Fishery Management Report No. 22-16

Upper Cook Inlet Commercial Fisheries Annual Management Report, 2021

by

Brian Marston

and

Alyssa Frothingham

August 2022

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.

Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft^3/s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

all atomic symbols	
alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity (negative log of)	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

Alaska Administrative Code	AAC
all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.
all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat or long
monetary symbols (U.S.)	$, ¢
months (tables and figures): first three letters	Jan,...,Dec
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. state	use two-letter abbreviations (e.g., AK, WA)

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations	
alternate hypothesis	H_A
base of natural logarithm	e
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	E
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$\log_2$, etc.
minute (angular)	'
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	″
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

FISHERY MANAGEMENT REPORT NO. 22-16

UPPER COOK INLET COMMERCIAL FISHERIES ANNUAL MANAGEMENT REPORT, 2021

by
Brian Marston and Alyssa Frothingham
Alaska Department of Fish and Game, Division of Commercial Fisheries, Soldotna

Alaska Department of Fish and Game
Division of Sport Fish, Research and Technical Services
333 Raspberry Road, Anchorage, Alaska, 99518-1565

August 2022

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.adfg.alaska.gov/sf/publications/. This publication has undergone regional peer review.

Product names used in this publication are included for completeness and do not constitute product endorsement. The Alaska Department of Fish and Game does not endorse or recommend any specific company or their products.

Brian Marston and Alyssa Frothingham,
Alaska Department of Fish and Game, Division of Commercial Fisheries,
43961 Kalifornsky Beach Road, Suite B, Soldotna, AK 99669-8367, USA

This document should be cited as follows:
Marston, B., and A. Frothingham. 2022. Upper Cook Inlet commercial fisheries annual management report, 2021. Alaska Department of Fish and Game, Fishery Management Report No. 22-16, Anchorage.

TABLE OF CONTENTS

Page

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF APPENDICES (Continued)

ABSTRACT

This annual management report describes commercial fishery management in Upper Cook Inlet of Southcentral Alaska. The Upper Cook Inlet commercial fishery management area is made up of salt waters north of Anchor Point and is divided into 2 management districts. In the south, the Central District includes 6 subdistricts, and to the north, the Northern District includes 2 subdistricts. Five species of Pacific salmon (Chinook *Oncorhynchus tshawytscha*, sockeye *O. nerka*, coho *O. kisutch*, pink *O. gorbuscha*, and chum salmon *O. keta*), as well as razor clams (*Siliqua patula*), Pacific herring (*Clupea pallasii*), and eulachon (*Thaleichthys pacificus*) are harvested. All species of salmon are harvested from both districts, but herring and clams are only harvested in the Central District, and eulachon are only harvested in the Northern District. The total run estimate for sockeye salmon in 2021 of 5.8 million was 32% higher than the preseason forecast of 4.4 million fish. The commercial harvest of 1.7 million salmon was 42% less than the 2011–2020 average annual harvest of 3.0 million and of that, the sockeye salmon harvest of 1.4 million was 40% less than the 2011-2020 average annual harvest of 2.4 million fish. The 2021 harvests of all salmon, and sockeye salmon, were 57% and 51% lower than the long-term (1970 to 2020) average harvests. The 2021 exvessel value of the harvest of all salmon was $13.9 million, which was 49% less than the 2011–2020 average annual exvessel value of $27 million and approximately 49% less than the 1970–2020 long-term average annual exvessel value of $27 million. Sockeye salmon accounted for the majority of the exvessel value at 91%. In 2021, 2 of 6 sockeye salmon count estimates were within their inseason management goal ranges, and 4 of 6 exceeded those goal ranges.

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

INTRODUCTION

This annual management report describes commercial fishery harvest, management, and salmon stock trends for the Upper Cook Inlet (UCI) Management Area of Southcentral Alaska. The UCI commercial fisheries management area, located in Southcentral Alaska, consists of that portion of Cook Inlet north of the latitude of the Anchor Point Light (lat 59°46.15′N) and is divided into the Central and Northern Districts (Figures 1 and 2). The Central District (CD) is approximately 75 miles long, averages 32 miles in width, and is divided into 6 subdistricts. The Northern District (ND) is 50 miles long, averages 20 miles in width, and is divided into 2 subdistricts. Harvest statistics are gathered and reported from 28 statistical (stat) areas (Figures 3 and 4) that each have a 5-digit numerical code. Harvests are also reported from 6 subareas (sections) that are combinations of statistical areas relative to management plan stipulations (Figures 5 and 6). UCI commercial fisheries harvest 5 species of Pacific salmon (*Oncorhynchus* spp.), razor clams (*Siliqua patula*), Pacific herring (*Clupea pallasii*), and eulachon (*Thaleichthys pacificus*). Both areawide regulations and specific management plan stipulations were used to implement inseason management actions. These occurred by date in regulation, or with emergency orders (EO) that change or implement specific daily regulations based on the inseason fish abundance, or allocative factors in user groups. Specific historical changes to the UCI commercial fishery harvest and the management of those fisheries can be found in past annual management reports (Ruesch 1990; Fox and Shields 2000; Shields 2009; Marston and Frothingham 2019).

SALMON

Over its 143-year history since 1878[1] the commercial salmon fishery in UCI waters has included multiple gear types with varying degrees of success, including fish traps, gillnets, and seines. With

[1] See Alaska State Library–Historical Collections, Robert N. DeArmond papers, ca. 1945–1969, The Cook Inlet Fishing Industry, available at http://library.alaska.gov/hist/hist_docs/docs/asl_ms39_4_4.pdf (accessed November 2021).

statehood in 1959, the State of Alaska Department of Fish and Game (ADF&G) began its management authority and fish traps were no longer allowed. Currently, set gillnets are the only gear permitted in the ND, whereas both set and drift gillnets are permitted in the CD. Although seine gear has not been used in UCI since 1982, the use of seine gear is allowed in the Chinitna Bay Subdistrict, where it may be operated via EO only. Salmon are found in most drainages throughout the UCI management area, and the run timing and migration routes used by all species overlap to such a degree that the commercial fisheries are mostly mixed stock and mixed species in nature.

Detailed commercial salmon harvest statistics specific to gear type and location are available since 1970 (Appendices B1–B6). Since 1970, drift gillnets in the CD have accounted for approximately 7% of the average annual harvest of Chinook salmon (*O. tshawytscha*), as well as 55% of sockeye (*O. nerka*), 50% of coho (*O. kisutch*), 48% of pink (*O. gorbuscha*), and 89% of chum salmon (*O. keta*; Appendices B1–B5); set gillnets used in both districts have harvested virtually all the remainder. In terms of economic value, sockeye salmon are the most important species of the UCI commercial salmon harvest, followed by coho, chum, Chinook, and pink salmon (Appendix B7).

HERRING

Commercial herring fishing began in UCI in 1973 (Flagg 1974), when a modest harvest of bait-quality fish along the east side of the CD occurred. The fishery is now managed under 5 AAC 27.409, the *Central District Herring Management Plan*.

Because the turbid waters of UCI preclude the use of aerial surveys to estimate the biomass of herring stocks, management of the herring fisheries follow a limited and precautionary approach that restricts harvest. In the CD, herring may be taken only by set or drift gillnets, except in the Chinitna Bay and Kalgin Island Subdistricts, where only set gillnets may be used. The UCI herring fishery is the first commercial finfish fishery in the UCI area and the open season is from April 20 through May 31. This fishery is conducted by weekly 108-hour fishing periods from Monday through Friday, is opened by EO, and is closed by subsequent EO if the harvest levels are met. The number of fish harvested must be reported weekly to ADF&G by all participants. Moreover, conservative guideline harvest levels that are significantly lower than harvests in prior years (Appendix B8) are now used to provide for a low-level commercial fishery on these stocks. The harvests are generally concentrated in the Clam Gulch area of the Upper Subdistrict and very little or no participation occurs in the Western, Chinitna Bay, or Kalgin Island Subdistricts. The herring currently harvested in UCI are primarily sold to sport fishery anglers and charter boat guides for use as bait in sport halibut and rockfish fisheries of the Cook Inlet area.

SMELT

Smelt are commercially harvested in UCI, and the smelt fishery is the first anadromous fish fishery that occurs each year in early spring. Smelt return to many of the larger river systems in UCI including particularly large runs to the Susitna and Kenai Rivers. Both longfin smelt *Spirinchus thaleichthys* and eulachon *Thaleichthys pacificus* are documented in Cook Inlet (Alaska Energy Authority 2014 and 2015; Willette and DeCino 2016). Eulachon begin returning to spawning areas in Cook Inlet from 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 but are not harvested because of the small run size and a general lack of demand. A eulachon run that is harvested commercially only occurs in one other location in Alaska (Moffitt et al. 2002).

Smelt harvest has occurred since 1978 in UCI. Prior to the 2000 season and the subsequent adoption of 5 AAC 39.212, the *Forage Fish Management Plan* (FFMP), the entire UCI area was open to smelt fishing from October 1 to June 1 (Shields 2005). Documented commercial harvest of smelt occurred in 1978 (300 lb), 1980 (4,000 lb), 1998 (18,900 lb), and 1999 (100,000 lb). All harvests occurred in saltwater tidal areas near the Susitna River mouth.

The UCI smelt fishery for eulachon is conducted as per the FFMP and with specific direction from 5 AAC 21.505, the *Cook Inlet Smelt Fishery Management Plan*. This fishery is allowed only in salt water from May 1 to June 30, and specifically in that area of Cook Inlet from the Chuitna River to the Little Susitna River and in the Susitna River south of lat 61°21.50′ N. Legal gear for the fishery is limited to a hand-operated dip net, and the total guideline harvest level is 200 tons of smelt or less. A department report has shown the estimated biomass of eulachon in 2016 to be 48,000 tons in the Susitna River (Willette and DeCino 2016).

RAZOR CLAMS

Commercial harvest of razor clams from UCI beaches dates to 1920 (Appendix B9). Harvest levels have fluctuated from zero to harvests of more than 500,000 lb. The sporadic nature of the fishery was more a function of limited market opportunities than limited availability of the resource. Razor clams are present in many areas of Cook Inlet, and particularly dense concentrations occur near Polly Creek on the western shore and from Clam Gulch south to Ninilchik on the eastern shore (Nickerson 1975). A large portion of the Polly Creek beach is approved by the Alaska Department of Environmental Conservation for the harvest of clams for the human food market. The eastern shoreline of UCI has been set aside exclusively for sport harvest 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 (Figure 1). ADF&G permit stipulations include that a limit of 10% shell breakage is allowed; broken-shelled clams are required to be dyed prior to sale as bait clams. No overall commercial 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 350,000–400,000 lb (in the shell) annually, and no clams with a shell size less than 4.5 inches may be harvested. Almost all the commercial harvest is performed by hand digging.

2021 UCI COMMERCIAL SALMON FISHERIES SUMMARY AND RUN PERFORMANCE

The overall harvest and value of the 2021 UCI commercial salmon fishery improved from 2020 but was below recent 10-year averages (Appendix B6). The 2021 harvest of approximately 1.7 million salmon was 41% less than the 2011–2020 average annual harvest of 2.9 million fish (Appendices A21 and B6). Individual harvests by species and fishery per district were variable and some districts harvested more, compared to average, of some species (Appendices B1–B5). Although all 5 species of Pacific salmon found in Alaska are present in UCI, sockeye salmon are the most valuable, accounting for nearly 90% of the total exvessel value during the past 10 years and 82% historically (Appendix B7). The 2021 estimated exvessel value for all commercially harvested salmon species was approximately $14 million and was 49% less than the 2011–2020 average annual exvessel value of $27 million. Per species, the exvessel values for the harvests of Chinook and coho salmon were above average, and the other 4 species were below (Appendix B7).

In general, harvest success of the commercial fishery in 2021 of all salmon species across UCI was below average. A few exceptions to this low harvest occurred in some areas including harvests in

the ND and western areas of the CD. As in 2020, very poor harvests occurred in the Upper Subdistrict (ESSN) of the CD due to restrictions for low Chinook and coho salmon abundance and allocative factors. The drift gillnet fishery harvest improved compared to 2020 but was still below average and participation was down significantly. The ND set gillnet Chinook salmon fishery was restricted to 6 hours from 12 hours per opening again in 2021, and harvests were similar to recent years. Salmon harvests were also comparable to recent years on the west side subdistricts of UCI, and those fisheries were run with regulatory hours and no restrictions for all openings. However, unlike previous years, no additional fishing time was allowed in the Western Subdistrict for sockeye salmon in 2021. The Kalgin Island Subdistrict was allowed 2 extra set gillnet openings for Packers Creek sockeye salmon when that run showed in sufficient numbers to allow extra fishing time.

Estimating average annual price paid per pound of UCI salmon (Appendix B11) is challenging because an increasing number of fishers sell some or all their harvest to niche markets where they often receive higher prices. In addition, the early-season price of Chinook and sockeye salmon is often much higher than what is paid later in the season. Average prices listed here are generated from inseason prices paid to fishers as reported by the processors, and do not reflect any postseason adjustments (Appendix B11). Based on these estimated prices, the total exvessel value of the 2021 salmon fishery was approximately $14 million (Appendix B7). The average price per pound for sockeye salmon in 2021 was estimated to be $1.74 and was one cent below the 2011–2020 average price of $1.75. Using this average price per pound (Appendices B7 and B11), the exvessel value for sockeye salmon was estimated to be $13 million, which was 49% less than the previous 10-year (2011–2020) average annual value of $25 million. In addition, sockeye salmon made up 91% of the 2021 total exvessel value (Appendix B7).

Sockeye salmon run assessments, by sonar continued in the Kenai and Kasilof Rivers in 2021. This season, like the past 12 years, sockeye salmon escapement was also monitored with weir counts in the major sockeye salmon producing lakes of the Susitna River (Figure 1) drainage at Judd Lake (in the Yentna River), and at Larson Lake in the mainstem Susitna River. Though it had been operated in the past 2 years, the Chelatna Lake escapement, also in the Susitna Drainage, was not operated in 2021 due to budget shortfalls. Packers Lake on Kalgin Island was also monitored for sockeye salmon escapement by a remote video project.

In total, there are 6 sockeye salmon systems monitored in UCI by the Division of Commercial Fisheries (DCF; Figure 1) with escapement goals, inriver goals, or both (Table 1, Appendices A2 and B10). In 2021, 2 of 6 sockeye salmon assessment counts fell within established goal ranges, and 4 exceeded those goal ranges. After the 2021 harvest of sockeye salmon above the sonar site is accounted for in the Kenai River, the escapement in this drainage will also have inevitably exceeded the sustainable escapement goal (SEG) for this system since the inriver sonar count (2,400,000) exceeded the inriver goal by 1.2 million fish, and the SEG by 1.1 million fish.

Several other streams in UCI were also monitored for salmon escapement by the Division of Sport Fish (DSF; Lipka et al. 2020; Oslund et al. 2020), including sockeye salmon at Fish Creek and Russian River; Chinook salmon at Kenai River, Deshka River, Little Susitna River, Anchor River, Deep Creek, and Crooked Creek; and coho salmon at Deshka, Little Susitna River, and Anchor River, as well as at McRoberts Creek, and Deep Creek.

CHINOOK SALMON FISHERY

The 2021 UCI commercial harvest of 4,000 Chinook salmon increased slightly from the previous year and was the fourth smallest Chinook salmon harvest since 1970 (Appendix B1). This was approximately 36% lower than the 2011–2020 average annual harvest of 6,000 fish (Appendices A3, B1, and B6). Exvessel value for UCI Chinook salmon in 2021 was estimated at $124,439, which represented approximately 1% of the total exvessel value for all salmon, which was essentially equal to the 2011–2020 average proportional value of Chinook salmon in UCI (Appendix B7).

Chinook salmon commercial harvests are concentrated in the Northern District and, to a lesser extent, in the ESSN fishery of the CD. Based on the 10-year average (2011–2020), the recent age of Chinook salmon harvested in UCI were primarily of the 1.2, 1.3, and 1.4 age classes. However, in 2020, a large proportion of the 1.1 age class were harvested and the 1.4 age class proportion was smaller in the 2021 harvest (Appendix A15). The observed age classes in the commercial harvest have trended toward younger fish to include more fish ocean-age-2 and younger, which have increased from 39% to 47%, as compared to the long-term 30-year average (1990 to 2020) and the recent 10-year average (2011–2020). Additionally, comparing the recent 10-year average to the long-term 30-year average, the age class of 1.4 (6 years old) fish has decreased in proportion by 8% and has been replaced by the 1.1, 1.2, and 1.3 age classes (5 years old and younger) that increased between 1% and 4% in proportion (Appendix A15).

Northern District Fishery

The ND commercial set gillnet directed Chinook salmon season was from May 25 to June 24 on Mondays only, from 7 AM to 7 PM. The *Northern District King Salmon Management Plan* (5 AAC 21.366) was created by the Alaska Board of Fisheries (BOF) in 1986 and was most recently modified in 2017. This plan now contains paired restrictions for the Deshka River sport Chinook salmon fishery and the ND set gillnet Chinook salmon commercial fishery. Restrictions in the Deshka River sport Chinook salmon fishery result in time reductions in the commercial fishery, and Chinook salmon sport fishery closure of the Deshka River results in a complete closure of the commercial fishery. Closures in sport Chinook salmon fisheries in certain westside streams also will result in closures to nearby areas of the commercial Chinook salmon fishery. In 2021, the commercial Chinook salmon fishery was closed from the wood chip dock to the Susitna River due to a closure of the sport Chinook salmon fishery in the Chinitna River, and the remainder of the ND Chinook salmon fishery was restricted to 6 hours per open period due to catch-and-release restrictions in the Deshka River Chinook salmon sport fishery.

The ND directed Chinook salmon set gillnet fishery was open in 2021 for limited fishing periods of 6 hours each Monday for most of the season, but this was rescinded for the last open period when counts improved in Deshka River. During this directed Chinook salmon fishery, 1,481 Chinook salmon were harvested, which is 6% lower than the recent 10-year average (2009–2017 and 2020) of 1,576 fish (Table 2). The 10-year average harvest calculation was limited to those years because no fishery occurred in 2018 and 2019. The estimated harvest of Chinook salmon in the subsequent ND salmon fishery was 412 fish for a total of 1,893 fish for the entire 2021 ND commercial fishing season, which is 8% greater than the 2009–2017 and 2020 average annual Chinook salmon harvest of 1,800 fish (Appendix B1).

The Northern Cook Inlet (NCI) Chinook salmon escapement was monitored inseason through a weir on the Deshka and Little Susitna Rivers. The SEG for the Deshka River was 13,000–28,000

Chinook salmon, and the SEG was 2,100–4,300 fish for the Little Susitna River. The 2021 preseason run forecast for Deshka River Chinook salmon was approximately 13,825 age 1.1–1.4 fish.[2] Based on that forecast, the 2021 run to the Deshka River may not have been large enough to achieve the SEG. Thus, the Deshka River and Little Susitna River Chinook salmon sport fisheries were restricted to catch-and-release angling, and ND set gillnet commercial fishery was restricted to 6 hours per open period. The preseason outlook for all other UCI Chinook salmon stocks in 2021 was also well below average. The estimated final 2021 escapement of Chinook salmon in the Deshka River was 18,583 fish,[3] which exceeded the SEG. The Little Susitna River weir count in 2021 was 3,121 Chinook salmon[4] which was within the escapement goal range. These escapements in 2021 resulted in sport fishery restrictions being lessened in both these NCI Rivers, late in the season.

Upper Subdistrict ESSN Fishery

Management of Chinook salmon harvests in the ESSN commercial fishery was largely predicated on the abundance of Chinook salmon in the Kenai River under stipulations of the *Kenai River Late-Run King Salmon Management Plan* (KRLKSMP). The KRLKSMP has been changed incrementally since 2012 with the addition and modification of paired restrictions in the commercial and sport fisheries (Shields and Dupuis 2015, Shields and Frothingham 2018). More recently, at the 2017 BOF meeting, another substantial change in management of Kenai River late-run Chinook salmon was adopted. The late-run Chinook salmon SEG was changed to 13,500–27,000 large (>75 cm mid eye to tail fork) fish counted using Adaptive Resolution Imaging Sonar (ARIS). Subsequently in 2020 the BOF also added an optimal escapement goal (OEG) management target of 15,000–30,000 large fish for Kenai River late-run Chinook salmon. Kenai River Chinook salmon abundance was assessed in season with ARIS acoustical methods at river mile 8, and preseason forecasts are calculated each year prior to any fishing (Lipka et al. 2020).

The 2021 preseason forecast for Kenai River late-run Chinook salmon was for a total run of approximately 18,406 large fish.[5] This forecast suggested that the SEG may not be met based on average harvest rates of large fish in both commercial and sport fisheries and if the Chinook salmon run returned at forecasted levels. Due to the below average forecast, along with recent lackluster Chinook salmon abundances throughout UCI, the Kenai River sport fishery was restricted to no bait beginning July 1. Further restriction to no retention occurred on July 10, and total closure to Chinook salmon angling occurred on July 21 due to observed inseason low Chinook salmon counts. Following the KRLKSMP, restrictions in the sport fishery resulted in paired restrictive actions in the ESSN fishery. The ESSN fishery was restricted to a maximum of 48 hours of fishing time per week beginning June 22 in conjunction with the no bait provision applied to the sport fishery beginning July 1, and was then further restricted to a maximum of 24 hours per week in conjunction with the subsequent application of no retention in the sport fishery. The most restrictive level of the provisions for gear restrictions to the ESSN fishery, which reduced legal set gillnet depth or length by 2/3, was also implemented throughout all the openings in June and July of 2021. With the closure of the Chinook salmon sport fishery on July 21, the ESSN fishery was also closed, and did not reopen for the 2021 season. Using mean run timing and the estimated fishery mortality of 411 large fish, the projected final escapement of Kenai River late-run Chinook

[2] http://www.adfg.alaska.gov/static-sf/fishing_reports/PDFs/2020_deshka_outlook.pdf.
[3] https://www.adfg.alaska.gov/sf/FishCounts/index.cfm?ADFG=main.displayResults&COUNTLOCATIONID=17&SPECIESID=410
[4] https://www.adfg.alaska.gov/sf/FishCounts/index.cfm?ADFG=main.displayResults&COUNTLOCATIONID=16&SpeciesID=410
[5] http://www.adfg.alaska.gov/static/fishing/pdfs/sport/byarea/southcentral/2020KenaiLateRunOutlook.pdf.

salmon was approximately 12,176[6] large fish which was below the minimum OEG of 15,000 fish. The total exploitation rate of large Kenai River Chinook salmon from all fisheries was 3%. The sport fishery harvested 222 fish whereas the ESSN fishery harvested 189 large fish (Robert Begich, Division of Sport Fish Biologist, ADF&G, Soldotna; personal communication). The total run of large Chinook salmon was estimated to be 12,519 fish, or 42% less than the preseason forecast.

Approximately 33% of the UCI Chinook salmon commercial harvest of all sizes and stocks in 2021 occurred in the ESSN fishery (Appendix B1). The 2021 ESSN estimated harvest of 1,297 Chinook salmon of all sizes and stocks was 64% less than the 2011–2020 average annual harvest of 4,000 and was approximately 86% less than the 1970–2020 average annual harvest of 9,106 fish. In 2021, the peak daily harvest of 226 Chinook salmon (Appendix A3) of all stocks and all sizes occurred on July 19, and the peak harvest week was from July 11 to July 17. The average daily harvest of Chinook salmon in the ESSN fishery of all sizes and stocks was 76 fish (range 5 to 226), including the Salamatof statistical area (244-41) which showed the highest average harvest per day for any statistical area, 53 fish of any size and stock, of the ESSN fishery (Appendix A3). An estimated 17% of the total Chinook salmon harvested in the ESSN fishery were large Kenai River mainstem (late-run) stock (Eskelin and Barclay 2022). Applying 17% to daily harvests of all Chinook salmon in the ESSN fishery (Appendix A3), the estimated daily harvest of large Chinook salmon of the Kenai River mainstem stock in the 2021 ESSN fishery averaged 13 per open fishing period and ranged from 1 to 38 large fish.

SOCKEYE SALMON FISHERY

Management of the UCI sockeye salmon fishery integrates information from a variety of programs, which together provide inseason information and an assessment of the annual run. These programs include an offshore test fishery (OTF) that creates an index of run strength and timing of sockeye salmon entering UCI; escapement counts by sonar, weir, and remote camera; various mark–recapture studies; comparative analyses of historical commercial harvest and effort levels; genetic stock identification (GSI); and age composition studies (Shields and Dupuis 2015). Additionally, observations of the age composition of sockeye salmon escapement into the principal watersheds of UCI provided information necessary to estimate the stock contribution in various commercial fisheries by comparing observed age and size data in the escapement to that in the commercial harvest (Tobias and Tarbox 1999). Beginning in 2005, a comprehensive sampling program was also initiated to estimate the stock composition of sockeye salmon harvested in UCI commercial fisheries postseason using a more sophisticated GSI analyses. Publications of GSI data describing the UCI sockeye salmon catch allocation are available for the years 2015–2018 (Barclay 2019).

The OTF program provided a catch per unit effort (CPUE) index to calculate the salmon passage rate (salmon/index point) and an inseason estimate of sockeye salmon run strength, which is an estimate of the number of sockeye salmon that enter the inlet (Appendix A1; Frothingham and Willette 2018). OTF assessments in UCI began in 1979 (Waltemyer 1983). The cumulative CPUE curve was compared to historical run timing profiles so that a projection could be made of the final CPUE during the season. This in turn provided an inseason projection of the total run abundance of sockeye salmon for UCI and of run timing. Based on these OTF data (Alyssa Frothingham, Division of Commercial Fisheries Assistant Area Management Biologist, ADF&G, Soldotna; unpublished data), the timing of the 2021 sockeye salmon run was estimated to be approximately

[6] http://www.adfg.alaska.gov/sf/FishCounts/

2–5 days late and near the preseason forecast (Robert DeCino, Division of Commercial Fisheries Area Research Biologist, ADF&G, Soldotna; personal communication). The daily and cumulative OTF trends were also compared to the average historical trends to observe if current run entry was more or less than average, which was used to alter commercial fishery harvest pressure based on sockeye salmon abundance.

Both sonar (Glick and Faulkner 2019) and weirs were used to estimate inriver abundance of sockeye salmon inseason. Sonar technology was employed to quantify sockeye salmon escapement into the glacially occluded rivers in UCI (Kenai and Kasilof Rivers), and weir-based counts were used at Larson and Judd Lakes of the Susitna Drainage. Age composition data of adult sockeye salmon returning to these lakes were also collected at the weir and sonar sites (Appendix A13). In addition to the weirs in the Susitna River drainage, an adult salmon weir was operated by the Division of Sport Fish at Fish Creek (Knik Arm). To monitor sockeye salmon escapement into Packers Lake, ADF&G installed a remote video camera system (Appendix B10; Shields and Dupuis 2012) from 2005–2006 and 2009 through 2021. This project has achieved variable success in observing sockeye salmon escapement due to logistical issues (Marston and Frothingham 2019). However, in 2021, the system functioned correctly into September, and the recorded counts confirmed that the sockeye salmon goal was achieved.

In 2021, approximately 4.3 million sockeye salmon were forecast to return to UCI (Table 3). The actual 2021 observed total run estimate was 5.8 million fish, outperforming the preseason forecast. Of the anticipated run of 4.3 million sockeye salmon, approximately 2.0 million fish were expected to escape all fisheries leaving 2.3 million sockeye salmon available for harvest to all users. If sport and personal use harvests in 2021 were similar in proportion to previous runs of this size, the commercial catch in 2021 was projected to be approximately 1.6 million sockeye salmon. The actual 2021 commercial sockeye salmon harvest of 1.4 million fish (Appendices A4, B2, and B14) was slightly below preseason expectations, and the fifth lowest recorded harvest since 1975. Drift gillnet fishers accounted for approximately 60% of the 2021 commercial sockeye salmon harvest, 851,901 fish, and set gillnet fishers caught 40% of the commercial harvest, 558,867 fish (Appendix B2).

Big River Fishery

The first commercial sockeye salmon fishery to open in UCI in 2021 was the Big River fishery which was managed under the *Big River Sockeye Salmon Management Plan* (5 AAC 21.368). Between June 1 and June 24, fishing was allowed each Monday, Wednesday, and Friday from 7:00 AM to 7:00 PM. The area that was open included stat area 245-55 of the Kustatan Subdistrict and the western and northern sides (stat area 246-10) of Kalgin Island Subdistrict (Figure 3). Permit holders were limited to a single 35 fathom set gillnet and the minimum distance between nets is 1,800 feet. Although primarily directed at the early-run of sockeye salmon returning to Big River, this fishery also had the potential to harvest Chinook salmon migrating through the area. The management plan limits the harvest of Chinook salmon to no more than 1,000 fish per year. Since 2011 the average annual Chinook salmon harvest has been 366 fish (Appendices A3 and B1). Since 2010 the average annual sockeye salmon harvest has been 10,908 fish. The 2021 fishery began on Wednesday, June 2, and harvests were reported from 10 different days, yielding a total harvest of 14,027 sockeye and 464 Chinook salmon (Appendices A3 and A4). Of the total 2021 harvest, 80% of the Chinook and 76% of the sockeye salmon were caught in the Kalgin Island westside waters (Appendices A3 and A4). For the 2021 season, 16 permit holders participated in the fishery on its peak day of June 5.

Western Side Subdistrict Fishery

The second commercial sockeye salmon fishery to open in 2021 was the set gillnet fishery on the western side of the CD, including the Western, Kalgin Island, and Kustatan Subdistricts. This fishery is opened on the first Monday or Thursday on or after June 16 and the regulatory fishing schedule consisted of two 12-hour weekly fishing periods (Mondays and Thursdays) throughout the season unless modified by EO. The fishery primarily harvested sockeye salmon bound for Crescent Lake.

In 2021, the Western Subdistrict set gillnet fishery opened for the season on Thursday, June 17, and remained open for the regulatory fishing periods of Monday and Thursday all year. A Crescent River sockeye salmon sonar project has not been in operation since 2012. When it was operational, the set gillnet fishery in this area was often expanded to fishing 24 hours per day, 7 days per week to keep escapement into Crescent Lake from exceeding the escapement goal range of 30,000–70,000 fish. In 2021, of the sockeye salmon harvest trends near the Crescent River were not sufficient to allow more openings. In 2021, approximately 66,416 sockeye salmon (Appendix A4) were harvested by 21 permit holders (Appendix A8) in the Western Subdistrict set gillnet fishery. The total 2021 Western Subdistrict sockeye salmon harvest, inclusive of the above-described Big River Fishery harvest, was 80,443 (Appendix B2), which was 14% less than the 2011–2020 average of 93,000 fish.

Northern District Fishery

The set gillnet fishery in the ND, targeting primarily sockeye salmon, opens by regulation on or after June 28 for regulatory Monday and Thursday 12-hour periods. This fishery was managed by 5 AAC 21.358, the *Northern District Salmon Management Plan* (NDSMP). The intent of this plan is to allow a mixed stock commercial fishery, minimize the harvest of NCI coho salmon, and conserve Susitna River sockeye salmon. The NDSMP contains restrictive provisions for the commercial fishery that may be used to facilitate movement of sockeye salmon into the Susitna River drainage and limits the availability of time added to the fishery later in the season when coho salmon may dominate the harvest regardless of coho salmon run size.

In 2021, management of the ND set gillnet fishery was guided by provisions within the NDSMP. This plan allowed ADF&G to reduce the total allowable gear (105 fathoms of set gillnet) in the ND from July 20 through August 6 to aid in achieving the escapement goals at Judd and Larson Lakes. EO No. 24 (Appendix A10) was issued on July 21 and reduced legal gear in the General Subdistrict of the ND to 1 set gillnet (35 fathoms) per permit, whereas gear was reduced in the Eastern Subdistrict to no more than 2 set gillnets (70 fathoms) per permit. On Friday, August 6, gear restrictions imposed by the NDSMP expired and a full complement of gear became legal for the remainder of the season. No extra time was added to harvest coho salmon after August 6. In 2021, approximately 71,417 sockeye salmon were harvested by 71 permit holders in the ND set gillnet fishery (Appendices A4, A8, and B2). This harvest was approximately 58% greater than the 2011–2020 average annual harvest of 45,000 fish and was the second highest Northern District sockeye salmon harvest since 1997 (Appendix B2).

Central District Drift Gillnet and ESSN Fisheries

Management of the ESSN fishery for sockeye was guided by 5 AAC 21.365, the *Kasilof River Salmon Management Plan* (KRSMP); 5 AAC 21.360, the *Kenai River Late-Run Sockeye Salmon Management Plan* (KRLSSMP); and 5 AAC 21.359, the *Kenai River Late-Run King Salmon*

Management Plan (KRLKSMP). Management of the drift gillnet fishery of the CD is governed by 5 AAC 21.353, the *Central District Drift Gillnet Fishery Management Plan* (CDDGFMP). Since 2012, numerous changes have been made to these plans by the BOF to conserve late-run Kenai River Chinook salmon and all salmon in the Northern District. The changes which primarily restricted fishing time also limited the commercial fishery harvest of sockeye salmon (Appendix B2).

The ESSN fishery in the Kasilof Section may be opened as early as June 20 depending on sockeye salmon run strength in the Kasilof River. The drift gillnet fishery opens on the first Monday or Thursday on or after June 19. Similar to 2020, inseason management decisions in 2021 for both the ESSN and drift gillnet fisheries were tailored to reducing commercial fishing on weekends to foster higher run entry of sockeye salmon into the Kenai and Kasilof Rivers and to achieve higher harvests in the personal use fisheries of those rivers.

The sockeye salmon run forecast to the Kenai River in 2021 was 2.33 million fish, which meant management for the start of the drift gillnet and ESSN fisheries fell into the provisions of the middle run size tier (>2.3 but <4.6 million fish). In this run size tier, the ESSN fishery could have been open for the regulatory Monday and Thursday 12-hour fishing periods with up to 51 additional fishing hours per week (75 total hours/week). However, on Wednesday, June 16, the department issued EO No. 2-KS-1-24-21 restricting the Chinook salmon sport fishery in the Kenai River to the use of no bait beginning July 1, 2021. In response, and as per the KRLKSMP, EO 2S-04-21 was issued on June 17 which modified weekly fishing periods with set gillnets in all waters of the Upper Subdistrict (5AAC 21.320(a)(2)(E)). At the start of the 2021 season in the ESSN fishery (Figure 1), salmon could be taken only during fishing periods established by EO with a maximum available time of 48 hours per week. In addition to all fishing time coming via EO only in the Upper Subdistrict set gillnet fishery, mandatory gear restrictions were implemented. The more stringent of the 2 available gear restriction options that limited set gillnet gear by ⅔was implemented. These regulations took effect on June 22 with the beginning of the ESSN fishery in the Kasilof Section. The drift gillnet fishery is not directly affected by the KRLKSMP, but the regulations relevant to the forecast of the lower run tier for sockeye salmon also limited the number of drift gillnet openings.

During the management week of June 20 through June 26, both the drift gillnet fishery and the Kasilof Section of the Upper Subdistrict set gillnet fishery opened for the 2021 season. The drift gillnet fishery opened by regulation on Monday, June 21 (Figure 4, Appendix A11). The regulatory 12-hour fishing periods on June 21 and June 24 were opened districtwide, producing a total harvest of 2,781 sockeye salmon (Appendix A4). Two additional drift gillnet fishing openers were provided in the narrow Kasilof Section, also termed the "Kasilof corridor"[7], on June 22 and June 26, during which only 53 sockeye salmon were reportedly harvested. On June 21, sockeye salmon abundance in the Kasilof River exceeded 30,000 fish (Appendix A2), opening the Kasilof Section of the Upper Subdistrict set gillnet fishery for the season on June 22. Fishing was open in the Kasilof Section on June 22, June 24, and June 26 using a total of 41 hours of the available 48 hours of EO time and harvesting 51,782 sockeye salmon for the week (Appendix A4). The sonar count into the Kasilof River was 53,842 fish by the end of the week (Appendix A2). On average, 18% of the Kasilof River sockeye salmon sonar passage is complete by the end of this management week.

[7] Corridor is a synonymous term for Section in this case.

During the management week of June 27 to July 3, the drift gillnet fleet fished the 2 regulatory periods on Monday and Thursday and one period in the Narrow Kasilof Section by EO, and the set gillnet fishery fished 3 days including Monday, June 28; Thursday, July 1; and Saturday, July 3 (Appendix A11). On July 1 and 3, the North Kalifornsky Beach (NKB) statistical area (244-32) opened with additional restrictions specific to the NKB statistical area. A total of 47 of the available 48 EO hours were used for the Kasilof Section setnet fishery as provided in the KRLKSMP (Table 4, Appendices A10, A11, and A22). Sockeye salmon harvest by set gillnets in the Upper Subdistrict was 72,018 fish and averaged 24,000 fish per opening during the 3 openers (Appendix A4). The drift gillnet fleet caught 8,000 sockeye salmon on Monday and 23,000 fish on Thursday during the regular district wide openers, but only harvested 82 sockeye salmon combined for the additional period in the narrow Kasilof Section (Appendix A4). Total drift harvest for the week was 31,315 sockeye salmon. Cumulative sockeye salmon passage into the Kasilof River ended the week at 131,662 fish (Appendix A2) and average run timing was 27% complete. Based on average run timing and the 2021 passage to date, the final sockeye salmon passage for 2021 was projected to be 489,000 fish, which was above both the biological escapement goal (BEG: 140,000–320,000 fish) and OEG (140,000–370,000 fish) for the Kasilof River. The Kenai River sockeye salmon sonar project began operation on July 1 and counted 20,000 sockeye salmon through July 3 (Appendix A2). The cumulative count of the Kenai River Chinook salmon sonar was 369 large fish through July 3.

During the management week of July 4 to July 10, the entirety of the ESSN fishery (Figure 3) was scheduled for the first full opening of the 2021 season (Appendix A11). On July 5 and 7, the Kasilof Section was opened within the normal regulatory area of 1.5 miles, and on July 6 it was open but restricted to within 600 feet of shore. The NKB statistical area was also open but restricted to within 600 feet of shore on July 5 and 7. All areas of the Upper Subdistrict were open for the first full opening of the ESSN fishery on July 8. The drift gillnet fishery was opened on Monday and Thursday, districtwide by regulation, and was also opened on Wednesday, July 7, by EO in the Kasilof Section. Both Monday and Thursday fishing periods were extended in time within the section, to coincide with the Upper Subdistrict set gillnet fishing periods (Appendix A11, Figure 4). The Kasilof Section and NKB setnet fisheries caught 41,279 sockeye salmon from July 5 to 7 (Appendix A4). On July 8, a total of 26,471 sockeye salmon were harvested during the 18-hour fishing period, the first full fishing period of the ESSN fishery. The drift gillnet fishery caught 9,229 fish on Monday and 19,878 fish on Thursday. No reported harvest occurred on July 7 for that drift fishery opening (Appendix A4). During this week, commercial fishing periods were not allowed on Saturday to facilitate fish movement into the Kenai and Kasilof Rivers for harvest in the personal use fisheries. At week's end, the cumulative passage estimate at the Kasilof River sockeye salmon sonar site was 183,000 fish (Appendix A2), with average run timing at 37% complete. The season-end escapement projection for Kasilof River sockeye salmon based on July 10 passage was 490,000 fish, which was above the BEG and OEG. The Kenai River sockeye salmon sonar estimate was 89,000 (Appendix A2) fish through July 10, projecting 1.3 million fish for an on-time run. Kenai River sockeye salmon run timing was 7% complete through July 10. The Kenai River Chinook salmon assessment was at 1,303 large fish, with average run timing at 11% complete through July 10.

During the management week of July 11 to July 17, the department issued EO No. 2-KS-1-42-21 on July 12 restricting the Chinook salmon sport fishery in the Kenai River to catch-and-release fishing only, thus restricting the ESSN fishery to no more than 24 hours per week, with a 36-hour continuous closure per week beginning between 7:00 PM Thursday and 7:00 AM Friday. This

24-hour restriction allowed for only 2 ESSN fishery openers, on Monday, July 12, and Thursday, July 15, each for 12-hour fishing periods. For these periods, all waters of the subdistrict were open. The Kasilof Section and NKB statistical area were opened within 600 feet of mean high tide from 5:00 AM and 10:00 PM on July 13 and 14. For this management week in the ESSN fishery, there were 24 hours fished (Table 4, Appendix A22) of the available 24 hours because the hours restricted to within 600 feet of shore do not count toward the hourly limit. The drift gillnet fishery was open for both Monday and Thursday regulatory periods (July 12 and 15) in Area 1 and the Expanded Kenai and Expanded Kasilof sections (Figures 7 and 8), and 2 periods in the Expanded Kenai and Expanded Kasilof sections on July 13 and 14 (Appendix A22). During this week, commercial fishing periods were not allowed on Saturday or Sunday to facilitate fish movement into the Kenai and Kasilof Rivers for harvest in personal use fisheries. During the week, the ESSN fishery harvested 67,398 sockeye salmon and the drift gillnet fleet harvested 118,359 sockeye salmon. The Kasilof River sockeye salmon sonar estimate was 242,000 fish on July 17, projecting a final escapement of 450,000 (Appendix A2), which exceeded the BEG and OEG for this system. Kasilof River sockeye salmon run timing was 53% complete, on average, through July 17. The total sonar estimate in the Kenai River at the end of the management week was 192,739 fish (Appendix A2), which projected a year-end inriver passage estimate of 828,000 fish. Kenai River Chinook salmon abundance remained low during the week, producing a cumulative sonar passage estimate through July 18 of 2,581 large fish. Average run timing through this date was 29% complete and projected a total late-run escapement estimate of 10,000 large Chinook salmon, which was below the OEG range of 15,000–30,000.

During the management week of July 18 to July 24, ADF&G commercial fisheries staff finalized the inseason assessment of the sockeye salmon run size to UCI and to the Kenai River. The assessment predicted that the Kenai River sockeye salmon run would be 2 to 9 days late and would possibly result in a run less than 2.3 million fish. This assessment meant that the management of the ESSN fishery would change and fall into the lowest run size tier with the inriver goal of 1.0 million to 1.2 million for Kenai River sockeye salmon. The Kasilof River Special harvest area was opened on Sunday, July 18, for 10 hours for both drift and set gillnets. The fishery was opened for this afternoon and evening time frame to lessen the impact on the dipnet personal use fishery of the Kasilof River. The entire ESSN fishery was opened on Monday for 12 hours and one additional fishing period was opened on Tuesday, July 20, for 12 hours in all areas of the ESSN fishery but was restricted to within 600 feet of shore. The Kenai River late-run Chinook salmon abundance remained low throughout this management week. On July 19, the department issued EO 2 2-KS-1-46-21 closing the Kenai River drainage to fishing for Chinook salmon effective 12:01 AM Wednesday, July 21, 2021. In compliance with the KRLKSMP, the Upper Subdistrict set gillnet fishery was also closed. The drift gillnet fishery was open in Area 1 and the Expanded Kenai and Expanded Kasilof sections (Figure 7) on Monday, July 19. Three additional drift gillnet fishing period were also provided on July 20, 21, and 22 in the Expanded Kenai, Expanded Kasilof and Anchor Point sections. During this week, commercial fishing periods were not allowed on Saturday and the open period on Sunday, July 18, was opened only in the afternoon to facilitate fish movement into the Kenai and Kasilof Rivers for harvest in the personal use fisheries. The ESSN fishery harvested 148,133 sockeye salmon whereas the drift fleet harvested 240,784 sockeye salmon for the week (Appendix A4). This regulatory week resulted in the highest weekly harvest for 2021 for the ESSN fishery, including the opening of the Kasilof River Special Harvest Area (KRSHA) on July 18, that only resulted in harvest of 1,502 sockeye salmon for the ESSN fishery. By week's end, the Kasilof River sockeye salmon sonar count had reached 334,296 fish

(Appendix A2). With average run timing for this stock being 71% complete, the escapement projection was for 468,000 fish which would exceed the upper end of the BEG and OEG. The Kenai River sockeye salmon sonar count at week's end was 492,000 fish (Appendix A2), which projected a year-end inriver abundance of 1 million fish and fell just within the inriver goal for lower tier run sizes. The Kenai River large Chinook salmon final escapement projection at the end of this management week was 10,400 fish on July 24[8] and average run timing was 44% complete. This projection indicated restrictions in both the sport and commercial fisheries were still necessary to meet the Kenai River large Chinook salmon OEG.

During the management week of July 25 to July 31, the Kenai River large Chinook salmon cumulative count remained low and was projecting an escapement less than the OEG of 15,000–30,000 large fish. Therefore, paired restrictions for the ESSN fishery remained in effect per provisions in the KRLKSMP through July resulting in the ESSN fishery remaining closed. The drift gillnet fishery was open Monday, July 26, in Area 1, and the Expanded Kenai, Expanded Kasilof and Anchor Point sections (Figure 4). Openings were also allowed on July 27, 28, and 29 in the Expanded Kenai, Expanded Kasilof, and Anchor Point sections. During this management week, commercial fishing periods were not allowed on Sunday or Saturday to facilitate fish movement into the Kenai and Kasilof Rivers for harvest in the personal use fisheries. Drift gillnet harvest for this management week totaled 125,067 sockeye salmon (Appendix A4). The Kasilof River sockeye salmon sonar count reached 415,735 fish (Appendix A2), average run timing was 86% complete, and final season escapement was projected at 484,053 sockeye salmon. By week's end, the Kenai River sockeye salmon sonar count had reached 923,945 fish (Appendix A2), average run timing was 64% complete, and the final inriver projection was for 1.4 million fish, which was projected to exceed the inriver goal. The Kenai River Chinook salmon sonar count was 6,189 large fish,[8] average run timing was 63% complete, and the escapement projection had stayed constant at 10,235 large fish, remaining below the minimum OEG of 15,000 large fish.

During the August 1 to August 7 management week, the ESSN fishery remined closed due to low Kenai River Chinook salmon passage. The drift gillnet fleet was open Monday and Thursday in Area 1, the Expanded Kenai, Expanded Kasilof, and Anchor Point Sections (Figure 4). Additionally, on August 1, 3, 4, 6, and 7, the drift gillnet fishery was open in the Expanded Kenai, Expanded Kasilof, and Anchor Point Sections. Weekend openings of the drift gillnet fishery were allowed this week to slow the large influx of sockeye salmon into the Kenai and Kasilof Rivers. The drift gillnet fleet harvested 261,164 sockeye salmon (Appendix A4) and resulted in the highest weekly drift gillnet harvest of the year. The Kasilof River sockeye salmon sonar count had reached 486,055 fish (Appendix A2) at week's end and average run timing was at 95% complete, projecting a final escapement of 514,000 fish. The Kenai River sockeye salmon sonar passage estimate rose sharply to 1.6 million fish (Appendix A2), average run timing was 80% complete, and the year-end inriver run projection exceeded 2 million sockeye salmon, exceeding the inriver goal. The Kenai River Chinook salmon sonar count was 8,872 large fish by week's end,[9] average run timing was 81% complete, and the year-end escapement projection was 11,388 large fish.

The final full management week of 2021 for the ESSN fishery and the drift gillnet fishery in the larger inlet areas was from August 8 to 14. Concerns for low escapement of Kenai River Chinook salmon kept the ESSN fishery closed. The drift gillnet fleet was open 2 days, August 9 and 12, in

[8] https://www.adfg.alaska.gov/sf/FishCounts/index.cfm?ADFG=main.kenaiChinook&RunSummaryID=278
[9] https://www.adfg.alaska.gov/sf/FishCounts/index.cfm?ADFG=main.kenaiChinook&RunSummaryID=278

Area 1, and the Expanded Kenai and Expanded Kasilof Sections (Appendix 11). Additionally, the Expanded Kenai, Expanded Kasilof, and Anchor Point Sections were opened August 8, 10, and 11. For the management week, the drift gillnet fleet harvested 40,403 sockeye salmon (Appendix A4).

Beginning August 15, the drift gillnet fleet typically begins to target coho salmon on the west side of UCI, but some sockeye salmon are still harvested. By regulation the drift fleet is restricted to the west side of UCI after August 15. For the remainder of the 2021 season, the drift gillnet fleet was restricted during regulatory Monday and Thursday 12-hour fishing periods to drift gillnet areas 3 and 4 on the west side of UCI where they harvested 2,868 sockeye salmon, including 299 sockeye salmon from the Chinitna Bay Subdistrict, which opened August 20 through September 7.

Overall, harvests of sockeye salmon in the ESSN fishery and the drift gillnet fishery improved over 2020 but remained poor in 2021. The ESSN fishery total sockeye salmon harvest was approximately 400,000 fish, or 29% of the UCI total harvest of sockeye salmon. This harvest was about 61% less than the 2011–2020 average of 830,000 fish. The sockeye salmon harvest for the drift gillnet fleet for the entire season was approximately 852,000 fish or 60% of the UCI total harvest (Appendix B2). The harvest was 39% less than the 2011–2020 average.

Final spawning abundance was very high for both the Kasilof and Kenai Rivers. In 2021, sockeye salmon passage was monitored in the Kasilof River through August 15, producing a final estimate of 521,859 fish (Appendix A2), which was more than 200,000 fish above the upper end of the BEG range, and the third largest passage recorded in the Kasilof River (Appendix B10). The Kenai River sockeye salmon sonar project was operational through August 24 (Appendix A2), producing a final passage estimate of 2,441,825 fish, which exceeded the inriver goal of 1,000,000–1,200,000 fish by nearly 1.2 million fish. Once 2021 sport fishing harvest above the sonar is subtracted, the SEG of 750,000–1,300,000 fish was possibly exceeded as well. Like 2020, a significant passage of nearly 400,000 sockeye salmon occurred from August 2 to 4 (Appendix A2) in 2021.

Several metrics show that sockeye salmon run timing was late in 2021. The year-end final assessment of the midpoint of the 2021 sockeye salmon run measured at the Anchor Point OTF transect occurred on July 27, which was 11 days later than the historical average date of July 16. The cumulative sockeye salmon catch from the 2021 OTF was 2,168 (Appendix A1). At the Kasilof River sonar site, 50% of the 2021 sockeye salmon passage was reached on July 20 (Appendix A2), which was 4 days later than the 2011–2020 average date of July 16 (Glick and Wilburn *In prep*). In the Kenai River, 50% of the total 2021 sockeye salmon count had passed the sonar on August 3, 10 days later than the 2011–2020 average date of July 24.

Kalgin Island Subdistrict

The total sockeye salmon harvest in the Kalgin Island Subdistrict in 2021 was 50,420 fish (Appendix A4). Approximately 10,719 fish, or 21% of the season total, was harvested on the west side of the island (statistical area 246-10) during the Big River sockeye salmon (see Big River section above) fishery (Figure 3, Appendix A4). In 2021, a remote video system was used again to estimate sockeye salmon escapement into Packers Lake. The video recording system operated from June 15 through the end of the run. Based on escapement through August 10, the observed fish numbers projected that the sockeye salmon escapement goal of 15,000–30,000 would be met, and as such, 2 extra fishing periods were added to the Kalgin Island Subdistrict in 2021. The final escapement number of 19,975 (Appendix B10) through September 13 when fish entry ceased, confirmed that the escapement goal was achieved.

COHO SALMON

The 2021 UCI commercial coho salmon harvest of 147,000 fish was approximately 18% less than the 2011–2020 average annual harvest of approximately 180,000 fish and was 48% less than the 1970–2020 average annual harvest of 285,000 coho salmon (Appendix B3). The largest harvest of UCI coho salmon occurred in the drift gillnet fishery where 81,000 fish were harvested (Appendices A5 and B3), and this was 22% less than average annual harvest for the previous 10 years of 103,000 fish. The 2021 ND harvest of 46,000 fish was 10% above the 2011–2020 average annual harvest of 42,000 fish but 24% smaller than the 1970–2020 average annual harvest of 60,000 fish (Appendix B3).

Chinitna Bay was opened to drift gillnet fishing on Tuesdays and Fridays beginning on Friday, August 20 (Appendices A10 and A11). The estimated coho salmon harvest by drift gillnets in Chinitna Bay was approximately 5,439 fish, and by set gillnets was 137 fish. (Appendix A5).

Based on an estimated average price of $0.83/lb paid for coho salmon (Appendix B11), the exvessel value of coho salmon from the 2021 UCI commercial fishery was $684,000, or 5% of the total UCI exvessel value (Appendix B7).

PINK SALMON

Pink salmon runs in UCI are even-year dominant, with odd-year harvests averaging 85% less than even-year harvests (Table 5). The 2021 UCI commercial pink salmon harvest of 79,000 fish (Appendix B4) was 12% less than the average annual harvest of 90,000 fish from odd-year harvests of the previous 10 years. Based on an average weight of 3.4 lb/fish (Appendix B12) and an average price of $0.23 per pound (Appendix B11), the estimated exvessel value for the 2021 pink salmon harvest was $64,000 or 0.5% of the total UCI exvessel value (Appendix B7). Most pink salmon (82%) were harvested by the drift gillnet fishery in 2021 (Appendices A6 and B4), which decreased only slightly from 2020 and was the second highest yearly proportion attributed to drift gillnet gear ever reported in UCI for pink salmon.

CHUM SALMON

A total of 70,242 chum salmon were harvested by UCI commercial fishers in 2021, which was 55% less than the 2011–2020 average annual harvest of 157,000 fish (Appendix B5). The drift gillnet fleet harvested 93% of the chum salmon in 2021 and has averaged 92% of the total chum salmon harvest in the past 10 years (Appendices A7 and B5). An aerial survey of Chinitna River/Clearwater Creek was conducted on August 11, 2021, produced an estimate of 3,970 chum salmon (Glenn Hollowell, Division of Commercial Fisheries Area Management Biologist, ADF&G, Homer; personal communication), which was within the SEG of 3,500–8,000 fish. Therefore, Chinitna Bay opened to set and drift gillnet fishing on Tuesdays and Fridays beginning on August 20. The 2021 exvessel value for chum salmon was $327,000 or 2.4% of the overall exvessel value of the 2021 fishery (Appendix B7). The average price paid for chum salmon in 2021 was estimated to be $0.65 per pound, which was about 4 cents per pound greater than the previous 10-year average price (Appendix B11).

PRICE, AVERAGE WEIGHT, AND PARTICIPATION

The estimated price per pound paid to UCI commercial fishers in 2021 was mostly similar to previous 10-year averages, except for Chinook salmon (Appendix B11). Calculating the average price for what fishers receive for their harvest is difficult (Shields and Dupuis 2013). Average

prices reported here are generated from inseason grounds prices as described by processors, and do not reflect any post season adjustments. The most profitable species in UCI was sockeye salmon at $12.7 million total harvest value (Appendix B7). The 2021 estimate of $1.74 per pound for sockeye salmon was $0.50 greater than the $1.24 a pound paid in 2020, and 1 cent less than the 2011–2020 average annual price of $1.75 (Appendix B11).

Harvest statistics showed that salmon size was variable in 2021 (Appendices A14 and B12, Figure 9). The weights of salmon in the 2021 Upper Subdistrict commercial harvest showed a 12.1 lb average weight of Chinook salmon, which was similar to the 2020 average weight of 12.3 lb, and smaller than the previous 10-year average weight of 16.7 lb (Appendix B12). Sockeye salmon averaged 5.2 pounds, which was similar to 2020, and was lower than the 2011–2020 average weight of 5.8 pounds. The 2020 average sockeye salmon weight was the second smallest yearly average ever recorded for sockeye salmon in UCI (Appendix B12). The average size of 5.6 lb for coho salmon in 2021 was similar to the 2020 average weight which tied 2019 for lowest ever recorded and was below the previous ten-year average of 6 lb. The average pink salmon size of 3.4 lb was slightly smaller than the 2011–2020 average of 3.6 lb, and chum salmon size in 2021 was also slightly smaller than the 2011–2020 average of 7.4 lb (Appendix B12).

The Commercial Fisheries Entry Commission (CFEC) reported that 567 active drift gillnet permits were issued in 2021, of which 419 (74%) were issued to Alaska residents (Appendix B13). In the setnet fishery, CFEC reported that 730 permits were issued, of which 616 (84%) were issued to Alaska residents. Of the active permits, 364 drift gillnet permit holders and 510 set gillnet permit holders reported harvest in UCI (Appendices A8 and A9). Twelve major fish processors (Appendix A16) purchased UCI fish from the above permit owners in 2021 for later sale. To a lesser degree, several types[10] of catcher–sellers and direct marketers also sell fish more directly from UCI waters to consumers. Some processors closed one or more of their receiving docks in 2021, due to low harvests of sockeye salmon.

SALMON STOCK STATUS AND TRENDS

Kenai River Late-Run Sockeye Salmon

The Kenai River stock accounted for most of the commercial harvest in 2021 (Table 6). The Kenai River late-run sockeye salmon stock is assessed by DCF with a sonar project at river mile 19. Inriver sonar counts of Kenai River sockeye salmon have been between 1.0 million and 2.4 million fish during the preceding decade of 2011–2020 (Appendix B10). These counts were above the inseason management target (inriver goal) in 9 of those 10 years, and it again was above the goal in 2021. The highest inseason count (2.4 million) occurred in 2021. No years of the previous decade have been below management targets for Kenai River sockeye salmon, and this stock has never been listed as stock of concern.

Total return information by brood year for sockeye salmon (Table 7) in the Kenai River is complete through 2015. The total returns per spawner have ranged from 1.1 to 4.8 and this has shown a decreasing trend for the decade ending in 2015. Total spawner abundance (escapement) has ranged from 708,000 to 1.9 million for the decade ending in 2015, showing a decline into 2008 and then an increasing trend, which has continued through 2021. Total return by brood year has varied but generally declined in the Kenai River from 2006–2015 from 5 million to 2.2 million. The total

[10] http://www.adfg.alaska.gov/index.cfm?adfg=fishlicense.marketers

harvest rate of all UCI fisheries on this stock has ranged from 34% to 80% from 2006–2015, remaining basically stable but has decreased since 2011 into 2021 (Table 7 and Appendix A21).

Kasilof River Sockeye Salmon

The Kasilof River was the second largest stock proportion in the commercial harvest in 2021 (Table 6). The Kasilof River sockeye salmon stock is assessed by DCF with a sonar project at river mile 8. Kasilof River sockeye salmon inriver sonar counts have been between 246,000 and 545,000 during the decade of 2011 to 2020 (Appendix B10). These counts were above the inseason management target in 7 of those 10 years, and it again was above the goal in 2021. The highest inseason count occurred in 2020 (546,000) and the second highest in 2021 (522,000). No years of the previous decade have been below management targets for Kasilof River sockeye salmon and this stock has never been listed as stock of concern.

Total return information by brood year for sockeye salmon (Table 8) in the Kasilof River is complete through 2015. The total returns per spawner have ranged from 1.3 to 4.7 and has been variable for the decade ending in 2015. Total spawner abundance (escapement) has increased during the decade ending in 2015 ranging from 246,000 to 490,000 and this trend has generally continued into 2021 with the highest spawner abundances in 2020 and 2021. Total return by brood year ranged from 500,000 to 1.3 million and has varied. The total harvest rate of all UCI fisheries on this stock has ranged from 41% to 79%, showing a consistent decreasing trend from 2007 to 2015, which continued into 2021 (Table 7 and Appendix A21).

Susitna Drainage Sockeye Salmon

The Susitna Drainage was the third highest stock proportion in the commercial harvest in 2021 (Table 6). The Susitna Drainage sockeye salmon stock is assessed with weir projects on 2 upper Susitna River drainage tributaries at Judd Lake and Larson Lake outlets (Appendices A12 and B10). These streams have sockeye salmon escapement counts from 2009 to the present. Chelatna Lake outlet was also assessed from 2009 to 2019 but that project has been discontinued. Sockeye salmon counts at Larson Lake have been variable in the recent decade of 2011 to 2020 and have ranged from 9,700 to 32,000. The count at Larson Lake has been below the goal for 5 of the last 10 years of the recent decade from 2011–2020, has never exceeded the goal in that time, and was within the goal in 2021. Sockeye salmon counts at Judd Lake have varied over the recent decade of 2011 to 2020 and have ranged from 14,000 to 45,000. The count at Judd Lake has been below the goal for 3 of the last 10 years of the recent decade from 2011–2020, has exceeded the goal one year during that time span, and exceeded the goal again in 2021. The Susitna River sockeye salmon stock was listed by the BOF as stock of yield concern in 2008 after yields had decreased. Management measures to lower commercial harvests were implemented within a recovery plan after 2008. After yields stabilized, and conservative management measures of the recovery plan were put into permanent regulation, the stock of concern status was removed at the 2017 BOF meeting.

Total return information by brood year for sockeye salmon (Table 9) in the Susitna Drainage is complete through 2015 and is calculated drainagewide, not by tributary. Total returns per spawner have ranged from 0.9 to 3 for the decade of 2006–2015 and have been variable. Total spawner abundance drainagewide has ranged from 136,000 to 416,000, has been variable from 2006–2015 and continued variable through 2021. Total return by brood year has ranged from 278,000 to 545,000 for the decade ending in 2015, has been variable those years, but shows a recent general downward trend since 2010. The total harvest rate of all UCI fisheries on this stock has ranged

from 11% to 58%, showing a variable trend from 2006–2015, and continuing into 2018 (Table 9 and Appendix A21).

Other UCI Stocks not assessed by Division of Commercial fisheries.

Several other salmon stocks important to UCI commercial fisheries for management implications, harvest, or both are assessed by the DSF. These include Chinook salmon stocks of Kenai River, Deshka River, and the Little Susitna River, as well as coho salmon stocks of Deshka River, Fish Creek, and the Little Susitna River. Recent stock performance for these stocks, and citations for historical information can be obtained in publications by Lipka et al. (2020) and Oslund et al. (2020).

COMMERCIAL HERRING FISHERY

The total 2021 UCI herring fishery harvest was 44 tons, the highest harvest since 1991 (Appendix B8). Although open to both set and drift gillnets, all the harvest was taken with set gillnets, and 8 permit holders reported fishing within the Upper Subdistrict. Samples of the harvest have been obtained annually to assess age, weight, size, and sex distributions. In the Upper Subdistrict, age-5 fish dominated the harvest in 2021, making up 53% of the 178 samples collected from 3 sample dates (Appendix A19). The average age classes in 2021 harvest were as follows: age-3 (0%), age-4 (1%), age-5 (53%), age-6 (10%), and age 7 (1%). The samples used for these analyses are obtained from the set gillnet fishery and may reflect biases in the gear type used to collect the samples.

All the herring harvested in UCI were used exclusively for personal use or sold as 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 fishers has resulted in an average price of at least $1.00 per pound or $2,000 per ton. Based on this price and a harvest of 44 tons (Appendix B8), the estimated exvessel value of the 2021 commercial herring fishery was approximately $88,000.

COMMERCIAL SMELT FISHERY

From 1978 to 2021, commercial smelt harvests in UCI have ranged from 0.2 tons to 222 tons (Table 10). For more details about the history of smelt fishing in UCI, see Shields (2005). The fishery is managed under 5 AAC 21.505, the *Cook Inlet Smelt Fishery Management Plan*. In 2021, the total smelt harvest in UCI was approximately 222 tons, the largest recorded harvest since the guideline harvest level (GHL) of the fishery was increased from 100 tons to 200 tons in 2017. The amount of smelt harvested in this fishery has typically been limited by market demand and the logistics of getting the harvest to a location where the smelt can be processed (boxed and frozen) prior to shipment, rather than the abundance of fish.

Estimating the exvessel value of this fishery is difficult. Participants catch and market all their harvest. Most of the product is transported by boat to the Kenai River, where it is boxed and frozen for shipment to the West Coast of the United States The harvest is sold as bait or can be marketed for human consumption. The final value of the smelt fishery is unknown but probably exceeds $1.00 per pound. Using this price estimate and the harvest of 444,838 lb (Table 10), the estimated exvessel value was approximately $445,000.

Age composition analyses (determined from otoliths) of samples collected from the 2006–2021 harvests show that age-4 smelt were typically the most abundant age class, averaging 34% for

females and 34% for males (Appendix A20). The 2021 samples were noteworthy in that 8% of the sample was of female fish that were 5 years old (average 3%), the second highest yet seen for that age/sex class. The average fork length from the 2021 samples of 189 mm was smaller than the average fork length of 195 mm from 2006–2021. In 2021, of the 243 smelt sampled for age and length data, 132 fish (54%) were males and 111 were female (46%; Appendix A20). It should be noted that smelt samples were collected opportunistically from the harvest which is very small compared to the total run size and therefore may not reflect temporal changes in these parameters or differences overall population.

COMMERCIAL RAZOR CLAM FISHERY

The razor clam fishery on the west side of Cook Inlet has historically been confined to the area between Crescent River and Redoubt Creek (Figure 10). All clams harvested in this area are required by regulation to be sold for human consumption (5 AAC 38.314(b)), except for a small percentage (less than 10% of the total harvest) of broken clams which may be sold for bait. Razor clams are present throughout UCI and dense concentrations are present in the Polly Creek and Crescent River areas. In UCI management area, there are no restrictions on the number of clams that can be sold. Currently, there is no directed effort to harvest razor clams for the bait market. The minimum legal size for commercially harvested razor clams is 4.5 inches (114 mm) in shell length (5 AAC 38.075).

In 2016, ADF&G began a study in the Polly Creek/Crescent River area where the goal was to estimate razor clam abundance and to collect data needed to develop an optimal sampling design for a future full-scale survey of this beach (Dupuis and Willette 2016). ADF&G received a grant in 2017 from the North Pacific Research Board that allowed testing of the sampling designs and gear to assess razor clam populations in all of Cook Inlet. This project has been discontinued because no consistent and cost-effective method could be determined.

Like 2020, the 2021 commercial razor clam fishery in UCI did not occur due to complicated logistics of hiring a harvest crew for this remote fishery, and hardships from the Covid 19 pandemic. The prior 10-year average harvest was 272,000 lb for the fishery from 2010–2019, but clam harvest in UCI has been below 200,000 since 2016 (Appendix B9).

SUBSISTENCE FISHERIES

There is a long history of Alaskans harvesting fish and game for their personal consumptive needs under sport, personal use, 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 in other fisheries. Since the inception of the personal use fisheries, numerous changes have occurred in personal consumption fisheries in Cook Inlet. Many of these changes occurred indirectly because of challenges in the State of Alaska court system, and action taken by the Alaska State Legislature, in addition to the BOF process. The only subsistence fishery that was managed by the Division of Commercial Fisheries in 2021, and that has occurred consistently in Cook Inlet salt waters during this period, is the Tyonek Subdistrict 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), Reimer and Sigurdsson (2004), Dunker and Lafferty (2007), Holen and Fall (2011), and Dunker (2018).

TYONEK SUBSISTENCE SALMON FISHERY

In 2021, the preliminary Tyonek subsistence harvest included 1,022 Chinook, 93 sockeye, 89 coho, 0 pink, and 0 chum salmon (Appendix B15). The subsistence fishery in the Tyonek Subdistrict was mandated by an Anchorage Superior Court order in May 1980. According to 5AAC 01.560, *Fishing Seasons and Daily Fishing Periods*, subsistence fishing is allowed in the Tyonek Subdistrict of the ND during 2 distinct time periods and a separate permit is required for each period. The early-season permit allows for fishing from 4:00 AM to 8:00 PM each Tuesday, Thursday, and Friday from May 15 to June 15. The late-season permit allows for fishing from 6:00 AM to 6:00 PM each Saturday after June 15. Both permits allow for 25 salmon per permit holder and 10 salmon for each additional household member. However, 5 AAC 01.595(a)(3) allows for up to 70 Chinook salmon per permit holder in the Tyonek Subdistrict subsistence fishery, which are mostly caught during the early-season. Each permit holder is allowed a single 10 fathom gillnet, with a mesh size no greater than 6 inches. The early-season permit, primarily harvesting the Chinook salmon run, is the most popular fishery. Few late-season permits are issued.

PERSONAL USE SALMON FISHERY

Operating 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. Various fisheries in both salt and fresh waters, with varying methods, are allowed under this plan, including 5 dip net fisheries in the Kasilof, Kenai, Beluga, and Susitna Rivers, and in Fish Creek (Appendix A17). The 5 dip net fisheries are managed and harvest is monitored by the Division of Sport Fish (Lipka et al. 2020). The Soldotna office Division of Commercial Fisheries manages the one personal use set net fishery that is allowed in UCI salt waters, which is allowed near the mouth of the Kasilof River. This fishery is allowed in the saltwater area encompassing approximately 1 mile on either side of the Kasilof River mouth, extending out from shore to 1 mile.

A free personal use permit issued by ADF&G, and an Alaska resident sport fishing license is required to participate in any of the personal use fisheries. The annual limits are 25 salmon per head of household and 10 additional salmon for each household member. Legal gear under the management plan is for set gillnets only. 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. Set gillnets must always be at least 100 feet apart. A review of the various personal use and subsistence fisheries that have been conducted in Cook Inlet are reported in Brannian and Fox (1996), Reimer and Sigurdsson (2004), Dunker and Lafferty (2007), Holen and Fall (2011), and Dunker (2018).

KASILOF RIVER MOUTH AREA GILLNET

In 2021, EO No. 2S-02-21 was issued June 15 and reduced the hours of the personal use set gillnet fishery at the mouth of the Kasilof River from 6:00 AM–11:00 PM to 9:00 AM–11:00 PM daily, from Tuesday, June 15, through Thursday, June 24. The reduction in hours was in response to the poor abundance of early-run Kasilof River Chinook salmon. For the 2021 season, 94 Chinook, 20,000 sockeye, 17 coho, 157 pink, and 17 chum salmon were harvested in this fishery (Appendices A17, A18, and B17). The 2011–2020 average annual Chinook salmon harvest was 101 fish and has historically ranged from 46 to 514. The average annual sockeye salmon harvest

from 2011–2020 was 20,000 fish and has historically ranged from 9,500 to 29,000 (Appendices A17 and B17).

ACKNOWLEDGMENTS

The authors would like to acknowledge and thank the following Division of Commercial Fisheries staff for their tireless efforts and various contributions that were vitally important to UCI management during the 2021 season.

Soldotna Office Staff

Name	Job class	Project / Title
Bob DeCino	Fisheries Biologist III	UCI Area Research Biologist
Bill Glick	Fisheries Biologist II	UCI Sonar Project Biologist
Eric Fotter	Fisheries Biologist I	UCI Catch Sampling Crew Leader
Cyndy Walgenbach	F&W Technician II	Fish Ticket Data Entry/Processing
Emma Key	F&W Technician III	Age Analysis and Catch Sampling
Kim Rudge-Karic	F&W Technician III	Catch Sampling
Constance Nicks	F&G Program Technician	Office Administration

Anchorage Regional Staff

Name	Project / Title
Bert Lewis	F&G Region II Supervisor
Aaron Poetter	Regional Management Coordinator, Region II
Jack Erickson	Regional Research Coordinator, Region II
Art Nelson	Information Officer

Special recognition should also go to the dedicated field staff of technicians that gather the data to make this document and these fisheries possible.

REFERENCES CITED

Alaska Energy Authority. 2014. Susitna-Watana Hydroelectric Project (FERC No. 14241): Salmon escapement study plan section 9.7. Initial study report Part A: Sections 1-6, 8-10. http://www.susitna-watanahydro.org/wp-content/uploads/2014/05/09.07_ESCAPE_ISR_PartA.pdf.

Alaska Energy Authority. 2015. Susitna-Watana hydroelectric project (FERC No. 14241): Salmon escapement study plan section 9.7. Study completion report. http://www.susitna-watanahydro.org/wp-content/uploads/2015/11/09.07_ESCAPE_SCR.pdf.

Barclay, A. W. 2019. Genetic stock identification of Upper Cook Inlet sockeye salmon harvest, 2015–2018. Alaska Department of Fish and Game, Regional Information Report No. 5J19-02, Anchorage.

Brannian, L., and J. Fox. 1996. Upper Cook Inlet subsistence and personal use fisheries report to the Alaska Board of Fisheries, 1996. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2A96-03, Anchorage.

Braund, S. R. 1982. Cook Inlet subsistence salmon fishery. Alaska Department of Fish and Game, Division of Subsistence, Technical Paper No. 54, Juneau.

Dunker, K. J., and R. Lafferty. 2007. Upper Cook Inlet personal use salmon fisheries, 2004–2006. Alaska Department of Fish and Game, Fishery Data Series No. 07-88, Anchorage.

Dunker, K. J. 2018. Upper Cook Inlet personal use salmon fisheries. 2013–2015. Alaska Department of Fish and Game, Fishery Data Series No. 18-10, Anchorage

Dupuis, A., and T. M. Willette. 2016. Operational Plan: Western Cook Inlet razor clam study, 2016. Alaska Department of Fish and Game, Regional Operational Plan No. ROP.CF.2A.2016.04, Anchorage.

Eskelin, A., and A. W. Barclay. 2022. Eastside set gillnet Chinook salmon harvest composition in Upper Cook Inlet, Alaska, 2021. Alaska Department of Fish and Game, Fishery Data Series No. 22-06, Anchorage.

Flagg, L. 1974. Annual management report 1973, Cook Inlet Management Area. Alaska Department of Fish and Game, Homer.

Fox, J., and P. Shields. 2000. Upper Cook Inlet commercial fisheries annual management report, 1999. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2A00-29, Anchorage.

Frothingham, A. M., and T. M. Willette. 2018. Migratory timing and abundance estimates of sockeye salmon into Upper Cook Inlet, Alaska, 2017. Alaska Department of Fish and Game, Fishery Data Series No. 18-24, Anchorage.

Glick, W., and A. V. Faulkner. 2019. Operational Plan-Kenai and Kasilof River sockeye salmon inriver passage and escapement studies, 2019–2021. Alaska Department of Fish and Game, Regional Operational Plan No. ROP.CF.2A.2019.04, Soldotna.

Glick, W. J., and D. Wilburn. *In prep*. Kenai and Kasilof Rivers sockeye salmon inriver passage and escapement studies, 2021. Alaska Department of Fish and Game, Fishery Data Series, Anchorage

Holen, D., and J. A. Fall. 2011. Overview of subsistence salmon fisheries in the Tyonek and Yentna River, Cook Inlet, Alaska. Alaska Department of Fish and Game, Division of Subsistence Special Publication No. BOF 2011-01, Anchorage.

Lipka, C. G., J. L. Gates, and S. K. Simons. 2020. Sport Fisheries of the Northern Kenai Peninsula Management Area, 2016–2018, with overview for 2019. Alaska Department of Fish and Game, Fishery Management Report No. 20-01, Anchorage.

Marston, B., and A. Frothingham. 2019. Upper Cook Inlet commercial fisheries annual management report, 2018. Alaska Department of Fish and Game, Fishery Management Report No. 19-25, Anchorage

Moffitt, S., B. Marston, and M. Miller. 2002. Summary of eulachon research in the Copper River delta, 1998–2002: Report to the Alaska Board of Fisheries. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2A02-34 Anchorage.

REFERENCES CITED (Continued)

Nickerson, R. B. 1975. A critical analysis of some razor clam (*Siliqua patula*, Dixon) populations in Alaska. Alaska Department of Fish and Game, Fisheries Rehabilitation, Enhancement and Development Division, Juneau.

Oslund, S., S. Ivey, and D. Lescanec. 2020. Area Management Report for the sport fisheries of northern Cook Inlet, 2017–2018. Alaska Department of Fish and Game, Fishery Management Report No. 20-04, Anchorage.

Reimer, A. M., and D. Sigurdsson. 2004. Upper Cook Inlet personal use salmon fisheries, 1996–2003. Alaska Department of Fish and Game, Fishery Data Series No. 04-31, Anchorage.

Ruesch, P. H. 1990. Upper Cook Inlet commercial fisheries, annual management report, 1989. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2S90-03, Anchorage.

Shields, P. 2005. Upper Cook Inlet commercial herring and smelt fisheries through 2004. Alaska Department of Fish and Game, Special Publication No. 05-14, Anchorage.

Shields, P. 2009. Upper Cook Inlet commercial fisheries annual management report, 2008. Alaska Department of Fish and Game, Fishery Management Report No. 09-32 Anchorage.

Shields, P., and A. Dupuis. 2012. Upper Cook Inlet commercial fisheries annual management report, 2011. Alaska Department of Fish and Game, Fishery Management Report No. 12-25, Anchorage.

Shields, P., and A. Dupuis. 2013. Upper Cook Inlet commercial fisheries annual management report, 2013. Alaska Department of Fish and Game, Fishery Management Report No. 13-49, Anchorage.

Shields, P., and A. Dupuis. 2015. Upper Cook Inlet commercial fisheries annual management report, 2014. Alaska Department of Fish and Game, Fishery Management Report No. 15-20, Anchorage.

Shields, P., and A. Frothingham. 2018. Upper Cook Inlet commercial fisheries annual management report, 2017. Alaska Department of Fish and Game, Fishery Management Report No. 18-10, Anchorage.

Tobias, T. M., and K. E. Tarbox. 1999. An estimate of total return of sockeye salmon to upper Cook Inlet, Alaska 1976–1998. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 2A99-11, Anchorage.

Waltemyer, D. L. 1983. Migratory timing and abundance estimation of the 1982 sockeye salmon return to Upper Cook Inlet based on a test fishing program. Alaska Department of Fish and Game, Division of Commercial Fisheries, Upper Cook Inlet Data Report 83-1, Soldotna.

Willette, T. M., and R. D. DeCino. 2016. Eulachon Spawning Biomass Assessment in the Susitna River, 2016. Alaska Department of Fish and Game, Regional Operational Plan No. ROP.CF.2A.2016.10, Soldotna.

TABLES AND FIGURES

Table 1.–Upper Cook Inlet sockeye salmon goals and passage, 2021.

		Goal range		
System	Goal type[a]	Lower	Upper	2021 passage
Fish Creek	SEG	15,000	45,000	99,324
Kasilof River	BEG	140,000	320,000	521,859
Kenai River	Inriver	1,000,000	1,200,000	2,441,825
Larson Lake	SEG	15,000	35,000	21,987
Judd Lake	SEG	15,000	40,000	49,250
Packers Creek	SEG	15,000	30,000	19,975

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

Table 2.–Chinook salmon harvest during the directed fishery in the Northern District, 1987–2021.

Year	Chinook	Permits	Periods	Year	Chinook	Permits	Periods
1987	11,541	129	4	2005	3,150	52	3
1988	11,122	142	3	2006	3,887	59	3
1989	11,068	137	3	2007	3,132	62	3
1990	8,072	130	3	2008	3,855	74	4
1991	6,305	140	4	2009	1,266	55	3
1992	3,918	137	3	2010	1,674	51	4
1993	3,072	80	4	2011	2,187	61	4
1994	3,014	73	2	2012	1,030	38	4
1995	3,837	65	1	2013	1,134	38	4
1996	1,690	58	1	2014	1,377	44	4
1997	894	45	2	2015	1,560	40	4
1998	2,240	51	2	2016	2,030	41	4
1999	2,259	56	2	2017	2,031	44	4
2000	2,046	47	3	2018	ND	ND	0
2001	1,616	43	3	2019	ND	ND	0
2002	1,747	36	3	2020	1,474	29	5
2003	1,185	30	3	2021	1,481	40	4
2004	1,819	44	3				
				2011–2020 mean = 1,576			

Note: In 2018 and 2019, there was no directed Chinook salmon fishery in the Northern District as indicated by ND.

Table 3.–Upper Cook Inlet sockeye salmon forecast versus actual run by river system, 2021.

System	Forecast	Actual	Difference
Kenai River	2,325,000	3,819,000	64%
Kasilof River	881,000	871,000	-1%
Susitna River	436,000	333,000	-24%
Fish Creek	92,000	99,000	8%
Minor systems	639,000	647,000	1%
Overall total	4,373,000	5,769,000	32%

Table 4.–Upper Subdistrict set gillnet fishing hours allowed beyond regular periods and mandatory closures, 2021.

	Kasilof Section				Kenai Section				East Forelands			
	Additional or EO		Window		Additional or EO		Window		Additional or EO		Window	
Week	Hours in plans	Hours used[a]	Hours in plan	Hours used	Hours in plans	Hours used[a]	Hours in plan	Hours used	Hours in plans	Hours used[a]	Hours in plan	Hours used
Jun 13–19	Closed season											
Jun 20–26	48	41	36	36	Closed season				Closed season			
Jun 27–Jul 3[b]	48	47	36	36								
Jul 4–10	48	48	36	36	48	48	36	36	48	48	36	36
Jul 11–17[c]	24	24	36	36	24	24	36	36	24	24	36	36
Jul 18–24[d]	24	24	36	36	24	24	36	36	24	24	36	36
Jul 25–Jul 31	0	0	36	36	0	0	36	36	0	0	36	36
Aug 1–7	0	0	36	36	0	0	36	36	0	0	36	36
Aug 8–14	0	0	36	36	0	0	36	36	0	0	36	36
Totals	192	184	288	288	96	96	216	216	96	96	216	216

Note: Regular Monday/Thursday fishing period hours not included.

[a] Does not include hours limited to 600 ft of shore.

[b] Kenai River Chinook salmon sport fishery restricted to no bait; commercial fishing restricted to 48 total hours per week.

[c] Kenai River Chinook salmon sport fishery restricted to no retention, restricting commercial fishing to 24 hours per week.

[d] Kenai River Chinook Salmon sport fishery closed, effective July 21, and Upper Subdistrict set gillnet fishery closed.

Table 5.–Upper Cook Inlet (UCI) pink salmon commercial harvests and Deshka River escapements, 1997–2021.

	UCI pink salmon			
	Commercial harvest		Deshka River count	
Year	Even-year	Odd-year	Even-year	Odd-year
1997	–	70,945	–	1,101
1998	551,737	–	541,946	–
1999	–	16,176	–	766
2000	146,482	–	1,248,498	–
2001	–	72,560	–	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	169,368	–	12,947	–
2009	–	214,321	–	26,077
2010	292,706	–	9,328	–
2011	–	34,123	–	4,489[a]
2012	469,598	–	78,853	–
2013	–	48,275	–	27926
2014	642,879	–	78,111	–
2015	–	47,997	–	6,328
2016	382,468	–	65,456	–
2017	–	168,042	–	24,868
2018	126,923	–	58,630[a]	–
2019	–	70,741	–	67,772
2020	345,072	–	150,523[b]	–
2021	–	81,360		3,338[c]

[a] No counts from August 8 to August 14 due to high water.

[b] Weir pulled on August 13

[c] Weir pulled August 12

Table 6.–Upper Cook Inlet sockeye salmon run, 2021.

System	Commercial harvest	Escapement	Other harvests	Total
Fish Creek	22,279	99,324	55	121,658
Kasilof River	187,741	516,859	156,846	861,446
Kenai River	934,694	2,241,825	652,291	3,828,810
Susitna River	89,764	334,034	361	424,158
All Others	177,775	536,147	765	714,687
Total	1,412,253	3,728,189	810,317	5,950,759

Table 7.–Late-run Kenai sockeye salmon brood table 2006 to 2021.

Brood year	Spawners	Return	Return per spawner	Harvest total	Harvest rate
2006	1,892,090	5,006,280	2.6	956,507	0.34
2007	964,243	4,378,678	4.5	2,637,535	0.73
2008	708,805	3,380,397	4.8	1,373,626	0.66
2009	848,117	3,809,455	4.5	1,582,297	0.65
2010	1,038,302	3,625,388	3.5	2,558,156	0.71
2011	1,280,733	4,512,033	3.5	4,982,359	0.80
2012	1,212,921	1,468,110	1.2	3,556,760	0.75
2013	980,208	1,108,445	1.1	2,647,914	0.73
2014	1,218,342	3,809,669	3.1	2,185,693	0.64
2015	1,400,047	2,272,980	1.6	2,418,969	0.63
2016	1,119,988	–	–	2,591,855	0.70
2017	1,071,064	–	–	1,524,656	0.59
2018	886,761	–	–	679,450	0.43
2019	1,457,031	–	–	2,085,411	0.59
2020	1,505,940	–	–	888,078	0.37
2021	2,241,825	–	–	1,750,516	0.44

Note: Hidden Creek enhanced fish were not subtracted to estimate spawners. Total return information by brood year for sockeye salmon in the Kenai River is complete through 2015.

Table 8.–Kasilof sockeye salmon brood table 2006 to 2021.

Brood year	Spawners	Return	Return per spawner	Harvest total	Harvest rate
2006	389,645	744,647	1.9	1,490,272	0.79
2007	365,184	484,387	1.3	792,025	0.68
2008	327,018	873,640	2.7	1,248,427	0.79
2009	326,283	1,035,630	3.2	778,689	0.70
2010	295,265	1,377,594	4.7	523,358	0.64
2011	245,721	686,373	2.8	564,015	0.70
2012	374,523	509,530	1.4	257,903	0.41
2013	489,654	649,852	1.3	513,417	0.51
2014	440,192	700,251	1.6	662,742	0.60
2015	470,677	820,766	1.7	704,222	0.60
2016	239,981	–	–	240,793	0.50
2017	358,724	–	–	443,178	0.55
2018	388,009	–	–	329,155	0.46
2019	373,416[a]	–	–	239,836	0.39
2020	541,651[a]	–	–	303,349	0.36
2021	516,859[a]	–	–	408,615	0.44

Note: Total return information by brood year for sockeye salmon in the Kasilof River is complete through 2015.

[a] Preliminary age composition catch allocation model estimates of stock-specific harvests.

Table 9.–Susitna sockeye salmon brood table 2006 to 2021.

Brood year	Spawners	Return	Return per spawner	Total harvest	Harvest rate
2006	415,791	485,777	1.2	49,981	0.11
2007	322,718	411,517	1.3	257,579	0.44
2008	299,736	373,777	1.2	149,120	0.33
2009	207,409	327,192	1.6	112,950	0.35
2010	184,472	545,655	3.0	121,668	0.40
2011	307,681	473,384	1.5	230,856	0.43
2012	135,948	358,060	2.6	184,969	0.58
2013	219,130	278,370	1.3	198,186	0.47
2014	161,770	296,644	1.8	143,204	0.47
2015	367,871	342,587	0.9	217,369	0.37
2016	293,401	–	–	136,232	0.32
2017	200,850	–	–	197,575	0.50
2018	161,027	–	–	111,719	0.41
2019	172,949	–	–	–	–
2020	200,705	–	–	–	–
2021	334,034	–	–	–	–

Note: Total return information by brood year for sockeye salmon in the Susitna River is complete through 2015.

Table 10.–Commercial eulachon harvest, 1978, 1980, 1998–99, and 2006–2021.

Year	Pounds (lb)	Tons	Permits
1978	300	0.2	NA
1980	4,000	2.0	NA
1998	18,610	9.3	<3
1999	100,000	50.0	NA
2006	90,783	45.4	8
2007	125,044	62.5	11
2008	127,365	63.7	6
2009	78,258	39.1	6
2010	126,135	63.1	3
2011	201,570	100.8	5
2012	195,910	98.0	4
2013	190,830	95.4	4
2014	198,814	99.4	4
2015	213,934	107.0	4
2016	191,536	95.8	4
2017	18,685	9.3	<3
2018	382,967	191.5	4
2019	389,473	194.7	6
2020	423,613	211.8	7

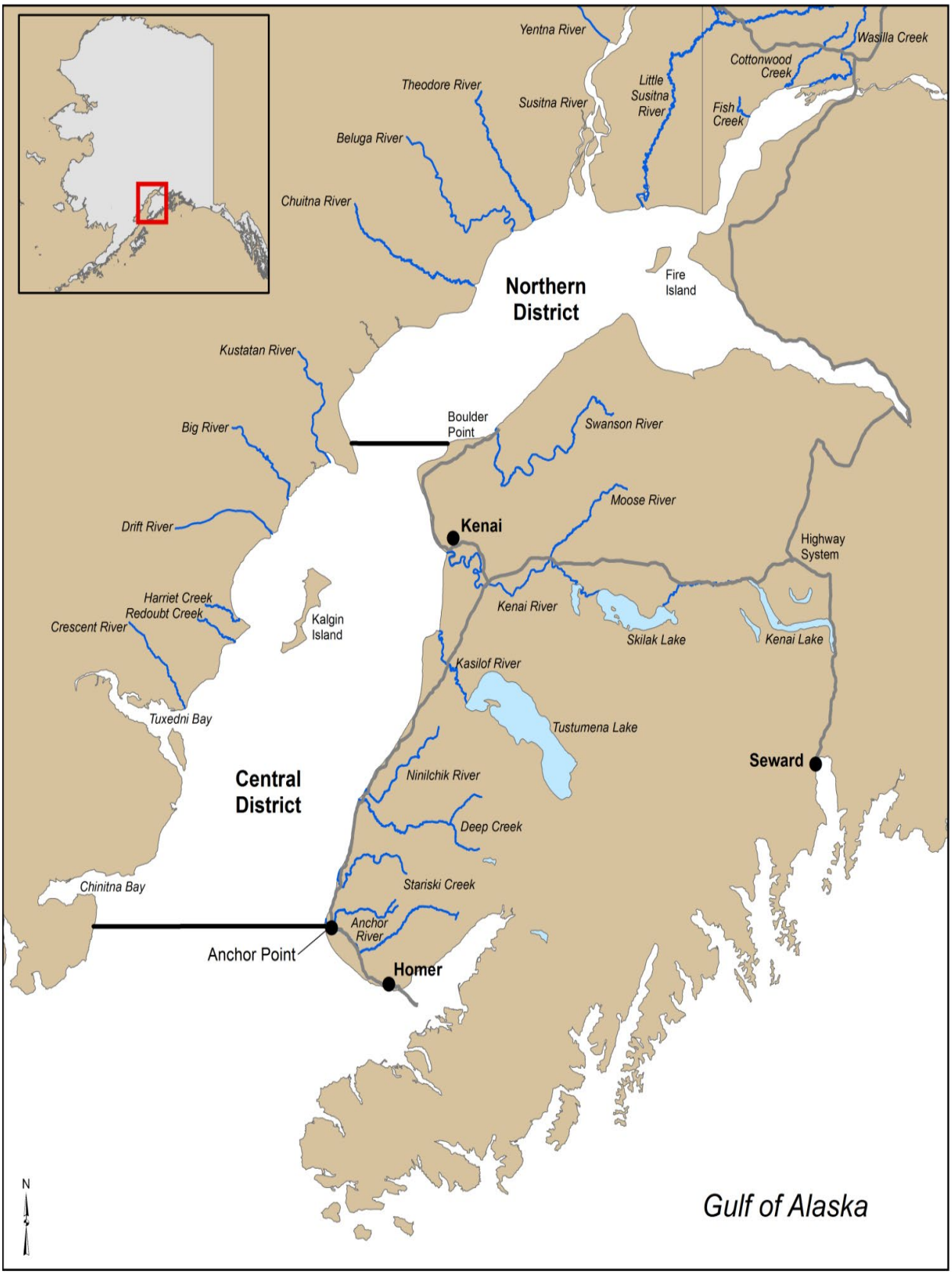

Figure 1.–Major tributaries of the Cook Inlet basin.

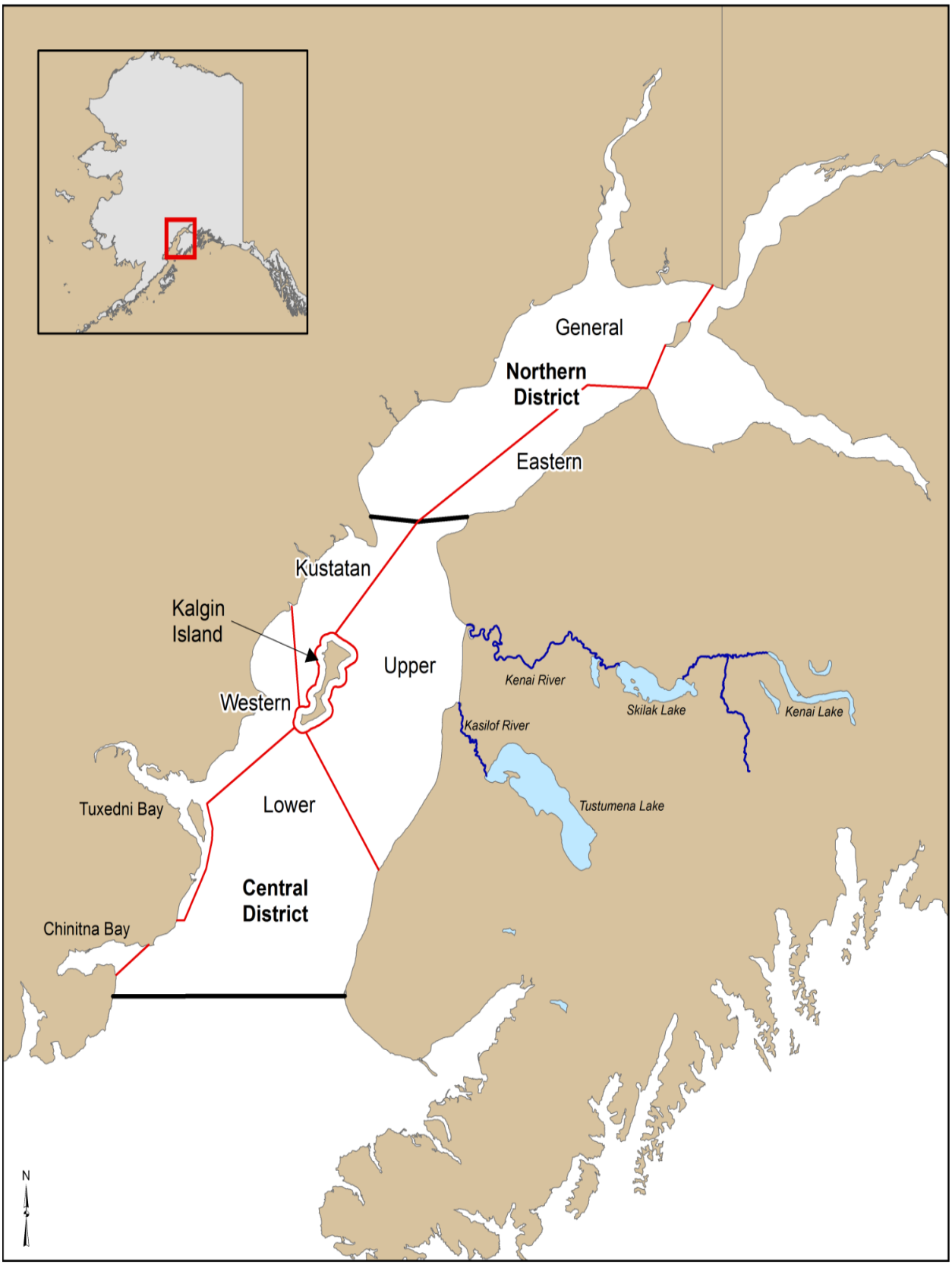

Figure 2.–Upper Cook Inlet commercial fisheries subdistrict fishing boundaries.

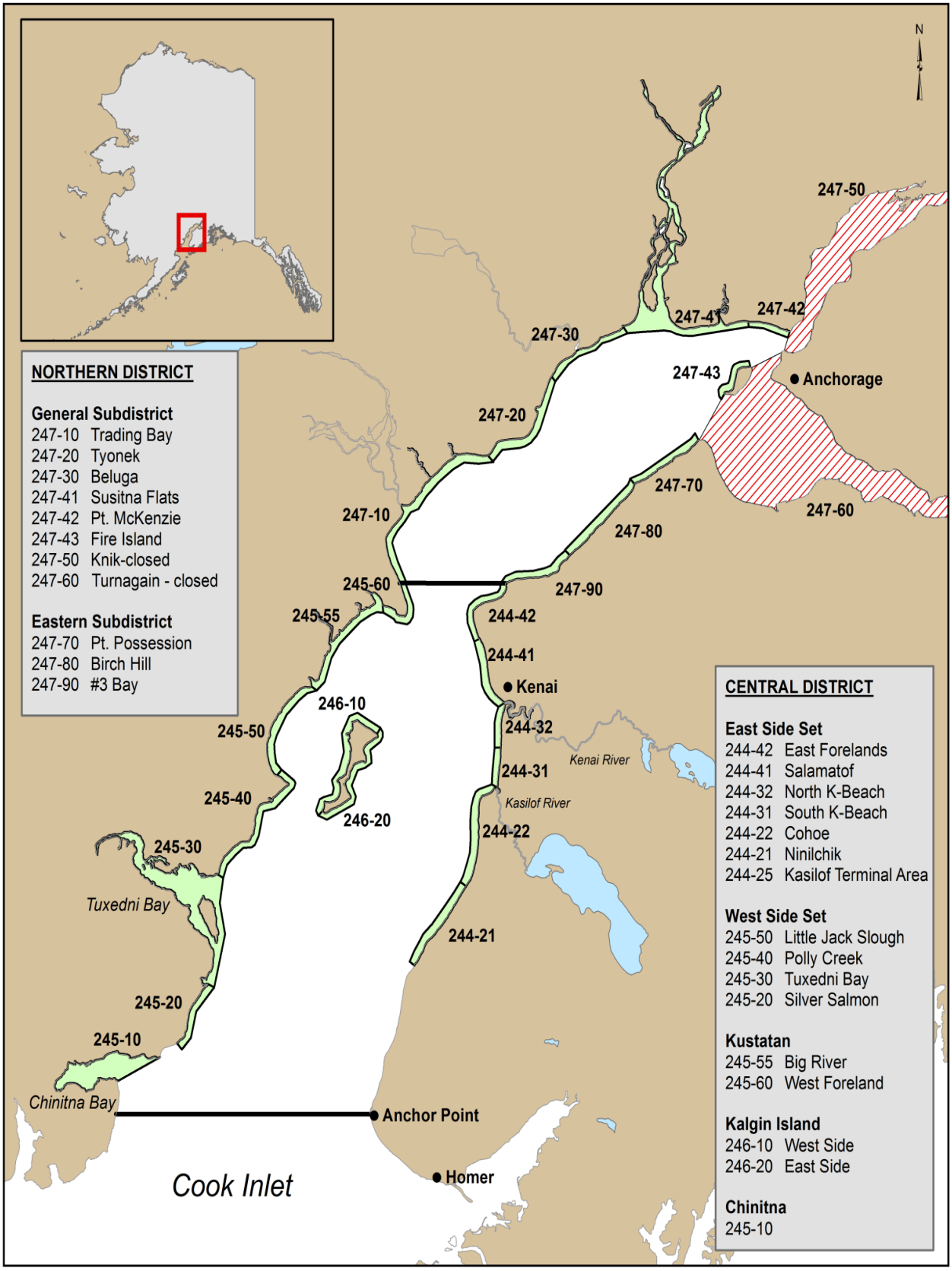

Figure 3.–Upper Cook Inlet commercial set gillnet statistical areas.

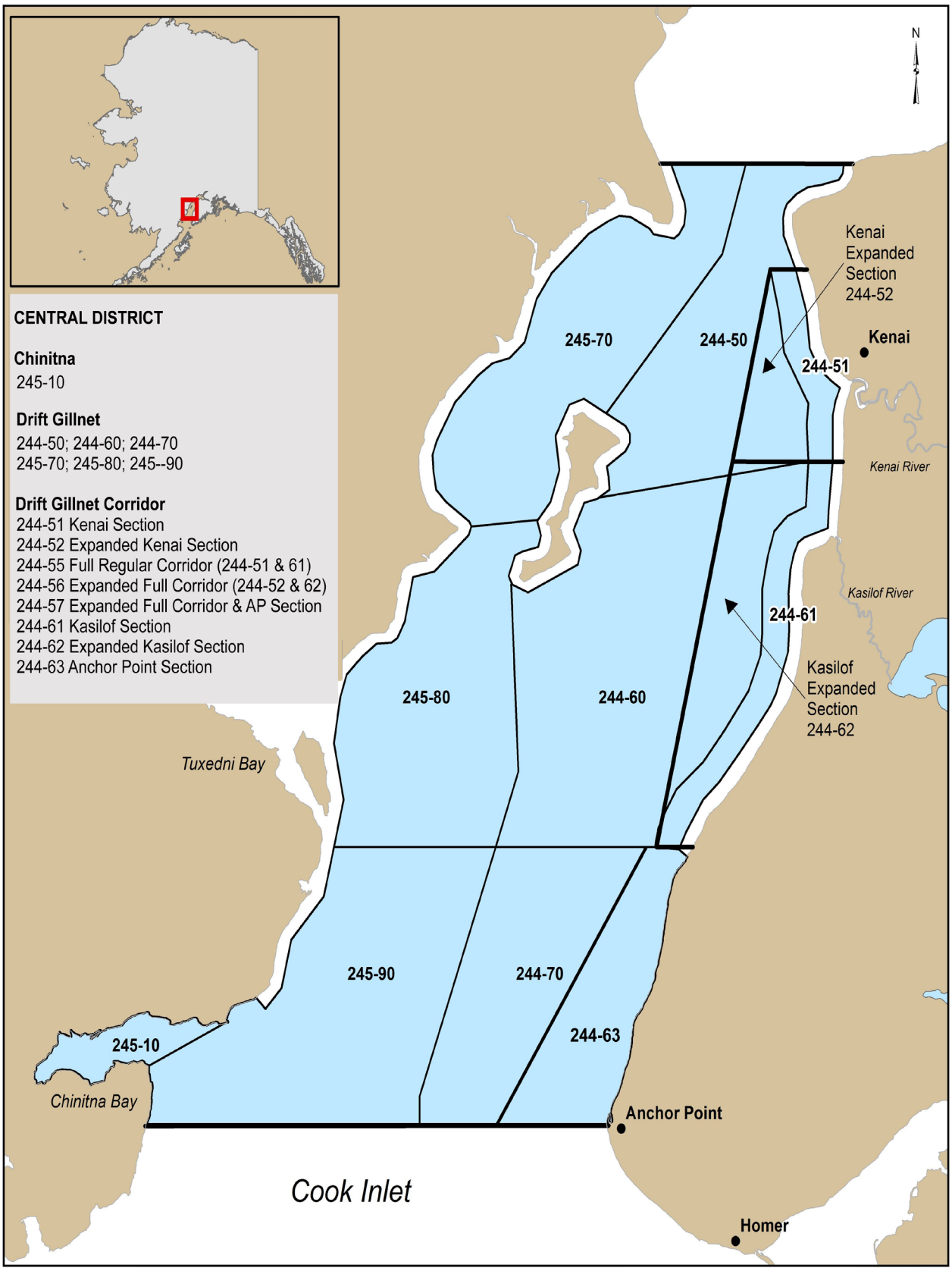

Figure 4.–Upper Cook Inlet commercial drift gillnet statistical areas.

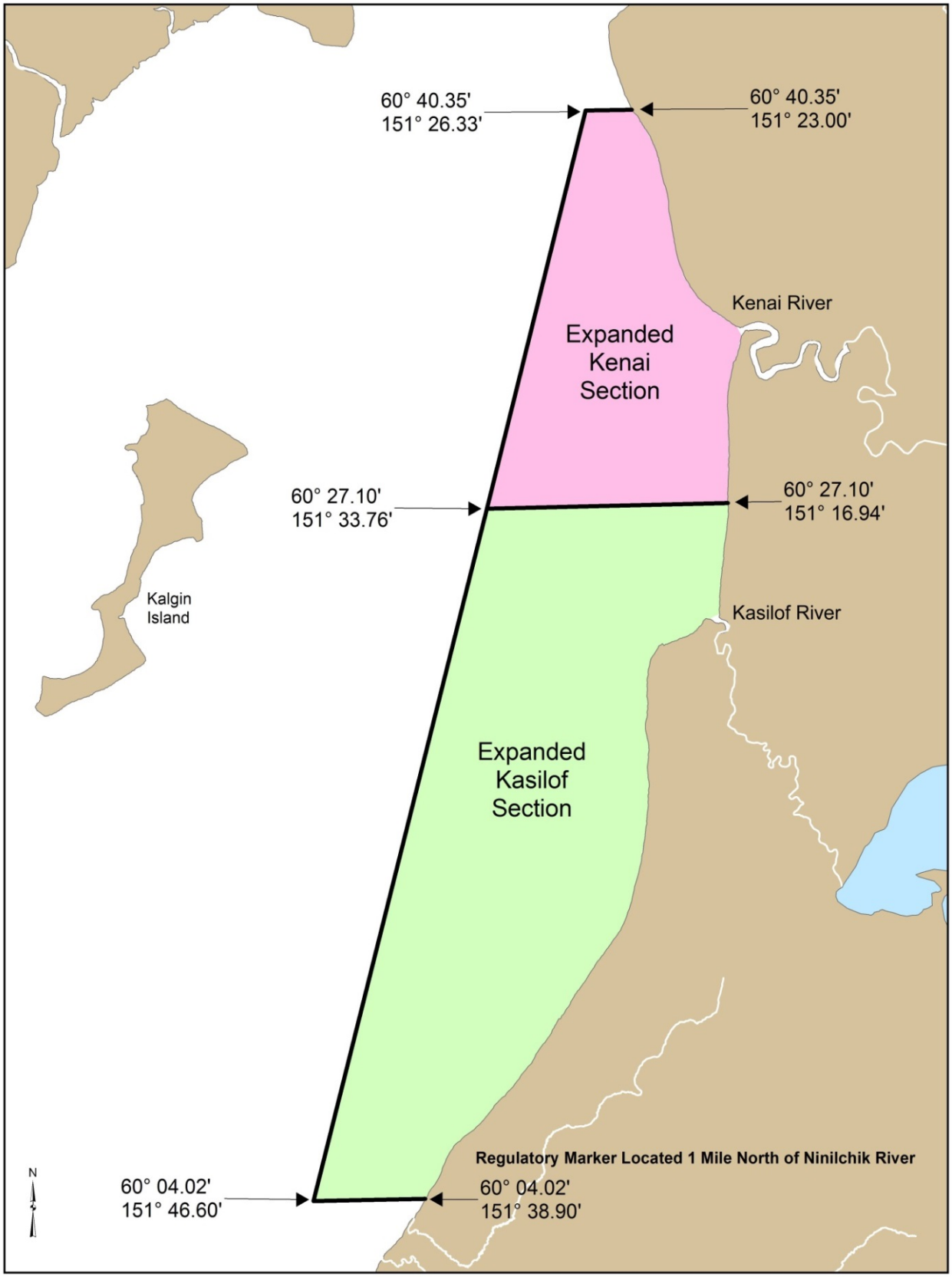

Figure 5.–The Expanded Kenai and Expanded Kasilof Sections with waypoint descriptions.

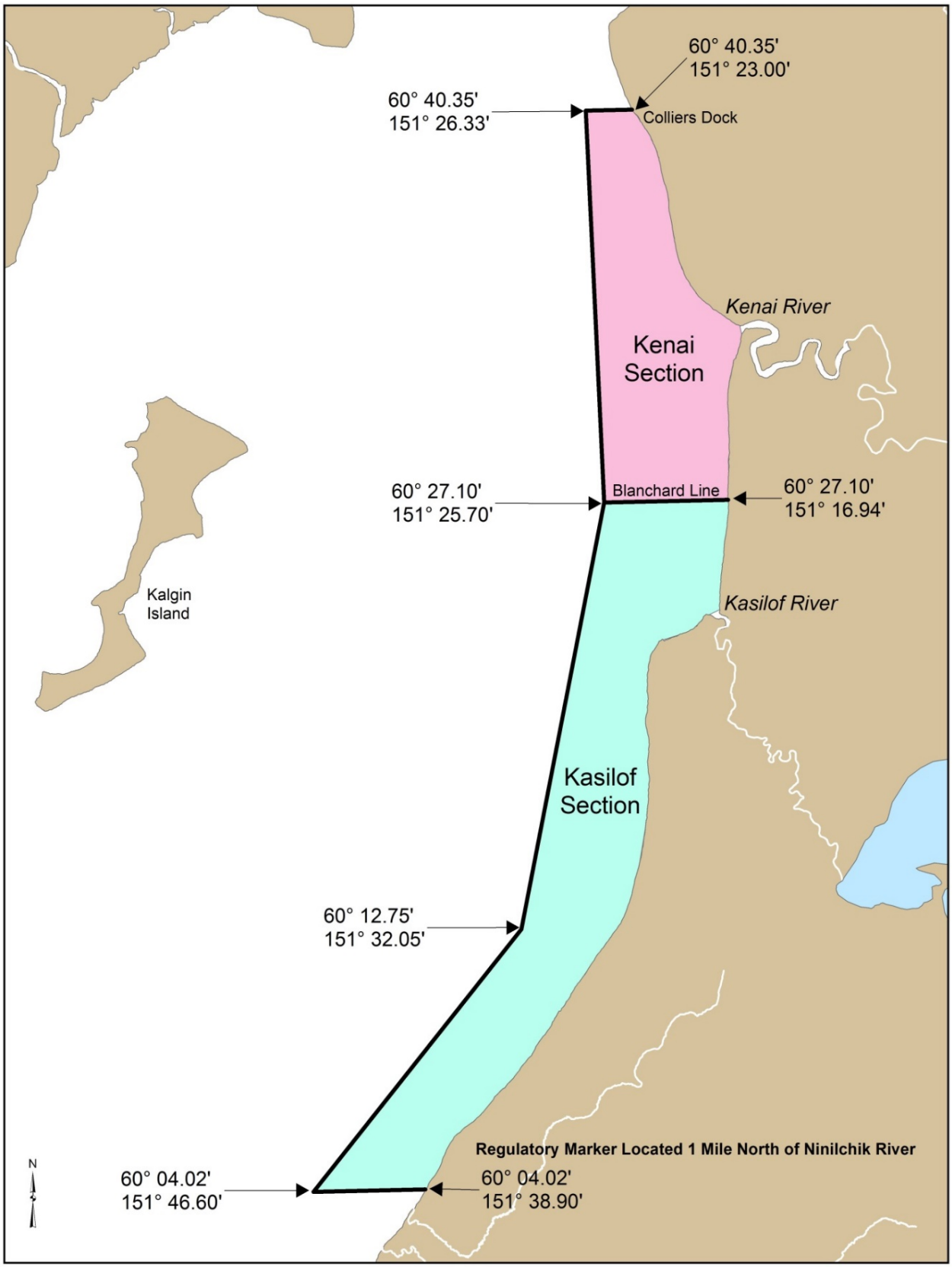

Figure 6.–The Kenai and Kasilof Sections with waypoint descriptions.

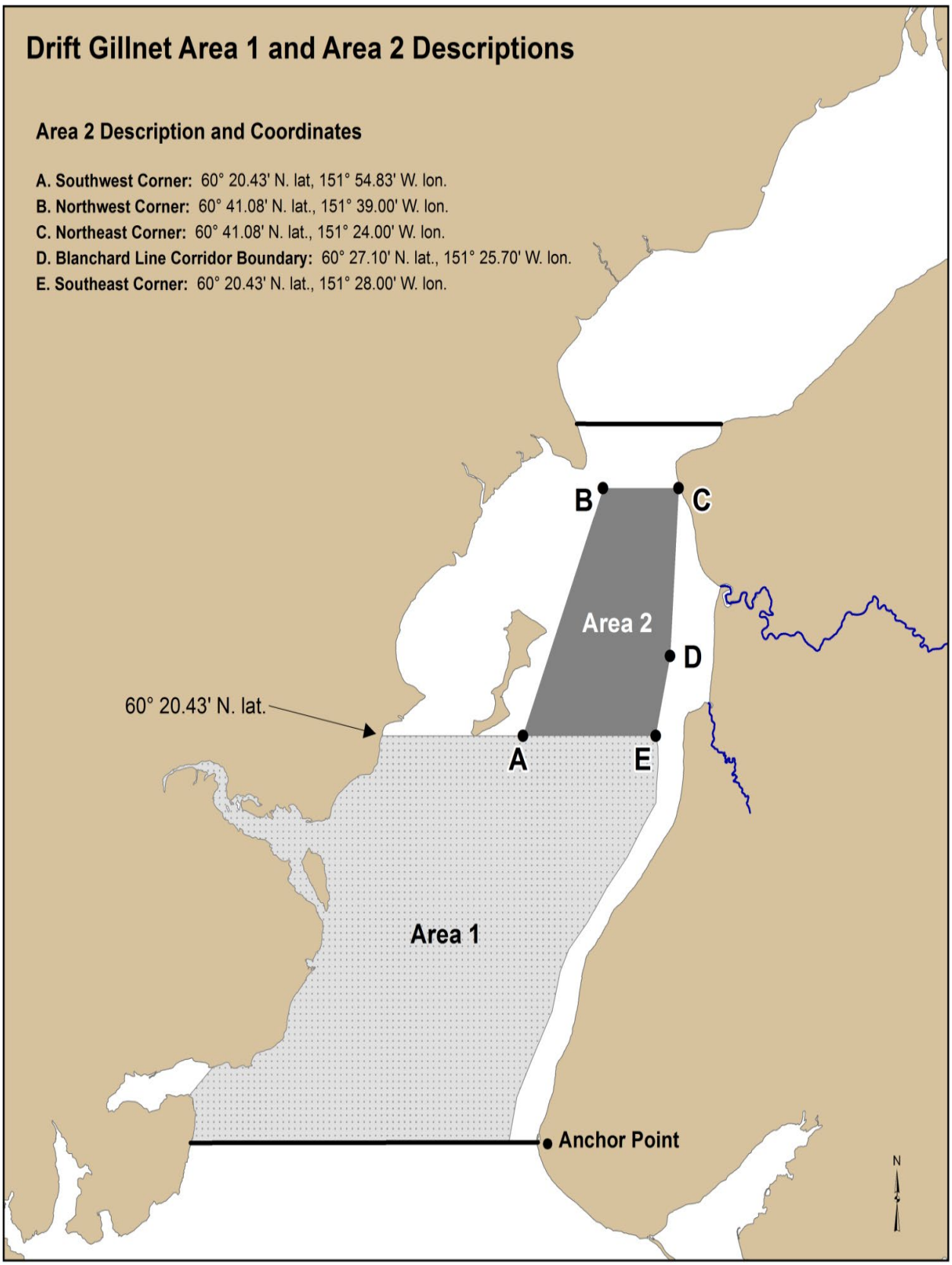

Figure 7.–Drift gillnet boundaries for fishing Areas 1 and 2.

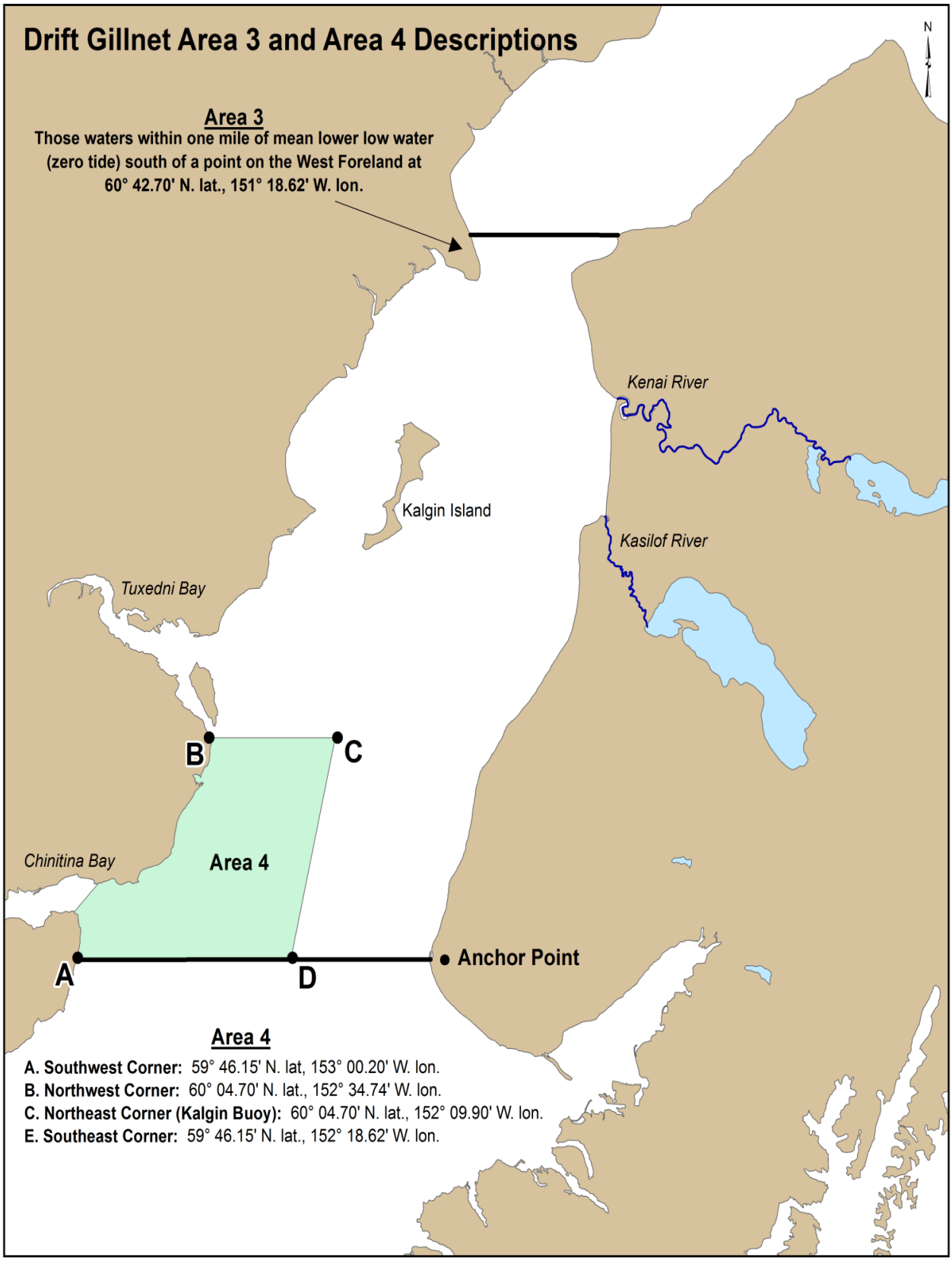

Figure 8.–Drift gillnet boundaries for fishing Areas 3 and 4.

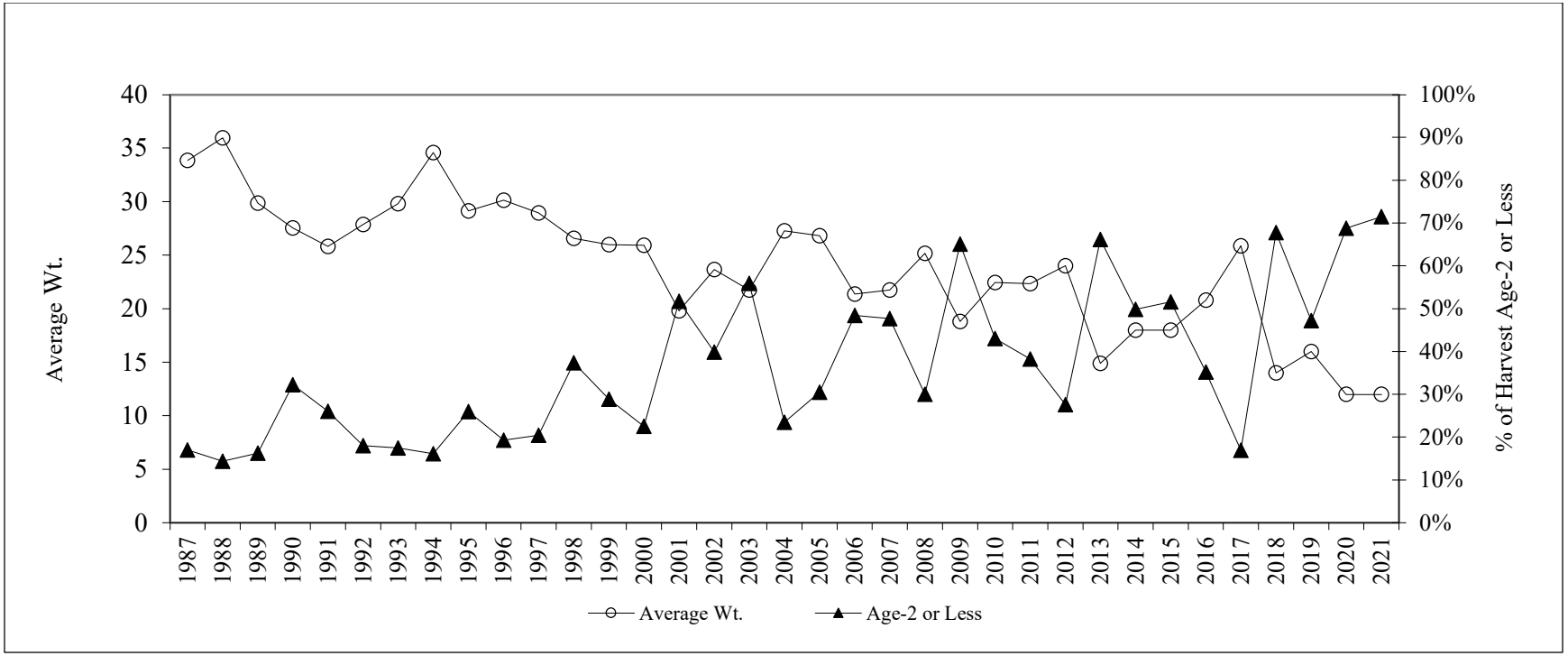

Figure 9.–Chinook salmon average weight (all fish) and percent of the harvest composed of fish ocean-age-2 or less in the Upper Subdistrict set gillnet commercial fishery, 1987–2021.

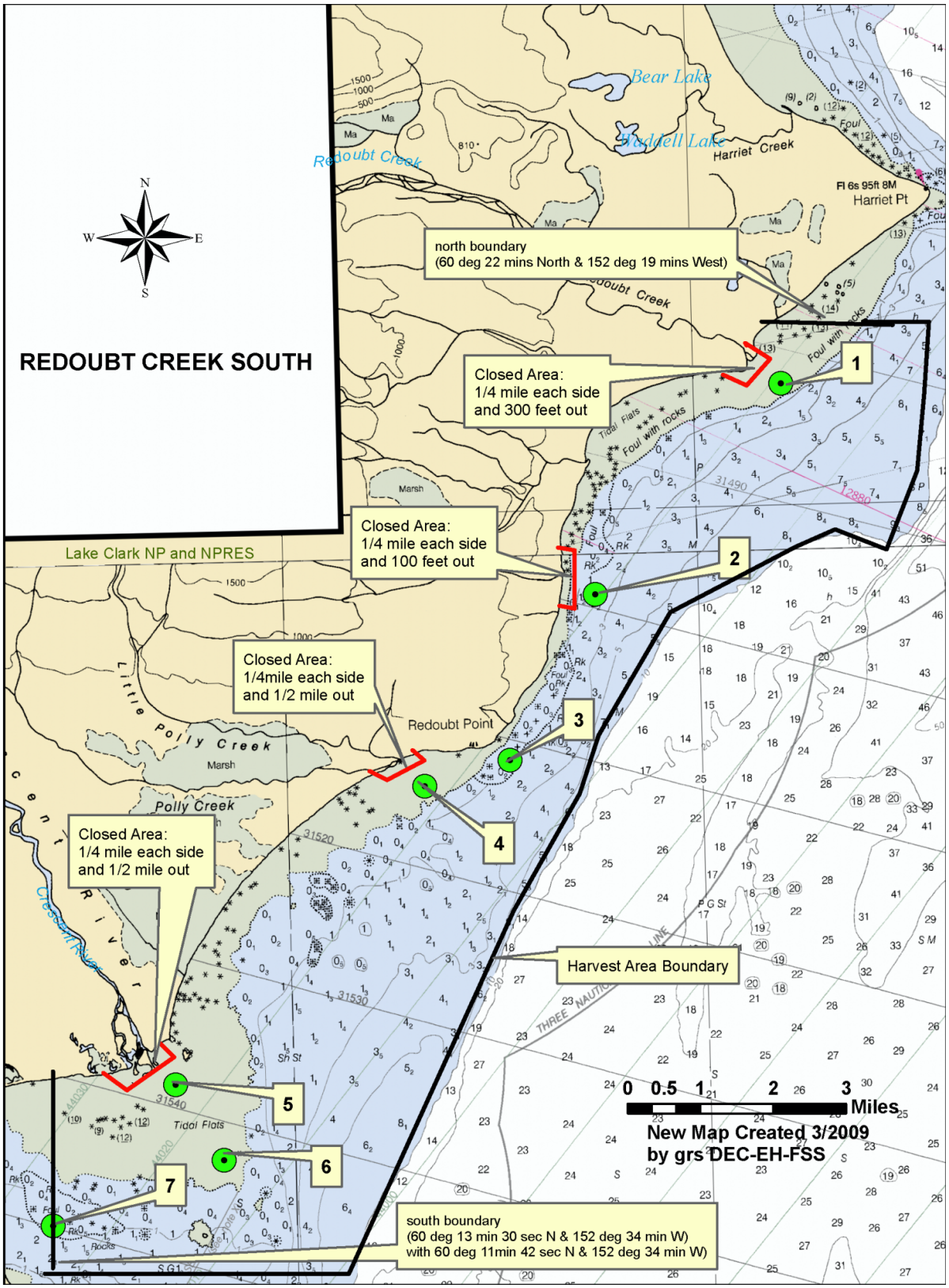

Figure 10.–Area open to the commercial razor clam fishery on the west side of Cook Inlet, Alaska.

APPENDIX A: 2021 SEASON DATA

Appendix A1.–Offshore test fish sockeye salmon catch results and environmental data, 2021.

Date	No. of stations[a]	Fishing time (min)	Catch		Index[b]		Mean length (mm)	Water temp (c)	Air temp (c)	Salinity (ppm)	Beginning wind		Ending wind	
			Daily	Cum	Daily	Cum					Vel	Dir	Vel	Dir
Jul 1	6	220.5	29	29	22	22	523	10.3	9.4	33.1	0	–	5	S
Jul 2	6	211.0	36	65	30	52	519	9.7	9.4	34.1	15	NE	20	S
Jul 3	6	214.5	15	80	13	65	539	11.2	9.8	32.5	5	S	5	S
Jul 4	6	204.5	34	114	28	93	535	10.3	9.8	32.1	10	SW	0	–
Jul 5	6	211.5	26	140	22	115	538	10.0	9.9	32.2	5	N	5	S
Jul 6	2	71.5	5	145	15	130	527	10.0	9.4	33.5	25	S	25	S
Jul 7	6	197.5	16	161	13	143	536	10.3	10.4	31.3	20	SW	15	SW
Jul 8	6	206.5	48	209	41	184	530	10.2	9.9	32.5	15	S	10	S
Jul 9	4	137.0	27	236	33	217	533	10.0	9.7	32.9	15	S	20	S
Jul 10	0	0.0	0	236	55	272	–	–	–	–	–	–	–	–
Jul 11	6	213.0	96	332	77	349	539	10.3	9.6	33.1	30	N	30	N
Jul 12	6	205.5	11	343	10	359	529	11.5	9.9	32.8	5	N	10	N
Jul 13	6	214.5	54	397	46	405	537	12.2	10.4	32.7	10	S	5	SW
Jul 14	6	203.0	115	512	99	505	535	10.5	10.0	33.0	10	SW	10	S
Jul 15	6	214.5	52	564	43	547	541	16.2	11.1	32.4	0	–	5	W
Jul 16	6	212.0	89	653	61	608	540	13.2	10.2	33.3	12	SW	10	SW
Jul 17	6	225.0	110	763	70	678	539	14.3	10.5	33.0	0	–	5	–
Jul 18	6	229.5	157	920	102	780	539	13.2	10.1	33.6	5	S	0	–
Jul 19	5	185.0	112	1,032	83	862	537	11.8	10.5	32.9	20	SW	25	SW
Jul 20	5	198.0	58	1,090	42	904	530	11.2	10.7	32.3	15	S	15	SW
Jul 21	6	219.5	32	1,122	26	930	524	11.5	10.4	33.3	12	N	15	SE
Jul 22	6	222.5	95	1,217	70	1,000	544	11.0	10.2	33.1	15	N	20	N
Jul 23	6	217.5	34	1,251	26	1,027	540	11.5	10.3	33.5	0	–	0	–
Jul 24	6	184.0	40	1,291	36	1,062	535	11.3	10.5	33.0	20	S	13	S
Jul 25	6	212.0	230	1,521	182	1,244	541	11.6	10.5	33.5	10	S	16	S
Jul 26	6	220.0	88	1,609	71	1,316	538	11.0	10.5	33.2	10	S	8	SW
Jul 27	3	102.0	209	1,818	218	1,534	537	12.3	11.0	32.8	20	S	25	S
Jul 28	0	0.0	0	1,818	230	1,764	–	–	–	–	–	–	–	–
Jul 29	3	104.5	266	2,084	282	2,046	542	11.3	11.1	32.7	18	S	12	S
Jul 30	6	224.0	161	2,245	122	2,168	548	12.0	11.2	32.4	2	S	2	SE

Note: Wind speed (Vel) is measured in knots; Dir = direction. Cum = cumulative.

Note: En dash (–) = no data.

[a] Not all stations fished due to weather or mechanical issues

[b] Sockeye salmon indices were linearly interpolated for days with missing stations

Appendix A2.–Upper Cook Inlet sockeye salmon count by watershed and date, 2021.

	Kenai River		Kasilof River		Fish Creek		Larson Lake		Judd Lake	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jun 15	–	–	4,890	4,890	–	–	–	–	–	–
Jun 16	–	–	4,842	9,732	–	–	–	–	–	–
Jun 17	–	–	4327	14,059	–	–	–	–	–	–
Jun 18	–	–	3,870	17,929	–	–	–	–	–	–
Jun 19	–	–	3,012	20,941	–	–	–	–	–	–
Jun 20	–	–	3,738	24,679	–	–	–	–	–	–
Jun 21	–	–	5,178	29,857	–	–	–	–	–	–
Jun 22	–	–	9,468	39,325	–	–	–	–	–	–
Jun 23	–	–	2,274	41,599	–	–	–	–	–	–
Jun 24	–	–	3,369	44,968	–	–	–	–	–	–
Jun 25	–	–	3,738	48,706	–	–	–	–	–	–
Jun 26	–	–	5,136	53,842	–	–	–	–	–	–
Jun 27	–	–	2,976	56,818	–	–	–	–	–	–
Jun 28	–	–	11,893	68,711	–	–	–	–	–	–
Jun 29	–	–	10,602	79,313	–	–	–	–	–	–
Jun 30	–	–	20,454	99,767	–	–	–	–	–	–
Jul 1	7,248	7,248	13,717	113,484	–	–	–	–	–	–
Jul 2	6,476	13,724	6,078	119,562	–	–	–	–	–	–
Jul 3	6,430	20,154	12,060	131,622	–	–	–	–	–	–
Jul 4	6,685	26,839	5,592	137,214	–	–	–	–	–	–
Jul 5	6,122	32,961	9,562	146,776	–	–	–	–	–	–
Jul 6	11,298	44,259	6,054	152,830	0	0	–	–	–	–
Jul 7	9,182	53,441	10,422	163,252	0	0	0	0	–	–
Jul 8	14,040	67,481	6,533	169,785	0	0	0	0	–	–
Jul 9	10,655	78,136	4,955	174,740	0	0	0	0	–	–
Jul 10	10,842	88,978	8,214	182,954	0	0	0	0	–	–
Jul 11	13,986	102,964	12,316	195,270	0	0	0	0	–	–
Jul 12	16,461	119,425	11,699	206,969	50	50	0	0	–	–
Jul 13	12,738	132,163	4,669	211,638	467	517	0	0	–	–
Jul 14	9,852	142,015	7,167	218,805	1,818	2,335	0	0	–	–
Jul 15	19,982	161,997	7,894	226,699	2,223	4,558	0	0	0	0

-continued-

Appendix A2.–Page 2 of 3.

	Kenai River		Kasilof River		Fish Creek		Larson Lake		Judd Lake	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jul 16	14,727	176,724	6,347	233,046	3,471	8,029	0	0	0	0
Jul 17	16,015	192,739	8,886	241,932	912	8,941	7	7	0	0
Jul 18	19,843	212,582	8,396	250,328	1,086	10,027	25	32	0	0
Jul 19	25,731	238,313	8,226	258,554	1,366	11,393	0	32	0	0
Jul 20	85,706	324,019	24,773	283,327	3,079	14,472	0	32	0	0
Jul 21	55,920	379,939	17,032	300,359	3,705	18,177	0	32	0	0
Jul 22	32,958	412,897	13,787	314,146	2,226	20,403	0	32	4	4
Jul 23	40,956	453,853	10,628	324,774	752	21,155	0	32	0	4
Jul 24	38,526	492,379	9,522	334,296	384	21,539	5	37	0	4
Jul 25	57,660	550,039	11,412	345,708	31	21,570	30	67	58	62
Jul 26	52,164	602,203	14,262	359,970	0	21,570	14	81	54	116
Jul 27	62,633	664,836	11,297	371,267	287	21,857	0	81	42	158
Jul 28	58,394	723,230	11,672	382,939	478	22,335	190	271	98	256
Jul 29	74,864	798,094	11,601	394,540	538	22,873	379	650	24	280
Jul 30	47,866	845,960	11,253	405,793	423	23,296	249	899	158	438
Jul 31	77,985	923,945	9,942	415,735	532	23,828	287	1,186	12	450
Aug 1	87,653	1,011,598	12,854	428,589	12,656	36,484	560	1,746	775	1,225
Aug 2	151,525	1,163,123	15,248	443,837	12,867	49,351	762	2,508	1,369	2,594
Aug 3	136,740	1,299,863	12,792	456,629	12,770	62,121	1,241	3,749	1,538	4,132
Aug 4	109,902	1,409,765	11,508	468,137	7,713	69,834	1,392	5,141	1,931	6,063
Aug 5	80,538	1,490,303	7,053	475,190	6,481	76,315	916	6,057	2,078	8,141
Aug 6	80,029	1,570,332	5,163	480,353	1,619	77,934	1,288	7,345	2,363	10,504
Aug 7	73,260	1,643,592	5,702	486,055	268	78,202	1,477	8,822	1,932	12,436
Aug 8	89,750	1,733,342	7,988	494,043	93	78,295	785	9,607	1,157	13,593
Aug 9	72,734	1,806,076	4,716	498,759	7,400	85,695	1,181	10,788	1,846	15,439
Aug 10	56,226	1,862,302	4,978	503,737	3,714	89,409	1,376	12,164	2,026	17,465
Aug 11	54,827	1,917,129	3,294	507,031	3,925	93,334	869	13,033	1,766	19,231
Aug 12	48,605	1,965,734	4,368	511,399	1,856	95,190	1,310	14,343	2,460	21,691
Aug 13	40,367	2,006,101	2,758	514,157	2,749	97,939	1,440	15,783	3,308	24,999
Aug 14	52,677	2,058,778	3,802	517,959	787	98,726	988	16,771	3,726	28,725
Aug 15	59,856	2,118,634	3,900	521,859	598	99,324	804	17,575	3,216	31,941

-continued-

Appendix A2.–Page 3 of 3.

	Kenai River		Kasilof River		Fish Creek		Larson Lake		Judd Lake	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Aug 16	55,844	2,174,478	–	–	–	–	651	18,226	2,053	33,994
Aug 17	61,737	2,236,215	–	–	–	–	947	19,173	2,594	36,588
Aug 18	41,519	2,277,734	–	–	–	–	676	19,849	2,054	38,642
Aug 19	41,335	2,319,069	–	–	–	–	627	20,476	1,523	40,165
Aug 20	37,664	2,356,733	–	–	–	–	494	20,970	1,754	41,919
Aug 21	31,436	2,388,169	–	–	–	–	268	21,238	1,224	43,143
Aug 22	23,330	2,411,499	–	–	–	–	215	21,453	1,170	44,313
Aug 23	18,104	2,429,603	–	–	–	–	281	21,734	1,323	45,636
Aug 24	12,222	2,441,825	–	–	–	–	195	21,929	1,122	46,758
Aug 25	–	–	–	–	–	–	58	21,987	858	47,616
Aug 26	–	–	–	–	–	–	–	–	657	48,273
Aug 27	–	–	–	–	–	–	–	–	590	48,863
Aug 28	–	–	–	–	–	–	–	–	369	49,232
Aug 29	–	–	–	–	–	–	–	–	18	49,250

Note: En dash (–) = no data; Cum = cumulative.

Appendix A3.–Commercial Chinook salmon catch by area and date, Upper Cook Inlet, 2021.

Upper subdistrict set gillnet																
	244-21 Ninilchik		244-22 Cohoe		244-25 KRSHA		244-31 South K-Beach		244-32 North K-Beach		244-41 Salamatof		244-42 E. Forelands		Total	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jun 22	20	20	21	21	0	0	8	8	0	0	0	0	0	0	49	49
Jun 24	23	43	9	30	0	0	5	13	0	0	0	0	0	0	37	86
Jun 26	22	65	13	43	0	0	10	23	0	0	0	0	0	0	45	131
Jun 28	20	85	33	76	0	0	17	40	0	0	0	0	0	0	70	201
Jul 1	20	105	12	88	0	0	20	60	0	0	0	0	0	0	52	253
Jul 3	17	122	16	104	0	0	20	80	0	0	0	0	0	0	53	306
Jul 5	16	138	13	117	0	0	20	100	2	2	0	0	0	0	51	357
Jul 6	3	141	1	118	0	0	1	101	0	2	0	0	0	0	5	362
Jul 7	8	149	10	128	0	0	8	109	1	3	0	0	0	0	27	389
Jul 8	13	162	13	141	0	0	15	124	6	9	98	98	3	3	148	537
Jul 12	11	173	23	164	0	0	28	152	51	60	95	193	3	6	211	748
Jul 13	9	182	10	174	0	0	1	153	3	63	0	193	0	6	23	771
Jul 14	7	189	16	190	0	0	4	157	0	63	0	193	0	6	27	798
Jul 15	17	206	22	212	0	0	18	175	38	101	90	283	9	15	194	992
Jul 18	0	206	0	212	5	5	0	175	0	101	0	283	0	15	5	997
Jul 19	20	226	31	243	0	5	38	213	29	130	99	382	9	24	226	1,223
Jul 20	10	236	4	247	0	5	11	224	4	134	43	425	2	26	74	1,297

-continued-

Appendix A3.–Page 2 of 4.

Northern District set gillnet																				
	247-10 Trading Bay		247-20 Tyonek		247-30 Beluga		247-41 Susitna Flats		247-42 Pt. McKenzie		247-43 Fire Island		247-70 Pt. Possession		247-80 Birch Hill		247-90 #3 Bay		Total	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
May 31	13	13	20	20	0	0	5	5	10	10	30	30	32	32	17	17	1	1	128	128
Jun 7	0	13	58	78	0	0	0	5	57	67	109	139	39	71	11	28	2	3	276	404
Jun 14	17	30	218	296	0	0	9	14	52	119	73	212	54	125	8	36	3	6	434	838
Jun 21	54	84	489	785	0	0	0	14	25	144	18	230	44	169	12	48	1	7	643	1,481
Jun 28	9	93	66	851	0	0	0	14	9	153	7	237	14	183	11	59	3	10	119	1,600
Jul 1	6	99	29	880	0	0	0	14	0	153	0	237	6	189	1	60	1	11	43	1,643
Jul 5	4	103	207	1,087	2	2	0	14	0	153	1	238	5	194	3	63	1	12	223	1,866
Jul 8	0	103	5	1,092	0	2	0	14	0	153	0	238	0	194	0	63	0	12	5	1,871
Jul 12	1	104	1	1,093	0	2	0	14	1	154	1	239	0	194	0	63	0	12	4	1,875
Jul 15	0	104	2	1,095	1	3	0	14	2	156	0	239	1	195	0	63	1	13	7	1,882
Jul 19	1	105	1	1,096	1	4	0	14	0	156	0	239	0	195	1	64	0	13	4	1,886
Jul 22	0	105	1	1,097	0	4	0	14	0	156	0	239	1	196	1	65	1	14	4	1,890
Jul 26	0	105	0	1,097	0	4	0	14	1	157	0	239	0	196	0	65	0	14	1	1,891
Aug 9	0	105	0	1,097	0	4	0	14	0	157	0	239	0	196	0	65	1	15	1	1,892
Aug 12	0	105	0	1,097	0	4	0	14	0	157	0	239	0	196	0	65	1	16	1	1,893

-continued-

Appendix A3.–Page 3 of 4.

Central District - west side set gillnet

	245-10 Chinitna Bay		245-20 Silver Salmon		245-30 Tuxedni Bay		245-40 Polly Cr.		245-50 L. J. Slough		245-55 Big River		245-60 W. Forelands		246-10 Kalgin - west		246-20 Kalgin - east		Total	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jun 2	0	0	0	0	0	0	0	0	0	0	30	30	0	0	103	103	0	0	133	133
Jun 4	0	0	0	0	0	0	0	0	0	0	8	38	0	0	78	181	0	0	86	219
Jun 7	0	0	0	0	0	0	0	0	0	0	2	40	0	0	33	214	0	0	35	254
Jun 9	0	0	0	0	0	0	0	0	0	0	4	44	0	0	29	243	0	0	33	287
Jun 11	0	0	0	0	0	0	0	0	0	0	1	45	0	0	36	279	0	0	37	324
Jun 14	0	0	0	0	0	0	0	0	0	0	8	53	0	0	63	342	0	0	71	395
Jun 16	0	0	0	0	0	0	0	0	0	0	0	53	0	0	7	349	0	0	7	402
Jun 17	0	0	0	0	9	9	0	0	2	2	0	53	0	0	0	349	0	0	11	413
Jun 18	0	0	0	0	0	9	0	0	0	2	39	92	0	0	14	363	0	0	53	466
Jun 21	0	0	0	0	2	11	0	0	1	3	2	94	0	0	5	368	0	0	10	476
Jun 23	0	0	0	0	0	11	0	0	0	3	0	94	0	0	2	370	0	0	2	478
Jun 24	0	0	0	0	2	13	0	0	0	3	0	94	0	0	0	370	0	0	2	480
Jun 28	0	0	0	0	7	20	0	0	3	6	0	94	0	0	10	380	3	3	23	503
Jul 1	0	0	0	0	15	35	0	0	0	6	0	94	0	0	3	383	0	3	18	521
Jul 5	0	0	0	0	11	46	0	0	1	7	0	94	0	0	3	386	0	3	15	536
Jul 8	0	0	0	0	6	52	0	0	0	7	0	94	0	0	0	386	1	4	7	543
Jul 12	0	0	0	0	0	52	0	0	0	7	0	94	0	0	6	392	1	5	7	550
Jul 15	0	0	0	0	4	56	0	0	0	7	0	94	0	0	3	395	0	5	7	557
Jul 19	0	0	0	0	1	57	0	0	0	7	0	94	0	0	0	395	0	5	1	558
Jul 22	0	0	0	0	0	57	0	0	0	7	0	94	0	0	2	397	0	5	2	560
Jul 26	0	0	0	0	1	58	0	0	0	7	0	94	0	0	1	398	0	5	2	562
Jul 29	0	0	0	0	1	59	0	0	0	7	0	94	0	0	0	398	0	5	1	563
Aug 2	0	0	0	0	1	60	0	0	0	7	0	94	0	0	0	398	0	5	1	564
Aug 5	0	0	0	0	2	62	0	0	0	7	0	94	0	0	0	398	0	5	2	566

-continued-

Central District - drift gillnet

		244-56 Exp. Ken/Kas		244-57 Exp. Ken/Kas/AP		244-60 Area 1 district wide		244-61 Kasilof section		244-60 Areas 3 and 4		245-10 Chinitna Bay		Total	
Date	Deliveries	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jun 21	<3	0	0	0	0	3	3	0	0	0	0	0	0	3	3
Jun 28	8	0	0	0	0	14	17	0	0	0	0	0	0	14	17
Jul 1	9	0	0	0	0	12	29	0	0	0	0	0	0	12	29
Jul 5	9	0	0	0	0	10	39	0	0	0	0	0	0	10	39
Jul 8	29	0	0	0	0	42	81	0	0	0	0	0	0	42	81
Jul 12	22	0	0	0	0	25	106	0	0	0	0	0	0	25	106
Jul 13	7	8	8	0	0	0	106	0	0	0	0	0	0	8	114
Jul 14	13	15	23	0	0	0	106	0	0	0	0	0	0	15	129
Jul 15	10	0	23	0	0	14	120	0	0	0	0	0	0	14	143
Jul 19	13	0	23	0	0	15	135	0	0	0	0	0	0	15	158
Jul 20	5	0	23	8	8	0	135	0	0	0	0	0	0	8	166
Jul 21	<3	0	23	3	11	0	135	0	0	0	0	0	0	3	169
Jul 22	17	0	23	22	33	0	135	0	0	0	0	0	0	22	191
Jul 26	7	0	23	0	33	8	143	0	0	0	0	0	0	8	199
Jul 27	4	0	23	4	37	0	143	0	0	0	0	0	0	4	203
Jul 28	<3	0	23	3	40	0	143	0	0	0	0	0	0	3	206
Jul 29	4	4	27	0	40	0	143	0	0	0	0	0	0	4	210
Aug 1	<3	0	27	1	41	0	143	0	0	0	0	0	0	1	211
Aug 4	<3	0	27	1	42	0	143	0	0	0	0	0	0	1	212
Aug 7	2	0	27	2	44	0	143	0	0	0	0	0	0	2	214
Aug 10	<3	0	27	1	45	0	143	0	0	0	0	0	0	1	215
Aug 20	<3	0	27	0	45	0	143	0	0	0	0	1	1	1	216
Aug 31	<3	0	27	0	45	0	143	0	0	0	0	1	2	1	217

Note: Cum = cumulative; Exp. Ken/Kas = Expanded Kenai and Kasilof Sections; Exp. Ken/Kas/AP = Expanded Kenai/Kasilof and Anchor Point Sections.

Appendix A4.–Commercial sockeye salmon catch by area and date, Upper Cook Inlet, 2021.

Northern District - set gillnet																		
	247-10 Trading Bay		247-20 Tyonek		247-30 Beluga		247-41 Susitna Flats		247-42 Pt. McKenzie		247-43 Fire Island		247-70 Pt. Possession		247-80 Birch Hill		247-90 #3 Bay	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
May 31	0	0	0	0	0	0	0	0	3	3	4	4	16	16	11	11	44	44
Jun 7	0	0	2	2	0	0	0	0	11	14	8	12	52	68	32	43	35	79
Jun 14	9	9	23	25	0	0	4	4	13	27	6	18	220	288	160	203	275	354
Jun 21	92	101	8	33	0	0	0	4	0	27	8	26	116	404	105	308	324	678
Jun 28	55	156	51	84	0	0	0	4	2	29	9	35	44	448	58	366	225	903
Jul 1	30	186	188	272	0	0	0	4	0	29	0	35	351	799	283	649	427	1,330
Jul 5	404	590	936	1,208	251	251	0	4	0	29	31	66	487	1,286	342	991	767	2,097
Jul 8	173	763	1,342	2,550	670	921	2	6	0	29	115	181	864	2,150	1,486	2,477	790	2,887
Jul 12	100	863	1,392	3,942	597	1,518	87	93	102	131	84	265	410	2,560	570	3,047	693	3,580
Jul 15	170	1,033	1,183	5,125	1,090	2,608	153	246	178	309	118	383	439	2,999	921	3,968	932	4,512
Jul 19	266	1,299	884	6,009	1,044	3,652	187	433	148	457	131	514	635	3,634	1,278	5,246	1,123	5,635
Jul 22	299	1,598	810	6,819	437	4,089	269	702	368	825	80	594	944	4,578	1,401	6,647	874	6,509
Jul 26	92	1,690	595	7,414	455	4,544	310	1,012	572	1,397	300	894	663	5,241	911	7,558	1,183	7,692
Jul 29	211	1,901	386	7,800	346	4,890	192	1,204	628	2,025	114	1,008	450	5,691	1,029	8,587	1,298	8,990
Aug 2	1,093	2,994	2,236	10,036	605	5,495	1,285	2,489	488	2,513	154	1,162	1,163	6,854	1,339	9,926	2,481	11,471
Aug 5	673	3,667	526	10,562	269	5,764	565	3,054	320	2,833	91	1,253	452	7,306	1,083	11,009	1,860	13,331
Aug 9	179	3,846	232	10,794	0	5,764	0	3,054	78	2,911	97	1,350	1,030	8,336	1,258	12,267	1,225	14,556
Aug 12	126	3,972	129	10,923	55	5,819	0	3,054	125	3,036	68	1,418	312	8,648	364	12,631	649	15,205
Aug 16	33	4,005	153	11,076	0	5,819	0	3,054	0	3,036	78	1,496	413	9,061	700	13,331	1,542	16,747
Aug 19	348	4,353	72	11,148	0	5,819	0	3,054	44	3,080	26	1,522	191	9,252	505	13,836	1,030	17,777
Aug 23	11	4,364	20	11,168	0	5,819	0	3,054	0	3,080	0	1,522	42	9,294	181	14,017	136	17,913
Aug 26	0	4,364	0	11,168	0	5,819	0	3,054	0	3,080	0	1,522	147	9,441	304	14,321	473	18,386
Aug 30	17	4,381	7	11,175	0	5,819	0	3,054	0	3,080	0	1,522	24	9,465	74	14,395	85	18,471
Sep 2	0	4,381	0	11,175	0	5,819	0	3,054	0	3,080	0	1,522	0	9,465	13	14,408	5	18,476
Sep 6	6	4,387	0	11,175	0	5,819	0	3,054	0	3,080	0	1,522	4	9,469	0	14,408	26	18,502
Sep 13	0	4,387	0	11,175	0	5,819	0	3,054	0	3,080	0	1,522	0	9,469	1	14,409	0	18,502

-continued-

Appendix A4.–Page 2 of 5.

Central District - west side set gillnet

	245-10 Chinitna Bay		245-30 Tuxedni Bay		245-50 L. J. Slough		245-55 Big River		245-60 W. Forelands		246-10 Kalgin – west		246-20 Kalgin – east		Total	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jun 2	0	0	0	0	0	0	465	465	0	0	569	569	0	0	1,034	1,034
Jun 4	0	0	0	0	0	0	336	801	0	0	624	1,193	0	0	960	1,994
Jun 7	0	0	0	0	0	0	170	971	0	0	680	1,873	0	0	850	2,844
Jun 9	0	0	0	0	0	0	521	1,492	0	0	829	2,702	0	0	1,350	4,194
Jun 11	0	0	0	0	0	0	557	2,049	0	0	2162	4,864	0	0	2,719	6,913
Jun 14	0	0	0	0	0	0	454	2,503	0	0	728	5,592	0	0	1,182	8,095
Jun 16	0	0	0	0	0	0	0	2,503	0	0	546	6,138	0	0	546	8,641
Jun 17	0	0	420	420	98	98	0	2,503	0	0	0	6,138	0	0	518	9,159
Jun 18	0	0	0	420	0	98	516	3,019	0	0	2,263	8,401	0	0	2,779	11,938
Jun 21	0	0	482	902	80	178	289	3,308	0	0	1,554	9,955	0	0	2,405	14,343
Jun 23	0	0	0	902	0	178	0	3,308	0	0	764	10,719	0	0	764	15,107
Jun 24	0	0	529	1,431	36	214	0	3,308	0	0	0	10,719	0	0	565	15,672
Jun 28	0	0	858	2,289	324	538	0	3,308	50	50	2,658	13,377	626	626	4,516	20,188
Jul 1	0	0	1,037	3,326	87	625	0	3,308	0	50	739	14,116	142	768	2,005	22,193
Jul 5	0	0	1,172	4,498	97	722	0	3,308	297	347	1,388	15,504	351	1,119	3,305	25,498
Jul 8	0	0	846	5,344	146	868	0	3,308	0	347	901	16,405	605	1,724	2,498	27,996
Jul 12	0	0	858	6,202	47	915	0	3,308	107	454	2,412	18,817	517	2,241	3,941	31,937
Jul 15	0	0	779	6,981	135	1,050	0	3,308	0	454	1,339	20,156	328	2,569	2,581	34,518
Jul 19	0	0	2,218	9,199	283	1,333	0	3,308	990	1,444	1,051	21,207	527	3,096	5,069	39,587
Jul 22	0	0	1,740	10,939	136	1,469	0	3,308	521	1,965	1,728	22,935	476	3,572	4,601	44,188
Jul 26	0	0	1,275	12,214	419	1,888	0	3,308	755	2,720	2,871	25,806	517	4,089	5,837	50,025
Jul 29	0	0	984	13,198	127	2,015	0	3,308	97	2,817	2,046	27,852	29	4,118	3,283	53,308
Aug 2	0	0	2,225	15,423	609	2,624	152	3,460	2,087	4,904	990	28,842	521	4,639	6,584	59,892
Aug 5	0	0	828	16,251	383	3,007	48	3,508	830	5,734	1,161	30,003	359	4,998	3,609	63,501
Aug 7	0	0	0	16,251	0	3,007	0	3,508	0	5,734	1,256	31,259	598	5,596	1,854	65,355
Aug 9	0	0	119	16,370	170	3,177	17	3,525	464	6,198	2,661	33,920	1,356	6,952	4,787	70,142
Aug 12	0	0	53	16,423	134	3,311	42	3,567	288	6,486	3,017	36,937	795	7,747	4,329	74,471
Aug 14	0	0	0	16,423	0	3,311	0	3,567	0	6,486	2046	38,983	436	8,183	2,482	76,953
Aug 16	0	0	0	16,423	107	3,418	0	3,567	0	6,486	2360	41,343	0	8,183	2,467	79,420
Aug 19	0	0	0	16,423	69	3,487	0	3,567	34	6,520	858	42,201	0	8,183	961	80,381
Aug 23	0	0	0	16,423	26	3,513	0	3,567	0	6,520	0	42,201	0	8,183	26	80,407
Aug 30	0	0	0	16,423	0	3,513	0	3,567	0	6,520	0	42,201	36	8,219	36	80,443

-continued-

Appendix A4.–Page 3 of 5.

Upper Subdistrict set gillnet

	244-21 Ninilchik		244-22 Cohoe		244-25 KRSHA		244-31 South K-Beach		244-32 North K-Beach		244-41 Salamatof		244-42 E. Forelands		Total	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jun 22	6,296	6,296	4,461	4,461	0	0	5,976	5,976	0	0	0	0	0	0	16,733	16,733
Jun 24	8,254	14,550	5,877	10,338	0	0	5,034	11,010	0	0	0	0	0	0	19,165	35,898
Jun 26	7,512	22,062	4,374	14,712	0	0	3,998	15,008	0	0	0	0	0	0	15,884	51,782
Jun 28	9,241	31,303	12,153	26,865	0	0	10,538	25,546	0	0	0	0	0	0	31,932	83,714
Jul 1	7,367	38,670	5,015	31,880	0	0	4,998	30,544	2,162	2,162	0	0	0	0	19,542	103,256
Jul 3	7,481	46,151	5,341	37,221	0	0	4,650	35,194	3,072	5,234	0	0	0	0	20,544	123,800
Jul 5	6,488	52,639	3,975	41,196	0	0	4,672	39,866	3,110	8,344	0	0	0	0	18,245	142,045
Jul 6	4,387	57,026	1,165	42,361	0	0	951	40,817	2,243	10,587	0	0	0	0	8,746	150,791
Jul 7	3,453	60,479	4,226	46,587	0	0	3,881	44,698	2,728	13,315	0	0	0	0	14,288	165,079
Jul 8	4,557	65,036	4,490	51,077	0	0	2,815	47,513	4,221	17,536	7,014	7,014	3,374	3,374	26,471	191,550
Jul 12	2,720	67,756	3,288	54,365	0	0	3,652	51,165	4,415	21,951	8,361	15,375	4,801	8,175	27,237	218,787
Jul 13	1,848	69,604	1,673	56,038	0	0	1,555	52,720	2,289	24,240	0	15,375	0	8,175	7,365	226,152
Jul 14	1,546	71,150	1,783	57,821	0	0	1,895	54,615	3,216	27,456	0	15,375	0	8,175	8,440	234,592
Jul 15	3,416	74,566	3,367	61,188	0	0	2,256	56,871	3,381	30,837	9,185	24,560	2,751	10,926	24,356	258,948
Jul 18	0	74,566	0	61,188	1,502	1,502	0	56,871	0	30,837	0	24,560	0	10,926	1,502	260,450
Jul 19	3,167	77,733	7,608	68,796	0	1,502	8,970	65,841	16,886	47,723	57,185	81,745	14,497	25,423	108,313	368,763
Jul 20	1,786	79,519	1,491	70,287	0	1,502	2,045	67,886	3,460	51,183	20,016	101,761	9,520	34,943	38,318	407,081

-continued-

Appendix A4.–Page 4 of 5.

Central District drift gillnet

		244-56 Exp. Ken/Kas		244-57 Exp. Ken/Kas/AP		244-60 Area 1/District W.		244-61 Kasilof Section		244-60 Areas 3 and 4		245-10 Chinitna Bay		Total	
Date	Deliveries	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jun 21	25	0	0	0	0	1,157	1,157	0	0	0	0	0	0	1,157	1,157
Jun 24	28	0	0	0	0	1,624	2,781	0	0	0	0	0	0	1,624	2,781
Jun 26	<3	0	0	0	0	0	2,781	53	53	0	0	0	0	53	2,834
Jun 28	79	0	0	0	0	8,135	10,916	0	53	0	0	0	0	8,135	10,969
Jul 1	119	0	0	0	0	23,098	34,014	0	53	0	0	0	0	23,098	34,067
Jul 3	7	0	0	0	0	0	34,014	82	135	0	0	0	0	82	34,149
Jul 5	163	0	0	0	0	9,229	43,243	0	135	0	0	0	0	9,229	43,378
Jul 8	192	0	0	0	0	19,878	63,121	0	135	0	0	0	0	19,878	63,256
Jul 12	163	0	0	0	0	23,148	86,269	0	135	0	0	0	0	23,148	86,404
Jul 13	112	15,114	15,114	0	0	0	86,269	0	135	0	0	0	0	15,114	101,518
Jul 14	132	12,988	28,102	0	0	0	86,269	0	135	0	0	0	0	12,988	114,506
Jul 15	236	0	28,102	0	0	67,109	153,378	0	135	0	0	0	0	67,109	181,615
Jul 19	232	0	28,102	0	0	117,024	270,402	0	135	0	0	0	0	117,024	298,639
Jul 20	171	0	28,102	26,693	26,693	0	270,402	0	135	0	0	0	0	26,693	325,332
Jul 21	179	0	28,102	44,628	71,321	0	270,402	0	135	0	0	0	0	44,628	369,960
Jul 22	211	0	28,102	52,439	123,760	0	270,402	0	135	0	0	0	0	52,439	422,399
Jul 26	230	0	28,102	0	123,760	69,154	339,556	0	135	0	0	0	0	69,154	491,553
Jul 27	168	0	28,102	22,148	145,908	0	339,556	0	135	0	0	0	0	22,148	513,701
Jul 28	62	0	28,102	10,406	156,314	0	339,556	0	135	0	0	0	0	10,406	524,107
Jul 29	149	23,359	51,461	0	156,314	0	339,556	0	135	0	0	0	0	23,359	547,466
Aug 1	127	0	51,461	63,988	220,302	0	339,556	0	135	0	0	0	0	63,988	611,454

-continued-

Appendix A4.–Page 5 of 5.

Central District drift gillnet															
		244-56 Exp. Ken/Kas		244-57 Exp. Ken/Kas/AP		244-60 Area 1/district wide		244-61 Kasilof section		244-60 Areas 3 and 4		245-10 Chinitna Bay		Total	
Date	Deliveries	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Aug 2	181	0	0	0	220,302	60,148	60,148	0	0	0	0	0	0	60,148	671,602
Aug 3	107	0	0	26,843	247,145	0	60,148	0	0	0	0	0	0	26,843	698,445
Aug 4	157	0	0	31,067	278,212	0	60,148	0	0	0	0	0	0	31,067	729,512
Aug 5	173	0	0	0	278,212	34,801	94,949	0	0	0	0	0	0	34,801	764,313
Aug 6	93	0	0	18,786	296,998	0	94,949	0	0	0	0	0	0	18,786	783,099
Aug 7	86	0	0	25,531	322,529	0	94,949	0	0	0	0	0	0	25,531	808,630
Aug 8	52	0	0	5,792	328,321	0	94,949	0	0	0	0	0	0	5,792	814,422
Aug 9	84	0	0	0	328,321	18,154	113,103	0	0	0	0	0	0	18,154	832,576
Aug 10	25	0	0	1,893	330,214	0	113,103	0	0	0	0	0	0	1,893	834,469
Aug 11	60	0	0	5,168	335,382	0	113,103	0	0	0	0	0	0	5,168	839,637
Aug 12	55	0	0	0	335,382	9,396	122,499	0	0	0	0	0	0	9,396	849,033
Aug 16	6	0	0	0	335,382	0	122,499	0	0	1,704	1,704	0	0	1,704	850,737
Aug 19	4	0	0	0	335,382	0	122,499	0	0	397	2,101	0	0	397	851,134
Aug 20	5	0	0	0	335,382	0	122,499	0	0	0	2,101	182	182	182	851,316
Aug 23	14	0	0	0	335,382	0	122,499	0	0	375	2,476	0	182	375	851,691
Aug 24	7	0	0	0	335,382	0	122,499	0	0	0	2,476	76	258	76	851,767
Aug 27	<3	0	0	0	335,382	0	122,499	0	0	0	2,476	2	260	2	851,769
Aug 30	6	0	0	0	335,382	0	122,499	0	0	86	2,562	0	260	86	851,855
Aug 31	<3	0	0	0	335,382	0	122,499	0	0	0	2,562	34	294	34	851,889
Sep 3	<3	0	0	0	335,382	0	122,499	0	0	0	2,562	5	299	5	851,894
Sep 6	<3	0	0	0	335,382	0	122,499	0	0	7	2,569	0	299	7	851,901

Note: Cum = cumulative; Exp. Ken/Kas = Expanded Kenai and Kasilof Sections; Exp. Ken/Kas/AP = Expanded Kenai/Kasilof and Anchor Point Sections.

Appendix A5.–Commercial coho salmon catch by area and date, Upper Cook Inlet, 2021.

Central District - west side set gillnet

	245-10 Chinitna Bay		245-20 Silver Salmon		245-30 Tuxedni Bay		245-40 Polly Cr.		245-50 L. J. Slough		245-55 Big River		245-60 W. Forelands		246-10 Kalgin – west		246-20 Kalgin – east		Total	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jun 28	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	2	0	0	3	3
Jul 1	0	0	0	0	0	1	0	0	1	1	0	0	0	0	3	5	0	0	4	7
Jul 5	0	0	0	0	6	7	0	0	0	1	0	0	8	8	42	47	7	7	63	70
Jul 8	0	0	0	0	2	9	0	0	1	2	0	0	0	8	42	89	32	39	77	147
Jul 12	0	0	0	0	21	30	0	0	15	17	0	0	54	62	519	608	55	94	664	811
Jul 15	0	0	0	0	63	93	0	0	59	76	0	0	0	62	278	886	69	163	469	1,280
Jul 19	0	0	0	0	97	190	0	0	35	111	0	0	131	193	326	1,212	85	248	674	1,954
Jul 22	0	0	0	0	204	394	0	0	93	204	0	0	308	501	1,294	2,506	454	702	2,353	4,307
Jul 26	0	0	0	0	397	791	0	0	157	361	0	0	327	828	1,277	3,783	381	1,083	2,539	6,846
Jul 29	0	0	0	0	613	1,404	0	0	73	434	0	0	169	997	1,092	4,875	8	1,091	1,955	8,801
Aug 2	0	0	0	0	1,070	2,474	0	0	401	835	295	295	364	1,361	552	5,427	323	1,414	3,005	11,806
Aug 5	0	0	0	0	841	3,315	0	0	356	1,191	342	637	693	2,054	617	6,044	238	1,652	3,087	14,893
Aug 7	0	0	0	0	0	3,315	0	0	0	1,191	0	637	0	2,054	375	6,419	127	1,779	502	15,395
Aug 9	0	0	0	0	41	3,356	0	0	445	1,636	224	861	242	2,296	691	7,110	422	2,201	2,065	17,460
Aug 12	0	0	0	0	32	3,388	0	0	327	1,963	68	929	1	2,297	454	7,564	103	2,304	985	18,445
Aug 14	0	0	0	0	0	3,388	0	0	0	1,963	0	929	0	2,297	315	7,879	54	2,358	369	18,814
Aug 16	0	0	0	0	0	3,388	0	0	132	2,095	0	929	0	2,297	127	8,006	0	2,358	259	19,073
Aug 19	0	0	0	0	0	3,388	0	0	156	2,251	0	929	196	2,493	216	8,222	0	2,358	568	19,641
Aug 23	0	0	0	0	0	3,388	0	0	29	2,280	0	929	0	2,493	0	8,222	0	2,358	29	19,670
Aug 24	54	54	0	0	0	3,388	0	0	0	2,280	0	929	0	2,493	0	8,222	0	2,358	54	19,724
Aug 27	83	137	0	0	0	3,388	0	0	0	2,280	0	929	0	2,493	0	8,222	0	2,358	83	19,807
Aug 30	0	137	0	0	0	3,388	0	0	0	2,280	0	929	0	2,493	0	8,222	105	2,463	105	19,912

-continued-

Upper subdistrict set gillnet

	244-21 Ninilchik		244-22 Cohoe		244-31 South K-Beach		244-32 North K-Beach		244-41 Salamatof		244-42 E. Forelands		Total	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jul 3	0	0	0	0	1	1	0	0	0	0	0	0	1	1
Jul 5	1	1	2	2	0	1	1	1	0	0	0	0	4	5
Jul 6	1	2	1	3	0	1	0	1	0	0	0	0	2	7
Jul 7	15	17	9	12	1	2	0	1	0	0	0	0	25	32
Jul 8	8	25	9	21	2	4	2	3	5	5	8	8	34	66
Jul 12	8	33	2	23	1	5	5	8	3	8	102	110	121	187
Jul 13	5	38	8	31	0	5	6	14	0	8	0	110	19	206
Jul 14	4	42	8	39	0	5	3	17	0	8	0	110	15	221
Jul 15	25	67	11	50	0	5	1	18	14	22	156	266	207	428
Jul 19	14	81	15	65	4	9	5	23	75	97	197	463	310	738
Jul 20	25	106	14	79	0	9	2	25	36	133	68	531	145	883

-continued-

Northern district set gillnet

	247-10 Trading Bay		247-20 Tyonek		247-30 Beluga		247-41 Susitna Flats		247-42 Pt. McKenzie		247-43 Fire Island		247-70 Pt. Possession		247-80 Birch Hill		247-90 #3 Bay		Total	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jul 1	1	1	4	4	0	0	0	0	0	0	0	0	1	1	0	0	0	0	6	6
Jul 5	15	16	26	30	13	13	0	0	0	0	2	2	2	3	7	7	2	2	67	73
Jul 8	23	39	169	199	46	59	0	0	0	0	6	8	11	14	11	18	4	6	270	343
Jul 12	84	123	916	1,115	360	419	20	20	26	26	29	37	23	37	6	24	4	10	1,468	1,811
Jul 15	97	220	680	1,795	463	882	32	52	29	55	50	87	30	67	18	42	22	32	1,421	3,232
Jul 19	48	268	1,050	2,845	686	1,568	74	126	52	107	57	144	64	131	96	138	31	63	2,158	5,390
Jul 22	236	504	2,455	5,300	715	2,283	80	206	110	217	156	300	459	590	410	548	296	359	4,917	10,307
Jul 26	286	790	1,702	7,002	774	3,057	1,274	1,480	386	603	399	699	212	802	126	674	106	465	5,265	15,572
Jul 29	319	1,109	1,879	8,881	1,153	4,210	1,259	2,739	440	1,043	536	1,235	404	1,206	311	985	156	621	6,457	22,029
Aug 2	440	1,549	1,048	9,929	613	4,823	1,191	3,930	408	1,451	323	1,558	354	1,560	135	1,120	154	775	4,666	26,695
Aug 5	152	1,701	1,211	11,140	505	5,328	685	4,615	382	1,833	620	2,178	401	1,961	480	1,600	164	939	4,600	31,295
Aug 9	161	1,862	604	11,744	0	5,328	0	4,615	59	1,892	202	2,380	453	2,414	349	1,949	163	1,102	1,991	33,286
Aug 12	163	2,025	450	12,194	195	5,523	0	4,615	131	2,023	577	2,957	827	3,241	561	2,510	380	1,482	3,284	36,570
Aug 16	18	2,043	453	12,647	0	5,523	0	4,615	0	2,023	182	3,139	422	3,663	720	3,230	404	1,886	2,199	38,769
Aug 19	108	2,151	510	13,157	0	5,523	0	4,615	37	2,060	95	3,234	214	3,877	834	4,064	563	2,449	2,361	41,130
Aug 23	19	2,170	141	13,298	0	5,523	0	4,615	0	2,060	0	3,234	124	4,001	803	4,867	177	2,626	1,264	42,394
Aug 26	0	2,170	121	13,419	0	5,523	0	4,615	0	2,060	0	3,234	111	4,112	765	5,632	351	2,977	1,348	43,742
Aug 30	79	2,249	156	13,575	0	5,523	0	4,615	0	2,060	0	3,234	96	4,208	897	6,529	437	3,414	1,665	45,407
Sep 2	0	2,249	14	13,589	0	5,523	0	4,615	0	2,060	0	3,234	0	4,208	112	6,641	40	3,454	166	45,573
Sep 6	46	2,295	0	13,589	0	5,523	0	4,615	0	2,060	0	3,234	40	4,248	59	6,700	80	3,534	225	45,798
Sep 13	0	2,295	0	13,589	0	5,523	0	4,615	0	2,060	0	3,234	0	4,248	27	6,727	0	3,534	27	45,825

-continued-

Appendix A5.–Page 4 of 5.

Central District drift gillnet

		244-56 Exp. Ken/Kas		244-57 Exp. Ken/Kas/AP		244-60 Area 1 district wide		244-61 Kasilof section		244-60 Areas 3 and 4		245-10 Chinitna Bay		Total	
Date	Deliveries	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jun 24	<3	0	0	0	0	1	1	0	0	0	0	0	0	1	1
Jun 28	4	0	0	0	0	9	10	0	0	0	0	0	0	9	10
Jul 1	22	0	0	0	0	26	36	0	0	0	0	0	0	26	36
Jul 5	63	0	0	0	0	115	151	0	0	0	0	0	0	115	151
Jul 8	139	0	0	0	0	596	747	0	0	0	0	0	0	596	747
Jul 12	147	0	0	0	0	1,013	1,760	0	0	0	0	0	0	1,013	1,760
Jul 13	68	143	143	0	0	0	1,760	0	0	0	0	0	0	143	1,903
Jul 14	69	170	313	0	0	0	1,760	0	0	0	0	0	0	170	2,073
Jul 15	219	0	313	0	0	2,941	4,701	0	0	0	0	0	0	2,941	5,014
Jul 19	225	0	313	0	0	7,217	11,918	0	0	0	0	0	0	7,217	12,231
Jul 20	151	0	313	1,641	1,641	0	11,918	0	0	0	0	0	0	1,641	13,872
Jul 21	174	0	313	4,564	6,205	0	11,918	0	0	0	0	0	0	4,564	18,436
Jul 22	201	0	313	3,417	9,622	0	11,918	0	0	0	0	0	0	3,417	21,853
Jul 26	226	0	313	0	9,622	17,488	29,406	0	0	0	0	0	0	17,488	39,341
Jul 27	157	0	313	2,738	12,360	0	29,406	0	0	0	0	0	0	2,738	42,079
Jul 28	59	0	313	933	13,293	0	29,406	0	0	0	0	0	0	933	43,012
Jul 29	137	1,461	1,774	0	13,293	0	29,406	0	0	0	0	0	0	1,461	44,473
Aug 1	125	0	1,774	2,886	16,179	0	29,406	0	0	0	0	0	0	2,886	47,359
Aug 2	176	0	1,774	0	16,179	6,504	35,910	0	0	0	0	0	0	6,504	53,863
Aug 3	103	0	1,774	2,153	18,332	0	35,910	0	0	0	0	0	0	2,153	56,016
Aug 4	150	0	1,774	2,122	20,454	0	35,910	0	0	0	0	0	0	2,122	58,138

-continued-

Appendix A5.–Page 5 of 5.

Central District drift gillnet															
		244-56 Exp. Ken/Kas		244-57 Exp. Ken/Kas/AP		244-60 Area 1/District Wide		244-61 Kasilof Section		244-60 Areas 3 and 4		245-10 Chinitna Bay		Total	
Date	Deliveries	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Aug 5	161	0	1,774	0	20,454	3,324	39,234	0	0	0	0	0	0	3,324	61,462
Aug 6	90	0	1,774	1,172	21,626	0	39,234	0	0	0	0	0	0	1,172	62,634
Aug 7	81	0	1,774	2,422	24,048	0	39,234	0	0	0	0	0	0	2,422	65,056
Aug 8	50	0	1,774	635	24,683	0	39,234	0	0	0	0	0	0	635	65,691
Aug 9	79	0	1,774	0	24,683	3,248	42,482	0	0	0	0	0	0	3,248	68,939
Aug 10	24	0	1,774	241	24,924	0	42,482	0	0	0	0	0	0	241	69,180
Aug 11	54	0	1,774	440	25,364	0	42,482	0	0	0	0	0	0	440	69,620
Aug 12	50	0	1,774	0	25,364	1,418	43,900	0	0	0	0	0	0	1,418	71,038
Aug 16	6	0	1,774	0	25,364	0	43,900	0	0	1,291	1,291	0	0	1,291	72,329
Aug 19	4	0	1,774	0	25,364	0	43,900	0	0	911	2,202	0	0	911	73,240
Aug 20	7	0	1,774	0	25,364	0	43,900	0	0	0	2,202	1,774	1,774	1,774	75,014
Aug 23	14	0	1,774	0	25,364	0	43,900	0	0	980	3,182	0	1,774	980	75,994
Aug 24	11	0	1,774	0	25,364	0	43,900	0	0	0	3,182	1,801	3,575	1,801	77,795
Aug 27	<3	0	1,774	0	25,364	0	43,900	0	0	0	3,182	155	3,730	155	77,950
Aug 30	8	0	1,774	0	25,364	0	43,900	0	0	974	4,156	0	3,730	974	78,924
Aug 31	6	0	1,774	0	25,364	0	43,900	0	0	0	4,156	990	4,720	990	79,914
Sep 3	<3	0	1,774	0	25,364	0	43,900	0	0	0	4,156	548	5,268	548	80,462
Sep 6	4	0	1,774	0	25,364	0	43,900	0	0	349	4,505	0	5,268	349	80,811
Sep 7	4	0	1,774	0	25,364	0	43,900	0	0	0	4,505	171	5,439	171	80,982

Note: Cum = cumulative; Exp. Ken/Kas = Expanded Kenai and Kasilof Sections; Exp. Ken/Kas/AP = Expanded Kenai/Kasilof and Anchor Point Sections.

Appendix A6.–Commercial pink salmon catch by area and date, Upper Cook Inlet, 2021.

Northern District set gillnet																				
	247-10 Trading Bay		247-20 Tyonek		247-30 Beluga		247-41 Susitna Flats		247-42 Pt. McKenzie		247-43 Fire Island		247-70 Pt. Possession		247-80 Birch Hill		247-90 #3 Bay		Total	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jun 28	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	2	2
Jul 1	0	0	0	0	0	0	0	0	0	0	0	0	8	9	1	1	1	2	10	12
Jul 5	9	9	0	0	0	0	0	0	0	0	0	0	17	26	10	11	10	12	46	58
Jul 8	0	9	0	0	0	0	0	0	0	0	0	0	23	49	42	53	9	21	74	132
Jul 12	0	9	0	0	0	0	3	3	3	3	0	0	37	86	28	81	13	34	84	216
Jul 15	2	11	0	0	11	11	23	26	8	11	17	17	87	173	79	160	78	112	305	521
Jul 19	2	13	90	90	433	444	23	49	2	13	20	37	358	531	178	338	171	283	1,277	1,798
Jul 22	10	23	0	90	154	598	15	64	8	21	8	45	185	716	328	666	158	441	866	2,664
Jul 26	6	29	0	90	0	598	20	84	35	56	27	72	100	816	55	721	166	607	409	3,073
Jul 29	1	30	0	90	0	598	55	139	41	97	0	72	120	936	155	876	57	664	429	3,502
Aug 2	27	57	0	90	211	809	58	197	10	107	0	72	172	1,108	108	984	116	780	702	4,204
Aug 5	0	57	3	93	0	809	34	231	11	118	0	72	35	1,143	101	1,085	97	877	281	4,485
Aug 9	6	63	6	99	0	809	0	231	11	129	0	72	53	1,196	38	1,123	32	909	146	4,631
Aug 12	6	69	0	99	0	809	0	231	14	143	0	72	2	1,198	20	1,143	14	923	56	4,687
Aug 16	0	69	0	99	0	809	0	231	0	143	0	72	0	1,198	6	1,149	4	927	10	4,697
Aug 19	2	71	0	99	0	809	0	231	3	146	0	72	0	1,198	4	1,153	2	929	11	4,708
Aug 23	0	71	0	99	0	809	0	231	0	146	0	72	0	1,198	1	1,154	1	930	2	4,710
Aug 26	0	71	0	99	0	809	0	231	0	146	0	72	0	1,198	1	1,155	0	930	1	4,711
Sep 6	1	72	0	99	0	809	0	231	0	146	0	72	0	1,198	0	1,155	0	930	1	4,712

-continued-

Appendix A6.–Page 2 of 5.

Central District - west side set gillnet																				
	245-10 Chinitna Bay		245-20 Silver Salmon		245-30 Tuxedni Bay		245-40 Polly Cr.		245-50 L. J. Slough		245-55 Big River		245-60 W. Forelands		246-10 Kalgin – west		246-20 Kalgin – east		Total	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jun 17	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Jun 21	0	0	0	0	1	2	0	0	1	1	0	0	0	0	0	0	0	0	2	3
Jun 28	0	0	0	0	1	3	0	0	1	2	0	0	0	0	4	4	1	1	7	10
Jul 1	0	0	0	0	21	24	0	0	0	2	0	0	0	0	3	7	0	1	24	34
Jul 5	0	0	0	0	60	84	0	0	7	9	0	0	8	8	63	70	62	63	200	234
Jul 8	0	0	0	0	40	124	0	0	11	20	0	0	0	8	41	111	31	94	123	357
Jul 12	0	0	0	0	31	155	0	0	21	41	0	0	0	8	233	344	56	150	341	698
Jul 15	0	0	0	0	65	220	0	0	20	61	0	0	0	8	324	668	164	314	573	1,271
Jul 19	0	0	0	0	65	285	0	0	40	101	0	0	62	70	240	908	68	382	475	1,746
Jul 22	0	0	0	0	21	306	0	0	4	105	0	0	28	98	390	1,298	14	396	457	2,203
Jul 26	0	0	0	0	17	323	0	0	12	117	0	0	36	134	193	1,491	27	423	285	2,488
Jul 29	0	0	0	0	6	329	0	0	2	119	0	0	5	139	212	1,703	0	423	225	2,713
Aug 2	0	0	0	0	74	403	0	0	14	133	15	15	81	220	50	1,753	6	429	240	2,953
Aug 5	0	0	0	0	12	415	0	0	1	134	0	15	43	263	68	1,821	6	435	130	3,083
Aug 7	0	0	0	0	0	415	0	0	0	134	0	15	0	263	45	1,866	3	438	48	3,131
Aug 9	0	0	0	0	1	416	0	0	2	136	1	16	0	263	40	1,906	0	438	44	3,175
Aug 12	0	0	0	0	0	416	0	0	1	137	0	16	0	263	16	1,922	0	438	17	3,192
Aug 14	0	0	0	0	0	416	0	0	0	137	0	16	0	263	48	1,970	0	438	48	3,240
Aug 16	0	0	0	0	0	416	0	0	0	137	0	16	0	263	34	2,004	0	438	34	3,274
Aug 19	0	0	0	0	0	416	0	0	0	137	0	16	2	265	4	2,008	0	438	6	3,280
Aug 24	1	1	0	0	0	416	0	0	0	137	0	16	0	265	0	2,008	0	438	1	3,281

-continued-

Appendix A6.–Page 3 of 5

Upper subdistrict set gillnet

	244-21 Ninilchik		244-22 Cohoe		244-25 KRSHA		244-31 South K-Beach		244-32 North K-Beach		244-41 Salamatof		244-42 E. Forelands		Total	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jun 22	11	11	2	2	0	0	0	0	0	0	0	0	0	0	13	13
Jun 24	4	15	0	2	0	0	0	0	0	0	0	0	0	0	4	17
Jun 26	12	27	1	3	0	0	0	0	0	0	0	0	0	0	13	30
Jun 28	14	41	3	6	0	0	3	3	0	0	0	0	0	0	20	50
Jul 1	31	72	5	11	0	0	6	9	3	3	0	0	0	0	45	95
Jul 3	105	177	38	49	0	0	4	13	5	8	0	0	0	0	152	247
Jul 5	95	272	94	143	0	0	4	17	10	18	0	0	0	0	203	450
Jul 6	37	309	5	148	0	0	0	17	3	21	0	0	0	0	45	495
Jul 7	47	356	75	223	0	0	2	19	6	27	0	0	0	0	130	625
Jul 8	134	490	130	353	0	0	34	53	10	37	22	22	47	47	377	1,002
Jul 12	218	708	264	617	0	0	35	88	21	58	42	64	69	116	649	1,651
Jul 13	221	929	248	865	0	0	23	111	31	89	0	64	0	116	523	2,174
Jul 14	86	1,015	117	982	0	0	8	119	28	117	0	64	0	116	239	2,413
Jul 15	403	1,418	406	1,388	0	0	65	184	50	167	108	172	235	351	1,267	3,680
Jul 18	0	1,418	0	1,388	6	6	0	184	0	167	0	172	0	351	6	3,686
Jul 19	229	1,647	483	1,871	0	6	18	202	12	179	182	354	618	969	1,542	5,228
Jul 20	206	1,853	125	1,996	0	6	1	203	18	197	83	437	283	1,252	716	5,944

-continued-

Appendix A6.–Page 4 of 5.

Central district drift gillnet

		244-56 Exp. Ken/Kas		244-57 Exp. Ken/Kas/AP		244-60 Area 1/District Wide		244-61 Kasilof Section		244-60 Areas 3 and 4		245-10 Chinitna Bay		Total	
Date	Deliveries	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jun 21	12	0	0	0	0	31	31	0	0	0	0	0	0	31	31
Jun 24	14	0	0	0	0	62	93	0	0	0	0	0	0	62	93
Jun 28	43	0	0	0	0	190	283	0	0	0	0	0	0	190	283
Jul 1	79	0	0	0	0	388	671	0	0	0	0	0	0	388	671
Jul 3	1	0	0	0	0	0	671	2	2	0	0	0	0	2	673
Jul 5	111	0	0	0	0	317	988	0	2	0	0	0	0	317	990
Jul 8	158	0	0	0	0	1,010	1,998	0	2	0	0	0	0	1,010	2,000
Jul 12	157	0	0	0	0	2,599	4,597	0	2	0	0	0	0	2,599	4,599
Jul 13	106	1,575	1,575	0	0	0	4,597	0	2	0	0	0	0	1,575	6,174
Jul 14	117	1,244	2,819	0	0	0	4,597	0	2	0	0	0	0	1,244	7,418
Jul 15	225	0	2,819	0	0	9,278	13,875	0	2	0	0	0	0	9,278	16,696
Jul 19	227	0	2,819	0	0	12,794	26,669	0	2	0	0	0	0	12,794	29,490
Jul 20	163	0	2,819	2,109	2,109	0	26,669	0	2	0	0	0	0	2,109	31,599
Jul 21	175	0	2,819	7,632	9,741	0	26,669	0	2	0	0	0	0	7,632	39,231
Jul 22	203	0	2,819	8,455	18,196	0	26,669	0	2	0	0	0	0	8,455	47,686
Jul 26	218	0	2,819	0	18,196	4,806	31,475	0	2	0	0	0	0	4,806	52,492
Jul 27	155	0	2,819	1,586	19,782	0	31,475	0	2	0	0	0	0	1,586	54,078
Jul 28	58	0	2,819	419	20,201	0	31,475	0	2	0	0	0	0	419	54,497
Jul 29	136	1,631	4,450	0	20,201	0	31,475	0	2	0	0	0	0	1,631	56,128
Aug 1	122	0	4,450	3,154	23,355	0	31,475	0	2	0	0	0	0	3,154	59,282
Aug 2	171	0	4,450	0	23,355	2,899	34,374	0	2	0	0	0	0	2,899	62,181
Aug 3	97	0	4,450	1,228	24,583	0	34,374	0	2	0	0	0	0	1,228	63,409

-continued-

Appendix A6.–Page 5 of 5.

Central district drift gillnet															
		244-56 Exp. Ken/Kas		244-57 Exp. Ken/Kas/AP		244-60 Area 1/District Wide		244-61 Kasilof Section		244-60 Areas 3 and 4		245-10 Chinitna Bay		Total	
Date	Deliveries	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Aug 4	142	0	4,450	1,202	25,785	0	34,374	0	2	0	0	0	0	1,202	64,611
Aug 5	156	0	4,450	0	25,785	1,096	35,470	0	2	0	0	0	0	1,096	65,707
Aug 6	84	0	4,450	510	26,295	0	35,470	0	2	0	0	0	0	510	66,217
Aug 7	78	0	4,450	517	26,812	0	35,470	0	2	0	0	0	0	517	66,734
Aug 8	39	0	4,450	147	26,959	0	35,470	0	2	0	0	0	0	147	66,881
Aug 9	64	0	4,450	0	26,959	193	35,663	0	2	0	0	0	0	193	67,074
Aug 10	9	0	4,450	18	26,977	0	35,663	0	2	0	0	0	0	18	67,092
Aug 11	11	0	4,450	13	26,990	0	35,663	0	2	0	0	0	0	13	67,105
Aug 12	27	0	4,450	0	26,990	94	35,757	0	2	0	0	0	0	94	67,199
Aug 16	4	0	4,450	0	26,990	0	35,757	0	2	36	36	0	0	36	67,235
Aug 19	2	0	4,450	0	26,990	0	35,757	0	2	23	59	0	0	23	67,258
Aug 20	7	0	4,450	0	26,990	0	35,757	0	2	0	59	78	78	78	67,336
Aug 23	6	0	4,450	0	26,990	0	35,757	0	2	26	85	0	78	26	67,362
Aug 24	5	0	4,450	0	26,990	0	35,757	0	2	0	85	39	117	39	67,401
Aug 27	2	0	4,450	0	26,990	0	35,757	0	2	0	85	5	122	5	67,406
Aug 30	1	0	4,450	0	26,990	0	35,757	0	2	6	91	0	122	6	67,412
Aug 31	1	0	4,450	0	26,990	0	35,757	0	2	0	91	9	131	9	67,421
Sep 6	1	0	4,450	0	26,990	0	35,757	0	2	2	93	0	131	2	67,423

Note: Cum = cumulative; Exp. Ken/Kas = Expanded Kenai and Kasilof Sections; Exp. Ken/Kas/AP = Expanded Kenai/Kasilof and Anchor Point Sections.

Appendix A7.–Commercial chum salmon catch by area and date, Upper Cook Inlet, 2021.

Upper Subdistrict set gillnet														
	244-21 Ninilchik		244-22 Cohoe		244-31 South K-Beach		244-32 North K-Beach		244-41 Salamatof		244-42 E. Forelands		Total	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jun 24	1	1	0	0	0	0	0	0	0	0	0	0	1	1
Jul 1	2	3	1	1	0	0	0	0	0	0	0	0	3	4
Jul 3	3	6	0	1	0	0	0	0	0	0	0	0	3	7
Jul 6	0	6	0	1	1	1	0	0	0	0	0	0	1	8
Jul 8	1	7	0	1	0	1	0	0	0	0	0	0	1	9
Jul 12	2	9	0	1	0	1	0	0	1	1	0	0	3	12
Jul 13	1	10	0	1	5	6	0	0	0	1	0	0	6	18
Jul 15	1	11	0	1	0	6	0	0	1	2	0	0	2	20
Jul 19	2	13	1	2	1	7	0	0	5	7	12	12	21	41
Jul 20	1	14	1	3	0	7	0	0	3	10	4	16	9	50

-continued-

Appendix A7.–Page 2 of 5.

Central District - west side set gillnet																		
	245-10 Chinitna Bay		245-30 Tuxedni Bay		245-40 Polly Cr.		245-50 L. J. Slough		245-55 Big River		245-60 W. Forelands		246-10 Kalgin – west		246-20 Kalgin – east		Total	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jul 1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Jul 5	0	0	12	13	0	0	0	0	0	0	0	0	0	0	0	0	12	13
Jul 8	0	0	6	19	0	0	0	0	0	0	0	0	0	0	0	0	6	19
Jul 12	0	0	24	43	0	0	0	0	0	0	0	0	5	5	0	0	29	48
Jul 15	0	0	24	67	0	0	0	0	0	0	0	0	6	11	0	0	30	78
Jul 19	0	0	120	187	0	0	1	1	0	0	2	2	94	105	0	0	217	295
Jul 22	0	0	91	278	0	0	2	3	0	0	1	3	136	241	0	0	230	525
Jul 26	0	0	63	341	0	0	5	8	0	0	9	12	113	354	0	0	190	715
Jul 29	0	0	124	465	0	0	0	8	0	0	5	17	107	461	1	1	237	952
Aug 2	0	0	507	972	0	0	15	23	0	0	8	25	19	480	9	10	558	1,510
Aug 5	0	0	294	1,266	0	0	9	32	1	1	12	37	40	520	19	29	375	1,885
Aug 7	0	0	0	1,266	0	0	0	32	0	1	0	37	26	546	3	32	29	1,914
Aug 9	0	0	21	1,287	0	0	3	35	0	1	0	37	12	558	0	32	36	1,950
Aug 12	0	0	4	1,291	0	0	5	40	0	1	0	37	25	583	0	32	34	1,984
Aug 14	0	0	0	1,291	0	0	0	40	0	1	0	37	19	602	4	36	23	2,007
Aug 16	0	0	0	1,291	0	0	2	42	0	1	0	37	32	634	0	36	34	2,041
Aug 19	0	0	0	1,291	0	0	1	43	0	1	0	37	19	653	0	36	20	2,061
Aug 24	81	81	0	1,291	0	0	0	43	0	1	0	37	0	653	0	36	81	2,142

-continued-

Appendix A7.–Page 3 of 5.

Northern District set gillnet

	247-10 Trading Bay		247-20 Tyonek		247-30 Beluga		247-41 Susitna Flats		247-42 Pt. McKenzie		247-43 Fire Island		247-70 Pt. Possession		247-80 Birch Hill		247-90 #3 Bay		Total	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jul 5	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Jul 8	0	1	0	0	4	5	0	0	0	0	0	0	2	2	1	1	0	0	7	9
Jul 12	0	1	0	0	0	5	1	1	5	5	2	2	1	3	0	1	0	0	9	18
Jul 15	1	2	0	0	96	101	16	17	8	13	12	14	5	8	1	2	0	0	139	157
Jul 19	2	4	22	22	285	386	29	46	9	22	30	44	11	19	1	3	0	0	389	546
Jul 22	2	6	76	98	310	696	37	83	33	55	10	54	6	25	5	8	0	0	479	1,025
Jul 26	0	6	10	108	73	769	301	384	184	239	128	182	8	33	1	9	1	1	706	1,731
Jul 29	9	15	0	108	48	817	37	421	51	290	7	189	10	43	12	21	2	3	176	1,907
Aug 2	10	25	0	108	73	890	104	525	49	339	17	206	54	97	11	32	2	5	320	2,227
Aug 5	3	28	11	119	90	980	21	546	14	353	10	216	44	141	9	41	4	9	206	2,433
Aug 9	1	29	22	141	0	980	0	546	19	372	10	226	24	165	21	62	1	10	98	2,531
Aug 12	0	29	0	141	10	990	0	546	27	399	6	232	16	181	5	67	4	14	68	2,599
Aug 16	0	29	0	141	0	990	0	546	0	399	28	260	7	188	3	70	0	14	38	2,637
Aug 19	1	30	0	141	0	990	0	546	10	409	3	263	0	188	1	71	1	15	16	2,653
Aug 26	0	30	0	141	0	990	0	546	0	409	0	263	0	188	0	71	1	16	1	2,654
Aug 30	1	31	0	141	0	990	0	546	0	409	0	263	1	189	0	71	0	16	2	2,656
Sep 6	3	34	0	141	0	990	0	546	0	409	0	263	0	189	0	71	0	16	3	2,659

-continued-

Appendix A7.–Page 4 of 5.

Central district drift gillnet

		244-56 Exp. Ken/Kas		244-57 Exp. Ken/Kas/AP		244-60 Area 1/district wide		244-61 Kasilof section		244-60 Areas 3 and 4		245-10 Chinitna Bay		Total	
Date	Deliveries	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jun 21	14	0	0	0	0	82	82	0	0	0	0	0	0	82	82
Jun 24	24	0	0	0	0	355	437	0	0	0	0	0	0	355	437
Jun 28	51	0	0	0	0	492	929	0	0	0	0	0	0	492	929
Jul 1	87	0	0	0	0	834	1,763	0	0	0	0	0	0	834	1,763
Jul 3	<3	0	0	0	0	0	1,763	1	1	0	0	0	0	1	1,764
Jul 5	133	0	0	0	0	1,057	2,820	0	1	0	0	0	0	1,057	2,821
Jul 8	178	0	0	0	0	2,159	4,979	0	1	0	0	0	0	2,159	4,980
Jul 12	157	0	0	0	0	3,166	8,145	0	1	0	0	0	0	3,166	8,146
Jul 13	97	408	408	0	0	0	8,145	0	1	0	0	0	0	408	8,554
Jul 14	109	539	947	0	0	0	8,145	0	1	0	0	0	0	539	9,093
Jul 15	223	0	947	0	0	5,007	13,152	0	1	0	0	0	0	5,007	14,100
Jul 19	231	0	947	0	0	14,562	27,714	0	1	0	0	0	0	14,562	28,662
Jul 20	157	0	947	2,282	2,282	0	27,714	0	1	0	0	0	0	2,282	30,944
Jul 21	178	0	947	6,279	8,561	0	27,714	0	1	0	0	0	0	6,279	37,223
Jul 22	204	0	947	5,410	13,971	0	27,714	0	1	0	0	0	0	5,410	42,633
Jul 26	228	0	947	0	13,971	8,065	35,779	0	1	0	0	0	0	8,065	50,698
Jul 27	157	0	947	1,417	15,388	0	35,779	0	1	0	0	0	0	1,417	52,115
Jul 28	56	0	947	464	15,852	0	35,779	0	1	0	0	0	0	464	52,579
Jul 29	138	1,145	2,092	0	15,852	0	35,779	0	1	0	0	0	0	1,145	53,724
Aug 1	124	0	2,092	1,224	17,076	0	35,779	0	1	0	0	0	0	1,224	54,948
Aug 2	172	0	2,092	0	17,076	2,215	37,994	0	1	0	0	0	0	2,215	57,163
Aug 3	92	0	2,092	704	17,780	0	37,994	0	1	0	0	0	0	704	57,867

-continued-

Appendix A7.–Page 5 of 5.

Central district drift gillnet															
		244-56 Exp. Ken/Kas		244-57 Exp. Ken/Kas/AP		244-60 District Wide		244-61 Kasilof Section		244-60 Areas 3 and 4		245-10 Chinitna Bay		Total	
Date	Deliveries	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Aug 4	141	0	2,092	933	18,713	0	37,994	0	1	0	0	0	0	933	58,800
Aug 5	160	0	2,092	0	18,713	1,536	39,530	0	1	0	0	0	0	1,536	60,336
Aug 6	85	0	2,092	563	19,276	0	39,530	0	1	0	0	0	0	563	60,899
Aug 7	82	0	2,092	1,135	20,411	0	39,530	0	1	0	0	0	0	1,135	62,034
Aug 8	48	0	2,092	414	20,825	0	39,530	0	1	0	0	0	0	414	62,448
Aug 9	71	0	2,092	0	20,825	489	40,019	0	1	0	0	0	0	489	62,937
Aug 10	16	0	2,092	57	20,882	0	40,019	0	1	0	0	0	0	57	62,994
Aug 11	49	0	2,092	211	21,093	0	40,019	0	1	0	0	0	0	211	63,205
Aug 12	44	0	2,092	0	21,093	589	40,608	0	1	0	0	0	0	589	63,794
Aug 16	5	0	2,092	0	21,093	0	40,608	0	1	144	144	0	0	144	63,938
Aug 19	4	0	2,092	0	21,093	0	40,608	0	1	46	190	0	0	46	63,984
Aug 20	8	0	2,092	0	21,093	0	40,608	0	1	0	190	922	922	922	64,906
Aug 23	8	0	2,092	0	21,093	0	40,608	0	1	29	219	0	922	29	64,935
Aug 24	11	0	2,092	0	21,093	0	40,608	0	1	0	219	333	1,255	333	65,268
Aug 27	<3	0	2,092	0	21,093	0	40,608	0	1	0	219	25	1,280	25	65,293
Aug 30	5	0	2,092	0	21,093	0	40,608	0	1	15	234	0	1,280	15	65,308
Aug 31	5	0	2,092	0	21,093	0	40,608	0	1	0	234	49	1,329	49	65,357
Sep 3	<3	0	2,092	0	21,093	0	40,608	0	1	0	234	33	1,362	33	65,390
Sep 6	<3	0	2,092	0	21,093	0	40,608	0	1	1	235	0	1,362	1	65,391

Note: Cum = cumulative; Exp. Ken/Kas = Expanded Kenai and Kasilof Sections; Exp. Ken/Kas/AP = Expanded Kenai/Kasilof and Anchor Point Sections.

Appendix A8.–Commercial catch by gear, statistical area and species, Upper Cook Inlet, 2021.

Gear	District	Subdistrict	Stat area	Permits[a]	Chinook	Sockeye	Coho	Pink	Chum	Total
Drift	Central	Drift	All	364	217	851,901	80,982	67,423	65,391	1,065,914
Setnet	Central	Upper	244-21	92	236	79,554	106	1,853	14	81,763
			244-22	85	247	70,437	79	1,996	3	72,762
			244-25	11	5	1,317	0	6	0	1,328
			244-31	49	224	67,886	9	203	7	68,329
			244-32	46	134	51,183	25	197		51,539
			244-41	53	425	101,761	133	437	10	102,766
			244-42	41	26	34,943	531	1,252	16	36,768
			All	377	1,297	407,081	883	5,944	50	415,255
		Kalgin Is.	246-10	24	398	42,201	8,222	2,008	653	53,482
			246-20	4	5	8,219	2,463	438	36	11,161
			All	28	403	50,420	10,685	2,446	689	64,643
		Chinitna	245-10	1	0	0	137	1	81	219
		Western	245-20	0	0	0	0	0	0	0
			245-30	16	62	16,423	3,388	416	1,291	21,580
			245-40	0	0	0	0	0	0	0
			245-50	5	7	3,513	2,280	137	43	5,980
			All	21	69	19,936	5,668	553	1,334	27,560
		Kustatan	245-55	10	94	3,567	929	16	1	4,607
			245-60	3		6,520	2,493	265	37	9,315
			All	13	94	10,087	3,422	281	38	13,922
Setnet	Central	All		439	1,863	487,524	20,795	9,225	2,192	521,599
Setnet	Northern	General	247-10	8	105	4,387	2,295	72	34	6,893
			247-20	6	1,097	11,175	13,589	99	141	26,101
			247-30	7	4	5,819	5,523	809	990	13,145
			247-41	6	14	3,054	4,615	231	546	8,460
			247-42	8	157	3,080	2,060	146	409	5,852
			247-43	7	239	1,522	3,234	72	263	5,330
			All	42	1,616	29,037	31,316	1,429	2,383	65,781
Setnet	Northern	Eastern	247-70	11	196	9,469	4,248	1,198	189	15,300
			247-80	11	65	14,409	6,727	1,155	71	22,427
			247-90	7	16	18,502	3,534	930	16	22,998
			All	29	277	42,380	14,509	3,283	276	60,725
Setnet	Northern	All		71	1,893	71,417	45,825	4,712	2,659	126,506
Setnet		All		510	3,756	558,941	66,620	13,937	4,851	648,105
		All UCI		874	3,973	1,410,842	147,602	81,360	70,242	1,714,019

Appendix A9.–Commercial salmon catch per permit by statistical area, Upper Cook Inlet, 2021.

Gear	District	Subdistrict	Stat area	Permits[a]	Chinook	Sockeye	Coho	Pink	Chum	Total
Drift	Central	All	All	364	1	2,340	222	185	180	2,928
Set	Central	Upper	244-21	92	3	865	1	20	0	981
			244-22	85	3	829	1	23	0	941
			244-25	11	0	120	0	1	0	121
			244-31	49	5	1,385	0	4	0	1,443
			244-32	46	3	1,113	1	4	0	1,166
			244-41	53	8	1,920	3	8	0	1,992
			244-42	41	1	852	13	31	0	938
			All	377	3	1,080	2	16	0	1,478
		Kalgin Is.	246-10	24	17	1,758	343	84	27	2,252
			246-20	4	1	2,055	616	110	9	2,794
			All	28	14	1,801	382	87	25	2,337
		Chinitna	245-10	1	0	0	137	1	81	220
		Western	245-20	0	0	0	0	0	0	0
			245-30	16	4	1,026	212	26	81	1,365
			245-40	0	0	0	0	0	0	0
			245-50	5	1	220	143	9	3	380
			All	21	3	949	270	26	64	1,333
		Kustatan	245-55	10	9	357	93	2	0	471
			245-60	3	0	2,173	831	88	12	3,108
			All	13	7	776	263	22	3	1,084
		All	All	439	4	1,111	47	21	5	1,627
	Northern	General	247-10	8	13	548	287	9	4	870
			247-20	6	183	1,863	2,265	17	24	4,356
			247-30	7	1	831	789	116	141	1,885
			247-41	6	2	509	769	39	91	1,416
			247-42	8	20	385	258	18	51	740
			247-43	7	34	217	462	10	38	768
			All	42	38	691	746	34	57	1,608
		Eastern	247-70	11	18	861	386	109	17	1,402
			247-80	11	6	1,310	612	105	6	2,050
			247-90	7	2	2,643	505	133	2	3,292
			All	29	10	1,461	500	113	10	2,123
		All	All	71	27	1,006	645	66	37	1,853
	All	All	All	510	7	1,096	131	27	10	1,781
All	All	All	All	874	5	1,614	169	93	80	2,835

[a] Permit totals may be less than the sum of individual stat areas if the same permit was fished in multiple stat areas.

Appendix A10.–Emergency orders issued during the 2021 Upper Cook Inlet season.

Emergency Order no.	Effective date	Action	Reason
2S-01-21	May 31	Reduced the hours the directed king salmon commercial fishery was open from 7:00 AM to 7:00 PM to 7:00 AM to 1:00 PM in all waters of the Northern District of Upper Cook Inlet for the 2021 season. The fishing dates affected by the announcement were May 31, and June 7, 14, and 21.	In compliance with 5 AAC 21.366 that states if the Deshka River is restricted to catch-and-release fishing, the commercial king salmon fishery will shall be restricted to 6-hour fishing periods that occur from 7:00 AM to 7:00 PM
2S-02-21	Jun 17	Reduced the hours the personal use set gillnet fishery at the mouth of the Kasilof River is open from 6:00 AM to 11:00 PM to 9:00 AM to 11:00 PM daily, from Thursday, June 17, 2021, through Thursday, June 24, 2021.	To reduce the harvest of Kasilof River king salmon.
2S-03-21	Jun 21	Restored fishing time to 12 hours per open period, or from 7:00 AM until 7:00 PM for the remaining fishing period on June 21, 2021, in the directed king salmon commercial set gillnet fishery in the Northern District of Upper Cook Inlet.	In compliance with 5 AAC 21.366.
2S-04-21	Jun 25	Modified weekly fishing periods in the Upper Subdistrict of the Central District beginning 12:01 AM on June 25, 2021.	To reduce the harvest of Kenai bound king salmon and to comply with the Kenai River Late-Run King Salmon Management Plan.
2S-05-21	Jun 22	Opened commercial fishing with set gillnets in the Kasilof Section of the Upper Subdistrict from 8:00 AM until 8:00 PM on Tuesday, June 22, 2021. Opened drift gillnetting in the Kasilof Section from 8:00 AM until 8:00 PM on Tuesday, June 22, 2021.	To reduce the escapement rate of Kasilof River sockeye salmon.
2S-06-21	Jun 24	'Opened commercial fishing with set gillnets in the Kasilof Section of the Upper Subdistrict from 7:00 AM until 10:00 PM on Thursday, June 24, 2021.	To reduce the escapement rate of Kasilof River sockeye salmon.

-continued-

Emergency Order no.	Effective date	Action	Reason
2S-07-21	Jun 26	'Opened commercial fishing with set gillnets in the Kasilof Section of the Upper Subdistrict from 10:00 AM until 11:59 PM on Saturday, June 26, 2021. Opened drift gillnetting in the Kasilof Section from 10:00 AM until 11:59 PM on Saturday, June 26, 2021.	To reduce the escapement rate of Kasilof River sockeye salmon.
2S-08-21	Jun 28	Opened commercial fishing with set gillnets in the Kasilof Section of the Upper Subdistrict from 7:00 AM until 10:00 PM on Monday, June 28, 2021. This announcement also extended commercial fishing with drift gillnets in the Kasilof Section from 7:00 PM to 10:00 PM on Monday, June 28, 2021.	To reduce the escapement rate Kasilof River sockeye salmon.
2S-09-21	Jul 1	Opened commercial fishing with set gillnets in the Kasilof Section of the Upper Subdistrict and within 600 feet of the mean high tide mark in the North Kalifornsky Beach statistical area of the Upper Subdistrict from 4:00 AM until 7:00 PM on Thursday, July 1, 2021.	To reduce the escapement rate Kasilof River sockeye salmon.
2S-10-21	Jul 3	Opened commercial salmon fishing with set gillnets in the Kasilof Section of the Upper Subdistrict and within 600 feet of the mean high tide mark in the North Kalifornsky Beach statistical area of the Upper Subdistrict from 7:00 AM until 11:59 PM on Saturday, July 3, 2021. This announcement also opened commercial fishing with drift gillnets in the Kasilof Section from 7:00 AM until 11:59 PM on Saturday, July 3, 2021.	To reduce the escapement rate Kasilof River sockeye salmon.

-continued-

Emergency Order no.	Effective date	Action	Reason
2S-11-21	5 Jul	Opened commercial salmon fishing with set gillnets in the Kasilof Section of the Upper Subdistrict and within 600 feet of the mean high tide mark in the North Kalifornsky Beach statistical area of the Upper Subdistrict from 7:00 AM until 10:00 PM on Monday, July 5, 2021. This announcement also extended commercial fishing with drift gillnets in the Kasilof Section from 7:00 PM to 10:00 PM on Monday, July 5, 2021.	To reduce the escapement rate Kasilof River sockeye salmon.
2S-12-21	6 Jul	Opened commercial salmon fishing with set gillnet gear in the Kasilof Section and North Kalifornsky Beach statistical area of the Upper Subdistrict within 600 feet of the mean high tide mark on the Kenai Peninsula shoreline from 5:00 AM until 11:00 PM on Tuesday, July 6, 2021.	To reduce the escapement rate Kasilof River sockeye salmon.
2S-13-21	7 Jul	Opened commercial salmon fishing with set gillnets in the Kasilof Section of the Upper Subdistrict and within 600 feet of the mean high tide mark in the North Kalifornsky Beach statistical area of the Upper Subdistrict from 8:00 AM until 11:00 PM on Wednesday, July 7, 2021. Commercial fishing with drift gillnets was opened in the Kasilof Section from 8:00 AM until 11:00 PM on Wednesday, July 7, 2021.	To reduce the escapement rate Kasilof River sockeye salmon.
2S-14-21	8 Jul	Opened commercial salmon fishing with set gillnets in the Kenai, Kasilof, and East Foreland sections of the Upper Subdistrict from 5:00 AM until 11:00 PM on Thursday, July 8, 2021. This announcement also extended drift gillnetting from 5:00 AM to 7:00 AM and from 7:00 PM to 11:00 PM to the Kasilof Section of the Upper Subdistrict only (not the Expanded Kasilof Section) on Thursday, July 8, 2021.	To reduce the escapement rate Kasilof River sockeye salmon.

-continued-

Emergency Order no.	Effective date	Action	Reason
2S-15-21	Jul 12	Opened commercial salmon fishing with set gillnets in the Kenai, Kasilof, and East Foreland sections of the Upper Subdistrict from 8:00 AM until 8:00 PM on Monday, July 12, 2021. This announcement also extended drift gillnet fishing to the Expanded Kenai and Expanded Kasilof, sections of the Central District from 7:00 PM to 8:00 PM on Monday, July 12, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-16-21	Jul 13	Opened commercial salmon fishing with set gillnet gear in the Kasilof Section and North Kalifornsky Beach statistical area of the Upper Subdistrict within 600 feet of the mean high tide mark on the Kenai Peninsula shoreline from 5:00 AM until 10:00 PM on Tuesday, July 13, 2021. This announcement also opened drift gillnetting from 5:00 AM until 10:00 PM on Tuesday, July 13, 2021, in the Expanded Kenai and Expanded Kasilof sections of the Central District.	To reduce the escapement rate Kasilof River sockeye salmon.
2S-17-21	Jul 14	Opened commercial salmon fishing with set gillnet gear in the Kasilof Section and North Kalifornsky Beach statistical area of the Upper Subdistrict within 600 feet of the mean high tide mark on the Kenai Peninsula shoreline from 5:00 AM until 10:00 PM on Wednesday, July 14, 2021. This announcement also opened drift gillnetting from 7:00 AM until 7:00 PM on Wednesday, July 14, 2021, in Drift Gillnet Area 1 and the Expanded Kenai and Expanded Kasilof sections of the Central District and extended drift gillnet fishing to the Expanded Kenai and Expanded Kasilof, sections of the Central District from 5:00 AM to 7:00 AM and from 7:00 PM to 10:00 PM on Wednesday, July 14, 2021.	To reduce the escapement rate Kasilof River sockeye salmon.

-continued-

Emergency Order no.	Effective date	Action	Reason
2S-18-21	Jul 15	Opened commercial salmon fishing with set gillnets in the Kenai, Kasilof, and East Foreland sections of the Upper Subdistrict from 9:00 AM until 9:00 PM on Thursday, July 15, 2021. This announcement also extended drift gillnetting from 7:00 PM to 9:00 PM to the Expanded Kenai and Expanded Kasilof, sections of the Central District on Thursday, July 15, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-19-21	Jul 18	Opened commercial salmon fishing with set and drift gillnets in the Kasilof River Special Harvest Area (KRSHA) from 2:00 PM until 11:59 PM on Sunday, July 18, 2021.	To reduce the escapement rate Kasilof River sockeye salmon.
2S-20-21	Jul 19	Opened commercial salmon fishing with set gillnets in the Kenai, Kasilof, and East Foreland sections of the Upper Subdistrict from 7:00 AM until 7:00 PM on Monday, July 19, 2021. Announcement opened drift gillnet fishing to the Drift Gillnet Area 1 and the Expanded Kenai and Expanded Kasilof sections of the Central District from 7:00 AM until 7:00 PM on Monday, July 19, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-21-21	Jul 20	Opened commercial salmon fishing with set gillnets in the Kasilof, Kenai, and East Foreland sections of the Upper Subdistrict within 600 feet of the mean high tide mark on the Kenai Peninsula shoreline from 8:00 AM until 4:00 PM on Tuesday, July 20, 2021. Announcement also opened drift gillnet fishing to the Expanded Kenai. Expanded Kasilof, and Anchor Point sections of the Central District 8:00 AM until 4:00 PM on Tuesday, July 20, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-22-21	Jul 20	Extended commercial salmon fishing with set gillnets in the Kenai, Kasilof, and East Foreland sections of the Upper Subdistrict of the Central District within 600 feet of the mean high tide mark on the Kenai Peninsula shoreline from 4:00 PM to 8:00 PM on Tuesday, July 20, 2021. Announcement also extended drift gillnet fishing to the Expanded Kenai. Expanded Kasilof, and Anchor Point sections of the Central District 8:00 AM until 4:00 PM on Tuesday, July 20, 2021.	'To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.

-continued-

Emergency Order No.	Effective Date	Action	Reason
2S-23-21	Jul 21	Opened commercial salmon fishing with set gillnets in the Kenai, Kasilof, and East Foreland sections of the Upper Subdistrict from 7:00 AM until 7:00 PM on Monday, July 21, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-24-21	Jul 22	Reduced legal gear to 1 net per permit, measuring no more than 35 fathoms in length in the General Subdistrict of the Northern District and to no more than 2 set gillnets per permit, with each set gillnet measuring no more than 35 fathoms in length, with the aggregate net length not to exceed 70 fathoms per permit in the Eastern Subdistrict of the Northern District from 7:00 AM until 7:00 PM on Thursday, July 22, 2021, from 7:00 AM until 7:00 PM on Monday, July 26, 2021, from 7:00 AM until 7:00 PM, and on Thursday, July 29, 2021.	To comply with the Northern District Salmon Management Plan and the Susitna River Sockeye Action Plan
2S-25-21	Jul 22	Opened commercial fishing with drift gillnets in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict and the Anchor Point Section of the Lower Subdistrict from 7:00 AM until 7:00 PM on Thursday, July 22, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-26-21	Jul 26	Opened commercial fishing with drift gillnets in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict and the Anchor Point Section of the Lower Subdistrict from 7:00 AM until 7:00 PM on Monday, July 26, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-27-21	Jul 27	Opened commercial fishing with drift gillnets in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict and the Anchor Point Section of the Lower Subdistrict from 7:00 AM until 7:00 PM on Monday, July 26, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.

-continued-

Emergency Order no.	Effective date	Action	Reason
2S-28-21	Jul 28	Opened commercial fishing with drift gillnets in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict and the Anchor Point Section of the Lower Subdistrict from 7:00 AM until 7:00 PM on Wednesday, July 28, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-29-21	Jul 29	Opened commercial fishing with drift gillnets in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict and the Anchor Point Section of the Lower Subdistrict from 7:00 AM until 7:00 PM on Thursday, July 29, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-30-21	Aug 1	Opened commercial fishing with drift gillnets in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict and the Anchor Point Section of the Lower Subdistrict from 7:00 AM until 7:00 PM on Sunday, August 1, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-31-21	Aug 2	Opened commercial fishing with drift gillnets in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict and the Anchor Point Section of the Lower Subdistrict from 7:00 AM until 7:00 PM on Monday, August 2, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-32-21	Aug 2	Reduced legal gear to 1 net per permit, measuring no more than 35 fathoms in length in the General Subdistrict of the Northern District and to no more than 2 set gillnets per permit, with each set gillnet measuring no more than 35 fathoms in length, with the aggregate net length not to exceed 70 fathoms per permit in the Eastern Subdistrict of the Northern District from 7:00 AM until 7:00 PM on Monday, August 2, 2021, and from 7:00 AM until 7:00 PM on Thursday, August 5, 2021.	To comply with the Northern District Salmon Management Plan and the Susitna River Sockeye Action Plan

-continued-

Emergency Order No.	Effective date	Action	Reason
2S-33-21	Aug 3	Opened commercial fishing with drift gillnets in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict and the Anchor Point Section of the Lower Subdistrict from 7:00 AM until 7:00 PM on Tuesday, August 3, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-34-21	Aug 4	Opened commercial fishing with drift gillnets in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict and the Anchor Point Section of the Lower Subdistrict from 7:00 AM until 7:00 PM on Wednesday, August 4, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-35-21	Aug 5	Opened commercial fishing with drift gillnets in Drift Gillnet Area 1, the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict and the Anchor Point Section of the Lower Subdistrict from 7:00 AM until 7:00 PM on Thursday, August 5, 2021. This announcement also extended drift gillnetting from 7:00 PM to 9:00 PM on Thursday, August 5, 2021, to the Expanded Kenai, Expanded Kasilof, and Anchor Point sections of the Central District.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-36-21	Aug 6	Opened commercial fishing with drift gillnets in the Expanded Kenai, Expanded Kasilof, and Anchor Point sections of the Central District from 7:00 AM until 9:00 PM on Friday, August 6, 2021, and from 7:00 AM until 9:00 PM on Saturday, August 7, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.

-continued-

Emergency Order no.	Effective date	Action	Reason
2S-37-21	Aug 7	Opened commercial salmon fishing with set gillnets in the Kalgin Island Subdistrict of Upper Cook Inlet on Saturday, August 7, 2021, from 7:00 AM until 7:00 PM	To reduce the escapement rate of Packers Creek sockeye salmon.
2S-38-21	Aug 8	Opened commercial fishing with drift gillnets in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict and the Anchor Point Section of the Lower Subdistrict from 7:00 AM until 9:00 PM on Sunday, August 8, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-39-21	Aug 9	Opened commercial fishing with drift gillnets in Drift Gillnet Area 1, the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict and the Anchor Point Section of the Lower Subdistrict from 7:00 AM until 7:00 PM on Monday, August 9, 2021. This announcement also extended drift gillnetting from 7:00 PM to 9:00 PM on Monday, August 9, 2021, in the waters of the Expanded Kenai, Expanded Kasilof, and Anchor Point sections of the Central District.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-40-21	Aug 10	Opened commercial fishing with drift gillnets in the Expanded Kenai, Expanded Kasilof, and Anchor Point sections of the Central District from 7:00 AM until 9:00 PM on Tuesday, August 10, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-41-21	Aug 11	Opened commercial fishing with drift gillnets in the Expanded Kenai, Expanded Kasilof, and Anchor Point sections of the Central District from 7:00 AM until 9:00 PM on Wednesday, August 11, 2021.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.

-continued-

Emergency Order no.	Effective date	Action	Reason
2S-42-21	Aug 12	Opened commercial fishing with drift gillnets in Drift Gillnet Area 1, the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict and the Anchor Point Section of the Lower Subdistrict from 7:00 AM until 7:00 PM on Thursday, August 12, 2021. This announcement also extended drift gillnetting from 7:00 PM to 9:00 PM on Thursday, August 12, 2021, in the waters of the Expanded Kenai, Expanded Kasilof, and Anchor Point sections of the Central District.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-43-21	Aug 14	Opened commercial salmon fishing with set gillnets in the Kalgin Island Subdistrict of Upper Cook Inlet on Saturday, August 14, 2021, from 9:00 AM until 9:00 PM	To reduce the escapement rate of Packers Creek sockeye salmon.
2S-44-21	Aug 20	Opened set and drift gillnetting in the Chinitna Bay Subdistrict of the Central District on Tuesdays and Fridays from 7:00 AM until 7:00 PM, beginning at 7:00 AM on Friday, August 20, 2021.	To provide fishing opportunity in the Chinitna Bay Subdistrict.
2S-45-21	Sept 30	Closed commercial salmon fishing with set gillnets in the Northern District, and in the Western, Kalgin Island, Kustatan, and Chinitna Bay subdistricts of Upper Cook Inlet for the 2021 season, effective at 7:00 PM Thursday, September 30, 2021.	In compliance with 5 AAC 21.310 that states these areas remain open until closed each year by emergency order.

Appendix A11.–Commercial salmon fishing periods, Upper Cook Inlet, 2021.

Date	Day	Time	Set gillnet	Drift gillnet
May 31	Mon	0700–1300	Northern District	
Jun 2	Wed	0700–1900	Kustatan (Big River) - Kalgin Island	
Jun 4	Fri	0700–1900	Kustatan (Big River) - Kalgin Island	
Jun 7	Mon	0700–1300	Northern District	
		0700–1900	Kustatan (Big River) - Kalgin Island	
Jun 9	Wed	0700–1900	Kustatan (Big River) - Kalgin Island	
Jun 11	Fri	0700–1900	Kustatan (Big River) - Kalgin Island	
Jun 14	Mon	0700–1300	Northern District	
		0700–1900	Kustatan (Big River) - Kalgin Island	
Jun 16	Wed	0700–1900	Kustatan (Big River) - Kalgin Island	
Jun 17	Thu	0700–1900	Western Subdistrict	
Jun 18	Fri	0700–1900	Kustatan (Big River) - Kalgin Island	
Jun 21	Mon	0700–1900	All except Upper Subdistrict	All
Jun 22	Tue	0800–2000		Kasilof Section
Jun 23	Wed	0700–1900	Kustatan (Big River) - Kalgin Island	
Jun 24	Thu	0700–1900	All except Kenai & E. Foreland sections	All
		1900–2200	Kasilof Section	Kasilof Section
Jun 26	Sat	1000–2400	Kasilof Section	Kasilof Section
Jun 28	Mon	0700–1900	All except Kenai & E. Foreland Sections	All
		1900–2200	Kasilof Section	Kasilof Section
Jul 1	Thu	0700–1900	All except Kenai & E. Foreland Sections	All
	Mon	0400–1900	Kasilof Section - NKB 600 ft	Kasilof Section
Jul 3	Sat	0700–2400	Kasilof Section - NKB 600 ft	Kasilof Section
Jul 5	Mon	0700–1900	Kustatan - Kalgin - Western Subdistrict - N. Dist.	All
		0700–2200	Kasilof Section - NKB 600 ft	Kasilof Section
Jul 6	Tue	0500–2300	Kasilof 600ft & NKB 600 ft	Kasilof Section
Jul 7	Wed	0800–2300	Kasilof Section - NKB 600 ft	Kasilof Section
Jul 8	Thu	0500–2300	Upper Subdistrict	Kasilof Section
		0700–1900	All except Upper Subdistrict	All
Jul 12	Mon	0700–1900	All except Upper Subdistrict	Drift Area 1, Exp. Ken/Kas Sec
		0800–2000	Upper Subdistrict	
Jul 13	Tue	0500–2200	Kasilof, Kenai, & E. Foreland Sections	Expanded Kenai/Kasilof sections
Jul 14	Wed	0600–2200	Kasilof 600 ft & NKB 600 ft	Expanded Kenai/Kasilof sections
Jul 15	Thu	0700–1900	All except Upper Subdistrict	Drift Area 1, Exp. Ken/Kas Sec
		0900–2100	Upper Subdistrict	

-continued-

Date	Day	Time	Set gillnet	Drift gillnet
Jul 18	Sun	1400–2400	KRSHA	KRSHA
Jul 19	Mon	0700–1900	All	Drift Area 1, Exp Ken/Kas Sec
Jul 20	Tue	0800–2000	Upper Subdistrict 600 ft	Exp. Ken/Kas, & Anchor Pt.
Jul 21	Wed	0700–1900		Exp. Ken/Kas, & Anchor Pt.
Jul 22	Thu	0700–1900	All except Upper Subdistrict	Exp. Ken/Kas, & Anchor Pt.
Jul 26	Mon	0700–1900	All except Upper Subdistrict	Drift Area 1, Exp Ken/Kas Sec
Jul 27	Tue	0700–1900		Exp. Ken/Kas, & Anchor Pt.
Jul 28	Wed	0700–1900		Exp. Ken/Kas, & Anchor Pt.
Jul 29	Thu	0700–1900	All except Upper Subdistrict	Exp. Kenai/Kasilof sections
Aug 1	Sun	0700–1900		Exp. Ken/Kas, & Anchor Pt.
Aug 2	Mon	0700–1900	All except Upper Subdistrict	Drift Area 1, Exp Ken/Kas Sec
Aug 3	Tue	0700–1900		Exp. Ken/Kas, & Anchor Pt.
Aug 4	Wed	0700–2100		
Aug 5	Thu	0700–1900	All except Upper Subdistrict	Drift Area 1, Exp Ken/Kas Sec
		1900–2100		Exp. Ken/Kas, & Anchor Pt.
Aug 6	Fri	0700–2100		Exp. Ken/Kas, & Anchor Pt.
Aug 7	Sat	0700–1900	Kalgin Island Subdistrict	Exp. Ken/Kas, & Anchor Pt.
		1900–2100		Exp. Ken/Kas, & Anchor Pt.
Aug 8	Sun	0700–2100		Exp. Ken/Kas, & Anchor Pt.
Aug 9	Mon	0700–1900	All except Upper Subdistrict	Drift Area 1, Exp Ken/Kas Sec
Aug 10	Tues	0700–2100		Exp. Ken/Kas, & Anchor Pt.
Aug 11	Wed	0700–2100		Exp. Ken/Kas, & Anchor Pt.
Aug 12	Thu	0700–1900	All except Upper Subdistrict	Drift Area 1, Exp Ken/Kas Sec
Aug 14	Sat	0900–2100	Kalgin Island Subdistrict	
Aug 16	Mon	0700–1900	All except Upper Subdistrict	Drift Areas 3 & 4
Aug 19	Thu	0700–1900	All except Upper Subdistrict	Drift Areas 3 & 4
Aug 20	Fri	0700–1900	Chinitna Bay	Chinitna Bay
Aug 23	Mon	0700–1900	All except Upper Subdistrict	Drift Areas 3 & 4
Aug 24	Tue	0700–1900	Chinitna Bay	Chinitna Bay
Aug 26	Thu	0700–1900	All except Upper Subdistrict	Drift Areas 3 & 4
Aug 27	Fri	0700–1900	Chinitna Bay	Chinitna Bay

Note: Fishing continued each Monday, Tuesday, Thursday, and Friday as described for August 23, 24, 26, and 27 for the remainder of the year. The last day of recorded fishing was September 30, 2021.

Appendix A12.–Susitna River sockeye salmon studies, 2006–2016.

Yentna River passage	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015[a]	2016[a]
BENDIX	92,051	79,901	90,146	28,428							
DIDSON-adjusted	166,697	125,146	131,772	43,972 to 153,910	53,399 to 144,949	62,231 to 140,445	30,462 to 89,957	76,227 to 212,125	55,759 to 137,256	ND	ND

Weir data	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Chelatna	18,433	41,290	74,469	17,721	37,784	70,353	36,736	70,555	26,212	69,897	72,657
Judd	40,633	57,392	53,681	44,616	18,446	39,984	18,715	14,088	22,416	47,934	48,218
Larson	57,411	47,924	34,595	40,929	20,324	12,190	16,566	21,821	12,040	23,185	14,313
Weir Totals	116,477	146,606	162,745	103,266	76,554	122,527	72,017	106,464	60,668	141,016	135,188

Susitna pop. est.	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Mark–recapture (MR)	418,197	327,732	304,449	219,041	190,460	314,447	141,804	228,536	167,374	373,915	312,068
MR: Weir ratio	3.6	2.2	1.9	2.1	2.5	2.6	2.0	2.1	2.8	NA	NA
MR: BENDIX ratio	4.5	4.1	3.4	9.7	ND	ND	ND	ND	ND	ND	ND

Note: ND = no data.

[a] DIDSON was not operational in 2015 and 2016.

Appendix A13.–Age composition (in percent) of sockeye salmon passage, Upper Cook Inlet, 2021.

	Age group															
Stream	0.2	0.3	1.1	1.2	2.1	1.3	2.2	1.4	2.3	3.1	2.4	3.2	3.3	0.4	3.4	Total[a]
Kenai River	0%	0%	0%	12%	0%	66%	5%	0%	15%	0%	0%	0%	0%	0%	0%	100%
Kasilof River	0%	0%	1%	64%	1%	25%	6%	0%	3%	0%	0%	0%	0%	0%	0%	100%
Fish Creek	0%	0%	2%	73%	0%	10%	14%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Hidden Creek	0%	0%	0%	99%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Larson	0%	0%	1%	72%	0%	18%	4%	0%	5%	0%	0%	0%	0%	0%	0%	100%
Judd	0%	0%	0%	28%	0%	46%	5%	0%	22%	0%	0%	0%	0%	0%	0%	100%

[a] May not sum to 100 due to rounding.

Appendix A14.–Upper Cook Inlet salmon average weights, in pounds, by area, 2021.

Fishery	Chinook	Sockeye	Coho	Pink	Chum
Upper Cook Inlet total	12.1	5.2	5.6	3.4	7.2
Northern District total	11.7	4.7	5.2	3.2	5.6
Northern District west	11.5	4.9	5.2	3.6	5.7
Trading Bay 247-10	11.8	5.1	5.1	3.2	6.4
Tyonek 247-20	10.9	4.9	5.0	4.9	5.0
Beluga 247-30	16.0	5.0	5.3	3.7	5.7
Susitna Flat 247-41	9.4	4.6	5.3	2.2	5.5
Pt. Mackenzie 247-42	12.7	4.4	5.7	4.1	6.0
Fire Island 247-43	13.8	4.6	5.3	3.6	5.7
Northern District East	12.3	4.6	5.4	3.1	4.9
Pt. Possession 247-70	13.0	4.4	5.2	3.0	5.1
Birch Hill 247-80	10.7	4.6	5.5	3.2	4.5
Number 3 Bay 247-90	9.4	4.6	5.5	3.1	5.0
Central District Total	10.9	5.2	5.8	3.4	7.3
East Side Set Total	11.9	4.8	5.0	3.1	6.2
Salamatof 244-41	10.5	5.3	5.5	3.2	6.1
East Forelands 244-42	13.2	5.3	4.9	3.3	6.3
South K. Beach 244-31	14.3	4.3	4.9	3.1	5.6
North K. Beach 244-32	10.4	4.7	4.7	2.9	–
Cohoe 244-22	11.6	4.6	4.6	3.0	8.0
Ninilchik 244-21	13.5	4.6	4.9	3.2	6.2
West Side Set Total	17.2	5.0	5.5	3.5	6.1
Little Jack Slough 245-50	24.1	4.5	5.5	3.2	6.9
Tuxedni Bay 245-30	21.2	4.8	5.4	3.3	6.2
Kustatan Total	14.7	5.2	5.4	3.3	6.0
Big River 245-55	14.7	4.8	5.6	3.9	6.0
West Foreland 245-60	–	5.4	5.4	3.2	6.1
Kalgin Island Total	17.0	5.1	5.5	3.5	5.8
West Side 246-10	17.0	5.1	5.5	3.5	5.8
East Side 246-20	16.2	5.1	5.8	3.7	5.7
Chinitna Bay Total	4.6	6.5	6.3	3.4	6.5
Set 245-10	–	–	4.3	3.0	6.5
Drift 245-10	4.6	6.5	6.6	3.4	6.5
Central District Set Total	13.6	4.8	5.5	3.3	6.1
Central District Drift Total	7.8	5.4	5.9	3.5	7.3
Area 1/District Wide 244-60	7.5	5.4	5.9	3.4	7.5
Kasilof Section, Narrow 244-61	–	4.8	-	3.5	9.0
Full Ex. Corridor 244-56 and 244-57	8.5	5.4	5.7	3.5	7.1
Area 3/4 244-60	–	5.4	6.4	3.1	6.4

Note: Average weights determined from total pounds of fish divided by numbers of fish reported on fish tickets. En dash = no data.

Appendix A15.–Age composition of Chinook salmon harvested in the Upper Subdistrict commercial set gillnet fishery, Upper Cook Inlet, Alaska, 1990–2021.

Year	Sample size	Percent composition by age class (%)														Total	% of harvest ≤ocean-age-2
		0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	1.5	2.4	2.5	1.6		
1990	437	0.2	1.1	0.2	29.5	0.9	0.5	29.0	0.5	32.7	0.4	3.4	1.6	–	–	100	32.2
1991	446	0.2	0.7	–	24.9	0.2	0.5	32.1	0.0	38.5	0.7	2.0	0.2	–	–	100	26.0
1992	688	–	2.5	–	15.0	–	–	27.6	0.6	49.6	0.9	3.8	0.2	–	–	100	18.0
1993	992	–	3.3	–	14.0	–	–	20.8	0.1	56.5	0.8	4.0	0.5	–	–	100	17.4
1994	1,502	–	3.5	–	12.3	0.1	–	14.7	0.3	61.3	0.5	5.8	1.6	–	0.1	100	16.1
1995	1,508	–	2.7	–	22.4	0.1	–	32.9	0.8	35.0	0.1	5.9	0.2	0.1	–	100	25.9
1996	2,186	–	3.3	–	15.8	0.1	–	34.9	0.2	42.3	1.6	1.5	0.5	–	–	100	19.3
1997	1,691	–	6.4	–	13.5	0.3	–	31.1	0.3	45.6	0.7	0.7	1.4	–	–	100	20.4
1998	911	0.5	11.8	0.2	23.2	0.3	0.1	21.1	1.6	38.4	0.5	1.9	0.6	–	–	100	37.4
1999	1,818	0.1	2.3	–	26.3	0.2	–	24.5	–	43.5	0.4	2.8	–	–	–	100	28.8
2000	991	–	9.2	0.1	12.2	0.9	–	38.7	0.3	37.6	0.3	0.8	0.1	–	–	100	22.6
2001	989	–	11.7	–	40.0	–	–	14.5	–	32.5	–	1.2	–	–	–	100	51.7
2002	1,224	–	10.6	0.0	29.3	–	–	36.7	–	22.6	–	0.7	0.1	–	–	100	39.9
2003	678	–	3.8	–	51.8	–	–	23.6	0.3	18.7	–	1.8	–	–	–	100	55.9
2004	1,409	–	3.5	–	19.8	0.1	–	48.2	–	27.6	0.0	0.7	–	–	–	100	23.4
2005	482	0.2	2.9	–	27.0	–	–	20.1	0.4	47.5	–	1.7	0.2	–	–	100	30.5
2006	560	–	12.9	–	35.4	–	–	22.0	0.2	27.1	–	2.5	–	–	–	100	48.4
2007	789	–	4.8	–	42.7	–	–	22.4	0.1	28.5	–	1.3	0.1	–	–	100	47.7
2008	380	–	10.3	–	19.7	–	–	27.6	–	40.8	–	1.6	–	–	–	100	30.0
2009	487	–	13.8	–	51.3	–	–	12.3	–	22.0	–	0.6	–	–	–	100	65.1
2010	743	–	18.3	–	24.6	–	–	36.0	0.1	20.1	0.2	0.8	–	–	–	100	43.0
2011	1,187	–	4.6	–	33.7	–	–	25.2	–	35.3	0.1	1.2	–	–	–	100	38.3
2012	167	–	9.6	–	18.0	–	–	36.6	–	35.8	–	–	–	–	–	100	27.6
2013	668	–	22.7	–	43.4	–	–	15.2	–	18.7	–	–	–	–	–	100	66.1
2014	459	–	17.6	–	32.3	–	–	29.1	–	20.9	–	0.1	–	–	–	100	49.8
2015	610	–	14.2	–	37.4	–	–	24.3	–	23.8	–	0.3	–	–	–	100	51.6
2016	809	–	6.7	–	28.5	–	–	36.2	–	26.7	–	1.9	–	–	–	100	35.2
2017	881	–	3.6	–	13.3	–	–	43.0	–	39.7	–	0.4	–	–	–	100	16.9
2018	300	–	13.3	–	54.5	–	–	12.0	–	19.8	–	0.4	–	–	–	100	67.8
2019	600	–	14.1	–	33.1	–	–	41.5	–	11.1	–	0.1	–	–	–	100	47.2
2020	296	–	32.7	–	36.1	–	–	21.8	–	9.4	–	–	–	–	–	100	68.8
2021	273	–	31.5	–	40.0	–	–	26.3		2.2	–	–	–	–	–	100	71.5
2011–2020 year mean		0.0	13.9		33.0	0.0	0.0	28.5	0.0	24.1	0.1	0.6	0.0	0.0	0.0		46.9
All years mean	848.8	0.2	9.7	0.1	28.8	0.3	0.3	27.6	0.4	31.6	0.5	1.8	0.6	0.1	0.1		38.8

Note: En dash (–) = no data.

Appendix A16.–Major buyers and processors of Upper Cook Inlet fishery products, 2021.

Buyer/processor	Code	Plant site	Contact	Address
Icicle Seafoods Inc	F0135	Seward	Kelly Glidden	842 Fish Dock Rd. Homer, AK 99603
Pacific Star Seafoods Inc.	F11868	Kenai	Todd Nispel	PO Box 190, Kenai Alaska, 99611
Copper River Seafoods	F6426	Anchorage	Nicole Holiday	1118 E. 5th Ave. Anchorage, AK 99501
	F12263	Kenai	Christine Flake	
Fishhawk Fisheries	F1540	Kenai	Steve Fick	PO Box 715, Astoria Oregon 97103
Peninsula Processing	F6618	Soldotna	Tim Berg Jr.	720 K. Beach Rd., Soldotna, AK 99669
Alaskan Fish Factory Ltd	F11872	Homer	Mike McCune	800 Fish Dock Rd., Homer, AK 99603
Favco Inc.	F0398	Anchorage	Bill Buck	PO Box 190968, Anchorage, AK 99519
Alaska Standard Seafoods	F10568	Kenai	Gavin Keohane	PO Box 1141, Soldotna, AK 99669
Tanner's Fresh Fish Processing	F12413	Ninilchik	Rory Tanner	PO Box 39238, Ninilchik, AK 99639
North Pacific Seafoods	F10419	Kasilof	Bobbie Heimgartner	52444 Skein Ave., Kasilof Ak. 99610
Inlet Fish Inc.	F10419	Kenai	Alicia Medina	PO Box 114, Kenai, AK 99611
Inlet Fish Producers	F10420	Kasilof	Kim Hansen	52444 Skein Ave., Kasilof, AK 99669

Appendix A17.–Number of salmon harvested by gear, area, and species in personal use fisheries, Upper Cook Inlet, 2021.

	Harvest					
Fishery	Chinook	Sockeye	Coho	Pink	Chum	Total
Kasilof Gillnet	94	18,212	17	157	17	18,497
Kasilof Dip Net	9	96,454	1,117	2,823	756	101,159
Kenai Dip Net	50	326,491	1,080	4,285	752	332,659
Fish Creek Dip Net	3	14,558	1,029	604	63	16,257
Beluga Dip Net	0	0	0	0	0	0
Susitna Dipnet	0	1385	902	426	111	2,824
No Site Reported	0	101	21	0	0	0
Total	156	457,201	4,166	8,295	1,699	471,396

Appendix A18.–Personal use sockeye salmon harvest by day, 2021.

	Kasilof gillnet		Kasilof dipnet		Kenai dipnet		Susitna dipnet	
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
Jun 15	2,451	2,451	–	–	–	–	–	–
Jun 16	1,964	4,415	–	–	–	–	–	–
Jun 17	1,800	6,215	–	–	–	–	–	–
Jun 18	1,882	8,097	–	–	–	–	–	–
Jun 19	2,559	10,656	–	–	–	–	–	–
Jun 20	1,781	12,437	–	–	–	–	–	–
Jun 21	1,772	14,209	–	–	–	–	–	–
Jun 22	1,151	15,360	–	–	–	–	–	–
Jun 23	842	16,202	–	–	–	–	–	–
Jun 24	487	16,689	–	–	–	–	–	–
Jun 25	–	–	761	761	–	–	–	–
Jun 26	–	–	771	1,532	–	–	–	–
Jun 27	–	–	829	2,361	–	–	–	–
Jun 28	–	–	834	3,195	–	–	–	–
Jun 29	–	–	1,450	4,645	–	–	–	–
Jun 30	–	–	1,241	5,886	–	–	–	–
Jul 1	–	–	898	6,784	–	–	–	–
Jul 2	–	–	2,225	9,009	–	–	–	–
Jul 3	–	–	1,585	10,594	–	–	–	–
Jul 4	–	–	2,317	12,911	–	–	–	–
Jul 5	–	–	873	13,784	–	–	–	–
Jul 6	–	–	1,148	14,932	–	–	–	–
Jul 7	–	–	1,462	16,394	–	–	–	–
Jul 8	–	–	757	17,151	–	–	–	–
Jul 9	–	–	1,439	18,590	–	–	–	–
Jul 10	–	–	2,566	21,156	1,951	1,951	1	1
Jul 11	–	–	2,810	23,966	2,154	4,105	0	1
Jul 12	–	–	1,578	25,544	2,209	6,314	0	1
Jul 13	–	–	1,130	26,674	1,871	8,185	0	1
Jul 14	–	–	1,713	28,387	3,315	11,500	9	10
Jul 15	–	–	1,749	30,136	3,703	15,203	0	10
Jul 16	–	–	3,603	33,739	6,624	21,827	0	10
Jul 17	–	–	4,406	38,145	10,874	32,701	33	43
Jul 18	–	–	2,267	40,412	9,734	42,435	0	43
Jul 19	–	–	2,674	43,086	18,070	60,505	0	43
Jul 20	–	–	3,025	46,111	22,127	82,632	0	43
Jul 21	–	–	2,113	48,224	16,415	99,047	230	273
Jul 22	–	–	3,091	51,315	23,261	122,308	0	273
Jul 23	–	–	4,464	55,779	28,016	150,324	0	273
Jul 24	–	–	4,875	60,654	28,135	178,459	348	621
Jul 25	–	–	2,907	63,561	20,567	199,026	0	621
Jul 26	–	–	2,565	66,126	18,151	217,177	0	621
Jul 27	–	–	1,860	67,986	15,729	232,906	0	621
Jul 28	–	–	2,005	69,991	13,801	246,707	375	996
Jul 29	–	–	1,811	71,802	13,541	260,248	0	996
Jul 30	–	–	2,196	73,998	13,741	273,989	0	996
Jul 31	–	–	2,596	76,594	17,958	291,947	261	1,257
Aug 1	–	–	1,411	78,005	–	–	–	–
Aug 2	–	–	1,039	79,044	–	–	–	–
Aug 3	–	–	906	79,950	–	–	–	–
Aug 4	–	–	1,087	81,037	–	–	–	–
Aug 5	–	–	854	81,891	–	–	–	–
Aug 6	–	–	1,056	82,947	–	–	–	–
Aug 7	–	–	1,188	84,135	–	–	–	–

Note: En dash (–) = no data; Cum = cumulative.

Appendix A19.–Age, weight, sex, and size distribution of Pacific herring sampled by gillnet in Upper Cook Inlet, 2015–2021.

Sample date = all 2015

		No. of fish							Weight			Length		
Sample area	Age	Male	Imm. female	Ripe female	Spawned female	Unknown	Total	Percent of total	Mean (g)	SD	Number weighed	Mean (mm)	SD	Number measured
ESSN	2	0	0	0	0	0	0	0	–	–	0	–		0
	3	0	0	1	0	0	1	0.4%	146	0	1	225	0	1
	4	4	0	6	1	0	11	4%	112	20.2	11	199	9.7	11
	5	16	0	18	2	0	36	13%	130	22.5	36	211	9.4	36
	6	33	0	42	6	0	81	30%	145	28.5	81	221	11.1	81
	7	43	0	34	14	0	91	34%	153	28.2	91	228	10.4	91
	8	22	0	7	5	0	34	13%	162	27.6	34	232	7.4	34
	9	7	0	3	1	0	11	4%	169	29.4	11	234	7.6	11
	10	3	0	1	0	0	4	1%	173	43.2	4	235	12.5	4
	11	0	0	0	0	0	0	0	–	–	0	–	–	0
Sample total		128	0	112	29	0	269		148	30.0	269	223	13.0	269
Sex composition		48%	0%	42%	11%	0%								

Sample date = all 2016

		No. of fish							Weight			Length		
Sample area	Age	Male	Imm. female	Ripe female	Spawned female	Unknown	Total	Percent of total	Mean (g)	SD	Number weighed	Mean (mm)	SD	Number measured
ESSN	2	0	0	0	0	0	0	0	–	–	0	–	–	0
	3	0	0	0	0	0	0	0	–	–	0	–	–	0
	4	3	0	4	1	0	8	3%	98	15.3	8	192	5.6	8
	5	13	0	22	6	0	41	14%	114	14.7	41	205	7.2	41
	6	29	0	11	7	0	47	16%	123	16.2	47	214	9.7	47
	7	51	0	14	11	0	76	26%	132	21.6	76	220	10.5	76
	8	65	0	15	15	0	95	32%	143	26.0	95	227	11.4	95
	9	14	0	2	5	0	21	7%	158	27.2	21	232	12.0	21
	10	3	0	1	0	0	4	1%	198	27.7	4	248	9.3	4
	11	1	0	0	0	0	1	0.3%	235	0	1	163	0.0	1
Sample total		179	0	69	45	0	293		134	26.7	293	220	14.1	293
Sex composition		61%	0%	24%	15%	0%								

-continued-

Appendix A19.–Page 2 of 4.

Sample date = all 2017

Sample area	Age	No. of fish: Male	Imm. female	Ripe female	Spawned female	Unknown	Total	Percent of total	Weight: Mean (g)	SD	Number weighed	Length: Mean (mm)	SD	Number measured
ESSN	2	0	0	0	0	0	0	0	–	–	0	–	–	0
	3	0	0	0	0	0	0	0	–	–	0	–	–	0
	4	7	0	17	0	0	24	9%	114	15.7	24	196	7.3	24
	5	36	0	31	9	0	76	28%	119	15.9	76	205	7.3	76
	6	32	0	26	5	0	63	23%	131	16.4	63	209	24.7	63
	7	29	0	17	4	0	50	19%	140	23.2	50	221	10.6	50
	8	18	0	12	3	0	33	12%	148	26.1	33	225	10.0	33
	9	11	0	6	2	0	19	7%	166	33.5	19	231	11.5	19
	10	2	0	1	1	0	4	1%	146	31.8	4	233	8.7	4
	11	1	0	0	0	0	1	0	240	0	1	240	0	1
Sample total		136	0	110	24	0	270		133	25.3	270	213	17.7	270
Sex composition		50%	0%	41%	9%	0%								

Sample date = all 2018

Sample area	Age	No. of fish: Male	Imm. female	Ripe female	Spawned female	Unknown	Total	Percent of total	Weight: Mean (g)	SD	Number weighed	Length: Mean (mm)	SD	Number measured
ESSN	2	27	0	32	0	0	59	32%	82	14.9	59	177	9.6	59
	3	16	0	20	0	0	36	20%	116	22.5	36	200	14.0	36
	4	22	0	29	0	0	51	28%	132	16.7	51	210	8.3	51
	5	12	0	17	0	0	29	16%	148	22.9	29	216	9.4	29
	6	2	0	6	0	0	8	4%	172	27.8	8	224	6.2	8
	7	0	0	1	0	0	1	1%	166	0	1	228	0	1
	8	0	0	0	0	0	0	0%	–	–	0	–	–	0
	9	0	0	0	0	0	0	0%	–	–	0	–	–	0
	10	0	0	0	0	0	0	0%	–	–	0	–	–	0
	11	0	0	0	0	0	0	0%	–	–	0	–	–	0
Sample total		79	0	105	0	0	184		117	33.2	184	199	14.1	184
Sex composition		43%	0%	57%	0%	0%								

-continued-

Appendix A19.–Page 3 of 4.

Sample date = all 2019

Sample area	Age	No. of fish: Male	Imm. female	Ripe female	Spawned female	Unknown	Total	Percent of total	Weight: Mean (g)	SD	Number weighed	Length: Mean (mm)	SD	Number measured
ESSN	2	2	0	6	0	0	8	3%	104	19.3	8	211	11.8	8
	3	86	0	141	0	0	227	85%	117	12.9	227	216	12.9	227
	4	10	0	18	0	0	28	11%	125	14.8	28	218	8.1	28
	5	1	0	2	0	0	3	1%	124	17.3	3	219	5.6	3
	6	0	0	0	0	0	0	0	–	–	0	–	–	0
	7	0	0	0	0	0	0	0	–	–	0	–	–	0
	8	0	0	0	0	0	0	0	–	–	0	–	–	0
	9	0	0	0	0	0	0	0	–	–	0	–	–	0
	10	0	0	0	0	0	0	0	–	–	0	–	–	0
	11	0	0	0	0	0	0	0	–	–	0	–	–	0
Sample total		99	0	167	0	0	266		117.5	16.075	266	216	9.6	266
Sex composition		37.22%	0	62.78%	0	0								

Sample date = all 2020

Sample area	Age	No. of fish: Male	Imm. female	Ripe female	Spawned female	Unknown	Total	Percent of total	Weight: Mean (g)	SD	Number weighed	Length: Mean (mm)	SD	Number measured
ESSN	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	12	0	20	0	0	32	12%	115	19	32	216	10	32
	4	69	0	66	0	0	135	51%	120	17	135	219	13	135
	5	48	0	41	0	0	89	34%	129	21	89	222	11	89
	6	4	0	3	0	0	7	3%	130	19	7	221	10	7
	7	2	0	0	0	0	2	1%	121	2	2	225	5	2
	8	0	0	0	0	0	0	0	–	–	0	–	–	0
	9	0	0	0	0	0	0	0	–	–	0	–	–	0
	10	0	0	0	0	0	0	0	–	–	0	–	–	0
	11	0	0	0	0	0	0	0	–	–	0	–	–	0
Sample total		135	0	130	0	0	265		123	16	265	220	10	265
Sex composition		51%	0%	49%	0%	0%								

-continued-

Sample date = all 2021

Sample area	Age	No. of fish: Male	Imm. female	Ripe female	Spawned female	Unknown	Total	Percent of total	Weight: Mean (g)	SD	Number weighed	Length: Mean (mm)	SD	Number measured
ESSN	2	0	0	0	0	0	0	0%	0	0	0	0	0	0
	3	2	0	0	0	0	2	1%	116	4.6	2	213	4.2	2
	4	37	32	0	0	1	70	39%	126	16.8	69	224	9.7	69
	5	64	31	0	0	0	95	53%	144	19.5	95	234	10.0	95
	6	6	4	0	0	0	10	6%	165	17.3	10	241	9.4	10
	7	0	0	1	0	0	1	1%	203	-	1	254	-	1
	8	0	0	0	0	0	0	0%	-	-	0	-	-	0
	9	0	0	0	0	0	0	0%	-	-	0	-	-	0
	10	0	0	0	0	0	0	0%	-	-	0	-	-	0
	11	0	0	0	0	0	0	0%	-	-	0	-	-	0
Sample total		109	67	1	0	1	178		151	15	35	233	8	177
Sex composition		61%	38%	1%	0%	1%								

Sample data all year averages 2015–2021

Sample area	Age	No. of fish: Male	Imm. female	Ripe female	Spawned female	Unknown	Total	Percent of total	Weight: Mean (g)	SD	Number weighed	Length: Mean (mm)	SD	Number measured
ESSN	2	29	0	38	0	0	67	4%	62	–	67	129	–	67
	3	116	0	182	0	0	298	17%	124	–	298	214	–	298
	4	152	32	140	2	1	327	19%	117	–	326	208	–	326
	5	190	31	131	17	0	369	21%	127	–	369	216	–	369
	6	106	4	88	18	0	216	13%	140	–	216	222	–	216
	7	125	0	67	29	0	221	13%	142	–	221	229	–	221
	8	105	0	34	23	0	162	9%	151	–	162	228	–	162
	9	32	0	11	8	0	51	3%	164	–	51	232	–	51
	10	8	0	3	1	0	12	1%	172	–	12	239	–	12
	11	2	0	0	0	0	2	0%	238	–	2	202	–	2
Sample total		865	67	694	98	1	1,725		144		172	212		1,724
Sex composition		50%	4%	40%	6%	0%								

Note: En dash (–) = no data.; Imm. = immature.

Appendix A20.–Age, sex, and size distribution of eulachon (smelt) from Upper Cook Inlet commercial dipnet fishery, 2006–2021.

2006					2007					2008				
Age	Sex	Length (mm)	No. sampled	%	Age	Sex	Length (mm)	No. sampled	%	Age	Sex	Length (mm)	No. sampled	%
3	Male	185	1	1	3	Male	179	10	9	3	Male	194	3	3
	Female	0	0	0		Female	174	5	5		Female	185	10	10
4	Male	194	46	54	4	Male	188	65	60	4	Male	201	37	37
	Female	186	22	26		Female	186	23	21		Female	193	36	36
5	Male	200	14	16	5	Male	201	4	4	5	Male	208	12	12
	Female	203	2	2		Female	192	1	1		Female	206	3	3
All	Male	196	61	72	All	Male	188	79	73	All	Male	202	52	51
	Female	187	24	28		Female	184	29	27		Female	192	49	49
Avg - all		193	85	100	Avg - all		187	108	100	Avg - all		197	101	100

2008					2009					2010				
Age	Sex	Length (mm)	No. sampled	%	Age	Sex	Length (mm)	No. sampled	%	Age	Sex	Length (mm)	No. sampled	%
3	Male	194	3	3	3	Male	195	12	7	3	Male	189	14	7
	Female	185	10	10		Female	191	18	10		Female	194	10	5
4	Male	201	37	37	4	Male	203	74	41	4	Male	197	61	31
	Female	193	36	36		Female	194	58	32		Female	204	105	53
5	Male	208	12	12	5	Male	203	13	7	5	Male	204	3	2
	Female	206	3	3		Female	203	5	3		Female	203	6	3
All	Male	202	52	51	All	Male	202	99	55	All	Male	196	78	39
	Female	192	49	49		Female	194	81	45		Female	203	121	61
Avg - all		197	101	100	Avg - all		198	180	100	Avg - all		200	199	100

2011					2012					2013				
Age	Sex	Length (mm)	No. sampled	%	Age	Sex	Length (mm)	No. sampled	%	Age	Sex	Length (mm)	No. sampled	%
3	Male	192	25	13	3	Male	191	20	11	3	Male	212	7	4
	Female	185	47	24		Female	198	19	10		Female	216	7	4
4	Male	205	48	24	4	Male	204	50	27	4	Male	219	78	50
	Female	203	41	21		Female	207	88	47		Female	212	37	24
5	Male	210	28	14	5	Male	208	2	1	5	Male	224	22	14
	Female	208	11	6		Female	215	7	4		Female	217	5	3
All	Male	203	101	51	All	Male	201	72	39	All	Male	220	107	69
	Female	195	99	50		Female	206	114	61		Female	213	49	31
Avg - all		199	200	100	Avg - all		204	186	100	Avg - all		218	156	100

-continued-

Appendix A20.–Page 2 of 2.

2014

Age	Sex	Length (mm)	No. sampled	%
3	Male	196	16	12
	Female	194	22	16
4	Male	211	51	37
	Female	209	37	27
5	Male	219	10	7
	Female	218	2	1
All	Male	209	77	56
	Female	202	61	44
Avg - all		207	138	100

2015

Age	Sex	Length (mm)	No. sampled	%
3	Male	184	73	30
	Female	179	7	3
4	Male	198	152	63
	Female	192	8	3
5	Male	214	3	1
	Female	0	0	0
All	Male	193	228	94
	Female	185	15	6
Avg - all		194	243	100

2016

Age	Sex	Length (mm)	No. sampled	%
3	Male	183	17	6
	Female	179	28	10
4	Male	193	117	43
	Female	190	102	38
5	Male	203	6	2
	Female	0	0	0
All	Male	192	140	52
	Female	187	130	48
Avg - all		190	270	100

2017

		Length (mm)	No. sampled	%
3	Female	172	2	1
	Male	173	69	23
4	Female	159	1	0
	Male	187	232	76
All	Male	167	301	99
	Female	184	3	1
Avg - all		183	304	100

2018

Age	Sex	Length (mm)	No. sampled	%
3	Male	159	2	2
	Female	159	29	26
4	Male	173	28	25
	Female	168	46	41
5	Male	188	3	3
	Female	183	4	4
All	Male	173	33	29
	Female	165	79	71
Avg - all		168	112	100

2019

Age	Sex	Length (mm)	No. sampled	%
3	Male	185	33	14
	Female	181	84	35
4	Male	192	54	23
	Female	192	48	20
5	Male	203	10	4
	Female	196	9	4
All	Male	173	97	41
	Female	165	141	59
Avg - all		188	238	100

2020

Age	Sex	Length (mm)	No. sampled	%
3	Male	186	13	5
	Female	182	20	8
4	Male	195	76	31
	Female	193	77	31
5	Male	203	40	16
	Female	200	21	9
All	Male	173	129	52
	Female	165	118	48
Avg - all		168	247	100

2021

Age	Sex	Length (mm)	No. sampled	%
3	Male	165	10	4
	Female	166	15	6
4	Male	189	83	34
	Female	191	76	31
5	Male	207	39	16
	Female	203	20	8
All	Male	173	132	54
	Female	165	111	46
Avg - all		189	243	100

All years (2006–2021)

Age	Sex	Length (mm)	No. sampled	%
3	Male	187	261	8
	Female	185	400	13
4	Male	198	1058	34
	Female	193	1072	34
5	Male	207	221	7
	Female	172	99	3
All	Male	199	1540	50
	Female	191	1571	50
Avg - all		195	3,111	100

Appendix A21.–Total sockeye salmon harvest from all sources in Upper Cook Inlet, 1996–2021.

	Commercial				Sport[a,b,c]			Personal use					Sub./Edu.		
Year	Drift	Set	Test fish	All	Kenai River	All other UCI	All	Kasilof gillnet	Kasilof dipnet	Kenai dipnet	Other[d]	All	Sub.[e]	Edu.[e]	Total
1996	2,205,067	1,683,855	2,424	3,891,346	205,976	16,863	222,839	9,506	11,197	102,821	22,021	145,545	259	2,405	4,262,394
1997	2,197,961	1,979,034	2,301	4,179,296	190,699	23,591	214,290	17,997	9,737	114,619	6,587	148,940	593	3,076	4,546,195
1998	599,396	620,121	5,456	1,224,973	189,885	23,477	213,362	15,975	45,161	103,847	11,598	176,581	636	3,567	1,619,119
1999	1,413,995	1,266,523	11,766	2,692,284	233,768	26,078	259,846	12,832	37,176	149,504	9,077	208,589	599	3,037	3,164,355
2000	656,427	666,055	9,450	1,331,932	261,779	32,194	293,973	14,774	23,877	98,262	12,354	149,267	442	2,933	1,778,547
2001	846,275	980,576	3,381	1,830,232	219,478	30,953	250,431	17,201	37,612	150,766	13,109	218,688	686	4,633	2,304,670
2002	1,367,251	1,405,867	37,983	2,811,101	259,759	21,770	281,529	17,980	46,769	180,028	14,846	259,623	623	3,722	3,356,598
2003	1,593,638	1,882,523	13,968	3,490,129	314,456	36,076	350,532	15,706	43,870	223,580	15,675	298,831	544	5,993	4,146,029
2004	2,529,642	2,397,442	10,677	4,937,761	317,233	28,823	346,056	25,417	48,315	262,831	13,527	350,090	484	5,237	5,639,628
2005	2,520,327	2,718,372	12,064	5,250,763	312,835	21,826	334,661	26,609	43,151	295,496	4,520	369,776	238	7,134	5,962,572
2006	784,771	1,407,959	10,698	2,203,428	203,602	24,517	228,119	28,867	56,144	127,630	3,406	216,047	408	5,444	2,653,446
2007	1,823,481	1,493,298	10,649	3,327,428	326,325	28,504	354,829	14,943	43,293	291,270	6,729	356,235	567	5,773	4,044,832
2008	983,303	1,396,832	16,957	2,397,092	254,387	30,155	284,542	23,432	54,051	234,109	6,890	318,482	450	4,761	3,005,327
2009	968,075	1,077,719	13,948	2,059,742	287,806	120,650	408,456	26,646	73,035	339,993	18,006	457,680	253	7,190	2,933,321
2010	1,587,657	1,240,685	6,670	2,835,012	316,233	55,831	372,064	21,924	70,774	389,552	32,052	514,302	865	5,652	3,727,895
2011	3,201,035	2,076,960	5,660	5,283,655	410,709	59,498	470,207	26,780	49,766	537,765	16,068	630,379	700	8,048	6,392,989
2012	2,924,144	209,695	11,839	3,145,678	471,096	50,164	521,260	15,638	73,419	526,992	13,304	629,353	441	4,418	4,301,150
2013	1,662,561	1,020,663	5,283	2,688,507	458,522	77,833	536,355	14,439	85,528	347,222	7,126	454,315	333	6,185	3,685,695
2014	1,501,678	842,356	5,648	2,349,682	380,055	89,785	469,840	22,567	88,513	379,823	15,144	506,047	587	7,724	3,333,880
2015	1,012,684	1,636,983	2,378	2,652,045	392,116	73,876	465,992	27,567	89,000	377,532	27,951	522,050	800	9,170	3,650,057
2016	1,266,696	1,130,112	2,096	2,398,904	342,446	53,768	396,214	26,539	58,723	259,057	4,837	349,156	659	7,449	3,152,382
2017	880,279	968,571	2,701	1,851,551	302,441	58,866	361,307	21,927	78,260	297,049	9,654	406,890	911	10,968	2,631,627
2018	400,285	417,610	1,546	819,441	188,715	43,042	231,757	14,390	92,034	165,028	2,085	273,537	622	8,581	1,390,877
2019	749,101	971,194	1,859	1,722,154	495,723	97,192	592,915	15,864	80,730	331,408	3,961	431,963	708	9,372	2,757,112
2020	283,727	412,027	1,562	697,316	300,000	58,000	358,000	14,745	94,064	257,864	32,321	398,994	557	9,379	1,464,246
2021	851,901	558,941	2,245	1,413,087	326,000	62,174	388,039	18,497	96,454	326,491	5,348	457,202	642	11,663	2,270,633

[a] Sport harvest in the Kenai River includes late-run stock only; early-run Russian River sockeye salmon harvest is excluded.

[b] Sport harvest is estimated from the annual state-wide sport fish harvest survey.

[c] Sport harvest in 2021 is unknown until the state-wide harvest survey is finalized; these figures are estimates based on previous 5-year averages.

[d] Area of harvest not identified on returned permits, other than Fish Creek dip net, which was open from 1996–2001, 2009–2010, & 2014–2015, 2017–2019 and Beluga dip net (2008–2019).

[e] See Appendices B15 and B16 for individual Sub. (Subsistence), Edu. (Educational) fishery harvests.

Appendix A22.–Hours fished in the Upper Subdistrict set gillnet fishery, 2021.

	Week of June 20–26						
	Sun 20	Mon 21	Tue 22	Wed 23	Thu 24	Fri 25	Sat 26
Midnight							
1							
2							
3							
4							
5							
6							
7					**EO#6**		
8			**EO#5**				
9							
10							
11							**EO#7**
Noon							
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

	Week of June 26–July 3						
	Sun 27	Mon 28	Tue 29	Wed 30	Thu 1	Fri 2	Sat 3
Midnight							
1							
2							
3							
4							
5					**EO#9**		
6							
7		**EO#8**					
8							
9							
10							**EO#10**
11							
Noon							
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

Regular Fishing Periods	EO #5	Kasilof Section from 8 AM to 8 PM	EO #8 Kasilof Section from 7 AM to 10 PM
Additional Fishing Time	EO #6	Kasilof Section from 7 AM to 10 PM	EO #9 Kasilof Section &NKB 600ft from 4 AM to 7 PM
No Commercial Fishing	EO #7	Kasilof Section from 10 AM to midnight	EO #10 Kasilof Section &NKB 600ft from 7 AM to midnight

-continued-

	Week of July 4–10						
	Sun 4	Mon 5	Tue 6	Wed 7	Thu 8	Fri 9	Sat 10
Midnight							
1							
2							
3							
4							
5			**EO#12**		**EO#14**		
6							
7		**EO#11**					
8				**EO#13**			
9							
10							
11							
Noon							
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

	Week of July 11–17						
	Sun 11	Mon 12	Tue 13	Wed 14	Thu 15	Fri 16	Sat 17
Midnight							
1							
2							
3							
4							
5			**EO#16**	**EO#17**			
6							
7							
8		**EO#15**					
9					**EO#18**		
10							
11							
Noon							
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

EO #11 Kasilof Section &NKB 600ft from 7 AM to 10 PM

EO #12 Kasilof 600ft and NKB 600ft 5 AM to 11 PM

EO #13 Kasilof Section &NKB 600ft from 8 AM to 11 PM

EO #14 Kenai, Kasilof, E. Foreland section from 5 AM to 11 PM

EO #15 Kenai, Kasilof, E. Foreland section; 8 AM to 8 PM

EO #17 Kasilof 600ft and NKB 600ft 5 AM to 10 PM

EO #18 Kenai, Kasilof, E. Foreland section; 9 AM to 9 PM

-continued-

	Week of July 18–24						
	Sun 18	Mon 19	Tue 20	Wed 21	Thu 22	Fri 23	Sat 24
Midnight							
1							
2							
3							
4							
5							
6							
7		**EO#20**					
8			**EO#21**				
9							
10							
11							
Noon							
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

	Week of July 25–31						
	Sun 25	Mon 26	Tue 27	Wed 28	Thu 29	Fri 30	Sat 31
Midnight							
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
Noon	**FISHERY CLOSED**						
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

EO #20 Kenai, Kasilof, E. Foreland section from 7 AM to 7 PM

EO #21 Kenai, Kasilof, E. Foreland section 600ft from 8 AM to 8 PM

APPENDIX B: HISTORICAL DATA

Appendix B1.–Upper Cook Inlet commercial Chinook salmon harvest by gear type and area, 1970–2021.

	Central District						Northern District		
	Drift gillnet		Upper subdistrict set		Kalgin/west side set		Set gillnet		
Year	Number[b]	%	Number[b]	%	Number[b]	%	Number[b]	%	Total
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	19,826	50.5	2,108	5.4	15,488	39.5	39,256
1987	4,552	11.5	21,159	53.6	1,029	2.6	12,700	32.2	39,440
1988	2,237	7.7	12,859	44.2	1,148	3.9	12,836	44.1	29,080
1989	0	0.0	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	78.0	730	3.7	3,193	16.0	19,962
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

-continued-

	Central District						Northern District		
	Drift gillnet		Upper subdistrict set		Kalgin/west side set		Set gillnet		
Year	Number[a]	%	Number[a]	%	Number[a]	%	Number[a]	%	Total
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	80.0	770	4.2	1,683	9.1	18,503
2004	1,104	4.1	21,684	80.5	2,208	8.2	1,926	7.2	26,922
2005	1,958	7.1	21,597	78.1	739	2.7	3,373	12.2	27,667
2006	2,782	15.4	9,956	55.2	1,030	5.7	4,261	23.6	18,029
2007	912	5.2	12,292	69.7	603	3.4	3,818	21.7	17,625
2008	653	4.9	7,573	56.8	1,124	8.4	3,983	29.9	13,333
2009	859	9.8	5,588	63.9	672	7.7	1,631	18.6	8,750
2010	538	5.4	7,059	71.3	553	5.6	1,750	17.7	9,900
2011	593	5.3	7,697	68.4	659	5.9	2,299	20.4	11,248
2012	218	8.6	705	27.9	555	22.0	1,049	41.5	2,527
2013	493	9.1	2,988	55.4	590	10.9	1,327	24.6	5,398
2014	382	8.2	2,301	49.4	507	10.9	1,470	31.5	4,660
2015	556	5.1	7,781	72.1	538	5.0	1,923	17.8	10,798
2016	606	6.0	6,759	67.4	460	4.6	2,202	22.0	10,027
2017	264	3.4	4,779	62.4	387	5.1	2,230	29.1	7,660
2018	503	14.8	2,312	67.9	447	13.1	143	4.2	3,405
2019	178	5.7	2,246	71.3	523	16.6	202	6.4	3,149
2020	181	6.0	852	28.3	317	10.5	1,658	55.1	3,008
2021	217	5.5	1,297	32.6	566	14.2	1,893	47.6	3,973
1970–2020 Avg[b]	948	7	9,106	64	1,155	9	3,043	20	14,251
2011–2020 Avg	397	7	3,842	57	498	10	1,754	25	6,188

[a] Harvest data prior to 2022 reflect minor adjustments to historical catch database.

[b] 1989 was not used in averages, as the drift fleet did not fish due to the Exxon Valdez oil spill, and this influenced all other fisheries.

Appendix B2.–Upper Cook Inlet commercial sockeye salmon harvest by gear type and area, 1970–2021.

	Central District						Northern District		
	Drift gillnet		upper subdistrict set		Kalgin/West side set		set gillnet		
Year	Number[a]	%	Number[a]	%	Number[a]	%	Number[a]	%	Total
1970	460,690	62.9	142,701	19.5	62,723	8.6	66,458	9.1	732,572
1971	423,107	66.5	111,505	17.5	61,144	9.6	40,533	6.4	636,289
1972	506,281	57.5	204,599	23.3	83,176	9.5	85,755	9.7	879,811
1973	375,695	56.1	188,816	28.2	59,973	8.9	45,614	6.8	670,098
1974	265,771	53.5	136,889	27.5	52,962	10.7	41,563	8.4	497,185
1975	368,124	53.8	177,336	25.9	73,765	10.8	65,526	9.6	684,751
1976	1,055,786	63.4	476,376	28.6	62,338	3.7	69,649	4.2	1,664,149
1977	1,073,098	52.3	751,178	36.6	104,265	5.1	123,750	6.0	2,052,291
1978	1,803,479	68.8	660,797	25.2	105,767	4.0	51,378	2.0	2,621,421
1979	454,707	49.2	247,359	26.8	108,422	11.7	113,918	12.3	924,406
1980	770,247	48.9	559,812	35.6	137,882	8.8	105,647	6.7	1,573,588
1981	633,380	44.0	496,003	34.5	60,217	4.2	249,662	17.3	1,439,262
1982	2,103,429	64.5	971,423	29.8	66,952	2.1	118,060	3.6	3,259,864
1983	3,222,428	63.8	1,508,511	29.9	134,575	2.7	184,219	3.6	5,049,733
1984	1,235,337	58.6	490,273	23.3	162,139	7.7	218,965	10.4	2,106,714
1985	2,032,957	50.1	1,561,200	38.4	285,081	7.0	181,191	4.5	4,060,429
1986	2,837,857	59.2	1,658,671	34.6	153,714	3.2	141,830	3.0	4,792,072
1987	5,638,916	59.5	3,457,724	36.5	208,036	2.2	164,572	1.7	9,469,248
1988	4,139,358	60.5	2,428,385	35.5	146,377	2.1	129,713	1.9	6,843,833
1989	5	0.0	4,543,492	90.7	186,828	3.7	280,801	5.6	5,011,126
1990	2,305,742	64.0	1,117,621	31.0	84,949	2.4	96,398	2.7	3,604,710
1991	1,118,138	51.3	844,603	38.8	99,855	4.6	116,201	5.3	2,178,797
1992	6,069,495	66.6	2,838,076	31.2	131,304	1.4	69,478	0.8	9,108,353
1993	2,558,732	53.8	1,941,798	40.8	108,181	2.3	146,633	3.1	4,755,344
1994	1,901,475	53.3	1,458,162	40.9	85,830	2.4	120,142	3.4	3,565,609
1995	1,773,873	60.1	961,227	32.6	107,898	3.7	109,098	3.7	2,952,096
1996	2,205,067	56.7	1,483,008	38.1	96,719	2.5	104,128	2.7	3,888,922

-continued-

Appendix B2.–Page 2 of 2.

	Central District						Northern District		
	Drift gillnet		Upper subdistrict set		Kalgin/West side set		Set gillnet		
Year	Number[a]	%	Number[a]	%	Number[a]	%	Number[a]	%	Total
1997	2,197,961	52.6	1,832,856	43.9	48,723	1.2	97,455	2.3	4,176,995
1998	599,396	49.2	512,306	42.0	47,165	3.9	60,650	5.0	1,219,517
1999	1,413,995	52.8	1,092,946	40.8	114,454	4.3	59,123	2.2	2,680,518
2000	656,427	49.6	529,747	40.1	92,477	7.0	43,831	3.3	1,322,482
2001	846,275	46.3	870,019	47.6	59,709	3.3	50,848	2.8	1,826,851
2002	1,367,251	49.3	1,303,158	47.0	69,609	2.5	33,100	1.2	2,773,118
2003	1,593,638	45.8	1,746,841	50.3	87,193	2.5	48,489	1.4	3,476,161
2004	2,529,642	51.3	2,235,810	45.4	134,356	2.7	27,276	0.6	4,927,084
2005	2,520,327	48.1	2,534,345	48.4	157,612	3.0	26,415	0.5	5,238,699
2006	784,771	35.8	1,301,275	59.3	94,054	4.3	12,630	0.6	2,192,730
2007	1,823,481	55.0	1,353,407	40.8	122,424	3.7	17,467	0.5	3,316,779
2008	983,303	41.3	1,303,236	54.8	67,366	2.8	26,230	1.1	2,380,135
2009	968,075	47.3	905,853	44.3	131,214	6.4	40,652	2.0	2,045,794
2010	1,587,657	56.1	1,085,789	38.4	114,719	4.1	40,177	1.4	2,828,342
2011	3,201,035	60.6	1,877,939	35.6	163,539	3.1	35,482	0.7	5,277,995
2012	2,924,144	93.3	96,675	3.1	90,440	2.9	22,580	0.7	3,133,839
2013	1,662,561	62.0	921,533	34.3	75,707	2.8	23,423	0.9	2,683,224
2014	1,501,678	64.1	724,398	30.9	80,271	3.4	37,687	1.6	2,344,034
2015	1,012,684	38.2	1,481,336	55.9	99,771	3.8	55,876	2.1	2,649,667
2016	1,266,746	52.8	997,853	41.6	85,194	3.6	47,150	2.0	2,396,943
2017	880,279	47.6	832,220	45.0	79,788	4.3	56,956	3.1	1,849,243
2018	400,269	48.9	289,841	35.4	75,217	9.2	52,552	6.4	817,895
2019	749,101	43.5	784,543	45.6	113,695	6.6	73,220	4.3	1,720,559
2020	283,727	40.8	295,341	42.4	68,864	9.9	47,822	6.9	695,754
2021	851,901	60.4	407,007	28.9	80,443	5.7	71,417	5.1	1,410,768
1970–2020 Avg[b]	1,621,752	54.6	1,075,666	36.5	102,356	4.9	79,943	4.0	2,879,718
2011–2020 Avg	1,388,222	55.2	830,168	37.0	93,249	5.0	45,275	2.9	2,356,915

[a] Harvest data prior to 2022 reflect minor adjustments to historical catch database.

[b] 1989 was not used in averages as the drift fleet did not fish due to the Exxon Valdez oil spill and this influenced all other fisheries.

Appendix B3.–Upper Cook Inlet commercial coho salmon harvest by gear type and area, 1970–2021.

	Central District						Northern District		
	Drift gillnet		Upper subdistrict set		Kalgin/West side set		Set gillnet		
Year	Number[a]	%	Number[a]	%	Number[a]	%	Number[a]	%	Total
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	76,495	10.1	85,932	11.4	88,108	11.6	757,353
1987	202,506	44.8	74,981	16.6	75,201	16.6	97,062	21.9	449,750
1988	278,828	49.6	54,975	9.9	77,503	13.8	149,742	26.7	561,048
1989	856	0.2	82,333	24.1	81,004	23.9	175,738	51.8	339,931
1990	247,453	49.3	40,351	8.0	73,429	14.6	140,506	28.0	501,739
1991	176,245	41.2	30,436	7.1	87,515	20.6	132,302	31.0	426,498
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	44,751	10.0	71,606	16.0	89,300	20.0	447,130
1996	171,434	53.3	40,724	12.6	31,405	9.8	78,105	24.3	321,668

-continued-

Appendix B3.–Page 2 of 2.

	Central District						Northern District		
	Drift gillnet		upper subdistrict set		Kalgin/West side set		set gillnet		
Year	Number[a]	%	Number[a]	%	Number[a]	%	Number[a]	%	Total
1997	78,666	51.6	19,668	12.9	16,705	11.0	37,369	24.5	152,408
1998	83,338	51.9	18,677	11.6	24,286	15.1	34,387	21.4	160,688
1999	64,814	51.5	11,923	9.3	17,725	14.1	31,643	25.1	126,105
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	199,587	64.2	30,154	9.7	36,498	11.7	44,819	14.4	311,058
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	23,610	13.3	23,495	13.2	21,531	12.1	177,339
2008	89,428	52.0	21,823	12.7	18,441	10.7	42,177	24.5	171,869
2009	82,096	53.6	11,435	7.5	22,050	14.4	37,629	24.6	153,210
2010	110,275	53.2	32,683	15.8	26,281	12.7	38,111	18.4	207,350
2011	40,858	42.9	15,560	16.3	16,760	17.6	22,113	23.2	95,291
2012	74,678	69.9	6,537	6.1	12,354	11.6	13,206	12.4	106,775
2013	184,771	70.8	2,266	0.9	31,513	12.1	42,413	16.3	260,963
2014	76,932	56.0	5,908	4.3	19,379	14.1	35,200	25.6	137,419
2015	130,720	60.5	17,948	8.3	20,748	9.6	46,616	21.6	216,032
2016	90,242	61.2	11,606	7.9	15,171	10.3	30,476	20.7	147,495
2017	191,490	63.1	29,916	9.9	29,535	9.7	52,701	17.4	303,642
2018	108,906	46.9	4,705	2.0	51,581	22.2	67,098	28.9	232,290
2019	88,618	54.1	6,511	4.0	16,799	10.3	51,935	31.7	163,859
2020	48,803	35.0	372	0.3	35,612	25.6	54,453	39.1	139,240
2021	80,982	54.9	883	0.6	19,702	13.4	45,825	31.1	147,392
1970–2020 Avg[b]	146,881	50.0	30,970	11.3	46,635	16.5	60,396	22.3	284,882
2011–2020 Avg	103,602	56.0	10,133	6.0	24,945	14.3	41,621	23.7	180,301

[a] 1989 was not used in averages, as the drift fleet did not fish due to the Exxon Valdez oil spill, and this influenced all other fisheries.

[b] Harvest data prior to 2022 reflect minor adjustments to historical catch database.

Appendix B4.–Upper Cook Inlet commercial pink salmon harvest by gear type and area, 1970–2021.

	Central District						Northern District		
	Drift gillnet		Upper subdistrict set		Kalgin/West side set		Set gillnet		
Year	Pink[a]	%	Pink[a]	%	Pink[a]	%	Pink[a]	%	Total
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	530,974	40.8	15,460	1.2	139,002	10.7	1,300,958
1987	38,714	35.4	47,243	43.2	5,229	4.8	18,203	16.6	109,389
1988	227,885	48.4	176,043	37.4	12,942	2.7	54,210	11.5	471,080
1989	2	0.0	37,982	56.3	5,580	8.3	23,878	35.4	67,442
1990	323,955	53.7	225,429	37.3	10,302	1.7	43,944	7.3	603,630
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	3,813	2.9	11,713	8.8	133,578
1996	122,728	50.5	95,717	39.4	3,792	1.6	20,674	8.5	242,911

-continued-

Appendix B4.–Page 2 of 2.

	Central District						Northern District		
	Drift gillnet		Upper subdistrict set		Kalgin/West side set		Set gillnet		
Year	Pink[a]	%	Pink[a]	%	Pink[a]	%	Pink[a]	%	Total
1997	29,920	42.2	32,055	45.2	4,701	6.6	4,269	6.0	70,945
1998	200,382	36.3	332,484	60.3	7,231	1.3	11,640	2.1	551,737
1999	3,552	22.0	9,357	57.8	2,674	16.5	593	3.7	16,176
2000	90,508	61.8	23,746	16.2	11,983	8.2	20,245	13.8	146,482
2001	31,219	43.0	32,998	45.5	3,988	5.5	4,355	6.0	72,560
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	61.3	59,620	35.2	2,357	1.4	3,524	2.1	169,368
2009	139,676	65.2	55,845	26.1	12,246	5.7	6,554	3.1	214,321
2010	164,005	56.0	121,817	41.6	3,106	1.1	3,778	1.3	292,706
2011	15,333	44.9	15,527	45.5	2,424	7.1	839	2.5	34,123
2012	303,216	64.6	159,003	33.9	3,376	0.7	4,003	0.9	469,598
2013	30,605	63.4	14,671	30.4	1,014	2.1	1,985	4.1	48,275
2014	417,344	64.9	213,616	33.2	4,331	0.7	7,695	1.2	642,986
2015	21,653	45.1	22,983	47.9	1,175	2.4	2,193	4.6	48,004
2016	268,908	70.3	103,503	27.1	2,089	0.5	7,968	2.1	382,468
2017	89,963	53.6	59,995	35.7	7,775	4.6	10,109	6.0	167,842
2018	83,535	65.8	21,822	17.2	8,294	6.5	13,272	10.5	126,923
2019	27,607	39.0	32,746	46.3	3,795	5.4	6,679	9.4	70,741
2020	293,676	85.1	11,604	3.4	12,325	3.6	27,467	8.0	345,072
2021	65,391	82.4	5,944	7.5	3,281	4.1	4,712	5.9	79,328
1970–2020 Avg[a]	185,146	48.2	133,300	36.5	9,244	3.6	46,346	11.7	374,034
2011–2020 Avg	142,217	59.7	65,547	32.1	4,660	3.4	8,221	4.9	233,603
							Odd-year average		90,009
							Even-year average		344,056

[a] Harvest data prior to 2022 reflect minor adjustments to historical catch database.

[b] 1989 was not used in averages, as the drift fleet did not fish due to the Exxon Valdez oil spill, and this influenced all other fisheries.

Appendix B5.–Upper Cook Inlet commercial chum salmon harvest by gear type and area, 1970–2021.

	Central District						Northern District		
	Drift gillnet		Upper subdistrict set		Kalgin/West side set		Set gillnet		
Year	Number[a]	%	Number[a]	%	Number[a]	%	Number[a]	%	Total
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
1987	211,745	60.6	16,733	4.8	53,771	15.4	66,901	19.2	349,150
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	289,521	82.4	4,611	1.3	21,355	6.1	35,710	10.2	351,197
1991	215,476	76.9	2,387	0.9	22,974	8.2	39,393	14.1	280,230
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	13,826	2.6	43,667	8.2	529,428
1996	140,987	90.1	1,448	0.9	2,314	1.5	11,771	7.5	156,520

-continued-

Appendix B5.–Page 2 of 2.

	Central District						Northern District		
	Drift gillnet		Upper subdistrict set		Kalgin/West side set		Set gillnet		
Year	Number[a]	%	Number[a]	%	Number[a]	%	Number[a]	%	Total
1997	92,163	89.4	1,222	1.2	1,770	1.7	7,881	7.6	103,036
1998	88,080	92.0	688	0.7	2,953	3.1	3,983	4.2	95,704
1999	166,612	95.5	373	0.2	3,567	2.0	4,002	2.3	174,554
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	137,041	93.8	2,019	1.4	4,957	3.4	2,148	1.5	146,165
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	433	0.9	2,243	4.5	1,629	3.2	50,315
2009	77,073	93.1	319	0.4	2,339	2.8	3,080	3.7	82,811
2010	216,977	94.8	3,035	1.3	4,947	2.2	3,904	1.7	228,863
2011	111,082	85.8	1,612	1.2	9,995	7.7	6,718	5.2	129,407
2012	264,513	98.1	49	0.0	2,872	1.1	2,299	0.9	269,733
2013	132,172	94.8	102	0.1	4,854	3.5	2,237	1.6	139,365
2014	108,345	93.3	548	0.5	4,828	4.2	2,406	2.1	116,127
2015	252,331	91.4	2,248	0.8	15,312	5.5	6,069	2.2	275,960
2016	113,258	91.6	1,203	1.0	6,050	4.9	3,168	2.6	123,679
2017	232,501	95.4	601	0.2	5,684	2.3	4,814	2.0	243,600
2018	108,216	93.8	78	0.1	2,924	2.5	4,148	3.6	115,366
2019	112,518	87.1	528	0.4	9,006	7.0	7,124	5.5	129,176
2020	25,223	86.3	31	0.1	1,841	6.3	2,122	7.3	29,217
2021	65,391	93.1	50	0.1	2,142	3.0	2,659	3.8	70,242
1970–2020 Avg[b]	337,425	88.8	2,283	0.8	17,461	4.6	20,996	5.8	378,165
2011–2020 Avg	146,016	91.8	700	0.4	6,337	4.5	4,111	3.3	157,163

[a] Harvest data prior to 2021 reflect minor adjustments to historical catch database.

[b] 1989 was not used in averages, as the drift fleet did not fish due to the Exxon Valdez oil spill, and this influenced all other fisheries.

Appendix B6.–Upper Cook Inlet commercial salmon harvest by species, 1970–2021.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1970	8,336	732,605	275,399	814,895	776,229	2,607,464
1971	19,765	636,303	100,636	35,624	327,029	1,119,357
1972	16,086	879,824	80,933	628,574	630,103	2,235,520
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	684,752	227,379	336,333	951,796	2,205,047
1976	10,865	1,664,150	208,695	1,256,728	469,802	3,610,240
1977	14,790	2,052,291	192,599	553,855	1,233,722	4,047,257
1978	17,299	2,621,421	219,193	1,688,442	571,779	5,118,134
1979	13,738	924,415	265,166	72,982	650,357	1,926,658
1980	13,798	1,573,597	271,418	1,786,430	389,675	4,034,918
1981	12,240	1,439,277	484,411	127,164	833,542	2,896,634
1982	20,870	3,259,864	793,937	790,648	1,433,866	6,299,185
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	39,256	4,792,072	757,353	1,300,958	1,134,817	8,024,456
1987	39,440	9,469,248	449,750	109,389	349,150	10,416,977
1988	29,080	6,843,833	561,048	471,080	710,615	8,615,656
1989	26,738	5,011,159	339,931	67,443	122,051	5,567,322
1990	16,105	3,604,710	501,739	603,630	351,197	5,077,381
1991	13,542	2,178,797	426,498	14,663	280,230	2,913,730
1992	17,171	9,108,353	468,930	695,861	274,303	10,564,618
1993	18,871	4,755,344	306,882	100,934	122,770	5,304,801
1994	19,962	3,565,609	583,793	523,434	303,177	4,995,975
1995	17,893	2,952,096	447,130	133,578	529,428	4,080,125
1996	14,306	3,888,922	321,668	242,911	156,520	4,624,327

-continued-

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1997	13,292	4,176,995	152,408	70,945	103,036	4,516,676
1998	8,124	1,219,517	160,688	551,737	95,704	2,035,770
1999	14,383	2,680,518	126,105	16,176	174,554	3,011,736
2000	7,350	1,322,482	236,871	146,482	127,069	1,840,254
2001	9,295	1,826,851	113,311	72,560	84,494	2,106,511
2002	12,714	2,773,118	246,281	446,960	237,949	3,717,022
2003	18,503	3,476,161	101,756	48,789	120,767	3,765,976
2004	26,922	4,927,084	311,058	357,939	146,165	5,769,168
2005	27,667	5,238,699	224,657	48,419	69,740	5,609,182
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	13,333	2,380,135	171,869	169,368	50,315	2,785,020
2009	8,750	2,045,794	153,210	214,321	82,811	2,504,883
2010	9,900	2,828,342	207,350	292,706	228,863	3,567,161
2011	11,248	5,277,995	95,291	34,123	129,407	5,548,064
2012	2,527	3,133,839	106,775	469,598	269,733	3,982,472
2013	5,398	2,683,224	260,963	48,275	139,365	3,137,225
2014	4,660	2,344,034	137,419	642,986	116,127	3,245,226
2015	10,798	2,649,667	216,032	48,004	275,960	3,200,461
2016	10,027	2,396,943	147,495	382,468	123,679	3,060,612
2017	7,660	1,849,243	303,642	167,842	243,600	2,571,987
2018	3,405	817,895	232,290	126,923	115,366	1,295,879
2019	3,148	1,720,295	163,859	70,741	129,176	2,087,219
2020	3,008	695,754	139,240	345,072	29,217	1,212,291
2021	3,973	1,410,842	147,602	81,360	70,242	1,714,019
1970–2020 Avg[a]	14,251	2,879,715	284,928	383,944	386,946	3,949,784
2011–2020 Avg	6,188	2,356,889	180,301	233,603	157,163	2,934,144

Note: Catch statistics prior to 2021 reflect minor adjustments to harvest database.

[a] 1989 was not used in averages, as the drift fleet did not fish due to the Exxon Valdez oil spill, and this influenced all other fisheries.

Appendix B7.–Approximate exvessel value of Upper Cook Inlet commercial salmon harvest by species, 1970–2021.

Year	Chinook	%	Sockeye	%	Coho	%	Pink	%	Chum	%	Total
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
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

-continued-

Appendix B7. Page 2 of 2.

Year	Chinook	%	Sockeye	%	Coho	%	Pink	%	Chum	%	Total
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	$343,545	1.6	$20,029,356	95.5	$331,342	1.6	$6,011	0.0	$265,460	1.3	$20,975,713
2000	$183,400	2.3	$7,104,456	87.2	$626,032	7.7	$47,075	0.6	$186,344	2.3	$8,147,307
2001	$169,593	2.2	$7,134,560	92.3	$297,387	3.8	$20,313	0.3	$111,028	1.4	$7,732,881
2002	$326,077	2.8	$10,679,780	91.7	$329,198	2.8	$84,859	0.7	$224,011	1.9	$11,643,925
2003	$358,886	2.8	$12,275,919	95.3	$132,059	1.0	$8,663	0.1	$99,783	0.8	$12,875,310
2004	$673,088	3.3	$19,416,259	93.8	$416,071	2.0	$65,884	0.3	$129,791	0.6	$20,701,093
2005	$688,993	2.2	$30,165,827	95.2	$708,620	2.2	$12,796	0.0	$101,106	0.3	$31,677,341
2006	$617,278	4.4	$12,311,850	88.5	$679,463	4.9	$174,522	1.3	$121,265	0.9	$13,904,377
2007	$629,643	2.7	$21,916,852	93.6	$682,747	2.9	$53,029	0.2	$141,097	0.6	$23,423,367
2008	$544,042	3.3	$15,530,144	93.0	$482,298	2.9	$64,466	0.4	$75,766	0.5	$16,696,717
2009	$266,548	1.8	$13,720,051	94.1	$399,704	2.7	$71,582	0.5	$115,969	0.8	$14,573,854
2010	$359,184	1.1	$30,556,535	92.1	$1,090,191	3.3	$311,199	0.9	$851,004	2.6	$33,168,113
2011	$634,836	1.2	$51,363,720	96.7	$406,726	0.8	$27,548	0.1	$688,878	1.3	$53,121,708
2012	$121,626	0.3	$32,008,304	91.6	$480,119	1.4	$622,809	1.8	$1,723,098	4.9	$34,955,955
2013	$210,638	0.5	$37,787,069	93.9	$1,362,395	3.4	$53,754	0.1	$828,113	2.1	$40,241,970
2014	$206,119	0.6	$32,819,090	93.6	$778,672	2.2	$588,409	1.7	$687,214	2.0	$35,079,504
2015	$359,903	1.5	$22,285,338	92.2	$753,078	3.1	$39,197	0.2	$726,696	3.0	$24,164,211
2016	$491,323	2.2	$20,853,404	92.3	$557,531	2.5	$328,922	1.5	$351,248	1.6	$22,582,429
2017	$634,666	2.7	$19,711,471	82.7	$2,168,036	9.1	$89,448	0.4	$1,234,825	5.2	$23,838,446
2018	$207,901	1.7	$10,139,195	81.8	$1,367,047	11.0	$115,431	0.9	$569,659	4.6	$12,399,234
2019	$172,899	0.9	$17,131,030	93.3	$684,442	3.7	$45,667	0.2	$321,909	1.8	$18,355,947
2020	$69,730	1.4	$4,008,623	79.1	$591,193	11.7	$300,689	5.9	$96,539	1.9	$5,066,774
2021	$124,439	0.9	$12,665,469	91.3	$684,272	4.9	$63,900	0.5	$327,161	2.4	$13,865,241
Rank	47		32		32		34		35		37
N =	52		52		52		52		52		52
2011–2020 average	$310,964		$24,810,724		$914,924		$221,188		$722,818		$26,980,618
10 previous odd years average							$42,200				
10 previous even years average							$240,358				

Appendix B8.–Commercial herring harvest by fishery, Upper Cook Inlet, 1978–2021.

	Harvest (tons[a])				
Year	Upper subdistrict	Chinitna Bay	Tuxedni Bay	Kalgin Island	Total
1978	8	55	0	0	64
1979	67	96	25	0	188
1980	37	20	87	0	144
1981	86	51	85	0	222
1982	60	92	50	0	202
1983	165	49	238	0	453
1984	118	91	159	0	367
1985	136	46	216	0	398
1986	143	111	192	0	446
1987	126	65	153	0	344
1988	51	23	14	0	88
1989	55	122	34	0	212
1990	55	56	16	0	127
1991	13	16	2	0	31
1992	25	10	0	0	35
1993	0	0	0	0	0
1994	0	0	0	0	0
1995	0	0	0	0	0
1996	0	0	0	0	0
1997	0	0	0	0	0
1998	20	0	0	0	19
1999	10	0	0	0	10
2000	15	0	0	0	16
2001	10	0	0	0	10
2002	16	2	0	0	18
2003	4	0	0	0	4
2004	7	0	0	0	7
2005	17	0	0	0	17
2006	14	0	0	0	14
2007	13	0	0	0	13
2008	13	0	0	0	13
2009	9	0	0	0	9
2010	16	0	0	0	17
2011	14	2	0	0	16
2012	17	7	0	0	24
2013	30	6	0	0	36
2014	29	0	0	0	29
2015	25	2	0	0	26
2016	23	0	0	0	23
2017	28	0	0	0	28
2018	18	0	0	0	18
2019	34	0	0	0	34
2020	38	0	0	0	38
2021	44	0	0	0	44

[a] Tons = short tons = 2,000 lb or 907.2 kg.

Appendix B9.–Commercial harvest of razor clams in Upper Cook Inlet, 1920–2021.

Year	Pounds	Year	Pounds
1920	11,952	1972	31,360
1921	72,000	1973	34,415
1922	510,432	1974	0
1923	470,280	1975	10,020
1924	156,768	1976	0
1925	0	1977	1,762
1926	0	1978	45,931
1927	25,248	1979	144,358
1928	0	1980	140,420
1929	0	1981	441,949
1930	0	1982	460,639
1931	ND	1983	269,618
1932	93,840	1984	261,742
1933	ND	1985	319,034
1934	ND	1986	258,632
1935	ND	1987	312,349
1936	ND	1988	399,376
1937	8,328	1989	222,747
1938	ND	1990	323,602
1939	ND	1991	201,320
1940	ND	1992	296,727
1941	0	1993	310,481
1942	0	1994	355,165
1943	0	1995	248,358
1944	0	1996	355,448
1945	15,000	1997	366,532
1946	11,424	1998	371,877
1947	11,976	1999	352,910
1948	2,160	2000	369,397
1949	9,672	2001	348,917
1950	304,073	2002	338,938
1951	112,320	2003	411,403
1952	0	2004	419,697
1953	0	2005	371,395
1954	0	2006	368,953
1955	0	2007	283,085
1956	0	2008	390,999
1957	0	2009	361,388
1958	0	2010	379,547
1959	0	2011	189,172
1960	372,872	2012	307,409
1961	277,830	2013	380,912
1962	195,650	2014	348,294
1963	0	2015	318,538
1964	0	2016	284,800
1965	0	2017	177,147
1966	0	2018	199,162
1967	0	2019	137,530
1968	0	2020	ND*
1969	0	2021	ND*
1970	0	ND	ND
2010–2019 Average:	272,251		

Note: ND = no data. *= No fishery occurred due to logistics

Appendix B10.–Abundance goals and estimates of sockeye salmon in selected streams, 1978–2021.

	Kenai River		Kasilof River		Fish Creek	
Year	Abundance goal[a]	Abundance estimate[b,c]	Abundance goal	Abundance estimate[b,c]	Abundance goal	Abundance estimate[c]
1978	350,000–500,000	398,900	75,000–150,000	116,600	-	3,555
1979	350,000–500,000	285,020	75,000–150,000	152,179	-	68,739
1980	350,000–500,000	464,038	75,000–150,000	184,260	-	62,828
1981	350,000–500,000	407,639	75,000–150,000	256,625	-	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
2009	650,000–850,000	745,170	150,000–250,000	297,125	20,000–70,000	83,477
2010	750,000–950,000	970,662	150,000–250,000	267,013	20,000–70,000	126,829
2011	1,100,000–1,350,000	1,599,217	160,000–390,000	245,721	20,000–70,000	66,678
2012	1,100,000–1,350,000	1,581,555	160,000–390,000	374,523	20,000–70,000	18,813
2013	1,000,000–1,200,000	1,359,893	160,000–390,000	489,654	20,000–70,000	18,912
2014	1,000,000–1,200,000	1,520,340	160,000–340,000	439,977	20,000–70,000	43,915
2015	1,000,000–1,200,000	1,704,767	160,000–340,000	470,677	20,000–70,000	102,296
2016	1,100,000–1,350,000	1,383,692	160,000–340,000	239,981	20,000–70,000	46,202
2017	1,000,000–1,300,000	1,308,498	160,000–340,000	358,724	15,000–45,000	61,469
2018	900,000–1,100,000	1,035,761	160,000–340,000	394,309	15,000–45,000	71,556
2019	1,000,000–1,300,000	1,849,054	160,000–340,000	378,416	15,000–45,000	76,031
2020	1,000,000–1,200,000	1,714,565	140,000–320,000	545,654	15,000–45,000	64,234
2021	1,000,000–1,200,000	2,441,825	140,000–320,000	521,859	15,000–45,000	ND

-continued-

Appendix B10.–Page 2 of 3.

Year	Larson		Chelatna		Judd	
	Abundance goal	Abundance estimate[c]	Abundance goal	Abundance estimate[c]	Abundance goal	Abundance estimate[c]
1978	-	-	-	-	-	-
1979	-	-	-	-	-	-
1980	-	-	-	-	-	-
1981	-	-	-	-	-	-
1982	-	-	-	-	-	-
1983	-	-	-	-	-	-
1984	-	35,252	-	-	-	-
1985	-	37,874	-	-	-	-
1986	-	32,322	-	-	-	-
1987	-	16,748	-	-	-	-
1988	-	-	-	-	-	-
1989	-	-	-	-	-	12,792
1990	-	-	-	-	-	-
1991	-	-	-	-	-	-
1992	-	-	-	-	-	-
1993	-	-	-	20,235	-	-
1994	-	-	-	28,303	-	-
1995	-	-	-	20,104	-	-
1996	-	-	-	-	-	-
1997	-	40,282	-	-	-	-
1998	-	63,514	-	-	-	34,416
1999	-	18,943	-	-	-	-
2000	-	11,987	-	-	-	-
2001	-		-	-	-	-
2002	-		-	-	-	-
2003	-		-	-	-	-
2004	-		-	-	-	-
2005	-	9,955	-	-	-	-
2006	-	57,411	-	-	-	40,633
2007	-	47,924	-	-	-	57,251
2008	-	34,595	-	74,469	-	53,681
2009	15,000–50,000	40,933	20,000–65,000	17,703	25,000–55,000	44,616
2010	15,000–50,000	20,324	20,000–65,000	37,784	25,000–55,000	18,446
2011	15,000–50,000	12,190	20,000–65,000	70,353	25,000–55,000	39,984
2012	15,000–50,000	16,566	20,000–65,000	36,736	25,000–55,000	18,715
2013	15,000–50,000	21,821	20,000–65,000	70,555	25,000–55,000	14,088
2014	15,000–50,000	12,040	20,000–65,000	26,212	25,000–55,000	22,416
2015	15,000–50,000	23,176	20,000–65,000	69,897	25,000–55,000	47,934
2016	15,000–50,000	14,313	20,000–65,000	67,836	25,000–55,000	-
2017	15,000–35,000	31,866	20,000–45,000	26,986	15,000–40,000	35,731
2018	15,000–35,000	23,444	20,000–45,000	20,437	15,000–40,000	30,844
2019	15,000–35,000	9,699	20,000–45,000	26,303	15,000–40,000	44,145
2020	15,000–35,000	12,018	20,000–45,000	-	15,000–40,000	31,220
2021	15,000–35,000	21,987	20,000–45,000	-	15,000–40,000	49,250

-continued-

Year	Yentna River		Crescent River		Packers Creek	
	Abundance goal	Abundance estimate[d]	Abundance goal	Abundance estimate[c]	Abundance goal	Abundance estimate[c,e]
1978	-	-	-	-	-	-
1979	-	-	-	-	-	-
1980	100,000	-	50,000	90,863	-	16,477
1981	100,000	139,401	50,000	41,213	-	13,024
1982	100,000	113,847	50,000	58,957	-	15,687
1983	100,000	104,414	50,000	92,122	-	18,403
1984	100,000	149,375	50,000	118,345	-	30,684
1985	100,000	107,124	50,000	128,628	-	36,850
1986	100,000–150,000	92,076	50,000	20,385[f]	-	29,604
1987	100,000–150,000	66,054	50,000–100,000	120,219	15,000–25,000	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	-
2002	90,000–160,000	78,591	25,000–50,000	62,833	15,000–30,000	-
2003	90,000–160,000	180,813	25,000–50,000	122,457	15,000–30,000	-
2004	90,000–160,000	71,281	25,000–50,000	103,201	15,000–30,000	-
2005	75,000–180,000	36,921	30,000–70,000	125,623	-	22,000[e]
2006	90,000–160,000	92,896	30,000–70,000	92,533	-	-
2007	90,000–160,000	79,901	30,000–70,000	79,406	15,000–30,000	46,637
2008	90,000–160,000	90,146	30,000–70,000	90,684	15,000–30,000	25,247
2009	-[e]	-[e]	30,000–70,000	-	15,000–30,000	16,473[e]
2010	-[e]	-[e]	30,000–70,000	86,333	15,000–30,000	-
2011	-[e]	-[e]	30,000–70,000	81,952	15,000–30,000	-
2012	-[e]	-[e]	30,000–70,000	58,838	15,000–30,000	-
2013	-[e]	-[e]	30,000–70,000	ND	15,000–30,000	-
2014	-[e]	-[e]	30,000–70,000	ND	15,000–30,000	19,242[e]
2015	-[e]	-[e]	30,000–70,000	ND	15,000–30,000	28,072[e]
2016	-[e]	-[e]	30,000–70,000	ND	15,000–30,000	-
2017	-[e]	-[e]	30,000–70,000	ND	15,000–30,000	17,106[e]
2018	-[e]	-[e]	30,000–70,000	ND	15,000–30,000	16,271[e]
2019	-[e]	-[e]	30,000–70,000	ND	15,000–30,000	7,719[e]
2020	-[e]	-[e]	30,000–70,000	ND	15,000–30,000	15,903[e]
2021	-[e]	-[e]	30,000–70,000	ND	15,000–30,000	19,975

Note: ND = no data; "-" = incomplete count.

[a] Inriver goal.

[b] From 1978 to 2010, enumeration estimates, and goals prior were in BENDIX units; 2011 through 2021 are in DIDSON units.

[c] Enumeration estimates prior to 2021 reflect minor adjustments to the escapement database.

[d] Yentna River SEG replaced with lake goals at Judd, Chelatna, and Larson Lakes.

[e] Estimates via remote camera; an unknown number of salmon escaped into the lake after camera malfunction or removal.

Appendix B11.–Average price per pound paid for commercially harvested salmon as determined by Commercial Fisheries Entry Commission (CFEC), Upper Cook Inlet, 1975–2021.

Year	Chinook	Sockeye	Coho	Pink	Chum
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
2009	$1.75	$1.10	$0.40	$0.10	$0.20
2010	$1.75	$1.75	$0.80	$0.25	$0.55
2011	$2.80	$1.50	$0.75	$0.25	$0.80
2012	$2.80	$1.50	$0.75	$0.35	$0.80
2013	$2.80	$2.25	$0.85	$0.35	$0.80
2014	$2.80	$2.25	$0.90	$0.25	$0.80
2015	$2.00	$1.60	$0.60	$0.25	$0.40
2016	$2.50	$1.50	$0.60	$0.20	$0.40
2017	$3.78	$1.86	$1.14	$0.15	$0.62
2018	$3.27	$2.04	$0.94	$0.25	$0.68
2019	$3.43	$1.80	$0.74	$0.21	$0.37
2020	$3.57	$1.24	$0.87	$0.25	$0.46
2021	$2.59	$1.74	$0.83	$0.23	$0.65
2011–2020 Average	$2.98	$1.75	$0.81	$0.25	$0.61

Appendix B12.–Average weight (in pounds) of commercially harvested salmon, Upper Cook Inlet, 1975–2021.

Year	Chinook	Sockeye	Coho	Pink	Chum
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	7.0	3.7	7.7
1989	24.1	6.6	6.6	3.2	7.2
1990	22.6	6.4	6.4	3.4	7.1
1991	21.5	5.6	6.1	3.1	6.6
1992	23.6	6.6	6.4	3.9	6.7
1993	25.8	5.9	5.9	3.0	5.7
1994	31.6	5.7	7.1	3.9	6.9
1995	25.5	5.6	6.4	3.3	7.2
1996	28.3	6.3	6.2	3.7	7.6
1997	27.6	6.5	6.3	3.4	7.3
1998	22.8	5.5	6.9	3.8	7.3
1999	23.9	5.7	5.8	3.1	8.0
2000	22.7	6.3	6.6	3.6	7.7
2001	18.2	6.0	6.6	3.5	6.9
2002	22.3	6.4	6.7	3.8	7.8
2003	20.4	5.9	6.5	3.6	6.9
2004	25.0	6.1	6.7	3.7	7.4
2005	24.9	6.1	6.3	3.3	7.2
2006	19.6	5.1	6.4	4.3	7.6
2007	20.4	6.3	6.4	3.6	7.3
2008	23.3	5.9	7.0	3.8	7.5
2009	17.4	6.1	6.5	3.3	7.0
2010	20.7	6.2	6.6	4.3	6.8
2011	20.2	6.5	5.7	3.2	6.7
2012	17.2	6.8	6.0	3.8	8.0
2013	13.9	6.3	6.1	3.2	7.4
2014	15.8	6.2	6.3	3.7	7.4
2015	16.7	5.3	5.8	3.3	6.6
2016	19.6	5.8	6.3	4.3	7.1
2017	21.9	5.7	6.3	3.6	8.2
2018	13.8	5.2	6.3	3.8	8.3
2019	16.0	5.5	5.6	3.1	6.7
2020	12.3	5.0	5.9	3.7	7.8
2021	12.1	5.2	5.6	3.4	7.2
2011–2020 Average	16.7	5.8	6.0	3.6	7.4
1975–2020 Average	23.2	6.1	6.4	3.6	7.4

Appendix B13.–Registered active units of gillnet fishing effort by gear type in Cook Inlet, 1975–2021.

	Drift gillnet			Set gillnet			
Year	Resident	Nonresident	Subtotal	Resident	Nonresident	Subtotal	Total
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	616	123	739	1,310
2005	404	167	571	609	128	737	1,308
2006	400	169	570	614	124	738	1,308
2007	400	171	571	609	129	738	1,309
2008	405	166	571	613	125	738	1,309
2009	401	169	570	608	130	738	1,308
2010	407	162	569	604	132	736	1,305
2011	409	160	569	609	127	736	1,305
2012	410	159	569	620	116	736	1,305
2013	409	160	569	624	112	736	1,305
2014	414	155	569	623	112	735	1,304
2015	408	160	568	624	110	734	1,302
2016	409	159	568	613	122	735	1,303
2017	417	152	569	619	116	735	1,304
2018	421	147	568	614	121	735	1,303
2019	418	149	567	616	117	733	1,300
2020	421	146	567	613	119	732	1,299
2021	419	148	567	616	114	730	

Source: Commercial Fisheries Entry Commission (https://www.cfec.state.ak.us/fishery_statistics/permits.htm).

Appendix B14.–Forecast and projected harvests of salmon by species, Upper Cook Inlet, 1990–2021.

	Sockeye			Coho			Pink			Chum			Chinook		
Year	Forecast[a]	Actual[b]	Error	Projected[c]	Actual[c,d]	Error	Projected	Actual[c,d]	Error	Projected	Actual[c,d]	Error	Projected	Actual[c,d]	Error
1990	4,300,000	3,822,864	-12%	250,000	501,739	50%	600,000	603,630	1%	400,000	351,197	-14%	25,000	16,105	-55%
1991	3,200,000	2,472,589	-29%	400,000	426,498	6%	90,000	14,663	-514%	500,000	280,230	-78%	20,000	13,542	-48%
1992	3,600,000	9,502,392	62%	400,000	468,930	15%	400,000	695,861	43%	350,000	274,303	-28%	20,000	17,171	-16%
1993	2,500,000	5,042,799	50%	450,000	306,882	-47%	25,000	100,934	75%	350,000	122,770	-185%	15,000	18,871	21%
1994	2,000,000	3,826,508	48%	400,000	583,793	31%	600,000	523,434	-15%	250,000	303,177	18%	15,000	19,962	25%
1995	2,700,000	3,224,087	16%	400,000	447,130	11%	100,000	133,578	25%	250,000	529,428	53%	15,000	17,893	16%
1996	3,300,000	4,262,377	23%	400,000	321,668	-24%	600,000	242,911	-147%	350,000	156,520	-124%	15,000	14,306	-5%
1997	5,300,000	4,546,125	-17%	400,000	152,408	-162%	100,000	70,945	-41%	250,000	103,036	-143%	15,000	13,292	-13%
1998	2,500,000	1,619,119	-54%	300,000	160,688	-87%	300,000	551,737	46%	200,000	95,704	-109%	17,000	8,124	-109%
1999	2,000,000	3,164,355	37%	300,000	126,105	-138%	75,000	16,176	-364%	200,000	174,554	-15%	16,000	14,383	-11%
2000	3,000,000	1,778,547	-69%	150,000	236,871	37%	500,000	146,482	-241%	200,000	127,069	-57%	15,000	7,350	-104%
2001	2,700,000	2,304,670	-17%	300,000	113,311	-165%	50,000	72,560	31%	250,000	84,494	-196%	13,000	9,295	-40%
2002	2,200,000	3,356,572	34%	160,000	246,281	35%	170,000	446,960	62%	120,000	237,949	50%	10,000	12,714	21%
2003	2,400,000	4,145,981	42%	170,000	101,756	-67%	80,000	48,789	-64%	140,000	120,767	-16%	10,000	18,503	46%
2004	3,700,000	5,639,628	34%	160,000	311,058	49%	380,000	357,939	-6%	150,000	146,165	-3%	10,000	26,922	63%
2005	4,100,000	5,962,572	31%	200,000	224,657	11%	70,000	48,419	-45%	140,000	69,740	-101%	10,000	27,667	64%
2006	2,100,000	2,653,446	21%	200,000	177,853	-12%	350,000	404,111	13%	140,000	64,033	-119%	20,000	18,029	-11%
2007	3,300,000	4,044,832	18%	210,000	177,339	-18%	50,000	147,020	66%	130,000	77,240	-68%	20,000	17,625	-13%
2008	3,900,000	3,005,299	-30%	200,000	171,869	-16%	380,000	169,368	-124%	100,000	50,315	-99%	20,000	13,333	-50%
2009	3,000,000	2,842,335	-6%	210,000	153,210	-37%	70,000	214,321	67%	80,000	82,808	3%	20,000	8,750	-129%
2010	2,300,000	3,695,633	38%	179,000	207,350	14%	305,000	292,706	-4%	70,000	228,863	69%	17,000	9,900	-72%
2011	4,600,000	6,359,116	28%	178,000	95,291	-87%	106,000	34,123	-211%	101,000	129,407	22%	14,000	11,248	-24%
2012	4,400,000	4,271,018	-3%	159,000	106,775	-49%	334,000	469,598	29%	113,000	269,733	58%	12,000	2,527	-375%
2013	4,900,000	3,639,862	-35%	147,000	260,963	44%	99,000	48,275	-105%	152,000	139,365	-9%	9,000	5,398	-67%
2014	4,300,000	3,329,970	-29%	165,000	137,376	-20%	338,000	642,879	47%	170,000	116,093	-46%	7,600	4,660	-63%
2015	3,700,000	3,685,160	0%	161,000	216,032	25%	98,000	48,004	-104%	176,000	275,960	36%	6,700	10,798	38%
2016	5,300,000	3,342,183	-59%	160,000	147,469	-8%	393,000	382,436	-3%	184,000	123,711	-49%	6,700	10,027	33%
2017	2,600,000	2,622,292	1%	167,000	303,642	45%	98,000	167,842	42%	184,000	243,600	24%	6,300	7,660	18%
2018	2,600,000	1,116,107	-133%	203,000	232,290	13%	389,000	126,923	-206%	177,000	115,366	-53%	7,400	3,405	-117%
2019	3,000,000	1,720,559	-74%	207,000	163,863	-26%	103,000	70,827	-45%	175,000	129,176	-35%	7,300	3,149	-132%
2020	2,300,000	695,754	-231%	203,000	139,240	-46%	74,000	345,072	79%	175,000	29,217	-499%	6,900	3,008	-129%
2021	1,600,000	1,410,842	-13%	191,000	147,602	-29%	74,000	81,360		127,000	70,242	-81%	5,390	3,973	-36%
Avg.	3,231,250	3,534,550	-10%	243,125	236,498	-20%	231,281	241,246	-52%	198,563	166,320	-56%	13,353	12,175	-40%

[a] 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.

[b] Sockeye salmon harvest estimates include, commercial, sport, personal use, and educational fisheries.

[c] Commercial fishery harvest projections are prepared using subjective estimates of parent-year escapements, gross trends in harvest, and expected intensity of fishery.

[d] Actual harvests prior to 2021 reflect minor adjustments to the harvest database.

Appendix B15.–Upper Cook Inlet subsistence and or personal use fishery salmon harvests (1990–2021 for Tyonek, 1996–2021 for Yentna).

Tyonek subsistence fishery								
	No. of permits							
Year	Issued	Returned	Chinook	Sockeye	Coho	Pink	Chum	Total
1990	42	37	886	75	400	14	23	1,397
1991	57	54	925	20	69	0	0	1,014
1992	57	44	1,170	96	294	24	9	1,594
1993	62	54	1,566	68	88	25	23	1,769
1994	58	49	905	101	122	27	0	1,154
1995	70	55	1,632	54	186	18	0	1,891
1996	73	49	1,615	88	177	9	27	1,917
1997	70	42	1,051	200	241	13	0	1,505
1998	74	49	1,430	251	97	3	2	1,783
1999	77	54	1,620	247	175	20	66	2,127
2000	60	47	1,461	78	103	0	8	1,649
2001	84	58	1,450	254	72	9	6	1,790
2002	101	71	1,609	314	162	6	14	2,106
2003	87	74	1,384	136	54	12	9	1,595
2004	97	75	1,751	121	168	0	0	2,040
2005	78	67	1,183	65	159	2	0	1,409
2006	82	55	1,366	32	23	1	0	1,422
2007	84	67	1,526	249	164	3	4	1,946
2008	94	77	1,492	146	227	11	16	1,892
2009	89	69	817	229	320	2	1	1,369
2010	105	77	1,116	281	223	3	3	1,626
2011	114	63	851	202	34	10	10	1,107
2012	89	69	1,102	223	174	3	5	1,507
2013	82	48	1,352	278	311	0	32	1,973
2014	92	73	896	487	575	15	5	1,978
2015	83	72	1,070	505	568	16	6	2,165
2016	74	64	1,030	188	225	8	12	1,462
2017	74	47	1,284	457	265	32	6	2,045
2018	65	22	1,413	217	154	10	11	1,805
2019	67	38	1,132	232	75	6	17	1,462
2020	54	15	1,342	164	423	0	0	1,929
2021	47	10	1,022	93	89	0	0	1,204

-continued-

Appendix B15.–Page 2 of 2.

Yentna subsistence fishery								
	No. of permits							
Year	Issued	Returned	Chinook	Sockeye	Coho	Pink	Chum	Total
Personal use								
1996	17	14	0	242	46	115	51	454
1997	24	21	0	549	83	30	10	672
Subsistence								
1998	21	18	0	495	113	30	15	653
1999	18	16	0	516	48	18	13	595
2000	19	19	0	379	92	4	7	482
2001	16	15	0	545	50	10	4	609
2002	25	22	0	454	133	14	31	632
2003	19	15	0	553	67	2	8	630
2004	21	19	0	441	146	36	3	626
2005	18	17	0	177	42	24	25	268
2006	22	22	0	368	175	14	26	583
2007	22	22	0	367	66	17	18	468
2008	16	16	0	310	57	23	7	397
2009	17	17	0	253	14	0	6	273
2010	32	32	0	642	50	38	18	748
2011	25	25	0	598	90	337	21	1,046
2012	21	21	0	279	24	21	19	343
2013	22	19	0	160	92	128	32	412
2014	20	18	0	328	84	17	32	461
2015	29	27	0	578	151	47	69	845
2016	26	25	0	514	204	36	37	791
2017	26	26	0	454	185	47	10	696
2018	29	29	16	405	167	8	10	606
2019	24	22	0	476	107	40	18	641
2020	24	24	5	393	155	18	16	587
2021	25	25	13	549	186	5	11	712

Appendix B16.–Upper Cook Inlet educational fisheries salmon harvest, 2021.

Year	Fishery[a]	Chinook	Sockeye	Coho	Pink	Chum	Total
2021	Kenaitze	0	10,758	568	0	0	11,326
	NTC	70	377	57	18	2	524
	NND	39	121	56	5	0	221
	NES	ND	ND	ND	ND	ND	0
	APVFW	0	48	24	3	0	75
	Sons of American Legion	0	4	11	0	0	15
	Kasilof Regional HA	0	0	44	0	0	44
	SCF	ND	ND	ND	ND	ND	0
	Knik Tribal Council	0	98	48	15	54	215
	Big Lake	ND	ND	ND	ND	ND	0
	Native Village of Eklutna	0	157	57	6	17	237
	Territorial Homestead Lodge	0	100	45	34	1	180
	Total	109	11,663	910	81	74	12,837

Note: ND = no data.

[a] Kenaitze = Kenaitze Tribal Group; NTC = Ninilchik Traditional Council; NND = Ninilchik Native Descendants; NES = Ninilchik Emergency Services; APVFW = Anchor Point Veterans of Foreign Wars; Sons of American Legion = Homer Sons of the American Legion Post 16; Kasilof Regional HA = Kasilof Regional Historical Association; SCF = Southcentral Foundation; Knik = Knik Tribal Council; Eklutna = Native Village of Eklutna; Territorial Homestead Lodge = Alaska's Territorial Homestead Lodge, operated by Tim O'Brien.

Appendix B17.–Effort and harvest in Upper Cook Inlet personal use set gillnet salmon fishery, 1996–2021.

		Kasilof River gillnet													
	Days	Days fished		Sockeye		Chinook		Coho		Pink		Chum		Total	
Year	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	1,570	7	14,943	66	343	3	68	4	2	0	0	0	15,356	66
2008	10	1,534	7	23,432	107	151	2	65	3	35	4	23	3	23,706	107
2009	10	1,761	9	26,646	167	127	2	165	0	14	1	11	2	26,963	167
2010	10	1,855	13	21,924	170	136	3	23	5	23	5	1	0	22,106	170
2011	10	1,846	16	26,780	244	167	4	47	10	23	1	3	0	27,020	244
2012	10	1,696	21	15,638	197	103	3	161	19	53	19	15	1	15,969	199
2013	5	1,082	13	14,439	187	46	2	129	32	3	0	5	1	14,621	187
2014	10	1,386	17	22,567	302	50	2	30	10	105	44	18	0	22,770	306
2015	10	1,741	22	27,567	339	61	3	191	41	20	5	2	1	27,841	341
2016	10	1,963	23	26,539	342	141	3	23	0	5	0	23	1	26,731	342
2017	10	1,874	27	21,927	309	118	4	5	1	48	8	43	9	22,141	309
2018	10	1,616	51	14,390	485	120	10	2	0	22	13	5	0	14,539	485
2019	10	1,534	74	15,864	712	131	10	19	0	84	57	16	0	16,114	715
2020	10	1,410	66	14,656	629	75	7	1	0	62	53	23	0	14,901	631
2021	10	1,173	31	18,212	595	94	7	17	15	157	35	17	15	18,497	597
1996–2020 Mean	9	1,425		19,607		171		76		29		10		19,896	
1996–2020 Max.	13	1,963		28,867		514		420		105		43		29,591	
1996–2020 Min.	5	582		9,506		46		0		2		0		9,561	