

**Fishery Management Report No. 09-32**

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**Upper Cook Inlet Commercial Fisheries Annual  
Management Report, 2008**

by

**Pat Shields**

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July 2009

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



## Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the *Système International d'Unités* (SI), are used without definition in the following reports by the Divisions of Sport Fish and of Commercial Fisheries: Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, and Special Publications. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figure or figure captions.

<b>Weights and measures (metric)</b>		<b>General</b>		<b>Measures (fisheries)</b>	
centimeter	cm	Alaska Administrative Code	AAC	fork length	FL
deciliter	dL	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	mideye t -fork	MEF
gram	g	all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.	mideye to tail fork	METF
hectare	ha	at	@	standard length	SL
kilogram	kg	compass directions:		total length	TL
kilometer	km	east	E		
liter	L	north	N	<b>Mathematics, statistics</b>	
meter	m	south	S	<i>all standard mathematical signs, symbols and abbreviations</i>	
milliliter	mL	west	W	alternate hypothesis	H <sub>A</sub>
millimeter	mm	copyright	©	base of natural logarithm	<i>e</i>
		corporate suffixes:		catch per unit effort	CPUE
<b>Weights and measures (English)</b>		Company	Co.	coefficient of variation	CV
cubic feet per second	ft <sup>3</sup> /s	Corporation	Corp.	common test statistics	(F, t, $\chi^2$ , etc.)
foot	ft	Incorporated	Inc.	confidence interval	CI
gallon	gal	Limited	Ltd.	correlation coefficient (multiple)	R
inch	in	District of Columbia	D.C.	correlation coefficient (simple)	r
mile	mi	et alii (and others)	et al.	covariance	cov
nautical mile	nmi	et cetera (and so forth)	etc.	degree (angular)	°
ounce	oz	exempli gratia		degrees of freedom	df
pound	lb	(for example)	e.g.	expected value	<i>E</i>
quart	qt	Federal Information Code	FIC	greater than	>
yard	yd	id est (that is)	i.e.	greater than or equal to	≥
		latitude or longitude	lat. or long.	harvest per unit effort	HPUE
<b>Time and temperature</b>		monetary symbols		less than	<
day	d	(U.S.)	\$, ¢	less than or equal to	≤
degrees Celsius	°C	months (tables and figures): first three letters	Jan, ..., Dec	logarithm (natural)	ln
degrees Fahrenheit	°F	registered trademark	®	logarithm (base 10)	log
degrees kelvin	K	trademark	™	logarithm (specify base)	log <sub>2</sub> , etc.
hour	h	United States (adjective)	U.S.	minute (angular)	'
minute	min	United States of America (noun)	USA	not significant	NS
second	s	U.S.C.	United States Code	null hypothesis	H <sub>0</sub>
		U.S. state	use two-letter abbreviations (e.g., AK, WA)	percent	%
<b>Physics and chemistry</b>				probability	P
all atomic symbols				probability of a type I error (rejection of the null hypothesis when true)	α
alternating current	AC			probability of a type II error (acceptance of the null hypothesis when false)	β
ampere	A			second (angular)	"
calorie	cal			standard deviation	SD
direct current	DC			standard error	SE
hertz	Hz			variance	
horsepower	hp			population	Var
hydrogen ion activity (negative log of)	pH			sample	var
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

***FISHERY MANAGEMENT REPORT NO. 09-32***

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ANNUAL MANAGEMENT REPORT, 2008**

by

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The Fishery Management Reports series was established in 1989 by the Division of Sport Fish for the publication of an overview of management activities and goals in a specific geographic area, and became a joint divisional series in 2004 with the Division of Commercial Fisheries. Fishery Management Reports are intended for fishery and other technical professionals, as well as lay persons. Fishery Management Reports are available through the Alaska State Library and on the Internet: <http://www.sf.adfg.state.ak.us/statewide/divreports/html/intersearch.cfm>. This publication has undergone regional peer review.

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# TABLE OF CONTENTS

	<b>Page</b>
LIST OF TABLES.....	iii
LIST OF FIGURES.....	iii
LIST OF APPENDICES.....	iv
ABSTRACT.....	1
INTRODUCTION.....	1
Salmon.....	1
Herring.....	2
Smelt.....	3
Razor Clams.....	4
2008 COMMERCIAL SALMON FISHERY.....	4
Regulatory Changes.....	5
Northern District Set Gillnet.....	6
Upper Subdistrict Set Gillnet Fishery.....	6
Central District Drift Gillnet Fishery.....	6
Chinook Salmon.....	7
Northern District.....	7
Upper Subdistrict.....	9
Sockeye Salmon.....	9
Big River.....	12
Western Subdistrict.....	12
Upper Subdistrict Set Gillnet and Central District Drift Gillnet.....	13
Kalgin Island Subdistrict.....	21
Western Subdistrict.....	21
Coho Salmon.....	22
Pink Salmon.....	22
Chum Salmon.....	22
Price, Average Weight and Participation.....	23
Salmon Enhancement.....	24
Stock Status and Outlook.....	25
Sockeye Salmon.....	25
Susitna River.....	25
Crescent River.....	27
Fish Creek.....	28
2009 Sockeye Salmon Outlook.....	30
Pink Salmon.....	30
Chum Salmon.....	31
Coho Salmon.....	32
Northern District.....	33
Kenai River.....	34
Chinook Salmon.....	35
Northern District.....	35
Kenai River.....	36
COMMERCIAL HERRING FISHERY.....	36
COMMERCIAL SMELT FISHERY.....	36
COMMERCIAL RAZOR CLAM FISHERY.....	37

## TABLE OF CONTENTS (Continued)

	<b>Page</b>
SUBSISTENCE FISHERIES .....	38
Tyonek Subsistence Salmon Fishery .....	38
Upper Yentna River Subsistence Salmon Fishery .....	38
EDUCATIONAL FISHERIES .....	39
Central District Educational Fisheries .....	39
Northern District Educational Fisheries .....	40
PERSONAL USE SALMON FISHERY .....	40
Kasilof River Gillnet .....	42
Kasilof River Dip Net .....	42
Kenai River Dip Net .....	42
Fish Creek Dip Net Fishery .....	42
Beluga River Senior citizen Dip Net Fishery .....	42
REFERENCES CITED .....	42
TABLES AND FIGURES .....	45
APPENDIX A .....	121
APPENDIX B .....	153
APPENDIX C .....	171

## LIST OF TABLES

<b>Table</b>	<b>Page</b>
1. Upper Cook Inlet sockeye salmon goals and escapement, 2008. ....	5
2. Upper Cook Inlet Northern District early season Chinook salmon fishery harvest, 1986–2008. ....	8
3. Upper Cook Inlet 2008 sockeye salmon forecast and return. ....	11
4. Upper subdistrict set gillnet fishing hours. ....	17
5. Kasilof River terminal harvest area sockeye salmon harvest, 2008. ....	20
6. Sockeye salmon estimates of passage, 2008. ....	21
7. Upper Cook Inlet sockeye salmon run, 2008. ....	25
8. Crescent Lake sockeye salmon average escapement, harvest and run, 1976–2008. ....	28
9. Production of sockeye salmon in Big Lake, 1997–2008. ....	29
10. Upper Cook Inlet pink salmon commercial harvests and Deshka River escapements, 1996–2008. ....	31
11. Coho salmon escapement and enumeration, 1996–2008. ....	33
12. Deshka River Chinook salmon passage, 1995–2008. ....	35
13. Commercial eulachon harvest, 1978, 1980, 1998-99, and 2006-2008. ....	37
14. Offshore test fish sockeye salmon catch results and environmental data, 2008. ....	46
15. Upper Cook Inlet sockeye salmon enumeration by river and date, 2008. ....	47
16. Commercial Chinook salmon catch by area and date, Upper Cook Inlet, 2008. ....	50
17. Commercial sockeye salmon catch by area and date, Upper Cook Inlet, 2008. ....	57
18. Commercial coho salmon catch by area and date, Upper Cook Inlet, 2008. ....	64
19. Commercial pink salmon catch by area and date, Upper Cook Inlet, 2008. ....	71
20. Commercial chum salmon catch by area and date, Upper Cook Inlet, 2008. ....	78
21. Commercial salmon catch by gear, statistical area and species, Upper Cook Inlet, 2008. ....	84
22. Commercial salmon catch per permit by statistical area, Upper Cook Inlet, 2008. ....	85
23. Commercial fishing emergency orders issued during the 2008 Upper Cook Inlet fishing season. ....	86
24. Commercial salmon fishing periods, Upper Cook Inlet, 2008. ....	97
25. Age composition (in percent) of sockeye salmon escapements, Upper Cook Inlet, 2008. ....	101
26. Upper Cook Inlet salmon average weights (in pounds) by area, 2008. ....	102
27. Major buyers and processors of Upper Cook Inlet fishery products, 2008. ....	104
28. Number of salmon harvested by gear, area, and species in personal use fisheries, Upper Cook Inlet, 2008. ....	105
29. Age, weight, sex, and size distribution of Pacific herring sampled by gillnet in Upper Cook Inlet, 2008. .	106
30. Age, sex, and size distribution of eulachon (smelt) from Upper Cook Inlet commercial dip net fishery, 2006-2008. ....	108
31. Seldovia District tide tables, May through August, 2008. ....	109
32. Total sockeye salmon harvest from all sources in Upper Cook Inlet, 1996–2008. ....	113
33. Daily commercial harvest of razor clams, Upper Cook Inlet, 2008. ....	114

## LIST OF FIGURES

<b>Figure</b>	<b>Page</b>
1. Major tributaries of the Cook Inlet basin. ....	115
2. Upper Cook Inlet commercial fisheries Subdistrict fishing boundaries. ....	116
3. Upper Cook Inlet commercial fisheries statistical areas. ....	117
4. Drift gillnet boundaries for fishing areas 1 and 2. ....	118
5. Drift gillnet boundaries for fishing areas 3 and 4. ....	119
6. Length frequency of razor clam shells sampled from the 2008 Polly Creek commercial razor clam fishery. ....	120

# LIST OF APPENDICES

<b>Appendix</b>	<b>Page</b>
A1. Upper Cook Inlet commercial Chinook salmon harvest by gear type and area, 1966–2008.....	122
A2. Upper Cook Inlet commercial sockeye salmon harvest by gear type and area, 1966–2008.....	124
A3. Upper Cook Inlet commercial coho salmon harvest by gear type and area, 1966–2008.....	126
A4. Upper Cook Inlet commercial pink salmon harvest by gear type and area, 1966–2008. ....	128
A5. Upper Cook Inlet commercial chum salmon harvest by gear type and area, 1966–2008.....	130
A6. Upper Cook Inlet commercial salmon harvest by species, 1966–2008. ....	132
A7. Approximate exvessel value of Upper Cook Inlet commercial salmon harvest by species, 1960–2008.....	134
A8. Commercial herring harvest by fishery, Upper Cook Inlet, 1973–2008.....	136
A9. Commercial harvest of razor clams in Upper Cook Inlet, 1919–2008. ....	137
A10. Enumeration goals and counts of sockeye salmon in selected streams of Upper Cook Inlet, 1978–2008. .	138
A11. Average price paid for commercially harvested salmon, Upper Cook Inlet, 1969–2008.....	140
A12. Average weight (pounds) of commercially harvested salmon, Upper Cook Inlet, 1969–2008. ....	141
A13. Registered units of gillnet fishing effort by gear type in Cook Inlet, 1970–2008. ....	142
A14. Forecast and projected commercial harvests of salmon by species, Upper Cook Inlet, 1985–2008. ....	143
A15. Upper Cook Inlet subsistence fisheries salmon harvest, 1980–2008.....	144
A16. Upper Cook Inlet educational fisheries salmon harvest, 1994–2008. ....	146
A17. Effort and harvest in Upper Cook Inlet personal use salmon fisheries, 1996-2008. ....	150
B1. Upper Cook Inlet 2007 outlook for commercial salmon fishing .....	154
B2. 2009 Upper Cook Inlet sockeye salmon forecast. ....	165
C1. 2008 Upper Cook Inlet commercial smelt (hooligan) and herring fishing seasons.....	172



## ABSTRACT

The 2008 Upper Cook Inlet (UCI) area management report describes commercial fishing activities monitored by the Alaska Department of Fish and Game, Division of Commercial Fisheries, in Soldotna. The UCI management area consists of that portion of Cook Inlet north of the latitude of Anchor Point and is divided into the Central and Northern Districts. The Central District is comprised of six Subdistricts, while the Northern District includes two Subdistricts. At present, all 5 species of Pacific salmon (sockeye *Oncorhynchus nerka*, Chinook *O. tshawytscha*, chum *O. keta*, coho *O. kisutch*, and pink *O. gorbuscha*), razor clams (*Siliqua patula*), Pacific herring (*Clupea pallasii*), and eulachon or smelt (*Thaleichthys pacificus*) are subject to commercial harvest in UCI. The 2008 UCI commercial harvest of 3.4 million salmon was approximately 34% less than the 1966–2007 average annual harvest of 4.2 million fish, while the commercial sockeye salmon harvest estimate of 2.4 million fish was 19% below the 1966–2007 average annual harvest of 2.9 million fish. The 2008 estimated exvessel value of \$16.6 million was just slightly greater than the average exvessel average value of \$15.9 million from the previous 10-years, but approximately 25% less than the 1966-2007 average annual exvessel value of \$25.2 million. Only 3 of 6 monitored sockeye salmon systems in UCI fell within established escapement goal ranges for the 2008 season. The timing of the 2008 sockeye salmon run was estimated to be 4-days early, which was the fourth earliest run-timing since this statistic has been measured.

Key words: Upper Cook Inlet, commercial fishery, personal use fishery, gillnet, escapement, salmon, sockeye, *Oncorhynchus nerka*, Chinook, *O. tshawytscha*, chum, *O. keta*, coho *O. kisutch*, pink *O. gorbuscha*, Pacific herring, *Clupea pallasii*, smelt, eulachon, *Thaleichthys pacificus*, razor clam, *Siliqua patula*, Annual Management Report, AMR.

## INTRODUCTION

The Upper Cook Inlet (UCI) management area consists of that portion of Cook Inlet north of the latitude of Anchor Point and is divided into the Central and Northern Districts (Figures 1 and 2). The Central District is approximately 75 miles long, averages 32 miles in width, and is divided into six Subdistricts. The Northern District is 50 miles long, averages 20 miles in width and is divided into two Subdistricts. At present, all 5 species of Pacific salmon (*Oncorhynchus*), razor clams (*Siliqua patula*), Pacific herring (*Clupea pallasii*), and eulachon or smelt (*Thaleichthys pacificus*) are subject to commercial harvest in Upper Cook Inlet. Harvest statistics are gathered and reported by 5-digit statistical areas and sub-areas (Figure 3).

## SALMON

Since the inception of a commercial fishery in 1882, many gear types, including fish traps, gillnets, and seines have been employed with varying degrees of success to harvest salmon in UCI (Clark et al. 2006). Currently, set (fixed) gillnets are the only gear permitted in the Northern District, while both set and drift gillnets are used in the Central District. The use of seine gear is restricted to the Chinitna Bay Subdistrict, where they have been employed sporadically. Drift gillnets have accounted for approximately 6% of the average annual harvest of Chinook salmon since 1966, as well as 55% of sockeye, 47% of coho, 42% of pink, and 88% of chum salmon (Appendices A1–A5); set gillnets have harvested virtually all of the remainder. However, in the last 10 years (1999-2008), the percentage of the total annual coho, pink, and chum salmon harvest taken by drift gillnets has increased, while at the same time the average annual drift gillnet harvest percentage for sockeye salmon has decreased. Overall, during the last 10-years, the average annual total harvest of Chinook and sockeye salmon by all users has remained fairly stable compared to the 1966-2008 average, but has decreased significantly for coho, pink, and chum salmon.

Detailed commercial salmon harvest statistics for UCI specific to gear type and area are available only back to 1966 (Appendix A6). Run-timing and migration routes utilized by all species overlap to such a degree that the commercial fishery is largely mixed-stock and mixed-species in nature. Typically, the UCI harvest represents approximately 5% of the statewide catch. Nearly 10% of all salmon permits issued statewide are for the Cook Inlet area.

In terms of their recent economic value, sockeye salmon (*O. nerka*) are by far the most important component of the catch, followed by coho (*O. kisutch*), Chinook (*O. tshawytscha*), chum (*O. keta*), and pink salmon (*O. gorbuscha*) (Appendix A7).

## **HERRING**

Commercial herring fishing began in UCI in 1973 with a modest harvest of bait-quality fish along the east side of the Central District and expanded in the late 1970s to include small-scale sac roe fisheries in Chinitna and Tuxedni Bays (Appendix A8). Beginning in 1988, significant decreases in herring abundance were observed in Tuxedni Bay, as well as a shift towards older age class herring, resulting in the closure of Tuxedni Bay to commercial herring fishing prior to the 1992 season. In Chinitna Bay and along the eastside beaches, similar declines began to materialize after the 1990 season.

As a result of these declines, the Alaska Department of Fish and Game (ADF&G) submitted a proposal to the Alaska Board of Fisheries (BOF) to open the UCI herring fishery by emergency order only. This proposal passed and became regulation for the 1993 season, ending a long period with fixed opening dates of April 15 on the east side and April 22 on the west side of Cook Inlet. This action effectively closed these fisheries to provide time for herring stocks to recover.

In 1998 the Upper Subdistrict of the Central District and the Eastern Subdistrict of the Northern District were opened to commercial herring fishing to assess the status of the herring population. The herring fisheries on the west side of Cook Inlet remained closed until the status of the east side stocks was determined. Prior to the 1999 season, ADF&G again submitted proposals to the BOF, seeking to restructure the herring fishery to two 30-hour periods per week, beginning on Mondays and Thursdays. These proposals included preseason registration and requiring fishermen to report their harvests within 12 hours of the closure of a fishing period.

The proposals were passed in the form of a management plan, 5 AAC 27.409 Central District Herring Recovery Management Plan, which became active prior to the 1999 season, and limited herring fishing in UCI to the waters of the Upper, Western, and Chinitna Bay Subdistricts. In the Upper Subdistrict, fishing for herring is not allowed closer than 600 feet of the mean high tide mark on the Kenai Peninsula in order to reduce the incidental harvest of salmon. The management plan was amended by the BOF prior to the 2002 fishing season, extending the closing date for the fishery an additional 11 days, that is, until May 31.

In 2001, samples of herring were collected in Chinitna and Tuxedni bays. Age, sex, and size distribution of the samples revealed that the years of closed fishing in these areas had resulted in an increase of younger aged fish being recruited into the population. As a result of these analyses, and in accordance with the herring recovery management plan, the commercial fishery was reopened in 2002 in both the Chinitna Bay and Western Subdistricts. The management plan allowed for a very conservative harvest quota, not to exceed 40 and 50 tons, respectively. There has been very little participation in either fishery since they were reopened (Appendix A8).

The herring management plan was further modified by the BOF in 2005 and 2008. The Kalgin Island Subdistrict was included in legal waters in 2005 and fishing periods in the Upper Subdistrict were expanded to 108 hours per week, or from Mondays at 6:00 a.m. until Fridays at 6:00 p.m. Additionally, in 2005, the mesh size for herring gillnets was modified to no smaller than 2.0 inches or no greater than 2.5 inches. In 2008, the 108 hour weekly fishing period went into effect for all areas open to herring fishing and the registration deadline to participate in the fishery was amended to state that prior to fishing participants must register with ADF&G; prior to 2008, the registration deadline was April 20.

Because the glacial waters of UCI preclude the use of aerial surveys to estimate the biomass of herring stocks, management of these fisheries has departed from the standard techniques employed in the more traditional herring fisheries. Gillnets are the only legal gear allowed in the UCI herring fisheries, with set gillnets being used almost exclusively. This gear type is significantly less efficient at capturing herring than purse seines. Moreover, conservative guideline harvest levels have been set, which provide for a low-level commercial fishery on these stocks. In the Upper Subdistrict, harvests are generally concentrated in the Clam Gulch area, with very little or no participation in either the Western Subdistrict (Tuxedni Bay), Chinitna Bay, or Kalgin Island Subdistricts.

## **SMELT**

Smelt returns to Upper Cook Inlet occur in many of the larger river systems, with particularly large returns to the Susitna and Kenai Rivers. Both longfin smelt *Spirinchus thaleichthys* and eulachon (referred to as smelt in this report, while often identified in local vernacular as hooligan) are documented in Cook Inlet. Smelt begin returning to spawning areas in Cook Inlet generally from mid-May to mid-June and return in quantities large enough to support a limited commercial fishery. Longfin smelt return to Cook Inlet in the fall of the year and are not likely to be targeted for commercial purposes due to much smaller numbers of fish.

Prior to adoption of 5 AAC 39.212 Forage Fish Management Plan, the entire UCI area was open to smelt fishing from October 1 to June 1 (Shields 2005). The only documented commercial harvest of smelt occurred in 1978, 1980, 1998, and 1999, with catches of 300, 4,000, 18,900, and 100,000 pounds, respectively. Prior to 1998, fishermen were mistakenly advised that gillnets were the only legal gear for the harvest of smelt. Because primary markets required undamaged fish for bait or marine mammal food, this harvest method was unacceptable. In 1998, when the interpretation of the regulation was reviewed, allowing for the use of dip nets, harvests increased 100,000 pounds by 1999, which was the harvest cap at the time. All harvests occurred in salt water near the Susitna River. While no quantitative assessment of the Susitna River smelt stocks has been conducted, it undoubtedly would be measured in thousands of tons, perhaps even tens of thousands of tons.

At the 1998 BOF meeting, the commercial smelt fishery was closed, but the regulation did not take effect until after the 1999 season. In 2000, as part of its draft Forage Fish Management Plan, ADF&G recommended that smelt fishing be restricted to the General Subdistrict of the Northern District. Legal gear would be dip nets only, which had the benefit of eliminating non-target species harvest. The area opened to fishing was designed to target Susitna River smelt stocks. In this draft policy, ADF&G recommended that active forage fish fisheries be allowed to take place in a tightly controlled and closely monitored manner through the use of an ADF&G Commissioner's Permit, while not allowing any "new" fisheries to begin. The intent

was to allow an active, low-level fishery to continue; however, when the BOF adopted the current Forage Fish Management Plan, they chose to close the entire commercial smelt fishery. But at the 2005 BOF meetings, proposals were submitted to reopen the commercial smelt fishery, which the BOF authorized beginning with the 2005 season. The fishery is conducted under 5 AAC 21.505 Cook Inlet Smelt Fishery Management Plan (Appendix C1). This fishery is allowed in salt water only, from May 1 to June 30, specifically in that area of Cook Inlet from the Chuit River to the Little Susitna River. Legal gear for the fishery is limited to a hand-operated dip net as defined in 5 AAC 39.105, with the total harvest not to exceed 100 tons of smelt. Any salmon caught during the fishery are to be immediately returned to the water unharmed. To participate in this fishery, a miscellaneous finfish permit is required, as well as a commissioner's permit, which can be obtained from the ADF&G office in Soldotna.

## **RAZOR CLAMS**

The commercial harvest of razor clams from UCI beaches dates back to 1919 (Appendix A9). Harvest levels have fluctuated from no fishery for as many as 8 consecutive years to production in excess of half a million pounds (live weight) in 1922. The sporadic nature of the fishery was more a function of limited market opportunities rather than limited availability of the resource. Razor clams are present in many areas of Cook Inlet, with particularly dense concentrations occurring near Polly Creek on the western shore and from Clam Gulch to Ninilchik on the eastern shore (Nickerson 1975). The eastern shoreline has been set aside for sport harvest exclusively since 1959 and all commercial harvests since that time have come from the west shore, principally from the Polly Creek and Crescent River sandbar areas. A large portion of the Polly Creek beach is approved for the harvest of clams for the human food market. Within this approved area, a limit of 10% shell breakage is allowed for sale as bait clams. No overall harvest limits are in place for any area in regulation; however, ADF&G manages the commercial razor clam fishery to achieve a harvest of no more than 350,000 to 400,000 pounds (in the shell) annually. Virtually all of the commercial harvest has come by hand digging, although regulations prior to 1990 allowed the use of mechanical harvesters (dredges) south of Spring Point, or within a 1-mile section of the Polly Creek beach. Numerous attempts to develop feasible dredging operations were largely unsuccessful due to excessive shell breakage or the limited availability of clams in the area open to this gear. Currently, the use of mechanical harvesters is not permitted in any area of Cook Inlet.

## **2008 COMMERCIAL SALMON FISHERY**

The 2008 UCI commercial harvest of 3.4 million salmon (Appendix A6) was approximately 34% less than the 1966–2007 average annual harvest of 4.2 million fish, with 30 years experiencing greater harvests and 12 years with harvests less than that realized in 2008. This year's sockeye salmon harvest estimate of 2.4 million fish was 19% below the 1966–2007 average annual harvest of 2.9 million fish, with 21 years experiencing harvests below this amount and 21 years greater than the 2008 harvest. The 2008 estimated exvessel value of \$16.6 million was just slightly greater than the average exvessel average value of \$15.9 million from the previous 10-years, but approximately 25% less than the 1966-2007 average exvessel value of \$25.2 million (Appendix A7). The average price per pound paid for UCI salmon has slowly been increasing over the past few years (Appendix A11), although determining an average annual price is becoming increasingly more difficult to estimate. The reason for this is that more fishermen are self-marketing their own catch rather than selling their entire harvest to area processors.

Moreover, a trend observed in the past couple of seasons continued where early season Chinook and sockeye salmon catches garnered much higher prices than later in the season. Nevertheless, based on the various prices that processors and catcher/sellers reported during the season, the estimated average price of \$1.10/lb for sockeye salmon was the second highest price paid since 1999.

Only 3 of the 6 monitored sockeye salmon systems in UCI (Westerman and Willette 2007) had escapement enumeration estimates that fell within established goal ranges for the 2008 season (Tables 1 and 15; Appendix A10), those being Yentna and Crescent Rivers and Packers Creek. However, the final escapement estimates at the other 3 systems were either just below or just over the minimum or maximum ranges.

UCI commercial catch statistics refined to gear type, area, and date are available back to 1966. Currently, all commercially harvested salmon, whether sold or kept for personal use, are recorded on fish tickets and entered into the statewide fish ticket database. The 2008 commercial catch by species, gear type, area, and date can be found in Tables 16 through 20. Total harvest by statistical area and average catch per permit are reported in Tables 21 and 22. A summary of emergency orders issued in 2008 can be found in Table 23, while a summary of fishing periods by gear type and area is summarized in Table 24.

Table 1.–Upper Cook Inlet sockeye salmon goals and escapement, 2008.

System	Goal Type	Goal Range		2008 Escapement
		Lower	Upper	
Crescent River	BEG	30,000	70,000	62,030
Fish Creek	SEG	20,000	70,000	19,339
Kasilof River	OEG	150,000	300,000	301,469
Kenai River	Inriver	650,000	850,000	614,946
Yentna River	SEG	90,000	160,000	90,146
Packers Creek	SEG	15,000	30,000	25,248

Note: Escapement estimates do not account for any harvest above counting sites. BEG=biological escapement goal; SEG=sustainable escapement goal; OEG=optimal escapement goal.

## REGULATORY CHANGES

There were many regulatory changes made by the BOF during the February 2008 UCI finfish meeting held in Anchorage. One of the most important changes was the clarification that managing to meet established escapement goals was to be ADF&G's primary management objective. The BOF instructed the department to follow the guidelines of specific management plans unless doing so would jeopardize achieving an established escapement goal. The BOF stated it was their intent that meeting escapement objectives had a higher priority than strict adherence to management plans. Another area-wide change made by the board stated that beginning with the 2008 season, all commercial fishermen in UCI were allowed to fish their full allotment of gear using single strand (monofilament) mesh. No registration with the Department was required prior to using this gear.

Following is a brief summary of the regulatory changes adopted by the BOF that are area specific.

## **Northern District Set Gillnet**

The Northern District commercial king salmon fishing season was modified to open on the first Monday on or after May 25 for 12-hour (7:00 a.m. to 7:00 p.m.) fishing periods, and was to continue on all Mondays through June 24, unless closed by emergency order. However, the area from an ADF&G regulatory marker located one mile south of the Theodore River to the Susitna River remained open to fishing for the second regular Monday period only.

Susitna River sockeye salmon were found by the BOF to be a stock of yield concern. As a result of this ruling, the Susitna Sockeye Salmon Action Plan (SSSAP)<sup>1</sup> was developed to provide for conservative management of commercial fisheries harvesting this stock while data continued to be collected to help ADF&G better understand the productivity of Susitna River sockeye salmon. The SSSAP stated that the Northern District set gillnet fishery was to be prosecuted with no more than one net per permit from July 20 through August 6, unless the Department determined that the Yentna River escapement goal would be achieved. If so, the gear restriction could be relaxed by emergency order. It also directed the department to implement the drift gillnet area restrictions found within the Central District Drift Gillnet Fishery Management Plan (CDDGFMP) (5 AAC 21.353).

## **Upper Subdistrict Set Gillnet Fishery**

The BOF modified the no-fishing window in the Kasilof Section set gillnet fishery (Figure 3). From the opening of the fishery through July 7, or until the Kenai and East Forelands Sections set gillnet fisheries are opened, there was to be a weekly no-fishing window of 36-hours in duration. The BOF directed the department to make this a fixed window, that is, it was to begin sometime between 7:00 p.m. on Thursdays and 7:00 a.m. on Fridays (prior to 2008, the window was 48-hours in duration and could be implemented anytime during the week). The maximum number of emergency order hours that could be utilized during this time frame remained at 48-hours per week.

The BOF also changed how the department was to use the Kasilof River Special Harvest Area (KRSHA). The board clarified their intention for using this area by stating that it should only be utilized on rare occasions and only after the department had used its emergency order authority to fish in traditional areas with more time than allowed for in existing management plans. In summary, the KRSHA was to be used only in cases when fishing in the more traditional areas did not provide for meeting escapement objectives.

## **Central District Drift Gillnet Fishery**

The use of spotter planes was again outlawed by the BOF. Specifically, no planes may be used to spot fish 1-hour before a fishery opened and while the fishery was being prosecuted.

The BOF also passed a regulation allowing for permit “stacking.” Permit stacking provided opportunity for two drift gillnet permit holders to fish on one boat with an additional 50 fathoms of gear. Specifically this provision allowed for 200 fathoms of gear to be fished on one boat when two permit holders were on board instead of the normal limit of 150 fathoms for a single permit holder. However, prior to fishing 200 fathoms of gear, the boat and permit holders had to be registered with ADF&G (see 5 AAC 21.333).

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<sup>1</sup>[http://www.boards.adfg.state.ak.us/fishinfo/meetinfor/2007\\_2008/sus\\_salmonplan.pdf](http://www.boards.adfg.state.ak.us/fishinfo/meetinfor/2007_2008/sus_salmonplan.pdf)

The specifics of the plan stated the following:

1. Both permit holders must come in to Alaska Department of Fish and Game to register.
2. Boats must display a “D” 12 inches high on both sides of the boat when fishing 200 fathoms of gear.
3. Dual permit boats can use up to 200 fathoms in all areas of UCI, except when restricted to the Kenai and Kasilof Sections, KRSHA or in Chinitna Bay. Both registered permit holders must be aboard anytime that 200 fathoms of gear is being fished.
4. If fishing is restricted to the Kenai or Kasilof Sections (Corridor), Kasilof Special Harvest Area, or Chinitna Bay, 50 fathoms (or anything over 150 fathoms) must be removed from the reel and put in a bag and tied.
5. The “D” must be covered if only one permit holder is aboard at any time gear will be deployed. Only 150 fathoms can be on the reel and the additional 50 fathoms (or any amount of gear over 150 fathoms) must be put in a bag and secured.
6. Travel through the Kenai and Kasilof Sections is allowed at any time with 200 fathoms aboard and on the reel as long as no portion is deployed into the water.
7. It is allowable to have 200 fathoms aboard and on the reel with only one registered permit holder aboard as long as no portion of the net is deployed into the water.

Another regulatory change the BOF made to drift gillnetting in UCI was to codify a long-standing management practice. The new regulation states that after the opening of the set gillnet fishery in the Upper Subdistrict, fishing with drift gillnets was not allowed to occur within 1.5 miles of the mean high tide mark on the Kenai Peninsula shoreline in that area of the Kenai and Kasilof Sections of the Upper Subdistrict south of the Kenai River, nor within 1.0 mile of the mean high tide mark of the Kenai Peninsula shoreline in that area of the Kenai and East Forelands Sections of the Upper Subdistrict north of the Kenai River, whenever the set gillnet fishery in that area was closed (5 AAC 21.310(b)(3)(B)(C)). Prior to 2008 season, these closures were implemented through emergency order.

Drift gillnetting in the KRSHA fell under the same BOF intent as described for the set gillnet fishery in this section.

## **CHINOOK SALMON**

The 2008 UCI harvest of 13,202 Chinook salmon was approximately 18% less than the previous 10-year average (1998-2007) annual harvest of 16,166 fish, and 17% less than the average annual harvest of 15,928 fish from the 1966-2007 time period (Table 16; Appendices A1 and A6). The exvessel value for UCI Chinook salmon in 2008 was estimated at \$538,000, which represented approximately 3.2% of the total exvessel value for all salmon (Appendix A7).

The two fisheries where Chinook salmon are harvested in appreciable numbers occur in the set gillnet fisheries in the Northern District and in the Upper Subdistrict of the Central District.

### **Northern District**

Created by the BOF in 1986, and most recently modified in 2008, the Northern District King Salmon Management Plan (5 AAC 21.366) provides direction to ADF&G regarding management of the Northern District of UCI for the commercial harvest of Chinook salmon. The fishing season opens on the first Monday on or after May 25, and as a result of changes made to the management plan in 2008, it now remains open for all Mondays through June 24.

However, the most productive waters for harvesting Chinook salmon, which occur from 1 mile south of the Theodore River to the mouth of the Susitna River, are open to fishing for the second regular Monday period only. Prior to the 2005 season, fishing periods were 6 hours long, from 7:00 a.m. to 1:00 p.m. each Monday (Shields and Fox 2005). At the 2005 BOF meetings, however, fishing periods were expanded to 12 hours per day, or from 7:00 a.m. to 7:00 p.m. Each permit holder is allowed to fish only one 35-fathom set gillnet, with a minimum separation of 1,200 feet between nets, which is twice the normal separation between gear. The commercial fishery is also limited to an annual harvest not to exceed 12,500 Chinook salmon. In 2008, approximately 74 commercial permit holders participated in the early season Northern District Chinook salmon fishery, with an estimated harvest of 3,855 fish (Tables 2 and 16). This was the second largest harvest since 1993, which is the year when set gillnet fishermen were required to register (prior to fishing) which area they intended to fish for the entire year (Northern District, Upper Subdistrict, or Greater Cook Inlet). The registration requirement served to eliminate a common practice of fishing in multiple areas in UCI in the same year. The relatively small harvests from this fishery, which are not strongly correlated with Northern District Chinook salmon run strength, can partly be attributed to (1) poor runs during the mid 1990s, (2) allowing only one fishing period to occur in that area from 1 mile south of the Theodore River to the mouth of the Susitna River, and (3) limitations on gear. The doubling of the fishing time from 6 hours to 12 hours per period beginning in 2005 likely resulted in additional Chinook salmon being harvested, however, the current harvest levels remain significantly below the 12,500 cap placed on this fishery. The BOF also allowed all Mondays after May 25 to be fished, beginning with the 2008 season, yet due to a poor Chinook salmon return to the Deshka River, the June 23rd commercial fishing period was closed via Emergency Order No. 1 (Table 23), as was the June 26th regular season opening date (Emergency Order No. 2). The estimated Chinook salmon harvest for all of 2008 in the Northern District was 3,983 fish (Table 16 and Appendix A1).

Table 2.—Upper Cook Inlet Northern District early season Chinook salmon fishery harvest, 1986–2008.

Year	Chinook	Permits	Year	Chinook	Permits
1986	13,771	135	1998	2,240	56
1987	11,541	129	1999	2,259	51
1988	11,122	142	2000	2,046	47
1989	11,068	137	2001	1,616	43
1990	8,072	130	2002	1,747	36
1991	6,305	140	2003	1,172	29
1992	3,918	137	2004	1,819	44
1993	3,072	80	2005	3,150	52
1994	3,014	73	2006	3,887	59
1995	3,837	65	2007	3,132	62
1996	1,690	45	2008	3,855	74
1997	894	51			



The 2008 Northern District Chinook salmon harvest was approximately 22% greater than the average annual harvest from 1966–2007, and 50% more than the average annual harvest of approximately 2,700 during the previous 10 years. The 2008 Northern District Chinook salmon harvest during the early king salmon fishery was 69% under the cap.

### **Upper Subdistrict**

In 2008, approximately 56% of UCI's Chinook salmon commercial harvest occurred in the Upper Subdistrict set gillnet fishery (Table 16). The estimated catch of 7,400 fish was 27% less than the average annual harvest of 10,300 fish from 1966–2007, and 35% below the previous 10-year (1998–2007) average annual harvest of 11,500 fish (Appendix A1). The 2008 sonar estimate of late-run Chinook salmon passage in the Kenai River was 34,641 fish, which represented the 6th lowest passage estimate since 1987 (Tony Eskelin, Sport Fish Biologist, ADF&G, Soldotna; personal communication). Estimates of passage do not include harvests and mortalities that occur inriver, which are subtracted from the sonar estimates to determine if the BEG for this system was achieved. The current BEG for Kenai River late-run Chinook salmon is 17,800 to 35,700 fish. The BEG for this stock has changed over the years, but since 1987, the escapement goal has been achieved 19 times, been exceeded two times, and has never been missed under the current lower end of the range.

### **SOCKEYE SALMON**

Management of the UCI sockeye salmon fishery integrates information received from a variety of programs, which together provide an inseason model of the actual annual return. These programs include Offshore Test Fishing (OTF), escapement enumeration by sonar, weir and various mark-recapture studies, comparative analyses of historic commercial harvest and effort levels, genetic stock identification (GSI), and age composition studies. Beginning in 2005, an initiative was begun to apply improved GSI techniques to estimate the stock composition of sockeye salmon in UCI's commercial fishery (Habicht et al. 2007). These analyses are currently ongoing, with the initial report published prior to the 2008 UCI BOF meeting.

The OTF program employs a chartered gillnet vessel fishing 6 fixed stations along a transect crossing Cook Inlet from Anchor Point to the Red River delta (Shields and Willette *in prep*). The program provides an inseason estimate of sockeye salmon run-strength by determining the passage rate, which is an estimate of the number of sockeye salmon that enter the district per index point (catch per unit of effort or CPUE). The cumulative CPUE curve is then compared to historic run-timing profiles so that an estimate can be made of the final CPUE, which in turn provides for an inseason estimate of the total run to UCI. The timing of the 2008 sockeye salmon run was estimated to be 4-days early relative to the July 15 midpoint measured at the OTF Anchor Point transect line. This represented the fourth earliest run-timing since the test fishery began in 1979. Daily catch data from the test fish vessel can be found in Table 14.

Hydroacoustic technology is used to quantify sockeye salmon escapement into glacial rivers and was first employed in UCI in the Kenai and Kasilof Rivers in 1968 and expanded to the Susitna River in 1978 and the Crescent River in 1979 (Westerman and Willette 2007). Beginning in 2003, ADF&G began a transition phase from Bendix sonar to **Dual-frequency Identification Sonar (DIDSON)** in UCI. The 2008 season marked the first year that DIDSON was used exclusively (both banks) in the Kenai River (passage estimates were converted to Bendix equivalent units until new escapement goal analyses are completed with DIDSON units). The 2009 season will be the first year that DIDSON is used exclusively in the Yentna River. Both

Bendix sonar and DIDSON will be operational in the Kasilof River in 2009, however, the Bendix sonar estimate of passage will be used for management purposes. The transition to DIDSON in the Crescent River is uncertain at this time.

An adult salmon weir was operated by ADF&G, Division of Sport Fish, at Fish Creek (Knik Arm) and provided daily escapement counts for this system. A counting weir has also been employed at the outlet of Packers Lake since 1988 (Appendix A10). Cook Inlet Aquaculture Association (CIAA) operated the weir until the year 2000, but since they no longer were stocking the lake with sockeye salmon fry, they terminated the project. In 2005-2006, ADF&G placed a remote video camera system at the outlet of Packers Lake to estimate the adult sockeye salmon escapement into the lake; unfortunately, in 2006 an electronic malfunction did not allow for a complete census of the escapement. In 2007, CIAA again operated the weir at Packers Creek, while in 2008, ADF&G, Division of Commercial Fisheries, manned the weir.

In 2006, ADF&G and CIAA began a 3-year comprehensive sockeye salmon mark-recapture study in the Susitna River drainage (Yanusz et al. 2007). This project was continued in 2008, albeit with some modifications. In 2007 and 2008, fish wheels were used to capture sockeye salmon at Sunshine Station in the Susitna River and at the Yentna River sockeye salmon sonar site. Radiotelemetry tags were affixed to a portion of the escapement, with tagged fish migration tracked via aircraft as well as being detected with fixed receivers as they swam through various weir sites located in tributaries to both the Susitna and Yentna River drainages. As part of these mark-recapture studies, CIAA operated weirs at 7 lakes in 2008, with the following enumeration estimates: Judd Lake: 54,304; Chelatna Lake: 73,469; Shell Lake: 2,624, Swan Lake: 4,037, Larson Lake: 35,040; Byers Lake: 1,492 and Stephan Lake: 5,000 (<http://www.ciaa.net.org>).

Prior to the 2008 season, ADF&G staff met with the commissioner to review the results of the mark/recapture studies (including weir escapement counts) that suggested the Bendix sonar/fish wheel species apportionment estimates of sockeye salmon passage in the Yentna River were biased low. At this meeting, sport and commercial fisheries management options for the upcoming fishing season were addressed. Both Bendix sonar and DIDSON would be used in the Yentna River in 2008, in order to continue the comparison of passage estimates needed to transition to DIDSON in this drainage. Species apportionment would still be estimated using daily fish wheel sampling and the Bendix SEG of 90,000 to 160,000 sockeye salmon would remain the management objective. Management actions beyond those defined in the SSSAP were considered in light of recent failure to meet the Yentna River sockeye salmon SEG. With a relatively poor forecast of only 344,000 Susitna River sockeye salmon expected to return in 2008 (Appendix B1), it was determined that meeting the Yentna River SEG might be in jeopardy if additional restrictions to the drift gillnet fleet beyond those identified in the CDDGFMP were not considered. The commissioner determined that the July 10 drift gillnet regular fishing period would be limited in area to only the Kenai and Kasilof Sections. This action was more restrictive than that required in either the CDDGFMP or SSSAP and was implemented in order to decrease the harvest of Susitna River sockeye salmon.

This decision was opposed by drift gillnet fishermen, largely in response to the uncertainty about the accuracy of enumerating sockeye salmon passage in the Yentna River. They cited the fact that because sockeye salmon passage estimates were shown to be biased low (even with DIDSON), that additional restrictions to their fishery beyond those defined in the SSSAP were not justified. Drift fishermen contended that the Yentna River sockeye salmon escapement goal was being met and thus questioned the need for additional restrictions to their fishery.

Please see the stock status section of this report for additional information about Yentna River sockeye salmon stocks.

At the same time that mark-recapture studies were initiated in the Susitna River drainage, ADF&G began similar studies in the Kenai River, with the final report expected later in 2009 (Willette et al. *in prep*). In the Kenai River, sockeye salmon were captured and tagged with radio telemetry tags at the Division of Commercial Fisheries' sockeye salmon sonar site located at River Mile 19. Numerous fixed receivers were placed upstream of the tagging site as well as at two weir sites: (1) Russian River weir operated by Division of Sport Fish, and (2) Hidden Creek, which was operated by CIAA. Population estimates for years 2006 & 2007 from both mark-recapture studies were presented in oral presentations to the BOF in February 2008.

Inseason analyses of the age composition of sockeye salmon escapement into the principle watersheds of UCI provides information necessary for estimating the stock contribution in various commercial fisheries by comparing age and size data in the escapement with that in the commercial harvest (Tobias and Tarbox 1999). Approximately 39,000 sockeye salmon were examined for age, length, and sex determination from catch and escapement samples in 2008 (Terri Tobias, Division of Commercial Fisheries Technician, ADF&G, Soldotna; personal communication). The age composition of adult sockeye salmon returning to monitored systems is provided in Table 25.

The UCI preseason forecast for 2008 projected a total run of 5.6 million sockeye salmon (Table 3; Appendix B1). At the time this report was published, harvest figures from the 2008 sport fisheries were not available; therefore, sport fishery harvest data were estimated. The 2008 sockeye salmon run estimate of 4.1 million fish was approximately 27% less than the preseason projection. Of the expected run of 5.6 million sockeye salmon, approximately 1.7 million fish were required for escapement objectives, which left 3.9 million sockeye salmon available for harvest to all users in 2008. Assuming that sport and personal use harvests would be similar in proportion to that observed in 2007, the commercial catch in 2008 was projected to be approximately 3.5 million fish; the actual harvest was approximately 2.4 million fish (Table 17 and Appendix A2), or 31% less than preseason expectations. Drift gillnet fishermen accounted for approximately 41% of the 2008 commercial sockeye salmon harvest, or 0.99 million fish, while set gillnet fishermen caught 59% of the commercial harvest, or 1.39 million fish. The last reported commercial fishing activity in any area of UCI in 2008 was September 11.

Table 3.—Upper Cook Inlet 2008 sockeye salmon forecast and return.

System	Forecast	Actual	Difference
Crescent River	100,000	82,412	-18%
Fish Creek	53,000	26,765	-50%
Kasilof River	1,286,000	1,050,731	-18%
Kenai River	3,064,000	2,269,374	-26%
Susitna River	344,000	298,381	-13%
Minor Systems	727,000	329,584	-55%
All Systems	5,574,000	4,057,247	-27%

Table 32 summarizes sockeye salmon harvests from all sources in UCI since 1996. In 2008, the estimated harvest from commercial, sport, personal use, and subsistence/educational fisheries

was 2.9 million fish, which was approximately 19% less than the 1996-2007 average annual harvest of 3.6 million fish (the 2008 sport fish harvests were estimated). The statewide harvest survey for 2008 that details annual sport harvest of all salmon will not be final until later in 2009 (Jennings et al. *in prep*). For more details on the specifics of personal use harvests, including demographics, see Dunker and Lafferty (2007).

Estimating the average price paid per pound for UCI salmon has become more difficult than in previous years, as an increasing number of fishermen are marketing their own catch. This is especially true for Chinook, sockeye and coho salmon, where selling to individual niche markets can often provide a higher price. Moreover in 2008, early season prices for Chinook and sockeye salmon were much higher than that realized from early July onward. By mid-season, pricing had stabilized somewhere in the \$1.00 to \$1.10/lb range for sockeye salmon, down from the \$1.50 per pound and higher paid during the first few weeks of the year. The estimated average price paid per pound for all salmon during the 2008 season can be found in Appendix A11. Based on these estimates, the total 2008 UCI exvessel value of \$16.6 million was approximately 4% greater than the previous 10-year average annual value of \$15.9 million (Appendix A7). For sockeye salmon, the 2008 estimated exvessel value of \$15.5 million represented 93% of the total exvessel value for all salmon, and was also approximately 4% more than the previous 10-year average annual value of \$14.8 million.

The 2008 sockeye salmon commercial fishing season will be summarized by area fished and the dates the various fisheries opened.

### **Big River**

The first commercial sockeye salmon fishery to open in UCI in 2008 was the Big River fishery, which is managed under the Big River Sockeye Salmon Management Plan (5 AAC 21.368). This plan, which was adopted in 1989, allows for a small set gillnet fishery in the northwest corner of the Central District beginning on June 1. At the 2005 BOF meeting, the plan was modified, expanding the area open to fishing to include the waters along the west side of Kalgin Island. Between June 1 and June 24, fishing is allowed each Monday, Wednesday, and Friday from 7:00 a.m. to 7:00 p.m. Permit holders are limited to a single 35-fathom set gillnet and the minimum distance between nets is 1,800 feet, which is three times the normal separation of gear. Targeting an early run of sockeye salmon returning to Big River, this fishery also encounters Chinook salmon migrating through the area. The management plan limits the harvest of Chinook salmon to no more than 1,000 fish per year. In recent years, harvests have been well below that level. The 2008 fishery began on Friday, June 1 and yielded a total catch of approximately 17,500 sockeye salmon and 850 Chinook salmon (Tables 16 and 17). Of the total harvest, 90% of the sockeye and 85% of the Chinook salmon were caught in the Kalgin Island west-side waters, which is statistical area 246-10 (Figure 3). Twenty-three permit holders reported participating in the fishery, which was up from recent years, but less than the peak level of effort of 41 permit holders in 1992.

### **Western Subdistrict**

The next commercial fishery to open in 2008 was the set gillnet fishery in the Western Subdistrict of the Central District. This fishery opens on the first Monday or Thursday on or after June 16<sup>th</sup> and the regular fishing schedule consists of two 12-hour weekly fishing periods throughout the season, unless modified by emergency order. Commercial harvest data and sockeye salmon escapement levels estimated by sonar in the Crescent River indicated early in the

2008 season that the lower end of the escapement goal would be met. Because of the high escapement, continuous fishing (24 hours/day) was allowed in the set gillnet fishery in the Western Subdistrict south of Redoubt Point from July 10 through August 4 (see Emergency Order No. 13 in Table 23). Harvesting sockeye salmon bound primarily for the Crescent River, the 2008 harvest from this area was approximately 22,500 sockeye salmon (Table 17). The final escapement into Crescent Lake was estimated at 62,000 fish, which was approximately 8,000 fish below the upper end of the BEG of 50,000-70,000 fish for this system (Appendix A10). Thus, for the first time since 1998, the upper end of the Crescent River sockeye salmon BEG was not exceeded.

### **Upper Subdistrict Set Gillnet and Central District Drift Gillnet**

In 2005, the BOF made substantial changes to the management plans that regulate the Upper Subdistrict set gillnet and the Central District drift gillnet fisheries. Since 2002, the early part of the drift and set gillnet season had been managed under the Kasilof River Salmon Management Plan (KRSMP) (5AAC 21.365). To provide clarity in what can often be a confusing management scenario, in 2005 the BOF established the CDDGFMP. In this plan, as well as in the KRSMP, the board provided for earlier season opening dates, largely in response to strong Kasilof River sockeye salmon runs. Under the new plans, the drift gillnet fishery opened on the third Monday in June, or June 19, whichever was later. The set gillnet fishery in the Kasilof Section of the Upper Subdistrict opened on June 25, unless ADF&G had estimated that 50,000 sockeye salmon were in the Kasilof River before then, at which time the fishery could be opened immediately by emergency order, but not before June 20 (5 AAC 21.310 (b)(2)(C)(i)).

Management of the set gillnet fishery in the Upper Subdistrict is guided primarily by the KRSMP and the Kenai River Late-Run Sockeye Salmon Management Plan (KRLSSMP) (5 AAC 21.360). There are two principal restrictions to the set gillnet fisheries within these plans: (1) a limit on the number of additional hours that may be fished each week beyond the two regular 12-hour fishing periods, and (2) implementation of closed fishing times (windows) each week. By regulation, a week is defined as a period of time beginning at 12:00:01 a.m. Sunday and ending at 12:00 midnight the following Saturday (5 AAC 21.360 (i)). The weekly limitations vary according to the time of year and the size of the sockeye salmon run returning to the Kenai River. As a result of numerous years of exceeding the upper range of the escapement goal in the Kenai and Kasilof Rivers, the BOF modified the Upper Cook Inlet Salmon Management Plan (5 AAC 21.363 (e)) at the 2008 meeting. In this management plan, the BOF addressed how ADF&G should proceed when restrictions within a plan might result in an escapement goal not being met. They stated that it was their intent, that while in most circumstances the department will adhere to the management plans in this chapter, no provision within a specific management plan is intended to limit the commissioner's use of emergency order authority under AS 16.06.060 to achieve established escapement goals for the management plans as the primary management objective.

The BOF also modified the KRSMP at the 2008 UCI meeting. Originally, the KRSMP required a 48-hour no-fishing window each week from June 25 through July 7, which could be implemented any time during the week. In 2008, the 48-hour "floating" window was changed to a 36-hour "prescriptive" window. The prescriptive window must begin between 7:00 p.m. on Thursdays and 7:00 a.m. on Fridays. There was no change made to the 48 hours (maximum) of additional fishing time that could be issued via emergency order each week.

Another important change made to the KRSMP at the 2008 BOF meeting involved how the department was to use the KRSHA. Based on both user group and department misgivings about how the KRSHA had been utilized in previous years, the BOF clarified the criteria for using the KRSHA by stating, “It is the intent of the board that the KRSHA should rarely, if ever, be opened under this subsection and only for conservation reasons. Before the commissioner opens the KRSHA, it is the board’s intent that additional fishing time be allowed in the remainder of the Kasilof Section first, and secondly, that the mandatory closures specified in regulation be reduced in duration, if necessary, to meet the escapement goals contained within this and other management plans.”

Beginning July 8, the Kasilof Section is to be managed in combination with the Kenai and East Forelands Sections per the KRLSSMP. Until an assessment of the Kenai River sockeye salmon run strength can be made, which is traditionally on or after July 20, the Upper Subdistrict set gillnet fishery is to be managed based on the size of the Kenai River run that was projected in the preseason forecast. In essence, there are three basic options available for the management of this fishery. First, if the Kenai River sockeye salmon run is projected to be less than 2 million fish, there may be no more than 24-hours of additional fishing time per week in the Upper Subdistrict set gillnet fishery. If the Kenai and East Forelands Sections are not open during regular or additional fishing periods, ADF&G may limit fishing in the Kasilof Section to an area within one-half mile of the shoreline. There are no mandatory window closures on Kenai River sockeye salmon runs of less than 2 million fish. For runs of this strength, if ADF&G projects that the Kasilof River OEG of 300,000 may be exceeded, an additional 24 hours of fishing time per week may be allowed within one-half mile of the shoreline in the Kasilof Section after July 15.

The second management option is for Kenai River runs of between 2 and 4 million sockeye salmon. In this scenario, the Upper Subdistrict set gillnet fishery will fish regular weekly fishing periods, with no more than 51 additional fishing hours allowed per management week. In addition, the fishery will be closed for one continuous 36-hour period per week, beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday, and for an additional 24-hour period during the same management week.

The third management option is for Kenai River sockeye salmon runs exceeding 4 million fish. ADF&G may allow up to 84-hours of additional fishing time per week, in addition to regular fishing periods, but the fishery will also be closed for one continuous 36-hour period per week beginning between 7:00 p.m. Thursday and 7:00 a.m. Friday.

According to the KRLSSMP, ADF&G is to manage Kenai River late-run sockeye salmon stocks primarily for commercial uses based on abundance. The commercial, sport, and personal use fisheries harvesting this stock are to be managed to: (1) meet an OEG range of 500,000 to 1,000,000 late-run sockeye salmon; (2) achieve inriver goals that are dependent upon the size of the Kenai River run; and (3) distribute sockeye salmon escapements evenly within the OEG range, which is primarily achieved by meeting objective number two. For runs less than 2.0 million fish, the inriver goal range was changed in 2005 from 600,000–850,000 fish to 650,000–850,000 fish; at run strengths between 2 and 4 million fish, the goal is 750,000 to 950,000; and for Kenai River runs greater than 4 million, the inriver goal is 850,000 to 1,100,000 sockeye salmon.

With that brief history, a description of the 2008 Upper Subdistrict set gillnet fishery and Central District drift gillnet fishery will be summarized by actions taken each management week,

including estimates of commercial harvest and effects on sockeye salmon passage into monitored watersheds.

The regular season for drift gillnetting began on Thursday, June 19, as provided for in the CDDGFMP. This was only the second time since 1972 that drift gillnetting had been open this early in the season (the other June 19<sup>th</sup> opening occurred in 2006). The small harvest of approximately 1,000 sockeye salmon from 28 boats (Table 17) wasn't abnormal for very early season drift catches. As of midnight on Saturday, June 21, the estimated sockeye salmon passage into the Kasilof River had reached only 9,400 fish (Table 15), so there was no set gillnet fishing during the first management week of June 15 to June 21. The Kasilof River sonar project began operating on June 15, while the Kenai River sonar project would not begin estimating sockeye salmon passage until July 1.

During the management week of June 22-28 there were two regular district-wide drift gillnet openings, as well as a 17-hour drift opener in the Kasilof Section on Saturday, June 28, via Emergency Order No. 3 (Table 23). Drift gillnetters harvested approximately 15,000 sockeye salmon during the week. The Kasilof Section first opened to set gillnetting on Thursday, June 26, and these fishermen also fished the additional 17-hour period on June 28. The combined harvest from these two days of set gillnet fishing was 123,000 sockeye salmon, with approximately 50,000 fish harvested in the Ninilchik stat area (244-21) alone. An earlier opening (before June 25) was not triggered for the Kasilof Section setnet fishery, as less than 50,000 fish had been enumerated at the Kasilof River sonar site through June 25. The 36-hour no-fishing window was implemented in the Kasilof Section set gillnet fishery from 7:00 p.m. on Thursday, June 26, until 7:00 a.m. on Saturday, June 28. For the week, 17 hours of additional fishing time was allowed in the set gillnet fishery (Table 4). Kasilof River sockeye salmon passage was estimated at 64,000 through June 28. Based on the previous 10-years of escapement data, the Kasilof River run was approximately 20% complete through June 28.

Five emergency orders (EO No's 4,5,6,7, and 9) were issued during the management week of June 29-July 5 in order to slow the escapement rate of sockeye salmon into the Kasilof River. These were in addition to the two regularly scheduled 12-hour fishing periods on Monday, June 30, and Thursday, July 3, for both set and drift gillnetting. A total of 49 hours of additional fishing were allowed in the setnet fishery, while 44 additional hours were provided to the drift gillnet fishery in the Kasilof Section. The 36-hour no-fishing window in the Kasilof Section set gillnet fishery was shortened to 34-hours and 1 additional hour beyond the 48-hours allowed for in the KRSMP was used (Table 4). These actions were taken in response to passage rate estimates in the Kasilof River, which indicated the upper end of the OEG of 300,000, or BEG of 250,000, would be exceeded without additional fishing. These actions also met with the intent of the newly modified KRSMP. The estimated cumulative Kasilof River sockeye salmon passage through July 5 was 83,000 fish. For the management week, drift gillnetters harvested 161,000 sockeye salmon, with 122,000 taken on July 3 by 274 boats, for a season total of 177,000 fish. In the set gillnet fishery, approximately 161,000 sockeye salmon were harvested for a season total of 283,000. During the week, 600 Chinook salmon were also caught in the set gillnet fishery for a season total of 726 (Table 16). The cumulative Chinook salmon harvest through July 5 was the third lowest in the set gillnet fishery during the last 10 years, while the cumulative sockeye salmon harvest through July 5 was the third highest in past 10 years.

According to the KRSMP, beginning on July 8 the set gillnet fishery in the Kasilof Section shall be managed as specified in the KRLSSMP. So, for the management week of July 6-12, the

Kenai, Kasilof, and East Forelands Sections (Upper Subdistrict) fell under management of the KRLSSMP, except for provisions in the KRSMP that were specific to the Kasilof Section. The pre-season forecast for the Kenai River was for a total sockeye salmon run of between 2 and 4 million fish (Appendix B1). For runs of that size, the KRLSSMP required one 24-hour floating window and one 36-hour prescriptive no-fishing window to be implemented in the Upper Subdistrict set gillnet fishery each management week.

At the 2008 BOF meeting, Susitna River sockeye salmon were found to be a stock of yield concern. According to the Sustainable Salmon Fisheries Policy for the State of Alaska<sup>2</sup>, a stock of yield concern is defined as a concern arising from a chronic inability, despite the use of specific management measures, to maintain expected yields, or harvestable surpluses, above a stock's escapement needs; a yield concern is less severe than a management concern, which is less severe than a conservation concern. As a result, an action plan was developed by ADF&G, which identified conservative management measures in both the sport and commercial fisheries targeting Susitna River sockeye salmon stocks. Adopted by the BOF at this meeting, the SSSAP included the following statement, "In light of recent department data revealing concerns about the validity of Yentna River sockeye salmon enumeration data, it is the intent of the Board that Susitna River sockeye salmon stocks will be conservatively managed while the department continues its studies in this drainage." In the commercial fisheries, conservation of Susitna River sockeye salmon stocks was to be met through implementation of the CDDGFMP and modifications to the Northern District set gillnet fishery.

Regarding the drift gillnet fishery, the action plan referred to the CDDGFMP, which mandates area restrictions in July that were developed to conserve northern-bound salmon stocks. The CDDGFMP states that from July 9-15 the department must restrict the drift gillnet fishing fleet for two regular fishing periods to Area 1 (Figure 4) of the Central District, and to the Kenai and Kasilof Sections (Figure 3), often referred to as "the corridor." From July 16-31 there are two regular period area restrictions to the drift gillnet fleet that are dependent upon the size of the Kenai River sockeye salmon run. For Kenai River sockeye salmon runs less than 2 million, the department must restrict the drift fleet to Area 1 (and the Kenai and Kasilof Sections); for runs of 2 million to 4 million, the drift fleet is restricted to Area 1 and Area 2 (and the Kenai and Kasilof Sections); and for runs greater than 4 million there are no mandatory restrictions. These restrictions apply to any two regular periods during this time frame. The purpose of the July 9-15 restrictions was to allow for the passage of northern-bound sockeye salmon, while the July 16-31 restrictions was primarily for conservation of northern-bound sockeye and coho salmon. The SSSAP also required ADF&G to limit the Northern District set gillnet fishery to no more than one 35-fathom set gillnet per permit holder from July 20 through August 6, which represents the time period when the majority of the sockeye salmon run was transiting the Northern District. Again, these drift and set gillnet fishing restrictions met the conservation burden as outlined in the SSSAP.

The management week of July 6–12 began with no drift or set gillnet fishing for the first 36-hours, or until the start of the regular 12-hour fishing period on Monday, July 7. This fulfilled the 24-hour floating no-fishing window required in the KRLSSMP. The 36-hour prescriptive window was implemented from 7:00 p.m. on Thursday, July 10, until 7:00 a.m. on Saturday, July 12. During the week, three emergency orders (No's 10, 11, and 14) were issued providing 45

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<sup>2</sup> [www.adfg.state.ak.us/special/susalpol.pdf](http://www.adfg.state.ak.us/special/susalpol.pdf)



hours of extra fishing time to Kasilof Section set gillnet fishermen and 40 hours of extra time for drift gillnet fishermen in the Kasilof Section. The Kenai and East Forelands Sections set gillnet fishery was opened for the first fishing period of the year on Thursday, July 10, but did not fish any extra time during the management week, as Kenai River sockeye salmon escapement levels did not warrant the extra time. Emergency Order No. 12 was issued, limiting drift gillnetting during the 12-hour period on July 10 to the Kenai and Kasilof Sections (as directed by the commissioner and discussed earlier in this report). For the week, drift gillnetters harvested 264,000 sockeye salmon for a season total of 442,000 fish. On the July 7<sup>th</sup> district-wide opener, 260 boats harvested approximately 522 sockeye salmon per boat, which was about an average harvest for that time of year. In the Upper Subdistrict set gillnet fishery, approximately 117,000 sockeye salmon were harvested during the week, for a season total of 401,000 fish. Passage estimates during the week in the Kenai River were approximately 12,000 sockeye salmon, for a season total of 22,000. In the Kasilof River, the weekly passage estimate was 24,000 fish, for a season total of 107,000. In summary, both no-fishing windows were implemented during the week, while 45 hours (of the allowable 51 hours) of additional fishing time was allowed in the Kasilof Section set gillnet fishery (Table 4).

Table 4.–Upper subdistrict set gillnet fishing hours.

Week	KASILOF SECTION				KENAI and EAST FORELANDS SECTIONS			
	Extra Hours In Plan	Extra Hours Used	Window Hours In Plan	Realized Window Hours	Extra Hours In Plan	Extra Hours Used	Window Hours In Plan	Realized Window Hours
June 22 - 28	48	17	36	36	closed	closed	closed	closed
Jun 29 - July 5	48	49	36	34	closed	closed	closed	closed
July 6 - 12	51 + 24 <sup>a</sup>	45	24 36	24 36	51	0	24 36	24 36
July 13 - 19	51 + 24 <sup>a</sup>	73 <sup>b</sup>	24 36	24 36	51	6	24 36	24 36
July 21 - 26	51 + 24 <sup>a</sup>	105 <sup>c</sup>	24 36	0 36	51	8	24 36	24 36
July 27 - Aug 2	51 + 24 <sup>a</sup>	0	24 36	24 36	51	0	24 36	24 36
Aug 3 - Aug 9	51 + 24 <sup>a</sup>	0	24 36	24 36	51	0	24 36	24 36

<sup>a</sup> 24 hours in Kasilof one-half mile.

<sup>b</sup> 60 hours in Kasilof one-half mile.

<sup>c</sup> 97 hours in Kasilof one-half mile.

The management week of July 13–19 was a busy one with 10 emergency orders (No’s 15-24) issued affecting both set and drift gillnet fishing (Table 23). In the Upper Subdistrict setnet fishery, both regular periods were fished in the Kenai, Kasilof, and East Forelands Sections, with a 4-hour extension of Monday’s period and a 2-hour extension of Thursday’s fishing period. During the week, the entire Kasilof Section fished 7 extra hours, while 60 additional hours were fished in the Kasilof Section one-half mile fishery. The KRSMP states that beginning July 8, if the set gillnet fishery in the Kenai and East Forelands Sections are not open for fishing, that

fishing in the Kasilof Section may be limited to the waters within one-half mile of shore. The plan also allowed for an additional 24 hours of fishing time in the Kasilof Section one-half mile fishery (in addition to the 51 hours) after July 15, if the department determined that the Kenai River late-run sockeye salmon run strength is projected to be less than 2 million fish and the 300,000 fish optimal escapement goal for the Kasilof River may be exceeded. The issue facing the department was that escapement projections suggested that the Kenai River minimum inriver goal of 650,000 sockeye salmon (for runs less than 2 million fish) or 750,000 fish (for runs between 2 and 4 million) might not be achieved, while the upper end of the Kasilof River sockeye salmon OEG of 300,000 fish was in jeopardy of being exceeded. Therefore, in order to target harvest as much as possible on Kasilof River sockeye salmon stocks, the majority of extra fishing time was used in the Kasilof River one-half mile setnet fishery. The drift gillnet regular fishing period on Monday, July 14, was limited to Area 1 and the Kenai and Kasilof Sections, as directed in the CDDGFMP. The regular fishing period on Thursday, July 17, was also limited to this same area, with a 2 hour extension of the period in the Kenai and Kasilof Sections. This action fulfilled one of the two restrictions called for in the CDDGFMP, regardless of the final run strength to the Kenai River, for the July 16-31 time frame. So, for the week, the set gillnet fishery harvested approximately 578,000 sockeye salmon, for a season total of 978,000 fish. Drift gillnetters took an additional 349,000 fish for a season total of 790,000. The estimate of sockeye salmon passage into the Kenai River totaled 188,000 fish for the week, bringing the cumulative passage to 209,000. Based on the previous 10-years of escapement data, the run was approximately 32% complete, which would project a 2008 total of 650,000 fish. However, this method of projecting escapements was somewhat subjective, as it did not take into account the variability of commercial, sport, and personal use fishing patterns from year to year. Thus, it served only as a rough inseason approximation of run timing. In the Kasilof River, the weekly passage estimate was 88,000 fish, for a season total of 195,000. Using the same previous 10-year average percent complete escapement data, the Kasilof River was typically 62% complete through July 19, which would result in a 2008 total passage estimate of 313,000 fish. The Yentna River cumulative sockeye salmon passage estimate through July 19 had reached 35,000 fish, which suggested a final passage of approximately 109,000 fish based on the run being 32% complete (again using the previous 10-year average percent complete method). In summary, both no-fishing windows were implemented in the set gillnet fishery during the week (Table 4). A total of 73 hours of extra fishing time was used, with 60 hours of that in the Kasilof Section one-half mile setnet fishery. The KRSMP allowed for as many as 75 hours of additional fishing time (51 hours in the full Upper Subdistrict and 24 hours in the one-half mile fishery), so all aspects of the KRSMP, KRLSSMP, and CDDGFMP were met.

There were 9 emergency orders (No's 25-27; 29-34) issued during the week of July 20–26 impacting fishing time in the Upper Subdistrict set gillnet and Central District drift gillnet fisheries. Of the 105 hours of extra fishing time granted to set gillnet fishermen, 97 of those hours were directed at slowing sockeye salmon escapement into the Kasilof River by use of the Kasilof Section one-half mile set gillnet fishery (Table 4). On Monday, July 21, and Thursday, July 24, the full Upper Subdistrict set gillnet fishery was open, with 4-hour extensions added to each period. These 32 hours (24 hours of regular time plus 8 extra hours) were the only fishing time granted to set gillnet fishermen north of the Blanchard Line (Kenai and East Forelands Sections) for the week. Likewise, drift gillnetting also only took place during the two regular fishing periods, with the Monday, July 21 period restricted to Drift Areas 1 and 2 and the Kenai and Kasilof Sections (Figure 4). The July 24 drift gillnet period was fished inlet wide, which

was the first inlet wide period allowed since July 7; however, due to very rough seas, many boats came in early, resulting in a total daily drift gillnet harvest of only 42,000 sockeye salmon (Table 17). Emergency Order No. 23 extended the set gillnet fishing for 4 hours, but did not apply to the drift gillnet fishery, as this extension was necessitated by very strong winds that made pulling set gillnets during mid-tide (7:00 p.m.) extremely dangerous. For the week, set gillnetters harvested approximately 257,000 sockeye salmon for a season total of 1.2 million fish, while drift gillnetters captured 174,000 fish for a season total of 964,000. In the set gillnet fishery, approximately 2,280 Chinook salmon were harvested for a season total of approximately 6,200. Sockeye salmon passage into the Kenai and Kasilof Rivers for the week was estimated at 133,000 and 55,000 fish, respectively, for season totals of 342,000 and 250,000 fish, respectively.

The KRLSSMP requires the department to make an inseason projection of the size of the Kenai River sockeye salmon run some time on or after July 20. This projection uses information from the OTF project (Shields and Willette *in prep*), as well as catch and escapement data to date. The first formal inseason projection of the size of the Kenai River sockeye salmon run was made following the July 24 drift gillnet inlet-wide commercial fishing period. The first best fit of the OTF data suggested a total Kenai River run of 1.8 million fish, with the top five best fits projecting a run between 1.8 and 5.7 million fish. The preseason forecast for Kenai River sockeye salmon had projected a run of 3.1 million fish, which meant commercial fisheries management followed the guidelines for a run of 2 to 4 million fish. However, the first best fit estimator now indicated that the run could be less than 2 million fish, while the four next best fits all estimated the run would be greater than 2 million sockeye salmon. Thus, these data alerted staff that a precautionary approach to management of the commercial fisheries was in order. A few days later, the second formal assessment of the Kenai River sockeye salmon run was made. Using data through July 27, the total Kenai River run was now projected to range between 1.80 and 2.7 million fish. With the first best fit of the data still suggesting the total run would be less than 2 million fish, this assessment indicated to staff that following the guidelines for the lower tiered run was prudent.

The management week of July 27–August 2 focused on the imbalance of sockeye salmon passage in the Kenai and Kasilof Rivers. With only 342,000 fish estimated to have passed the sonar counter in the Kenai River through July 26, management actions were taken to significantly reduce any further commercial harvest of Kenai River stocks. Conversely, the Kasilof River sockeye salmon escapement had reached the upper end its BEG range and could soon surpass the upper end of the OEG of 300,000 fish without additional harvest. With this incongruity, only one viable option remained for management of the fisheries, that being to use the KRSHA. The BOF clarified their intent for using this area at the 2008 meeting and this scenario met their criteria. During the week, 7 emergency orders were issued opening the KRSHA to set and drift gillnet fishing, with the outside drift gillnet boundaries reduced to further concentrate the harvest on Kasilof River sockeye salmon stocks. The regular fishing periods on Monday, July 28, and Thursday, July 31, were both closed to set gillnetting in the Upper Subdistrict and drift gillnetting in the Central District, outside of the KRSHA. Staff kept a close eye on escapements in the Kenai River, but by the end of the week, the season total was only 486,000 fish, which was still approximately 164,000 fish short of the minimum inriver goal for runs of less than 2 million fish. In the Kasilof River, sockeye salmon passage averaged 5,000 fish per day, even with the KRSHA being open for 148 hours during the week. The cumulative passage estimate had reached 286,000 fish by the end of the week, but appeared to be tapering

off. For the week, set gillnetters harvested approximately 44,000 sockeye salmon and 610 Chinook salmon in the KRSHA, while drift gillnet fishermen captured approximately 16,000 sockeye salmon and 216 Chinook salmon (Tables 5, 16 and 17).

Table 5.–Kasilof River terminal harvest area sockeye salmon harvest, 2008.

Date	Set Gillnet		Drift Gillnet		Total	
	Daily	Cum	Daily	Cum	Daily	Cum
27-Jul	621	621	280	280	901	901
28-Jul	6,478	7,099	2,486	2,766	8,964	9,865
29-Jul	8,322	15,421	3,894	6,660	12,216	22,081
30-Jul	7,514	22,935	3,055	9,715	10,569	32,650
31-Jul	6,798	29,733	2,785	12,500	9,583	42,233
1-Aug	7,208	36,941	2,034	14,534	9,242	51,475
2-Aug	7,146	44,087	1,042	15,576	8,188	59,663
3-Aug	6,005	50,092	829	16,405	6,834	66,497
4-Aug	3,266	53,358	404	16,809	3,670	70,167
5-Aug	2,312	55,670	278	17,087	2,590	72,757
6-Aug	1,892	57,562	232	17,319	2,124	74,881
7-Aug	1,892	59,454	51	17,370	1,943	76,824

The management week of August 3-9 was prosecuted much like the previous week, that is, the only fishing by set gillnetters in the Upper Subdistrict occurred in the KRSHA. For the two regular weekly fishing periods, drift gillnetting was restricted to the KRSHA and west of a north-south line that split the Central District approximately in half (Table 23, Emergency Order No's. 46 and 52). The KRSHA remained open to set and drift gillnetting for the first 119 hours of the week, or until 11:00 p.m. on Thursday, August 7. At that time, catch rates had slowed down, as had sockeye salmon passage past the Kasilof River sonar site. Unfortunately, sockeye salmon passage in the Kenai River did not significantly increase, even with closures to commercial fishing targeting this stock. By the end of the week, the cumulative sockeye salmon passage estimate in the Kenai River had reached only 559,000 fish, while the Kasilof River cumulative passage estimate was 300,000 fish.

In 2008, the KRSHA was opened to set and drift gillnet fishing for part or all of 12 different days, with approximately 77,000 sockeye salmon being harvested by both gear types (Tables 5 and 17). The estimated Chinook salmon harvest in this area was 1,100 by set gillnetters and 358 by drift gillnet fishermen (Table 16).

The final management week of the season for Upper Subdistrict set gillnetting was August 10-16. In February of 2008 the BOF had extended the regular season for Upper Subdistrict set gillnetting and district wide drift gillnetting until August 15, with the stipulation that from August 11 through August 15 the Upper Subdistrict set gillnet fishery was open for regular

periods only. However, due to lagging sockeye salmon passage in the Kenai River, and with the Kasilof River sockeye salmon run complete, both regular fishing periods (Aug 11 and 14) were closed via emergency order. Drift gillnetting was allowed, however, in the western half of the Central District, as it had been in the previous management week. Sockeye salmon escapement was monitored in the Kenai River through August 17, with a final passage estimate of 615,000 fish, while Kasilof River sockeye salmon passage was estimated through August 10, with a final tally of 301,000 fish (Tables 6 and 15). The minimum inriver goal for the Kenai River was 650,000 sockeye salmon (for runs < 2 million fish), while the upper end of the OEG range for the Kasilof River was 300,000. In 2008, the commercial fishery was prosecuted with only 5 fishing periods in the Kenai and East Forelands Sections set gillnet fisheries (Table 24), an area known to concentrate harvest on Kenai River stocks. Conversely, the Kasilof one-half mile fishery and the KRSHA were used extensively in an attempt to slow escapement into the Kasilof River. No restrictions were implemented in the Kenai River sockeye salmon sport or personal use fisheries.

Table 6.–Sockeye salmon estimates of passage, 2008.

System	Passage	Goal Range
Kenai River	614,946	650,000–850,000
Kasilof River	301,469	150,000–300,000
Crescent River	62,030	30,000–70,000
Yentna River	90,146	90,000–160,000
Fish Creek	19,339	20,000–70,000
Packers Creek	25,248	15,000–30,000

For the remainder of the season (August 16 through September 11), drift gillnetters harvested approximately 130 additional sockeye, 9,327 coho, 164 pink, and 479 chum salmon in Drift Areas 3 and 4 (Figure 5) and in Chinitna Bay, which was opened for Monday-Wednesday-Friday 12-hour fishing periods beginning on Monday, August 25, via Emergency Order No. 57. Aerial census escapement counts indicated that the upper end of the Chinitna Bay chum salmon escapement goal of 3,400–8,400 had been exceeded, warranting fishing on this stock. The last reported drift gillnet harvest anywhere in UCI took place on September 11.

### **Kalgin Island Subdistrict**

Three additional 12-hour fishing periods were provided in the Kalgin Island Subdistrict in 2008 (Emergency Order No’s. 43, 53, and 56). The extra periods occurred on August 2, 9, and 16, and were permitted in the Packers Creek Sockeye Salmon Management Plan (5 AAC 21.370). The extra fishing time was justified by weir counts of sockeye salmon escapement into Packers Lake indicating that the sockeye salmon SEG for Packers Lake of 15,000 to 30,000 fish would be met or exceeded. The final escapement was just over 25,000 fish (Tables 6 and 15).

### **Western Subdistrict**

Since 1999, 24-hour per day set gillnet fishing has been granted in the Western Subdistrict south of Redoubt Point for much of July in an effort to slow the escapement of sockeye salmon into Crescent Lake. In 2008, this area was open from July 10 through August 4, or for 26 consecutive days (Table 24). From 1999-2007 the upper end of the BEG range was exceeded every year (Appendix A10). The estimated passage of 62,000 sockeye salmon in 2008 marked

the first year since 1998 that the escapement goal for this system was not exceeded (Tables 6, 15 and Appendix A10).

## **COHO SALMON**

The 2008 commercial coho salmon harvest of approximately 172,000 fish was slightly less (-8%) than the previous 10-year average annual harvest of 188,000 fish, but nearly 144,000 fish less than the 1966–2007 average annual harvest (Appendix A3). However, considering the numerous restrictions to inlet-wide drift gillnet fishing, and 5 fishing periods with gear restrictions in the Northern District set gillnet fishery, the harvest of 172,000 coho salmon would suggest this year's run of coho salmon was likely average or above average (see the Stock Status and Outlook section of this report for further discussion on coho salmon stocks). Drift gillnetters were allowed to fish beyond August 15, but only in Areas 3 and 4 (Figure 5) and in Chinitna Bay beginning on August 25. Fishing periods in Areas 3 and 4 were 12-hours in duration and occurred on Mondays and Thursdays, while Chinitna Bay 12-hour openings occurred on Mondays, Wednesdays, and Fridays. The estimated coho salmon harvest by drift gillnetters after August 15 was approximately 9,300 fish (Table 18).

The exvessel value of coho salmon from the 2008 UCI commercial fishery was approximately \$482,000 or 2.9% of the total exvessel value (Appendix A7). The average price paid for coho salmon was estimated at \$0.40/lb (Appendix A11), which represented a \$0.10 to \$0.20 per pound drop from the previous three years.

## **PINK SALMON**

The 2008 UCI harvest of approximately 169,000 pink salmon was the second lowest even-year harvest since 1966 (Appendix A4). Pink salmon are typically taken in significant quantities in UCI beginning in late July and the first couple of weeks in August. As the Upper Subdistrict set gillnet fishery did not fish outside of the KRSHA in 2008 after July 24, and the last fishing by drift gillnetters on the east side of UCI was July 24, the small harvest of pink salmon in 2008 was not surprising at all. In fact, that level of harvest, considering the lack of fishing time when pink salmon were available, could even represent a strong run.

The average price paid for pink salmon in 2008 was approximately \$0.10/lb (Appendix A11), resulting in an exvessel value for this species of \$64,000, or 0.4% of the total exvessel value (Appendix A7).

## **CHUM SALMON**

The 2008 estimated harvest of 50,000 chum salmon in UCI represents the smallest recorded annual catch since 1966 (Appendix A5). The 1966–2007 average annual chum salmon harvest in UCI was approximately 478,000 fish. For the past decade (1998–2007), however, harvests have declined to an average of 120,000 fish annually, with the 2008 harvest being 58% less than the previous 10-year average annual harvest. That said, assessing chum salmon stocks based on the 2008 harvest is suspect, at best. As stated numerous times in this report, the drift gillnet fleet, the primary harvester of chum salmon, was restricted numerous times in 2008 to conserve both Susitna and Kenai River sockeye salmon, which significantly reduced chum salmon harvests. The status of chum salmon will be discussed further in the Stock Status and Outlook section of this report.

The 2008 exvessel value for chum salmon was approximately \$50,000, which was just 0.5% of the overall exvessel value of the 2008 fishery (Appendix A7). The average price paid for chum salmon in 2008 was estimated to be \$0.20/lb (Appendix A11), which was slightly above the previous 10-year average annual price of \$0.18/lb, but represented a \$0.05/lb drop from the previous 2 years.

## **PRICE, AVERAGE WEIGHT, AND PARTICIPATION**

The estimated average price per pound paid to fishermen for their catch in 2008 was similar to what they received in 2007 (Appendix A11), with the biggest change being a \$0.20/lb drop for coho salmon. The average price paid per pound for sockeye salmon from 2000-2004 was only \$0.67; since then, it has averaged \$1.05/lb. As mentioned earlier, it must be noted that calculating the average price for what fishermen actually receive is becoming more and more difficult. The reason for this is due to the increasing number of fishermen who are marketing their own product. In the late 1990's, farmed salmon were finding a niche in global markets. In UCI, the 1998 and 2000 sockeye salmon harvests were some of the poorest catches on record. These factors led to a marked reduction in the prices paid for wild-caught salmon, which forced many fishermen to go in search of markets where they could receive higher payments for their catches. These market forces further helped to expedite the change the UCI salmon fishing industry has made in emphasizing quality of the final product as much as quantity. More than ever before, many fishermen are bleeding and icing their catch immediately upon harvest. This emphasis on quality has resulted in an increase in the price that fishermen are receiving from both processors as well as in individual markets<sup>3</sup>.

Average prices reported here are generated from inseason grounds prices and do not reflect any postseason adjustments. It is unknown whether this occurred to any significant degree for fish harvested in 2008.

As determined from fish ticket calculations, the average weight by species of the 2008 commercial harvest was comparable to historical averages (Table 26 and Appendix A12). The 5.9 lb average size of sockeye salmon was approximately 6% less than the 1969-2007 average weight of 6.3 lbs, but would be expected when Kenai River sockeye salmon runs are smaller than average, like the 2008 run was. The coho salmon average weight of 7.0 lbs was only exceeded by 5 other years in the previous 39 years (1969-2007).

In 2008, the Commercial Fisheries Entry Commission (CFEC) showed 571 active drift gillnet permits in the Cook Inlet area, with 71% issued to Alaskan residents (Appendix A13). Of this total, 426 reported fishing in 2008 (Table 21). CFEC also showed 738 active set gillnet permits in Cook Inlet, with 83% being issued to Alaskan residents. From this total, 467 reported fishing in UCI in 2008, but it should be noted that some of the 738 active set gillnet permits for UCI (Area H) likely fished in Lower Cook Inlet and are not accounted for in this report. A total of 25 shore-based processors purchased UCI fishery products in 2008, as well as 12 direct marketer vessels, 1 floating processor, 1 buyer exporter, 2 catcher exporters, and 42 catcher-sellers. A catcher seller is defined in 5 AAC 39.130(k) as a "commercial fisherman who sells or attempts to sell unprocessed fish that were legally taken by the catcher-seller." These fish may be sold (A) to the general public for use for noncommercial purposes; (B) for use as bait for commercial or noncommercial purposes; (C) to restaurants, grocery stores, and established fish markets; or (4)

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<sup>3</sup> <http://www.kenaiwild.org/history.php>

by shipping the fish to a licensed buyer, processor, or exporter within the state. For more information, please visit <http://www.cf.adfg.state.ak.us/geninfo/permits/intent/catchsel.pdf>. A list of the major fishery processors that purchased salmon in UCI in 2008 can be found in Table 27.

## **SALMON ENHANCEMENT**

Salmon enhancement through hatchery stocking has been a part of UCI salmon production since the early 1970s. Presently, only a single commercially-oriented hatchery remains fully operational in UCI, that being the Trail Lakes facility, which is operated by CIAA. Trail Lakes Hatchery is located in the upper Kenai River drainage near Moose Pass. This hatchery was originally built and operated by the ADF&G Fisheries Rehabilitation and Enhancement Division, but was subsequently leased to CIAA in 1990 as the state operating budget declined. Trail Lakes Hatchery has functioned primarily to produce sockeye salmon, with minor production of coho and Chinook salmon. In 2005, the water wells at Trail Lakes Hatchery were unable to supply enough volume to rear all the fish in the facility, so some had to be transferred to the Eklutna Hatchery, a separate facility owned by CIAA, but not operational for the past few years. In 2008, the Eklutna facility was again used by CIAA, but the fish raised in the hatchery benefited Lower Cook Inlet commercial and recreational fishermen.

Until recently, two lakes located on the Kenai Peninsula, Hidden Lake and Tustumena Lake, were stocked with sockeye salmon fry, with the adult production from these enhancement programs available to both the UCI common property commercial fishery and the personal use and recreational fisheries. In 2008, CIAA released approximately 917,000 unfed sockeye salmon fry (0.095g) into Hidden Lake (<http://www.ciaa.net.org>). These fry were otolith-marked, which allows for identification and enumeration of hatchery stocks when the smolt emigrate to sea and again when they return as adults. From May 23 through July 6, 2008, CIAA enumerated approximately 340,000 sockeye salmon smolt emigrating Hidden Lake, of which 57% were estimated to be of hatchery origin (Nathan Weber, Biologist, Cook Inlet Aquaculture Association, Kenai; personal communication). As a result of a ruling issued by the U.S. Ninth Circuit Court of Appeals in 2003 (Shields 2007), stocking activities ceased in Tustumena Lake after the sockeye salmon fry release in 2004.

Since 1975, a sockeye salmon enhancement project has been conducted at Big Lake, which is located in the Matanuska-Susitna Valley, approximately 24 km west of Wasilla (Figure 1). ADF&G directed the stocking program through 1992, but since then CIAA has conducted the gamete collection, incubation, and fry release activities. In 2008, there were two different releases of sockeye salmon into Big Lake. On May 29, 2008, approximately 433,000 smolt (10.1g) were released into Big Lake (<http://www.ciaa.net.org>). On May 28, 2008, approximately 3.6 million fry (0.79g) were stocked into Meadow Creek, a tributary of Big Lake. Both releases were uniquely otolith-marked so when the fish emigrate as smolt they could be identified and enumerated. From May 23 through July 1, 2008, CIAA enumerated approximately 641,000 sockeye salmon smolt emigrating Big Lake.

In 2008, the estimated number of hatchery-produced adult sockeye salmon that returned to UCI was 148,000 (119,000 Tustumena Lake origin; 16,000 Hidden Lake origin; and 13,000 Big Lake origin), which was approximately 3.7% of the total UCI run (Terri Tobias, Division of Commercial Fisheries Technician, ADF&G, Soldotna; personal communication). After stocking



Big Lake in 2008, CIAA announced they would not be collecting eggs in 2008 and would not stock the lake after the smolt release in 2009.

## STOCK STATUS AND OUTLOOK

On the whole, the status of UCI’s monitored salmon stocks is positive, with only one stock, Susitna sockeye salmon, meriting detailed review.

### Sockeye Salmon

A run of 5.6 million sockeye salmon was forecast to return to UCI in 2008, with an expected harvest by all user groups of approximately 3.2 million fish (Appendix B2). This forecast was about 200,000 fish below the 20-year average harvest by all user groups. The actual run of approximately 4.1 million sockeye salmon in 2008 resulted in a total harvest of approximately 2.9 million fish, with 2.4 million caught by commercial gillnet fishermen and an estimated 500,000 fish taken by sport and personal use fishermen (Tables 7 and 32).

Table 7.–Upper Cook Inlet sockeye salmon run, 2008.

System	Commercial Harvest	Escapement	Other Harvest	Total
Crescent River	20,382	62,030	0	82,412
Fish Creek	7,080	19,314	371	26,765
Kasilof River	667,006	299,969	83,756	1,050,731
Kenai River	1,395,104	497,428	376,842	2,269,374
Susitna River	122,322	170,975	5,084	298,381
All Others	142,747	164,677	22,160	329,584
Totals	2,362,795	1,219,247	492,820	4,074,862

### *Susitna River*

Since 1976, Susitna River sockeye salmon total annual runs have been estimated to range from 147,000 to 773,000 fish (Fair et al 2009). Total run size estimates were arrived at by summing (1) the number of fish harvested in the various commercial fisheries using a weighted age-composition catch allocation method, as described by Tobias and Tarbox (1999), (2) the number of fish harvested in recreational and subsistence fisheries, and (3) the number of fish escaping the entire watershed, which has been enumerated with Bendix sonar and fish wheel species apportionment in the Yentna River that in turn was multiplied by 1.95 to represent the entire Susitna River drainage escapement (Fried 1996). From 1986-2001 the escapement goal for Susitna River sockeye salmon was a BEG, which was predicated on an escapement of 100,000–150,000 fish in the Yentna River (Appendix A10). Beginning in 2002, the department changed the BEG for the Susitna River to an SEG range of 90,000 to 160,000 sockeye salmon for the Yentna River, because stock-specific estimates of the harvest and total return to the Susitna River were considered unreliable<sup>4</sup>. In 2005, the BOF added a Yentna River sockeye salmon OEG of 75,000-180,000 fish for years when the Kenai River total sockeye salmon run exceeded 4 million fish. For more details on previous studies pertaining to sockeye salmon in the Susitna

<sup>4</sup> Bue, B. G., and J. J. Hasbrouck. Unpublished. Escapement goal review of salmon stocks of Upper Cook Inlet. Alaska Department of Fish and Game, Report to the Alaska Board of Fisheries, November 2001 (and February 2002), Anchorage.

River drainage, see Tarbox and Kyle 1989; Kyle et al. 1994; King and Walker 1997; Edmundson et al. 2000; and Todd et al. 2001.

As detailed in the 2007 UCI Annual Management Report (Shield's 2007), sockeye salmon runs to the Susitna River drainage have been declining over the past decade (using the method just described to enumerate the runs). In response to this, research objectives were defined and studies were funded beginning in 2006 to help the department better understand sockeye salmon production in the watershed. These studies included: (1) mark-recapture and radio telemetry projects intended to estimate the number of sockeye salmon entering the system, which also allowed for the identification of spawning areas in the drainage; (2) limnological investigations of numerous lakes throughout the drainage to assess production potential; (3) fry and smolt population estimates in as many as 7 different lakes; (4) evaluation of the effects of northern pike (*Esox lucius*) predation and beaver dams on production; and (5) a comprehensive genetic stock identification study of sockeye salmon fisheries in Upper Cook Inlet to determine the river of origin of all harvested fish. In 2007-2008, modifications to the project were implemented based upon the results of the 2006 field season. Although the final summary report of these studies was not available at the time this report was published, preliminary population estimates, which included the number of adult salmon counted through weirs at lakes in the Yentna River drainage, revealed the Bendix sonar/fish wheel species apportionment program was significantly underestimating sockeye salmon passage in the Yentna River (Yanusz et al 2007). Deployment of a DIDSON for the past two years did result in substantially more fish targets being detected migrating upstream than the Bendix sonar did, but the improved sonar technology could not completely resolve the question of species apportionment. Nevertheless, these data suggested that achievement of the Yentna River sockeye salmon goal in previous years may have been obtained more often than was originally believed.

At the 2008 BOF meeting, when it was reported that the Bendix sonar/fish wheel species apportionment program had likely been underestimating sockeye salmon passage for years, a debate ensued about the origins of the escapement goal and how salmon escapements were enumerated. It was generally acknowledged that Susitna River sockeye salmon production had declined, but questions were raised about the escapement goal, including (1) how it was originally set; (2) whether or not Yentna River sockeye salmon passage estimates were an index; and (3) how fisheries (sport and commercial) should be managed with respect to the new information about under-counting bias. It was during this meeting that the SSSAP, outlined earlier in this report, was developed and adopted.

To add to the intensity of the issue, in May of 2008, Senate Concurrent Resolution No. 21 was adopted, forming the Cook Inlet Sockeye Salmon Task Force. The task force, composed of five members from the Alaska Senate and five members from the House of Representatives, was established to (1) examine the conservation and allocation issues in fisheries management of Cook Inlet; (2) scrutinize the economic effect of Cook Inlet salmon and the maximum benefit of those salmon to the people of Alaska; and (3) investigate the legal and constitutional issues of a buy-back program, reducing the number of commercial fishing permits in Cook Inlet. The task force was obligated to submit a report of its findings to the legislature on the first day of the 26th Alaska State Legislature (January 2009). The report was to include (1) the short-term and long-term uses of Cook Inlet salmon consistent with the maximum benefit principle contained within Article VIII, Section 2, Constitution of the State of Alaska; (2) specific proposals to address the conservation issues in the Northern District; and (3) options to reduce allocative conflict in Cook

Inlet, which may include a buy-back program. Between May, 2008, and January, 2009, the task force held five public meetings in which ADF&G provided a substantial amount of reports and written material, as well as oral testimony, presenting a historical perspective of sockeye salmon research and management of Susitna River sockeye salmon stocks. Moreover, public testimony was heard at meetings held in Soldotna and in Wasilla. The task force report summarizing their findings was to have been delivered to the legislature in January, 2009, but was delayed until a later date.

Because of the importance of the issue of salmon production in the northern Cook Inlet basin, and considering the new data revealing sockeye salmon under-counting bias in the Yentna River, the commissioner initiated an out of cycle Susitna River sockeye salmon escapement goal review late in 2008 (Fair et al 2009). This analysis concluded that the existing sockeye salmon escapement goal for the Susitna River drainage was inappropriate given the historical escapement uncertainties associated with the Bendix sonar program, which were revealed when cumulative weir counts at some of the lakes in the Yentna drainage exceeded the Bendix sonar escapement estimates. The report from these analyses recommended the Yentna River sockeye salmon SEG be eliminated and replaced with three lake SEG's. Specifically, in the Yentna River drainage, the recommendations were for a Chelatna Lake sockeye salmon SEG of 20,000 to 65,000 fish, and at Judd Lake a SEG of 25,000 to 55,000 fish; in the Susitna River drainage, a Larson Lake SEG of 15,000 to 50,000 spawners was suggested.

The formation of sockeye salmon individual lake escapement goals within the Susitna River drainage represents a departure from approximately 30 years of management with a Yentna River drainage escapement objective. One of the concerns of the new escapement goals was that they provided no inseason direction to commercial fisheries management. However, it must be noted that the SSSAP was developed with conservation of sockeye salmon stocks in mind, and did provide direction for inseason management of both the Central District drift gillnet fishery and the Northern District set gillnet fishery. For Kenai River sockeye salmon runs of less than 4 million fish (81% of all Kenai River runs since 1978), there are 4 regular period restrictions to the drift gillnet fleet in July per the CDDGFMP and SSSAP. Furthermore, the Northern District set gillnet fishery is limited to fishing no more than one-third of their full allotment of gear from July 20 through August 6, which is the time period when the bulk of the Susitna River sockeye salmon run is transiting the Northern District marine waters.

The escapement goal review report (Fair et al 2009) recommended the research studies that were initiated in the Susitna River drainage in 2006 be continued with two additional objectives: (1) add fish wheel selectivity experiments that might allow historical Bendix estimates of passage to be adjusted to more accurately reflect past escapements in the Yentna River; and (2) test sources of error with the DIDSON system at the Yentna River sonar site to help improve sockeye salmon passage estimates. These and other studies will be continued in the 2009 field season.

### ***Crescent River***

After experiencing record-level runs through the mid to late 1980s, Crescent River sockeye salmon runs declined dramatically and remained depressed throughout most of the 1990s. In 1996, limnological studies were initiated to determine whether the decline in sockeye salmon production was related to changing conditions in Crescent Lake, the major nursery lake in this watershed. These studies revealed a low abundance of the primary food resource for juvenile sockeye salmon in Crescent Lake, namely, the cyclopoid copepod *Cyclops scutifer* (Edmundson

and Edmundson 2002). Unfortunately, these studies were terminated in 2001 due to lack of funding. However, within the limited scope of these investigations, some hypotheses were developed. First, it was theorized that that increased turbidity levels in the lake prior to 1996 resulted in a reduction in primary production associated with a lack of light penetration, which drives photosynthesis. Another possible source of the decline in production was attributed to a top-down grazing effect on the *Cyclops* population from sockeye salmon fry produced from large escapements beginning in 1984. In speculating on the mechanisms responsible for the reduced sockeye salmon runs to this system, Edmundson and Edmundson (2002) cited that it was likely some combination of increased turbidity and over-grazing of the forage base. The exact cause for the shift in turbidity could not be isolated before the project was terminated, but the limited data set did provide the grounds for a recommendation that the sockeye salmon BEG for this system should be reduced, which it was, from 50,000-100,000 fish to 25,000-50,000 fish, beginning in 1999. Since 2000, however, sockeye salmon runs to Crescent Lake showed improvement (Table 8), which resulted in the BOF, acting on recommendations from ADF&G, to modify the BEG at Crescent Lake from 25,000-50,000 fish to 30,000-70,000 fish, beginning in 2005. In 2008, Approximately 62,000 sockeye salmon were estimated to have escaped Crescent Lake (Table 15 and Appendix A10), which marked the first year since 1998 that escapements fell within the escapement goal range. For the past few years, set gillnet fishing in the Western Subdistrict south of Redoubt Point has been allowed 24 hours per day nearly all of July; in 2008 this area was open continuously from July 10 through August 4 (Table 24). Many fishermen and nearly all processors abandoned the fishery during the 1990s because of diminished returns and considerable restrictions placed on the fishery in order to achieve escapement goals. As a result of the reduced fishing effort, the average annual exploitation rate on Crescent River sockeye salmon stocks from 2000–2008 was only 32%, even with all the extra fishing time allowed.

Table 8.–Crescent Lake sockeye salmon average escapement, harvest and run, 1976–2008.

Decade	Average Annual Escapement (thousands)	Average Annual Commercial Harvest (thousands)	Average Annual Total Run (thousands)
1976–1979	75	56	130
1980–1989	87	82	169
1990–1999	50	23	73
2000–2008	87	41	128

### ***Fish Creek***

Similar to Crescent Lake, recent sockeye salmon runs to Fish Creek, which drains Big Lake and flows into Knik Arm, have been below average, yet the escapement goal for this system has been met or exceeded in 5 of the past 7 years (Tables 9 and 15; Appendix A10). The average annual total sockeye salmon run to Big Lake from 1980 to 1997 was 212,000 fish, but from 1998–2001 the average annual return fell to 50,000 (Tobias and Willette 2004) For the past 4 years, the average annual return has been only 38,000 fish. Prior to the 2002 BOF meeting, an ADF&G escapement goal review team recommended the Fish Creek goal be changed from a point goal of 50,000 to an SEG of 20,000 to 70,000 fish. In 2002 and 2003, escapement into this system exceeded the upper end of the new SEG by approximately 20,000 fish in each year. Moreover, the total sockeye salmon run to Fish Creek in 2002 was nearly 134,000 fish, while in 2003 it was

approximately 150,000 fish. However, runs since that time have been significantly lower, ranging from 22,000 to 49,000 fish. The number of smolt emigrating Big Lake the past 5 years has ranged from 117,000 to 309,000 fish (<http://www.ciaa.net.org/>).

Table 9.–Production of sockeye salmon in Big Lake, 1997–2008.

Year	Total			Fry Release	Pre Smolt Release	Smolt Release	Smolt Emigration	
	Run	Weir	Spawners				Age-1	Age-2
1997	131,814	54,656	48,513					
1998	45,622	22,859	18,789	5,000,000				
1999	45,714	26,749	25,199	197,000				
2000	37,635	19,533	16,704	846,000				
2001	70,013	43,486	39,093	0				
2002	133,826	90,482	86,181	4,316,000				
2003	150,612	91,952	86,858	3,589,000			114,654	2,340
2004	42,740	22,157	20,065	5,000,000			251,195	25,632
2005	22,548	14,215	12,140	1,742,300			135,739	22,623
2006	37,118	32,562	26,712	444,200	426,000		205,135	19,307
2007	48,344	27,948	23,845	3,812,400	702,500	315,700	278,351	30,928
2008	26,872	19,339	19,314	3,610,000	0	433,000	592,919	38,785

A technical review assessing Big Lake sockeye salmon production was completed prior to the 2002 BOF meeting (Litchfield and Willette 2002). This report proposed two likely causes for the decline in sockeye salmon production: (1) degradation of spawning habitat as a result of questionable hatchery practices and (2) placement of a coffer dam at the outlet of the lake, which prevented many wild fry from being able to recruit into the lake as well as causing a productive spawning area at the lake outlet to be filled in with silt and mud. At the 2002 BOF meeting, Fish Creek sockeye salmon were found to be a stock of yield concern and ADF&G proposed additional studies to more clearly define the limitations to sockeye salmon production in this system. As a result of identifying the coffer dam as a barrier to upstream migration of juvenile sockeye salmon fry, modifications were made at the lake outlet that allowed fry to more easily recruit into Big Lake. It is expected that more adults will again utilize this productive spawning area. Fish-hatchery culture methods and stocking procedures were also modified with the hope that these changes combined with the modifications at the lake outlet would improve sockeye salmon production in Big Lake. However, the long-term outlook for Big Lake sockeye salmon is unclear. The escapement goal was exceeded in 2002 and 2003, narrowly achieved in 2004, 2006, and 2007, and not met in 2005 and 2008 (Appendix A10). This cautious optimism led ADF&G to recommend removing Big Lake sockeye salmon as a stock of yield concern at the 2005 BOF meetings. Yet sockeye salmon production from Big Lake remains somewhat of a mystery. Even when the recommended number of spawners for the system has been met, the production of wild-produced smolt is poor. Furthermore, CIAA has been stocking the lake with sockeye salmon fry for a

number of years, but recent fry to smolt survival has also been very poor (Dodson 2006). In an attempt to try and isolate the mechanism leading to poor juvenile survival, CIAA released fish at three different time intervals, summer (fry), fall (pre-smolt), and spring (smolt). Unfortunately, the number of smolt emigrating Big Lake did not increase nearly as much as expected. Therefore, as a result of the poor fry to smolt survival in Big Lake, CIAA did not conduct an egg take there in 2008 and will cease their stocking activities after releasing smolt in May of 2009.

The forecasted total run to Big Lake for 2009 is estimated at 80,000 fish (Appendix B2). The estimated commercial fishery exploitation rate on Big Lake sockeye salmon stocks for the past 10 years has been 33%. If this holds true for 2009, and the run returns as forecasted, then >50,000 fish could escape Big Lake in 2009.

### ***2009 Sockeye Salmon Outlook***

A run of 4.3 million sockeye salmon is forecasted to return to UCI in 2009, with a harvest by all user groups of 3.0 million sockeye salmon (Appendix B2). The forecasted harvest in 2009 is about 0.9 million fish below the 20-year average harvest by all user groups of 3.9 million. The sockeye salmon run forecast for the Kenai River is 2.4 million, which is 27% less than the 20-year average run of 3.4 million. However, there is considerable uncertainty in the 2009 Kenai River sockeye salmon run forecast, as the progeny from overescapement (1.1 million spawners) in 2004 would suggest a return of 3.5 million age 1.3 sockeye salmon (fry model) compared to the sibling model that projects only 1.8 million age 1.3 salmon in 2009. The sockeye salmon run forecast for the Kasilof River is 822,000, which is 13% less than the 20-year average run of 945,000. The forecast for the Susitna River is 669,000, which is 27% less than the 20-year average run of 913,000 (see Appendix B2 for an explanation of how Susitna River sockeye salmon run forecasts have been changed to better reflect actual numbers of fish). The sockeye salmon run forecast for Fish Creek is 80,000, which is 42% less than the 20-year average run of 139,000, while the forecast for Crescent River is 92,000, which is 8% less than the 20-year average run of 101,000.

### **Pink Salmon**

Pink salmon runs in UCI are even-year dominant, with odd year average annual harvests typically less than 1/7<sup>th</sup> of even-year harvests (Appendix A4). Pink salmon are typically taken in significant quantities in UCI beginning in late July and the first weeks in August. The 2008 UCI harvest of approximately 169,000 pink salmon represents the second lowest even-year harvest since 1966. But, given that the Upper Subdistrict setnet fishery was closed after July 24, and drift gillnetting was also closed or restricted to the west side of Cook Inlet after July 24 (Table 24), a poor pink salmon commercial harvest would be expected. Therefore, assessing the status of UCI pink salmon based solely on commercial harvest data is problematic. For example, the 2000 UCI commercial harvest of pink salmon was the smallest even-year harvest since 1966; however, the 2000 run of pink salmon could be characterized as very strong, considering the Doshka River weir count of more than 1.2 million fish (Table 10). In contrast, only 83,000 fish were counted through the Doshka River weir in 2006, while the commercial harvest was nearly three times greater than in 2000, even with numerous drift gillnet restrictions. However, the 2008 Doshka River pink salmon count of only 13,000 was the lowest even-year escapement since 1996. Thus, caution should be taken when assessing the strength or weakness of pink salmon runs in UCI based on the limited information that is currently available. As of this date, the only data collected on pink salmon stocks are commercial fish harvests, recreational fishing success, and very limited

escapement monitoring. There are no enumeration projects in UCI that specifically monitor pink salmon escapements; however, they are encountered and enumerated in projects designed to track Chinook, sockeye, and coho salmon escapement. In general, pink salmon stocks in UCI are maintaining their even-year dominance and continue to return in numbers that reveal no obvious problems with the stock, even with the aforementioned variability which is commonly observed in other pink salmon stocks. Furthermore, a marine tagging project designed to estimate the total population size, escapement, and exploitation rates for coho, pink, and chum salmon returning to Upper Cook Inlet in 2002 (Willette et al. 2003), estimated the exploitation rate on pink salmon by the UCI commercial fishery to be no more than 12%, and likely very much lower. These data would suggest that that this stock, if anything, is largely under-exploited and is in no apparent danger from over fishing.

Table 10.–Upper Cook Inlet pink salmon commercial harvests and Deshka River escapements, 1996–2008.

Year	UCI Pink Salmon		
	UCI Commercial Harvest	Deshka River Enumeration	
		Even-Year	Odd-Year
1996	242,911	37,482	
1997	70,933		1,101
1998	551,260	541,946	
1999	16,174		766
2000	146,482	1,248,498	
2001	72,559		3,845
2002	446,960	946,255	
2003	48,789		9,214
2004	357,939	390,087	
2005	48,419		7,088
2006	404,111	83,454	
2007	147,020		3,954
2008	168,890	12,947	

## Chum Salmon

Chum salmon returns to UCI are concentrated predominately in the western and northern watersheds, with the most significant harvest coming from the Central District drift gillnet fleet. The 2008 UCI commercial chum salmon harvest of approximately 50,000 fish was the smallest harvest since 1966 (Appendix A6). With all the restrictions placed on the drift fleet in 2008, as outlined earlier in this report, the poor chum salmon harvest data was not entirely unexpected. Evaluation of chum salmon runs is made difficult because of the lack of information other than commercial harvest data. Chum salmon are no longer enumerated at either the Deshka River or Little Susitna River weirs. They are captured in the OTF project, but this project was designed temporally and spatially to assess UCI sockeye salmon stocks. Chum salmon passage is also estimated in the Yentna River via sonar and fish wheel apportionment, but this project is likewise designed to enumerate sockeye salmon runs. The only chum salmon escapement goal in all of UCI is an SEG in Chinitna Bay (Clearwater Creek) set at 3,800-8,400 fish, which is monitored

via peak aerial survey (Fair et al 2007). The SEG has been met or exceeded every year since it was established in 2002. As a result, drift gillnetting has been opened via emergency order in Chinitna Bay each of the past three years per 5 AAC 21.320(c)(1).

While ADF&G lacks long-term quantitative chum salmon escapement information, escapements to streams throughout UCI have undoubtedly benefited by management actions or regulatory changes aimed principally at other species. These actions have included (1) significant reductions in the offshore drift gillnet and Northern District set gillnet fisheries to conserve Yentna River sockeye salmon, (2) adoption of the Northern District Salmon Management Plan (5 AAC 21.358), which states that its primary purpose is to minimize the harvest of coho salmon bound for the Northern District, (3) the lack of a directed chum salmon fishery in Chinitna Bay, and (4) harvest avoidance by the drift fishery as a result of lower prices being paid for chum salmon than for sockeye salmon. As stated, chum salmon are no longer enumerated at any weir sites in UCI, but they are encountered and enumerated at the Yentna River sockeye salmon sonar project. The 2008 apportioned chum salmon estimate at the Yentna River sonar site was 10,200 fish, which is slightly better than the 2007 estimate of 8,120 fish, but approximately 38% less than the 2000-2007 average of 16,500 fish (Dave Westerman, Division of Commercial Fisheries Biologist, ADF&G; Soldotna; personal communication). Again, these data can at best only be viewed as very relative, i.e., below average, average, or above average, but would seem to suggest the 2008 UCI chum salmon run to have been below average. This characterization was also corroborated by the OTF project. The 2008 OTF cumulative chum salmon CPUE of 273 was less than half of the 2000-2007 average of 587 (Shields and Willette *in prep*). That said, these data do not indicate a significant issue with UCI chum salmon stocks. The 2002 marine tagging project estimated the commercial fishery exploitation rate on chum salmon at 6% (Willette et al. 2003). Therefore, even though the 2008 chum salmon run appears to have been a below average return, the commercial fishery exploitation rate on this stock is also very low and the escapement objective in Chinitna Bay has been consistently met. So, unless the limited amount of data on chum salmon runs in UCI continue to trend downward, at the current time there are no immediate concerns for UCI chum salmon stocks.

## **Coho Salmon**

Commercial coho salmon harvests in UCI during the 1980s and early 1990s were much higher than the long term average (Appendix A3). This can be attributed to good coho salmon production, but also due to strong sockeye salmon runs to UCI, which resulted in additional fishing time in the Central District, which in turn resulted in increased coho salmon harvests. Recent coho salmon harvest statistics, however, may or may not be a true indication of run strength, largely due to regulatory changes that were made to reduce coho salmon commercial harvests. For example, coho salmon runs in 1997 and 1999 were viewed as mediocre to poor, prompting BOF measures in 1997, 1999 and 2000 that placed restrictions on sport and commercial fishermen in much of UCI. From 2000–2004, the commercial set gillnet fishery in the Upper Subdistrict was closed no later than August 7, and no more than one emergency order, not to exceed 24 hours in duration, was allowed during the month of August. These actions resulted in marked reductions in commercial coho salmon harvests. Ironically, the 2000 coho salmon run appeared to be much improved (Table 11), with the 2001 run being even stronger yet,



and finally the 2002 run being exceptional, perhaps even a record run<sup>5</sup>. Therefore, at the 2005 BOF meetings, the restrictions on fishing in August in the Upper Subdistrict set gillnet fishery and Central District drift gillnet fishery were moderately relaxed. Both fisheries' closing dates were changed to no later than August 10, with the set gillnet fishery to be managed under the same set of weekly guidelines in August that were applicable in July. In 2008, the BOF extended the Upper Subdistrict set gillnet fishing season to no later than August 15 and the full Central District drift gillnet fishing season to the same ending date. This change was due in part to data revealing good coho salmon runs and low Kenai River coho exploitation by commercial fishermen during this extended time period.

Table 11.—Coho salmon escapement and enumeration, 1996–2008.

Coho Salmon Escapement and Enumeration						
Year	Cottonwood Creek	Fish Creek	Little Susitna River	Wasilla Creek	Deep Creek	OTF CPUE
1996			15,803			534
1997	936	2,578	9,894	670	2,017	362
1998	2,114	5,463	15,159	3,777	1,541	403
1999	478	1,766	3,017	1,587	2,267	294
2000	1,888	5,979	14,436	6,154	3,408	766
2001	3,525	10,047	30,587	6,784	3,747	838
2002	4,270	15,187	48,308	13,195	6,132	798
2003	791	2,142	11,127	3,712		368
2004	2,004	3,234 <sup>a</sup>	40,199			785
2005			16,839 <sup>b</sup>			367
2006			8,786 <sup>b</sup>			1,034
2007			17,573			482
2007			18,485			718

<sup>a</sup> Represents a partial count, the weir was pulled before the coho salmon run was complete.

<sup>b</sup> Weir washed out, count incomplete.

### ***Northern District***

Since 2005, the Division of Sport Fish has used coho salmon weir counts at the Little Susitna River as a surrogate of escapement for all Knik Arm coho salmon stocks. The SEG for this system was set in 2000 at 10,100 to 17,700 fish (Fair et al 2007) and has been met or exceeded each year since (Table 11). It should be noted that the weir washed out early in 2006, but based on the inriver sport fishing performance, the 2006 coho salmon run in the Little Susitna River was categorized as “very early and very, very strong” and the SEG was undoubtedly achieved (Dave Rutz, Division of Sport Fish Biologist, ADF&G, Palmer; personal communication). The weir also washed out early in 2005, which means the estimated passage of 16,839 fish was less than the actual unknown escapement. The 2008 coho salmon run to the Little Susitna River

<sup>5</sup> Yanusz, R., J. Carlon, D. Bosch, and R. Clark. 2002. Stock status of coho salmon in Upper Cook Inlet, a report to the Alaska Board of Fisheries. Located at: Alaska Department of Fish and Game, Division of Sport Fish, 333 Raspberry Road, Anchorage.

appears to have been similar to the 2007 run with the upper end of the SEG being exceeded by nearly a thousand fish.

Although there are several regulatory management plans pertinent to the Susitna River that direct the Department to manage for coho salmon, there are no escapement goals or comprehensive sustained yield objectives for Susitna River drainage coho salmon. Sustained yield is thought to be provided for by basic bag limits and seasons in the sport fishery and inseason management of the commercial fishery<sup>6</sup>. In summary, Northern Cook Inlet coho salmon stocks are considered to be in good condition.

### *Kenai River*

From 1999 to 2004, the total return of Kenai River adult coho salmon was estimated annually by: (A) the population specific harvest in marine commercial fisheries, (B) the inriver sport and personal use harvest, and (C) the spawning escapement (Carlson and Evans 2007; Massengill and Evans 2007). The sum of these three components (A+B+C) provided the estimates of annual adult production, although no escapement goal exists for this system. Smolt enumeration studies were conducted in the Moose River, a Kenai River tributary that has been shown to be a very important rearing environment for juvenile coho salmon from 1992-2007 (Massengill and Carlson 2007). As a result of increasing sport and commercial harvest levels in the early 1990s, combined with a decreasing trend in Moose River smolt production from 1993–1997, the BOF implemented conservation measures at the 1997 and 2000 meetings to reduce sport and commercial exploitation of Kenai River coho salmon. Since 1997, the drainage-wide coho salmon smolt emigrations have stabilized. Interestingly, the 1999 record low adult escapement estimate of 7,364 fish produced a smolt emigration in 2001 that was only slightly below the historical average. Conversely, the record low smolt emigration in 1997 of 374,225 fish produced what was believed to be a very weak return of adults in 1998, although the total return strength for that year is unknown. Since 2000, Kenai River adult coho salmon runs have been considered good to excellent. In response to an emergency petition from the Kenai-Soldotna Fish and Game Advisory Committee in 2004, the BOF extended the Kenai River sport fishing season for coho salmon from September 30 to October 31. This decision was based upon ADF&G data that projected an escapement of Kenai River coho salmon above the 1999–2003 average. In 2005, the BOF repealed the Kenai River Coho Salmon Conservation Management Plan (5 AAC 21.357) and extended the Kenai River coho salmon sport fishing season in regulation through October 31. This latter change was based on an expectation of low October fishing effort and recent (2000–2004) exploitation data, which indicated that Kenai River coho salmon returns were exploited at a rate below that deemed sustainable. Unfortunately, 2004 was the final year that mark–recapture abundance estimates were generated for Kenai River adult coho salmon. In 2008, the BOF extended the Upper Subdistrict set gillnet fishing season from a closing date of August 10 to no later than August 15, with the caveat that from August 11 to August 15 the fishery was to be open for regular periods only. The district-wide Central District drift gillnet fishery was also extended to August 15. This additional commercial fishing time was granted in response to reports the BOF received at their 2008 meeting showing that during the 6 years that the total annual run of Kenai River coho salmon was estimated, the Upper Subdistrict fishery harvested between 0.3% to 6% of the run annually.

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<sup>6</sup> Lafferty, R., R. Massengill, T. Namtvedt, D. Bosch, and J. Hasbrouck. Unpublished. Stock status of coho salmon in Upper Cook Inlet, Alaska. Alaska Department of Fish and Game, Report to the Alaska Board of Fisheries, 2005, Anchorage.

Estimates were also provided to the BOF that showed the combined additional daily exploitation rate by both set and drift gillnet fisheries on Kenai River coho salmon stocks at this time in August was estimated to range between 0.78% to 1.43% for each additional day fished. In 2008, the fishing season extension would have provided two additional days of fishing (August 11 and 15), but both of these fishing periods were closed as a result of the poor sockeye salmon run; in 2009 and 2010 the fishing season extension will provide for only one additional fishing period (August 13 in 2009 and August 12 in 2010).

Beginning in 2005, fish wheel catch rate data provided a tool to index Kenai River coho salmon abundance into one of three general classes (low<50K; 50K<med<120K; high>120K) by utilizing inseason fish wheel catch rate data plotted into a regression of historical fish wheel catch rates to abundance estimates. The index level assigned to the 2005 and 2006 Kenai River adult coho salmon returns arriving at the fish wheel site (river mile 28) was characterized as “**medium**,” while the 2007 run was characterized as “**low**,” however, the 2007 index may have been biased low as preliminary information indicates an unexpected drop in fish wheel efficiency may have occurred (Robert Massengill, Division of Sport Fish Biologist, ADF&G, Soldotna; personal communication). The last year this project was active was in 2007.

Beginning with the 2009 season, there are no anticipated research projects to assess Kenai River coho salmon. This is in response to budgetary constraints, but it also reflects the fact that at this time there are no known serious issues with Kenai River coho salmon stocks.

## **Chinook Salmon**

### *Northern District*

After experiencing a marked decline in abundance in the early to mid 1990s, Northern District Chinook salmon stocks have rebounded, with exceptional runs measured at the Deshka River weir, the only site where Chinook salmon are totally enumerated in the Northern District (Table 12). From 1999 through 2006, the upper end of the Deshka River BEG of 13,000 to 28,000 fish (Fair et al 2007) was exceeded.

Table 12.–Deshka River Chinook salmon passage, 1995–2008.

<u>Year</u>	<u>Passage</u>	<u>Year</u>	<u>Passage</u>
1995	10,044	2002	29,427
1996	14,349	2003	40,069
1997	35,587	2004	57,934
1998	15,409	2005	37,725
1999	29,649	2006	31,150
2000	35,242	2007	18,714
2001	29,004	2008	7,533

As a result of this, there have been numerous liberalizations to the inriver sport fishery. In addition, in 2005 the BOF lengthened fishing periods for the commercial fishery from 6 to 12 hours and in 2008 allowed the commercial fishery to remain open through June 24 (Monday periods only). The commercial fishery harvest cap of 12,500 Chinook salmon remained in effect. The 2007 Deshka River run, albeit less than originally anticipated, fell within the BEG

range. The 2008 run, which was projected to be smaller than average, was a poor return, resulting in closures to both sport and commercial fisheries.

Since 2005, the average commercial Chinook salmon harvest by the directed Northern District set gillnet fishery has been 3,500 fish. In response to the poor Deshka River Chinook salmon run in 2008, the June 23rd commercial fishing period was closed via Emergency Order No. 1 (Table 23), as was the June 26th regular season opening date (Emergency Order No. 2). For more details on the Northern District Chinook salmon commercial fishery, see the 2008 commercial fishery section earlier in this report.

At this time there are no Northern District Chinook salmon stocks of concern.

### ***Kenai River***

Since 1986, Kenai River late-run Chinook salmon estimates of inriver passage have been completed via sonar by the Division of Sport Fish. The late-run Chinook salmon returns have been relatively stable and escapement objectives have been consistently achieved or exceeded. The early-run Kenai River Chinook salmon return migrates through Cook Inlet in May and June, and therefore receives very little to no commercial exploitation. Kenai River Chinook salmon stocks receive a great deal of public and department scrutiny and reveal no concerns at this time.

## **COMMERCIAL HERRING FISHERY**

The 2008 UCI herring fishery resulted in a harvest of 13.5 tons (Appendix A8), with all of the harvest coming from the Upper Subdistrict. A total of 10 permit holders reported fishing, which is down slightly from previous years. Table 29 summarizes the age, weight, size, and sex distribution from samples collected during the 2008 fishery. It must be noted that these samples were obtained from the set gillnet fishery and may reflect biases in the gear type used to collect the samples as much as variation in the population structure of the stock. Nevertheless, five age classes dominated the population, comprising 96% of the 339 samples collected from four sample dates. The average by age-class was: age-4 (17%), age-5 (23%), age-6 (19%), age-7 (22%) and age-8 (15%). Currently, all herring harvested in UCI are used exclusively for personal use or bait. Because Prince William Sound and Kamishak Bay herring fisheries have remained closed for many years, bait herring from UCI has risen in value. Demand by commercial and sport halibut fishermen has resulted in an average price of approximately \$0.90/lb to \$1.00/lb or \$1,800/ton to \$2,000/ton. Based on this price, the estimated exvessel value of the 2007 commercial herring fishery was approximately \$25,000.

## **COMMERCIAL SMELT FISHERY**

Commercial smelt harvests in UCI have ranged from 300lbs to 63.7 tons (Table 13). For more details about the history of smelt fishing in UCI, see Shields (2005). In 2008, 6 permit holders participated in the commercial dip net smelt fishery (5 AAC 21.505 Cook Inlet Smelt Fishery Management Plan) harvesting approximately 63.7 tons, which is the largest harvest to date. With an average price of \$0.50/lb, the exvessel value was estimated at approximately \$64,000. The harvest quota for this fishery was 100 tons, which easily could have been caught based on reports from those fishermen who took part in the fishery. They observed significant quantities of smelt migrating up the Susitna River and were able to dipnet the fish in a relatively short period of time. Harvest was limited by the logistics of getting the product to a location where the smelt could be off-loaded and processed for markets.

Table 13.–Commercial eulachon harvest, 1978, 1980, 1998-99, and 2006-2008.

Year	Lbs	Tons	Permits
1978	300	0.2	NA
1980	4,000	2.0	NA
1998	18,610	9.3	2
1999	100,000	50.0	NA
2006	90,783	45.4	8
2007	125,044	62.5	11
2008	127,365	63.7	6

Most of the 2008 harvest was loaded in drift boats and transported to Kenai or Ninilchik and frozen for shipment. Analyses of samples collected from the harvest showed that age-4 smelt were the dominate age group in the population, comprising 80% in 2006, 81% in 2007, and 73% in 2008 (Table 30). The average fork length for this age class has ranged from 186 to 201mm. The overall male to female ratio was 72% to 28% in 2006, 73% to 27% in 2007 and 51% to 49% in 2008.

## COMMERCIAL RAZOR CLAM FISHERY

Historically the razor clam fishery on the west side of Cook Inlet has been confined to the area between Crescent River and Redoubt Point. All clams harvested in this area are directed by regulation to be sold for human consumption, except for the small percentage (less than 10% of the total harvest) of broken clams, which may be sold for bait. Razor clams are present throughout this area, with especially dense concentrations in the Polly Creek and Crescent River areas. Beginning in 1993, the Department of Environmental Conservation certified additional beach area for harvesting clams for human consumption. The additional area is located north of the existing certified beach at Polly Creek, north to Redoubt Creek. In 1994, this certification was extended further north to Harriet Point. In the remainder of the Upper Cook Inlet Management Area, there are no restrictions on the amount of clams that can be sold for bait. Currently though, there is no directed effort to harvest razor clams for the bait market. The minimum legal size for razor clams is 4.5 inches (114 mm) in shell length.

The 2008 harvest, taken primarily from the Polly Creek/Crescent River area, was approximately 391,000 pounds (in the shell) (Table 33 and Appendix A9). A total of 21 diggers participated during the season, reporting harvest from 59 different days from May 16 to August 5. Diggers were paid an average of \$.62 per pound for their harvest, resulting in an exvessel value for this fishery of \$242,000. The average clam size from the 2008 harvest was 5.4 inches (137mm) (Figure 6).

The 2008 summer tide schedule can be found in Table 31.

## **SUBSISTENCE FISHERIES**

There is a long history of Alaskans harvesting fish and game for their personal consumptive needs under sport, subsistence, and commercial fishing regulations in the Cook Inlet area (Braund 1982). Since 1978, when the State of Alaska passed its first subsistence statute (AS 16.05.258), many changes have occurred in the regulations governing the harvest of fish and game for personal consumption in Cook Inlet. Beginning in 1981, a new category of fisheries was established. Personal use fishing was created to provide for the personal consumptive needs of state residents not able to meet their needs under other fisheries. Since their creation, numerous changes have occurred in the personal use or subsistence fisheries in Cook Inlet, with many of the changes coming as a result of challenges in the State of Alaska Court System, the Alaska State Legislature, or the BOF process. The only personal use or subsistence fishery that has occurred consistently in Cook Inlet during this entire period is the Tyonek Subsistence fishery. A review of the various personal use and subsistence fisheries that have been conducted in Cook Inlet are reported in Brannian and Fox (1996) and Reimer and Sigurdsson (2004).

### **TYONEK SUBSISTENCE SALMON FISHERY**

The subsistence fishery in the Tyonek Subdistrict was created by an Anchorage Superior Court order in May 1980. In March 1981, the BOF adopted permanent regulations for this fishery. Originally open only to those individuals living in the village of Tyonek, recent court decisions allow any Alaskan resident to participate, although very few non-villagers seek permits. Fishing is allowed only in the Tyonek Subdistrict of the Northern District. A limit of 1 permit per household can be obtained and each permit holder is allowed a single 10-fathom gillnet, having a mesh size no greater than 6 inches. Fishing is allowed from 4:00 a.m. to 8:00 p.m. each Tuesday, Thursday, and Friday from May 15 to June 15, or until 4,200 Chinook salmon have been harvested. Fishing is again allowed from 6:00 a.m. to 6:00 p.m. each Saturday after June 15, although the opening is delayed until July 1, if 4,200 Chinook salmon were taken before June 16. The permit allows 25 salmon per permit holder and 10 salmon for each additional member. However, 5 AAC 01.595(a)(3) allows for up to 70 Chinook salmon per permit holder in the Tyonek Subsistence fishery. Annual Chinook salmon harvests have ranged from a low of 639 in 1997 to as many as 2,665 in 1983 (Appendix A15).

Not all of the permits had been returned from the 2008 fishery when this report was finalized, so the following harvests are preliminary. The estimated 2008 harvest from the Tyonek subsistence fishery shows 708 Chinook, 54 sockeye, 7 coho, 119 pink, and 3 chum salmon. Again, these are preliminary numbers, and will increase moderately when all the permits are returned.

### **UPPER YENTNA RIVER SUBSISTENCE SALMON FISHERY**

A subsistence salmon fishery is allowed in the Yentna River drainage outside the Anchorage-Matsu-Kenai non subsistence area, as described in 5 AAC 99.015(a)(3). The provisions of this fishery allow for the harvest of 25 salmon per head of household, plus 10 more for each dependent; however, all Chinook salmon and rainbow trout must be returned to the water alive. The specific area open for the fishery is in the main stem Yentna River from its confluence with Martin Creek upstream to its confluence with the Skwenta River. Legal gear consists of fish wheels only. The subsistence fishing season occurs from July 15 through July 31 from 4:00 a.m. to 8:00 p.m. each Monday, Wednesday, and Friday during this time frame. The preliminary

harvest reports from the 2008 Yentna River subsistence fishery show that 310 sockeye, 57 coho, 23 pink, and 7 chum salmon were harvested by 20 permit holders (Appendix A15).

## **EDUCATIONAL FISHERIES**

Educational fisheries first began in UCI in 1989 with the Federal Court-ordered subsistence fishery for the Kenaitze Indian Tribe (Sweet et al. 2004). The fishery was labeled as a subsistence fishery due to differences in interpretations of subsistence. Beginning with the 1993 fishing season, the Alaska Superior Court ordered ADF&G to issue educational fishing permits. The present guidelines for educational fisheries are established by the BOF under chapter 93 of the Alaska Administrative Code. The standards for an educational fishery program include: (1) instructors must be qualified to teach the subject matter; (2) students must be enrolled; (3) there are minimum attendance requirements; (4) procedures for testing a student's knowledge of the subject matter or the student's proficiency in performing learned tasks must be administered; and (5) standards for successful completion of the program must be set. According to 5 AAC 93.210, the commissioner will issue a nontransferable, no-cost educational fishery permit to an applicant who proposes to operate an educational fishery program that meets the above standards, except in the following cases: (1) when the commissioner determines that the educational objective of the program can be accomplished under existing fisheries statutes and regulations; (2) the sustained yield of any fishery resource would be jeopardized or the fishery resource would be significantly reallocated among existing users; (3) the applicant failed to provide the information required by the permit; (4) the applicant violated a condition or requirement of an educational fishery permit; or (5) the applicant failed to comply with the reporting requirements of the permit.

The total harvest from all educational fisheries in 2008 was 7,647 fish, which was the third largest harvest since 1994. The average annual harvest from 1994 through 2008 has been approximately 5,800 fish.

## **CENTRAL DISTRICT EDUCATIONAL FISHERIES**

In the Central District of UCI there currently are 6 groups permitted to conduct educational fisheries, including the Kenaitze Tribal Group, Ninilchik Traditional Council, Ninilchik Native Descendants, Ninilchik Emergency Services, Anchor Point VFW, and the Kasilof Historical Association.

In 1993 a state court ordered ADF&G to create an educational fishery for the Kenaitze Indian Tribe, pending final court rulings on other subsistence cases. The objectives for educational fisheries are specified in 5 AAC 93.235 as "educating persons concerning historic, contemporary, or experimental methods for locating, harvesting, handling, or processing fishery resources." Appendix A16 summarizes the harvest from all the educational fisheries in UCI. In 2008 the Kenaitze Tribe harvested 58 Chinook, 3,374 sockeye, 525 coho and 503 pink salmon, for a total of 4,460 salmon. From 1993 through 2008, the average annual harvest of all salmon by the Kenaitze Indian Tribe has been 4,100 fish. The total fish harvest quota for this group is 8,000 fish.

In 1993 the Ninilchik Traditional Council (NTC) applied for and was granted a permit for an educational fishery (Szarzi and Begich 2004). In 1998, a group of NTC members formed a new organization, the Ninilchik Native Descendants (NND), and requested a separate permit with similar goals of passing on traditional knowledge and providing food for needy tribal members.

Initially 1 permit was issued for both groups, but this was not acceptable to the NTC and both groups were allowed to fish concurrently. There have been a number of changes to the annual harvest limits allowed under these permits, but the total salmon quota more than tripled in 2007 from 850 to 2,800 fish for both the NTC and NND groups. In 2008 the NTC harvested 199 Chinook, 857 sockeye, 200 coho and 248 pink salmon. The NND caught 69 Chinook, 192 sockeye, 150 coho and 69 pink salmon. The 2008 catch of approximately 2,000 fish represents the second largest harvest since the inception of the NNT/NND educational fisheries.

In 2003, another group from Ninilchik, the Ninilchik Emergency Services (NES), applied for and was granted an educational fishery. In 2008, the NES group did not report any harvest from their educational fishery permit.

The Anchor Point VFW applied for and was granted an educational fishery permit in 2007. They reported the following harvest from their 2008 fishing activities: 1 Chinook, 106 sockeye, 79 coho, and 15 pink salmon.

Finally, the Kasilof Historical Association applied for an educational permit for the 2008 season and reported the following harvest: 3 Chinook, 20 sockeye, 42 coho, and 12 pink salmon.

## **NORTHERN DISTRICT EDUCATIONAL FISHERIES**

In the Northern District of Upper Cook Inlet, 6 groups have received permits for educational fisheries, these being (1) the Knik Tribal Council, (2) Big Lake Cultural Outreach, (3) Intertribal Native Leadership, (4) Eklutna Village, (5) Tyonek Village, and (6) Territorial Homestead Lodge, operated by Tim O'Brien (Appendix A16).

The Knik Tribal Council began an educational fishery in 1994 (Sweet et al. 2004). Their harvest in 2008 totaled 12 Chinook, 79 sockeye, and 70 coho salmon, for a total of 161 fish. The peak harvest from this group of 823 fish occurred in 2003.

Big Lake Cultural Outreach group harvested 20 Chinook, 9 sockeye, 62 coho, and 6 chum salmon for a total of 97 fish.

Intertribal Native Leadership did not report fishing for the 2008 season.

The Eklutna Village group was also issued an educational fisheries permit beginning in 1994. They have harvested an average of 320 fish per year from 1994–2006 with a peak harvest of 733 fish occurring in 2004. In 2008, this group reported harvesting 16 Chinook, 19 sockeye, 178 coho, and 3 pink salmon, for a total of 216 fish.

Tyonek Village reported an educational fishery harvest of 2 Chinook salmon in 2008.

Territorial Homestead Lodge also applied for and received an educational fishery permit beginning in 2007. This fishery is located near Moose Point in the Eastern Subdistrict of the Northern District. In 2008, the harvest from this fishery was 8 Chinook, 82 sockeye, 105 coho, and 6 pink salmon for a total of 201 fish.

## **PERSONAL USE SALMON FISHERY**

Under the Upper Cook Inlet Personal Use Salmon Fishery Management Plan (5 AAC 77.540), personal use fishing is allowed in limited areas in Cook Inlet. The management plan received substantial changes at the BOF meeting in January of 1996. In 1995, personal use fishing was allowed with set gillnets in most areas of Cook Inlet normally open to commercial set gillnet



fishing. However, for the 1996 season, most of this area was closed, but to compensate for the lost opportunity, dip net fisheries were expanded to allow for approximately the same level of harvest that had occurred with gillnets in 1995. Currently, personal use fishing using gillnets is only open near the Kasilof River in the waters of UCI normally closed to commercial set gillnet fishing. This area encompasses approximately 1 mile on either side of the Kasilof River terminus, extending out from shore for 1 mile. In addition, personal use fishing with dip nets is allowed at the terminus of the Kenai and Kasilof Rivers. The personal use management plan was again amended at the 2002 BOF meeting, modifying how the dip net fishery at Fish Creek in Knik Arm was to be managed, as well as making time changes to both the Kenai and Kasilof personal use fisheries. The Fish Creek dip net fishery was continued in regulation, but opens only if the upper end of the escapement goal of 70,000 is projected to be exceeded. The Kasilof River gillnet fishery was also modified, expanding the days and hours that the fishery was open. The fishery now opens on June 15 and takes place from 6:00 a.m. until 11:00 p.m. daily. Instead of being managed for a harvest goal of 10,000 to 20,000 fish, the fishery remains open until 11:00 p.m. on June 24, regardless of how many fish are harvested. The Kasilof River dip net personal use fishery occurs from June 25 through August 7, 24-hours per day. The BOF-amended management plan also changed how the Kenai River dip net fishery was prosecuted. This fishery is open from July 10 through July 31, 7 days per week, but only from 6:00 a.m. to 11:00 p.m. daily. However, if ADF&G determines that the abundance of Kenai River late-run sockeye salmon is greater than 2 million fish, this fishery may be extended, by emergency order, to 24 hours per day.

In 2008 the BOF authorized a new UCI personal use fishery. Referred to as the Beluga River senior citizen personal use dip net fishery (5 AAC 77.540(g)), salmon may be taken by dip net only by persons 60 years of age or older (no proxy fishing is allowed). The fishery is open 24 hours per day from the Beluga River Bridge downstream to an ADF&G regulatory marker located approximately one mile below the bridge. The annual limit of the fishery is not to exceed 500 salmon, although no king salmon may be retained. Permit holders are required to report their harvests weekly to the department as specified in the permit.

A permit issued by ADF&G, along with a valid resident sport fishing license, or an exemption from licensing under AS 16.05.400, is required to participate in any of the personal use fisheries. The annual bag and possession limits are 25 salmon per head of household, with an additional 10 salmon for each household member. In the Kasilof River dip net fishery, however, Chinook salmon may not be retained and must be released immediately to the water unharmed. In the Kenai River dip net fishery, 1 Chinook salmon may be retained per household. There are no Chinook salmon harvest restrictions in the Kasilof River gillnet personal use fishery. Legal gear under the management plan are set gillnets and dip nets. A set gillnet cannot exceed 10 fathoms (60 feet) in length or 45 meshes in depth. Mesh size must be greater than 4 inches, but may not exceed 6 inches. Gillnets must be set at least 100 feet apart at all times. A legal dip net has been defined in regulation (5 AAC 39.105) as a bag-shaped net supported on all sides by a rigid frame. The maximum straight-line distance between any two points on the net frame, as measured through the net opening, may not exceed 5 feet. The depth of the bag must be at least one-half of the greatest straight-line distance, as measured through the net opening. No portion of the bag may be constructed of webbing that exceeds a stretched measurement of 4.5 inches; the frame must be attached to a single rigid handle and be operated by hand.

All UCI personal use salmon harvests since 1996 are summarized in Appendix A17.

## **KASILOF RIVER GILLNET**

The personal use fishery using gillnets at the mouth of the Kasilof River opened on June 15 and closed at 11:00 p.m. on Saturday, June 24, 2008, as stipulated in the personal use management plan. The 2008 estimated harvest in the Kasilof River gillnet fishery was 23,706 salmon, with 23,432 being sockeye salmon. The average annual sockeye salmon harvest in this fishery since the BOF modified the management plan in 2002 has been 21,851 fish.

## **KASILOF RIVER DIP NET**

The Kasilof River dip net fishery was open from June 25 through August 7, 2008. The estimated harvest in 2008 was 55,536 salmon with 54,051 (97%) being sockeye salmon. This was the second largest harvest ever observed in the Kasilof River dip net fishery. The average annual sockeye salmon harvest from 2002-2008 was 47,942 fish.

## **KENAI RIVER DIP NET**

The personal use dip net fishery located at the mouth of the Kenai River opened by regulation on July 10. The fishery was open from 6:00 a.m. to 11:00 p.m. daily through July 31, 2008. The Upper Cook Inlet Personal Use Salmon Fishery Management Plan states that the personal use fishery may be expanded to 24-hours per day if the Department determines that the abundance of the Kenai River late-run sockeye salmon will be greater than 2 million fish. As described earlier in this report, the first best fit of the OTF data indicated the 2008 late-run Kenai River sockeye salmon return would likely be less than 2 million fish, so the inriver minimum escapement goal was 650,000 fish and the Kenai River dip net fishery was not liberalized to 24 hours/day. In fact, all commercial fisheries targeting Kenai River sockeye salmon were closed after the July 24 fishing period (Table 21). Estimates of harvest in 2008 show that 249,215 salmon were taken in the Kenai River dip net fishery, with 234,109 (94%) being sockeye salmon. This represents the 4<sup>th</sup> highest dip net harvest in the Kenai River since 1996 (13 years) on a run that was the 4<sup>th</sup> lowest during the same time frame.

## **FISH CREEK DIP NET FISHERY**

The Fish Creek personal use dip net fishery was not opened in 2008.

## **BELUGA RIVER SENIOR CITIZEN DIP NET FISHERY**

The estimated harvest from the first year of the Beluga River senior citizen dipnet fishery shows that 5 of the 20 permits issued participated in the fishery, with a total harvest of 66 salmon (31 sockeye and 35 coho salmon).

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## **TABLES AND FIGURES**

Table 14.—Offshore test fish sockeye salmon catch results and environmental data, 2008.

Date	No. of Stations	Fishing Time (min)	Cum Catch	Cum Index	Cum Index	Mean Length (mm)	Water Temp °C	Air Temp °C	Salinity (ppm)	Beginning Wind		Ending Wind		
										Vel	Dir	Vel	Dir	
1-Jul	6	230.5	114	114	81	81	556	8.5	9.5	30.4	8	S	5	S
2-Jul	6	259.5	496	610	233	314	548	8.6	9.7	30.2	6	S	10	W
3-Jul	6	236.0	100	710	67	381	552	8.5	10.3	30.4	17	W	6	NE
4-Jul	6	254.0	160	870	97	479	549	8.4	10.2	30.5	8	NE	2	S
5-Jul	6	228.5	7	877	6	485	560	8.6	10.7	30.5	0	-	1	E
6-Jul	6	224.5	4	881	3	488	560	8.4	11.0	30.5	2	SW	6	SW
7-Jul	6	218.0	41	922	33	520	553	8.7	9.5	30.0	4	SW	14	SE
8-Jul	6	237.0	118	1,040	83	603	556	8.5	9.0	30.3	15	SE	3	SW
9-Jul	6	226.5	69	1,109	52	656	572	8.9	10.3	31.6	2	SW	2	SW
10-Jul	6	227.0	98	1,207	76	732	568	9.1	11.2	29.7	2	S	6	SW
11-Jul	6	237.0	120	1,327	82	814	571	9.5	10.0	29.7	6	SW	2	S
12-Jul	6	239.5	140	1,467	93	907	573	9.8	10.5	29.1	2	S	1	NW
13-Jul	6	246.5	122	1,589	84	991	572	10.3	11.3	28.4	3	W	2	S
14-Jul	6	230.5	85	1,674	61	1,052	557	9.9	11.7	28.5	1	S	7	SW
15-Jul	6	249.0	130	1,804	84	1,136	566	10.3	11.2	28.2	4	SW	11	SE
16-Jul	5 <sup>a</sup>	189.0	50	1,854	39	1,175	571	9.8	10.6	29.0	5	E	7	SE
17-Jul	6	237.5	92	1,946	68	1,242	568	9.1	10.3	29.8	9	SW	3	S
18-Jul	6	220.0	9	1,955	7	1,250	570	9.4	10.5	29.4	2	W	4	S
19-Jul	6	216.0	3	1,958	3	1,252	564	9.2	11.0	30.1	1	S	2	S
20-Jul	4 <sup>a</sup>	166.5	56	2,014	38	1,290	568	9.4	10.5	29.8	7	SE	15	SE
21-Jul	5 <sup>a</sup>	191.0	48	2,062	34	1,324	567	9.4	9.6	29.7	12	S	13	S
22-Jul	6	253.0	113	2,175	78	1,402	568	8.9	9.8	30.4	8	NW	9	SE
23-Jul	6	213.5	5	2,180	4	1,406	543	9.5	10.0	29.8	2	SE	10	SE
24-Jul	0 <sup>a</sup>	0.0	15	2,195	10	1,416	562	-	-	-	-	-	-	-
25-Jul	6	222.5	21	2,216	17	1,433	569	9.2	11.5	30.1	8	NW	6	N
26-Jul	4 <sup>a</sup>	153.0	18	2,234	14	1,447	562	9.1	10.3	30.5	10	S	15	SW
27-Jul	6	222.0	13	2,247	10	1,457	553	9.9	10.5	29.0	8	S	3	NE
28-Jul	6	246.0	79	2,326	48	1,505	577	10.3	10.3	29.1	9	SE	3	S
29-Jul	6	221.0	26	2,352	21	1,525	567	10.2	11.8	29.0	2	SE	5	NE
30-Jul	6	240.0	68	2,420	43	1,568	570	10.1	11.3	29.4	8	SE	5	SE
31-Jul	5	162.5	27	2,447	26	1,594	568	9.7	11.0	29.5	6	SE	17	SE

<sup>a</sup>All stations not fished due to inclement weather; the data for missed stations was interpolated.

Table 15.—Upper Cook Inlet sockeye salmon enumeration by river and date, 2008.

Date	Kenai River		Kasilof River		Crescent River		Yentna River		Fish Creek		Packers Creek	
	daily	cum	daily	cum	daily	cum	daily	cum	daily	cum	daily	cum
15-Jun			446	446								
16-Jun			271	717								
17-Jun			477	1,194								
18-Jun			427	1,621								
19-Jun			658	2,279								
20-Jun			3,229	5,508								
21-Jun			3,905	9,413								
22-Jun			5,504	14,917								
23-Jun			7,355	22,272								
24-Jun			4,728	27,000	35	35						
25-Jun			6,437	33,437	53	88						
26-Jun			15,121	48,558	55	143						
27-Jun			7,825	56,383	30	173						
28-Jun			7,849	64,232	20	193						
29-Jun			2,296	66,528	155	348						
30-Jun			4,618	71,146	166	514						
1-Jul	2,474	2,474	2,145	73,291	333	847						
2-Jul	2,791	5,265	2,944	76,235	2,541	3,388						
3-Jul	2,638	7,903	3,150	79,385	1,438	4,826						
4-Jul	1,384	9,287	1,216	80,601	2,859	7,685						
5-Jul	969	10,256	2,082	82,683	1,324	9,009					0	
6-Jul	890	11,146	1,574	84,257	873	9,882					81	81
7-Jul	829	11,975	5,914	90,171	3,148	13,030	102	102	0	0	289	370
8-Jul	1,069	13,044	3,039	93,210	3,111	16,141	113	215	0	0	948	1,318
9-Jul	2,123	15,167	2,479	95,689	3,734	19,875	136	351	1	1	9	1,327
10-Jul	3,019	18,186	4,371	100,060	3,915	23,790	159	510	1	2	2	1,329
11-Jul	1,527	19,713	2,095	102,155	1,751	25,541	131	641	0	2	24	1,353
12-Jul	2,056	21,769	4,697	106,852	3,765	29,306	299	940	114	116	391	1,744
13-Jul	4,465	26,234	2,147	108,999	3,352	32,658	221	1,161	7	123	475	2,219
14-Jul	2,718	28,952	9,213	118,212	3,629	36,287	370	1,531	0	123	39	2,258
15-Jul	25,514	54,466	19,047	137,259	2,946	39,233	4,635	6,166	0	123	159	2,417
16-Jul	68,124	122,590	18,828	156,087	1,282	40,515	7,164	13,330	0	123	172	2,589
17-Jul	51,062	173,652	12,343	168,430	1,883	42,398	7,249	20,579	12	135	149	2,738

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Table 15.–Page 2 of 3.

Date	Kenai River		Kasilof River		Crescent River		Yentna River		Fish Creek		Packers Creek	
	daily	cum	daily	cum	daily	cum	daily	cum	daily	cum	daily	cum
18-Jul	18,535	192,187	7,821	176,251	2,905	45,303	6,389	26,968	304	439	101	2,839
19-Jul	17,110	209,297	19,026	195,277	2,493	47,796	7,923	34,891	386	825	318	3,157
20-Jul	29,398	238,695	5,591	200,868	1,526	49,322	13,571	48,462	315	1,140	225	3,382
21-Jul	32,015	270,710	6,918	207,786	2,067	51,389	8,854	57,316	562	1,702	259	3,641
22-Jul	31,450	302,160	8,292	216,078	1,940	53,329	5,781	63,097	1,004	2,706	742	4,383
23-Jul	10,529	312,689	5,600	221,678	984	54,313	7,147	70,244	3,312	6,018	674	5,057
24-Jul	11,401	324,090	5,470	227,148	437	54,750	3,760	74,004	2,624	8,642	383	5,440
25-Jul	10,920	335,010	8,779	235,927	849	55,599	2,677	76,681	2,124	10,766	622	6,062
26-Jul	7,387	342,397	14,539	250,466	760	56,359	1,053	77,734	441	11,207	20	6,082
27-Jul	16,437	358,834	12,167	262,633	962	57,321	547	78,281	1,243	12,450	1,467	7,549
28-Jul	19,164	377,998	6,844	269,477	1,119	58,440	868	79,149	1,128	13,578	360	7,909
29-Jul	22,136	400,134	3,516	272,993	1,009	59,449	1,103	80,252	665	14,243	726	8,635
30-Jul	26,216	426,350	2,930	275,923	1,062	60,511	582	80,834	207	14,450	1,674	10,309
31-Jul	19,548	445,898	3,525	279,448	412	60,923	932	81,766	1,432	15,882	407	10,716
1-Aug	22,615	468,513	3,256	282,704	592	61,515	669	82,435	168	16,050	116	10,832
2-Aug	17,284	485,797	2,886	285,590	515	62,030	883	83,318	91	16,141	405	11,237
3-Aug	13,332	499,129	3,018	288,608			1,317	84,635	668	16,809	432	11,669
4-Aug	14,327	513,456	2,819	291,427			1,770	86,405	41	16,850	484	12,153
5-Aug	11,409	524,865	2,263	293,690			1,351	87,756	513	17,363	427	12,580
6-Aug	10,903	535,768	1,753	295,443			700	88,456	226	17,589	1,216	13,796
7-Aug	8,477	544,245	1,154	296,597			385	88,841	144	17,733	823	14,619
8-Aug	6,603	550,848	1,161	297,758			307	89,148	83	17,816	310	14,929
9-Aug	7,729	558,577	1,763	299,521			489	89,637	424	18,240	464	15,393
10-Aug	10,802	569,379	1,948	301,469			509	90,146	40	18,280	366	15,759
11-Aug	10,951	580,330							68	18,348	573	16,332
12-Aug	10,392	590,722							401	18,749	436	16,768
13-Aug	7,351	598,073							481	19,230	459	17,227

-continued-



Table 15.–Page 3 of 3

Date	Kenai River		Kasilof River		Crescent River		Yentna River		Fish Creek		Packers Creek	
	daily	cum	daily	cum	daily	cum	daily	cum	daily	cum	daily	cum
14-Aug	8,415	606,488							109	19,339	273	17,500
15-Aug	5,448	611,936							0	19,339	700	18,200
16-Aug	1,530	613,466									178	18,378
17-Aug	1,480	614,946									630	19,008
18-Aug											284	19,292
19-Aug											345	19,637
20-Aug											815	20,452
21-Aug											543	20,995
22-Aug											1,849	22,844
23-Aug											566	23,410
24-Aug											298	23,708
25-Aug											455	24,163
26-Aug											112	24,275
27-Aug											153	24,428
28-Aug											231	24,659
29-Aug											93	24,752
30-Aug											496	25,248

*Note:* Days without data indicate days when the project was not operational.

Table 16.—Commercial Chinook salmon catch by area and date, Upper Cook Inlet, 2008.

Upper Subdistrict Set Gillnet																
Date	244-21		244-22		244-25		244-31		244-32		244-41		244-42		Total	
	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
6/26	29	29	16	16			15	15							60	60
6/28	13	42	23	39			28	43							64	124
6/29	49	91	38	77			37	80							124	248
6/30	20	111	59	136			27	107							106	354
7/1	28	139	35	171			12	119							75	429
7/2	14	153	37	208			16	135							67	496
7/3	29	182	32	240			17	152							78	574
7/5	47	229	58	298			47	199							152	726
7/7	112	341	114	412			52	251							278	1,004
7/8	73	414	102	514			27	278							202	1,206
7/9	152	566	159	673			61	339							372	1,578
7/10	75	641	65	738			58	397	40	40	103	103	3	3	344	1,922
7/12	96	737	91	829			79	476		40		103		3	266	2,188
7/13	64	801	52	881			37	513		40		103		3	153	2,341
7/14	114	915	90	971			59	572	53	93	151	254	19	22	486	2,827
7/15	120	1,035	46	1,017			27	599		93		254		22	193	3,020
7/16	137	1,172	94	1,111			42	641		93		254		22	273	3,293
7/17	165	1,337	141	1,252			112	753	88	181	77	331	15	37	598	3,891

-continued-

Table 16.–Page 2 of 7.

Upper Subdistrict Set Gillnet																
Date	244-21		244-22		244-25		244-31		244-32		244-41		244-42		Total	
	Ninilchik		Cohoe		Kasilof Terminal		South K.Beach		North K.Beach		Salamatof		E. Forelands		Daily	Cum
7/19	59	1,396	78	1,330			44	797		181		331		37	181	4,072
7/20	91	1,487	82	1,412			90	887		181		331		37	263	4,335
7/21	99	1,586	256	1,668			193	1,080	162	343	139	470	9	46	858	5,193
7/22	43	1,629	114	1,782			34	1,114		343		470		46	191	5,384
7/23	45	1,674	48	1,830			210	1,324		343		470		46	303	5,687
7/24	79	1,753	96	1,926			81	1,405	210	553	64	534	2	48	532	6,219
7/26	46	1,799	40	1,966			47	1,452							133	6,352
7/27					11	11									11	6,363
7/28					64	75									64	6,427
7/29					64	139									64	6,491
7/30					77	216									77	6,568
7/31					120	336									120	6,688
8/1					159	495									159	6,847
8/2					115	610									115	6,962
8/3					114	724									114	7,076
8/4					91	815									91	7,167
8/5					81	896									81	7,248
8/6					56	952									56	7,304
8/7					138	1,090									138	7,442

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Table 16.–Page 3 of 7.

Central District – West Side Set Gillnet																						
		245-10		245-20		245-30		245-40		245-50		245-55		245-60		246-10		246-20				
		Chinitna Bay		Silver Salmon		Tuxedni Bay		Polly Cr.		L. J. Slough		Big River		W. Forelands		Kalgin – West		Kalgin – East		Total		
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
6/2																	30	30			30	30
6/4																	92	122			92	122
6/6												4	4				42	164			46	168
6/9												44	48				166	330			210	378
6/11												27	75				160	490			187	565
6/13												99	174				62	552			161	726
6/16					46	46						16	190				33	585			95	821
6/18																	26	611			26	847
6/19					6	52															6	853
6/20												3	193				17	628			20	873
6/23					11	63						5	198				21	649			37	910
6/26					12	75															12	922
6/30					12	87											1	650	1	1	14	936
7/3					6	93											7	657			13	949
7/5					11	104											6	663			17	966
7/6					3	107															3	969
7/7					8	115															8	977
7/10					7	122											2	665			9	986
7/11					38	160	3	3													41	1,027
7/12					23	183															23	1,050

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Table 16.–Page 4 of 7.

Central District – West Side Set Gillnet																						
		245-10		245-20		245-30		245-40		245-50		245-55		245-60		246-10		246-20				
		Chinitna Bay		Silver Salmon		Tuxedni Bay		Polly Cr.		L. J. Slough		Big River		W. Forelands		Kalgin – West		Kalgin – East		Total		
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
7/13					11	194															11	1061
7/14																0	665	2	3		2	1,063
7/15					9	203															9	1,072
7/16					12	215															12	1,084
7/17																8	673				8	1,092
7/18					4	219															4	1,096
7/19					2	221															2	1,098
7/20					5	226															5	1,103
7/21					2	228										2	675				4	1,107
7/22					1	229															1	1,108
7/24					1	230															1	1,109
7/26					1	231															1	1,110
7/28					2	233										2	677				4	1,114
7/31																2	679				2	1,116
8/1					2	235															2	1,118
8/2																1	680				1	1,119
8/4																		1	4		1	1,120
8/7																3	683				3	1,123
8/11																1	684				1	1,124

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Table 16.–Page 5 of 7.

Northern District Set Gillnet																					
		247-10		247-20		247-30		247-41		247-42		247-43		247-70		247-80		247-90		Total	
		Trading Bay		Tyonek		Beluga		Su. Flats		Pt. McKenzie		Fire Island		Pt. Possession		Birch Hill		#3 Bay			
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	
5/26	39	39	272	272	42	42	33	33	16	16	27	27	35	35	24	24	11	11	499	499	
6/2	110	149	165	437	49	91	72	105	50	66	37	64	96	131	7	31	11	22	597	1,096	
6/9	103	252	535	972	143	234	275	380	208	274	153	217	168	299	72	103	31	53	1,688	2,784	
6/16	118	370	282	1254	138	372	162	542	81	355	110	327	132	431	33	136	15	68	1,071	3,855	
6/30	5	375	51	1305	3	375	2	544	3	358	9	336	4	435	1	137	1	69	79	3,934	
7/3	2	377			2	377	1	545	1	359			1	436	1	138			8	3,942	
7/7			3	1308	2	379							2	438					7	3,949	
7/10						379			1	360									1	3,950	
7/14					1	380	1	546					2	440					4	3,954	
7/17									1	361									1	3,955	
7/21									20	381									20	3,975	
7/24			1	1309															1	3,976	
7/28			1	1310			1	547					1	441					3	3,979	
7/31													1	442					1	3,980	
8/4													1	443					1	3,981	
8/7															1	139			1	3,982	
8/11																		1	70	1	3,983

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Table 16.–Page 6 of 7.

Central District Drift Gillnet											
Date	Deliveries	244-25		244-61		244-55		244-60		Total	
		Kasilof Terminal		Kasilof Section		Kenai/Kasilof Section		District Wide		Day	Cum
		Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
6/19	28							8	8	8	8
6/23	42							43	51	43	51
6/26	55							11	62	11	62
6/28	24			4	4				62	4	66
6/29	4			2	6				62	2	68
6/30	173				6			43	105	43	111
7/1	29			3	9				105	3	114
7/2	40			4	13				105	4	118
7/3	274				13			13	118	13	131
7/5	31			1	14				118	1	132
7/7	260				14			23	141	23	155
7/8	18			2	16				141	2	157
7/9	60			10	26				141	10	167
7/10	94				26	18	18		141	18	185
7/12	169			4	30				141	4	189
7/14	398							15	156	15	204
7/17	397							22	178	22	226

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Table 16.–Page 7 of 7.

Central District Drift Gillnet											
Date	Deliveries	244-25		244-61		244-55		244-60		Total	
		Kasilof Terminal		Kasilof Section		Kenai/Kasilof Section		District Wide		Day	Cum
		Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
7/21	371							39	217	39	265
7/24	298							4	221	4	269
7/27	22	11	11						221	11	280
7/28	42	43	54						221	43	323
7/29	48	43	97						221	43	366
7/30	39	19	116						221	19	385
7/31	38	35	151						221	35	420
8/1	36	34	185						221	34	454
8/2	23	31	216						221	31	485
8/3	17	26	242						221	26	511
8/4	127	33	275					6	227	39	550
8/5	17	24	299						227	24	574
8/6	19	30	329						227	30	604
8/7	55	29	358					18	245	47	651
8/14	18							1	246	1	652
8/21	18							1	247	1	653

Note: Days without data indicate days when there was no harvest.



Table 17.—Commercial sockeye salmon catch by area and date, Upper Cook Inlet, 2008.

Upper Subdistrict Set Gillnet																
Date	244-21		244-22		244-25		244-31		244-32		244-41		244-42		Total	
	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
6/26	23,984	23,984	17,707	17,707			17,615	17,615							59,306	59,306
6/28	25,538	49,522	14,245	31,952			23,684	41,299							63,467	122,773
6/29	16,277	65,799	11,692	43,644			14,841	56,140							42,810	165,583
6/30	13,586	79,385	7,066	50,710			9,175	65,315							29,827	195,410
7/1	15,950	95,335	5,286	55,996			3,953	69,268							25,189	220,599
7/2	13,732	109,067	7,938	63,934			5,600	74,868							27,270	247,869
7/3	8,222	117,289	5,096	69,030			2,662	77,530							15,980	263,849
7/5	8,548	125,837	6,925	75,955			3,996	81,526							19,469	283,318
7/7	17,292	143,129	9,721	85,676			6,868	88,394							33,881	317,199
7/8	14,806	157,935	5,313	90,989			1,405	89,799							21,524	338,723
7/9	5,945	163,880	4,083	95,072			2,815	92,614							12,843	351,566
7/10	6,889	170,769	2,465	97,537			2,713	95,327	1,067	1,067	2,363	2,363	984	984	16,481	368,047
7/12	14,671	185,440	10,163	107,700			7,901	103,228							32,735	400,782
7/13	7,047	192,487	3,075	110,775			3,719	106,947							13,841	414,623
7/14	39,197	231,684	20,424	131,199			69,437	176,384	61,879	62,946	55,890	58,253	22,668	23,652	269,495	684,118
7/15	19,631	251,315	8,391	139,590			30,245	206,629							58,267	742,385
7/16	17,884	269,199	6,022	145,612			33,887	240,516							57,793	800,178
7/17	18,292	287,491	3,970	149,582			21,388	261,904	20,743	83,689	80,464	138,717	5,954	29,606	150,811	950,989
7/19	11,104	298,595	5,101	154,683			11,107	273,011							27,312	978,301

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Table 17.—Page 2 of 7.

Upper Subdistrict Set Gillnet																
Date	244-21		244-22		244-25		244-31		244-32		244-41		244-42		Total	
	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
7/20	13,130	311,725	5,696	160,379			14,206	287,217							33,032	1,011,333
7/21	8,095	319,820	15,307	175,686			20,675	307,892	20,680	104,369	55,374	194,091	9,525	39,131	129,656	1,140,989
7/22	2,999	322,819	6,007	181,693			9,346	317,238							18,352	1,159,341
7/23	3,243	326,062	3,746	185,439			9,264	326,502							16,253	1,175,594
7/24	8,339	334,401	9,806	195,245			4,499	331,001	4,050	108,419	16,693	210,784	2,624	41,755	46,011	1,221,605
7/26	2,713	337,114	4,127	199,372			6,920	337,921							13,760	1,235,365
7/27					621	621									621	1,235,986
7/28					6,478	7,099									6,478	1,242,464
7/29					8,322	15,421									8,322	1,250,786
7/30					7,514	22,935									7,514	1,258,300
7/31					6,798	29,733									6,798	1,265,098
8/1					7,208	36,941									7,208	1,272,306
8/2					7,146	44,087									7,146	1,279,452
8/3					6,005	50,092									6,005	1,285,457
8/4					3,266	53,358									3,266	1,288,723
8/5					2,312	55,670									2,312	1,291,035
8/6					1,892	57,562									1,892	1,292,927
8/7					1,892	59,454									1,892	1,294,819

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Table 17.-Page 3 of 7.

Central District – West Side Set Gillnet																					
		245-10		245-20		245-30		245-40		245-50		245-55		245-60		246-10		246-20			
		Chinitna Bay		Silver Salmon		Tuxedni Bay		Polly Cr.		L. J. Slough		Big River		W. Forelands		Kalgin – West		Kalgin – East		Total	
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	
6/2																1,208	1,208			1,208	1,208
6/4																2,664	3,872			2,664	3,872
6/6											421	421				2,672	6,544			3,093	6,965
6/9											421	842				1,950	8,494			2,371	9,336
6/11											158	1,000				1,836	10,330			1,994	11,330
6/13											429	1,429				1,813	12,143			2,242	13,572
6/16					88	88					219	1,648				1,260	13,403			1,567	15,139
6/18																606	14,009			606	15,745
6/19					268	356														268	16,013
6/20											86	1,734				549	14,558			635	16,648
6/23					588	944					69	1,803				1,216	15,774			1,873	18,521
6/26					463	1,407										425	16,199	186	186	1,074	19,595
6/30					684	2,091										851	17,050	350	536	1,885	21,480
7/3					810	2,901										1,503	18,553	701	1,237	3,014	24,494
7/5					874	3,775														874	25,368
7/6					652	4,427														652	26,020
7/7					892	5,319										1,463	20,016	213	1,450	2,568	28,588
7/10					544	5,863										587	20,603	159	1,609	1,290	29,878
7/11					1,312	7,175	314	314												1,626	31,504
7/12					2,082	9,257														2,082	33,586
7/13					1,130	10,387										2,209	22,812			3,339	36,925
7/14																		941	2,550	941	37,866

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Table 17.–Page 4 of 7.

Central District – West Side Set Gillnet																					
		245-10		245-20		245-30		245-40		245-50		245-55		245-60		246-10		246-20		Total	
		Chinitna Bay		Silver Salmon		Tuxedni Bay		Polly Cr.		L. J. Slough		Big River		W. Forelands		Kalgin – West		Kalgin – East			
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	
7/15					2,006	12,393	974	1,288												2,980	40,846
7/16					777	13,170														777	41,623
7/17					260	13,430	852	2,140								2,933	25,745	1,522	4,072	5,567	47,190
7/18					1,707	15,137														1,707	48,897
7/19					125	15,262														125	49,022
7/20					811	16,073														811	49,833
7/21					363	16,436	213	2,353								1,946	27,691			2,522	52,355
7/22					308	16,744														308	52,663
7/24					591	17,335								13	13	897	28,588	270	4,342	1,771	54,434
7/26					242	17,577														242	54,676
7/28					210	17,787	1,976	4,329						36	49	1,552	30,140	712	5,054	4,486	59,162
7/29					106	17,893														106	59,268
7/31										569	569					1,111	31,251	1,111	6,165	2,791	62,059
8/1					88	17,981														88	62,147
8/2																626	31,877	259	6,424	885	63,032
8/4					62	18,043				275	844					668	32,545	354	6,778	1,359	64,391
8/7					44	18,087				142	986					577	33,122	212	6,990	975	65,366
8/9																396	33,518	473	7,463	869	66,235
8/11					39	18,126				112	1,098					454	33,972	248	7,711	853	67,088
8/16																208	34,180	70	7,781	278	67,366
8/28						18,126														0	67,366

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Table 17.--Page 5 of 7.

Northern District Set Gillnet																				
Date	247-10		247-20		247-30		247-41		247-42		247-43		247-70		247-80		247-90		Total	
	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
26-May	1	1					3	3			1	1	48	48	85	85	72	72	210	210
2-Jun		1	2	2			4	7	5	5	15	16	99	147	10	95	25	97	160	370
9-Jun	126	127	72	74	8	8	21	28	19	24	17	33	470	617	319	414	712	809	1,764	2,134
16-Jun	72	199	17	91	2	10	8	36	11	35		33	196	813	148	562	298	1,107	752	2,886
30-Jun	9	208	212	303	39	49	17	53	7	42	23	56	396	1,209	169	731	659	1,766	1,531	4,417
3-Jul	30	238			12	61	13	66	10	52			129	1,338	82	813	358	2,124	634	5,051
7-Jul			32	335	10	71							49	1,387	50	863	94	2,218	235	5,286
10-Jul			214	549			34	100	15	67			256	1,643	49	912	53	2,271	621	5,907
14-Jul			580	1,129	981	1,052	174	274	172	239	244	300	1,517	3,160	1,080	1,992	1,925	4,196	6,673	12,580
17-Jul					1,169	2,221	491	765	357	596	403	703	3,006	6,166	403	2,395	330	4,526	6,159	18,739
21-Jul			362	1,491	558	2,779			239	835	222	925	760	6,926	189	2,584	116	4,642	2,446	21,185
24-Jul			264	1,755	182	2,961	53	818	159	994	70	995							728	21,913
28-Jul			136	1,891	69	3,030	102	920	54	1,048	155	1,150	438	7,364	40	2,624	294	4,936	1,288	23,201
31-Jul			150	2,041	99	3,129	15	935	32	1,080			272	7,636	39	2,663	177	5,113	784	23,985
4-Aug			229	2,270			97	1,032	37	1,117	52	1,202	109	7,745	123	2,786	133	5,246	780	24,765
7-Aug			174	2,444			49	1,081	18	1,135	19	1,221	36	7,781	80	2,866	81	5,327	457	25,222
11-Aug			160	2,604	12	3,141	53	1,134	4	1,139	34	1,255	130	7,911	89	2,955	82	5,409	564	25,786
14-Aug			9	2,613			20	1,154		1,139	3	1,258	46	7,957	34	2,989	28	5,437	140	25,926
18-Aug			4	2,617			4	1,158	2	1,141	4	1,262	20	7,977	27	3,016	41	5,478	102	26,028
21-Aug	5	243	6	2,623			2	1,160		1,141	7	1,269	29	8,006	25	3,041	53	5,531	127	26,155
25-Aug				2,623							1	1,270	14	8,020	5	3,046	24	5,555	44	26,199
28-Aug													4	8,024	6	3,052	5	5,560	15	26,214
1-Sep														8,024	2	3,054		5,560	2	26,216
4-Sep													6	8,030	4	3,058	4	5,564	14	26,230

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Table 17.--Page 6 of 7.

Central District Drift Gillnet													
Date	Deliveries	244-25		244-61		244-55		244-60		245-10		Total	
		Kasilof Terminal		Kasilof Section		Ken/Kas Section		District Wide		Chinitna Bay		Day	Cum
		Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
6/19	28							1,034	1,034			1,034	1,034
6/23	42							3,988	5,022			3,988	5,022
6/26	55							7,199	12,221			7,199	12,221
6/28	24			3,859	3,859							3,859	16,080
6/29	4			234	4,093							234	16,314
6/30	173							30,999	43,220			30,999	47,313
7/1	29			2,980	7,073							2,980	50,293
7/2	40			3,953	11,026							3,953	54,246
7/3	274							122,499	165,719			122,499	176,745
7/5	31			684	11,710							684	177,429
7/7	260							135,787	301,506			135,787	313,216
7/8	18			2,150	13,860							2,150	315,366
7/9	60			8,151	22,011							8,151	323,517
7/10	94					2,550	2,550					2,550	326,067
7/12	169			115,573	137,584							115,573	441,640
7/14	398							208,918	510,424			208,918	650,558
7/17	397							139,791	650,215			139,791	790,349
7/21	371							131,863	782,078			131,863	922,212
7/24	298							41,915	823,993			41,915	964,127
7/27	22	280	280									280	964,407
7/28	42	2,486	2,766									2,486	966,893
7/29	48	3,894	6,660									3,894	970,787
7/30	39	3,055	9,715									3,055	973,842

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Table 17.–Page 7 of 7.

Central District Drift Gillnet													
Date	Deliveries	244-25		244-61		244-55		244-60		245-10		Total	
		Kasilof Terminal		Kasilof Section		Ken/Kas Section		District Wide		Chinitna Bay		Day	Cum
		Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
7/31	38	2,785	12,500									2,785	976,627
8/1	36	2,034	14,534									2,034	978,661
8/2	23	1,042	15,576									1,042	979,703
8/3	17	829	16,405									829	980,532
8/4	127	404	16,809					652	824,645			1,056	981,588
8/5	17	278	17,087									278	981,866
8/6	19	232	17,319									232	982,098
8/7	55	51	17,370					478	825,123			529	982,627
8/11	57							472	825,595			472	983,099
8/14	18							67	825,662			67	983,166
8/18	18							53	825,715			53	983,219
8/21	18							57	825,772			57	983,276
8/25	22							18	825,790	2	2	20	983,296
8/28	8							3	825,793			3	983,299
8/29	<4									2	4	2	983,301
9/4	10							1	825,794			1	983,302
9/11	<4							1	825,795			1	983,303

Note: Days without data indicate days when there was no harvest.

Table 18.—Commercial coho salmon catch by area and date, Upper Cook Inlet, 2008.

Upper Subdistrict Set Gillnet																	
Date	244-21		244-22		244-25		244-31		244-32		244-41		244-42		Total		
	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	
6/26	2	2	4	4	1	1										7	7
6/28	1	3	3	7	2	3										6	13
6/29	7	10	5	12	3	6										15	28
6/30	4	14	2	14		6										6	34
7/1	5	19		14		6										5	39
7/2	5	24	3	17	5	11										13	52
7/3	8	32	9	26		11										17	69
7/5	6	38	6	32	6	17										18	87
7/7	21	59	65	97	19	36										105	192
7/8	25	84	68	165	29	65										122	314
7/9	19	103	161	326	74	139										254	568
7/10	39	142	27	353	17	156			11	11	37	37	50	50		181	749
7/12	27	169	63	416	47	203										137	886
7/13	33	202	48	464	26	229										107	993
7/14	207	409	198	662	91	320			306	317	1,030	1,067	1,329	1,379		3,161	4,154
7/15	243	652	101	763	28	348										372	4,526
7/16	229	881	81	844	67	415										377	4,903
7/17	120	1,001	139	983	92	507			142	459	572	1,639	892	2,271		1,957	6,860
7/19	107	1,108	114	1,097	80	587										301	7,161

-continued-



Table 18.–Page 2 of 7.

Upper Subdistrict Set Gillnet																
Date	244-21		244-22		244-25		244-31		244-32		244-41		244-42		Total	
	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
7/20	62	1,170	76	1,173	143	730									281	7,442
7/21	81	1,251	418	1,591	610	1,340			705	1,164	920	2,559	587	2,858	3,321	10,763
7/22	52	1,303	140	1,731	130	1,470									322	11,085
7/23	302	1,605	179	1,910	232	1,702									713	11,798
7/24	1,689	3,294	1,871	3,781	143	1,845			149	1,313	283	2,842	106	2,964	4,241	16,039
7/26	135	3,429	268	4,049	148	1,993									551	16,590
7/27							34	34							34	16,624
7/28							150	184							150	16,774
7/29							216	400							216	16,990
7/30							160	560							160	17,150
7/31							316	876							316	17,466
8/1							524	1,400							524	17,990
8/2							477	1,877							477	18,467
8/3							319	2,196							319	18,786
8/4							259	2,455							259	19,045
8/5							291	2,746							291	19,336
8/6							670	3,416							670	20,006
8/7							1,685	5,101							1,685	21,691

-continued-

Table 18.–Page 3 of 7.

Central District – West Side Set Gillnet

Date	245-10		245-20		245-30		245-40		245-50		245-55		245-60		246-10		246-20		Total		
	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	
6/26					2	2										3	3			5	5
6/30						2										9	12	3	3	12	17
7/3					1	3										41	53	4	7	46	63
7/5					24	27														24	87
7/6					51	78														51	138
7/7					30	108										115	168	2	9	147	285
7/10					92	200										224	392	7	16	323	608
7/11					235	435	23	23												258	866
7/12					185	620														185	1,051
7/13					176	796														176	1,227
7/15					318	1,114	147	170								1,096	1,488	160	176	1,721	2,948
7/16					107	1,221														107	3,055
7/17					37	1,258	85	255								1,815	3,303	404	580	2,341	5,396
7/18					482	1,740														482	5,878
7/19					38	1,778														38	5,916
7/20					242	2,020														242	6,158
7/21					103	2,123	18	273								818	4,121			939	7,097
7/22					134	2,257														134	7,231

-continued-

Table 18.–Page 4 of 7.

Central District – West Side Set Gillnet																						
		245-10		245-20		245-30		245-40		245-50		245-55		245-60		246-10		246-20		Total		
		Chinitna Bay		Silver Salmon		Tuxedni Bay		Polly Cr.		L. J. Slough		Big River		W. Forelands		Kalgin – West		Kalgin – East				
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
7/24					522	2,779								21	21	331	4,452	160	740	1,034	8,265	
7/26					460	3,239														460	8,725	
7/28					377	3,616	256	529						153	174	1,578	6,030	204	944	2,568	11,293	
7/29					65	3,681														65	11,358	
7/31									247	247						1,119	7,149	398	1,342	1,764	13,122	
8/1					73	3,754														73	13,195	
8/2																135	7,284	28	1,370	163	13,358	
8/4					139	3,893			406	653						107	7,391	33	1,403	685	14,043	
8/7					241	4,134			299	952						966	8,357	165	1,568	1,671	15,714	
8/9																630	8,987	147	1,715	777	16,491	
8/11					155	4,289			447	1,399						567	9,554	106	1,821	1,275	17,766	
8/16																314	9,868	32	1,853	346	18,112	
8/25	158	158																		158	18,270	
8/27	81	239																		81	18,351	
8/28					90	4,379														90	18,441	

-continued-

Table 18.–Page 5 of 7.

Northern District Set Gillnet																						
Date	247-10		247-20		247-30		247-41		247-42		247-43		247-70		247-80		247-90		Total			
	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum		
2-Jun									1	1										1	1	
9-Jun										1			22	22							22	23
16-Jun										1				22							0	23
30-Jun	1	1	21	21			2	2		1	1	1	3	25	1	1	3	3			32	55
3-Jul	3	4			4	4	2	4		1			3	28		1	1	4			13	68
7-Jul			5	26		4							7	35	4	5	5	9			21	89
10-Jul			274	300			40	44	17	18			158	193	2	7	11	20			502	591
14-Jul			143	443	520	524	490	534	217	235	364	365	591	784	99	106	147	167			2,571	3,162
17-Jul					586	1,110	453	987	178	413	170	535	2,395	3,179	169	275	104	271			4,055	7,217
21-Jul			109	552	1,151	2,261			417	830	533	1,068	259	3,438	66	341	27	298			2,562	9,779
24-Jul			423	975	536	2,797	171	1,158	272	1,102	148	1,216			54	395					1,604	11,383
28-Jul			395	1,370	279	3,076	753	1,911	409	1,511	856	2,072	827	4,265	16	411	136	434			3,671	15,054
31-Jul			589	1,959	274	3,350	108	2,019	403	1,914			221	4,486	89	500	93	527			1,777	16,831
4-Aug			547	2,506			1,036	3,055	496	2,410	881	2,953	504	4,990	380	880	159	686			4,003	20,834
7-Aug			1,002	3,508			726	3,781	279	2,689	316	3,269	284	5,274	394	1,274	180	866			3,181	24,015
11-Aug			1,179	4,687	61	3,411	990	4,771	219	2,908	568	3,837	1,555	6,829	1,289	2,563	721	1,587			6,582	30,597
14-Aug			190	4,877			367	5,138	41	2,949	171	4,008	430	7,259	652	3,215	315	1,902			2,166	32,763
18-Aug			296	5,173			170	5,308	38	2,987	170	4,178	453	7,712	1,344	4,559	400	2,302			2,871	35,634
21-Aug	135	139	379	5,552			54	5,362	8	2,995	225	4,403	389	8,101	914	5,473	371	2,673			2,475	38,109
25-Aug			39	5,591							11	4,414	476	8,577	637	6,110	271	2,944			1,434	39,543
28-Aug											122	4,536	550	9,127	866	6,976	400	3,344			1,938	41,481
1-Sep													25	9,152			50	3,394			75	41,556
4-Sep													110	9,262	171	7,147	54	3,448			335	41,891
8-Sep													94	9,356	76	7,223	41	3,489			211	42,102
11-Sep													16	9,372	21	7,244	38	3,527			75	42,177

-continued-

Table 18.–Page 6 of 7.

Central District Drift Gillnet													
Date	Deliveries	244-26		244-61		244-55		244-60		245-10		Total	
		Kasilof Terminal		Kasilof Section		Ken/Kas Section		District Wide		Chinitna Bay		Day	Cum
		Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
6/23	42							4	4			4	4
6/26	55							23	27			23	27
6/28	24			8	8							8	35
6/30	4							344	371			344	379
7/1	173			3	11							3	382
7/2	29			4	15							4	386
7/3	40							1,832	2,203			1,832	2,218
7/5	274			2	17							2	2,220
7/7	31							5,557	7,760			5,557	7,777
7/8	260			107	124							107	7,884
7/9	18			378	502							378	8,262
7/10	60					50	50					50	8,312
7/12	94			2,686	3,188							2,686	10,998
7/14	169							12,618	20,378			12,618	23,616
7/17	398							18,976	39,354			18,976	42,592
7/21	397							13,003	52,357			13,003	55,595
7/24	371							4,911	57,268			4,911	60,506
7/25	298							2,883	77,979			2,883	63,389
7/27	22	17	17									17	63,406
7/28	42	69	86					2,405	80,384			2,474	65,880

-continued-

Table 18.–Page 7 of 7.

Central District Drift Gillnet													
Date	Deliveries	244-26		244-61		244-55		244-60		245-10		Total	
		Kasilof Terminal		Kasilof Section		Ken/Kas Section		District Wide		Chinitna Bay		Day	Cum
		Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
7/29	48	114	200									114	65,994
7/30	39	103	303									103	66,097
7/31	38	82	385									82	66,179
8/1	36	206	591									206	66,385
8/2	23	79	670									79	66,464
8/3	17	56	726									56	66,520
8/4	127	188	914					2,302	59,570			2,490	69,010
8/5	17	37	951									37	69,047
8/6	19	49	1,000									49	69,096
8/7	55	71	1,071					4,118	63,688			4,189	73,285
8/11	57							4,539	68,227			4,539	77,824
8/14	18							2,277	70,504			2,277	80,101
8/18	18							1,754	72,258			1,754	81,855
8/21	18							2,838	75,096			2,838	84,693
8/25	22									1,112	1,112	1,112	85,805
8/27	<4									762	1,874	762	86,567
8/29	<4									728	2,602	728	87,295
9/4	10							1,575	81,959			1,575	88,870
9/5	<4									255	2,857	255	89,125
9/8	<4							94	82,053			94	89,219
9/11	<4							209	82,262			209	89,428

Note: Days without data indicate days when there was no harvest.

Table 19.--Commercial pink salmon catch by area and date, Upper Cook Inlet, 2008.

Upper Subdistrict Set Gillnet																	
Date	244-21		244-22		244-25		244-31		244-32		244-41		244-42		Total		
	Ninilchik		Cohoe		Kasilof Terminal		South K. Beach		North K. Beach		Salamatof		E. Forelands				
	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	
6/26			3	3	1	1										4	4
6/28	4	4	3	6	2	3										9	13
6/29	9	13	4	10	1	4										14	27
6/30	4	17		10	2	6										6	33
7/1	2	19	3	13	2	8										7	40
7/2	5	24	6	19	1	9										12	52
7/3	8	32	3	22	5	14										16	68
7/5	21	53	6	28	7	21										34	102
7/7	102	155	61	89	11	32										174	276
7/8	49	204	79	168	4	36										132	408
7/9	54	258	77	245	14	50										145	553
7/10	112	370	35	280	15	65			30	30	108	108	146	146		446	999
7/12	424	794	282	562	31	96										737	1,736
7/13	525	1,319	277	839	11	107										813	2,549
7/14	3,061	4,380	1,685	2,524	122	229			97	127	265	373	1,231	1,377		6,461	9,010
7/15	2,896	7,276	905	3,429	154	383										3,955	12,965
7/16	3,464	10,740	862	4,291	51	434										4,377	17,342
7/17	3,000	13,740	1,222	5,513	66	500			47	174	330	703	1,059	2,436		5,724	23,066
7/19	871	14,611	362	5,875	102	602										1,335	24,401

-continued-

Table 19.--Page 2 of 7.

Upper Subdistrict Set Gillnet																	
Date	244-21		244-22		244-25		244-31		244-32		244-41		244-42		Total		
	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	
7/20	1,278	15,889	461	6,336	72	674										1,811	26,212
7/21	563	16,452	842	7,178	90	764			94	268	305	1,008	552	2,988		2,446	28,658
7/22	499	16,951	254	7,432	66	830										819	29,477
7/23	931	17,882	636	8,068	72	902										1,639	31,116
7/24	1,076	18,958	1,983	10,051	103	1,005			198	466	439	1,447	243	3,231		4,042	35,158
7/26	399	19,357	566	10,617	55	1,060										1,020	36,178
7/27							20	20								20	36,198
7/28							247	267								247	36,445
7/29							680	947								680	37,125
7/30							763	1,710								763	37,888
7/31							973	2,683								973	38,861
8/1							1,021	3,704								1,021	39,882
8/2							763	4,467								763	40,645
8/3							1,908	6,375								1,908	42,553
8/4							1,584	7,959								1,584	44,137
8/5							3,042	11,001								3,042	47,179
8/6							6,031	17,032								6,031	53,210
8/7							5,932	22,964								5,932	59,142

-continued-



Table 19.–Page 3 of 7.

Central District – West Side Set Gillnet

Date	245-10		245-20		245-30		245-40		245-50		245-55		245-60		246-10		246-20		Total	
	Chinitna Bay		Silver Salmon		Tuxedni Bay		Polly Cr.		L. J. Slough		Big River		W. Forelands		Kalgin – West		Kalgin – East		Day	Cum
	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum		
6/23					6	6													6	6
6/26						6									1	1			1	7
7/3						6									6	7			6	13
7/7					4	10									9	16			13	26
7/10					3	13									20	36			23	49
7/11					4	17													4	53
7/12					7	24													7	60
7/13					12	36													12	72
7/14															81	117	8	8	89	161
7/15						36	2	2											2	163
7/16					5	41													5	168
7/17						41									255	372	22	30	277	445
7/18					12	53													12	457
7/20					7	60													7	464
7/21					2	62									159	531			161	625
7/22					3	65													3	628
7/24					6	71									39	570	44	74	89	717

-continued-

Table 19.–Page 4 of 7.

Central District – West Side Set Gillnet

Date	245-10		245-20		245-30		245-40		245-50		245-55		245-60		246-10		246-20		Total	
	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
7/26					5	76													5	722
7/28					2	78									83	653	15	89	100	822
7/29					3	81													3	825
7/31									1	1					176	829	4	93	181	1,006
8/1					4	85													4	1,010
8/2															68	897		93	68	1,078
8/4						85				1					159	1,056	9	102	168	1,246
8/7						85			9	10					453	1,509	81	183	543	1,789
8/9															90	1,599	29	212	119	1,908
8/11						85			17	27					84	1,683	21	233	122	2,030
8/16															221	1,904	18	251	239	2,269
8/28					88	173													88	2,357

-continued-

Table 19.–Page 5 of 7.

Northern District Set Gillnet																					
Date	247-10		247-20		247-30		247-41		247-42		247-43		247-70		247-80		247-90		Total		
	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	
30-Jun							1	1										3	3	4	4
3-Jul								1										1	4	1	5
7-Jul														1	1			1	5	2	7
10-Jul								1						44	45			18	23	62	69
14-Jul							4	5						418	463	87	87	157	180	666	735
17-Jul							7	12						112	575	38	125	71	251	228	963
21-Jul			15	15					10	10				190	765	34	159	72	323	321	1,284
24-Jul			2	17			12	24	7	17	5	5								26	1,310
28-Jul			10	27	8	8	50	74						362	1,127	21	180	227	550	678	1,988
31-Jul			3	30			9	83						133	1,260	13	193	66	616	224	2,212
4-Aug			4	34			16	99						68	1,328	36	229	112	728	236	2,448
7-Aug			36	70			18	117						46	1,374	29	258	105	833	234	2,682
11-Aug			5	75			3	120						106	1,480	18	276	172	1,005	304	2,986
14-Aug							1	121						26	1,506	6	282	25	1,030	58	3,044
18-Aug							2	123						13	1,519	18	300	115	1,145	148	3,192
21-Aug							2	125						33	1,552	16	316	151	1,296	202	3,394
25-Aug			2	77										42	1,594	1	317	52	1,348	97	3,491
28-Aug														4	1,598	8	325	14	1,362	26	3,517
4-Sep																1	326	2	1,364	3	3,520
8-Sep																1	327	1	1,365	2	3,522
11-Sep																		2	1,367	2	3,524

-continued-

Table 19.–Page 6 of 7.

Central District Drift Gillnet

Date	Deliveries	244-26		244-61		244-55		244-60		245-10		Total	
		Kasilof Terminal		Kasilof Section		Ken/Kas Section		District Wide		Chinitna Bay			
		Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
6/19	28							23	23			23	23
6/23	42							37	60			37	60
6/26	55							20	80			20	80
6/28	24											0	80
6/29	4			2	2							2	82
6/30	173							82	162			82	164
7/1	29			3	5							3	167
7/2	40			6	11							6	173
7/3	274							114	276			114	287
7/5	31			1	12							1	288
7/7	260							890	1,166			890	1,178
7/8	18			42	54							42	1,220
7/9	60			212	266							212	1,432
7/10	94					134	134					134	1,566
7/12	169			2,451	2,717							2,451	4,017
7/14	398							8,554	9,720			8,554	12,571
7/17	397							17,591	27,311			17,591	30,162
7/21	371							41,598	68,909			41,598	71,760
7/24	298							17,056	85,965			17,056	88,816

-continued-

Table 19.–Page 7 of 7.

Central District Drift Gillnet													
Date	Deliveries	244-26		244-61		244-55		244-60		245-10		Total	
		Kasilof Terminal		Kasilof Section		Ken/Kas Section		District Wide		Chinitna Bay		Day	Cum
		Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum		
7/27	22	64	64									64	88,880
7/28	42	123	187									123	89,003
7/29	48	536	723									536	89,539
7/30	39	574	1,297									574	90,113
7/31	38	318	1,615									318	90,431
8/1	36	396	2,011									396	90,827
8/2	23	175	2,186									175	91,002
8/3	17	184	2,370									184	91,186
8/4	127	724	3,094					4,703	90,668			5,427	96,613
8/5	17	817	3,911									817	97,430
8/6	19	1,462	5,373									1,462	98,892
8/7	55	750	6,123					2,895	93,563			3,645	102,537
8/11	57							1,115	94,678			1,115	103,652
8/14	18							51	94,729			51	103,703
8/18	18							74	94,803			74	103,777
8/21	18							63	94,866			63	103,840
8/25	22							8	94,874	15	15	23	103,863
8/29	<4							2	94,876			2	103,865
9/4	10							2	94,878			2	103,867

Note: Days without data indicate days when there was no harvest.

Table 20.—Commercial chum salmon catch by area and date, Upper Cook Inlet, 2008.

Upper Subdistrict Set Gillnet																	
Date	244-21		244-22		244-25		244-31		244-32		244-41		244-42		Total		
	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	
6/26			2	2												2	2
6/28	3	3	3	5												6	8
6/29	1	4		5	1	1										2	10
6/30		4		5	1	2										1	11
7/1	1	5		5		2										1	12
7/2		5		5	1	3										1	13
7/3		5		5		3										0	13
7/5		5	1	6		3										1	14
7/7		5	9	15		3										9	23
7/8	3	8	4	19	2	5										9	32
7/9		8	7	26		5										7	39
7/10		8		26		5			13	13	1	1	7	7		21	60
7/12		8	1	27	2	7										3	63
7/13		8	5	32		7										5	68
7/14	4	12	2	34	6	13				13	18	19	19	26		49	117
7/15		12	1	35		13										1	118
7/16	2	14	1	36	1	14										4	122
7/17	2	16	2	38		14			1	14	11	30	10	36		26	148
7/19	1	17	1	39		14										2	150

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Table 20.–Page 2 of 6.

Central District – West Side Set Gillnet																					
		245-10		245-20		245-30		245-40		245-50		245-55		245-60		246-10		246-20			
		Chinitna Bay		Silver Salmon		Tuxedni Bay		Polly Cr.		L. J. Slough		Big River		W. Forelands		Kalgin – West		Kalgin – East		Total	
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	
6/30					1	1										1	1			2	2
7/3					1	2										3	4			4	6
7/6					2	4														2	8
7/7					1	5										4	8			5	13
7/10					6	11										8	16			14	27
7/11					15	26	1	1												16	43
7/12					26	52														26	69
7/13					27	79														27	96
7/15					49	128	1	2								16	32			66	162
7/16					8	136														8	170
7/17					6	142	1	3								48	80	5	5	60	230
7/18					40	182														40	270
7/19					5	187														5	275
7/20					34	221														34	309
7/21					12	233										39	119			51	360

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Table 20.–Page 3 of 6.

Central District – West Side Set Gillnet																				
Date	245-10		245-20		245-30		245-40		245-50		245-55		245-60		246-10		246-20		Total	
	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
7/22					26	259													26	386
7/24					52	311									7	126	5	10	64	450
7/26					153	464													153	603
7/28					104	568	17	20							262	388	19	29	402	1,005
7/29					93	661													93	1,098
7/31									2	2					116	504	2	31	120	1,218
8/1					34	695													34	1,252
8/2															13	517		31	13	1,265
8/4					30	725			1	3					9	526	3	34	43	1,308
8/7					69	794			6	9					80	606	24	58	179	1,487
8/9															59	665	3	61	62	1,549
8/11					325	1,119			3	12					23	688	2	63	353	1,902
8/16															20	708		63	20	1,922
8/25	274	274																	274	2,196
8/27	43	317																	43	2,239
8/28					4	1,123													4	2,243

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Table 20.–Page 4 of 6.

Northern District Set Gillnet																					
		247-10		247-20		247-30		247-41		247-42		247-43		247-70		247-80		247-90		Total	
		Trading Bay		Tyonek		Beluga		Su. Flats		Pt. McKenzie		Fire Island		Pt. Possession		Birch Hill		#3 Bay			
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	
30-Jun								1	1					2	2					3	3
3-Jul									1	1	1				2					1	4
10-Jul								1	2		1			3	5					4	8
14-Jul			4	4	3	3	9	11	1	2	10	10	136	141	1	1	2	2	166	174	
17-Jul					51	54	17	28	4	6		10	9	150				3	5	84	258
21-Jul			3	7	9	63			7	13	114	124	7	157	1	2				141	399
24-Jul				7	8	71	10	38	4	17	19	143			3	5				44	443
28-Jul			7	14	17	88	127	165	4	21	94	237	27	184				3	8	279	722
31-Jul			8	22	5	93	5	170	26	47			6	190						50	772
4-Aug			14	36			68	238		47	43	280	2	192						127	899
7-Aug			120	156			39	277	35	82	46	326	6	198						246	1,145
11-Aug			347	503	12	105	52	329	2	84	25	351	9	207				1	9	448	1,593
14-Aug							16	345	1	85		351	3	210						20	1,613
18-Aug							4	349	2	87	1	352	1	211						8	1,621
21-Aug							4	353		87	2	354		211				1	10	7	1,628
25-Aug												354	1	212						1	1,629
28-Aug												354								0	1,629

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Table 20.–Page 5 of 6.

Central District Drift Gillnet													
		244-26		244-61		244-55		244-60		245-10		Total	
		Kasilof Terminal		Kasilof Section		Ken/Kas Section		District Wide		Chinitna Bay			
Date	Deliveries	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
6/19	28							22	22			22	22
6/23	42							29	51			29	51
6/26	55							104	155			104	155
6/28	24			5	5			403	558			408	563
7/2	40			2	7							2	565
7/3	274							1,182	1,740			1,182	1,747
7/5	31			1	8							1	1,748
7/7	260							3,295	5,035			3,295	5,043
7/8	18			52	60							52	5,095
7/9	60			188	248							188	5,283
7/12	169			626	874	30	30					656	5,939
7/14	398							4,695	9,730			4,695	10,634
7/17	397							14,389	24,119			14,389	25,023
7/21	371							9,090	33,209			9,090	34,113
7/24	298							8,627	41,836			8,627	42,740
7/27	22	17	17									17	42,757
7/28	42	7	24									7	42,764

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Table 20.–Page 6 of 6.

Central District Drift Gillnet													
Date	Deliveries	244-26		244-61		244-55		244-60		245-10		Total	
		Kasilof Terminal		Kasilof Section		Ken/Kas Section		District Wide		Chinitna Bay		Day	Cum
		Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
7/30	39	4	28									4	42,768
8/1	36	1	29									1	42,769
8/4	127	22	51					869	42,705			891	43,660
8/5	17	3	54									3	43,663
8/7	55	1	55					1,115	43,820			1,116	44,779
8/11	57							673	44,493			673	45,452
8/14	18							79	44,572			79	45,531
8/18	18							60	44,632			60	45,591
8/21	18							116	44,748			116	45,707
8/25	22							105	44,853	62	62	167	45,874
8/27	<4									35	97	35	45,909
8/28	8							26	44,879			26	45,935
8/29	<4									9	106	9	45,944
9/4	10							34	44,913			34	45,978
9/8	<4								44,913	7	113	7	45,985
9/11	<4							25	44,938			25	46,010

Note: Days without data indicate days when there was no harvest.

Table 21.—Commercial salmon catch by gear, statistical area and species, Upper Cook Inlet, 2008.

Gear	District	Subdistrict	Stat Area	Permits <sup>a</sup>	Chinook	Sockeye	Coho	Pink	Chum	Total
Drift	Central	All	All	426	653	983,303	89,428	103,867	46,010	1,223,261
Set Net	Central	Upper	24421	86	1,799	337,114	3,429	19,357	42	361,741
			24422	68	1,966	199,372	4,049	10,617	231	216,235
			24425	79	1,090	59,454	5,101	22,964	4	88,613
			24431	73	1,452	337,921	1,993	1,060	37	342,463
			24432	38	553	108,419	1,313	466	14	110,765
			24441	46	534	210,784	2,842	1,447	61	215,668
			24442	27	48	41,755	2,964	3,231	41	48,039
			All	326	7,442	1,294,819	21,691	59,142	430	1,383,524
		Kalgin Is.	24610	26	684	34,180	9,868	1,904	708	47,344
			24620	<4	4	7,781	1,853	251	63	9,952
			All	27	688	41,961	11,721	2,155	771	57,296
		Chinitna	24510	<4	0	0	239	0	317	556
		Western	24520	0	0	0	0	0	0	0
			24530	24	235	18,126	4,379	173	1,123	24,036
			24540	<4	3	4,329	529	2	20	4,883
			24550	<4	0	1,098	1,399	27	12	2,536
			All	25	238	23,553	6,307	202	1,155	31,455
		Kustatan	24555	7	198	1,803	0	0	0	2,001
			24560	<4	0	49	174	0	0	223
			All	8	198	1,852	174	0	0	2,224
		All	All	378	8,566	1,362,185	40,132	61,499	2,673	1,475,055
	Northern	General	24710	9	377	243	139	0	0	759
			24720	21	1310	2623	5,591	77	503	10,104
			24730	15	380	3,141	3,411	8	105	7,045
			24741	10	547	1,160	5,362	125	353	7,547
			24742	8	381	1,141	2,995	17	87	4,621
			24743	8	336	1,270	4,536	5	354	6,501
			All	62	3,331	9,578	22,034	232	1,402	36,577
		Eastern	24770	17	443	8,030	9,372	1,598	212	19,655
			24780	11	139	3,058	7,244	327	5	10,773
			24790	6	70	5,564	3,527	1,367	10	10,538
			All	30	652	16,652	20,143	3,292	227	40,966
		All	All	91	3,983	26,230	42,177	3,524	1,629	77,543
	All	All	All	467	12,549	1,388,415	82,309	65,023	4,302	1,552,598
Seine	All	All	All	0	0	0	0	0	0	0
All	All	All	All	893	13,202	2,371,718	171,737	168,890	50,312	2,775,859

<sup>a</sup> Permit totals may be less than the sum of individual stat areas if some permits were fished in multiple stat areas.

Table 22.—Commercial salmon catch per permit by statistical area, Upper Cook Inlet, 2008.

Gear	District	SubDistrict	Stat Area	Permits <sup>a</sup>	Chinook	Sockeye	Coho	Pink	Chum	Total		
Drift	Central	All	All	426	2	2,308	210	244	108	2,872		
Set	Central	Upper	24421	86	21	3,920	40	225	0	4,206		
			24422	68	29	2,932	60	156	3	3,180		
			24425	79	14	753	65	291	0	1,122		
			24431	73	20	4,629	27	15	1	4,691		
			24432	38	15	2,853	35	12	0	2,915		
			24441	46	12	4,582	62	31	1	4,688		
			24442	27	2	1,546	110	120	2	1,779		
			All	326	23	3,972	67	181	1	4,244		
		Kalgin Is.	24610	26	26	1,315	380	73	27	1,821		
			24620	<4	na	na	na	na	na	na		
			All	27	25	1,554	434	80	29	2,122		
		Chinitna	24510	<4	na	na	na	na	na	na		
			All	<4	na	na	na	na	na	na		
		Western	24520	0	na	na	na	na	na	na		
			24530	24	10	755	182	7	47	1,002		
			24540	<4	na	na	na	na	na	na		
			24550	<4	na	na	na	na	na	na		
			All	25	10	942	252	8	46	1,258		
		Kustatan	24555	7	28	258	0	0	0	286		
			24560	<4	na	na	na	na	na	na		
			All	8	25	232	22	0	0	278		
		All	All	All	378	23	3,604	106	163	7	3,902	
		Northern	General	24710	9	42	27	15	0	0	84	
24720	21			62	125	266	4	24	481			
24730	15			25	209	227	1	7	470			
24741	10			55	116	536	13	35	755			
24742	8			48	143	374	2	11	578			
24743	8			42	159	567	1	44	813			
All	62			54	154	355	4	23	590			
Eastern	24770			17	26	472	551	94	12	1,156		
	24780			11	13	278	659	30	0	979		
	24790			6	12	927	588	228	2	1,756		
	All			30	22	555	671	110	8	1,366		
All	All			All	91	44	288	463	39	18	852	
All	All			All	All	467	27	2,973	176	139	9	3,325
Seine	All			All	All	-	-	-	-	-	-	
All	All	All	All	893	15	2,656	192	189	56	3,108		

<sup>a</sup> Permit totals may be less than the sum of individual stat areas if some permits were fished in multiple statistical areas.

Table 23.—Commercial fishing emergency orders issued during the 2008 Upper Cook Inlet fishing season.

Emergency Order No.	Effective Date	Action	Reason
1	23-Jun	Closed commercial salmon fishing in the Northern District of Upper Cook Inlet on Monday, June 23, 2008 from 7:00 a.m. until 7:00 p.m.	To comply with 5 AAC 21.366, which states that if the sport fishery is closed in the Deshka River, the N. Dist. commercial fishery will close.
2	26-Jun	Closed commercial salmon fishing in the Northern District of Upper Cook Inlet on Thursday, June 26, 2008 from 7:00 a.m. until 7:00 p.m.	To reduce the exploitation of Deshka River Chinook salmon.
3	28-Jun	Opened set and drift gillnetting in the Kasilof Section of the Upper Subdistrict from 7:00 a.m. until 12:00 midnight on Saturday, June 28, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
4	29-Jun	Extended set gillnetting in the Kasilof Section of the Upper Subdistrict from 12:00 midnight on Saturday, June 28, until 3:00 p.m. on Sunday, June 29, 2008. Drift gillnetting was opened in the Kasilof Section from 5:00 a.m. until 3:00 p.m. on Sunday, June 29, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
5	1-Jul	Opened set gillnetting in the Kasilof Section of the Upper Subdistrict from 9:00 a.m. until 6:00 p.m. on Tuesday, July 1, 2008. Drift gillnetting was opened in the Kasilof Section from 9:00 a.m. until 6:00 p.m. on Tuesday, July 1, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
6	2-Jul	Opened set gillnetting in the Kasilof Section of the Upper Subdistrict from 10:00 a.m. until 7:00 p.m. on Wednesday, July 2, 2008. Drift gillnetting was opened in the Kasilof Section from 10:00 a.m. until 7:00 p.m. on Wednesday, July 2, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
7	3-Jul	Extended set gillnetting in the Kasilof Section of the Upper Subdistrict from 7:00 p.m. until 8:00 p.m. on Thursday, July 3, 2008. Drift gillnetting was opened in the Kasilof Section from 7:00 p.m. until 8:00 p.m. on Thursday, July 3, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.

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Table 23.-Page 2 of 11.

Emergency Order No.	Effective Date	Action	Reason
8	5-Jul	Opened commercial salmon fishing with set gillnets in that portion of the Western Subdistrict of the Central District south of the latitude of Redoubt Point from 7:00 a.m. on Saturday, July 5, 2008 until 10:00 a.m. on Sunday, July 6, 2008.	To reduce the escapement rate of Crescent River sockeye salmon.
9	5-Jul	Opened set and drift gillnetting in the Kasilof Section of the Upper Subdistrict from 6:00 a.m. until 9:00 p.m. on Saturday, July 5, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
10	7-Jul	Extended set and drift gillnetting in the Kasilof Section of the Upper Subdistrict from 7:00 p.m. until 11:00 p.m. on Monday, July 7, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
11	8-Jul	Opened set gillnetting in the Kasilof Section of the Upper Subdistrict from 12:00 noon on Tuesday, July 8, 2008 until 12:00 noon on Wednesday, July 9, 2008. Drift gillnetting was opened in the Kasilof Section from 12:00 noon until 11:00 p.m. on Tuesday, July 8, 2008 and from 5:00 a.m. until 12:00 noon on Wednesday, July 9, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
12	10-Jul	Closed drift gillnetting in all areas of the Central District of Upper Cook Inlet, except in the Kenai and Kasilof Sections of the Upper Subdistrict, from 7:00 a.m. until 7:00 p.m. on Thursday, July 10, 2008.	To reduce the exploitation of Susitna River sockeye salmon.
13	10-Jul	Opened commercial salmon fishing with set gillnets in that portion of the Western Subdistrict of the Central District south of the latitude of Redoubt Point from 7:00 p.m. on Thursday, July 10, 2008 until further notice.	To reduce the escapement rate of Crescent River sockeye salmon.
14	12-Jul	Opened set gillnetting in the Kasilof Section of the Upper Subdistrict from 7:00 a.m. until 12:00 midnight on Saturday, July 12, 2008. Drift gillnetting was opened in the Kasilof Section from 7:00 a.m. until 11:00 p.m. on Saturday, July 12, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.

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Table 23.–Page 3 of 11.

Emergency Order No.	Effective Date	Action	Reason
15	12-Jul	Extended set gillnetting in the Kasilof Section of the Upper Subdistrict from 12:00 midnight on Saturday, July 12, 2008 until 7:00 a.m. on Sunday, July 13, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
16	14-Jul	Closed drift gillnetting in all areas of the Central District of Upper Cook Inlet, except in Drift Gillnet Area One and in the Kenai and Kasilof Sections of the Upper Subdistrict, from 7:00 a.m. until 7:00 p.m. on Monday, July 14, 2008.	To reduce the exploitation rate on Susitna River sockeye salmon
17	14-Jul	Extended set gillnetting in the Kenai, Kasilof and East Forelands Sections of the Upper Subdistrict from 7:00 p.m. until 11:00 p.m. on Monday, July 14, 2008.	To reduce the escapement rate of Kenai and Kasilof River sockeye salmon.
18	15-Jul	Opened set gillnetting in the Kasilof Section of the Upper Subdistrict within one-half mile of the mean high tide mark on the Kenai Peninsula shoreline from 10:00 a.m. until 11:00 p.m. on Tuesday, July 15, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
19	15-Jul	Extended set gillnetting in the Kasilof Section of the Upper Subdistrict within one-half mile of the mean high tide mark on the Kenai Peninsula shoreline from 11:00 p.m. on Tuesday, July 15, until 12:00 noon on Wednesday, July 16, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
20	16-Jul	Extended set gillnetting in the Kasilof Section of the Upper Subdistrict within one-half mile of the mean high tide mark on the Kenai Peninsula shoreline from 12:00 noon until 5:00 p.m. on Wednesday, July 16, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
21	16-Jul	Extended set gillnetting in the Kasilof Section of the Upper Subdistrict within one-half mile of the mean high tide mark on the Kenai Peninsula shoreline from 5:00 p.m. on Wednesday, July 16, 2008 until 7:00 a.m. on Thursday, July 17, 2008. Drift gillnetting was closed in all areas of the Central District of Upper Cook Inlet, except in Drift Gillnet Area 1 and Drift Gillnet Area 2 and the Kenai and Kasilof Sections of the Upper Subdistrict, from 7:00 a.m. until 7:00 p.m. on Thursday, July 17, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon and to reduce the exploitation rate on Susitna River sockeye salmon.

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Table 23.–Page 4 of 11.

Emergency Order No.	Effective Date	Action	Reason
22	17-Jul	Extended set gillnetting in the Kenai, Kasilof and East Forelands Sections of the Upper Subdistrict from 7:00 p.m. until 9:00 p.m. on Thursday, July 17, 2008. Drift gillnetting was opened in the Kenai and Kasilof Sections from 7:00 p.m. until 9:00 p.m. on Thursday, July 17, 2008.	To reduce the escapement rate of Kenai and Kasilof River sockeye salmon.
23	19-Jul	Opened set gillnetting in the Kasilof Section of the Upper Subdistrict within one-half mile of the mean high tide mark on the Kenai Peninsula shoreline from 9:00 a.m. until 9:00 p.m. on Saturday, July 19, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
24	19-Jul	Extended set gillnetting in the Kasilof Section of the Upper Subdistrict within one-half mile of the mean high tide mark on the Kenai Peninsula shoreline from 9:00 p.m. on Saturday, July 19, 2008 until 7:00 a.m. on Sunday, July 20, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
25	20-Jul	Extended set gillnetting in the Kasilof Section of the Upper Subdistrict within one-half mile of the mean high tide mark on the Kenai Peninsula shoreline from 7:00 a.m. until 8:00 p.m. on Sunday, July 20, 2008	To reduce the escapement rate of Kasilof River sockeye salmon.
26	21-Jul	Extended set gillnetting in the Kasilof Section of the Upper Subdistrict within one-half mile of the mean high tide mark on the Kenai Peninsula shoreline from 8:00 p.m. on Sunday, July 20, 2008 until 7:00 a.m. on Monday, July 21, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
27	21-Jul	Closed drift gillnetting in all areas of the Central District of Upper Cook Inlet, except in the Kenai and Kasilof Sections of the Upper Subdistrict and in Drift Gillnet Area One and Drift Gillnet Area Two, from 7:00 a.m. until 7:00 p.m. on Monday, July 21, 2008.	To reduce the exploitation rate on Susitna River sockeye salmon.
28	21-Jul	Reduced legal gear to one set gillnet per permit, measuring no more than 35 fathoms in length, in the Northern District of Upper Cook Inlet during all regular Monday and Thursday fishing periods until further notice, beginning at 7:00 a.m. on Monday, July 21, 2008.	To comply with the UCI Action Plan passed by the BOF in February, 2008.
29	21-Jul	Extended set gillnetting in the Kenai, Kasilof and East Forelands Sections of the Upper Subdistrict from 7:00 p.m. until 11:00 p.m. on Monday, July 21, 2008. Drift gillnetting was opened in the Kenai and Kasilof Sections from 7:00 p.m. until 11:00 p.m. on Monday, July 21, 2008.	To reduce the escapement rate of Kenai and Kasilof River sockeye salmon.

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Table 23.–Page 5 of 11.

Emergency Order No.	Effective Date	Action	Reason
30	22-Jul	Extended set gillnetting in the Kasilof Section of the Upper Subdistrict within one-half mile of the mean high tide mark on the Kenai Peninsula shoreline from 11:00 p.m. on Monday, July 21, 2008 until 9:00 p.m. on Tuesday, July 22, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
31	22-Jul	Extended set gillnetting in the Kasilof Section of the Upper Subdistrict within one-half mile of the mean high tide mark on the Kenai Peninsula shoreline from 9:00 p.m. on Tuesday, July 22, 2008 until 3:00 p.m. on Wednesday, July 23, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
32	23-Jul	Extended set gillnetting in the Kasilof Section of the Upper Subdistrict within one-half mile of the mean high tide mark on the Kenai Peninsula shoreline from 3:00 p.m. on Wednesday, July 23, 2008 until 7:00 a.m. on Thursday, July 24, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
33	24-Jul	Extended set gillnetting in the Kenai, Kasilof and East Forelands Sections of the Upper Subdistrict from 7:00 p.m. until 11:00 p.m. on Thursday, July 24, 2008.	To reduce the escapement rate of Kenai and Kasilof River sockeye salmon.
34	26-Jul	Opened set gillnetting in the Kasilof Section of the Upper Subdistrict within one-half mile of the mean high tide mark on the Kenai Peninsula shoreline from 1:00 p.m. until 11:00 p.m. on Saturday, July 26, 2008.	To reduce the escapement rate of Kasilof River sockeye salmon.
35	28-Jul	Closed commercial salmon fishing with drift gillnets in all areas of the Central District of Upper Cook Inlet on Monday, July 28, 2008. In addition, commercial salmon fishing with set gillnets was closed in all areas of the Kenai, Kasilof and East Forelands Sections of the Upper Subdistrict of Upper Cook Inlet, on Monday, July 28, 2008.	To reduce the exploitation rate on Susitna and Kenai River sockeye salmon.
36	27-Jul	Opened set gillnetting in the Kasilof River Special Harvest Area from 8:00 p.m. on Sunday, July 27, 2008 until 5:00 p.m. on Monday, July 28, 2008. Drift gillnetting was opened from 8:00 p.m. to 11:00 p.m. on Sunday, July 27, 2008 and from 5:00 a.m. until 5:00 p.m. on Monday July 28, 2008 in a portion of the Kasilof River Special Harvest Area bounded by the following four points:  1.) 60° 22.589' N. lat. 151° 20.336' W. long. 2.) 60° 23.062' N. lat. 151° 20.531' W. long. 3.) 60° 24.130' N. lat. 151° 18.838' W. long. 4.) 60° 24.147' N. lat. 151° 17.716' W. long.	To reduce the escapement rate of Kasilof River sockeye salmon.

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Table 23.–Page 6 of 11.

Emergency	Effective		
Order No.	Date	Action	Reason
37	28-Jul	<p>Extended set gillnetting in the Kasilof River Special Harvest Area from 5:00 p.m. on Monday, July 28, 2008 until 11:00 p.m. on Tuesday, July 29, 2008. ‘Drift gillnetting was opened from 5:00 p.m. until 11:00 p.m. on Monday, July 28, 2008 and from 5:00 a.m. until 11:00 p.m. on Tuesday, July 29, 2008 in a portion of the Kasilof River Special Harvest Area bounded by the following four points:</p> <p>1.) 60<sup>0</sup> 22.589’ N. lat. 151<sup>0</sup> 20.336’ W. long.                      2.) 60<sup>0</sup> 23.062’ N. lat. 151<sup>0</sup> 20.531’ W. long.                      3.) 60<sup>0</sup> 24.130’ N. lat. 151<sup>0</sup> 18.838’ W. long.                      4.) 60<sup>0</sup> 24.147’ N. lat. 151<sup>0</sup> 17.716’ W. long.</p>	To reduce the escapement rate of Kasilof River sockeye salmon.
38	29-Jul	<p>Extended set gillnetting in the Kasilof River Special Harvest Area from 11:00 p.m. on Tuesday, July 29, 2008 until 11:00 p.m. on Wednesday, July 30, 2008. Drift gillnetting was opened from 5:00 a.m. until 11:00 p.m. on Wednesday, July 30, 2008 in a portion of the Kasilof River Special Harvest Area bounded by the following four points:</p> <p>1.) 60<sup>0</sup> 22.589’ N. lat. 151<sup>0</sup> 20.336’ W. long.                      2.) 60<sup>0</sup> 23.062’ N. lat. 151<sup>0</sup> 20.531’ W. long.                      3.) 60<sup>0</sup> 24.130’ N. lat. 151<sup>0</sup> 18.838’ W. long.                      4.) 60<sup>0</sup> 24.147’ N. lat. 151<sup>0</sup> 17.716’ W. long.</p>	To reduce the escapement rate of Kasilof River sockeye salmon.
39	30-Jul	<p>Extended set gillnetting in the Kasilof River Special Harvest Area from 11:00 p.m. on Wednesday July 30, 2008 until 11:00 p.m. on Thursday, July 31, 2008. Drift gillnetting was opened from 5:00 a.m. until 11:00 p.m. on Thursday, July 31, 2008 in a portion of the Kasilof River Special Harvest Area bounded by the following four points:</p> <p>1.) 60<sup>0</sup> 22.589’ N. lat. 151<sup>0</sup> 20.336’ W. long.                      2.) 60<sup>0</sup> 23.062’ N. lat. 151<sup>0</sup> 20.531’ W. long.                      3.) 60<sup>0</sup> 24.130’ N. lat. 151<sup>0</sup> 18.838’ W. long.                      4.) 60<sup>0</sup> 24.147’ N. lat. 151<sup>0</sup> 17.716’ W. long.</p>	To reduce the escapement rate of Kasilof River sockeye salmon.

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Table 23.–Page 7 of 11.

Emergency Order No.	Effective Date	Action	Reason
40	31-Jul	Closed commercial salmon fishing with drift gillnets in all areas of the Central District of Upper Cook Inlet, on Thursday, July 31, 2008, except in the Kasilof River Terminal Harvest Area as outlined in UCI Commercial Fishing Announcement No. 39. In addition commercial salmon fishing with set gillnets was closed in all areas of the Kenai, Kasilof and East Forelands Sections of the Upper Subdistrict of Upper Cook Inlet, on Thursday, July 31, 2008, except in the Kasilof River Terminal Harvest Area as outlined in UCI Commercial Fishing Announcement No. 39.	To reduce the exploitation rate on Kenai River sockeye salmon.
41	31-Jul	Extended set gillnetting in the Kasilof River Special Harvest Area from 11:00 p.m. on Thursday, July 31, 2008 until 11:00 p.m. on Friday, August 1, 2008. Drift gillnetting was opened from 5:00 a.m. until 11:00 p.m. on Friday August 1, 2008 in a portion of the Kasilof River Special Harvest Area bounded by the following four points:  1.) 60 <sup>0</sup> 22.589' N. lat. 151 <sup>0</sup> 20.336' W. long. 2.) 60 <sup>0</sup> 23.062' N. lat. 151 <sup>0</sup> 20.531' W. long. 3.) 60 <sup>0</sup> 24.130' N. lat. 151 <sup>0</sup> 18.838' W. long. 4.) 60 <sup>0</sup> 24.147' N. lat. 151 <sup>0</sup> 17.716' W. long.	To reduce the escapement rate of Kasilof River sockeye salmon.
42	1-Aug	Extended set gillnetting in the Kasilof River Special Harvest Area from 11:00 p.m. on Friday, August 1, 2008 until 11:00 p.m. on Saturday, August 2, 2008. Drift gillnetting was opened from 5:00 a.m. until 11:00 p.m. on Saturday, August 2, 2008 in a portion of the Kasilof River Special Harvest Area bounded by the following four points:  1.) 60 <sup>0</sup> 22.589' N. lat. 151 <sup>0</sup> 20.336' W. long. 2.) 60 <sup>0</sup> 23.062' N. lat. 151 <sup>0</sup> 20.531' W. long. 3.) 60 <sup>0</sup> 24.130' N. lat. 151 <sup>0</sup> 18.838' W. long. 4.) 60 <sup>0</sup> 24.147' N. lat. 151 <sup>0</sup> 17.716' W. long.	To reduce the escapement rate of Kasilof River sockeye salmon.
43	2-Aug	Opened set gillnetting in the Kalgin Island Subdistrict of the Central District from 7:00 a.m. until 7:00 p.m. on Saturday, August 2, 2008.	To reduce the escapement rate of Packers Lake sockeye salmon.

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Table 23.–Page 8 of 11.

Emergency Order No.	Effective Date	Action	Reason
44	2-Aug	<p>Extended set gillnetting in the Kasilof River Special Harvest Area from 11:00 p.m. on Saturday, August 2, 2008 until 11:00 p.m. on Sunday, August 3, 2008. Drift gillnetting was opened from 5:00 a.m. until 11:00 p.m. on Sunday, August 3, 2008 in a portion of the Kasilof River Special Harvest Area bounded by the following four points:</p> <p>1.) 60<sup>0</sup> 22.589' N. lat. 151<sup>0</sup> 20.336' W. long.            2.) 60<sup>0</sup> 23.062' N. lat. 151<sup>0</sup> 20.531' W. long.            3.) 60<sup>0</sup> 24.130' N. lat. 151<sup>0</sup> 18.838' W. long.            4.) 60<sup>0</sup> 24.147' N. lat. 151<sup>0</sup> 17.716' W. long.</p>	To reduce the escapement rate of Kasilof River sockeye salmon.
45	3-Aug	<p>Extended set gillnetting in the Kasilof River Special Harvest Area from 11:00 p.m. on Sunday, August 3, 2008 until 11:00 p.m. on Monday, August 4, 2008. Drift gillnetting was opened from 5:00 a.m. until 11:00 p.m. on Monday, August 4, 2008 in a portion of the Kasilof River Special Harvest Area bounded by the following four points:</p> <p>1.) 60<sup>0</sup> 22.589' N. lat. 151<sup>0</sup> 20.336' W. long.            2.) 60<sup>0</sup> 23.062' N. lat. 151<sup>0</sup> 20.531' W. long.            3.) 60<sup>0</sup> 24.130' N. lat. 151<sup>0</sup> 18.838' W. long.            4.) 60<sup>0</sup> 24.147' N. lat. 151<sup>0</sup> 17.716' W. long.</p>	To reduce the escapement rate of Kasilof River sockeye salmon.
46	4-Aug	<p>Closed commercial salmon fishing with drift gillnets in all areas of the Central District of Upper Cook Inlet, except west of a line from the following two points: 60<sup>0</sup> 45.70' North Latitude; 151<sup>0</sup> 30.40' West Longitude and 59<sup>0</sup> 46.15' North Latitude; 152<sup>0</sup> 20.00' West Longitude, except in the Chinitna Bay Subdistrict, on Monday, August 4, 2008. Drift gillnetting was opened in the Kasilof River Special Harvest Area on Monday, August 4, 2008, as described in UCI Commercial Fishing Emergency Order No. 45. Commercial salmon fishing with set gillnets was closed in all areas of the Kenai, Kasilof and East Forelands Sections of the Upper Subdistrict of Upper Cook Inlet, on Monday, August 4, 2008, except in the Kasilof River Special Harvest Area, as described in UCI Commercial Fishing Emergency Order No. 45</p>	To reduce the escapement rate of Kasilof River sockeye salmon, while reducing the exploitation rate on Kenai River sockeye salmon.

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Table 23.–Page 9 of 11.

Emergency Order No.	Effective Date	Action	Reason
47	4-Aug	Rescinded Emergency Order 2S-13-08 and closed set gillnetting in that portion of the Western Subdistrict south of the latitude Redoubt Point at 7:00 p.m. on Monday, August 4, 2008. This area was reopened to set gillnetting during regular fishing periods only, or on Mondays and Thursdays from 7:00 a.m. to 7:00 p.m., beginning on Thursday, August 7, 2008.	To reduce the exploitation rate of coho salmon in the Western Subdistrict.
48	4-Aug	Extended set gillnetting in the Kasilof River Special Harvest Area from 11:00 p.m. on Monday, August 4, 2008 until 11:00 p.m. on Tuesday, August 5, 2008. Drift gillnetting was opened from 5:00 a.m. until 11:00 p.m. on Tuesday, August 5, 2008 in a portion of the Kasilof River Special Harvest Area bounded by the following four points:  1.) 60° 22.589' N. lat. 151° 20.336' W. long. 2.) 60° 23.062' N. lat. 151° 20.531' W. long. 3.) 60° 24.130' N. lat. 151° 18.838' W. long. 4.) 60° 24.147' N. lat. 151° 17.716' W. long.	To reduce the escapement rate of Kasilof River sockeye salmon.
49	5-Aug	Extended set gillnetting in the Kasilof River Special Harvest Area from 11:00 p.m. on Tuesday, August 5, 2008 until 11:00 p.m. on Wednesday, August 6, 2008. Drift gillnetting was opened from 5:00 a.m. until 11:00 p.m. on Wednesday, August 6, 2008 in a portion of the Kasilof River Special Harvest Area bounded by the following four points:  1.) 60° 22.589' N. lat. 151° 20.336' W. long. 2.) 60° 23.062' N. lat. 151° 20.531' W. long. 3.) 60° 24.130' N. lat. 151° 18.838' W. long. 4.) 60° 24.147' N. lat. 151° 17.716' W. long.	To reduce the escapement rate of Kasilof River sockeye salmon.
50	6-Aug	Extended set gillnetting in the Kasilof River Special Harvest Area from 11:00 p.m. on Wednesday, August 6, 2008 until 11:00 p.m. on Thursday, August 7, 2008. Drift gillnetting was opened from 5:00 a.m. until 11:00 p.m. on Thursday, August 7, 2008 in a portion of the Kasilof River Special Harvest Area bounded by the following four points:  1.) 60° 22.589' N. lat. 151° 20.336' W. long. 2.) 60° 23.062' N. lat. 151° 20.531' W. long. 3.) 60° 24.130' N. lat. 151° 18.838' W. long. 4.) 60° 24.147' N. lat. 151° 17.716' W. long.	To reduce the escapement rate of Kasilof River sockeye salmon.

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Table 23.-Page 10 of 11.

Emergency Order No.	Effective Date	Action	Reason
51	7-Aug	Rescinded Emergency Order Number 28 and returned the legal compliment of gear to no more than 105 fathoms of gillnet per permit, with no more than four set gillnets allowed per permit, where any single net may measure no more than 35 fathoms in length, in the Northern District of Upper Cook Inlet for the remainder of the 2008 fishing season, effective at 7:00 a.m. on Thursday, August 7, 2008. However, on Fire Island, no single net may be more than 35 fathoms and no more than 105 fathoms in the aggregate may be used, effective also at 7:00 a.m. on Thursday, August 7, 2008.	To comply with the UCI Action plan, which was passed by the BOF in February, 2008.
52	7-Aug	Closed commercial salmon fishing with drift gillnets in all areas of the Central District of Upper Cook Inlet, except west of a line from the following two points: 59 <sup>0</sup> 46.15' North Latitude; 152 <sup>0</sup> 20.00' West Longitude and 60 <sup>0</sup> 45.70' North Latitude; 151 <sup>0</sup> 30.40' West Longitude, except in the Chinitna Bay Subdistrict, on Thursday, August 7, 2008. The Chinitna Bay Subdistrict remained closed to drift gillnets until further notice. In addition, commercial salmon fishing with set gillnets was closed in all areas of the Kenai, Kasilof and East Forelands Sections of the Upper Subdistrict of Upper Cook Inlet, on Thursday, August 7, 2008.	To reduce the exploitation rate on Kenai River sockeye salmon.
53	9-Aug	Opened set gillnetting in the Kalgin Island Subdistrict of the Central District from 7:00 a.m. until 7:00 p.m. on Saturday, August 9, 2008.	To reduce the escapement rate of Packers Lake sockeye salmon.
54	11-Aug	Closed commercial salmon fishing with drift gillnets in all areas of the Central District of Upper Cook Inlet, except west of a line from the following two points: 59 <sup>0</sup> 46.15' North Latitude; 152 <sup>0</sup> 20.00' West Longitude and 60 <sup>0</sup> 45.70' North Latitude; 151 <sup>0</sup> 30.40' West Longitude, except in the Chinitna Bay Subdistrict, on Monday, August 11, 2008. The Chinitna Bay Subdistrict remained closed to drift gillnets until further notice. In addition, commercial salmon fishing with set gillnets was closed in all areas of the Kenai, Kasilof and East Forelands Sections of the Upper Subdistrict of Upper Cook Inlet, on Monday, August 11, 2008.	To reduce the exploitation rate on Kenai River sockeye salmon.

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Table 23.-Page 11 of 11.

Emergency Order No.	Effective Date	Action	Reason
55	14-Aug	Closed commercial salmon fishing with drift gillnets in all areas of the Central District of Upper Cook Inlet, except west of a line from the following two points: 59 <sup>0</sup> 46.15' North Latitude; 152 <sup>0</sup> 20.00' West Longitude and 60 <sup>0</sup> 45.70' North Latitude; 151 <sup>0</sup> 30.40' West Longitude, except in the Chinitna Bay Subdistrict, on Thursday, August 14, 2008. The Chinitna Bay Subdistrict remained closed to drift gillnets until further notice. In addition, commercial salmon fishing with set gillnets was closed in all areas of the Kenai, Kasilof and East Forelands Sections of the Upper Subdistrict of Upper Cook Inlet, on Thursday, August 14, 2008.	To reduce the exploitation rate on Kenai River sockeye salmon.
56	16-Aug	Opened set gillnetting in the Kalgin Island Subdistrict of the Central District from 7:00 a.m. until 7:00 p.m. on Saturday, August 16, 2008.	To reduce the escapement rate of Packers Lake sockeye salmon.
57	25-Aug	Opened drift gillnetting in the Chinitna Bay Subdistrict of the Central District on Mondays, Wednesdays, and Fridays from 7:00 a.m. until 7:00 p.m. beginning on Monday, August 25, 2008, for the remainder of the season. During these fishing periods, the open area for drift gillnets is east of a line from the crane on the south shore at 59 <sup>0</sup> 50.07' N. lat., 153 <sup>0</sup> 05.10' W. long., to the ADF&G regulatory marker on Glacier Spit at 59 <sup>0</sup> 51.72' N. lat., 153 <sup>0</sup> 07.84' W. long. The closed waters near streams remained in effect as published in the current regulation book on page 88. In addition, Drift Gillnet Areas Three and Four were opened for regular periods on Mondays and Thursdays from 7:00 a.m. until 7:00 p.m.	To provide an opportunity to harvest surplus chum salmon, as escapement goals for Clearwater Creek and Chinitna River had been achieved.



Table 24.—Commercial salmon fishing periods, Upper Cook Inlet, 2008.

Date	Day	Time	Set Gill Net	Drift Gill Net
26-May	Mon	0700-1900	Northern District	
2-Jun	Mon	0700-1900	N. Dist.-Kustatan-Big River-Kalgin Island	
4-Jun	Wed	0700-1900	Kustatan – Big River – Kalgin Island	
6-Jun	Fri	0700-1900	Kustatan – Big River – Kalgin Island	
9-Jun	Mon	0700-1900	N. Dist.-Kustatan-Big River-Kalgin Island	
11-Jun	Wed	0700-1900	Kustatan – Big River – Kalgin Island	
13-Jun	Fri	0700-1900	Kustatan – Big River – Kalgin Island	
16-Jun	Mon	0700-1900	N. Dist.-Western-Kustatan-Big River-Kalgin Island	
18-Jun	Wed	0700-1900	Western – Kustatan – Big River – Kalgin Isl.	
19-Jun	Thu	0700-1900	Western Subdistrict	All
20-Jun	Fri	0700-1900	Kustatan – Big River – Kalgin Island	
23-Jun	Mon	0700-1900	Western – Kustatan – Big River – Kalgin Isl.	All
26-Jun	Thu	0700-1900	All except N. Dist & Kenai & E. Forelands Sections	All
28-Jun	Sat	0700-2400	Kasilof Section	Kasilof Section
29-Jun	Sun	0000-1500	Kasilof Section	
		0500-1500		Kasilof Section
30-Jun	Mon	0700-1900	All except Kenai & E. Forelands Sections	All
1-Jul	Tue	0900-1800	Kasilof Section	Kasilof Section
2-Jul	Wed	1000-1900	Kasilof Section	Kasilof Section
3-Jul	Thu	0700-1900	All except Kenai & E. Forelands Sections	All
		1900-2000	Kasilof Section	Kasilof Section
5-Jul	Sat	0600-2100	Kasilof Section	Kasilof Section
		0700-2400	Western Subdistrict south of Redoubt Pt.	
6-Jul	Sun	0000-1000	Western Subdistrict south of Redoubt Pt.	
7-Jul	Mon	0700-1900	All except Kenai & E. Forelands Sections	All
		1900-2300	Kasilof Section	Kasilof Section
8-Jul	Tue	1200-2300		Kasilof Section
		1200-2400	Kasilof Section	
9-Jul	Wed	0000-1200	Kasilof Section	
		0500-1200		Kasilof Section
10-Jul	Thu	0700-1900	All	Kenai & Kasilof Sections
		1900-2400	Western Subdistrict south of Redoubt Pt.	
11-Jul	Fri	0000-2400	Western Subdistrict south of Redoubt Pt.	
12-Jul	Sat	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0700-2300		Kasilof Section
		0700-2400	Kasilof Section	

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Table 24.–Page 2 of 4.

Date	Day	Time	Set Gill Net	Drift Gill Net
13-Jul	Sun	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0000-0700	Kasilof Section	
14-Jul	Mon	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0700-1900	All	Drift Area 1 & Ken/Kas Sections
		1900-2300	Kenai, Kasilof, & East Forelands Sections	
15-Jul	Tue	0000-2400	Western Subdistrict south of Redoubt Pt.	
		1000-2400	Kasilof Section within one-half mile of shore	
16-Jul	Wed	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0000-2400	Kasilof Section within one-half mile of shore	
17-Jul	Thu	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0000-0700	Kasilof Section within one-half mile of shore	
		0700-1900	All	Drift Areas 1 & 2 & Ken/Kas Sections
		1900-2100	Kenai, Kasilof, & East Forelands Sections	Kenai & Kasilof Sections
18-Jul	Fri	0000-2400	Western Subdistrict south of Redoubt Pt.	
19-Jul	Sat	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0900-2400	Kasilof Section within one-half mile of shore	
20-Jul	Sun	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0000-2400	Kasilof Section within one-half mile of shore	
21-Jul	Mon	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0000-0700	Kasilof Section within one-half mile of shore	
		0700-1900	All	Drift Areas 1 & 2 & Ken/Kas Sections
		1900-2300	Kenai, Kasilof, & East Forelands Sections	Kenai & Kasilof Sections
		2300-2400	Kasilof Section within one-half mile of shore	
22-Jul	Tue	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0000-2400	Kasilof Section within one-half mile of shore	
23-Jul	Wed	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0000-2400	Kasilof Section within one-half mile of shore	
24-Jul	Thu	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0000-0700	Kasilof Section within one-half mile of shore	
		0700-1900	All	All
		1900-2300	Kenai, Kasilof, & East Forelands Sections	
25-Jul	Fri	0000-2400	Western Subdistrict south of Redoubt Pt.	
26-Jul	Sat	0000-2400	Western Subdistrict south of Redoubt Pt.	
		1300-2300	Kasilof Section within one-half mile of shore	
27-Jul	Sun	0000-2400	Western Subdistrict south of Redoubt Pt.	
		2000-2300		KRSHA
		2000-2400	KRSHA	

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Table 24.–Page 3 of 4.

Date	Day	Time	Set Gill Net	Drift Gill Net
28-Jul	Mon	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0000-2400	KRSHA	
		0500-2300		KRSHA
		0700-1900	All, except Upper Subdistrict	
29-Jul	Tue	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0000-2400	KRSHA	
		0500-2300		KRSHA
30-Jul	Wed	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0000-2400	KRSHA	
		0500-2300		KRSHA
31-Jul	Thu	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0000-2400	KRSHA	
		0500-2300		KRSHA
		0700-1900	All, except Upper Subdistrict	
1-Aug	Fri	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0000-2400	KRSHA	
		0500-2300		KRSHA
2-Aug	Sat	0000-2400	Western Subdistrict south of Redoubt Pt.	
		0000-2400	KRSHA	
		0500-2300		KRSHA
		0700-1900	Kalgin Island Subdistrict	
3-Aug	Sun	0000-2400	Western Subdistrict south of Redoubt Pt.	
		2000-2300		KRSHA
		2000-2400	KRSHA	
4-Aug	Mon	0000-2400	KRSHA	
		0500-2300		KRSHA
		0000-1900	Western Subdistrict south of Redoubt Pt.	
		0700-1900	All, except Upper Subdistrict	Western half of Cook Inlet
5-Aug	Tue	0000-2400	KRSHA	
		0500-2300		KRSHA
6-Aug	Wed	0000-2400	KRSHA	
		0500-2300		KRSHA
7-Aug	Thu	0000-2400	KRSHA	
		0500-2300		KRSHA
		0700-1900	All, except Upper Subdistrict	Western half of Cook Inlet
10-Aug	Sat	0700-1900	Kalgin Island Subdistrict	
11-Aug	Mon	0700-1900	All, except Upper Subdistrict	Western half of Cook Inlet

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Table 24.–Page 4 of 4.

Date	Day	Time	Set Gill Net	Drift Gill Net
14-Aug	Thu	0700-1900	All, except Upper Subdistrict	Western half of Cook Inlet
16-Aug	Sat	0700-1900	Kalgin Island Subdistrict	
18-Aug	Mon	0700-1900	All, except Upper Subdistrict	Drift Areas 3 & 4
21-Aug	Thu	0700-1900	All, except Upper Subdistrict	Drift Areas 3 & 4
25-Aug	Mon	0700-1900	All, except Upper Subdistrict	Drift Areas 3, 4 & Chinitna Bay
27-Aug	Wed	0000-2400		Chinitna Bay
28-Aug	Thu	0700-1900	All, except Upper Subdistrict	Drift Areas 3, 4 & Chinitna Bay
29-Aug	Fri	0700-1900		Chinitna Bay
1-Sep	Mon	0700-1900	All, except Upper Subdistrict	Drift Areas 3, 4 & Chinitna Bay
3-Sep	Wed	0700-1900		Chinitna Bay
4-Sep	Thu	0700-1900	All, except Upper Subdistrict	Drift Areas 3, 4 & Chinitna Bay
5-Sep	Fri	0700-1900		Chinitna Bay
8-Sep	Mon	0700-1900	All, except Upper Subdistrict	Drift Areas 3, 4 & Chinitna Bay
10-Sep	Wed	0700-1900		Chinitna Bay
11-Sep	Thu	0700-1900	All, except Upper Subdistrict	Drift Areas 3, 4 & Chinitna Bay

Table 25.—Age composition (in percent) of sockeye salmon escapements, Upper Cook Inlet, 2008.

Stream	Age Group											Total	
	0.2	0.3	1.1	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2		2.4
Kenai River		0.4		15.2	0.7		60.8	7.4	4.6	10.8		0.2	100.0
Kasilof River			0.4	39.5	0.2		38.3	17.9		3.7			100.0
Yentna River	0.8	1.6	6.3	11.8	1.0	0.3	56.0	7.6	0.5	13.9	0.3		100.0
Crescent River			0.3	17.7	2.8		53.4	9.9	0.3	15.5			100.0
Fish Creek			13.7	40.7	2.4		35.1	4.8		3.2			100.0
Hidden Creek				85.7			7.5	6.3		0.6			100.0

Table 26.—Upper Cook Inlet salmon average weights (in pounds) by area, 2008.

Fishery	Chinook	Sockeye	Coho	Pink	Chum
Upper Cook Inlet Total	23.3	5.9	7.0	3.8	7.5
A. Northern District Total	19.6	5.9	6.7	3.7	7.2
1. Northern District West	19.7	5.9	6.6	3.0	7.1
a. Trading Bay 247-10	18.6	5.5	7.4		
b. Tyonek 247-20	17.9	6.5	6.4	3.5	7.2
c. Beluga 247-30	20.1	6.2	6.1	3.8	7.7
d. Susitna Flat 247-41	22.4	5.5	6.7	2.5	7.2
e. Pt. Mackenzie 247-42	21.9	5.0	6.7	3.7	7.5
f. Fire Island 247-43	20.2	5.7	6.8	7.6	6.7
2. Northern District East	19.3	5.8	6.8	3.8	7.8
a. Pt. Possession 247-70	19.2	6.0	6.4	3.7	7.8
b. Birch Hill 247-80	19.5	5.6	6.9	3.7	6.6
c. Number 3 Bay 247-90	19.3	5.7	7.4	3.9	8.4
B. Central District Total	24.9	5.9	7.1	3.8	7.5
1. East Side Set Total	25.1	5.7	6.6	4.0	7.0
a. Salamatof/EastForelands	26.5	6.9	6.7	3.7	7.8
1. Salamatof 244-41	27.1	7.1	6.6	4.2	7.2
2. East Forelands 244-42	19.0	6.1	6.8	3.5	8.6
b. Kalifonsky Beach	24.6	5.4	6.4	3.9	5.4
1. South K. Beach 244-31	22.3	5.2	6.1	3.6	5.7
2. North K. Beach 244-32	30.7	6.3	6.9	4.5	4.6
c. Kasilof Terminal 244-25	28.2	4.2	7.0	4.4	6.5
d. Cohoe/Ninilchik	24.3	5.5	6.4	3.7	7.0
1. Cohoe 244-22	22.3	5.2	6.2	3.8	7.0
2. Ninilchik 244-21	26.5	5.6	6.5	3.6	7.3

-continued-

Table 26.--Page 2 of 2.

Fishery	Chinook	Sockeye	Coho	Pink	Chum
2. West Side Set Total	27.9	5.9	6.9	4.9	7.8
a. Little Jack Slough 245-50		5.3	6.7	3.1	7.0
b. Polly Creek 245-40	37.3	5.5	6.6	3.0	6.1
c. Tuxedni Bay 245-30	27.7	6.1	7.0	5.2	7.8
3. Kustatan Total	20.3	4.7	7.1		
a. Big River 245-55	20.3	4.7			
b. West Foreland 245-60		4.5	7.1		
4. Kalgin Island Total	25.9	5.5	6.7	4.1	7.4
a. West Side 246-10	25.9	5.4	6.7	4.1	7.4
b. East Side 246-20	23.8	5.6	6.6	4.3	7.4
5. Chinitna Bay Total		4.0	8.5	3.1	6.5
a. Set 245-10			8.9		6.3
6. Central District Set Total	25.2	5.7	6.7	4.0	7.4
7. Central District Drift Total	21.1	6.3	7.3	3.7	7.6
a. Kasilof Terminal 244-26	25.2	4.2	6.9	4.6	7.8
b. Ken/Kas Section 244-55	19.8	6.3	6.2	3.8	8.2
c. District Wide 244-60	16.2	6.3	7.3	3.7	7.6
d. Kasilof Section 244-61	12.6	6.2	7.1	3.6	7.7
e. Chinitna Bay 245-10		4.0	8.5	3.1	7.1

*Note:* Average weights determined from total pounds of fish divided by numbers of fish from commercial harvest tickets.

Table 27.--Major buyers and processors of Upper Cook Inlet fishery products, 2008.

Buyer/Processor	Code	Plant Site	Contact	Address
Alaska Salmon Purchasers	F4665	Kenai	Mark Powell	HC01 Box 240 Kenai, AK 99611
The Auction Block	F3785	Homer	Cade Smith	P.O. Box 2228 Homer, AK 99603
BeachM Fishery	F7424	Kenai	Liz Chase	2101 Bowpicker Ln Kenai, AK 99611
Coal Point Seafood Co.	F1757	Homer	John	4306 Homer Spit Homer, AK 99603
Copper River Seafoods	F6426	Kasilof	Daryl	4000 W. 50 <sup>th</sup> , Suite 2 Anchorage, AK 99502
Favco	F0398	Anchorage	Greg Favretto	P.O. Box 190968 Anchorage, AK 99519
Fishhawk Fisheries	F1540	Kenai	Steve Fick	P.O. Box 715 Astoria, OR 97103
The Fish Factory	F4449	Homer	Mike McCune	800 Fish Dock Rd Homer, AK 99603
Fred's AK Wholesale Seafoods	F6676	Anchorage	Fred D Thoerner	230 E Potter # 11 Anchorage, AK 99502
Icicle Seafoods	F0135	Seward	Melody Jordan	601 Port Avenue Seward, AK 99665
Inlet Fisheries Inc.	F4682	Kenai	Patrick Klier	P.O. Box 530 Kenai, AK 99611
Inlet Fish Producers	F2806	Kenai	Ellie Tikka	200 Columbia St Kenai, AK 99611
Kenai River Seafoods	F7323	Kenai	Karin	2101 Bowpicker Ln Kenai, AK 99611
Ocean Beauty	F5204	Kenai	Pat Hardina	Box 8163 Nikiski, AK 99635
Pacific Star Seafoods	F1834	Kenai	Dan Foley	520 Bridge Access Rd. Kenai, AK 99611
Peninsula Processing	F3789	Soldotna	Annette	720 K. Beach Rd. Soldotna, AK 99669
Salamatof Seafoods	F0037	Kenai	Wylie Reed	P.O. Box 1450 Kenai AK 99611
Smoky Bay Seafoods	F7318	Ninilchik	Diedre	206 SW Michigan St Seattle, WA 98106
Snug Harbor Seafoods	F3894	Kenai	Paul Dale	P.O. Box 701 Kenai, AK 99611



Table 28.—Number of salmon harvested by gear, area, and species in personal use fisheries, Upper Cook Inlet, 2008.

Fishery	Harvest					Total
	Chinook	Sockeye	Coho	Pink	Chum	
Kasilof Gillnet	151	23,432	65	35	23	23,706
Kasilof Dip Net	46	54,051	509	787	143	55,536
Kenai Dip Net	1,362	234,109	2,609	10,631	504	249,215
Fish Creek Dip Net						0
Beluga Dip Net		31	35			66
No Sites Reported	41	6,890	66	412	58	7,467
<b>Total</b>	<b>1,600</b>	<b>318,513</b>	<b>3,284</b>	<b>11,865</b>	<b>728</b>	<b>335,990</b>

*Note:* Preliminary estimates.

Table 29.—Age, weight, sex, and size distribution of Pacific herring sampled by gillnet in Upper Cook Inlet, 2008.

Sample date = May 8, 2008								
Sample Period	Age	No. of Fish			Percent of Total	Length		Number Measured
		Male	Female	Total		Mean (mm)	SD	
ESSN	3	0	0	0	0%	0	0.0	0
	4	0	1	1	4%	213	0.0	1
	5	1	4	5	22%	210	5.4	5
	6	2	6	8	35%	216	5.3	11
	7	2	3	5	22%	227	7.5	9
	8	2	2	4	17%	237	10.9	6
	9	0	0	0	0%	0	0.0	0
	?	1	8	9		226	14.2	14
Sample Total		7	16	23	100%	223	13.0	45
Sex Composition		30%	70%					

Sample date = May 13, 2008								
Sample Period	Age	No. of Fish			Percent of Total	Length		Number Measured
		Male	Female	Total		Mean (mm)	SD	
ESSN	3	0	0	0	0%	0	0.0	0
	4	2	1	3	5%	204	6.6	3
	5	4	6	10	15%	216	11.0	10
	6	3	11	14	22%	223	10.6	14
	7	11	11	22	34%	236	8.7	22
	8	6	7	13	20%	244	5.6	13
	9	2	1	3	5%	256	5.3	3
	?	9	19	28		233	13.5	28
Sample Total		28	37	65	100%	232	14.6	93
Sex Composition		43%	57%					

-continued-

Table 29.–Page 2 of 2.

Sample date = May 22, 2008								
Sample Period	Age	No. of Fish			Percent of Total	Length		Number Measured
		Male	Female	Total		Mean (mm)	SD	
ESSN	3	3	0	3	6%	205	3.5	3
	4	16	5	21	44%	202	9.7	21
	5	9	3	12	25%	205	9.3	21
	6	1	1	2	4%	216	10.1	17
	7	3	5	8	17%	220	8.1	9
	8	1	1	2	4%	241	8.3	3
	?	10	17	27		213	15.3	27
Sample Total		43	32	75	100%	211	13.6	101
Sex Composition		57%	43%					

Sample date = May 29, 2008								
Sample Period	Age	No. of Fish			Percent of Total	Length		Number Measured
		Male	Female	Total		Mean (mm)	SD	
ESSN	3	0	0	0	0%	0	0.0	0
	4	1	3	4	17%	202	10.7	7
	5	4	3	7	29%	216	7.7	13
	6	3	1	4	17%	222	9.5	22
	7	2	2	4	17%	233	7.3	15
	8	3	1	4	17%	244	7.4	8
	9	0	1	1	4%	243	8.5	2
	?	4	6	10		229	15.1	33
Sample Total		13	11	24	100%	226	14.9	100
Sex Composition		54%	46%					

Table 30.—Age, sex, and size distribution of eulachon (smelt) from Upper Cook Inlet commercial dip net fishery, 2006-2008.

2006				
Age	Sex	Length (mm)	No. Sampled	%
3	Male	185	1	1%
	Female	-	-	-
4	Male	194	46	54%
	Female	186	22	26%
5	Male	200	14	16%
	Female	203	2	2%
All	Male	196	61	72%
	Female	187	24	28%
All		193	85	100%

2007				
Age	Sex	Length (mm)	No. Sampled	%
3	Male	179	10	9%
	Female	174	5	5%
4	Male	188	65	60%
	Female	186	23	21%
5	Male	201	4	4%
	Female	192	1	1%
All	Male	188	79	73%
	Female	184	29	27%
All		187	108	100%

2008				
Age	Sex	Length (mm)	No. Sampled	%
3	Male	194	3	3%
	Female	185	10	10%
4	Male	201	37	37%
	Female	193	36	36%
5	Male	208	12	12%
	Female	206	3	3%
All	Male	202	52	51%
	Female	192	49	49%
All		197	101	100%

Table 31.—Seldovia District tide tables, May through August, 2008.

MAY											
HIGH TIDES						LOW TIDES					
		<u>A.M.</u>		<u>P.M.</u>				<u>A.M.</u>		<u>P.M.</u>	
Date	Day	Time	Feet	Time	Feet	Date	Day	Time	Feet	Time	Feet
1	Thu	12:05P	14.6			1	Thu	06:04A	3.8	06:12P	2.5
2	Fri	12:35A	16.8	01:02P	16.1	2	Fri	06:52A	1.3	06:59P	1.8
3	Sat	01:13A	18.5	01:53P	17.6	3	Sat	07:36A	-1.1	07:43P	1.2
4	Sun	01:52A	20.0	02:41P	18.7	4	Sun	08:19A	-3.2	08:27P	0.9
5	Mon	02:32A	21.1	03:28P	19.3	5	Mon	09:02A	-4.8	09:11P	0.8
6	Tue	03:13A	21.7	04:16P	19.4	6	Tue	09:47A	-5.5	09:56P	1.1
7	Wed	03:57A	21.6	05:05P	18.8	7	Wed	10:33A	-5.4	10:43P	1.8
8	Thu	04:44A	20.8	05:57P	17.9	8	Thu	11:22A	-4.6	11:33P	2.7
9	Fri	05:34A	19.5	06:53P	16.8	9	Fri			12:14P	-3.1
10	Sat	06:30A	17.7	07:55P	15.8	10	Sat	12:29A	3.7	01:12P	-1.4
11	Sun	07:35A	15.9	09:03P	15.3	11	Sun	01:34A	4.5	02:16P	0.2
12	Mon	08:52A	14.5	10:11P	15.3	12	Mon	02:52A	4.9	03:26P	1.5
13	Tue	10:16A	13.8	11:11P	15.7	13	Tue	04:16A	4.4	04:35P	2.3
14	Wed	11:35A	13.9			14	Wed	05:29A	3.3	05:35P	2.8
15	Thu	12:02A	16.3	12:39P	14.4	15	Thu	06:26A	2.0	06:26P	3.1
16	Fri	12:43A	16.9	01:29P	15.1	16	Fri	07:11A	0.7	07:08P	3.3
17	Sat	01:17A	17.5	02:12P	15.8	17	Sat	07:49A	-0.3	07:46P	3.5
18	Sun	01:50A	17.9	02:50P	16.3	18	Sun	08:24A	-1.0	08:23P	3.6
19	Mon	02:21A	18.2	03:26P	16.7	19	Mon	08:57A	-1.5	08:58P	3.7
20	Tue	02:53A	18.4	04:02P	16.7	20	Tue	09:30A	-1.7	09:34P	3.9
21	Wed	03:27A	18.3	04:38P	16.5	21	Wed	10:04A	-1.6	10:10P	4.2
22	Thu	04:01A	18.0	05:16P	16.0	22	Thu	10:39A	-1.3	10:47P	4.6
23	Fri	04:37A	17.4	05:56P	15.4	23	Fri	11:15A	-0.7	11:26P	5.2
24	Sat	05:15A	16.6	06:39P	14.7	24	Sat	11:54A	0.0		
25	Sun	05:57A	15.6	07:25P	14.3	25	Sun	12:09A	5.7	12:35P	0.8
26	Mon	06:45A	14.6	08:14P	14.1	26	Mon	12:58A	6.1	01:21P	1.7
27	Tue	07:45A	13.6	09:06P	14.3	27	Tue	01:57A	6.2	02:14P	2.5
28	Wed	08:57A	13.1	09:58P	14.9	28	Wed	03:06A	5.7	03:14P	3.2
29	Thu	10:15A	13.1	10:49P	15.9	29	Thu	04:17A	4.4	04:18P	3.6
30	Fri	11:30A	13.8	11:39P	17.1	30	Fri	05:21A	2.6	05:20P	3.6
31	Sat			12:36P	15.0	31	Sat	06:17A	0.4	06:18P	3.4

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Table 31.—Page 2 of 4.

JUNE											
HIGH TIDES						LOW TIDES					
Date	Day	A.M.		P.M.		Date	Day	A.M.		P.M.	
		Time	Feet	Time	Feet			Time	Feet	Time	Feet
1	Sun	12:28A	18.4	01:35P	16.3	1	Sun	07:09A	-1.8	07:12P	2.9
2	Mon	01:16A	19.7	02:28P	17.5	2	Mon	07:59A	-3.6	08:03P	2.5
3	Tue	02:05A	20.7	03:19P	18.3	3	Tue	08:47A	-5.0	08:53P	2.0
4	Wed	02:55A	21.2	04:09P	18.7	4	Wed	09:35A	-5.7	09:43P	1.8
5	Thu	03:44A	21.2	04:58P	18.7	5	Thu	10:23A	-5.6	10:34P	1.9
6	Fri	04:35A	20.6	05:48P	18.4	6	Fri	11:12A	-4.9	11:26P	2.2
7	Sat	05:27A	19.4	06:38P	17.8	7	Sat			12:01P	-3.6
8	Sun	06:22A	17.9	07:30P	17.2	8	Sun	12:20A	2.6	12:51P	-2.0
9	Mon	07:20A	16.1	08:23P	16.6	9	Mon	01:20A	3.2	01:44P	-0.1
10	Tue	08:24A	14.5	09:16P	16.1	10	Tue	02:25A	3.6	02:39P	1.7
11	Wed	09:36A	13.3	10:09P	15.8	11	Wed	03:35A	3.6	03:37P	3.3
12	Thu	10:54A	12.8	11:00P	15.8	12	Thu	04:46A	3.1	04:37P	4.5
13	Fri	12:07P	13.0	11:47P	15.9	13	Fri	05:48A	2.4	05:36P	5.2
14	Sat	01:08P	13.6			14	Sat	06:40A	1.5	06:28P	5.5
15	Sun	12:31A	16.2	01:56P	14.3	15	Sun	07:24A	0.6	07:15P	5.5
16	Mon	01:12A	16.6	02:38P	15.1	16	Mon	08:03A	-0.1	07:58P	5.3
17	Tue	01:52A	17.1	03:16P	15.7	17	Tue	08:40A	-0.8	08:38P	4.9
18	Wed	02:31A	17.6	03:52P	16.1	18	Wed	09:15A	-1.3	09:17P	4.6
19	Thu	03:10A	17.9	04:28P	16.4	19	Thu	09:50A	-1.6	09:56P	4.4
20	Fri	03:48A	18.0	05:03P	16.5	20	Fri	10:25A	-1.6	10:34P	4.3
21	Sat	04:26A	17.8	05:39P	16.4	21	Sat	11:00A	-1.5	11:13P	4.3
22	Sun	05:05A	17.3	06:15P	16.3	22	Sun	11:35A	-1.0	11:54P	4.3
23	Mon	05:46A	16.5	06:51P	16.1	23	Mon			12:12P	-0.3
24	Tue	06:31A	15.6	07:30P	16.0	24	Tue	12:39A	4.4	12:51P	0.7
25	Wed	07:23A	14.6	08:11P	16.1	25	Wed	01:28A	4.2	01:35P	1.9
26	Thu	08:26A	13.6	08:59P	16.2	26	Thu	02:26A	3.8	02:26P	3.1
27	Fri	09:40A	13.1	09:53P	16.6	27	Fri	03:32A	3.1	03:27P	4.2
28	Sat	11:01A	13.2	10:52P	17.2	28	Sat	04:42A	1.9	04:36P	4.9
29	Sun	12:19P	14.1	11:54P	18.0	29	Sun	05:49A	0.3	05:46P	5.0
30	Mon			01:26P	15.3	30	Mon	06:51A	-1.5	06:51P	4.4

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Table 31.—Page 3 of 4.

JULY											
HIGH TIDES						LOW TIDES					
Date	Day	A.M.		P.M.		Date	Day	A.M.		P.M.	
		Time	Feet	Time	Feet			Time	Feet	Time	Feet
1	Tue	12:55A	19.0	02:22P	16.7	1	Tue	07:46A	-3.2	07:50P	3.5
2	Wed	01:52A	20.0	03:13P	17.9	2	Wed	08:38A	-4.5	08:44P	2.5
3	Thu	02:46A	20.8	04:00P	18.8	3	Thu	09:26A	-5.2	09:35P	1.7
4	Fri	03:38A	21.1	04:45P	19.3	4	Fri	10:12A	-5.3	10:24P	1.2
5	Sat	04:27A	20.7	05:28P	19.4	5	Sat	10:56A	-4.7	11:13P	1.1
6	Sun	05:16A	19.8	06:11P	19.1	6	Sun	11:40A	-3.5		
7	Mon	06:05A	18.4	06:52P	18.5	7	Mon	12:02A	1.3	12:22P	-1.8
8	Tue	06:55A	16.6	07:34P	17.6	8	Tue	12:52A	1.9	01:04P	0.3
9	Wed	07:48A	14.8	08:16P	16.7	9	Wed	01:45A	2.6	01:48P	2.4
10	Thu	08:50A	13.2	09:01P	15.8	10	Thu	02:43A	3.2	02:37P	4.4
11	Fri	10:04A	12.2	09:52P	15.2	11	Fri	03:50A	3.6	03:34P	6.1
12	Sat	11:31A	12.0	10:49P	14.9	12	Sat	05:02A	3.5	04:42P	7.1
13	Sun	12:50P	12.6	11:49P	15.0	13	Sun	06:10A	2.9	05:52P	7.4
14	Mon	01:46P	13.5	06:52P	7.0	14	Mon	07:04A	2.0		
15	Tue	12:45A	15.6	02:28P	14.5	15	Tue	07:48A	1.0	07:41P	6.2
16	Wed	01:34A	16.5	03:04P	15.5	16	Wed	08:26A	0.1	08:24P	5.4
17	Thu	02:17A	17.4	03:36P	16.4	17	Thu	09:01A	-0.8	09:03P	4.5
18	Fri	02:57A	18.1	04:08P	17.1	18	Fri	09:34A	-1.5	09:40P	3.7
19	Sat	03:36A	18.6	04:39P	17.6	19	Sat	10:06A	-1.9	10:17P	3.1
20	Sun	04:13A	18.8	05:09P	18.0	20	Sun	10:38A	-1.9	10:54P	2.7
21	Mon	04:51A	18.5	05:40P	18.2	21	Mon	11:11A	-1.5	11:32P	2.4
22	Tue	05:31A	17.8	06:11P	18.1	22	Tue	11:44A	-0.6		
23	Wed	06:13A	16.8	06:45P	18.0	23	Wed	12:12A	2.2	12:20P	0.6
24	Thu	07:02A	15.6	07:24P	17.7	24	Thu	12:57A	2.2	01:00P	2.1
25	Fri	08:01A	14.2	08:10P	17.2	25	Fri	01:50A	2.3	01:48P	3.8
26	Sat	09:15A	13.1	09:09P	16.8	26	Sat	02:55A	2.3	02:49P	5.4
27	Sun	10:45A	12.9	10:21P	16.8	27	Sun	04:12A	1.9	04:08P	6.3
28	Mon	12:15P	13.7	11:38P	17.3	28	Mon	05:32A	0.9	05:31P	6.2
29	Tue	01:24P	15.2	06:45P	5.2	29	Tue	06:42A	-0.7		
30	Wed	12:49A	18.4	02:17P	16.8	30	Wed	07:40A	-2.3	07:45P	3.7
31	Thu	01:49A	19.7	03:02P	18.3	31	Thu	08:29A	-3.6	08:37P	2.2

-continued-

Table 31.—Page 4 of 4.

AUGUST											
HIGH TIDES						LOW TIDES					
Date	Day	<u>A.M.</u>		<u>P.M.</u>		Date	Day	<u>A.M.</u>		<u>P.M.</u>	
		Time	Feet	Time	Feet			Time	Feet	Time	Feet
1	Fri	02:42A	20.7	03:43P	19.5	1	Fri	09:13A	-4.3	09:24P	0.9
2	Sat	03:30A	21.2	04:21P	20.2	2	Sat	09:54A	-4.4	10:09P	0.1
3	Sun	04:15A	21.0	04:58P	20.5	3	Sun	10:33A	-3.7	10:52P	-0.1
4	Mon	04:59A	20.2	05:33P	20.2	4	Mon	11:11A	-2.5	11:34P	0.1
5	Tue	05:41A	18.8	06:07P	19.4	5	Tue	11:47A	-0.7		
6	Wed	06:24A	17.2	06:41P	18.4	6	Wed	12:16A	0.9	12:23P	1.4
7	Thu	07:10A	15.3	07:15P	17.1	7	Thu	12:59A	1.9	01:00P	3.5
8	Fri	08:03A	13.5	07:54P	15.8	8	Fri	01:47A	3.1	01:41P	5.6
9	Sat	09:13A	12.1	08:44P	14.7	9	Sat	02:45A	4.2	02:33P	7.4
10	Sun	10:54A	11.6	09:53P	14.0	10	Sun	04:05A	4.8	03:51P	8.5
11	Mon	12:37P	12.2	11:15P	14.1	11	Mon	05:39A	4.4	05:25P	8.6
12	Tue	01:33P	13.4			12	Tue	06:47A	3.4	06:38P	7.8
13	Wed	12:27A	15.0	02:10P	14.7	13	Wed	07:32A	2.1	07:27P	6.5
14	Thu	01:20A	16.2	02:40P	16.0	14	Thu	08:07A	0.8	08:07P	5.1
15	Fri	02:03A	17.6	03:08P	17.2	15	Fri	08:38A	-0.3	08:43P	3.7
16	Sat	02:42A	18.7	03:35P	18.3	16	Sat	09:08A	-1.2	09:18P	2.4
17	Sun	03:19A	19.5	04:03P	19.2	17	Sun	09:38A	-1.6	09:53P	1.3
18	Mon	03:56A	19.9	04:31P	19.8	18	Mon	10:09A	-1.6	10:29P	0.5
19	Tue	04:34A	19.7	05:00P	20.1	19	Tue	10:42A	-1.1	11:06P	0.1
20	Wed	05:13A	19.1	05:31P	20.0	20	Wed	11:15A	-0.1	11:45P	0.0
21	Thu	05:56A	17.9	06:05P	19.5	21	Thu	11:52A	1.4		
22	Fri	06:45A	16.4	06:44P	18.7	22	Fri	12:29A	0.4	12:32P	3.1
23	Sat	07:44A	14.7	07:34P	17.6	23	Sat	01:21A	1.1	01:21P	5.0
24	Sun	09:03A	13.3	08:41P	16.5	24	Sun	02:28A	1.9	02:28P	6.6
25	Mon	10:44A	13.1	10:09P	16.0	25	Mon	03:54A	2.3	03:59P	7.4
26	Tue	12:15P	14.2	11:39P	16.7	26	Tue	05:25A	1.5	05:34P	6.7
27	Wed			01:17P	15.9	27	Wed	06:37A	0.1	06:46P	4.9
28	Thu	12:52A	18.0	02:03P	17.7	28	Thu	07:30A	-1.3	07:41P	3.0
29	Fri	01:48A	19.4	02:41P	19.2	29	Fri	08:14A	-2.3	08:28P	1.1
30	Sat	02:36A	20.5	03:17P	20.4	30	Sat	08:54A	-2.8	09:10P	-0.2
31	Sun	03:19A	21.0	03:49P	21.0	31	Sun	09:30A	-2.7	09:49P	-1.0



Table 32.—Total sockeye salmon harvest from all sources in Upper Cook Inlet, 1996–2008.

Year	Commercial				Sport <sup>a,b,c,d</sup>			Personal Use					Subsistence/Educational		Total
	Drift	Set	Test Fishery	All	Kenai River	All Other UCI	All	Kas. Gillnet	Kas. Dipnet	Ken. Dipnet	Other <sup>e</sup>	All	Subsist.	Educ. <sup>f</sup>	
1996	2,205,067	1,683,855	2,424	3,891,346	205,959	16,863	222,822	9,506	11,197	102,821	22,021	145,545	310	2,405	4,262,428
1997	2,197,736	1,979,002	2,301	4,179,039	190,629	23,591	214,220	17,997	9,737	114,619	6,587	148,940	650	3,076	4,545,925
1998	599,202	620,040	5,456	1,224,698	190,159	23,477	213,636	15,975	45,161	103,847	11,598	176,581	658	3,567	1,619,140
1999	1,413,995	1,266,515	11,766	2,692,276	233,768	26,078	259,846	12,832	37,176	149,504	9,077	208,589	660	3,037	3,164,408
2000	656,427	666,055	9,450	1,331,932	261,902	32,194	294,096	14,774	23,877	98,262	12,354	149,267	442	2,933	1,778,670
2001	846,257	980,576	3,381	1,830,214	219,507	30,953	250,460	17,201	37,612	150,766	13,109	218,688	717	4,633	2,304,712
2002	1,367,251	1,405,867	37,983	2,811,101	259,829	21,770	281,599	17,980	46,769	180,028	14,846	259,623	663	3,722	3,356,708
2003	1,593,638	1,882,521	13,968	3,490,127	314,603	36,076	350,679	15,706	43,870	223,580	15,675	298,831	664	5,993	4,146,294
2004	2,528,910	2,397,310	10,677	4,936,897	317,561	28,823	346,384	25,417	48,315	262,831	13,527	350,090	534	5,237	5,639,142
2005	2,520,300	2,717,868	12,064	5,250,232	312,871	21,826	334,697	26,609	43,151	295,496	4,520	369,776	237	7,134	5,962,076
2006	784,771	1,407,959	10,698	2,203,428	203,602	24,597	228,199	28,867	56,144	127,630	3,406	216,047	389	5,444	2,653,507
2007	1,823,481	1,493,298	10,649	3,327,428	325,915	28,466	354,381	14,943	43,293	291,270	6,729	356,235	694	5,773	4,044,511
2008	983,303	1,388,415	16,957	2,388,675	191,000	24,000	215,000	23,432	54,051	234,109	6,921	318,513	364	4,761	2,927,313

<sup>a</sup> Sport harvest in the Kenai River includes late-run stock only; early-run Russian River sockeye salmon harvest is excluded.

<sup>b</sup> Sport harvest is estimated from the annual state-wide sport fish harvest survey.

<sup>c</sup> Sport harvest in 2008 is unknown until the state-wide harvest survey is finalized; these figures are estimates based on size of 2008 sockeye salmon run.

<sup>d</sup> Does not include early-run Russian River sport harvest.

<sup>e</sup> Specific area of harvest not identified on returned permits, other than Fish Creek dip net (1996-2001) and Beluga River dip net (2008).

<sup>f</sup> Educational fisheries consist of Kenaitze Tribal Council, Ninilchik Traditional Council, Ninilchik Native Descendents (since 1998), Ninilchik Emergency Services (since 2004), Knik Tribal Group (since 1994), Eklutna Village (since 1994), Tyonek Village (1998–2000), Big Lake Cultural Outreach (since 2005), Intertribal Native Leadership (since 2006), Tim O'Brien (since 2007), Anchor Pt VFW (since 2007), and Kasilof Historical Society (since 2008).

Table 33.—Daily commercial harvest of razor clams, Upper Cook Inlet, 2008.

Date	Lbs	No. Diggers	Date	Lbs	No. Diggers
5/16	1,386	21	6/24	7,950	21
5/17	3,982	21	6/29	3,423	21
5/18	5,064	21	6/30	9,408	21
5/19	7,045	21	7/1	9,806	21
5/20	7,703	21	7/2	7,450	21
5/21	6,994	21	7/3	7,305	21
5/22	5,045	21	7/4	7,927	21
5/23	5,208	20	7/5	7,362	21
5/25	4,012	21	7/6	7,341	21
5/26	6,729	21	7/7	7,309	21
5/31	6,245	21	7/8	6,387	21
6/1	7,371	21	7/15	6,275	20
6/2	6,146	21	7/16	6,430	21
6/3	7,988	21	7/17	5,544	21
6/4	8,248	21	7/18	5,525	21
6/5	9,115	21	7/19	6,608	21
6/6	9,378	21	7/20	6,385	21
6/7	7,997	21	7/21	4,356	20
6/8	8,168	21	7/22	5,887	21
6/9	6,241	21	7/23	4,933	21
6/10	3,272	21	7/28	5,477	21
6/15	7,812	21	7/29	6,580	21
6/16	9,364	21	7/30	6322	21
6/17	8,618	21	7/31	6,452	21
6/18	6,536	21	8/1	5,397	20
6/19	6,653	21	8/2	5,356	20
6/20	9,671	21	8/3	6,590	21
6/21	9,765	21	8/4	5,413	20
6/22	4,465	19	8/5	5,779	21
6/23	7,801	21			
Total for 2008 = 390,999 lbs					

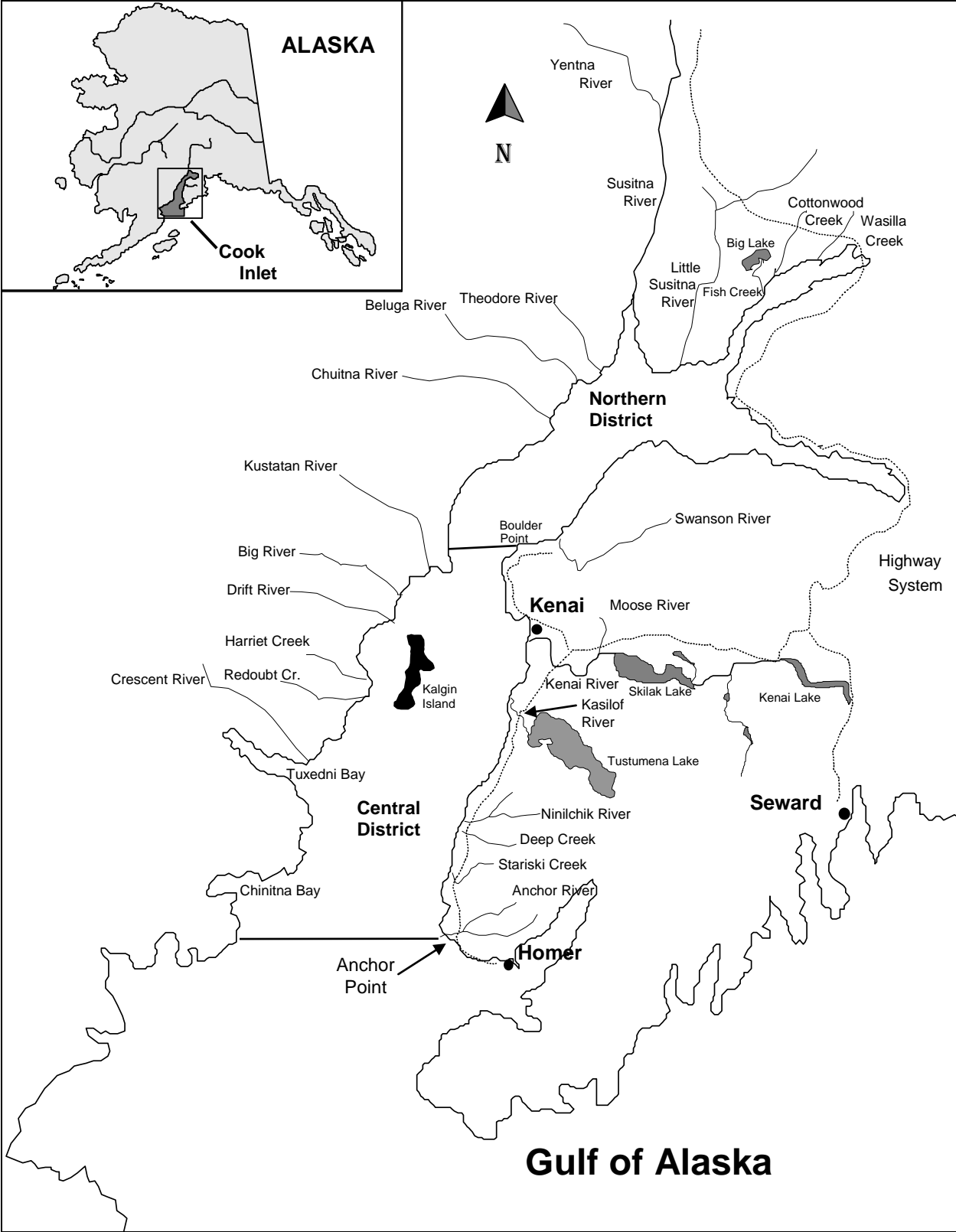


Figure 1.—Major tributaries of the Cook Inlet basin.

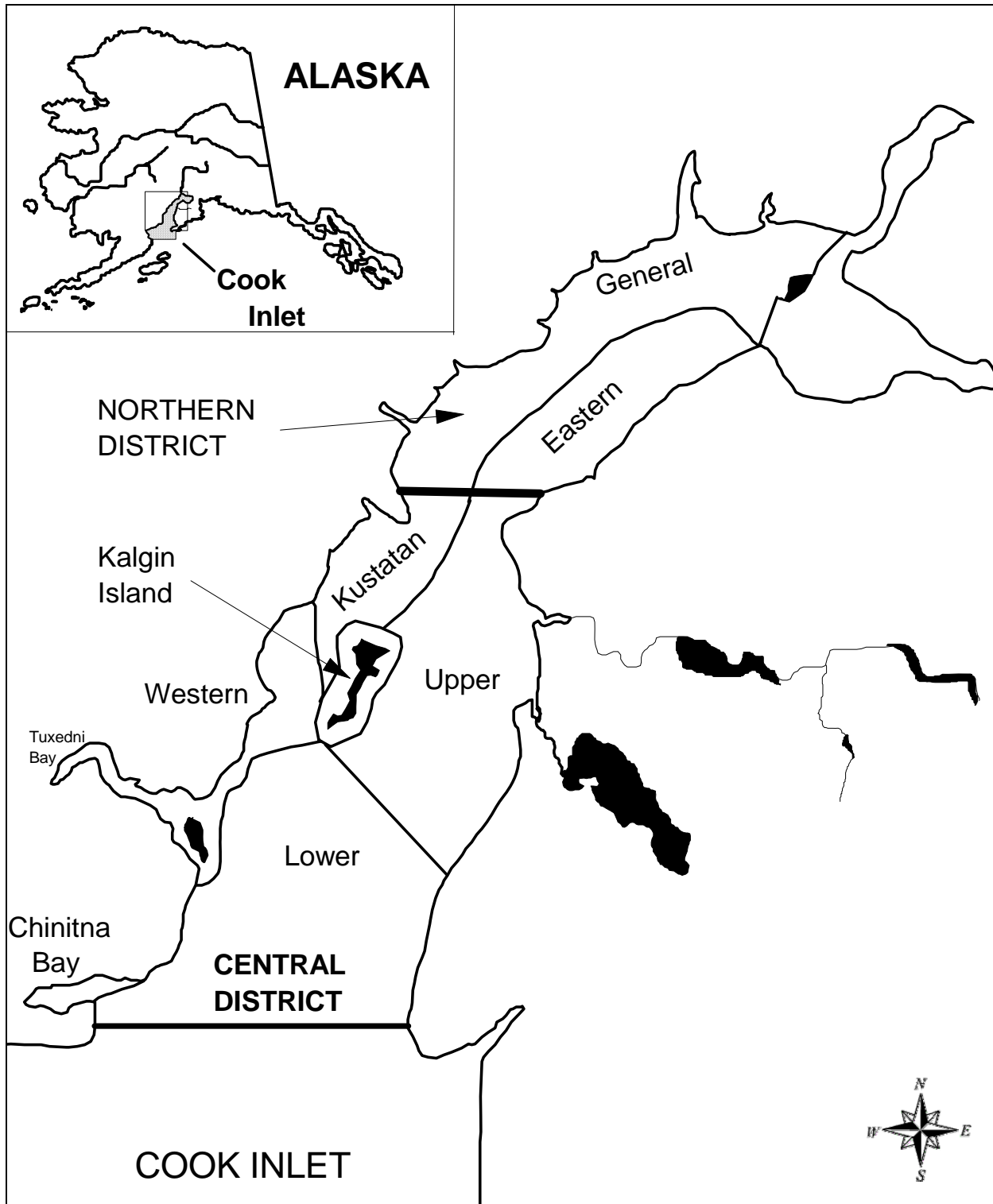


Figure 2.—Upper Cook Inlet commercial fisheries Subdistrict fishing boundaries.

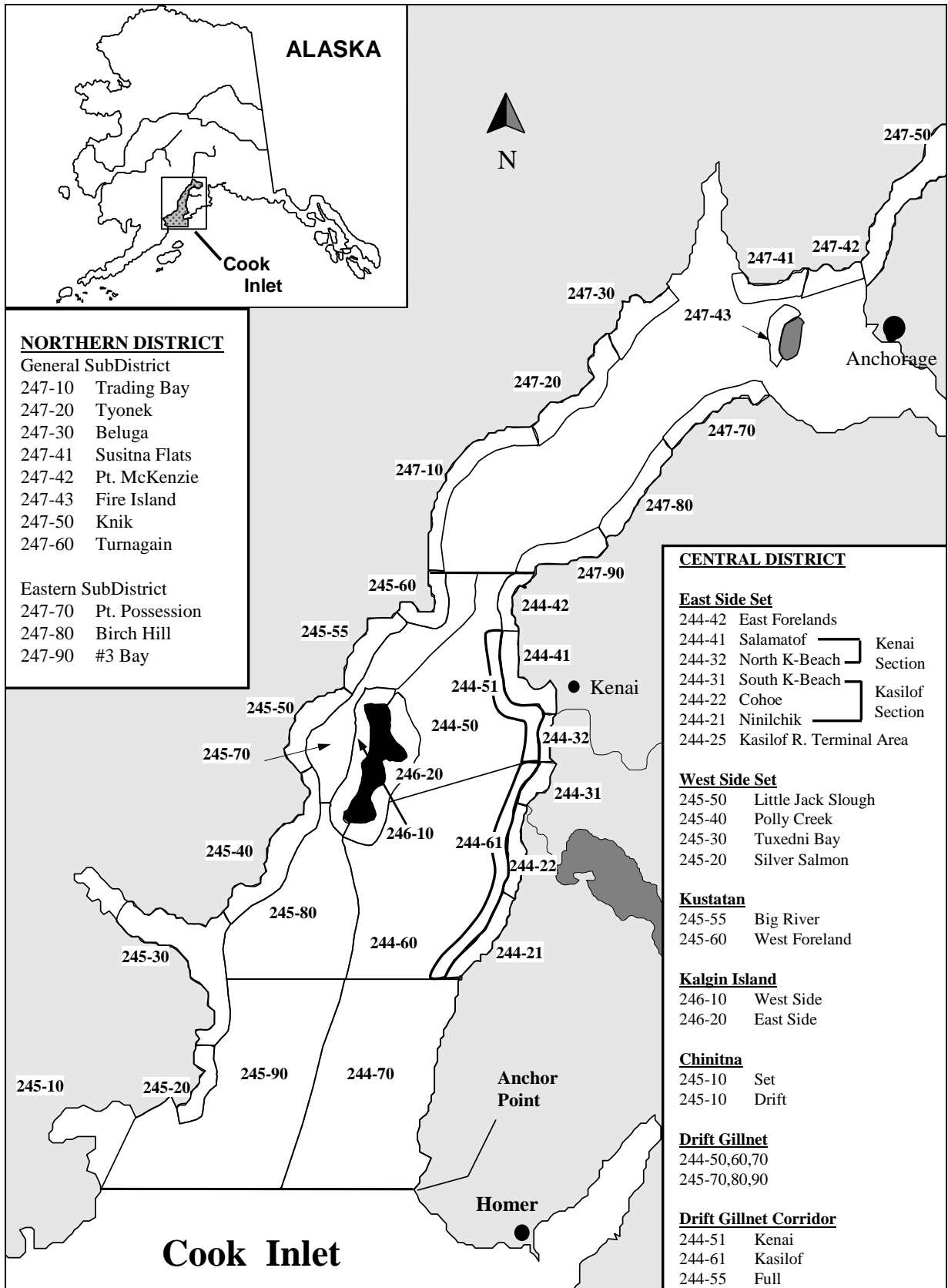


Figure 3.—Upper Cook Inlet commercial fisheries statistical areas.

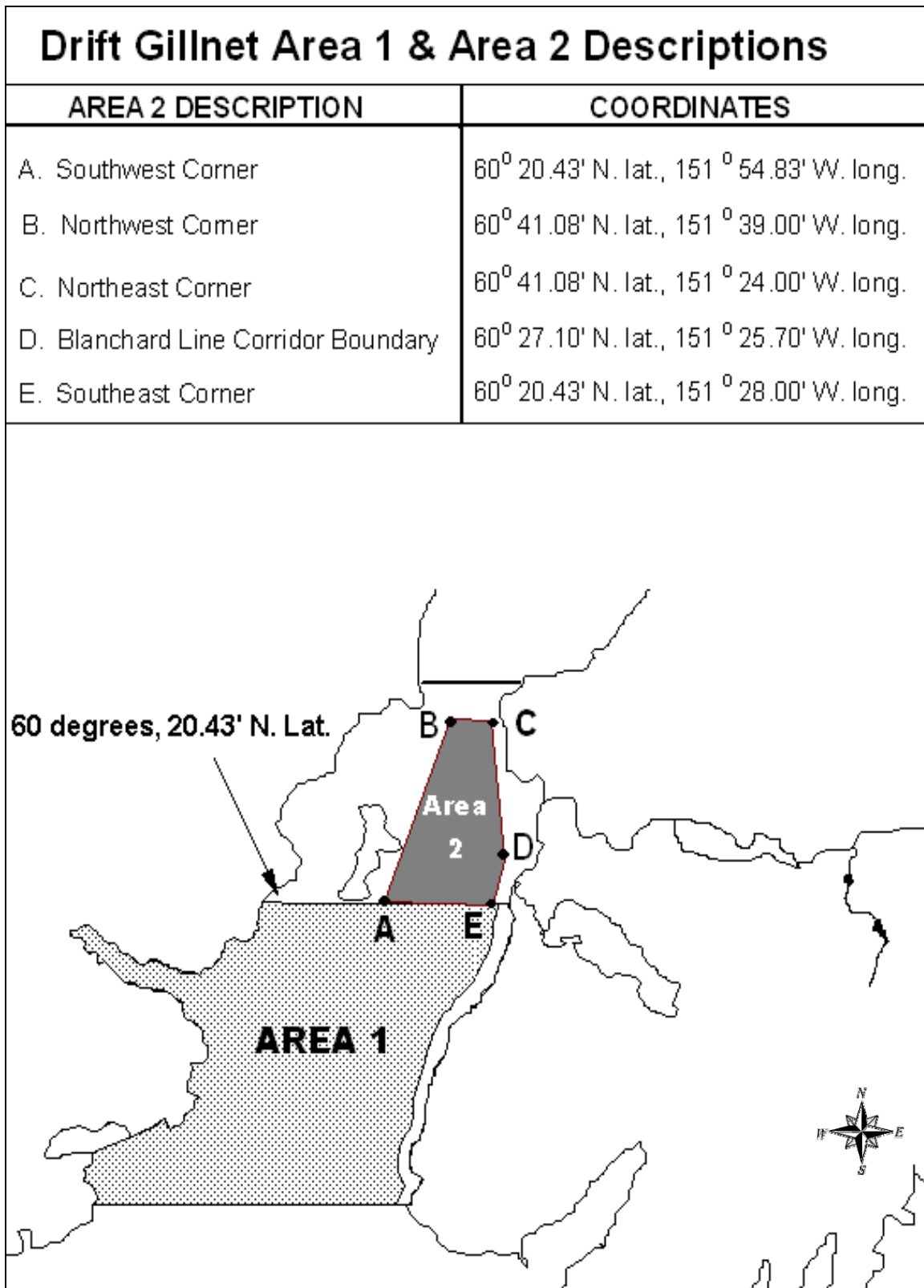


Figure 4.—Drift gillnet boundaries for fishing areas 1 and 2.

AREA 4 LOCATION	COORDINATES
A. Southwest Corner	59° 46.15' N. lat., 153° 00.20' W. long.
B. Northwest Corner	60° 04.70' N. lat., 152° 34.74' W. long.
C. Northeast Corner (Kalgin Buoy)	60° 04.70' N. lat., 152° 09.90' W. long.
D. Southeast Corner	59° 46.15' N. lat., 152° 18.62' W. long.

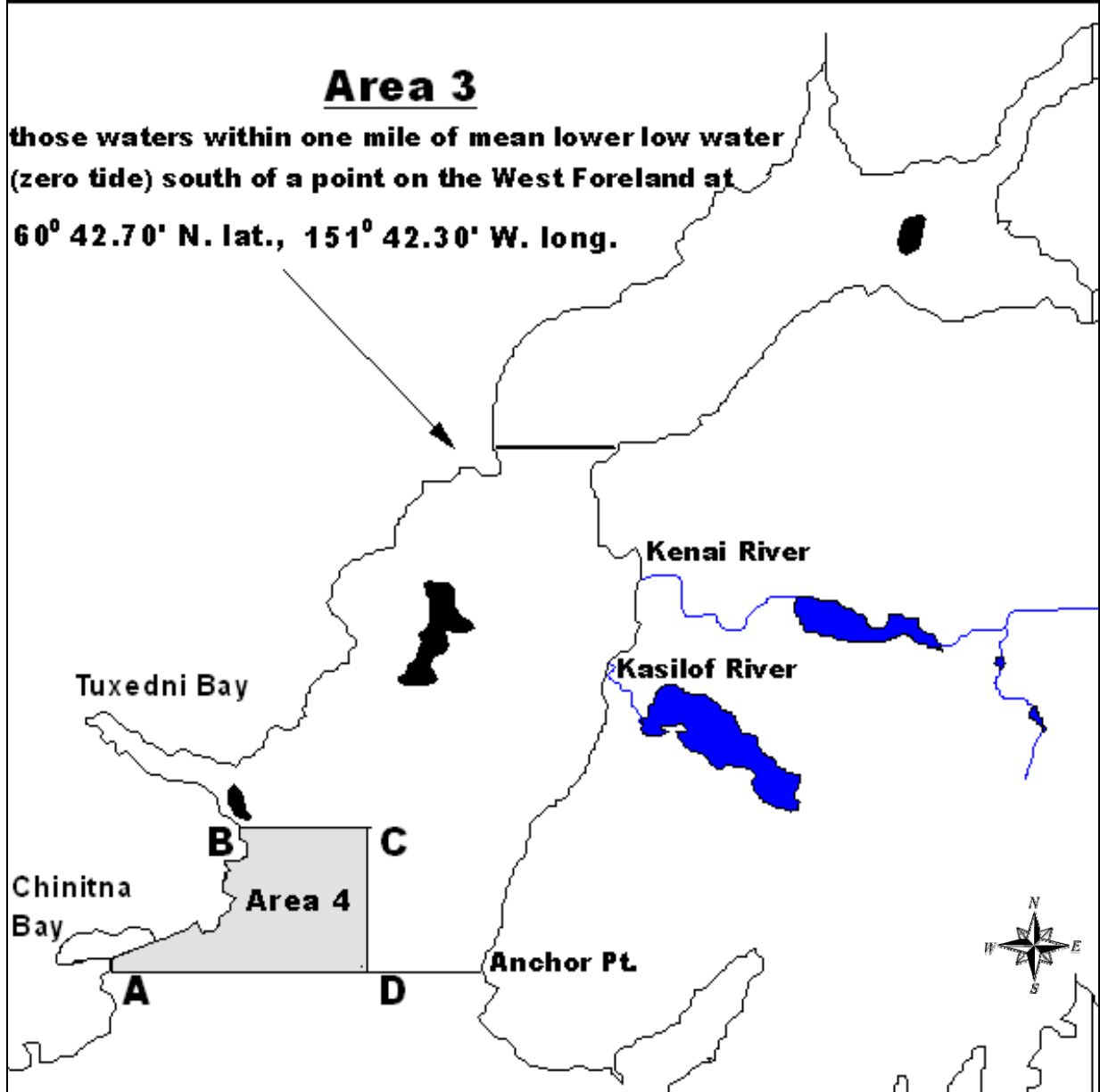


Figure 5.—Drift gillnet boundaries for fishing areas 3 and 4.

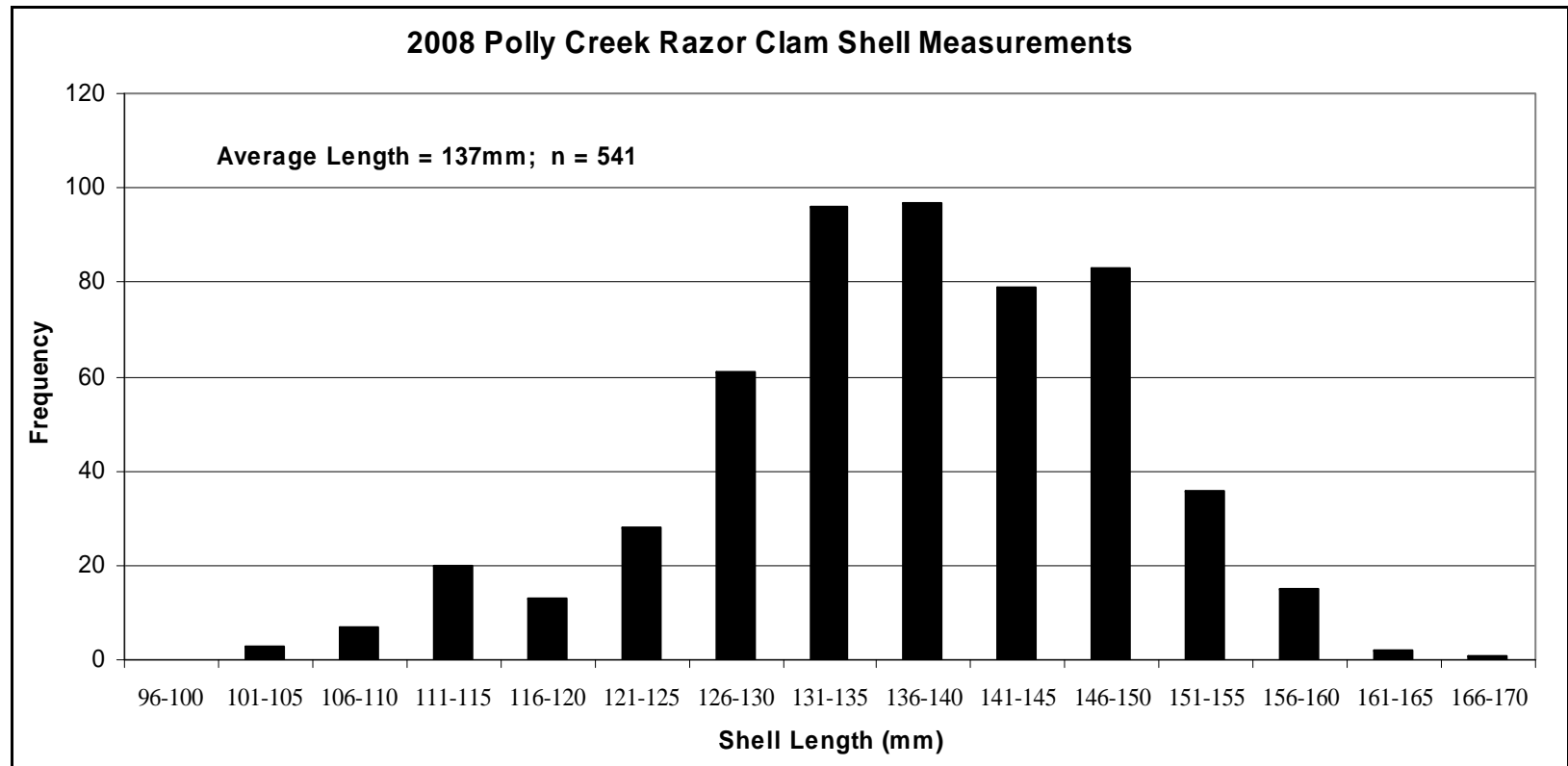


Figure 6.—Length frequency of razor clam shells sampled from the 2008 Polly Creek commercial razor clam fishery.



## **APPENDIX A**

Appendix A1.—Upper Cook Inlet commercial Chinook salmon harvest by gear type and area, 1966–2008.

Year	Central District						Northern District		Total
	Drift Gillnet		Upper Subdistrict Set		Kalgin/West Side Set		Set Gillnet		
	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	
1966	392	4.6	7,329	85.8	401	4.7	422	4.9	8,544
1967	489	6.2	6,686	85.1	500	6.4	184	2.3	7,859
1968	182	4.0	3,304	72.8	579	12.8	471	10.4	4,536
1969	362	2.9	5,834	47.1	3,286	26.5	2,904	23.4	12,386
1970	356	4.3	5,368	64.4	1,152	13.8	1,460	17.5	8,336
1971	237	1.2	7,055	35.7	2,875	14.5	9,598	48.6	19,765
1972	375	2.3	8,599	53.5	2,199	13.7	4,913	30.5	16,086
1973	244	4.7	4,411	84.9	369	7.1	170	3.3	5,194
1974	422	6.4	5,571	84.5	434	6.6	169	2.6	6,596
1975	250	5.2	3,675	76.8	733	15.3	129	2.7	4,787
1976	690	6.4	8,249	75.9	1,469	13.5	457	4.2	10,865
1977	3,411	23.1	9,730	65.8	1,084	7.3	565	3.8	14,790
1978	2,072	12.0	12,468	72.1	2,093	12.1	666	3.8	17,299
1979	1,089	7.9	8,671	63.1	2,264	16.5	1,714	12.5	13,738
1980	889	6.4	9,643	69.9	2,273	16.5	993	7.2	13,798
1981	2,320	19.0	8,358	68.3	837	6.8	725	5.9	12,240
1982	1,293	6.2	13,658	65.4	3,203	15.3	2,716	13.0	20,870
1983	1,125	5.5	15,042	72.9	3,534	17.1	933	4.5	20,634
1984	1,377	13.7	6,165	61.3	1,516	15.1	1,004	10.0	10,062
1985	2,048	8.5	17,723	73.6	2,427	10.1	1,890	7.8	24,088
1986	1,834	4.7	19,824	50.5	2,108	5.4	15,488	39.5	39,254

-continued-

Year	Central District						Northern District		Total
	Drift Gillnet		Upper Subdistrict Set		Kalgin/West Side Set		Set Gillnet		
	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	
1987	4,552	11.5	21,150	53.6	1,029	2.6	12,700	32.2	39,431
1988	2,237	7.7	12,859	44.2	1,148	3.9	12,836	44.1	29,080
1989			10,914	40.8	3,092	11.6	12,731	47.6	26,737
1990	621	3.9	4,139	25.7	1,763	10.9	9,582	59.5	16,105
1991	246	1.8	4,893	36.1	1,544	11.4	6,859	50.6	13,542
1992	615	3.6	10,718	62.4	1,284	7.5	4,554	26.5	17,171
1993	765	4.1	14,079	74.6	720	3.8	3,307	17.5	18,871
1994	464	2.3	15,575	78.1	730	3.7	3,185	16.0	19,954
1995	594	3.3	12,068	67.4	1,101	6.2	4,130	23.1	17,893
1996	389	2.7	11,564	80.8	395	2.8	1,958	13.7	14,306
1997	627	4.7	11,325	85.2	207	1.6	1,133	8.5	13,292
1998	335	4.1	5,087	62.6	155	1.9	2,547	31.4	8,124
1999	575	4.0	9,463	65.8	1,533	10.7	2,812	19.6	14,383
2000	270	3.7	3,684	50.1	1,089	14.8	2,307	31.4	7,350
2001	619	6.7	6,009	64.6	856	9.2	1,811	19.5	9,295
2002	415	3.3	9,478	74.5	926	7.3	1,895	14.9	12,714
2003	1,240	6.7	14,810	80.1	770	4.2	1,670	9.0	18,490
2004	1,526	5.6	21,684	78.9	2,208	8.0	2,058	7.5	27,476
2005	1,958	7.0	22,101	78.5	739	2.6	3,373	12.0	28,171
2006	2,782	15.4	9,956	55.2	1,030	5.7	4,261	23.6	18,029
2007	912	5.2	12,288	69.7	603	3.4	3,822	21.7	17,625
2008	653	4.9	7,442	56.4	1,124	8.5	3,983	30.2	13,202
1966-07 Avg <sup>a</sup>	1,054	6	10,251	66	1,346	9	3,277	18	15,928
1998-07 Avg	1,063	6	11,456	68	991	7	2,656	19	16,166

<sup>a</sup> Harvest data prior to 2008 reflect minor adjustments to historical catch database.

<sup>b</sup> 1989 not used in average as the drift fleet did not fish due to the Exxon Valdez oil spill; this had an effect on all other fisheries.

Appendix A2.—Upper Cook Inlet commercial sockeye salmon harvest by gear type and area, 1966–2008.

Year	Central District						Northern District		Total
	Drift Gillnet		Upper Subdistrict Set		Kalgin/West Side Set		Set Gillnet		
	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	
1966	1,103,261	60	485,330	26	132,443	7	131,080	7	1,852,114
1967	890,152	65	305,431	22	66,414	5	118,065	9	1,380,062
1968	561,737	51	317,535	29	85,049	8	140,575	13	1,104,896
1969	371,747	54	210,834	30	71,184	10	38,050	6	691,815
1970	460,690	63	142,701	19	62,723	9	66,458	9	732,572
1971	423,107	66	111,505	18	61,144	10	40,533	6	636,289
1972	506,281	58	204,599	23	83,176	9	85,755	10	879,811
1973	375,695	56	188,816	28	59,973	9	45,614	7	670,098
1974	265,771	53	136,889	28	52,962	11	41,563	8	497,185
1975	368,124	54	177,336	26	73,765	11	65,526	10	684,751
1976	1,055,786	63	476,376	29	62,338	4	69,649	4	1,664,149
1977	1,073,098	52	751,178	37	104,265	5	123,750	6	2,052,291
1978	1,803,479	69	660,797	25	105,767	4	51,378	2	2,621,421
1979	454,707	49	247,359	27	108,422	12	113,918	12	924,406
1980	770,247	49	559,812	36	137,882	9	105,647	7	1,573,588
1981	633,380	44	496,003	34	60,217	4	249,662	17	1,439,262
1982	2,103,429	65	971,423	30	66,952	2	118,060	4	3,259,864
1983	3,222,428	64	1,508,511	30	134,575	3	184,219	4	5,049,733
1984	1,235,337	59	490,273	23	162,139	8	218,965	10	2,106,714
1985	2,032,957	50	1,561,200	38	285,081	7	181,191	4	4,060,429
1986	2,837,857	59	1,658,161	35	153,714	3	141,830	3	4,791,562

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Year	Central District						Northern District		Total
	Drift Gillnet		Upper Subdistrict Set		Kalgin/West Side Set		Set Gillnet		
	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	
1987	5,638,916	60	3,454,470	36	208,036	2	164,572	2	9,465,994
1988	4,139,358	60	2,428,385	35	146,377	2	129,713	2	6,843,833
1989			4,543,492	91	186,831	4	280,801	6	5,011,124
1990	2,305,331	64	1,117,581	31	84,949	2	96,398	3	3,604,259
1991	1,118,115	51	844,156	39	99,859	5	116,201	5	2,178,331
1992	6,069,495	67	2,838,076	31	131,304	1	69,478	1	9,108,353
1993	2,558,732	54	1,941,783	41	108,181	2	146,633	3	4,755,329
1994	1,901,452	53	1,458,162	41	85,830	2	120,142	3	3,565,586
1995	1,773,873	60	961,216	33	107,640	4	109,098	4	2,951,827
1996	2,205,067	57	1,483,008	38	96,719	2	104,128	3	3,888,922
1997	2,197,736	53	1,832,824	44	48,723	1	97,455	2	4,176,738
1998	599,202	49	512,225	42	47,165	4	60,650	5	1,219,242
1999	1,413,995	53	1,092,946	41	114,454	4	59,115	2	2,680,510
2000	656,427	50	529,747	40	92,477	7	43,831	3	1,322,482
2001	846,257	46	870,019	48	59,709	3	50,848	3	1,826,833
2002	1,367,251	49	1,303,158	47	69,609	3	33,100	1	2,773,118
2003	1,593,638	46	1,746,841	50	87,193	3	48,487	1	3,476,159
2004	2,528,910	51	2,235,810	45	134,356	3	27,144	1	4,926,220
2005	2,520,300	48	2,533,841	48	157,612	3	26,415	1	5,238,168
2006	784,771	36	1,301,275	59	94,054	4	12,630	1	2,192,730
2007	1,823,481	55	1,353,407	41	122,424	4	17,467	1	3,316,779
2008	983,303	41	1,294,819	55	67,366	3	26,230	1	2,371,718
1966-07 Avg <sup>a</sup>	1,624,185	55	1,061,000	35	103,094	5	94,268	5	2,882,547
1998-07 Avg	1,413,423	48	1,347,927	46	97,905	4	37,969	2	2,897,224

<sup>a</sup> Harvest data prior to 2008 reflect minor adjustments to the historical catch database.

<sup>b</sup> 1989 not used in average, as the drift fleet did not fish due to the Exxon Valdez oil spill; this had an effect on all other fisheries.

Appendix A3.—Upper Cook Inlet commercial coho salmon harvest by gear type and area, 1966–2008.

Year	Central District						Northern District		Total
	Drift Gillnet		Upper Subdistrict Set		Kalgin/West Side Set		Set Gillnet		
	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	
1966	80,901	27.9	68,877	23.8	59,509	20.5	80,550	27.8	289,837
1967	53,071	29.9	40,738	22.9	40,066	22.5	43,854	24.7	177,729
1968	167,383	35.8	80,828	17.3	63,301	13.5	156,648	33.5	468,160
1969	33,053	32.8	18,988	18.9	28,231	28.0	20,412	20.3	100,684
1970	110,070	40.0	30,114	10.9	52,299	19.0	82,722	30.1	275,205
1971	35,491	35.4	16,589	16.5	26,188	26.1	22,094	22.0	100,362
1972	21,577	26.7	24,673	30.5	15,300	18.9	19,346	23.9	80,896
1973	31,784	30.4	23,901	22.9	24,784	23.7	23,951	22.9	104,420
1974	75,640	37.8	36,837	18.4	40,610	20.3	47,038	23.5	200,125
1975	88,579	39.0	46,209	20.3	59,537	26.2	33,051	14.5	227,376
1976	80,712	38.7	47,873	22.9	42,243	20.2	37,835	18.1	208,663
1977	110,184	57.2	23,693	12.3	38,093	19.8	20,623	10.7	192,593
1978	76,259	34.8	34,134	15.6	61,711	28.2	47,089	21.5	219,193
1979	114,496	43.2	29,284	11.0	68,306	25.8	53,078	20.0	265,164
1980	89,510	33.0	40,281	14.8	51,527	19.0	90,098	33.2	271,416
1981	226,366	46.7	36,024	7.4	88,390	18.2	133,625	27.6	484,405
1982	416,274	52.5	108,393	13.7	182,205	23.0	85,352	10.8	792,224
1983	326,965	63.3	37,694	7.3	97,796	18.9	53,867	10.4	516,322
1984	213,423	47.4	37,166	8.3	84,618	18.8	114,786	25.5	449,993
1985	357,388	53.6	70,657	10.6	147,331	22.1	91,837	13.8	667,213
1986	506,818	66.9	76,461	10.1	85,932	11.4	88,108	11.6	757,319

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Year	Central District						Northern District		Total
	Drift Gillnet		Upper Subdistrict Set		Kalgin/West Side Set		Set Gillnet		
	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	
1987	202,506	44.8	74,923	16.6	74,930	16.6	97,062	21.9	449,421
1988	278,828	49.6	54,975	9.9	77,403	13.8	149,742	26.7	560,948
1989	743	0.2	82,333	24.1	81,004	23.9	175,738	51.8	339,818
1990	247,357	49.3	40,351	8.0	73,429	14.6	140,506	28.0	501,643
1991	175,782	41.2	30,435	7.1	87,968	20.6	132,302	31.0	426,487
1992	267,300	57.0	57,078	12.2	53,419	11.4	91,133	19.4	468,930
1993	121,829	39.7	43,098	14.0	35,661	11.6	106,294	34.6	306,882
1994	310,114	52.7	68,449	11.9	61,166	10.5	144,064	24.8	583,793
1995	241,473	54.0	44,750	10.0	71,431	16.0	89,300	20.0	446,954
1996	171,434	53.3	40,724	12.6	31,405	9.8	78,105	24.3	321,668
1997	78,662	51.6	19,668	12.9	16,705	11.0	37,369	24.5	152,404
1998	83,338	51.9	18,677	11.6	24,286	15.1	34,359	21.4	160,660
1999	64,814	51.5	11,923	9.3	17,725	14.1	31,446	25.1	125,908
2000	131,478	55.5	11,078	4.7	22,840	9.6	71,475	30.2	236,871
2001	39,418	34.8	4,246	3.7	23,719	20.9	45,928	40.5	113,311
2002	125,831	51.1	35,153	14.3	35,005	14.2	50,292	20.4	246,281
2003	52,432	51.5	10,171	10.0	15,138	14.9	24,015	23.6	101,756
2004	199,585	64.2	30,154	9.7	36,498	11.7	44,819	14.4	311,056
2005	144,753	64.4	19,543	8.7	29,502	13.1	30,859	13.7	224,657
2006	98,473	55.4	22,167	12.5	36,845	20.7	20,368	11.5	177,853
2007	108,703	61.3	23,578	13.3	23,495	13.2	21,563	12.2	177,339
2008	89,428	52.1	21,691	12.6	18,441	10.7	42,177	24.6	171,737
1966-07 Avg <sup>a</sup>	155,123	47	38,794	13	53,818	18	67,975	22	315,710
1998-07 Avg	104,883	54	18,669	10	26,505	15	37,512	21	187,569

<sup>a</sup> Harvest data prior to 2008 reflect minor adjustments to historical catch database.

<sup>b</sup> 1989 not used in average as the drift fleet did not fish due to the Exxon Valdez oil spill; this had an effect on all other fisheries.

Appendix A4.—Upper Cook Inlet commercial pink salmon harvest by gear type and area, 1966–2008.

Year	Central District						Northern District		Total
	Drift Gillnet		Upper Subdistrict Set		Kalgin/West Side Set		Set Gillnet		
	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	
1966	593,654	29.6	969,624	48.3	70,507	3.5	371,960	18.5	2,005,745
1967	7,475	23.2	13,038	40.5	3,256	10.1	8,460	26.2	32,229
1968	880,512	38.7	785,887	34.5	75,755	3.3	534,839	23.5	2,276,993
1969	8,233	25.3	10,968	33.7	5,711	17.6	7,587	23.3	32,499
1970	334,737	41.1	281,067	34.5	24,763	3.0	174,193	21.4	814,760
1971	6,433	18.1	18,097	50.8	2,637	7.4	8,423	23.7	35,590
1972	115,117	18.3	403,706	64.2	18,913	3.0	90,830	14.5	628,566
1973	91,901	28.2	80,596	24.7	16,437	5.0	137,250	42.1	326,184
1974	140,432	29.0	291,408	60.2	9,014	1.9	42,876	8.9	483,730
1975	113,868	33.9	112,423	33.4	19,086	5.7	90,953	27.0	336,330
1976	599,594	47.7	479,024	38.1	30,030	2.4	148,080	11.8	1,256,728
1977	286,308	51.7	125,817	22.7	25,212	4.6	116,518	21.0	553,855
1978	934,442	55.3	372,601	22.1	54,785	3.2	326,614	19.3	1,688,442
1979	19,554	26.8	19,983	27.4	7,061	9.7	26,382	36.1	72,980
1980	964,526	54.0	299,444	16.8	47,963	2.7	474,488	26.6	1,786,421
1981	53,888	42.4	15,654	12.3	4,276	3.4	53,325	41.9	127,143
1982	270,380	34.2	432,715	54.7	14,242	1.8	73,307	9.3	790,644
1983	26,629	37.9	18,309	26.0	3,785	5.4	21,604	30.7	70,327
1984	273,565	44.3	220,895	35.8	16,708	2.7	106,284	17.2	617,452
1985	34,228	39.0	17,715	20.2	5,653	6.4	30,232	34.4	87,828
1986	615,522	47.3	530,955	40.8	15,460	1.2	139,002	10.7	1,300,939

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Year	Central District						Northern District		Total
	Drift Gillnet		Upper Subdistrict Set		Kalgin/West Side Set		Set Gillnet		
	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	
1987	38,714	35.4	47,235	43.2	5,229	4.8	18,203	16.6	109,381
1988	227,885	48.4	176,043	37.4	12,938	2.7	54,210	11.5	471,076
1989	1	0.0	37,982	56.3	5,580	8.3	23,878	35.4	67,441
1990	323,759	53.7	225,429	37.4	10,302	1.7	43,944	7.3	603,434
1991	5,791	39.5	2,670	18.2	1,049	7.2	5,153	35.1	14,663
1992	423,738	60.9	244,068	35.1	4,250	0.6	23,805	3.4	695,861
1993	46,463	46.0	41,690	41.3	2,313	2.3	10,468	10.4	100,934
1994	256,248	49.0	234,827	44.9	3,178	0.6	29,181	5.6	523,434
1995	64,632	48.4	53,420	40.0	3,810	2.9	11,713	8.8	133,575
1996	122,728	50.5	95,717	39.4	3,792	1.6	20,674	8.5	242,911
1997	29,917	42.2	32,046	45.2	4,701	6.6	4,269	6.0	70,933
1998	200,382	36.3	332,092	60.2	7,231	1.3	11,555	2.1	551,260
1999	3,552	22.0	9,355	57.8	2,674	16.5	593	3.7	16,174
2000	90,508	61.8	23,746	16.2	11,983	8.2	20,245	13.8	146,482
2001	31,218	43.0	32,998	45.5	3,988	5.5	4,355	6.0	72,559
2002	224,229	50.2	214,771	48.1	1,736	0.4	6,224	1.4	446,960
2003	30,376	62.3	16,474	33.8	375	0.8	1,564	3.2	48,789
2004	235,524	65.8	107,838	30.1	12,560	3.5	2,017	0.6	357,939
2005	31,230	64.5	13,619	28.1	2,747	5.7	823	1.7	48,419
2006	212,808	52.7	184,990	45.8	4,684	1.2	1,629	0.4	404,111
2007	67,398	45.8	69,918	47.6	6,177	4.2	3,527	2.4	147,020
2008	103,867	61.5	59,142	35.0	2,357	1.4	3,524	2.1	168,890
1966-07 Avg <sup>a</sup>	210,564	42.4	178,198	37.4	14,038	4.5	77,959	15.7	480,759
1998-07 Avg	112,723	50.4	100,580	41.3	5,416	4.7	5,253	3.5	223,971

<sup>a</sup> Harvest data prior to 2008 reflect minor adjustments to historical catch database.

<sup>b</sup> 1989 not used in average as the drift fleet did not fish due to the Exxon Valdez oil spill; this had an effect on all other fisheries.

Appendix A5.—Upper Cook Inlet commercial chum salmon harvest by gear type and area, 1966–2008.

Year	Central District						Northern District		Total
	Drift Gillnet		Upper Subdistrict Set		Kalgin/West Side Set		Set Gillnet		
	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	
1966	424,972	79.8	7,461	1.4	64,725	12.1	35,598	6.7	532,756
1967	233,041	78.5	399	0.1	25,013	8.4	38,384	12.9	296,837
1968	1,002,900	90.5	1,563	0.1	44,986	4.1	58,454	5.3	1,107,903
1969	238,497	89.1	399	0.1	16,954	6.3	11,836	4.4	267,686
1970	678,448	90.4	1,228	0.2	48,591	6.5	22,507	3.0	750,774
1971	274,567	84.8	128	0.0	32,647	10.1	16,603	5.1	323,945
1972	564,726	90.2	1,727	0.3	40,179	6.4	19,782	3.2	626,414
1973	605,738	90.7	1,965	0.3	29,019	4.3	30,851	4.6	667,573
1974	344,496	86.8	506	0.1	15,346	3.9	36,492	9.2	396,840
1975	886,474	93.2	980	0.1	33,347	3.5	30,787	3.2	951,588
1976	405,769	86.5	1,484	0.3	47,882	10.2	14,045	3.0	469,180
1977	1,153,454	93.5	1,413	0.1	54,708	4.4	23,861	1.9	1,233,436
1978	489,119	85.5	4,563	0.8	40,946	7.2	37,151	6.5	571,779
1979	609,239	93.8	867	0.1	30,342	4.7	9,310	1.4	649,758
1980	339,970	87.7	2,147	0.6	28,970	7.5	16,728	4.3	387,815
1981	756,922	91.0	2,386	0.3	26,461	3.2	46,208	5.6	831,977
1982	1,348,510	94.1	4,777	0.3	36,647	2.6	43,006	3.0	1,432,940
1983	1,044,636	93.7	2,822	0.3	38,079	3.4	29,321	2.6	1,114,858
1984	568,097	83.5	3,695	0.5	34,207	5.0	74,727	11.0	680,726
1985	700,848	90.7	4,133	0.5	31,746	4.1	36,122	4.7	772,849
1986	1,012,669	89.2	7,030	0.6	39,078	3.4	76,040	6.7	1,134,817

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Year	Central District						Northern District		Total
	Drift Gillnet		Upper Subdistrict Set		Kalgin/West Side Set		Set Gillnet		
	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	
1987	211,745	60.7	16,605	4.8	53,558	15.4	66,901	19.2	348,809
1988	582,699	82.0	11,763	1.7	40,425	5.7	75,728	10.7	710,615
1989	72	0.1	12,326	10.1	27,705	22.7	81,948	67.1	122,051
1990	289,447	82.4	4,611	1.3	21,355	6.1	35,710	10.2	351,123
1991	215,469	76.9	2,387	0.9	22,974	8.2	39,393	14.1	280,223
1992	232,955	84.9	2,867	1.0	13,180	4.8	25,301	9.2	274,303
1993	88,826	72.4	2,977	2.4	5,566	4.5	25,401	20.7	122,770
1994	249,748	82.4	2,927	1.0	10,443	3.4	40,059	13.2	303,177
1995	468,224	88.4	3,711	0.7	13,820	2.6	43,667	8.2	529,422
1996	140,968	90.1	1,448	0.9	2,314	1.5	11,771	7.5	156,501
1997	92,163	89.4	1,222	1.2	1,770	1.7	7,881	7.6	103,036
1998	88,036	92.0	688	0.7	2,953	3.1	3,977	4.2	95,654
1999	166,612	95.5	373	0.2	3,567	2.0	3,989	2.3	174,541
2000	118,074	92.9	325	0.3	4,386	3.5	4,284	3.4	127,069
2001	75,599	89.5	248	0.3	6,445	7.6	2,202	2.6	84,494
2002	224,587	94.4	1,790	0.8	6,671	2.8	4,901	2.1	237,949
2003	106,468	88.2	1,933	1.6	7,883	6.5	4,483	3.7	120,767
2004	137,040	93.8	2,019	1.4	4,957	3.4	2,148	1.5	146,164
2005	65,671	94.2	710	1.0	2,632	3.8	727	1.0	69,740
2006	59,965	93.6	347	0.5	3,241	5.1	480	0.7	64,033
2007	74,836	96.9	521	0.7	1,275	1.7	608	0.8	77,240
2008	46,010	91.4	430	0.9	2,243	4.5	1,629	3.2	50,312
1966-07 Avg <sup>a</sup>	423,713	87.9	2,711	0.7	24,129	5.2	27,010	6.1	477,563
1998-07 Avg	111,689	93.1	895	0.7	4,401	3.9	2,780	2.2	119,765

<sup>a</sup> Harvest data prior to 2008 reflect minor adjustments to historical catch database.

<sup>b</sup> 1989 not used in average as the drift fleet did not fish due to the Exxon Valdez oil spill; this had an effect on all other fisheries.

Appendix A6.—Upper Cook Inlet commercial salmon harvest by species, 1966–2008.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1966	8,544	1,852,114	289,837	2,005,745	532,756	4,688,996
1967	7,859	1,380,062	177,729	32,229	296,837	1,894,716
1968	4,536	1,104,896	468,160	2,276,993	1,107,903	4,962,488
1969	12,386	691,815	100,684	32,499	267,686	1,105,070
1970	8,336	732,572	275,205	814,760	750,774	2,581,647
1971	19,765	636,289	100,362	35,590	323,945	1,115,951
1972	16,086	879,811	80,896	628,566	626,414	2,231,773
1973	5,194	670,098	104,420	326,184	667,573	1,773,469
1974	6,596	497,185	200,125	483,730	396,840	1,584,476
1975	4,787	684,751	227,376	336,330	951,588	2,204,832
1976	10,865	1,664,149	208,663	1,256,728	469,180	3,609,585
1977	14,790	2,052,291	192,593	553,855	1,233,436	4,046,965
1978	17,299	2,621,421	219,193	1,688,442	571,779	5,118,134
1979	13,738	924,406	265,164	72,980	649,758	1,926,046
1980	13,798	1,573,588	271,416	1,786,421	387,815	4,033,038
1981	12,240	1,439,262	484,405	127,143	831,977	2,895,027
1982	20,870	3,259,864	792,224	790,644	1,432,940	6,296,542
1983	20,634	5,049,733	516,322	70,327	1,114,858	6,771,874
1984	10,062	2,106,714	449,993	617,452	680,726	3,864,947
1985	24,088	4,060,429	667,213	87,828	772,849	5,612,407
1986	39,254	4,791,562	757,319	1,300,939	1,134,817	8,023,891
1987	39,431	9,465,994	449,421	109,381	348,809	10,413,036
1988	29,080	6,843,833	560,948	471,076	710,615	8,615,552
1989	26,737	5,011,124	339,818	67,441	122,051	5,567,171
1990	16,105	3,604,259	501,643	603,434	351,123	5,076,564
1991	13,542	2,178,331	426,487	14,663	280,223	2,913,246
1992	17,171	9,108,353	468,930	695,861	274,303	10,564,618
1993	18,871	4,755,329	306,882	100,934	122,770	5,304,786
1994	19,954	3,565,586	583,793	523,434	303,177	4,995,944

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Appendix A6.–Page 2 of 2.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1995	17,893	2,951,827	446,954	133,575	529,422	4,079,671
1996	14,306	3,888,922	321,668	242,911	156,501	4,624,308
1997	13,292	4,176,738	152,404	70,933	103,036	4,516,403
1998	8,124	1,219,242	160,660	551,260	95,654	2,034,940
1999	14,383	2,680,510	125,908	16,174	174,541	3,011,516
2000	7,350	1,322,482	236,871	146,482	127,069	1,840,254
2001	9,295	1,826,833	113,311	72,559	84,494	2,106,492
2002	12,714	2,773,118	246,281	446,960	237,949	3,717,022
2003	18,490	3,476,159	101,756	48,789	120,767	3,765,961
2004	27,476	4,926,220	311,056	357,939	146,164	5,768,855
2005	28,171	5,238,168	224,657	48,419	69,740	5,609,155
2006	18,029	2,192,730	177,853	404,111	64,033	2,856,756
2007	17,625	3,316,779	177,339	147,020	77,240	3,736,003
2008	13,202	2,371,718	171,737	168,890	50,312	2,775,859
1966-2007 Avg	16,185	2,933,227	316,284	490,446	469,098	4,225,241
1998-2007 Avg	16,166	2,897,224	187,569	223,971	119,765	3,444,695

*Note:* Catch statistics prior to 2008 reflect minor adjustments to harvest database.

Appendix A7.—Approximate exvessel value of Upper Cook Inlet commercial salmon harvest by species, 1960–2008.

Year	Chinook	%	Sockeye	%	Coho	%	Pink	%	Chum	%	Total
1960	\$ 140,000	5.0%	\$ 1,334,000	47.9%	\$ 307,000	11.0%	\$ 663,000	23.8%	\$ 343,000	12.3%	\$ 2,787,000
1961	\$ 100,000	4.7%	\$ 1,687,000	79.4%	\$ 118,000	5.6%	\$ 16,000	0.8%	\$ 204,000	9.6%	\$ 2,125,000
1962	\$ 100,000	2.5%	\$ 1,683,000	42.3%	\$ 342,000	8.6%	\$ 1,274,000	32.0%	\$ 582,000	14.6%	\$ 3,981,000
1963	\$ 89,000	4.6%	\$ 1,388,000	72.3%	\$ 193,000	10.1%	\$ 13,000	0.7%	\$ 236,000	12.3%	\$ 1,919,000
1964	\$ 20,000	0.5%	\$ 1,430,000	38.9%	\$ 451,000	12.3%	\$ 1,131,000	30.8%	\$ 646,000	17.6%	\$ 3,678,000
1965	\$ 50,000	2.0%	\$ 2,099,000	82.1%	\$ 109,000	4.3%	\$ 70,000	2.7%	\$ 230,000	9.0%	\$ 2,558,000
1966	\$ 50,000	1.2%	\$ 2,727,000	64.4%	\$ 295,000	7.0%	\$ 823,000	19.4%	\$ 338,000	8.0%	\$ 4,233,000
1967	\$ 49,000	1.9%	\$ 2,135,000	82.6%	\$ 187,000	7.2%	\$ 13,000	0.5%	\$ 202,000	7.8%	\$ 2,586,000
1968	\$ 30,000	0.7%	\$ 1,758,000	40.4%	\$ 515,000	11.8%	\$ 1,209,000	27.8%	\$ 843,000	19.4%	\$ 4,355,000
1969	\$ 70,000	4.0%	\$ 1,296,697	73.9%	\$ 134,003	7.6%	\$ 18,291	1.0%	\$ 236,404	13.5%	\$ 1,755,394
1970	\$ 89,382	3.0%	\$ 1,190,303	39.9%	\$ 468,179	15.7%	\$ 456,354	15.3%	\$ 780,622	26.2%	\$ 2,984,840
1971	\$ 189,504	9.2%	\$ 1,250,771	61.0%	\$ 137,815	6.7%	\$ 18,402	0.9%	\$ 454,483	22.2%	\$ 2,050,974
1972	\$ 224,396	6.3%	\$ 1,863,177	52.6%	\$ 137,315	3.9%	\$ 478,246	13.5%	\$ 840,057	23.7%	\$ 3,543,192
1973	\$ 121,156	2.0%	\$ 3,225,847	52.3%	\$ 318,950	5.2%	\$ 362,658	5.9%	\$ 2,135,025	34.6%	\$ 6,163,635
1974	\$ 209,712	3.2%	\$ 3,072,221	46.8%	\$ 843,048	12.8%	\$ 919,916	14.0%	\$ 1,517,637	23.1%	\$ 6,562,535
1975	\$ 63,990	1.0%	\$ 2,628,036	39.2%	\$ 838,859	12.5%	\$ 419,173	6.3%	\$ 2,752,555	41.1%	\$ 6,702,612
1976	\$ 274,172	2.0%	\$ 8,668,095	63.4%	\$ 819,006	6.0%	\$ 1,874,915	13.7%	\$ 2,041,225	14.9%	\$ 13,677,413
1977	\$ 523,776	2.4%	\$ 13,318,720	61.8%	\$ 932,540	4.3%	\$ 767,273	3.6%	\$ 5,995,611	27.8%	\$ 21,537,920
1978	\$ 661,375	2.0%	\$ 26,167,741	80.3%	\$ 1,380,312	4.2%	\$ 2,154,176	6.6%	\$ 2,217,510	6.8%	\$ 32,581,114
1979	\$ 616,360	4.2%	\$ 8,093,280	55.3%	\$ 1,640,277	11.2%	\$ 82,339	0.6%	\$ 4,199,765	28.7%	\$ 14,632,021
1980	\$ 414,771	3.2%	\$ 7,937,699	61.7%	\$ 891,098	6.9%	\$ 2,114,283	16.4%	\$ 1,513,960	11.8%	\$ 12,871,810
1981	\$ 424,390	2.3%	\$ 11,080,411	60.1%	\$ 2,623,598	14.2%	\$ 170,038	0.9%	\$ 4,150,158	22.5%	\$ 18,448,596
1982	\$ 763,267	2.4%	\$ 25,154,115	80.0%	\$ 4,080,570	13.0%	\$ 553,635	1.8%	\$ 886,129	2.8%	\$ 31,437,716
1983	\$ 590,730	2.0%	\$ 24,016,294	81.8%	\$ 1,601,976	5.5%	\$ 41,338	0.1%	\$ 3,109,814	10.6%	\$ 29,360,152

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Appendix A7.–Page 2 of 2.

Year	Chinook	%	Sockeye	%	Coho	%	Pink	%	Chum	%	Total
1984	\$ 310,899	1.8%	\$ 12,450,532	71.8%	\$ 2,039,681	11.8%	\$ 522,795	3.0%	\$ 2,011,253	11.6%	\$ 17,335,160
1985	\$ 799,318	2.3%	\$ 27,497,929	80.0%	\$ 3,359,824	9.8%	\$ 57,412	0.2%	\$ 2,644,995	7.7%	\$ 34,359,478
1986	\$ 915,189	2.0%	\$ 38,683,950	83.3%	\$ 2,909,043	6.3%	\$ 724,367	1.6%	\$ 3,197,973	6.9%	\$ 46,430,522
1987	\$ 1,609,777	1.6%	\$ 95,915,522	94.9%	\$ 2,373,254	2.3%	\$ 84,439	0.1%	\$ 1,116,165	1.1%	\$ 101,099,156
1988	\$ 1,120,885	0.9%	\$ 111,537,736	91.3%	\$ 4,738,463	3.9%	\$ 650,931	0.5%	\$ 4,129,002	3.4%	\$ 122,177,017
1989	\$ 803,494	1.4%	\$ 56,194,753	95.0%	\$ 1,674,393	2.8%	\$ 86,012	0.1%	\$ 415,535	0.7%	\$ 59,174,188
1990	\$ 436,822	1.1%	\$ 35,804,485	88.0%	\$ 2,422,214	6.0%	\$ 512,591	1.3%	\$ 1,495,827	3.7%	\$ 40,671,938
1991	\$ 348,522	2.3%	\$ 12,249,200	80.4%	\$ 1,996,049	13.1%	\$ 5,478	0.0%	\$ 643,400	4.2%	\$ 15,242,649
1992	\$ 634,466	0.6%	\$ 96,026,864	96.0%	\$ 2,261,862	2.3%	\$ 404,772	0.4%	\$ 740,294	0.7%	\$ 100,068,258
1993	\$ 617,092	2.1%	\$ 27,969,409	93.1%	\$ 1,081,175	3.6%	\$ 36,935	0.1%	\$ 322,205	1.1%	\$ 30,026,815
1994	\$ 642,291	1.9%	\$ 29,441,442	85.5%	\$ 3,297,865	9.6%	\$ 240,545	0.7%	\$ 831,121	2.4%	\$ 34,453,264
1995	\$ 474,475	2.2%	\$ 19,168,077	87.1%	\$ 1,295,353	5.9%	\$ 53,114	0.2%	\$ 1,023,926	4.7%	\$ 22,014,944
1996	\$ 402,980	1.4%	\$ 28,238,578	95.0%	\$ 800,423	2.7%	\$ 44,386	0.1%	\$ 225,751	0.8%	\$ 29,712,117
1997	\$ 365,316	1.1%	\$ 31,439,536	97.1%	\$ 434,327	1.3%	\$ 12,004	0.0%	\$ 143,244	0.4%	\$ 32,394,427
1998	\$ 181,318	2.1%	\$ 7,686,993	88.5%	\$ 497,050	5.7%	\$ 187,759	2.2%	\$ 132,025	1.5%	\$ 8,685,145
1999	\$ 337,482	1.6%	\$ 20,095,838	95.5%	\$ 329,164	1.6%	\$ 5,995	0.0%	\$ 265,026	1.3%	\$ 21,033,505
2000	\$ 183,368	2.2%	\$ 7,115,614	87.2%	\$ 626,287	7.7%	\$ 47,065	0.6%	\$ 186,385	2.3%	\$ 8,158,719
2001	\$ 169,634	2.2%	\$ 7,136,523	92.3%	\$ 297,328	3.8%	\$ 20,317	0.3%	\$ 111,093	1.4%	\$ 7,734,894
2002	\$ 326,051	2.8%	\$ 10,682,051	91.7%	\$ 329,031	2.8%	\$ 84,922	0.7%	\$ 224,148	1.9%	\$ 11,646,203
2003	\$ 358,688	2.8%	\$ 12,284,746	95.3%	\$ 132,079	1.0%	\$ 8,660	0.1%	\$ 99,850	0.8%	\$ 12,884,023
2004	\$ 676,184	3.3%	\$ 19,404,381	93.8%	\$ 416,193	2.0%	\$ 65,861	0.3%	\$ 129,794	0.6%	\$ 20,692,412
2005	\$ 656,103	2.1%	\$ 29,509,219	95.0%	\$ 788,546	2.5%	\$ 14,758	0.05%	\$ 105,028	0.3%	\$ 31,073,655
2006	\$ 617,133	4.4%	\$ 12,301,215	88.5%	\$ 679,754	4.9%	\$ 174,576	1.3%	\$ 121,343	0.9%	\$ 13,894,021
2007	\$ 629,521	2.7%	\$ 21,905,667	93.6%	\$ 683,110	2.9%	\$ 53,074	0.2%	\$ 141,156	0.6%	\$ 23,412,528
2008	\$ 538,081	3.2%	\$ 15,470,717	93.0%	\$ 482,237	2.9%	\$ 64,347	0.4%	\$ 75,770	0.5%	\$ 16,631,151

Appendix A8.—Commercial herring harvest by fishery, Upper Cook Inlet, 1973–2008.

Harvest (Tons)					
Year	Upper Subdistrict	Chinitna Bay	Tuxedni Bay	Kalgin Isl	Total
1973	13.8	-	-	not open	13.8
1974	36.7	-	-	not open	36.7
1975	6.2	-	-	not open	6.2
1976	5.8	-	-	not open	5.8
1977	17.3	-	-	not open	17.3
1978	8.3	55.3	-	not open	63.6
1979	67.3	96.2	24.8	not open	188.3
1980	37.4	20	86.5	not open	143.9
1981	86.2	50.5	84.9	not open	221.6
1982	60.2	91.8	50.2	not open	202.2
1983	165.3	49.2	238.2	not open	452.7
1984	117.5	90.6	159	not open	367.1
1985	136.3	46.1	215.9	not open	398.4
1986	142.6	111.1	191.9	not open	445.6
1987	126.5	65.1	152.5	not open	344.1
1988	50.7	23.4	14.1	not open	88.1
1989	55.2	122.3	34.3	not open	211.8
1990	55.4	55.9	16.1	not open	127.5
1991	13.4	15.7	1.6	not open	30.7
1992	24.7	10.4	-	not open	35.2
1993	-	-	-	not open	-
1994	-	-	-	not open	-
1995	-	-	-	not open	-
1996	-	-	-	not open	-
1997	-	-	-	not open	-
1998	19.5	-	-	not open	19.4
1999	10.4	-	-	not open	10.4
2000	14.7	-	-	not open	16.3
2001	9.9	-	-	not open	10.4
2002	16.2	1.9	0	not open	18.1
2003	3.7	0	0	not open	3.7
2004	6.7	0.1	0	not open	6.8
2005	17.1	0.2	0	0	17.3
2006	14.4	0	0	0	14.4
2007	12.6	0	0	0	12.6
2008	13.5	0	0	0	13.5

*Note:* Years where fisheries were closed, harvest is reported as a dash.



Appendix A9.—Commercial harvest of razor clams in Upper Cook Inlet, 1919–2008.

Year	Pounds	Year	Pounds
1919	76,963	1964	0
1920	11,952	1965	0
1921	72,000	1966	0
1922	510,432	1967	0
1923	470,280	1968	0
1924	156,768	1969	0
1925	0	1970	0
1926	0	1971	14,755
1927	25,248	1972	31,360
1928	0	1973	34,415
1929	0	1974	0
1930	0	1975	10,020
1931	No Record	1976	0
1932	93,840	1977	1,762
1933	No Record	1978	45,931
1934	No Record	1979	144,358
1935	No Record	1980	140,420
1936	No Record	1981	441,949
1937	8,328	1982	460,639
1938	No Record	1983	269,618
1939	No Record	1984	261,742
1940	No Record	1985	319,034
1941	0	1986	258,632
1942	0	1987	312,349
1943	0	1988	399,376
1944	0	1989	222,747
1945	15,000	1990	323,602
1946	11,424	1991	201,320
1947	11,976	1992	296,727
1948	2,160	1993	310,481
1949	9,672	1994	355,165
1950	304,073	1995	248,358
1951	112,320	1996	355,448
1952	0	1997	366,532
1953	0	1998	371,877
1954	0	1999	352,910
1955	0	2000	369,397
1956	0	2001	348,917
1957	0	2002	338,938
1958	0	2003	411,403
1959	0	2004	419,697
1960	372,872	2005	371,395
1961	277,830	2006	368,953
1962	195,650	2007	283,085
1963	0	2008	390,999

Appendix A10.—Enumeration goals and counts of sockeye salmon in selected streams of Upper Cook Inlet, 1978–2008.

Year	Kenai River		Kasilof River		Fish Creek	
	Enumeration Goal	Enumeration Estimate <sup>a,f</sup>	Enumeration Goal	Enumeration Estimate <sup>a,f</sup>	Enumeration Goal	Enumeration Estimate <sup>b</sup>
1978	350,000-500,000	398,900	75,000-150,000	116,600	0	3,555
1979	350,000-500,000	285,020	75,000-150,000	152,179	0	68,739
1980	350,000-500,000	464,038	75,000-150,000	184,260	0	62,828
1981	350,000-500,000	407,639	75,000-150,000	256,625	0	50,479
1982	350,000-500,000	619,831	75,000-150,000	180,239	50,000	28,164
1983	350,000-500,000	630,340	75,000-150,000	210,271	50,000	118,797
1984	350,000-500,000	344,571	75,000-150,000	231,685	50,000	192,352
1985	350,000-500,000	502,820	75,000-150,000	505,049	50,000	68,577
1986	350,000-500,000	501,157	75,000-150,000	275,963	50,000	29,800
1987	400,000-700,000	1,596,871	150,000-250,000	249,250	50,000	91,215
1988	400,000-700,000	1,021,469	150,000-250,000	204,000	50,000	71,603
1989	400,000-700,000	1,599,959	150,000-250,000	158,206	50,000	67,224
1990	400,000-700,000	659,520	150,000-250,000	144,289	50,000	50,000
1991	400,000-700,000	647,597	150,000-250,000	238,269	50,000	50,500
1992	400,000-700,000	994,798	150,000-250,000	184,178	50,000	71,385
1993	400,000-700,000	813,617	150,000-250,000	149,939	50,000	117,619
1994	400,000-700,000	1,003,446	150,000-250,000	205,117	50,000	95,107
1995	450,000-700,000	630,447	150,000-250,000	204,935	50,000	115,000
1996	550,000-800,000	797,847	150,000-250,000	249,944	50,000	63,160
1997	550,000-825,000	1,064,818	150,000-250,000	266,025	50,000	54,656
1998	550,000-850,000	767,558	150,000-250,000	273,213	50,000	22,853
1999	750,000-950,000	803,379	150,000-250,000	312,587	50,000	26,667
2000	600,000-850,000	624,578	150,000-250,000	256,053	50,000	19,533
2001	600,000-850,000	650,036	150,000-250,000	307,570	50,000	43,469
2002	750,000-950,000	957,924	150,000-250,000	226,682	20,000 - 70,000	90,483
2003	750,000-950,000	1,181,309	150,000-250,000	359,633	20,000 - 70,000	92,298
2004	850,000-1,100,000	1,385,981	150,000-250,000	577,581	20,000 - 70,000	22,157
2005	850,000-1,100,000	1,376,452	150,000-250,000	348,012	20,000 - 70,000	14,215
2006	750,000-950,000	1,499,692	150,000-250,000	368,092	20,000 - 70,000	32,566
2007	750,000-950,000	867,572	150,000-250,000	336,866	20,000 - 70,000	27,948
2008	650,000-850,000	614,946	150,000-250,000	301,469	20,000 - 70,000	19,339

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Appendix A10.–Page 2 of 2.

Year	Yentna River		Crescent River		Packers Creek	
	Enumeration Goal	Enumeration Estimate <sup>a,f</sup>	Enumeration Goal	Enumeration Estimate <sup>a,f</sup>	Enumeration Goal	Enumeration Estimate <sup>b,g</sup>
1979	100,000		50,000	86,654	0	N/C
1980	100,000		50,000	90,863	0	16,477
1981	100,000	139,401	50,000	41,213	0	13,024
1982	100,000	113,847	50,000	58,957	0	15,687
1983	100,000	104,414	50,000	92,122	0	18,403
1984	100,000	149,375	50,000	118,345	0	30,684
1985	100,000	107,124	50,000	128,628	0	36,850
1986	100,000-150,000	92,076	50,000	20,385	0	29,604
1987	100,000-150,000	66,054	50,000-100,000	120,219	0	35,401
1988	100,000-150,000	52,330	50,000-100,000	57,716	15,000-25,000	18,607
1989	100,000-150,000	96,269	50,000-100,000	71,064	15,000-25,000	22,304
1990	100,000-150,000	140,290	50,000-100,000	52,238	15,000-25,000	31,868
1991	100,000-150,000	109,632	50,000-100,000	44,578	15,000-25,000	41,275
1992	100,000-150,000	66,054	50,000-100,000	58,229	15,000-25,000	28,361
1993	100,000-150,000	141,694	50,000-100,000	37,556	15,000-25,000	40,869
1994	100,000-150,000	128,032	50,000-100,000	30,355	15,000-25,000	30,788
1995	100,000-150,000	121,479	50,000-100,000	52,311	15,000-25,000	29,473
1996	100,000-150,000	90,781	50,000-100,000	28,729	15,000-25,000	19,095
1997	100,000-150,000	157,822	50,000-100,000	70,768	15,000-25,000	33,846
1998	100,000-150,000	119,623	50,000-100,000	62,257	15,000-25,000	17,732
1999	100,000-150,000	99,029	25,000-50,000	66,519	15,000-25,000	25,648
2000	100,000-150,000	133,094	25,000-50,000	56,599	15,000-25,000	20,151
2001	100,000-150,000	83,532	25,000-50,000	78,081	15,000-25,000	no count
2002	90,000-160,000	78,591	25,000-50,000	62,833	15,000-25,000	no count
2003	90,000-160,000	180,813	25,000-50,000	122,457	15,000-25,000	no count
2004	90,000-160,000	71,281	25,000-50,000	103,201	15,000-25,000	no count
2005	75,000-180,000	36,921	30,000-70,000	125,623	15,000-25,000	22,000
2006	90,000-160,000	92,896	30,000-70,000	92,533	15,000-25,000	no count
2007	90,000-160,000	79,901	30,000-70,000	79,406	15,000-25,000	46,637
2008	90,000-160,000	90,146	30,000-70,000	62,030	15,000-25,000	25,248

<sup>a</sup> Derived from sonar counters unless otherwise noted.

<sup>b</sup> Weir counts.

<sup>c</sup> Yentna River escapement goal only.

<sup>d</sup> Combined counts from weirs on Bear and Glacier Flat Creeks. and surveys of remaining spawning streams; sonar count was 151,856.

<sup>e</sup> Counts through 16 July only.

<sup>f</sup> Enumeration estimates prior to 2007 reflect minor adjustments to the escapement database.

<sup>g</sup> Escapement estimate of all salmon via remote camera; an unknown number of salmon escaped into the lake after the camera was removed.

Appendix A11.—Average price paid for commercially harvested salmon, Upper Cook Inlet, 1969–2008.

Year	Chinook	Sockeye	Coho	Pink	Chum
1969	0.38	0.28	0.19	0.14	0.12
1970	0.40	0.28	0.25	0.14	0.14
1971	0.37	0.30	0.21	0.15	0.15
1972	0.47	0.34	0.27	0.19	0.20
1973	0.62	0.65	0.50	0.30	0.42
1974	0.88	0.91	0.66	0.46	0.53
1975	0.54	0.63	0.54	0.35	0.41
1976	0.92	0.76	0.61	0.37	0.54
1977	1.26	0.86	0.72	0.38	0.61
1978	1.16	1.32	0.99	0.34	0.51
1979	1.63	1.41	0.98	0.34	0.88
1980	1.15	0.85	0.57	0.34	0.53
1981	1.46	1.20	0.83	0.38	0.65
1982	1.27	1.10	0.72	0.18	0.49
1983	0.97	0.74	0.45	0.18	0.36
1984	1.08	1.00	0.64	0.21	0.39
1985	1.20	1.20	0.70	0.20	0.45
1986	0.90	1.40	0.60	0.15	0.38
1987	1.40	1.50	0.80	0.22	0.45
1988	1.30	2.47	1.20	0.37	0.76
1989	1.25	1.70	0.75	0.40	0.47
1990	1.20	1.55	0.75	0.25	0.60
1991	1.20	1.00	0.77	0.12	0.35
1992	1.50	1.60	0.75	0.15	0.40
1993	1.20	1.00	0.60	0.12	0.45
1994	1.00	1.45	0.80	0.12	0.40
1995	1.00	1.15	0.45	0.12	0.27
1996	1.00	1.15	0.40	0.05	0.19
1997	1.00	1.15	0.45	0.05	0.19
1998	1.00	1.15	0.45	0.09	0.19
1999	1.00	1.30	0.45	0.12	0.19
2000	1.10	0.85	0.40	0.09	0.19
2001	1.00	0.65	0.40	0.08	0.19
2002	1.15	0.60	0.20	0.05	0.12
2003	0.95	0.60	0.20	0.05	0.12
2004	1.00	0.65	0.20	0.05	0.12
2005	1.00	0.95	0.50	0.08	0.20
2006	1.75	1.10	0.60	0.10	0.25
2007	1.75	1.05	0.60	0.10	0.25
2008	1.75	1.10	0.40	0.10	0.20

*Note:* Price is expressed as dollars per pound. Data source: 1969–1983: Commercial Fisheries Entry Commission; 1984–2008: random fish ticket averages, which do not include bonuses or postseason adjustments.

Appendix A12.—Average weight (pounds) of commercially harvested salmon, Upper Cook Inlet, 1969–2008.

Year	Chinook	Sockeye	Coho	Pink	Chum
1969	17.1	6.7	7.0	3.9	7.3
1970	26.8	5.8	6.8	4.0	7.2
1971	25.9	6.6	6.5	3.4	9.3
1972	29.7	6.2	6.3	4.0	6.7
1973	37.6	7.4	6.1	3.7	7.6
1974	36.1	6.8	6.4	4.1	7.2
1975	24.8	6.1	6.8	3.6	7.1
1976	27.4	6.9	6.4	4.0	8.1
1977	28.1	7.6	6.7	3.7	8.0
1978	33.0	7.6	6.4	3.8	7.6
1979	27.5	6.2	6.3	3.3	7.3
1980	26.1	5.9	5.8	3.5	7.3
1981	23.8	6.4	6.5	3.5	7.7
1982	28.8	7.0	7.1	3.9	8.2
1983	29.5	6.4	6.9	3.3	7.8
1984	28.6	5.9	7.1	4.0	7.6
1985	27.7	5.6	7.2	3.3	7.6
1986	25.9	5.8	6.4	3.7	7.4
1987	29.0	6.7	6.6	3.5	7.1
1988	29.7	6.6	7.1	3.7	7.7
1989	24.0	6.6	6.6	3.2	7.2
1990	22.6	6.4	6.5	3.4	7.1
1991	21.5	5.6	6.1	3.1	6.6
1992	24.6	6.6	6.4	3.9	6.8
1993	27.5	5.9	5.9	3.1	5.8
1994	31.6	5.7	7.1	3.9	6.9
1995	26.6	5.7	6.4	3.3	7.2
1996	28.3	6.3	6.2	3.7	7.6
1997	27.6	6.6	6.3	3.4	7.3
1998	22.8	5.5	6.9	3.8	7.3
1999	23.9	5.8	5.8	3.1	8.0
2000	22.7	6.3	6.6	3.6	7.7
2001	18.3	6.0	6.6	3.5	6.9
2002	22.3	6.4	6.7	3.8	7.9
2003	20.4	5.9	6.5	3.6	6.9
2004	24.6	6.1	6.7	3.7	7.4
2005	24.6	6.1	6.3	3.3	7.3
2006	19.6	5.1	6.4	4.3	7.6
2007	20.4	6.3	6.4	3.6	7.3
1969-2007 Avg	26.1	6.3	6.5	3.6	7.4
2008	23.3	5.9	7.0	3.8	7.5

Note: Total poundage divided by numbers of fish from fish ticket totals.

Appendix A13.—Registered units of gillnet fishing effort by gear type in Cook Inlet, 1970–2008.

Year	DRIFT GILLNET			SET GILLNET			Total
	Resident	Non-Resident	Subtotal	Resident	Non-Resident	Subtotal	
1970	537	220	757	707	65	772	1,529
1971	519	191	710	693	38	731	1,441
1972	419	152	571	672	35	707	1,278
1973	516	146	662	632	43	675	1,337
1974	436	149	585	698	54	752	1,337
1975	539	245	784	695	63	758	1,542
1976	410	186	596	675	44	719	1,315
1977	387	188	575	690	43	733	1,308
1978	401	190	591	701	46	747	1,338
1979	410	189	599	705	44	749	1,348
1980	407	190	597	699	48	747	1,344
1981	412	186	598	687	60	747	1,345
1982	413	178	591	695	53	748	1,339
1983	415	172	587	684	61	745	1,332
1984	423	165	588	670	74	744	1,332
1985	418	173	591	669	76	745	1,336
1986	412	176	588	665	78	743	1,331
1987	415	171	586	662	81	743	1,329
1988	421	164	585	660	83	743	1,328
1989	415	170	585	645	98	743	1,328
1990	412	173	585	644	99	743	1,328
1991	412	172	584	642	103	745	1,329
1992	404	179	583	636	109	745	1,328
1993	398	185	583	633	112	745	1,328
1994	395	187	582	628	117	745	1,327
1995	393	189	582	622	123	745	1,327
1996	392	190	582	621	124	745	1,327
1997	392	189	581	621	124	745	1,326
1998	393	186	579	621	124	745	1,324
1999	390	185	575	621	124	745	1,320
2000	394	182	576	621	124	745	1,321
2001	395	179	574	625	119	744	1,318
2002	396	176	572	620	123	743	1,315
2003	400	172	572	617	125	742	1,314
2004	402	169	571	617	122	739	1,310
2005	404	167	571	609	128	737	1,308
2006	401	169	570	614	124	738	1,308
2007	401	170	571	612	126	738	1,309
2008	405	166	571	612	126	738	1,309

Source: 1966–1974 ADF&G unpublished reports; 1975–2006 Commercial Fisheries Entry Commission. <http://www.cfec.state.ak.us/pstatus/14052008.htm>

Appendix A14.--Forecast and projected commercial harvests of salmon by species, Upper Cook Inlet, 1985–2008.

Year	Sockeye			Coho			Pink			Chum			Chinook		
	Forecast <sup>a</sup>	Actual <sup>b,d</sup>	Error	Projected	Actual <sup>c,d</sup>	Error	Projected	Actual <sup>c,d</sup>	Error	Projected	Actual <sup>c,d</sup>	Error	Projected	Actual <sup>c,d</sup>	Error
1985	3,700,000	4,248,506	15%	250,000	667,213	167%	112,500	87,828	-22%	700,000	772,829	10%	17,500	24,086	38%
1986	4,200,000	4,981,255	14%	450,000	756,830	68%	1,250,000	1,299,360	4%	900,000	1,134,173	26%	32,500	39,240	21%
1987	4,800,000	9,859,418	98%	500,000	449,421	-10%	150,000	348,809	-27%	1,000,000	348,809	-65%	30,000	39,431	32%
1988	5,300,000	7,087,976	29%	400,000	560,948	40%	400,000	710,615	17%	800,000	710,615	-11%	35,000	29,080	-17%
1989	2,500,000	5,443,946	100%	400,000	339,818	-15%	100,000	122,051	-33%	800,000	122,051	-85%	30,000	26,737	-11%
1990	4,300,000	3,822,864	-16%	250,000	501,643	101%	600,000	351,123	-41%	400,000	351,123	-12%	25,000	16,105	-36%
1991	3,200,000	2,472,589	-32%	400,000	426,487	7%	90,000	280,223	211%	500,000	280,223	-44%	20,000	13,542	-32%
1992	3,600,000	9,502,392	153%	400,000	468,930	17%	400,000	274,303	-31%	350,000	274,303	-22%	20,000	17,171	-14%
1993	2,500,000	5,042,799	90%	450,000	306,882	-32%	25,000	122,770	391%	350,000	122,770	-65%	15,000	18,871	26%
1994	2,000,000	3,826,508	78%	400,000	583,793	46%	600,000	303,177	-49%	250,000	303,177	21%	15,000	19,954	33%
1995	2,700,000	3,224,087	9%	400,000	446,954	12%	100,000	529,422	429%	250,000	529,422	112%	15,000	17,893	19%
1996	3,300,000	4,312,193	18%	400,000	321,668	-20%	600,000	156,501	-74%	350,000	156,501	-55%	15,000	14,306	-5%
1997	5,300,000	4,565,608	-21%	400,000	152,404	-62%	100,000	103,036	3%	250,000	103,036	-59%	15,000	13,292	-11%
1998	2,500,000	1,626,594	-51%	300,000	160,660	-46%	300,000	95,654	-68%	200,000	95,654	-52%	17,000	8,124	-52%
1999	2,000,000	3,179,342	59%	300,000	125,908	-58%	75,000	174,541	133%	200,000	174,541	-13%	16,000	14,383	-10%
2000	3,000,000	1,786,241	-40%	150,000	236,871	58%	500,000	127,069	-75%	200,000	127,069	-36%	15,000	7,350	-51%
2001	2,700,000	2,312,491	-14%	300,000	113,311	-62%	50,000	84,494	69%	250,000	84,494	-66%	13,000	9,295	-29%
2002	2,200,000	3,369,371	53%	160,000	246,281	54%	170,000	237,949	40%	120,000	237,949	98%	10,000	12,714	27%
2003	2,400,000	4,161,009	73%	170,000	101,756	-40%	80,000	120,767	51%	140,000	120,767	-14%	10,000	18,490	85%
2004	3,700,000	5,601,465	51%	160,000	308,449	93%	380,000	357,283	-6%	150,000	145,073	-3%	10,000	27,448	174%
2005	4,100,000	5,962,408	45%	200,000	224,657	12%	70,000	48,599	-31%	140,000	69,740	-50%	10,000	28,171	182%
2006	2,100,000	2,658,537	27%	200,000	174,507	-13%	350,000	404,094	15%	140,000	63,893	-54%	20,000	16,917	-15%
2007	3,300,000	3,730,654	13%	210,000	174,845	-17%	50,000	144,957	190%	130,000	76,750	-41%	20,000	17,271	-14%
2008	3,900,000	2,371,718	-39%	200,000	174,845	-13%	380,000	168,890	-56%	100,000	50,312	-50%	20,000	13,202	-34%
Avg.	3,278,261	4,468,620	33%	315,217	341,315	13%	284,891	281,940	48%	372,609	278,477	-21%	18,522	19,560	15%

<sup>a</sup> Harvest forecasts have typically been prepared using average return per spawner values, parent-year escapements and average marine maturity schedules or time series modeling tempered by available juvenile production data or combinations of these data sets.

<sup>b</sup> Sockeye salmon harvest estimates include, commercial, sport, personal use, and educational fisheries.

<sup>c</sup> Harvest projections are prepared using subjective estimates of parent-year escapements, gross trends in harvest, and expected intensity of fishery.

<sup>d</sup> Actual harvests prior to 2008 reflect minor adjustments to the harvest database.

Appendix A15.—Upper Cook Inlet subsistence fisheries salmon harvest, 1980–2008.

Tyonek Subsistence Fishery							
Year	No. Permits	Chinook	Sockeye	Coho	Pink	Chum	Total
1980	67	1,757	235	0	0	0	1,992
1981	70	2,002	269	64	32	15	2,382
1982	69	1,590	310	113	14	4	2,031
1983	75	2,665	187	59	0	6	2,917
1984	75	2,200	266	79	3	23	2,571
1985	76	1,472	164	91	0	10	1,737
1986	65	1,676	203	223	50	46	2,198
1987	64	1,610	166	149	10	24	1,959
1988	47	1,587	91	253	8	12	1,951
1989	49	1,250	85	115	0	1	1,451
1990	42	781	66	352	20	12	1,231
1991	57	902	26	58	0	0	986
1992	57	907	75	234	7	19	1,242
1993	62	1,370	57	77	19	17	1,540
1994	49	770	85	101	0	22	978
1995	55	1,317	45	153	0	15	1,530
1996	49	1,039	68	137	21	7	1,272
1997	42	639	101	137	0	8	885
1998	74	978	163	64	1	2	1,208
1999	76	1,230	144	94	32	11	1,511
2000	60	1,157	63	87	6	0	1,313
2001	84	976	172	49	4	6	1,207
2002	102	1,080	209	115	9	4	1,417
2003	91	1,183	111	44	7	10	1,355
2004	97	1,345	93	130	0	0	1,568
2005	81	720	60	104	0	2	886
2006	81	904	21	36	0	0	961
2007	?	1,275	327	604	16	11	2,233
2008	89	708	54	119	7	3	891

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Yentna Subsistence Fishery							
Year	No. Permits	Chinook	sockeye	Coho	Pink	Chum	Total
1996	17	0	242	46	115	51	454
1997	24	0	549	83	30	10	672
1998	21	0	495	113	30	15	653
1999	18	0	516	48	18	13	595
2000	19	0	379	92	4	7	482
2001	16	0	545	50	10	4	609
2002	25	0	454	133	14	31	632
2003	19	0	553	67	2	8	630
2004	21	0	441	146	36	3	626
2005	18	0	181	42	25	24	272
2006	22	0	388	178	15	27	608
2007	21	0	367	66	17	18	468
2008	20	0	310	57	23	7	397

Appendix A16.—Upper Cook Inlet educational fisheries salmon harvest, 1994–2008.

Year	Fishery	Chinook	Sockeye	Coho	Pink	Chum	Total
1994	Kenaitze	57	1,907	829	134		2,927
	NTC			119			119
	NND						0
	Knik						29
	Eklutna						172
	Total	57	1,907	948	134	0	3,247
1995	Kenaitze	40	1,498	868	35		2,441
	NTC			85			85
	NND						0
	Knik	5	21	1	0	1	28
	Eklutna	14	55	37	6	42	154
	Total	59	1,574	991	41	43	2,708
1996	Kenaitze	105	2,242	592	211		3,150
	NTC			56			56
	NND						0
	Knik	5	163	45	3	62	278
	Eklutna						0
	Total	110	2,405	693	214	62	3,484
1997	Kenaitze	142	2,410	191	5		2,748
	NTC	94	474	99	55		722
	NND						0
	Knik	19	153	34	0	15	221
	Eklutna	7	39	14	16	7	83
	Total	262	3,076	338	76	22	3,774
1998	Kenaitze	133	2,621	638	58		3,450
	NTC	67	506	95	57		725
	NND	52	139	110	20		321
	Knik	31	186	153	0	85	455
	Eklutna	32	104	116	6	51	309
	Tyonek	0	11	41	3	1	56
	Total	315	3,567	1,153	144	137	5,316

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Appendix A16.–Page 2 of 4.

Year	Fishery	Chinook	Sockeye	Coho	Pink	Chum	Total
1999	Kenaitze	118	1,944	530	5	0	2,597
	NTC	109	442	84	6	0	641
	NND	56	304	76	17	0	453
	Knik	42	177	120	0	55	394
	Eklutna	11	80	25	3	20	139
	Tyonek	0	100	0	0	0	100
	Total	336	3,047	835	31	75	4,324
2000	Kenaitze	130	2,088	656	617	0	3,491
	NTC	40	423	82	48	0	593
	NND	50	202	97	15	0	364
	Knik	65	34	63	0	18	180
	Eklutna	17	76	85	21	51	250
	Tyonek	0	97	0	0	0	97
	Total	302	2,920	983	701	69	4,975
2001	Kenaitze	204	3,441	572	107	0	4,324
	NTC	75	760	123	42	0	1,000
	NND	74	309	110	17	0	510
	Knik	32	71	34	0	0	137
	Eklutna	58	52	95	56	34	295
	Tyonek	0	0	0	0	0	0
	Total	443	4,633	934	222	34	6,266
2002	Kenaitze	70	2,889	921	482	0	4,362
	NTC	65	339	106	52	0	562
	NND	65	138	95	11	0	309
	Knik	55	136	99	5	36	331
	Eklutna	58	220	156	40	76	550
	Tyonek	0	0	0	0	0	0
	Total	313	3,722	1,377	590	112	6,114
2003	Kenaitze	151	4,651	439	63		5,304
	NTC	87	426	100	15		628
	NND	69	94	77	13		253
	Knik	34	654	87	3	45	823
	Eklutna	69	160	49	14	21	313
	Tyonek	0	0	0	0	0	0
	Total	410	5,985	752	108	66	7,321

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Appendix A16.–Page 3 of 4.

Year	Fishery	Chinook	Sockeye	Coho	Pink	Chum	Total
2004	Kenaitze	10	4,113	765	417		5,305
	NTC	73	395	83	0		551
	NND	78	199	79	14		370
	NES	1	77	0	9		87
	Knik	105	142	207	20	29	503
	Eklutna	50	311	297	4	71	733
	Tyonek	0	0	0	0	0	0
	<b>Total</b>		<b>317</b>	<b>5,237</b>	<b>1,431</b>	<b>464</b>	<b>100</b>
2005	Kenaitze	100	6,317	490	12	0	6,919
	NTC	70	264	83	0	0	417
	NND	88	84	78	15	0	265
	NES	0	5	0	0	0	5
	Knik	25	200	80	9	16	330
	Eklutna	72	166	242	8	29	517
	Tyonek						0
	Big Lake	61	98	99	56	34	348
<b>Total</b>		<b>416</b>	<b>7,134</b>	<b>1,072</b>	<b>100</b>	<b>79</b>	<b>8,801</b>
2006	Kenaitze	85	4,380	223	702	0	5,390
	NTC	75	550	100	0	0	725
	NND	64	55	99	10	0	228
	NES	0	0	0	0	0	0
	Knik	24	197	75	12	7	315
	Eklutna	43	59	199	11	7	319
	Tyonek	0	0	0	0	0	0
	Big Lake	8	68	12	1	3	92
	Intertribal	12	135	95	85	21	348
<b>Total</b>		<b>311</b>	<b>5,444</b>	<b>803</b>	<b>821</b>	<b>38</b>	<b>7,417</b>
2007	Kenaitze	25	3,941	543	119		4,628
	NTC	300	1,363	483	2	0	2,148
	NND	65	210	102	12	0	389
	NES	0	0	0	0	0	0
	APVFW	0	77	76	0	0	153
	Knik	19	7	75		16	117
	Eklutna						0
	Tyonek	0	0	0	0	0	0
	Big Lake	17	100	46	14		177
	Intertribal						0
O'Brien	49	75	103	9	4	240	
<b>Total</b>		<b>475</b>	<b>5,773</b>	<b>1,428</b>	<b>156</b>	<b>20</b>	<b>7,852</b>

<sup>a</sup> Harvest data include both early and late-run Kenai River Chinook and sockeye salmon.

Appendix A16.–Page 4 of 4.

Year	Fishery	Chinook	Sockeye	Coho	Pink	Chum	Total
2008	Kenaitze	58	3,374	525	503	0	4,460
	NTC	199	857	200	248	0	1,504
	NND	69	192	150	69	0	480
	NES	0	0	0	0	0	0
	APVFW	1	106	79	15	0	201
	Kasilof H.A.	3	20	42	12	0	77
	Knik	12	79	70			161
	Eklutna	16	19	178	3	0	216
	Tyonek	2					2
	Big Lake	20	9	62	0	6	97
	Intertribal	0	0	0	0	0	0
	O'Brien	8	82	105	6	0	201
	Fish Creek	8	23	200	0	17	130
Total		396	4,761	1,611	856	23	7,529

<sup>a</sup> Harvest data include both early and late-run Kenai River Chinook and sockeye salmon.

Appendix A17.—Effort and harvest in Upper Cook Inlet personal use salmon fisheries, 1996-2008.

Kasilof River Dip Net															
Year	Days	Days Fished		Sockeye		Chinook		Coho		Pink		Chum		Total	
	Open	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE
1996	27	1,300	23	11,197	127	50	1	334	18	103	2	17	0	11,701	130
1997	27	1,091	32	9,737	150	35	2	90	3	19	2	19	1	9,900	153
1998	27	3,421	33	45,161	525	134	3	731	18	610	25	74	32	46,710	528
1999	27	3,611	43	37,176	507	127	5	286	50	264	12	52	8	37,905	511
2000	27	2,622	36	23,877	403	134	7	1,004	16	841	39	34	0	25,890	407
2001	27	3,382	37	37,612	505	138	6	766	25	307	14	23	0	38,846	511
2002	44	4,020	38	46,769	530	106	6	1,197	59	1,862	73	139	7	50,073	553
2003	44	3,874	28	43,870	440	57	4	592	49	286	21	30	1	44,835	447
2004	44	4,432	19	48,315	259	44	3	668	21	396	15	90	5	49,513	263
2005	44	4,500	9	43,151	100	16	1	538	16	658	12	102	2	44,465	103
2006	44	5,763	10	56,144	113	55	1	1,057	15	992	8	105	4	58,353	117
2007	44	4,600	9	43,293	105	35	1	487	8	383	6	136	2	44,334	106
2008	44	5,493	13	54,051	153	46	3	509	11	787	10	143	4	55,536	154
Min.	27	1,091		9,737		16		90		19		17		9,900	
Mean	36	3,701		38,489		75		635		578		74		39,851	
Max.	44	5,763		56,144		138		1,197		1,862		143		58,353	

Kasilof River Gillnet															
Year	Days	Days Fished		Sockeye		Chinook		Coho		Pink		Chum		Total	
	Open	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE
1996	5	582	16	9,506	156	46	3	0	0	8	0	1	0	9,561	157
1997	5	815	26	17,997	231	65	2	1	0	102	7	3	1	18,168	233
1998	5	1,075	24	15,975	425	126	7	0	0	15	4	12	10	16,128	426
1999	10	1,287	39	12,832	371	442	27	25	2	10	0	10	0	13,319	374
2000	13	1,252	23	14,774	275	514	15	9	0	17	2	10	0	15,324	276
2001	8	1,001	20	17,201	394	174	6	6	0	11	0	7	5	17,399	397
2002	10	1,025	16	17,980	274	192	5	12	0	30	2	13	4	18,227	277
2003	10	1,206	17	15,706	277	400	13	107	0	9	0	4	0	16,226	284
2004	10	1,272	10	25,417	203	163	4	58	13	6	1	0	0	25,644	205
2005	11	1,506	6	26,609	104	87	1	326	5	16	1	1	0	27,039	104
2006	10	1,724	5	28,867	91	287	2	420	16	11	0	6	0	29,591	94
2007	10	1,569	7	14,943	66	343	3	68	4	2	0	0	0	15,356	66
2008	10	1,533	7	23,432	107	151	2	65	3	35	4	23	3	23,706	107
Min.	5	582		9,506		46		0		2		0		9,561	
Mean	9	1,219		18,557		230		84		21		7		18,899	
Max.	13	1,724		28,867		514		420		102		23		29,591	

-continued-

Kenai River Dip Net															
Year	Days	Days Fished		Sockeye		Chinook		Coho		Pink		Chum		Total	
	Open	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE
1996	27	10,503	60	102,821	367	295	5	1,932	29	2,404	33	175	10	107,627	375
1997	22	11,023	87	114,619	439	364	13	559	21	619	14	58	5	116,219	448
1998	18	10,802	59	103,847	716	254	10	1,011	62	1,032	62	85	3	106,229	724
1999	22	13,738	79	149,504	1,084	488	13	1,009	108	1,666	64	102	13	152,769	1,094
2000	22	12,354	69	98,262	752	410	18	1,449	62	1,457	75	193	31	101,771	762
2001	22	14,772	66	150,766	909	638	15	1,555	105	1,326	37	155	19	154,440	926
2002	22	14,840	56	180,028	844	606	11	1,721	64	5,662	102	551	36	188,568	874
2003	22	15,263	50	223,580	891	1,016	18	1,332	68	1,647	98	249	22	227,824	905
2004	22	18,513	35	262,831	583	792	7	2,661	66	2,103	27	387	12	268,774	905
2005	22	20,977	18	295,496	273	997	3	2,512	24	1,806	12	321	2	301,132	275
2006	20	12,685	16	127,630	183	1,034	3	2,235	15	11,127	37	551	9	142,577	203
2007	22	21,861	23	291,270	335	1,509	4	2,111	24	1,939	23	472	17	297,301	337
2008	22	20,676	27	234,109	338	1,362	10	2,609	21	10,631	49	504	8	249,215	343
Min.	18	10,503		98,262		254		559		619		58		101,771	
Mean	22	15,231		179,597		751		1,746		3,340		293		185,727	
Max.	27	21,861		295,496		1,509		2,661		11,127		551		301,132	

Unknown Fishery															
Year	Days	Days Fished		Sockeye		Chinook		Coho		Pink		Chum		Total	
	Open	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE
1996	-	472	33	4,761	463	24	7	131	37	127	37	4	3	5,047	467
1997	-	1,003	50	3,310	276	0	0	64	14	51	21	4	3	3,429	282
1998	-	921	39	7,562	287	34	5	294	77	196	19	20	0	8,106	301
1999	-	684	20	7,994	352	51	5	76	7	126	2	4	0	8,251	353
2000	-	648	23	5,429	274	44	13	218	60	84	11	24	15	5,799	282
2001	-	1,339	34	12,673	380	188	17	292	30	175	24	90	34	13,418	394
2002	-	1,339	26	14,846	353	166	10	341	25	916	81	54	8	16,323	380
2003	-	1,325	21	15,675	247	238	25	219	14	140	9	88	9	16,360	254
2004	-	1,143	13	13,527	179	99	3	366	25	210	10	25	4	14,227	185
2005	-	270	2	4,520	38	32	1	39	1	40	2	4	0	4,635	38
2006	-	371	2	3,406	34	29	1	47	2	304	16	84	0	3,870	41
2007	-	534	3	6,729	52	37	1	61	3	28	1	6	0	6,861	52
2008	-	618	4	6,890	63	41	2	66	3	412	9	58	3	7,467	64
Min.		270		3,310		0		39		28		4		3,429	
Mean		821		8,256		76		170		216		36		8,753	
Max.		1,339		15,675		238		366		916		90		16,360	

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Appendix A17.–Page 3 of 3.

Fish Creek Dip Net															
Year	Days Open	Days Fished		Sockeye		Chinook		Coho		Pink		Chum		Total	
		Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE
1996	22	3,749	41	17,260	161	37	8	2,414	25	331	9	153	5	20,195	168
1997	13	991	34	3,277	76	0	0	63	5	53	7	4	1	3,397	84
1998	15	1,141	21	4,036	113	1	0	649	19	80	10	29	2	4,795	117
1999	16	432	16	1,083	138	0	0	17	3	12	7	0	0	1,112	139
2000	16	1,054	25	6,925	211	0	0	958	72	83	12	29	3	7,995	225
2001	3	131	7	436	40	0	0	18	7	2	0	1	0	457	41
Min.	3	131		436		0		17		2		0		457	
Mean	14	1,250		5,503		6		687		94		36		6,325	
Max.	22	3,749		17,260		37		2,414		331		153		20,195	

note: fishery not open since 2001

Beluga River Dip Net															
Year	Days Open	Days Fished		Sockeye		Chinook		Coho		Pink		Chum		Total	
		Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE
2008	43			31				35						66	

Upper Cook Inlet Personal Use Fisheries Total															
Year	Days Open	Days Fished		Sockeye		Chinook		Coho		Pink		Chum		Total	
		Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE
1996	-	16,606	85	145,545	644	452	12	4,811	56	2,973	50	350	12	154,131	655
1997	-	14,923	114	148,940	592	464	13	777	26	844	27	88	6	151,113	604
1998	-	17,360	84	176,581	1,032	549	14	2,685	102	1,933	70	220	34	181,968	1,043
1999	-	19,752	101	208,589	1,309	1,108	31	1,413	119	2,078	66	168	15	213,356	1,320
2000	-	17,930	88	149,267	961	1,102	28	3,638	114	2,482	86	290	35	156,779	976
2001	-	20,625	86	218,688	1,176	1,138	24	2,637	112	1,821	46	276	39	224,560	1,197
2002	-	21,224	74	259,623	1,092	1,070	17	3,271	91	8,470	149	757	38	273,191	1,136
2003	-	21,668	63	298,831	1,061	1,711	34	2,250	85	2,082	101	371	24	305,245	1,079
2004	-	25,360	43	350,090	678	1,098	9	3,753	75	2,715	32	502	14	358,158	689
2005	-	27,253	21	369,776	311	1,132	3	3,415	29	2,520	17	428	3	377,271	314
2006	-	20,543	20	216,047	236	1,405	4	3,759	27	12,434	41	746	10	234,391	242
2007	-	28,602	29	356,235	386	1,924	5	2,727	26	2,352	24	614	17	363,852	388
2008	-	28,331	34	318,513	412	1,600	11	3,284	24	11,865	52	728	10	335,990	416
Min.		14,923		145,545		452		777		844		88		151,113	
Mean		21,552		247,440		1,135		2,955		4,198		426		256,154	
Max.		28,602		369,776		1,924		4,811		12,434		757		377,271	



## **APPENDIX B**

**ALASKA DEPARTMENT OF FISH AND GAME**  
**DIVISION OF COMMERCIAL FISHERIES**  
**NEWS RELEASE**



*Denby S. Lloyd, Commissioner*  
*John Hilsinger, Director*



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Date Issued: 4/2/2008

**UPPER COOK INLET**  
**2008 OUTLOOK FOR COMMERCIAL**  
**SALMON FISHING**

**SOCKEYE SALMON**

A run of 5.6 million sockeye salmon is forecasted to return to UCI in 2008 with a harvest by all user groups of 3.9 million fish. The forecasted harvest in 2008 is about 0.2 million fish below the 20-year average harvest by all user groups. The sockeye salmon run forecast for the Kenai River of 3.1 million is 16% less than the 20-year average run of 3.7 million. Age-1.3 sockeye salmon typically comprise about 65% of the run to the Kenai River. The sibling model predicted a return of 2.6 million age-1.3 sockeye salmon to the Kenai River while the fry model predicted a return of 2.5 million age 1.3-sockeye salmon. Age-2.3 sockeye salmon typically comprise about 20% of the run to the Kenai River. A sibling model based upon the return of age-2.2 sockeye salmon in 2007 was used to forecast the return (286,000) of age-2.3 sockeye salmon to the Kenai River in 2008. The return of age-2.2 sockeye salmon in 2007 was 58% less than the 20-year average return for this age class. The predominant age classes in the 2008 run should be age-1.3 (85%) and age-2.3 (9%).

The sockeye salmon run forecast for the Kasilof River of 1.3 million is 33% greater than the 20-year average run of 968,000. Age-1.3 sockeye salmon typically comprise about 35% of the run to the Kasilof River. A sibling model based upon the return of age-1.2 sockeye salmon in 2007 was used to forecast the return (376,000) of age-1.3 sockeye salmon in 2008. The return of age 1.2-sockeye salmon last year was 57% greater than the 20-year average return for this age class. Age-1.2 sockeye salmon typically comprise about 30% of the run to the Kasilof River. A sibling model based upon an above average return of age-1.1 sockeye salmon in 2007 was used to forecast the

return of age-1.2 sockeye salmon to Kasilof River. The sibling model predicted a return of 484,000 age-1.2 sockeye salmon. However, we are less confident in this forecast, because a smolt model predicted a return of only 252,000 age-1.2 sockeye salmon. Age-1.2 sockeye salmon migrated as smolts from the Kasilof River in 2006, when their estimated abundance was only 2.6 million, about one-half of the 20-year average. The predominant age classes in the 2008 run should be age-1.2 (38%) and age 1.3 (29%).

The sockeye salmon run forecast for the Susitna River of 344,000 is 24% less than the 20-year average run of 453,000. The accuracy of the Susitna River forecast is uncertain due to the unknown amount of undercounting of the escapement which has recently been documented. The Board of Fish designated the Susitna River sockeye stocks as a stock of yield concern at the February 2008 meeting. The department has developed an “Action Plan” for management of those stocks. Proposed studies to determine the amount of undercounting with the Bendix Sonar are currently waiting funding in the legislature. The run forecast for Fish Creek of 53,000 fish is 67% less than the 20-year average run of 159,000. The sockeye salmon run forecast for Crescent River of 100,000 is 7% less than the 20-year average run of 108,000.

Forecast runs to individual freshwater systems are as follows:

System	Run	Goal
Crescent River	100,000	30,000–70,000
Fish Creek	53,000	20,000–70,000 <sup>a</sup>
Kasilof River	1,286,000	150,000–250,000 <sup>b</sup>
Kenai River	3,064,000	750,000–950,000 <sup>c</sup>
Susitna River	344,000	90,000–160,000
Minor Systems	727,000	N/A

<sup>a</sup> Escapement goal includes up to 5,000 fish for broodstock for the hatchery program in Big Lake.

<sup>b</sup> The Kasilof River has an optimum escapement goal (OEG) of 150,000 to 300,000 to facilitate meeting the lower end of the Kenai River goal.

<sup>c</sup> The Kenai River is an abundance-based escapement goal; 750,000 to 950,000 is the appropriate inriver sonar goal for a 2 million to 4 million Kenai River sockeye salmon run.

<sup>d</sup> The escapement goal for the Yentna River is 90,000 to 160,000 sockeye salmon counted by sonar. In Kenai runs of over 4 million, there is a Yentna River OEG of 75,000 to 180,000 sockeye. The Yentna River is thought to account for approximately 50% of the total Susitna River run.

### **OTHER SPECIES' HARVEST PROJECTIONS**

Very little information is available on which to base outlooks for the commercial harvests of the other salmon species. Using recent harvest trends and factoring in the expected intensity of the sockeye-based fishery, the following numbers represent our best estimate of the 2008 harvest:

Pink Salmon	380,000
Chum Salmon	100,000
Coho Salmon	200,000
Chinook Salmon	20,000

## ***2008 REGULATORY CHANGES***

There were many regulatory changes made by the Alaska Board of Fisheries during the February meeting that will be implemented during the 2008 season. The following summary is for informational purposes only and is not a comprehensive review. Regulation booklets are currently being printed and will be available prior to the beginning of fisheries. Regulation language will be available from department offices prior to booklets being published.

One of the most important changes at the 2008 Alaska Board of Fisheries meeting was the clarification that managing to meet established escapement goals is the Department's primary objective.

### **Northern District Set Gillnet**

- The Northern District king salmon fishery will open on the first Monday on or after May 25 and remain open for 12-hour (7:00 a.m. to 7:00 p.m.) fishing periods on Mondays through June 24, unless closed by emergency order. The area from an ADF&G regulatory marker located 1 mile south of the Theodore River to the Susitna River remains open for one period only, on the second regular Monday period, this year that period will be June 2.
- Susitna River sockeye salmon were found by the Board to be a stock of yield concern. An action plan was developed to conservatively manage the commercial fishery while research continues to better understand the productivity of this stock. This action plan allows the Northern District set gillnet fishery to fish with no more than one net per permit from July 20 through August 6, unless the Department determines that the Yentna River escapement goal will be achieved. If so, the gear restriction may be relaxed by emergency order.

### Upper Subdistrict Set Gillnet Fishery

- From the beginning of the fishing season through July 7, or until the Kenai and East Forelands Sections set gillnet fisheries open, there is to be a weekly no-fishing window of 36-hours in duration. The Board directed the department to make this a fixed window in time, and to begin it sometime between 7:00 p.m. on Thursdays and 7:00 a.m. on Fridays. The maximum number of emergency order hours that may utilized during this time frame remains at 48-hours per week.
- Use of the Kasilof River Special Harvest Area (KRSHA) should now occur only on rare occasions. The Board directed the department to use its emergency order authority to fish in traditional areas with more time than allowed for in the management plans, if needed, to allow additional harvests if Kasilof River sockeye salmon escapements were likely to exceed the escapement goal. The KRSHA is to be used only in cases when fishing in traditional areas does not provide for meeting escapement objectives.

### Central District Drift Gillnet Fishery

- The Board outlawed the use of spotter planes 1-hour before a fishery opens and while the fishery is being prosecuted.

- The Board passed a regulation allowing permit “stacking”. This allows two drift gillnet permit holders to fish on one boat and be allowed to fish a total of 200 fathoms of gear instead of the normal limit of 150 fathoms. Prior to fishing, the boat must be registered (see 5 AAC 21.333).
- After the opening of the set gillnet fishery in the Upper Subdistrict, fishing with drift gillnets may not occur within 1.5 miles of the mean high tide mark of the Kenai Peninsula shoreline in that area of the Kenai and Kasilof Sections of the Upper Subdistrict south of the Kenai River, nor within 1 mile of the mean high tide mark of the Kenai Peninsula shoreline in that area of the Kenai and East Forelands Sections of the Upper Subdistrict north of the Kenai River, whenever the set gillnet fishery in that area is closed.

#### Single strand fishing gear

- Beginning with the 2008 season, commercial fishermen in UCI may now fish their full allotment of gear using single strand (monofilament) mesh. No registration with the Department is required prior to using single strand mesh gear.

### ***2008 FISHING STRATEGY***

Based on the sockeye salmon run forecast to Cook Inlet for 2008, restrictions during regular periods other than those directed by the management plans, are not anticipated. In the drift gillnet fishery, mandated restrictions require the fishing periods on July 10 and July 14 be restricted to the Kenai and Kasilof Sections and Drift Gillnet Area Number One (Figure 2). In addition, in runs of between 2 and 4 million sockeye salmon to the Kenai River; two regular fishing periods between July 16 and July 31 will be restricted to the Kenai and Kasilof Sections of the Upper Subdistrict and Drift Areas One and Two (Figure 2). The date these two restrictions will occur on is dependant on how accurate the forecast is and how the season develops.

The use of the Kasilof Terminal fishery is unlikely in 2008.

#### **Northern District Set Gillnet**

- The Northern District king salmon fishery will be open for Monday periods between May 25 and June 24. In 2008 the fishery is scheduled to occur for five regular Monday periods, May 26, June 2, 9, 16 and 23. The area from an ADF&G regulatory marker located 1 mile south of the Theodore River to the Susitna River is open for one period only, on the second regular Monday period, this year that period will be on June 2. Fishing periods are from 7:00 a.m. to 7:00 p.m.
- During the regular season the number of nets from July 20 to August 6 will be reduced to a single net per permit until the escapement goal is projected to be achieved.

## Central District Fisheries

### Big River Fishery

The Big River Sockeye Salmon Management Plan was amended in 2005 to allow fishing in a portion of the Kalgin Island Subdistrict along the western shore from Light Point at 60° 29.00' N. lat., 151° 50.50' W. long. to the Kalgin Island Light on the southern end of the island at 60° 20.80' N. lat., 152° 05.09' W. long.

#### Upper Subdistrict Set Gillnet Fishery

##### **Kasilof Section Prior to July 8**

- The Kasilof Section opens on the first regular period on or after June 25, unless the department estimates that 50,000 sockeye salmon are in the Kasilof River prior to that date, at which time the commissioner may open the fishery, by Emergency Order (EO); however, the fishery may not open earlier than June 20.
- From the beginning of the fishery through July 7 the department may not allow more than 48 hours of additional fishing time per week (Sun through Sat) and will try to close the fishery for 36 consecutive hours per week, which will begin between 7:00 p.m. on Thursdays and 7:00 a.m. on Fridays.
- Beginning July 8, or after the Kenai and East Forelands Sections open, the Kasilof Section will be managed in combination with the Kenai and East Forelands Sections.

##### **Kenai, Kasilof and East Forelands Sections**

After July 8, or after the Kenai and East Forelands Sections fishing season opens, the following fishing scenarios are possible depending on run strength to the Kenai River:

- If the Kenai assessment shows the run to be **less than 2 million Kenai sockeye salmon**, there will be no more than 24 hours of additional fishing time per week in the Upper Subdistrict and there are no mandatory window closures. If the Kenai and East Forelands Sections are not fished during regular or additional openings, the department may limit regular and additional periods in the Kasilof Section to within one-half mile of shore. After July 15, if the Kasilof escapement is projected to exceed 300,000 sockeye salmon, an additional 24-hours of fishing time per week is available within one-half mile of shore in the Kasilof Section.
- If the Kenai assessment is **between 2 and 4 million Kenai River sockeye salmon**, the Department may allow up to 51 hours of additional fishing time per week and will close the Upper Subdistrict for a 36-hour closed period, which will begin between 7:00 p.m. on Thursdays and 7:00 a.m. on Fridays. In addition there will be a second 24-hour closed fishing period per week to be implemented at the Department's discretion. If the Kenai and East Forelands Sections are not fished, the department may limit regular and extra periods in the Kasilof Section to within one-half mile of shore.
- If the Kenai assessment changes to a run of **more than 4 million Kenai River sockeye salmon**, the department may allow up to 84 hours of additional fishing time per week and will close the Upper Subdistrict set gillnet fishery for a 36 hour period, which will begin between 7:00 p.m. on Thursdays and 7:00 a.m. on Fridays. There are no other mandatory no-fishing

windows at this run strength. If the Kenai and East Forelands Sections are not fished, the department may limit regular and extra periods in the Kasilof Section to within one-half mile of shore.

- The Upper Subdistrict set gillnet fishery will close no later than August 15 and all restrictions and additional time regulations from July carry over into August. From August 11-15 the fishery is open for regular periods only.

### **Central District Drift Gillnet Fishery**

- The drift fishery opens the third Monday in June or June 19, whichever is later.
- From July 9 through July 15,
  - ♦ Drift gillnet fishing is restricted for two regular fishing periods to the Kenai and Kasilof Sections and Drift Area One described below.
- From July 16 through July 31,
  - ♦ In runs of less than 2 million sockeye salmon to the Kenai River there will be two regular 12-hour fishing periods restricted to the Kenai and Kasilof Sections of the Upper Subdistrict and Drift Area One;
  - ♦ In runs of between 2 and 4 million sockeye salmon to the Kenai River; there will be two regular 12-hour fishing periods restricted to the Kenai and Kasilof Sections of the Upper Subdistrict and in Drift Areas One & Two;
  - ♦ In runs of over 4 million sockeye salmon to the Kenai River, there are no mandatory restrictions.
- From August 16 until closed by emergency order,
  - ♦ Drift Areas Three and Four are open for regular periods (Figure 3);
  - ♦ Chinitna Bay may be opened by emergency order.

### **Drift Fishing Areas**

- (1) Drift Area One: includes those waters of the Central District south of Kalgin Island at 60° 20.43' N. lat. (Figure 2);
- (2) Drift Area Two: includes those waters of the Central District enclosed by a line from 60° 20.43' N. lat., 151° 54.83' W. long. to a point at 60° 41.08' N. lat., 151° 39.00' W. long. to a point at 60° 41.08' N. lat., 151° 24.00' W. long. to a point at 60° 27.10' N. lat., 151° 25.70' W. long. to a point at 60° 20.43' N. lat., 151° 28.55' W. long. (Figure 2);
- (3) Drift Area Three; includes those waters of the Central District within one mile of mean lower low water (zero tide) south of a point on the West Foreland at 60° 42.70' N. lat., 151° 42.30' W. long. (Figure 3);
- (4) Drift Area Four; includes those waters of the Central District enclosed by a line from 60° 04.70' N. lat., 152° 34.74' W. long. to the Kalgin Buoy at 60° 04.70' N. lat., 152° 09.90' W. long. to a point at 59° 46.15' N. lat., 152° 18.62' W. long. to a point on the western shore at 59° 46.15' N. lat., 153° 00.20' W. long., not including the waters of the Chinitna Bay Subdistrict (Figure 3).

### **SET NET REGISTRATION AND BUOY STICKERS**

*All Cook Inlet setnet fishermen* are still required to register prior to fishing for one of three areas of Cook Inlet: 1) the Upper Subdistrict of the Central District; 2) the Northern District; or, 3) all remaining areas of Cook Inlet (Greater Cook Inlet). Once registered for one of these three areas, fishermen may fish only in the area for which they are registered for the remainder of the year. No transfers will be permitted. Set gillnet permit holders fishing in the Northern District or the Greater Cook Inlet area can register at Department offices in Soldotna, Homer, or Anchorage or by mail. Forms are available at area offices or on the department's homepage at <http://www.cf.adfg.state.ak.us/region2/ucihome.php>. Fishermen wishing to register in the Upper Subdistrict must register in the **Soldotna ADF&G office only**, and must purchase buoy stickers at the time of registering.

### **SEASON OPENING DATES**

Season opening dates for the various fisheries around the inlet are as follows:

- *Big River Fishery*: June 2 and continuing through June 23 unless the 1,000 Chinook salmon harvest limit is reached prior to that date. Weekly fishing periods are Mondays, Wednesdays, and Fridays from 7:00 a.m. to 7:00 p.m.
- *Northern District King Salmon Fishery*: May 26. There will be up to five fishing periods, the remaining periods are scheduled on June 2, 9, 16 and June 23. In that area from one mile south of the Theodore River to the Susitna River, there is only one open period during this fishery, which will occur on June 2 in 2008.
- *Western Subdistrict Set Net Fishery*: June 16.
- *All remaining set gillnet fisheries except the Upper Subdistrict*: June 26.
- *Upper Subdistrict Set Net Fishery*: June 26 for the Kasilof Section (that portion south of the Blanchard Line) unless opened earlier by EO (if 50,000 sockeye are in the river before the June 26 opener), but will not open before June 20. The Kenai and East Forelands Sections (that portion north of the Blanchard Line) will open July 10. All sections of the Upper Subdistrict will close for the season on or before August 15.
- *Drift Gillnet Fishery*: June 19.

### **GENERAL INFORMATION**

The UCI commercial fisheries information line will again be available by calling 262-9611. The most recent emergency order announcement is always available on the recorded message line and catch, escapement and test fishing information is included whenever possible. All emergency order announcements are also faxed to processors as quickly as possible and posted to the Upper Cook Inlet web page at <http://www.cf.adfg.state.ak.us/region2/ucihome.php>. For very general information, we invite you to visit the Commercial Fisheries web page on the Internet at <http://www.cf.adfg.state.ak.us/>. If you would like to receive emails of all UCI commercial fisheries emergency orders, please log onto the following site (<http://csfish.adfg.state.ak.us/newsrelease/select.php?dist=SOL>) and click on "Subscribe" and you will be automatically signed up to receive the emergency orders as soon as they are posted to the website.



If, during the summer, fishermen have information or questions concerning the commercial fishery, the Soldotna Commercial Fisheries Division staff can be reached by phone at 262-9368, by fax at 262-4709 or by mail at 43961 Kalifornsky Beach Road, Suite B, Soldotna, 99669.

Latitude and Longitude are based on the North American Datum of 1983 (NAD 83) which is equivalent to the World Geodetic System 1984 (WGS 84).

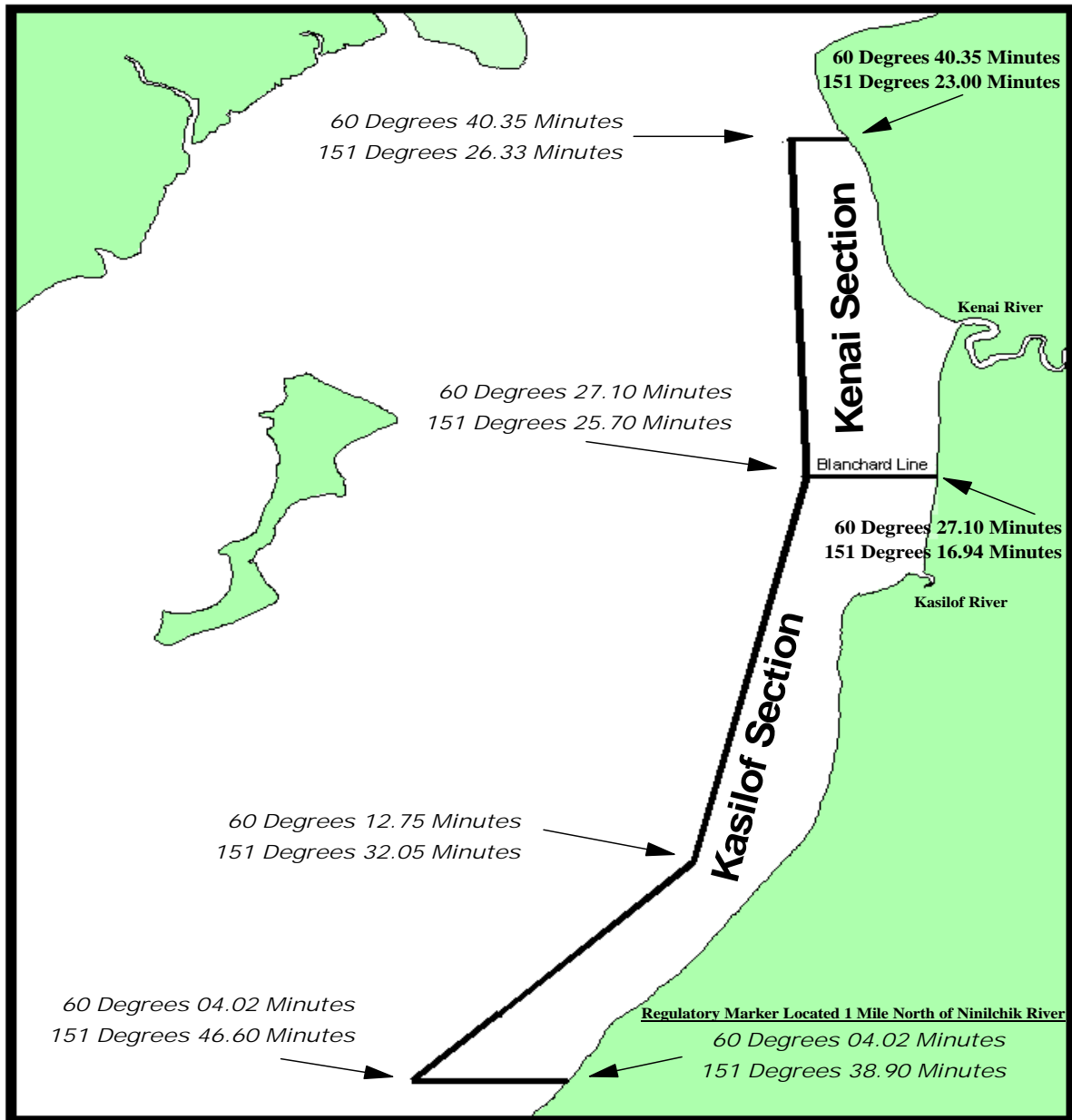


Figure 1. Map of the Kenai and Kasilof Sections with waypoint descriptions.

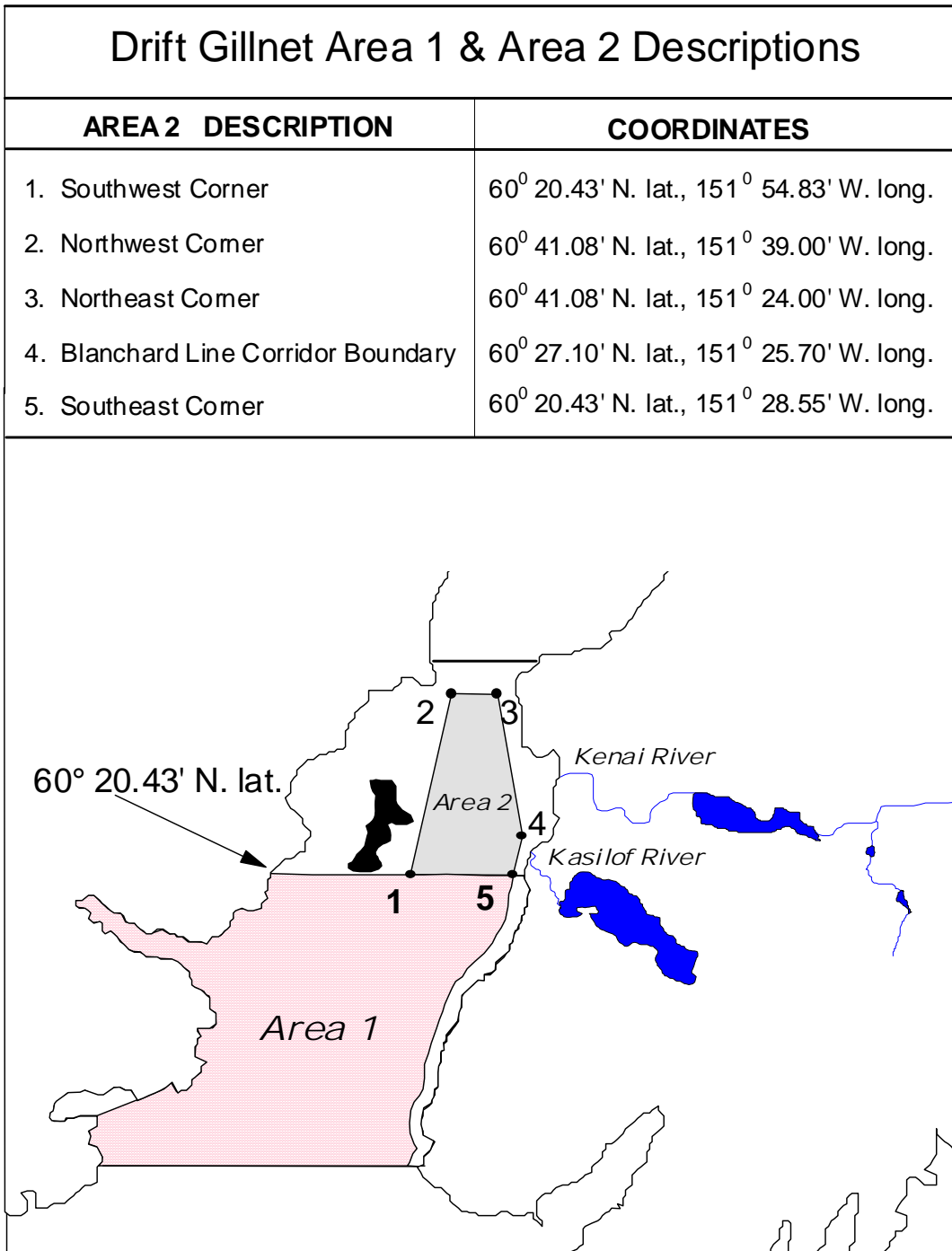


Figure 2. Map of drift gillnet fishing areas one and two.

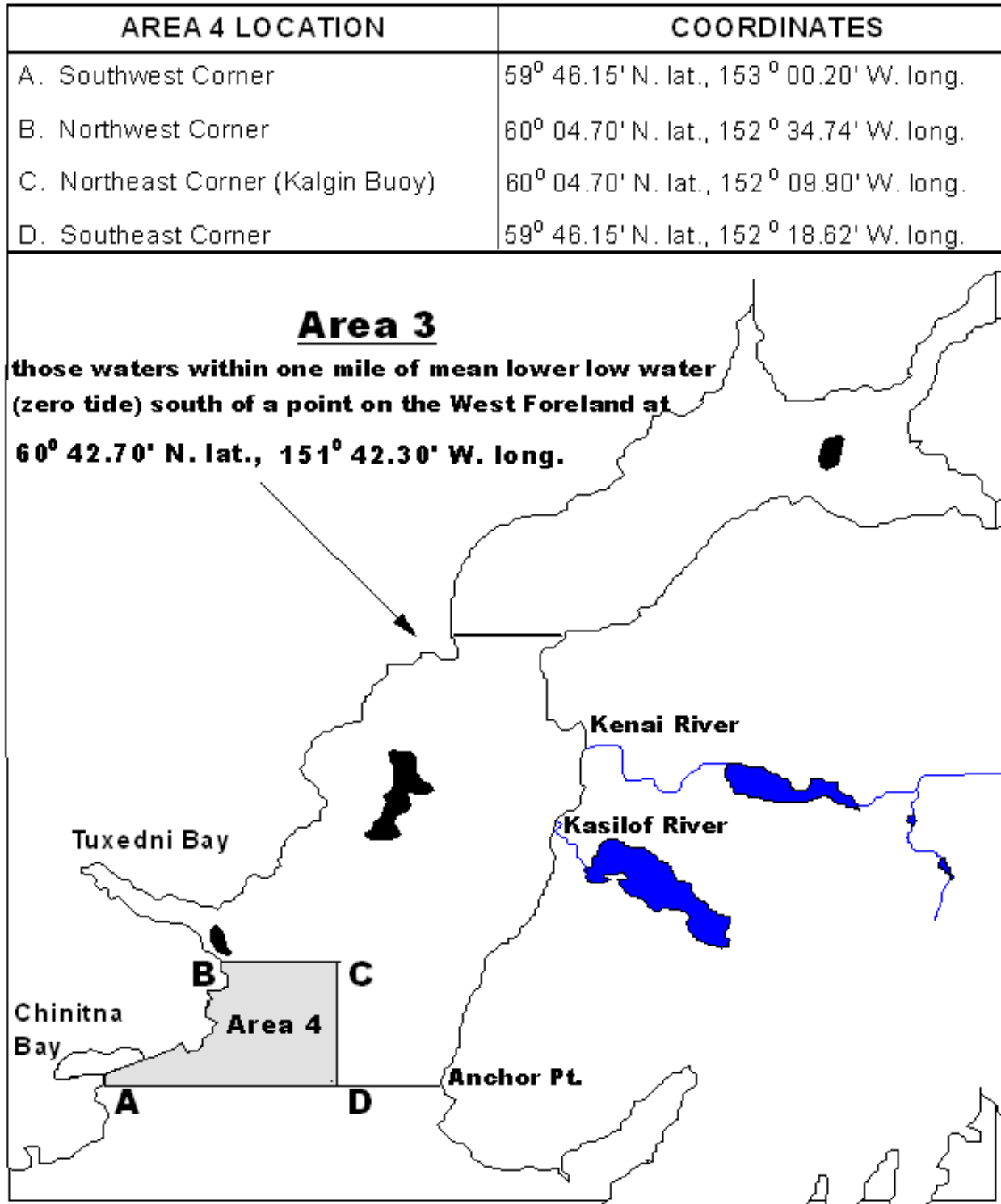


Figure 3. Map of the drift gillnet areas open beginning August 16.

**ALASKA DEPARTMENT OF FISH AND GAME**  
**DIVISION OF COMMERCIAL FISHERIES**  
**NEWS RELEASE**



*Denby S. Lloyd, Commissioner*  
*John Hilsinger, Director*



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Contact:  
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Date Issued: 1/26/2009

**2009 UPPER COOK INLET SOCKEYE SALMON FORECAST**

	Forecast Estimate (millions)	Forecast Range (millions)
TOTAL PRODUCTION:		
Total Run	4.3	1.0 – 7.6
Escapement	1.3	
Harvest Estimate	3.0	

**Forecast Methods**

The major sockeye salmon systems in Upper Cook Inlet (UCI) are the Kenai, Kasilof, Susitna, and Crescent Rivers, and Fish Creek. Spawner, sibling, fry, and smolt data, if available, were examined for each system. Four models were used to forecast the run of sockeye salmon to UCI in 2009: (1) the relationship between adult returns and spawners, (2) the relationship between adult returns and fry, (3) the relationship between adult returns and smolts, and (4) the relationship between sibling adult returns. Several forecast models were evaluated for each stock and age class. Models providing the smallest mean absolute percent error (MAPE) between the forecasts and actual runs over the past 10 years were generally used. In most cases, these were sibling models.

The returns of ages 1.3, 2.2, and 2.3 sockeye salmon to the Kenai River in 2009 were forecast using sibling models. The sibling-model prediction for the return of age 1.3 sockeye salmon was based on the abundance of age 1.2 sockeye salmon in 2008. The reconstructed ocean abundances

of Bristol Bay (BB) sockeye salmon was a significant covariate in this model. The nature of the relationships was consistent with the notion that competition for food between UCI and BB sockeye salmon during the first 2 years of ocean rearing caused more UCI sockeye salmon to return at age 1.3 when the abundance of BB sockeye salmon was high. A spawner-recruit model was used to forecast the return of age 1.2 sockeye salmon to the Kenai River. Sibling models were used to forecast the return of age 1.2 and 2.3 sockeye salmon to the Kasilof River, but the return of age 1.3 and 2.2 sockeye salmon were forecasted using smolt models.

The return of ages 1.2, 1.3, and 2.3 sockeye salmon to the Susitna River were forecast using sibling models, but a spawner-recruit model was used to forecast the return of age 2.2 sockeye salmon. The brood tables used to forecast the Susitna sockeye salmon run have been derived using an age composition allocation model, which is based upon sonar estimates of sockeye salmon escapement into the Yentna River. However, recent Susitna sockeye salmon mark-recapture studies have shown that the Yentna sonar project underestimated sockeye salmon escapement causing estimates of adult returns to also be underestimated. Therefore, the 2009 Susitna sockeye salmon run forecast was expanded to better estimate the actual number of returning fish. An expansion factor (2.137) was estimated from the ratio of Susitna sockeye salmon run estimates based on mark-recapture and genetic stock identification versus estimates derived from sonar and the age composition allocation model.

The sockeye salmon forecast for unmonitored systems in UCI was estimated as 5% of the aggregate forecast for the 5 major stocks. The fraction of the total sockeye salmon run destined for unmonitored systems was estimated using genetic stock composition estimates for the commercial harvest. The total harvest by all user groups was estimated by subtracting the aggregate escapement from the total run forecast for all stocks. The aggregate escapement was estimated from the sum of the mid points of the escapement goal ranges for each of the major sockeye salmon producing systems in UCI and the escapement into unmonitored systems (estimated as 5% of the aggregate escapement into monitored systems). The estimated sport harvest upstream of the sonar at river mile 19 on the Kenai River was subtracted from the aggregate escapement into monitored systems. An approximate eighty percent confidence interval for the total run forecast was calculated using the squared deviations between past forecasts and actual runs as the forecast variance (mean square error).

### **Forecast Discussion**

In 2008, the harvest of sockeye salmon by all user groups in UCI was 2.8 million, while the preseason forecast was 3.9 million. The lower than expected harvest in 2008 was largely due to weaker than expected returns of age 1.3 sockeye salmon to the Kenai River. However, sockeye salmon runs to all five monitored systems were below the forecasted run size. In 2008, the total run of sockeye salmon was 2.1 million to the Kenai River, 1.1 million to the Kasilof River, 307,000 to the Susitna River, 82,000 to the Crescent River, and 27,000 to Fish Creek. The forecasted run of sockeye salmon in 2008 was 3.1 million to the Kenai River, 1.3 million to the Kasilof River, 344,000 to the Susitna River, 100,000 to the Crescent River, and 53,000 to Fish Creek.

A run of 4.3 million sockeye salmon is forecasted to return to UCI in 2009 with a harvest by all user groups of 3.0 million sockeye salmon. The forecasted harvest in 2009 is about 0.9 million fish below the 20-year average harvest by all user groups of 3.9 million. The sockeye salmon run

forecast for the Kenai River is 2.4 million, which is 27% less than the 20-year average run of 3.4 million. However, there is considerable uncertainty in the 2009 Kenai River sockeye salmon run forecast. Age 1.3 sockeye salmon typically comprise about 61% of the run to the Kenai River. The age 1.3 sockeye salmon returning in 2009 are the progeny from an overescapement (1,120,000) into the Kenai River in 2004. A sibling model based upon the return of age 1.2 sockeye salmon in 2008 (193,000; 20-year average: 247,000) predicted a return of 1.8 million age 1.3 sockeye salmon to the Kenai River. While a fry model based upon the abundance of sockeye salmon fry rearing in Skilak and Kenai lakes in the fall of 2005 (41.9 million; 20-year average: 18.5 million) predicted a return of 3.5 million age 1.3 sockeye salmon. The sibling model was used for this forecast because the 10-year MAPE was lower for the sibling model (28%) than the fry model (48%). Age 2.3 sockeye salmon typically comprise about 21% of the run to the Kenai River. A sibling model based upon the return of age 2.2 sockeye salmon in 2008 (107,000; 20-year average: 212,000) predicted a return of 230,000 age 2.3 sockeye salmon to the Kenai River in 2009. The forecasted return is 67% less than the 20-year average return for this age class. The predominant age classes in the 2009 run should be age 1.3 (73%) and age 2.3 (9%). The 10-year MAPE for the set of models used for the 2009 Kenai sockeye salmon run forecast was 31%.

The sockeye salmon run forecast for the Kasilof River is 822,000, which is 13% less than the 20-year average run of 945,000. Age 1.3 sockeye salmon typically comprise about 36% of the run to the Kasilof River. The age 1.3 sockeye salmon returning in 2009 are the progeny from an overescapement (575,000) into the Kasilof River in 2004. The forecast for age 1.3 sockeye salmon is 275,000, which is 18% less than the 20-year average return (336,000) for this age class. A smolt model based upon the abundance of age-1 sockeye salmon smolts emigrating from the Kasilof River in 2006 was used to forecast the return of age 1.3 sockeye salmon in 2009. The abundance of age-1 smolts in 2006 was 2.6 million, which is 40% less than the 20-year average abundance (4.3 million) for this age class. However, the forecast for the age 1.3 sockeye salmon return is uncertain because the sibling model predicted a return (443,000) 1.6 times greater than the smolt model. The smolt model was used for this forecast because the 10-year MAPE was lower for the smolt model (10%) than the sibling model (24%). Age 1.2 sockeye salmon typically comprise about 30% of the run to the Kasilof River. The forecast for age 1.2 sockeye salmon is 342,000, which is 22% greater than the 20-year average return (280,000) for this age class. A sibling model based upon the return of age 1.1 sockeye salmon in 2008 was used to forecast the return of age 1.2 sockeye salmon in 2009. About 1,500 age 1.1 sockeye salmon returned to the Kasilof River in 2008, which is 31% greater than the 20-year average return (1,200) for this age class. Age 2.2 sockeye salmon typically comprise about 23% of the run to the Kasilof River. The forecast for age 2.2 sockeye salmon is 129,000, which is 41% less than the 20-year average return (216,000) for this age class. A smolt model based upon the abundance of age-2 sockeye salmon smolts emigrating from the Kasilof River in 2007 was used to forecast the return of age 2.2 sockeye salmon in 2009. The abundance of age-2 smolts in 2007 was 875,000, which is 50% less than the 20-year average abundance (1.8 million) for this age class. The predominant age classes in the 2009 run should be age 1.2 (42%), age 1.3 (33%), and age 2.2 (16%). The 10-year MAPE for the set of models used for the 2009 Kasilof sockeye salmon run forecast was 20%.

The sockeye salmon run forecast for the Susitna River is 669,000, which is 27% less than the 20-year average run of 913,000. As previously described, the 2009 Susitna sockeye salmon

run forecast has been expanded to better represent actual numbers of fish, so the run estimates are substantially higher than those reported in previous forecasts due only to the different method used. Age 1.3 sockeye salmon typically comprise about 55% of the run to the Susitna River. The forecast for age 1.3 sockeye salmon is 260,000, which is 48% less than the 20-year average return (501,000) for this age class. A sibling model based upon the return of age 1.2 sockeye salmon in 2008 was used to forecast the return of age 1.3 sockeye salmon in 2009. About 60,000 age-1.2 sockeye salmon returned to the Susitna River in 2008, which is 63% less than the 20-year average return (163,000) for this age class. Age 1.2 sockeye salmon typically comprise about 18% of the run to the Susitna River. The forecast for age 1.2 sockeye salmon is 201,000, which is 24% greater than the 20-year average return (163,000) for this age class. A sibling model based upon the return of age 1.1 sockeye salmon in 2008 was used to forecast the return of age 1.2 sockeye salmon in 2009. About 5,000 age 1.1 sockeye salmon returned to the Susitna River in 2008, which is 61% greater than the 20-year average return (2,100) for this age class. Age 2.3 sockeye salmon typically comprise about 14% of the run to the Susitna River. The forecast for age 2.3 sockeye salmon is 97,000, which is 25% less than the 20-year average return (130,000) for this age class. A sibling model based upon the return of age 2.2 sockeye salmon in 2008 was used to forecast the return of age 2.3 sockeye salmon in 2009. About 42,000 age 2.2 sockeye salmon returned to the Susitna River in 2008, which is 30% less than the 20-year average return (59,000) for this age class. The 10-year MAPE for the set of models used for the 2009 Susitna sockeye salmon run forecast was 33%.

The sockeye salmon run forecast for Fish Creek is 80,000, which is 42% less than the 20-year average run of 139,000. Age 1.2 and 1.3 sockeye salmon typically comprise 77% of the run to Fish Creek. Sibling models based upon the abundances of age 1.1 and 1.2 sockeye salmon in 2008 were used to forecast the runs of age 1.2 (65,000) and 1.3 (4,000) sockeye salmon in 2009. The age-1.2 forecast is 5% less than the 20-year average return (68,000) for this age class, while the age-1.3 forecast is 90% less than the 20-year average return (38,000). The predominant age classes in the 2009 run should be age 1.2 (81%), age 1.3 (5%), and age 2.2 (11%).

**Forecast runs to individual freshwater systems are as follows:**

System	Run	Goal Range
Crescent River	92,000	30,000–70,000
Fish Creek	80,000	20,000–70,000
Kasilof River	822,000	150,000–250,000
Kenai River	2,441,000	750,000–950,000
Susitna River	669,000	90,000–160,000 <sup>a</sup>
Minor Systems	193,000	N/A

<sup>a</sup> The inriver goal listed for Susitna River sockeye salmon is the escapement goal range for Yentna River sockeye salmon. The sonar estimate of sockeye salmon escapement into the Yentna River is typically multiplied by 1.95 to expand the estimate to the entire Susitna River watershed.

The sockeye salmon run forecast for Crescent River is 92,000, which is 8% less than the 20-year average run of 101,000. Age 1.3 and 2.3 sockeye salmon typically comprise 82% of the run to Crescent River. Sibling models based upon returns of age 1.2 and 2.2 sockeye salmon in 2008 were used to forecast returns of age 1.3 (48,000) and 2.3 (28,000) sockeye salmon



to the Crescent River in 2009. The predominant age classes in the 2009 run should be age 1.3 (52%) and age 2.3 (30%).

### **Other Species**

The recent 5-year average commercial harvest was used to forecast the harvest of chum, coho, and Chinook salmon in 2009. The forecast for pink salmon was based upon the average harvest during the past 5 odd-numbered years. The recent 5-year average commercial harvest was used in the forecast, because regulatory changes have substantially restricted harvests of these species in recent years. The harvest forecast for pink, chum, coho, and Chinook salmon are 70,000; 80,000; 210,000 and 20,000 fish.

For more information contact Mark Willette, Jeff Fox, or Pat Shields at the Soldotna ADF&G office at (907) 262-9368.



## **APPENDIX C**

**ALASKA DEPARTMENT OF FISH AND GAME**  
**DIVISION OF COMMERCIAL FISHERIES**  
**NEWS RELEASE**



*Denby S. Lloyd, Commissioner*  
*John Hilsinger, Director*



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Contact:  
Pat Shields, Assistant Area Management Biologist  
Phone: (907) 262-9368  
Fax: (907) 262-4709

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Soldotna, AK 99669  
Date Issued: March 24, 2008

**2008 UPPER COOK INLET COMMERCIAL SMELT (HOOLIGAN)  
AND HERRING FISHING SEASONS**

A commercial fishery for smelt (hooligan) was reopened by the Alaska Board of Fisheries (BOF), beginning with the 2005 season. This fishery occurs in Cook Inlet, in those waters located between the Chuit River and the Little Susitna River (salt water only). The season is open from May 1 to June 30. Legal gear for the fishery is a hand-operated dip net as defined in 5 AAC 39.105. The total harvest may not exceed 100 tons of smelt. Any salmon caught must be released immediately and returned to the water unharmed. To participate in this fishery, a miscellaneous finfish permit is required as well as a free commissioner's permit, which can be obtained from the ADF&G office in Soldotna. The commissioner's permit must be obtained prior to applying for the miscellaneous finfish permit.

The Central District Herring Management Plan (5 AAC 27.409) was modified by the BOF at their 2008 Upper Cook Inlet meeting. The areas open to fishing occur in the Central District of Upper Cook Inlet, including the Kalgin Island Subdistrict, Upper Subdistrict, Western Subdistrict, and Chinitna Bay Subdistrict as described in 5 AAC 21.200(b)(2), (b)(3), (b)(5), and (b)(6). The legal gillnet mesh size is no smaller than 2.0 inches or no greater than 2.5 inches. The season is open from April 20 to May 31 with one fishing period per week, to begin on or after Monday at 6:00 a.m. and closes on or before Friday at 6:00 p.m. In the Upper Subdistrict, the guideline harvest range is 0-40 tons and fishing for herring is not allowed any closer than 600 feet of the mean high tide mark on the Kenai Peninsula. In the Chinitna Bay Subdistrict the department is to manage for a guideline harvest of 0-40 tons, in the Western Subdistrict the guideline harvest range is 0-50 tons, and in the Kalgin Island Subdistrict the guideline harvest range is 0-20 tons.

In the Central District, herring may be taken only by gillnet, as defined in 5 AAC 27.431, except that in the Chinitna Bay and Kalgin Island Subdistricts, herring may only be taken by set gillnets (5 AAC 27.430 (b)). Prior to fishing, all participants are required to register at the department's Soldotna office. Fishermen are also required to report fishing time and the amount of smelt and herring harvested, whether sold or retained for personal use, to the Soldotna office by 12:00 noon of the next day for each day fished. Fishermen are also reminded that fish tickets are to be filled out and either mailed or dropped off at the Soldotna ADF&G office within seven days of the time of landing (5 AAC 39.130 (c)). If you intend to sell your catch directly from your fishing site (beach or vessel), you must first obtain a catcher-seller permit from ADF&G.