CHINOOK
072718		81	MCKENZIE R - I	OR	ODFW	36,165	36,165	0383	841023	56	58	N	152	31 W	700	4500	1	F	TRAWL	CHINOOK
072720		81	MCKENZIE R - I	OR	ODFW	30,049	117,441	0383	841009	56	47	N	152	40 W	630	3910	1	F	TRAWL	CHINOOK
072720		81	MCKENZIE R - I	OR	ODFW	30,049	117,441	0383	841023	56	58	N	152	31 W	730	4550	1	F	TRAWL	CHINOOK
072721		81	MCKENZIE R - I	OR	ODFW	31,930	32,952	1182	841125	56	47	N	152	24 W	590	3220	20	F	TRAWL	CHINOOK
072724		81	MCKENZIE R - I	OR	ODFW	29,070	31,091	0383	840222	57	54	N	154	34 W	520	1740	1	M	TRAWL	CHINOOK
072724		81	MCKENZIE R - I	OR	ODFW	29,070	31,091	0383	841018	56	45	N	152	19 W	690	3800	1	F	TRAWL	CHINOOK
072826		82	COLUMBIA R - 5	OR	ODFW	100,244	1,015,046	0683	841127	56	55	N	152	32 W	490	1520		M	TRAWL	CHINOOK
072827		82	TANNER CR	OR	ODFW	100,259	102,560	0683	841020	56	50	N	152	28 W	510	1550	1	F	TRAWL	CHINOOK
072828		82	TANNER CR	OR	ODFW	99,001	104,337	0883	841020	56	54	N	152	27 W	480	1400	20	M	TRAWL	CHINOOK
072922		85	ELK R	OR	ODFW	24,650	26,842	0986	900410	57	59	N	149	16 W	825	8600	50	F	TRAWL	CHINOOK

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Tag Code	Replicate	Brood	Release Site	State	Agency	Total		Release Date(mm/yy)	Recovery Date(yy/mm/dd)	Latitude		Longitude		Length (mm)	Weight (g)	Gonad Weight(g)	Sex	Gear	Species		
						# Tagged	# Released			Deg	Min	Deg	Min								
073019		83	TRASK R	OR	ODFW	25,055	100,368	1084	861113	55	50	N	152	44	W	640			M	TRAWL	CHINOOK
073055		84	TRASK R	OR	ODFW	23,717	90,525	1085	910000			N								TRAWL	CHINOOK
073220		84	TRASK R	OR	ODFW	9,357	9,777	0885	861107	57	47	N	151	54	W	510	1500		F	TRAWL	CHINOOK
073342		86	SALMON R - OR COAST	OR	ODFW	31,811	32,673	0887	900426	55	22	N	155	59	W	750	5600	60	F	TRAWL	CHINOOK
073542		85	FERRY CR	OR	ODFW	26,741	26,850	0986	900715	58	24	N	148	30	W	810	7600	400	M	TRAWL	CHINOOK
073635		85	TANNER CR	OR	ODFW	46,852	47,997	1086	900315	57	17	N	154	52	W	760	7700		M	TRAWL	CHINOOK
073725		86	TRASK R	OR	ODFW	12,912	12,912	1087	900426	55	22	N	155	59	W	680	3950	25	F	TRAWL	CHINOOK
073938		85	ELK R	OR	ODFW	13,475	17,936	0986	900428	55	22	N	156	5	W	700	4350	1	F	TRAWL	CHINOOK
074043		90	WILLAMETTE R & TRIBS	OR	ODFW	21,444	21,546	0392	940223	59	N	144	W	650	3700			M	TRAWL	CHINOOK	
074328		86	UMATILLA R	OR	ODFW	26,319	34,187	0488	900406	57	58	N	149	50	W	590			M	TRAWL	CHINOOK
074635		87	SALMON R - OR COAST	OR	ODFW	37,394	38,808	0888	910000			N								TRAWL	CHINOOK
074820		90	MORGAN CR (COOS R)	OR	ODFW	26,732	75,638	0991	930416	56	0	N	154	36	W	530	2100		M	TRAWL	CHINOOK
075001	R1	86	SANTIAM R, S FK	OR	ODFW	25,600	31,181	0388	900219	57	49	N	154	5	W	580	2800	1	F	TRAWL	CHINOOK
075031	R3	87	WILLAMETTE R, M FK-1	OR	ODFW	32,420	32,586	1088	900304	58	4	N	150	42	W	580	2600		M	TRAWL	CHINOOK
075031	R3	87	WILLAMETTE R, M FK-1	OR	ODFW	32,420	32,586	1088	901023	56	22	N	155	44	W	690	5100		M	TRAWL	CHINOOK
075041	R2	87	SANTIAM R, S FK	OK	ODFW	24,640	25,481	1188	901022	56	28	N	155	35	W	670	4800		M	TRAWL	CHINOOK
075047	R1	87	SANTIAM R, N FK-1	OR	ODFW	30,076	30,258	0389	920215	57	11	N	152	31	W	850	8000		M	TRAWL	CHINOOK
075135		88	SALMON R - OR COAST	OR	ODFW	28,200	33,335	0889	930319	58	21	N	148	32	W	780	6000		F	TRAWL	CHINOOK
075207	R2	88	WILLAMETTE R, M FK	OR	ODFW	30,570	408,536	1189	910502	56	6	N	153	59	W	540	2500		M	TRAWL	CHINOOK
075211		88	SANTIAM R, S FK	OR	ODFW	16,355	147,002	0390	921000	56	14	N	155	56	W	620	2920		F	TRAWL	CHINOOK
075346		90	CLACKAMAS R	OR	ODFW	50,949	315,000	0991	921012	57	59	N	151	30	W	490	1400		M	TRAWL	CHINOOK
075348		89	WILLAMETTE R, M FK	OR	ODFW	15,045	185,426	1190	920312	56	35	N	152	18	W	530	1700		F	TRAWL	CHINOOK
075433		89	WILLAMETTE R, M FK	OR	ODFW	26,424	27,270	0890	930606	57	55	N	151	54	W	740	4700		F	TRAWL	CHINOOK
075454		90	YOUNGS R & BAY	OR	CEDC	22,592	31,667	0292	940211	57	N	152	W	660	3600			F	TRAWL	CHINOOK	
075454		90	YOUNGS R & BAY	OR	CEDC	22,592	31,667	0292	940203	57	N	154	W	622	2900			F	TRAWL	CHINOOK	
075458		89	SALMON R - OR COAST	OR	ODFW	39,099	41,531	0890	930319	58	21	N	148	32	W	720	4400		F	TRAWL	CHINOOK
075501	R1	89	SANTIAM R, S FK	OR	ODFW	127,939	402,459	1190	930212	57	49	N	154	3	W	690	4100	1	F	TRAWL	CHINOOK
075501	R1	89	SANTIAM R, S FK	OR	ODFW	127,939	402,459	1190	930324	54	30	N	162	28	W	700	3600		M	TRAWL	CHINOOK
075503		89	WILLAMETTE R & TRIBS	OR	ODFW	31,462	38,948	0391	930221	57	55	N	153	49	W	540	1900		M	TRAWL	CHINOOK
075527		89	SANTIAM R, N FK-1	OR	ODFW	15,876	261,382	0391	930220	57	45	N	154	11	W	640	3200		M	TRAWL	CHINOOK
075626		90	SANTIAM R, S FK	OR	ODFW	158,403	478,559	1191	930219	58	11	N	153	18	W	730	5600		M	TRAWL	CHINOOK
075626		90	SANTIAM R, S FK	OR	ODFW	158,403	478,559	1191	930220	57	38	N	154	27	W	530	1900		F	TRAWL	CHINOOK
075626		90	SANTIAM R, S FK	OR	ODFW	158,403	478,559	1191	930221	57	55	N	153	49	W	550	2200		M	TRAWL	CHINOOK
075626		90	SANTIAM R, S FK	OR	ODFW	158,403	478,559	1191	930221	57	55	N	153	49	W	500	1600		F	TRAWL	CHINOOK
075626		90	SANTIAM R, S FK	OR	ODFW	158,403	478,559	1191	930224			N		W	500	1600		M	TRAWL	CHINOOK	
075626		90	SANTIAM R, S FK	OR	ODFW	158,403	478,559	1191	930409	56	42	N	152	30	W	600	2500		M	TRAWL	CHINOOK
075626		90	SANTIAM R, S FK	OR	ODFW	158,403	478,559	1191	930409	56	42	N	152	30	W	500	1350		F	TRAWL	CHINOOK
075656		90	MCKENZIE R - 1	OR	ODFW	49,264	236,504	1191	940205	57	N	154	W	691	4350			M	TRAWL	CHINOOK	
075706		90	SALMON R - OR COAST	OR	ODFW	41,394	44,019	0891	930222	57	50	N	154	0	W	500	1800		F	TRAWL	CHINOOK
075707		90	SALMON R - OR COAST	OR	ODFW	37,516	39,896	0891	930405	57	44	N	150	7	W	570	2400		F	TRAWL	CHINOOK
075708		90	SALMON R - OR COAST	OR	ODFW	39,382	41,880	0891	930221	57	55	N	153	49	W	510	1650		F	TRAWL	CHINOOK
075745		90	TRASK R	OR	ODFW	22,474	97,941	0991	930315	56	19	N	156	7	W	443	1240		F	RESGILL	CHINOOK
075926		91	WILLAMETTE R, MD FK2	OR	ODFW	27,019	105,792	0393	950416	57	34	N	150	15	W	590	2700		F	TRAWL	CHINOOK
075936		91	WILLAMETTE R, MD FK2	OR	ODFW	19,190	19,968	0393	950122	57	58	N	152	15	W	550	2200		F	TRAWL	CHINOOK
082226		82	ROBERTSON CR	BC	CDFR	20,195	58,029	0683	841022	56	46	N	152	22	W	530	2200		M	TRAWL	CHINOOK
082846		91	NITINAT L	BC	CDFO	5,471	10,984	0691	940203	57	N	154	W	655	3002			F	TRAWL	CHINOOK	
082847		90	NITINAT LAKE	BC	CDFO	5,509	10,982	0691	930406	57	53	N	150	7	W	630	3150		M	TRAWL	CHINOOK
082849		89	NITINAT LAKE	BC	CDFO	5,455	10,955	0691	930219	58	13	N	153	16	W	520	1750			TRAWL	CHINOOK
082854		90	NITINAT LAKE	BC	CDFO	5,558	10,943	0691	930219	57	44	N	154	12	W	490	1650		F	TRAWL	CHINOOK
082855		90	NITINAT LAKE	BC	CDFO	5,530	8,178	0691	930220	57	45	N	154	11	W	520	1850		M	TRAWL	CHINOOK
101322		82	EAGLE CR - CLACKAMAS	OR	UI	35,762	35,798	1083	850206	57	36	N	155	16	W	480	1300		F	TRAWL	CHINOOK
180201		90	GOLD R	BC	CDFO	29,209	29,654	0591	930221	58	14	N	153	14	W	500	2000		M	TRAWL	CHINOOK
180201		90	GOLD R	BC	CDFO	29,209	29,654	0591	930221	58	8	N	153	22	W	550	2000		F	TRAWL	CHINOOK
180201		91	GOLD R	BC	CDFO	29,209	29,654	0591	940601						699	3800			F	TRAWL	CHINOOK
180202		90	GOLD R NWV1	BC	CDFO	26,674	27,358	0691	921014	57	28	N	151	22	W	510	2000		M	TRAWL	CHINOOK
180202		90	GOLD R NWV1	BC	CDFO	26,674	27,358	0691	930207	54	42	N	154	15	W	500	1700		M	TRAWL	CHINOOK
180202		90	GOLD R NWV1	BC	CDFO	26,674	27,358	0691	930212	57	49	N	154	3	W	520	1800		M	TRAWL	CHINOOK
180202		90	GOLD R NWV1	BC	CDFO	26,674	27,358	0691	930220	57	30	N	153	40	W	500	1700		F	TRAWL	CHINOOK
180202		90	GOLD R NWV1	BC	CDFO	26,674	27,358	0691	930220	58	1	N	152	30	W	510	1700		M	TRAWL	CHINOOK
180202		91	GOLD R	BC	CDFO	26,674	27,358	0691	940209	57	N	152	W	600					M	TRAWL	CHINOOK
180203		90	GOLD R	BC	CDFO	27,070	44,595	0691	930218	58	13	N	153	15	W	470	1300		M	TRAWL	CHINOOK
180203		90	GOLD R	BC	CDFO	27,070	44,595	0691	940615						787	6210		M	TRAWL	CHINOOK	
180203		91	GOLD R	BC	CDFO	27,070	44,595	0691	940620						729	4840		F	TRAWL	CHINOOK	

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Tag Code	Replicate	Brood	Release Site	State	Agency	Total		Release Date(mmyy)	Recovery Date(vmmdd)	Latitude		Longitude		Length (mm)	Weight (g)	Gonad Weight(g)	Sex	Gear	Species
						# Tagged	# Released			Deg	Min	Deg	Min						
180224		90	CHINA CR	BC	CDFO	26,202	26,202	0591	930221	57	55	N	153	49	W	530	2000		M TRAWL CHINOOK
180224		90	CHINA CR	BC	CDFO	26,202	26,202	0591	930606	58	2	N	154	21	W	510	1700		F TRAWL CHINOOK
180226		90	ROBERTSON CR	BC	CDFO	26,708	26,842	0591	930211	57	47	N	154	8	W	520	1600		M TRAWL CHINOOK
180227		90	ROBERTSON CR	BC	CDFO	26,415	26,415	0591	930216	57	59	N	153	36	W	460	1600		F TRAWL CHINOOK
180247		90	KENNEDY LAKE	BC	CDFO	26,008	127,865	0691	930414	56	10	N	153	59	W	500	1500		F TRAWL CHINOOK
180247		89	KENNEDY L	BC	CDFO	26,008	127,865	0691	940202							780	6200		F TRAWL CHINOOK
180247		89	KENNEDY L	BC	CDFO	26,008	127,865	0691	940620							760	5000		M TRAWL CHINOOK
180310		91	COMOX BAY	BC	CDFO	30,458	269,132	0691	940204	57		N	154		W	560	1900		M TRAWL CHINOOK
180327		90	NITINAT R	BC	CDFO	55,109	1,520,236	0691	930209	57	50	N	154	0	W	480	1750	2	F TRAWL CHINOOK
180327		90	NITINAT R	BC	CDFO	55,109	1,520,236	0691	930224	58	13	N	153	22	W	540	1750		M TRAWL CHINOOK
180327		91	NITINAT R	BC	CDFO	55,109	1,520,236	0691	940209	54		N	164		W	670	4200		F TRAWL CHINOOK
180328		90	NITINAT R	BC	CDFO	54,724	2,137,027	0591	930405	57	52	N	150	9	W	520	1800		M TRAWL CHINOOK
180335		91	CHEHALIS R	BC	CDFO	53,575	1,047,697	0492	930624	57	58	N	151	48	W	439	990		M TRAWL CHINOOK
180343		91	SHUSWAP R, MIDDLE	BC	CDFO	49,844	410,875	0592	940204	57		N	154		W	540	1750		M TRAWL CHINOOK
180349		91	BONAPARTE R	BC	CDFO	74,949	152,851	0492	930704	57	56	N	151	41	W	440	1100		F TRAWL CHINOOK
180354		91	ATNARKO R, UPPER	BC	CDFO	85,114	1,100,899	0692	940203	57		N	154		W	520	1640	0	F TRAWL CHINOOK
180354		90	ATNARKO R, UPPER	BC	CDFO	85,114	1,100,899	0692	940212	57		N	153		W	720	4500		F TRAWL CHINOOK
180354		90	ATNARKO R, UPPER	BC	CDFO	85,114	1,100,899	0692	940206	57		N	154		W	530	1800		M TRAWL CHINOOK
180354		91	ATNARKO R, UPPER	BC	CDFO	85,114	1,100,899	0692	940206	57		N	154		W	530	1800		M TRAWL CHINOOK
180354		90	ATNARKO R, UPPER	BC	CDFO	85,114	1,100,899	0692	940711	56		N	154		W	590	3000		F TRAWL CHINOOK
180354		91	ATNARKO R, UPPER	BC	CDFO	85,114	1,100,899	0692	940206	57		N	154		W	540	1900		F TRAWL CHINOOK
180354		90	ATNARKO R, UPPER	BC	CDFO	85,114	1,100,899	0692	940620							622	2710		F TRAWL CHINOOK
180354		91	ATNARKO R, UPPER	BC	CDFO	85,114	1,100,899	0692	940601							587	2510		F TRAWL CHINOOK
180426		91	DEEP COVE	BC	CDFO	25,659	88,543	0592	940925	54		N	165		W	687	4180	45	F TRAWL CHINOOK
180433		91	KILDALA R	BC	CDFO	28,814	127,371	0492	930718	56	24	N	153	45	W	430	1140		M TRAWL CHINOOK
180458		91	NITINAT R	BC	CDFO	31,410	1,178,854	0592	940207							550	2100		M TRAWL CHINOOK
180462		91	NITINAT R	BC	CDFO	23,927	464,947	0592	940215	57		N	152		W	490	1900		F TRAWL CHINOOK
180529		91	SOOKE R	BC	CDFO	26,740	52,929	0692	940620							527	1690		M TRAWL CHINOOK
180530		91	SOOKE R	BC	CDFO	26,616	52,801	0692	940620							549	2100		F TRAWL CHINOOK
180554		91	YAKOUN R	BC	CDFO	15,862	40,796	0692	941009	57		N	152		W	730	6210		F TRAWL CHINOOK
180729		92	CONUMA ESTUARY	BC	CDFO	30,641	891,835	0493	950702	58	4	N	153	25	W	630	3150		M TRAWL CHINOOK
180734		92	NITINAT LAKE	BC	CDFO	32,276	532,263	0593	950702	58	4	N	153	25	W	610	3260		M TRAWL CHINOOK
180804		91	ROBERTSON CR	BC	CDFO	27,574	919,148	0592	940615							634	2940		F TRAWL CHINOOK
180826		89	ATNARKO R, LWR	BC	CDFO	58,645	258,585	0592	940202	57		N	154		W	550	1750		F TRAWL CHINOOK
180826		90	ATNARKO R, LWR	BC	CDFO	58,645	258,585	0592	941003	57		N	152		W	760	6700		M TRAWL CHINOOK
180826		90	ATNARKO R, LWR	BC	CDFO	58,645	258,585	0592	940620							582	2210		M TRAWL CHINOOK
180827		91	ATNARKO R, LWR	BC	CDFO	57,377	479,003	0692	950121	57	49	N	154	9	W	760	5200		M TRAWL CHINOOK
180827		90	ATNARKO R, LOWER	BC	CDFO	57,377	479,003	0692	940204	57		N	154		W	580	2250		M TRAWL CHINOOK
180827		91	ATNARKO R, LWR	BC	CDFO	57,377	479,003	0692	940206	57		N	154		W	490	1600		M TRAWL CHINOOK
180827		90	ATNARKO R	BC	CDFO	57,377	479,003	0692	940206							590	3000		M TRAWL CHINOOK
180827		91	ATNARKO R, LWR	BC	CDFO	57,377	479,003	0692	940615							595	2420		F TRAWL CHINOOK
180830		91	MITCHE CR/YUKON	YK	CDFO	52,946	302,755	0692	950224	55	19	N	164	43	W		1800		F TRAWL CHINOOK
180835		90	QUESNEL R, HATCHERY	BC	CDFO	53,088	276,129	0493	940214	57		N	152		W	580	2400		M TRAWL CHINOOK
180837		91	SALLOOMT RIVER	BC	CDFO	59,876	70,177	0792	950403	57	56	N	150	32	W	700	4400		M TRAWL CHINOOK
180837		90	SALLOOMT R	BC	CDFO	59,876	70,177	0792	940615							620	2520		F TRAWL CHINOOK
180851		91	NICOLA RIVER	BC	CDFO	74,489	214,749	0493	950327	58	23	N	149	23	W	630	3300		M TRAWL CHINOOK
181222		92	ATNARKO R, LWR	BC	CDFO	61,002	518,559	0693	950124	58	5	N	153	29	W	520	2400		F TRAWL CHINOOK
181224		92	ATNARKO R, UPR	BC	CDFO	54,413	766,667	0693	950122	58	3	N	152	23	W	570	2450		M TRAWL CHINOOK
181224		92	ATNARKO R, UPR	BC	CDFO	54,413	766,667	0693	950702	58	4	N	153	25	W	620	2970		F TRAWL CHINOOK
181558		93	CONUMA R	BC	CDFO	36,037	530,034	0594	950702	58	4	N	153	25	W	403	760		F TRAWL CHINOOK
21049		91	MARBLE R	BC	CDFO	20,840	77,768	0692	940615							581	2340		F TRAWL CHINOOK
211834		89	COOK CR (QUIN)	WA	FWS	187,402	579,332	0790	920606	56	58	N	152	31	W	490	1500		F TRAWL CHINOOK
211835		89	SALMON R 21-0139	WA	QDNR	120,787	242,386	0990	920120	57	41	N	154	30	W	470	1500		F TRAWL CHINOOK
211835		91	SALMON R	WA	QDNR	120,787	242,386	0890	940620							919	10020		F TRAWL CHINOOK
211846		89	QUINULT R 21-0398	WA	QDNR	93,091	590,392	0690	920312	56	35	N	152	18	W	560	2000		M TRAWL CHINOOK
211904	R2	85	COOK CR (QUIN)	WA	QDNR	201,209	297,434	0786	900410	57	59	N	149	16	W	750	5800		M TRAWL CHINOOK
211904	R4	85	COOK CR (QUIN)	WA	QDNR	201,209	297,434	0786	900410	57	59	N	149	16	W	730	4800	25	F TRAWL CHINOOK
212010		90	SALMON R 21-0139	WA	COOP	164,504	175,448	0891	930319	57	52	N	149	55	W	480	1420		M TRAWL CHINOOK
212010		90	SALMON R 21-0139	WA	COOP	164,504	175,448	0891	930410	57	40	N	150	13	W	470	1400		F TRAWL CHINOOK
212010		91	SALMON R 21-0139	WA	COOP	164,504	175,448	0891	940204	57		N	154		W	630	3100		M TRAWL CHINOOK
212028		90	QUINULT R 21-0398	WA	QDNR	27,929	102,514	0991	930216	58	3	N	153	36	W	540	1900		M TRAWL CHINOOK
212028		90	QUINULT R 21-0398	WA	QDNR	27,929	102,514	0991	930221	57	54	N	153	49	W	480	1550		M TRAWL CHINOOK
212260		90	SALMON R 21.0139	WA	QDNR	168,795	343,700	0792	940615							599	2560		M TRAWL CHINOOK

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Tag Code	Replicate	Brood	Release Site	State	Agency <sup>a</sup>	Total		Release Date(mm/yy)	Recovery Date(yymmdd)	Latitude		Longitude		Length (mm)	Weight (g)	Gonad Weight(g)	Sex	Gear	Species		
						# Tagged	# Released			Deg	Min	Deg	Min								
212452	R1	93	SALMON R 21-0139	WA	QDNR	170,604	205,300	0894	951003	57	6	N	152	25	W	430	800		TRAWL	CHINOOK	
212549		88	QUINALT R 21-0398	WA	QDNR	147,936	770,200	0689	910111	57	10	N	152	24	W	450	1400	M	TRAWL	CHINOOK	
21319		90	CONUMA R	BC	CDFO	25,551	675,221	0591	940615							750	4890	F	TRAWL	CHINOOK	
21327		90	DOME CR	BC	CDFO	28,349	29,068	0492	940301							710	4000		TRAWL	CHINOOK	
21428		90	ATNARKO R, UPPER	BC	CDFO	23,746	366,651	0691	940000							780	6000		TRAWL	CHINOOK	
231623		82	COL. R. MCNARY	OR	NMFS	15,057	15,057	0683	841020	56	50	N	152	28	W	510	1450	1	M	TRAWL	CHINOOK
231623		82	COL. R. MCNARY	OR	NMFS	15,057	15,057	0683	841125	56	47	N	152	24	W	470	1430	20	F	TRAWL	CHINOOK
231625		82	COL. R. BONNEVILLE	OR	NMFS	15,096	15,096	0783	850205	57	37	N	155	11	W	470	1300		F	TRAWL	CHINOOK
231626		82	COL. R. BEACON ROCK	WA	NMFS	15,040	15,040	0783	841210	56	57	N	152	35	W	560	2620		M	TRAWL	CHINOOK
231960		86	COL. R BELOW BNVILLE	WA	NMFS	9,146	9,146	0687	900315	57	8	N	154	52	W	680			M	TRAWL	CHINOOK
232139		86	BONNEVILLE BYPASS	OR	NMFS	17,803	19,892	0787	900122	57	1	N	152	23	W	770	6500		F	TRAWL	CHINOOK
311609		84	CROOKED CR 244-30	AK	ADFG	10,193	54,087	0685	861124	56	52	N	152	41	W	510	1300		M	TRAWL	CHINOOK
311613		82	CROOKED CR 244-30	AK	ADFG	14,000	211,000	0583	841113	54	18	N	160	41	W	590			M	TRAWL	CHINOOK
311727		85	DECEPTION CR 247-41	AK	ADFG	18,400	130,178	0586	880910	54	47	N	165	24	W	660			F	TRAWL	CHINOOK
311759		87	MONTANA CR 247-41	AK	ADFG	21,588	132,503	0788	901023	56	22	N	155	44	W	510	2000		F	TRAWL	CHINOOK
311760		88	DECEPTION CR	AK	ADFG	19,851	240,885	0589	901022	56	28	N	155	35	W	440	1100		F	TRAWL	CHINOOK
311820		88	CROOKED CR 244-30	AK	ADFG	25,371	120,705	0689	901023	56	22	N	155	44	W	350			F	TRAWL	CHINOOK
311854		89	CROOKED CR 244-30	AK	ADFG	26,475	234,019	0690	911024	57	7	N	152	43	W	430	1100		M	TRAWL	CHINOOK
312160		92	DECEPTION CR 247-41	AK	ADFG	39,420	160,194	0693	950313	56	7	N	153	58	W	600	3200		M	TRAWL	CHINOOK
312311		93	SELDOVIA HBR 241-11	AK	ADFG	45,071	107,246	0694	950122					W		290	600		F	TRAWL	CHINOOK
43225		91	SITKA SOUND 113-41	AK	SJ	10,088	25,347	0591	940219							730	4700			TRAWL	CHINOOK
43646		91	BEAR COVE 113-41	AK	NSRA	10,359	137,290	0592	940615							621	2940		F	TRAWL	CHINOOK
43648		90	BEAR COVE 113-41	AK	NSRA	9,945	118,730	0592	940620							681	3990		M	TRAWL	CHINOOK
471609		88	TAMGAS CR	AK	MIC	109,656	1,063,778	0590	920929	56	49	N	152	21	W	660	3500	20	M	TRAWL	CHINOOK
471609		88	TAMGAS CR	AK	MIC	109,656	1,063,778	0590	930319	57	52	N	149	55	W	690	3850		F	TRAWL	CHINOOK
600544		81	SOUTH BEACH	OR	OAF	14,762	18,799	0982	850202	56	24	N	156	18	W	630	3980	1	M	TRAWL	CHINOOK
622308		81	COOS BAY	OR	ANAD	9,732	9,732	0982	851118	56	46	N	152	22	W	800	8400	20	M	TRAWL	CHINOOK
624832	R1	80	SIUSLAW BAY	OR	DOMS	14,961	33,662	1281	841020	56	47	N	152	23	W	740	4850	20	F	TRAWL	CHINOOK
630732	R1	89	COLUMBIA R AT PRIEST	WA	WDF	194,530	6,230,590	0690	930405	57	48	N	150	3	W	700	5000		F	TRAWL	CHINOOK
630756	R4	89	STEVENSON CR 22-0064	WA	WDF	203,892	760,086	0790	930413	56	9	N	153	59	W	660	3450		F	TRAWL	CHINOOK
630759	R3	89	SIMILKAMEEN R-490325	WA	WDF	116,821	203,795	0591	930209	57	47	N	154	7	W	580	2300		F	TRAWL	CHINOOK
631119	R2	89	WENATCHEE R 45-0030	WA	WDF	144,905	720,000	0591	930217	57	43	N	154	10	W	570	2500		F	TRAWL	CHINOOK
632252		81	COLUMBIA R	WA	WDF	262,176	4,623,241	0682	841122	56	50	N	152	21	W	710	5200	20	F	TRAWL	CHINOOK
632252		81	COLUMBIA R	WA	WDF	262,176	4,623,241	0682	841127	56	55	N	152	32	W	730	4800	30	F	TRAWL	CHINOOK
632257		82	STEVENS CR	WA	WDF	112,592	115,598	0683	841016	56	44	N	152	18	W	460	1150	1	M	TRAWL	CHINOOK
632257		82	STEVENS CR	WA	WDF	112,592	115,598	0683	841016	56	44	N	152	18	W	480	1300	1	F	TRAWL	CHINOOK
632257		82	STEVENS CR	WA	WDF	112,592	115,598	0683	841016	56	53	N	152	25	W	440	1050	1	F	TRAWL	CHINOOK
632257		82	STEVENS CR	WA	WDF	112,592	115,598	0683	841119	57	1	N	152	36	W	430	1200	40	F	TRAWL	CHINOOK
632257		82	STEVENS CR	WA	WDF	112,592	115,598	0683	851025	56	45	N	152	18	W	630	3750	1	F	TRAWL	CHINOOK
632257		82	STEVENS CR	WA	WDF	112,592	115,598	0683	851118	56	46	N	152	22	W	650	4200		F	TRAWL	CHINOOK
632436		81	COLUMBIA R	WA	WDF	48,700	886,000	0582	850707	56	31	N	155	39	W	610	3400	1	M	TRAWL	CHINOOK
632501		82	FORK CR	WA	WDF	150,360	2,063,291	0583	841013	57	0	N	152	33	W	520	1900	1	M	TRAWL	CHINOOK
632501		82	FORK CR	WA	WDF	150,360	2,063,291	0583	841020	56	50	N	152	20	W	470	1350	1	F	TRAWL	CHINOOK
632501		82	FORK CR	WA	WDF	150,360	2,063,291	0583	841111	56	48	N	152	29	W	410	1150	1	F	TRAWL	CHINOOK
632501		82	FORK CR	WA	WDF	150,360	2,063,291	0583	850204	57	34	N	155	16	W	500	1700		F	TRAWL	CHINOOK
632506		81	COWLITZ R	WA	WDF	77,454	78,000	0483	841020	56	47	N	152	23	W	620	3000	1	F	TRAWL	CHINOOK
632611		82	COLUMBIA R	WA	WDF	204,141	2,040,300	0583	841020	56	47	N	152	23	W	520	1750	1	M	TRAWL	CHINOOK
632611		82	COLUMBIA R	WA	WDF	204,141	2,040,300	0583	850307	57	52	N	154	2	W	620	2800		M	TRAWL	CHINOOK
632612		82	COLUMBIA R	WA	WDF	202,388	203,100	0683	841128	56	50	N	152	25	W	480	1650		F	TRAWL	CHINOOK
632612		82	COLUMBIA R	WA	WDF	202,388	203,100	0683	850202	56	24	N	156	18	W	460	1350	1	F	TRAWL	CHINOOK
632612		82	COLUMBIA R	WA	WDF	202,388	203,100	0683	850202	56	24	N	156	18	W	470	1370	1	F	TRAWL	CHINOOK
632612		82	COLUMBIA R	WA	WDF	202,388	203,100	0683	850203	56	36	N	156	14	W	500	1720	1	F	TRAWL	CHINOOK
632612		82	COLUMBIA R	WA	WDF	202,388	203,100	0683	850204	57	33	N	155	21	W	530	1900	1	F	TRAWL	CHINOOK
632612		82	COLUMBIA R	WA	WDF	202,388	203,100	0683	850212	57	32	N	154	49	W	470			F	TRAWL	CHINOOK
632842		85	STEVENSON CR	WA	WDF	215,738	229,451	0786	900410	57	59	N	149	16	W	920	11200		M	TRAWL	CHINOOK
632842		85	STEVENSON CR	WA	WDF	215,738	229,451	0786	900425	55	22	N	155	59	W	790	6400		F	TRAWL	CHINOOK
632842		85	STEVENSON CR	WA	WDF	215,738	229,451	0786	900425	55	21	N	155	57	W	760	6100	1	F	TRAWL	CHINOOK
632842		85	STEVENSON CR	WA	WDF	215,738	229,451	0786	910327	58	0	N	148	55	W	920	11400	150	F	TRAWL	CHINOOK
632857		83	COLUMBIA R	WA	WDF	197,528	253,800	0585	861116	57	4	N	152	21	W	650	3310		F	TRAWL	CHINOOK
633229		84	STEVENSON CR	WA	WDF	59,334	60,104	0685	861128	57	0	N	152	32	W	510	1500		F	TRAWL	CHINOOK
633230		84	STEVENSON CR	WA	WDF	58,133	58,887	0685	900410	57	59	N	149	16	W	1010	16200		M	TRAWL	CHINOOK
633241		84	FORK CR	WA	WDF	50,166	542,072	0785	861116	57	4	N	152	21	W	440	1150		F	TRAWL	CHINOOK
633433		84	WASHOUGAL R 28-0159	WA	WDF	26,173	33,471	0885	871121	58	40	N	140	35	W	680	4700	1	F	TRAWL	CHINOOK

-continued-

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Tag Code	Replicate	Brood	Release Site	State	Agency <sup>a</sup>	Total		Release Date(mm/yy)	Recovery Date(vv/mm/dd)	Latitude		Longitude		Length (mm)	Weight (g)	Gonad Weight(g)	Sex	Gear	Species
						# Tagged	# Released			Deg.	Min.	Deg.	Min.						
633933		90	WISHKAH R 22-0191	WA	COOP	48,635	50,000	0392	930405	57	52 N	150	9 W	510	1600		M	TRAWL	CHINOOK
633933		90	WISHKAH R 22-0191	WA	COOP	48,635	50,000	0392	930407	58	42 N	150	20 W	590	2000		M	TRAWL	CHINOOK
634057		90	COLUMBIA R AT PRIEST	WA	WDF	199,469	5,041,492	0691	930218	58	13 N	153	15 W	510	1550		F	TRAWL	CHINOOK
634115		90	HANFORD REACH	WA	WDF	198,056	200,665	0691	930216	58	10 N	153	24 W	540	2200		M	TRAWL	CHINOOK
634117		90	STEVENS CR 22-0064	WA	WDF	207,589	212,259	0791	921012	57	57 N	151	34 W	470	1600		F	TRAWL	CHINOOK
634117		90	STEVENS CR 22-0064	WA	WDF	207,589	212,259	0791	930220	57	45 N	154	11 W	480	1400		F	TRAWL	CHINOOK
634117		90	STEVENS CR 22-0064	WA	WDF	207,589	212,259	0791	930324	56	44 N	152	25 W	560	2500		M	TRAWL	CHINOOK
634117		90	STEVENS CR 22-0064	WA	WDF	207,589	212,259	0791	930414	56	10 N	153	59 W	500	1450		F	TRAWL	CHINOOK
634117		89	STEVENS CR 22-0064	WA	WDFW	207,589	212,259	0791	940222	54	N	165	W	620	2800		M	TRAWL	CHINOOK
634117		90	STEVENS CR 22-0064	WA	WDFW	207,589	212,259	0791	940311	56	N	154	W	770	6300		F	TRAWL	CHINOOK
634125	R3	86	FORK CR	WA	WDF	211,092	1,864,500	0587	901021	56	27 N	155	35 W	700	4600		F	TRAWL	CHINOOK
634203		90	SATSOP R 22-0360	WA	WDF	93,728	102,300	0791	930210	57	57 N	153	45 W	480	1800		M	TRAWL	CHINOOK
634203		90	SATSOP R 22-0360	WA	WDF	93,728	102,300	0791	930220	58	1 N	152	30 W	480	1500			TRAWL	CHINOOK
634203		90	SATSOP R 22-0360	WA	WDFW	93,728	102,300	0791	940204	57	N	154	W	700	4250		F	TRAWL	CHINOOK
634414	R1	86	STEVENS CR	WA	WDF	201,468	283,320	0787	910000		N							TRAWL	CHINOOK
634414	R3	86	STEVENS CR	WA	WDF	201,468	283,320	0787	910314	55	22 N	155	55 W	550	1900		M	TRAWL	CHINOOK
634418		91	METHOW R 48-0002	WA	WDFW	371483	391650	0592	940206	57	N	154	W	570	2600		M	TRAWL	CHINOOK
635247	R3	88	LEWIS R	WA	WDF	113,890	190,800	0490	920405	57	4 N	152	22 W	570	2900		F	TRAWL	CHINOOK
635259	R1	88	STEVENS CR 22-0064	WA	WDF	206,735	492,150	0789	920312	56	35 N	152	18 W	590				TRAWL	CHINOOK
635259	R2	88	STEVENS CR 22-0064	WA	WDF	206,735	492,150	0789	910000		N							TRAWL	CHINOOK
635259	R2	88	STEVENS CR 22-0064	WA	WDF	206,735	492,150	0789	930320	58	53 N	148	47 W	750	5600		F	TRAWL	CHINOOK
635259	R3	88	STEVENS CR 22-0064	WA	WDF	206,735	492,150	0789	920312	56	35 N	152	18 W	660	4200		F	TRAWL	CHINOOK
635259	R4	88	STEVENS CR 22-0064	WA	WDF	206,735	492,150	0789	920502	57	40 N	150	9 W	705	4800	50	F	TRAWL	CHINOOK
635556	R1	89	KLICKITAT R	WA	WDF	19,483	19,800	0591	921005	57	2 N	152	31 W	540	1500		F	TRAWL	CHINOOK
635904	R1	89	WASHOUGAL R 28-0159	WA	WDF	93,542	5,644,000	0690	930407	58	42 N	150	20 W	600	2300		M	TRAWL	CHINOOK
75626		90	SANTIAM R. S FK	OR	ODFW	158,403	478,559	1191	940620					620	5490		F	TRAWL	CHINOOK
82849		91	NTINAT L	BC	CDFO	5,455	10,955	0691	940615					633	3310		F	TRAWL	CHINOOK
B40904		81	CROOKED CR 244-30	AK	ADFG	10,000	52,800	0683	841023	56	58 N	152	31 W	510	1550	1	M	TRAWL	CHINOOK
B40907		81	NEETS BAY 101-90	AK	SSRA	94,723	96,656	0583	841010	56	58 N	152	41 W	650	3600	20	M	TRAWL	CHINOOK
B40907		81	NEETS BAY 101-90	AK	SSRA	94,723	96,656	0583	841019	56	42 N	152	21 W	580	2600	1	M	TRAWL	CHINOOK
B40907		81	NEETS BAY 101-90	AK	SSRA	94,723	96,656	0583	841114	56	49 N	152	29 W	630	4400	1	F	TRAWL	CHINOOK
B40907		81	NEETS BAY 101-90	AK	SSRA	94,723	96,656	0583	841201	56	59 N	152	33 W	580	3100	1	F	TRAWL	CHINOOK
B40907		81	NEETS BAY 101-90	AK	SSRA	94,723	96,656	0583	850218	57	16 N	155	13 W	580	3000	30	F	TRAWL	CHINOOK
B40907		81	NEETS BAY 101-90	AK	SSRA	94,723	96,656	0583	850220	57	46 N	154	39 W	650	3400	10	M	TRAWL	CHINOOK
B40907		81	NEETS BAY 101-90	AK	SSRA	94,723	96,656	0583	841013	56	59 N	152	42 W	610	3150	1	M	TRAWL	CHINOOK
B40908		81	NEETS BAY 101-90	AK	SSRA	37,737	38,507	0583	841015	56	47 N	152	23 W	510	1950	1	F	TRAWL	CHINOOK
B40908		81	NEETS BAY 101-90	AK	SSRA	37,737	38,507	0583	841021	56	42 N	152	24 W	640	3000	1	F	TRAWL	CHINOOK
B40908		81	NEETS BAY 101-90	AK	SSRA	37,737	38,507	0583	850216	58	11 N	154	3 W	550	2300		F	TRAWL	CHINOOK
B40908		81	NEETS BAY 101-90	AK	SSRA	37,737	38,507	0583	850221	57	54 N	154	41 W	520	1600		F	TRAWL	CHINOOK
B40908		81	NEETS BAY 101-90	AK	SSRA	37,737	38,507	0583	851110	54	24 N	159	55 W	800		80	F	TRAWL	CHINOOK

<sup>a</sup> AAI = Alaska Aquaculture, Inc.

ADF&G = Alaska Department of Fish and Game

AKI = Armstrong Keta, Inc.

ANAD = Anadromous, Inc.

CDFG = California Dept. of Fish and Game

CDFO = Canadian Department of Fisheries and Oceans

CDFR = Canada Dept. of Fisheries and Oceans – Research

CEDC = Clatsop Economic Development Council

COOP = Washington Dept. of Fish and Wildlife – Cooperative

DIPC = Douglas Island Pink and Chum, Inc.

DOMS = Domsea Farms, Inc.

FWS = U.S. Fish and Wildlife Service

HOH = Hoh Tribe

MAKA = Makah Tribe

MIC = Metlakatla Indian Community

NMFS = National Marine Fisheries Service

NSRA = N. SE Regional Aquaculture Assn.

OAF = Oregon Aquafoods, Inc.

ODFW = Oregon Department of Fish and Wildlife

PWSA = Prince William Sound Aquaculture Assn.

QDNR = Quinalt Department of Natural Resources

QUIL = Quileute Tribe

SSRA = S. SE Regional Aquaculture Assn.

SJ = Sheldon Jackson College

UI = University of Idaho

WDF = Washington Department of Fisheries

WDFW = Washington Department Fish and Wildlife