

**Fishery Management Report No. 22-12**

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**Upper Cook Inlet Commercial Fisheries Annual  
Management Report, 2020**

by

**Brian Marston**

and

**Alyssa Frothingham**

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July 2022

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries





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MANAGEMENT REPORT, 2020**

by

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## ABSTRACT

This annual management report describes commercial fishery management in the Upper Cook Inlet (UCI) of South-Central Alaska. The UCI commercial fishery management area is made up of salt waters north of Anchor Point consisting of 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 *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 targeted in the Central District, and eulachon are only harvested in the Northern District. The total UCI sockeye salmon run estimate in 2020 of 4.31 million was 1% higher than the preseason forecast of 4.27 million fish. The commercial harvest of 1.2 million salmon was approximately 70% less than the 1970–2019 long-term average annual harvest of 4 million, and the sockeye salmon harvest of 696,000 was 76% less than the 1970–2019 long-term average annual harvest of 2.9 million fish. The 2020 exvessel value of the harvest of all salmon was \$5.1 million, which was 83% less than 2010–2019 decadal average annual exvessel value of \$30 million and approximately 81% less than the 1970–2019 long-term average annual exvessel value of \$27 million. Sockeye salmon accounted for 79% of the total exvessel value in 2020, which was lower than the 2010–2019 decadal average of 91%, and the lowest proportion exvessel value from sockeye since 1984. In 2020, 2 of 6 sockeye salmon escapement estimates were within established goal ranges, 3 of 6 exceeded goal ranges, and one system failed to reach the lower end of its goal range.

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

The Upper Cook Inlet (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 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 (Figure 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 (Figure 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*).

## SALMON

Over its 142-year history since 1878<sup>1</sup> the commercial salmon fishery in UCI waters has included many gear types with varying degrees of success, including fish traps, gillnets, and seines. Currently, set gillnets are the only gear permitted in the Northern District, whereas both set and drift gillnets are used in the Central District. 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 emergency order (EO) only. Salmon are found in drainages throughout the UCI management area, and the run timing and migration routes used by all species overlap to such a degree that commercial fisheries are mostly mixed stock and mixed species in nature.

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<sup>1</sup> 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](http://library.alaska.gov/hist/hist_docs/docs/asl_ms39_4_4.pdf) (accessed November 2021).

Detailed commercial salmon harvest statistics specific to gear type and location are available since 1970 (Appendices B1–B6). Since 1970, drift gillnets in the Central District 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). In addition to commercial fishery harvests, sockeye, Chinook, and coho salmon are also highly utilized and important economically in other fisheries of UCI (Lipka et al 2020).

## **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 Central District was harvested. In the late 1970s, harvest included small-scale sac roe fisheries in Chinitna and Tuxedni bays (Figure 1, Appendix B8). Beginning in 1988, large decreases in herring abundance were observed in addition to changes in age structure in most harvest areas. As a result of these observations of widespread decline, the Alaska Department of Fish and Game (ADF&G) and The Alaska Board of Fisheries (BOF) initiated regulatory changes to close the UCI fisheries and provide time for herring stocks to recover. By 1997, some improvement in herring stock biomass was observed in Chinitna Bay (Shields 2005) and limited harvest was allowed. Subsequently, in 1999 the Central District Herring Recovery Management Plan was created. This plan limited herring fishing in UCI to the waters of the Upper, Western, and Chinitna Bay subdistricts. There has been minimal participation in either fishery since they were reopened (Appendix B8), although the quota for the Upper Subdistrict has been nearly reached in the last few years. Provisions within the herring recovery management plan were further modified by the BOF after 2005 and incorporated in regulation. 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 Central District, 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 open season for the UCI herring fishery is 20 April through 31 May. This fishery is conducted with weekly 108-hour fishing periods from Monday through Friday, is opened by emergency order (EO), and is closed by subsequent EO if the harvest levels are met. The number of fish harvested must be reported to ADF&G by all participants at least weekly. Moreover, conservative guideline harvest levels have been set which 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 in the Cook Inlet area.

## **SMELT**

Smelt are commercially harvested in UCI and make up the first 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, Willette and

DeCino 2016). Smelt begin returning to spawning areas in Cook Inlet from mid-May to mid-June and return in quantities large enough to support a limited commercial fishery. Longfin smelt return to Cook Inlet in the fall but are not harvested because of the small run size and a general lack of demand. A eulachon run that is harvested commercially 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 1 October to 1 June (Shields 2005). Documented commercial harvest of smelt occurred in 1978 (300 lbs), 1980 (4,000 lbs), 1998 (18,900 lbs), and 1999 (100,000 lbs). All harvests occurred in saltwater tidal areas near the Susitna River mouth. Fisheries for smelt in UCI were closed after the 1999 season due to concerns about the role of forage fish in the ecosystem. In 2000 the BOF drafted the FFMP, and harvests resumed in 2021.

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 1 May to 30 June, 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 lat. Legal gear for the fishery is limited to a hand-operated dip net, and total harvest may not exceed 200 tons of smelt. A department report has shown the estimated biomass of eulachon in 2016 to be 48,000 tons (Willette and DeCino 2016). A Commercial Fishery Entry Commission miscellaneous finfish permit (M99B) is required, as well as a commissioner's permit, and harvesters are required to report all catches to department personnel at time of landing.

## **RAZOR CLAMS**

Commercial harvest of razor clams from UCI beaches dates to 1919 (Appendix B9). Harvest levels have fluctuated from zero to a harvest of more than 500,000 lbs. 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. Virtually all the commercial harvest has come by hand-digging, although regulations prior to 1990 allowed the use of mechanical harvesters (dredges) south of Spring Point, or within a one-mile section of the Polly Creek beach. Numerous attempts to develop feasible dredging operations were largely unsuccessful due to excessive shell breakage or the limited availability of clams in the area open to this gear. As such, mechanical means of harvest are no longer permitted in any area of Cook Inlet.

## 2020 COMMERCIAL SALMON FISHERIES

The overall harvest and value of the 2020 UCI commercial salmon fishery was well below the recent 10-year averages. The 2020 harvest of approximately 1.2 million salmon was 62% less than the 2010–2019 average annual harvest of 3.17 million fish (Appendices A9 and B6). Although all 5 species of Pacific salmon found in Alaska are present in UCI, sockeye salmon are the most valuable, accounting for nearly 91% of the total exvessel value during the past 10 years and 82% historically (Appendix B7). The 2020 estimated exvessel value for all commercially harvested salmon species was approximately \$5 million and was 83% less than the 2010–2019 average annual exvessel value of \$29.8 million. All species-specific exvessel values were below average in 2020, except for pink salmon. The 2020 pink salmon exvessel value of \$301,000 was 25% above the previous 10 even-year average of \$240,000 (Appendix B7).

Harvest success of the commercial fishery in 2020 of all salmon species in general across UCI was below average. A few exceptions to this low harvest occurred in some areas including harvests in the Northern District and western areas of the Central District. Historically small harvests occurred in the Upper Subdistrict (ESSN) and drift gillnet fisheries of the Central District, due to restrictions for low Chinook and coho salmon abundance and allocative factors. The Northern District Chinook salmon fishery occurred in 2020 after a 2-year closure, although harvest time this season was restricted to 6 hours as compared to the previous 12 hours per opening. The west side subdistricts of UCI were run with regulatory hours and no restrictions for all openings, except that additional time was allowed in the Western Subdistrict south of Redoubt Point for Crescent River sockeye salmon. For the first time in several years, no additional time was allowed in the Kalgin Island subdistrict for Packers Creek sockeye salmon when that run failed to show in sufficient numbers to allow extra time. Late in the year the run assessment did show that Packers Creek sockeye salmon escapement counts reached the SEG of 15,000–30,000.

Estimating average annual price paid per pound (lb) 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 reported here are generated from inseason prices paid on the fishing grounds and do not reflect any postseason adjustments (Appendix B11). Based on these estimated prices, the total exvessel value of the 2020 salmon fishery was approximately \$5 million (Appendix B7). The average price per lb for sockeye salmon in 2020 was estimated to be \$1.24 and was below the 2010–2019 average price of \$1.81. Using this average price per lb (Appendix B11), the exvessel value for sockeye salmon was estimated to be \$4 million, which was 85% less than the previous 10-year (2010–2019) average annual value of \$27 million. In addition, sockeye salmon made up 79% of the 2020 total exvessel value, which was the lowest on record since 1984 and was 12% less than the 2010–2019 average proportion of sockeye salmon value for UCI salmon fisheries (Appendix B7).

Currently, there are 6 sockeye salmon systems monitored in UCI by the ADF&G Division of Commercial fisheries (Figure 1) with escapement, inriver goals, or both (Table 1; Appendices A2 and B10). In 2020, 2 of 6 sockeye salmon assessment counts fell within established goal ranges, 3 exceeded goal ranges, and 1 stream failed to reach its goal range. After the 2020 sport fish harvest of sockeye salmon above the river mile 19 sonar site in the Kenai River is accounted for, the sustainable escapement goal (SEG) for this system was very likely exceeded. The 2020 Kenai

River sockeye salmon sonar passage estimate exceeded the inriver goal by 514,000 fish and the SEG by 414,000 fish.

Like the previous 11 seasons, in 2020 sockeye salmon escapement was monitored 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. Chelatna Lake escapement, also in the Susitna Drainage that had been assessed in past years, was not operated in 2020 due to budget shortfalls. Packers Lake on Kalgin Island was also monitored for sockeye salmon escapement with a video project. Several other streams in UCI are also monitored for salmon escapement by the ADF&G Division of Sport Fish (Lipka 2020), including sockeye salmon at Fish Creek and Russian River; Chinook salmon at Deshka River, Little Susitna River, Anchor River, Deep Creek, and Crooked Creek; and coho salmon at Deshka, Little Susitna, and Anchor Rivers, as well as at McRoberts Creek and Deep Creek.

## **CHINOOK SALMON**

The 2020 UCI commercial harvest of 3,008 Chinook salmon decreased slightly from the previous year and was the smallest Chinook salmon harvest since 1970 (Appendix B1). This was approximately 56% less than the 2010–2019 average annual harvest of 6,877 fish (Appendices A3, B1, and B6). Exvessel value for UCI Chinook salmon in 2020 was estimated at \$69,730, which represented approximately 1.4% of the total exvessel value for all salmon, which is nearly equal to the 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 Central District. Based on the 10-year average (2010–2019), 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 was harvested and the 1.4 age class proportion was smaller (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 38% to 44%, comparing the long-term 30-year average (1990 to 2019) to the recent 10-year average (2010 to 2019). Additionally, comparing the recent 10-year average to the long-term 30-year average, the age class of age-1.4 (6 years old) fish has decreased in proportion by 7% 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 3% in proportion (Appendix A15).

### **Northern District**

The Northern District commercial set gillnet directed Chinook salmon season was from 25 May to 24 June, on Mondays only, from 7 AM to 7 PM. The *Northern District King Salmon Management Plan* (5 AAC 21.366) was created by the 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 Northern District 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 west side streams also will result in closures to nearby areas of the commercial Chinook salmon fishery. In 2020 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 Northern District directed Chinook salmon set gillnet fishery was open in 2020 for limited fishing periods of 6 hours each Monday for the entire season. During this directed Chinook salmon fishery, 1,500 Chinook salmon were harvested, which is 17% lower than the recent 10-year average (2008 to 2017) of 1,814 (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 158 fish for a total of 1,658 fish for the entire 2020 Northern District commercial fishing season, which is 17% less than the 2008–2017 average annual Chinook salmon harvest of 1,986 fish (Appendix B1).

The Northern Cook Inlet (NCI) Chinook salmon escapement was monitored in season 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 2020 preseason run forecast for Deshka River Chinook salmon was approximately 10,570 age 1.2–1.4 fish<sup>2</sup>. Based on that forecast, the 2020 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 Northern District set gillnet commercial fishery was restricted to 6 hours per open period. The preseason outlook for all other UCI Chinook salmon stocks in 2020 was also well below average. The estimated final 2020 escapement of Chinook salmon in the Deshka River was 10,638 fish<sup>3</sup>, which was an improvement from 2018 and 2019, and within the SEG. The Little Susitna River weir count in 2020 was 2,424 Chinook salmon<sup>4</sup>, which was also within the escapement goal range. These escapements in 2020 resulted in sport fishery restrictions being lessened in both these NCI rivers, late in the season.

## Upper Subdistrict ESSN

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 among 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.

The 2020 preseason forecast for Kenai River late-run Chinook salmon was for a total run of approximately 22,707 large fish<sup>5</sup>. Based on average harvest rates of large fish in both commercial and sport fisheries, if the Chinook salmon run returned at forecasted levels, the SEG could have been achieved. However, 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 1 July. Further restriction to no retention occurred on 15 July, and total closure to

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<sup>2</sup> [http://www.adfg.alaska.gov/static-sf/fishing\\_reports/PDFs/2020\\_deshka\\_outlook.pdf](http://www.adfg.alaska.gov/static-sf/fishing_reports/PDFs/2020_deshka_outlook.pdf).

<sup>3</sup> <https://www.adfg.alaska.gov/sf/FishCounts/index.cfm?ADFG=main.displayResults&COUNTLOCATIONID=17&SPECIESID=410>

<sup>4</sup> <https://www.adfg.alaska.gov/sf/FishCounts/index.cfm?ADFG=main.displayResults&COUNTLOCATIONID=16&SpeciesID=410>

<sup>5</sup> <http://www.adfg.alaska.gov/static/fishing/pdfs/sport/byarea/southcentral/2020KenaiLateRunOutlook.pdf>.

Chinook salmon angling on 24 July, 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 23 June in conjunction with the no bait provision applied to the sport fishery beginning 1 July, and 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 most of the openings in June and July of 2020. With the closure of the Chinook salmon sport fishery on 24 July, the ESSN fishery was also closed, and did not reopen for the 2020 season. Using mean run timing and the estimated fishery mortality of 320 large fish, the projected final escapement of Kenai River late-run Chinook salmon was approximately 11,909 large fish<sup>6</sup> 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 123 fish whereas the ESSN fishery harvested 149 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 12,219 fish<sup>6</sup>, or 53% less than the preseason forecast.

Approximately 28% of the UCI Chinook salmon commercial harvest in 2020 occurred in the ESSN fishery (Appendix B1). The 2020 ESSN estimated harvest of 852 Chinook salmon of all sizes and stocks was 81% less than the 2010–2019 average annual harvest of 4,463 and was approximately 91% less than the 1970–2019 average annual harvest of 9,274 fish. In 2020, the peak daily harvest of 115 Chinook salmon of all stocks and all sizes occurred on 22 July, and the peak harvest week was from 19 July to 25 July. The average daily harvest of Chinook salmon in the ESSN fishery of all sizes and stocks was 53 fish (range 14 to 115), inclusive of the Salamatof statistical area (# 244-41), which showed the highest average harvest per day for any statistical area of the ESSN fishery, of 51 fish of all sizes and stocks (Appendix A3). Based on inseason results of commercial catch sampling, an estimated 19% of the total Chinook salmon harvested in the ESSN fishery were large Kenai River mainstem (late-run) stock (Eskelin and Barclay 2021). Applying 19% 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 2020 ESSN fishery averaged 10 per open fishing period and ranged from 3 to 22 large fish.

## **SOCKEYE SALMON**

Management of the UCI sockeye salmon fishery integrates information from a variety of programs, which together provide an inseason model 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 passage; 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

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<sup>6</sup> <https://www.adfg.alaska.gov/sf/FishCounts/index.cfm?ADFG=main.kenaiChinook>



fisheries postseason, using improved GSI analyses. Publications of GSI data describing the UCI sockeye salmon catch allocation are available for the years 2005–2018 (Barclay 2019).

The OTF assessments in UCI have been conducted since 1979 (Waltemyer 1983) using chartered vessels. Since 2016, the State of Alaska research vessel R/V *Solstice* has conducted the daily fishing operations of the UCI OTF project (Dupuis et al 2016). Since 1992, 6 fixed stations have been fished along a transect across southern Cook Inlet from Anchor Point to the Red River delta (Frothingham and Willette 2018). Data from the 2020 OTF program was used to provide an inseason estimate of sockeye salmon run strength by determining the passage rate, which is an estimate of the number of sockeye salmon that enter the district per index point or catch per unit of effort (CPUE) statistic (Appendix A1). The cumulative CPUE curve was then compared to historical run timing profiles so that an estimate could be made of the final CPUE during the season. This in turn provided an inseason estimate of the total run of sockeye salmon to UCI. Based on these OTF data, the timing of the 2020 sockeye salmon run was estimated to be approximately 2 to 5 days late and near the preseason forecast (Robert DeCino, Division of Commercial Fisheries Area Research Biologist, ADF&G, Soldotna; personal communication).

Both sonar and weirs were used to estimate inseason abundance of sockeye salmon. Sonar technology was first employed to quantify sockeye salmon escapement into glacial rivers in UCI with the Kenai and Kasilof Rivers in 1968 and then later expanded to the Susitna River in 1978 and the Crescent River in 1979. In 2011, ADF&G transitioned from older Bendix sonar systems to DIDSON in both the Kenai and Kasilof Rivers (Westerman and Willette 2011). The sonar project on the Kasilof River transitioned to ARIS in 2018 (Glick and Faulkner 2019). The sockeye salmon sonar project in the Yentna River was terminated after the 2009 season when a comprehensive mark–recapture study in the Susitna River drainage determined that sockeye salmon passage estimates in the Yentna River were biased low due to fish wheel selectivity bias (Appendix A12; Yanusz et al. 2007). Based on this information, beginning in 2009 the Yentna River sockeye salmon SEG was replaced with 3 weir based SEGs at Chelatna and Judd Lakes in the Yentna River drainage and at Larson Lake in the Susitna River drainage (Fair et al. 2009). At the 2017 BOF meeting, these 3 SEGs were modified (Erickson et al. 2017) after incorporating 7 years of additional escapement data using a new 3-tier percentile approach (Clark et al. 2014). The new SEGs were 20,000–45,000 fish at Chelatna Lake, 15,000–40,000 at Judd Lake, and 15,000–35,000 at Larson Lake. Age composition data of adult sockeye salmon returning to these lakes were also collected at the weir sites (Appendix A13). A sonar project on the Crescent River, operational since 1979, was discontinued in 2013 due to a lack of funding.

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) and provided daily sockeye salmon escapement counts. Historically, a counting weir has also been employed at the outlet of Packers Lake (on Kalgin Island), but when Cook Inlet Aquaculture Association terminated stocking activities at the lake, they no longer staffed the weir. 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 2009–2020. This project has achieved variable success in observing sockeye salmon escapement due to logistical issues (Marston and Frothingham 2019). However, in 2020 the system functioned correctly into August, and the recorded counts confirmed the sockeye salmon goal was achieved.

In 2020, approximately 4.3 million sockeye salmon were forecast to return to UCI (Table 3). The actual 2020 observed total run estimate was 4.3 million fish, equaling the preseason forecast.



Estimates of the 2020 personal use and sport sockeye salmon harvests were made by comparing previous years' catches from similar size runs. Of the expected 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 2020 were similar in proportion to previous runs of this size, the commercial catch in 2020 was projected to be approximately 1.7 million sockeye salmon. The actual 2020 commercial sockeye salmon harvest of 696,000 fish (Appendices A4, B2, and B14) was well below preseason expectations and was the lowest recorded harvest since 1975. Drift gillnet fishermen accounted for approximately 41% of the 2020 commercial sockeye salmon harvest, or 283,727 fish, and set gillnet fishermen caught 59% of the commercial harvest, or 412,000 sockeye salmon (Appendix B2). The 2020 run was apportioned to individual river systems in season using a weighted age composition catch allocation method (Tobias and Tarbox 1999). GSI samples were collected from the 2020 commercial harvest and will be analyzed at a later date.

### **Big River**

The first commercial salmon fishery to open in UCI in 2020 was the Big River fishery, which was managed under the *Big River Sockeye Salmon Management Plan* (5 AAC 21.368). Between 1 June and 24 June, fishing was allowed each Monday, Wednesday, and Friday from 7:00 AM to 7:00 PM. The area that was open included stat area # 24-555 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 harvesting an early-run of sockeye salmon returning to Big River, this fishery also could have harvested Chinook salmon migrating through the area. The management plan limited the harvest of Chinook salmon to no more than 1,000 fish per year. Since 2010 the average annual Chinook salmon harvest has been 380 fish, which was well below the 1,000 fish cap. Since 2010, the average annual sockeye salmon harvest has been 11,823 fish. The 2020 fishery began on Monday, 1 June, and harvests were reported from 9 different days, yielding a total harvest of 7,285 sockeye and 222 Chinook salmon (Appendices A3 and A4). Of the total 2020 harvest, 67% of the Chinook and 82% of the sockeye salmon were caught in the Kalgin Island west side waters (Appendix A4). For the 2020 season, 15 permit holders participated in the fishery on its peak day of 5 June.

### **Western Subdistrict**

The second commercial sockeye salmon fishery to open in 2020 was the set gillnet fishery in the Western Subdistrict of the Central District. This fishery opened on the first Monday or Thursday on or after 16 June, 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 2020, the Western Subdistrict set gillnet fishery opened for the season on Thursday, 18 June, and remained open for the regulatory fishing periods of Monday and Thursday through 5 July. 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 2020, observations of the sockeye salmon harvested near the Crescent River was similar to harvest in years when escapements fell within or exceeded the escapement goal range. Therefore, EO No. 16 (Appendix A10) was issued on 12 July, opening that portion of

the Western Subdistrict south of the latitude of Redoubt Point from 6:00 AM until 10:00 PM on Mondays, Thursdays, and Saturdays, beginning on Thursday, 13 July. This fishing schedule remained in place until EO No. 27 was issued on 9 August, returning the fishery to the regulatory schedule of 2 fishing periods per week beginning Monday, 10 August. In 2020, approximately 68,864 sockeye salmon (Appendix A4) were harvested by 26 permit holders (Appendix A8) fishing in the Western Subdistrict set gillnet fishery, which was 30% less than the 2010–2019 average annual harvest of approximately 98,000 fish.

## **Northern District**

The set gillnet fishery in the Northern District targeting primarily sockeye salmon opened by regulation on or after 25 June 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.

In 2020, management of the Northern District 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 up to 5 nets) in the Northern District from 20 July through 6 August to aid in achieving the escapement goals at Judd, Chelatna, and Larson Lakes. EO No. 19 (Appendix A10) was issued on 17 July, reducing legal gear in the General Subdistrict of the Northern District to one 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 31 July, EO No. 24 was released, which modified EO No. 17 and changed legal gear for that portion of the General Subdistrict of the Northern District, south of the Susitna River, and all the Eastern Subdistrict, to no more than 2 set gillnets per permit. That portion of the General Subdistrict east of the Susitna River remained limited to no more than one set gillnet per permit. On Tuesday, 6 August, gear restrictions imposed by the NDSMP expired, and a full complement of gear became legal for the remainder of the season. In 2020, approximately 47,822 sockeye salmon were harvested by 76 permit holders in the Northern District set gillnet fishery (Appendices A4, A8, and B2). This harvest was approximately 7% greater than the 2010–2019 average annual harvest of 44,510 fish (Appendix B2).

## **ESSN and Central District Drift Gillnet**

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 KRLKSMP. At the 2014, 2017, and 2020 BOF meetings, numerous changes were adopted to management plans of the ESSN fishery during years of low Kenai River Chinook salmon abundance, which had significant effects on sockeye salmon harvest (Shields and Dupuis 2017). In addition, the BOF also made substantive changes to 5 AAC 21.353, the *Central District Drift Gillnet Fishery Management Plan* (CDDGFMP) with the objective of passing more coho salmon to streams in NCI, resulting in less fishing time for the drift gillnet fleet in areas where the largest harvests of sockeye salmon have historically taken place, which has resulted in more sockeye salmon passing in ESSN areas.

Within the KRSMP and KRLSSMP, there were 2 principal restrictions to the ESSN fishery that needed to be met each management week: 1) a limit on the number of additional hours fished beyond the 2 regulatory 12-hour fishing periods, and 2) implementation of weekly closed fishing

periods (or “windows”). By regulation, a week is defined as a period of time beginning at 12:01 AM Sunday and ending at 12:00 midnight the following Saturday (5 AAC 21.360 (i)). Weekly hour limitations vary according to the time of year and the size of the sockeye salmon run returning to the Kenai River. Restrictions to these fisheries should also be balanced with meeting other escapement goals, as provided for in 5 AAC 21.363, the *Upper Cook Inlet Salmon Management Plan* (UCISMP), which states that although in most circumstances ADF&G should adhere to the management plans in the chapter, no provision within a specific management plan was intended to limit the commissioner’s use of EO authority, under AS 16.06.060, to achieve established escapement goals.

The sockeye salmon run forecast to the Kenai River in 2020 was 2.2 million fish, which meant management of the drift gillnet and ESSN fisheries fell into the provisions of the lowest run size tier (< 2.3 million fish). In this run size tier, the ESSN fishery was open for the regulatory Monday and Thursday 12-hour fishing periods, with up to 24 additional fishing hours per week (48 total hours). However, on Monday, 15 June, the department issued EO No. 2-KS-1-22-20 restricting the Chinook salmon sport fishery in the Kenai River to no retention of fish over 34 inches in length beginning 1 July 2020. In response, EO 2S-04-20 was issued on 22 June, which modified weekly fishing periods with set gillnets in all waters of the Upper Subdistrict (5AAC 21.320(a)(2)(E)). In the ESSN fishery (Figure 1) salmon could now be taken only during fishing periods established by EO, from 20 June through 31 July 2020, with a maximum available time of 36 hours per week. In addition to all fishing time coming via EO only in the Upper Subdistrict set gillnet fishery, beginning in 2020, the Alaska Board of Fisheries also mandated the use of one of 2 gear restriction options that limit gillnet depth or length during all Upper Subdistrict set gillnet fishing periods when the Kenai River Chinook salmon sport fishery is restricted. These mandatory gear restrictions were implemented from the beginning of the season through 31 July in the entire Upper Subdistrict set gillnet fishery. The specific gear restriction option that ADF&G chose to implement was identified in each UCI Commercial Fishing Announcement. Of the 2 potential gear restriction options, the more restrictive provision (limiting gillnet gear by  $\sim\frac{2}{3}$ ) was used 10 days, and the lesser restriction (limiting gillnet gear by  $\sim\frac{1}{3}$ ) was used 3 days.

Season opening dates for sockeye salmon varied across the ESSN and drift gillnet areas of UCI. The Kasilof Section set gillnet fishery season can open from 25 June through 15 August. However, if 30,000 sockeye salmon are in the Kasilof River before 25 June, the season may begin as early as 20 June. The Northern Kalifornsky Beach statistical area #24432 of the Kenai section could also open as early as 1 July. The Kenai and East Foreland sections in entirety were potentially open from 8 July through 15 August. Beginning 8 July, the Kasilof Section is managed in concert with the Kenai and East Foreland sections per the KRLSSMP. Drift gillnet fishing in the Central District of UCI opens on the third Monday in June, or 19 June, whichever is later. Overall, the 2020 commercial fishing management strategy was largely predicated upon allowing harvest of sockeye salmon and the close monitoring of late-run Chinook salmon abundance in the Kenai River.

During the management week of 21 June through 27 June, both the drift gillnet fishery and the Kasilof Section of the Upper Subdistrict set gillnet fishery opened for the 2020 season. The drift gillnet fishery opened by regulation on Monday, 22 June (Figure 4; Appendix A11). The regulatory 12-hour fishing periods on 22 June and 25 June were opened districtwide, producing a total harvest of 4,597 sockeye salmon (Appendix A4). Two additional drift gillnet fishing openers were

provided in the narrow Kasilof section, also termed the “Kasilof corridor”<sup>7</sup>, on 23 June and 27 June, where fewer than 100 sockeye salmon were harvested. Participation during narrow Kasilof section drift gillnet openers outside the Monday and Thursday regulatory periods was low throughout the season. On 22 June, 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 23 June. Fishing was open in the Kasilof Section on 23, 25, and 27 June, using a total of 36 hours of the available 36 hours of EO time and harvesting 37,564 sockeye salmon for the week (Appendix A4). The sonar count into the Kasilof River was 63,021 fish by the end of the week (Appendix A2), falling slightly below the 2010–2019 average cumulative passage for that date of 72,700 fish. On average, 20% of the Kasilof River sockeye salmon sonar passage is complete by the end of this management week.

During the management week of 28 June to 4 July, the drift gillnet fleet fished the 2 regulatory periods on Monday and Thursday and 2 periods in the Narrow Kasilof Section by EO, whereas the set gillnet fishery fished 3 days including Tuesday 30 June, Thursday 2 July, and Saturday 4 July (Appendix A11). On 2 July, the North Kalifornsky Beach (NKB) statistical area (244-32) opened with additional restrictions specific to the NKB stat area. From 1 July to the opening of the Kenai and East Foreland sections season, the NKB statistical area could be open within 600 feet of the mean high-tide mark using set gillnets that are no greater than 29 meshes in depth, and with mesh sizes no greater than 4¾ inches. A total of 36 of the available 36 EO hours were used for the Kasilof Section setnet fishery provided for in the KRLKSMP (Table 4; Appendix A10, A11, A23). Sockeye salmon harvest in the Upper Subdistrict was 46,000 fish and averaged 15,000 fish during the 3 openers (Appendix A4). The drift gillnet fleet caught 4,699 sockeye salmon on Monday and 14,652 fish on Thursday during the regular districtwide openers but only harvested 164 sockeye salmon combined for the 2 additional periods in the narrow Kasilof Section (Appendix A4). Cumulative sockeye salmon passage into the Kasilof River ended the week at 116,000 fish (Appendix A2); the 2010–2019 average cumulative passage was 106,000 fish, and average run timing was 29% complete. Based on average run timing and the 2020 passage to date, the final sockeye salmon passage for 2020 was projected to be 403,000 fish, which was above both the biological escapement goal (BEG; 140,000–320,000 fish) and optimal escapement goal (OEG; 140,000–370,000 fish) for the Kasilof River. The Kenai River sockeye salmon sonar project began operation on 1 July and counted 16,000 sockeye salmon through 4 July (Appendix A2). The cumulative count of the Kenai River Chinook salmon sonar was 583 large fish through July 4.

During the management week of 5 July to 11 July, the Kenai and East Foreland sections (Figure 3) set gillnet fishery had their opening day for the 2020 season (Appendix A11). The Kasilof Section and the NKB set gillnet fishery within 600 feet of shore were opened on 6, 7, and 8 July. On 9 July, the remainder of the Upper Subdistrict opened for the season, including the Kenai Section in its entirety and East Foreland sections, using the remainder of the 36 hours of EO time allowed per provisions of the KRLKSMP. The drift gillnet fishery was opened on Monday, districtwide, and Thursday in Area 1 and the Expanded Kenai and Expanded Kasilof sections. Both fishing days were extended to coincide with the Upper Subdistrict fishing periods (Appendix A11, Figure 4). The Thursday drift gillnet period was the first period of 2020 that corresponded to the CDDGFMP provision that required the fishery to be restricted to Drift Area 1 and the regular Kenai and Kasilof corridor areas between 9 July and 11 July. The Kasilof Section and NKB setnet fisheries caught

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<sup>7</sup> Corridor is a synonymous term for Section in this case.

27,452 sockeye salmon on Monday, 8,657 on Tuesday when both fisheries were restricted to within 600 ft of shore, and 10,458 on Wednesday (Appendix A4). On 9 July, a total of 16,546 sockeye salmon were harvested during the 15-hour fishing period, the first full fishing period of the Upper Subdistrict. The drift gillnet fishery caught 16,782 fish on Monday and 24,616 fish on Thursday. Drift gillnet fishing effort remained low during the additional fishing periods in the Kasilof Section on Tuesday and Wednesday, with harvest totaling less than 100 sockeye salmon for the 2 periods (Appendix A4). At week's end, the cumulative passage estimate at the Kasilof River sockeye salmon sonar site was 177,000 fish (Appendix A2). The average cumulative count for that date was 118,000 fish, with average run timing at 39% complete. The season-end escapement projection for Kasilof River sockeye salmon, based on 11 July passage, was 451,000 fish, which was above the BEG and OEG. The Kenai River sockeye salmon sonar estimate was 83,931 (Appendix A2) fish through 11 July, projecting 1.0 million fish for an on time run. Kenai River sockeye salmon run timing was 8% complete through 11 July. The Kenai River Chinook salmon assessment was at 1,407 large fish, with average run timing at 13% complete through 11 July.

During the management week of 12 July to 18 July, the department issued EO No. 2-KS-1-34-20 on 13 July 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 13 July and Wednesday 15 July, each for 12-hour fishing periods. For these periods, all waters out to the full 1.5 miles from shore were open. On 16 July, the Kasilof Section and NKB statistical area were opened within 600 feet of mean high tide from 7:00 AM and 7:00 PM; however, the hours fished within 600 feet of the mean high tide do not count in total allowable fishing hours as per the KRLKSMP. For this management week, there were 24 hours fished (Table 4; Appendix A23) of the available 24 hours in the ESSN fishery. The drift gillnet fishery was open for both Monday and Thursday regulatory periods, one period in Area 1 and the Expanded Kenai and Expanded Kasilof sections (Figure 5 and 7) and one period in the Expanded Kenai and Expanded Kasilof sections (Figure 5). One additional period was provided in the Expanded Kenai and Expanded Kasilof sections on Wednesday, 15 July. During the week, the ESSN fishery harvested 62,338 sockeye salmon and the drift gillnet fleet harvested 106,877 sockeye salmon, which was the largest drift gillnet sockeye salmon harvest for the season. The Kasilof River sockeye salmon sonar estimate was 256,035 fish on 18 July, projecting a final escapement of 438,166 (Appendix A2), which exceeded the BEG and OEG for this system. Kasilof River sockeye salmon run timing was 58% complete, on average, through 18 July. The total sonar estimate in the Kenai River at the end of the management week was 279,012 fish (Appendix A2), which projected a year-end inriver passage estimate of 971,000 fish. Kenai River Chinook salmon abundance remained low during the week, producing a cumulative sonar passage estimate through 18 July of 3,615 large fish. Average run timing through this date was 29% complete and projected a total late-run escapement estimate of 12,473 large Chinook salmon, which was below the OEG range of 15,000–30,000.

During the management week of 19 July to 25 July, 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 the Kenai River sockeye salmon run would be 2 to 5 days late and would most likely result in a run of less than 2.3 million fish. This assessment meant that management of the ESSN fishery would continue in the lowest tier, with the inriver goal of 1.0 million to 1.2 million for Kenai River sockeye salmon. The entire ESSN fishery was opened for Monday and

Wednesday fishing periods, each for 12 hours. One additional fishing period was opened in the Kasilof Section within 600 feet of the mean high tide for 8 hours. The Kenai River late-run Chinook salmon abundance remained low throughout this management week. On 22 July, the department issued EO 2-KS-1-41-20 closing the Kenai River drainage to fishing for Chinook salmon effective 12:01 AM Friday, 24 July 2020. In compliance with the KRLKSMP, the Upper Subdistrict set gillnet fishery was also closed. The drift gillnet fishery was open in the Expanded Kenai and Expanded Kasilof sections (Figure 5) on Monday 20 July and Thursday 23 July. One additional drift gillnet fishing period was also provided on Wednesday, 22 July, in the Expanded Kenai, Expanded Kasilof and Anchor Point sections. The ESSN fishery harvested 86,179 sockeye salmon, and the drift fleet harvested 56,723 sockeye salmon for the week. By week's end, 25 July, the Kasilof River sockeye salmon sonar count had reached 315,541 fish (Appendix A2), with average run timing for this stock being 76% complete; the escapement projection was for 413,000 fish, which would exceed the upper end of the BEG and OEG. The Kenai River sockeye salmon sonar count on 25 July was 457,742 fish (Appendix A2), which projected a year-end inriver abundance of 873,380 fish and falling below 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 11,364 fish<sup>8</sup> on 25 July and average run timing was 48% complete. This projection indicated that restrictions in both the sport and commercial fisheries were necessary to meet the Kenai River large Chinook salmon OEG.

During the week of 26 July to 1 August, the Kenai River large Chinook salmon cumulative count remained low and was projecting 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 August resulting in the ESSN fishery remaining closed for the season. The drift gillnet fishery was open Monday and Thursday, and both were restricted to the Expanded Kenai and Expanded Kasilof sections (Figure 4). No additional hours were provided in attempt to increase passage of sockeye salmon to the Kenai River. Drift gillnet harvest for this management week totaled 31,036 sockeye salmon (Appendix A4). The Kasilof River sockeye salmon sonar count reached 398,527 fish (Appendix A2), average run timing was 88% complete, and final season escapement was projected at 450,598 sockeye salmon. By week's end, the Kenai River sockeye salmon sonar count had reached 711,262 fish (Appendix A2), average run timing was 70% complete, and the final inriver projection was for 1.0 million fish, which did project to achieve the inriver goal. The Kenai River Chinook salmon sonar count was 7,647 large fish, average run timing was 64% complete, and the escapement projection had fallen to 11,619 large fish, remaining below the minimum OEG of 15,000 large fish.

During the 2 August to 8 August management week, the ESSN fishery remained closed due to low Kenai River Chinook salmon passage. Similar to the previous management week, the drift gillnet fleet was open Monday and Thursday, and both days were restricted to the Expanded Kenai, Expanded Kasilof, and Anchor Point sections (Figure 4), as was one extra opening on Saturday 8 July. The drift gillnet fleet harvested 12,687 sockeye salmon (Appendix A4). The Kasilof River sockeye salmon sonar count had reached 447,280 fish (Appendix A2) at week's end and average run timing was at 96% complete, projecting a final escapement of 461,496 fish. The Kenai River sockeye salmon sonar passage estimate was 953,068 fish (Appendix A2), average run timing was 83% complete, and the year-end inriver run projection was for 1.1 million sockeye salmon, which

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<sup>8</sup> <https://www.adfg.alaska.gov/sf/FishCounts/index.cfm?ADFG=main.kenaiChinook>

was within the inriver goal. The Kenai River Chinook salmon sonar count was 9,325 large fish<sup>9</sup> by week's end, average run timing was 82% complete, and the year-end escapement projection was 11,366 large fish.

The final management week of 2020 for the ESSN fishery and the drift gillnet fishery in the larger inlet areas was from 9 to 15 August. Concerns for low escapement of Kenai River Chinook salmon kept the ESSN fishery closed. The drift gillnet fleet was open on 2 days, on 10 August and 15 August, in the Expanded Kenai, Expanded Kasilof, and Anchor Point sections (Appendix 11). After 15 August, the CDDGFMP limits the drift gillnet fleet to Drift gillnet Areas 3 and 4 only (Figure 8). For the management week, the drift gillnet fleet harvested 7,848 sockeye salmon (Appendix A4). After this statistical week the drift gillnet fleet typically begins to target coho salmon on the west side of UCI, but some sockeye salmon are still harvested. For the remainder of the 2020 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 2,843 sockeye salmon. On 18 August, Chinitna Bay Subdistrict was also opened to drift gillnetting on Tuesdays and Fridays where 462 sockeye salmon were harvested through 4 September.

Overall harvests of sockeye salmon in the ESSN fishery and the drift gillnet fishery were poor in 2020. The ESSN fishery total sockeye salmon harvest was approximately 295,000 fish, or 42% of the UCI total harvest of sockeye salmon. This harvest was about 68% less than the 2010–2019 average of 909,000 fish. The sockeye salmon harvest for the drift gillnet fleet for the entire season was approximately 284,000 fish, or 41% of the UCI total harvest (Appendix B2). The harvest was the lowest harvest by the drift gillnet fleet since 1974 and second-lowest harvest since 1970, excluding 1989 when the fishery did not harvest due to an oil spill.

Final spawning abundance was very high for both the Kasilof and Kenai Rivers. In 2020, sockeye salmon passage was monitored in the Kasilof River through 22 August, producing a final estimate of 545,654 fish (Appendix A2), which was more than 225,000 fish above the upper end of the BEG range and the second-largest passage recorded in the Kasilof River (Appendix B10). The Kenai River sockeye salmon sonar project was operational through 19 August (Appendix A2), producing a final passage estimate of 1,714,565 fish, which exceeded the inriver goal of 1,000,000 to 1,200,000 fish by nearly 515,000 fish. Once 2020 sport fishing harvest above the sonar is subtracted, the SEG of 750,000–1,300,000 fish was likely exceeded as well. Additionally, a significant passage of over 300,000 sockeye salmon occurred from 14 to 17 August (Appendix A2) in 2020, and pink salmon were very abundant during that time.

Several statistics show that sockeye salmon run timing was late in 2020. The midpoint of the 2020 sockeye salmon run measured at the Anchor Point OTF transect occurred on 21 July, which was 5 days later than the historical average date of 16 July. The cumulative sockeye salmon catch from the 2020 OTF was 1,327 (Appendix A1). At the Kasilof River sonar site, 50% of the 2020 sockeye salmon passage was reached on 19 July (Appendix A2), which was 3 days later than the 2010–2019 average date of 16 July. In the Kenai River, 50% of the total 2020 sockeye salmon count had passed the sonar on 6 August, which was 13 days later than the 2010–2019 average 50% date of 24 July.

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<sup>9</sup> <https://www.adfg.alaska.gov/sf/FishCounts/index.cfm?ADFG=main.kenaiChinook>



## **Kalgin Island Subdistrict**

The total sockeye salmon harvest in the Kalgin Island subdistrict in 2020 was 35,842 fish (Appendix A4). Approximately 5,970 fish, or 13% 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 2020, a remote video system was once again used to estimate sockeye salmon escapement into Packers Lake. The video recording system operated from 15 June through mid-August. Based on escapement through 10 August, the observed fish numbers projected the sockeye salmon escapement goal of 15,000 to 30,000 may not be met, and as such, no extra fishing periods were added in the Kalgin Island subdistrict in 2020. However, final escapement numbers indicated the escapement goal was achieved prior to the end of the season.

## **COHO SALMON**

The 2020 UCI commercial coho salmon harvest of 139,000 fish was approximately 30% less than the 2010–2019 average annual harvest of approximately 200,000 fish and was 51% less than the 1970–2019 average annual harvest of 285,000 coho salmon (Appendix B3). The largest harvest of UCI coho salmon occurred in the Northern District set gillnet fishery, where 54,453 fish were harvested (Appendix A5 and Appendix B3). The Northern District set gillnet coho salmon harvest has only topped the drift gillnet fish harvest on 2 occasions since 1970. The 2020 Northern District harvest was 14% above the 2010–2019 average annual harvest of 47,612 fish and 10% smaller than the 1970–2019 average annual harvest of 60,396 fish. The drift gillnet harvest of 48,803 coho salmon was the second smallest harvest for that gear type since 1973 (Appendix B3) and was approximately 67% less than the 147,000 fish average annual harvest of the previous 10 years. The increase in Northern District setnet coho salmon harvest may be due to less overall fishing time in the drift gillnet fishery and ESSN fishery, including less drift gillnet fishing time in Area 1, and may not reflect the strength of the coho salmon run to UCI.

UCI Coho salmon run assessments varied in 2020. Estimates of coho salmon escapement at the Fish Creek weir occurred from 27 July to 11 August and produced a final estimate of 4,559 fish, which exceeded the SEG of 1,200–4,400 fish<sup>10</sup>. At the Deshka River, a total of 5,368 fish were counted through the weir by 12 August, and the SEG of 10,200–24,100 fish<sup>10</sup> was projected to be achieved. Coho salmon escapement was counted at the Little Susitna weir from 19 July through 29 August. After much-needed rain and cooler temperatures late in the season, weir counts increased, and the escapement goal was projected to be achieved after 17 August.

Several inseason regulatory changes occurred in 2020 for both the sport and commercial coho salmon fisheries. On 6 August, the Division of Sport Fish released an EO prohibiting the use of bait on the Little Susitna River, and on 13 August another EO restricted the fishery further by lowering the bag limit. Subsequently, on 25 August all restrictions to coho fishing in Little Susitna River were lifted when weir counts increased. Additionally, on 22 August, the sport fishery in Fish Creek was liberalized and the bag limit increased. On 13 August commercial set gillnet fishing in the Northern District was reduced (EO # 2S-29-20) in that portion of the General Subdistrict of the Northern District east of the Susitna River, including Fire Island, by 6 hours to reduce the harvest of coho salmon returning to the Little Susitna River (Appendix A10). Commercial fishing hours

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<sup>10</sup> [http://www.adfg.alaska.gov/static-sf/fishing\\_reports/PDFs/2020CookInletSummary.pdf](http://www.adfg.alaska.gov/static-sf/fishing_reports/PDFs/2020CookInletSummary.pdf)



were similarly restricted on 17 August (EO # 2S-33-20), 20 August (EO # 2S-34-20), and 24 August (EO # 2S-35-20) for the same reason. The Northern District set gillnet fishery was later allotted full 12-hour periods beginning 27 August after counts of coho salmon increased at the Little Susitna weir. Finally, the postseason foot survey at McRoberts Creek of 735 fish exceeded the SEG of 250–700 fish for this system<sup>11</sup>.

Chinitna Bay was opened to drift gillnet fishing on Tuesdays and Fridays, beginning on Friday, 18 August (Appendices A10 and A11). The estimated coho salmon harvest by drift gillnets in Chinitna Bay was approximately 8,821 fish (Appendix A5).

Based on an estimated average price of \$0.87/lb paid for coho salmon (Appendix B11), the exvessel value of coho salmon from the 2020 UCI commercial fishery was \$591,000, or 12% 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. The 2020 UCI commercial pink salmon harvest of 345,072 fish was similar to the average annual harvest of 343,954 fish from even-year harvests of the previous 10 years. Based on an average weight of 3.7 lb/fish (Appendix B12) and an average price of \$0.25 per lb (Appendix B11), the estimated exvessel value for the 2020 pink salmon harvest was \$301,000 or 6% of the total UCI exvessel value (Appendix B7). Pink salmon exvessel value has not been proportionately that high for UCI since 1980. Most pink salmon (85%) were harvested by the drift gillnet fishery in 2020 (Appendix A6 and B4), which was the highest yearly proportion attributed to drift gillnet gear ever reported in UCI for pink salmon.

## **CHUM SALMON**

A total of 29,217 chum salmon were harvested by UCI commercial fishers in 2020, which was 83% less than the 2010–2019 average annual harvest of 172,000 fish (Appendix B5). The drift gillnet fleet harvested 86% of the chum salmon in 2020 but have averaged 93% 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 11 August 2020 and 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 18 August. The 2020 exvessel value for chum salmon was \$96,593, or 1.9% of the overall exvessel value of the 2020 fishery (Appendix B7). The average price paid for chum salmon in 2020 was estimated to be \$0.46 per lb (Appendix B11), which was about \$0.16 per lb less than the previous 10-year average price.

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

The estimated price per pound paid to UCI commercial fishers in 2020 compared to previous years was mixed across species (Appendix B11). Calculating the average price for what permit holders receive for their harvest is difficult (Shields and Dupuis 2013). Average prices reported here are generated from inseason grounds prices and do not reflect any postseason adjustments. The most profitable species in UCI was sockeye salmon. The 2020 estimate of \$1.24 per lb for sockeye

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<sup>11</sup> [http://www.adfg.alaska.gov/static-sf/fishing\\_reports/PDFs/2020CookInletSummary.pdf](http://www.adfg.alaska.gov/static-sf/fishing_reports/PDFs/2020CookInletSummary.pdf)

salmon was \$0.56 less than the \$1.80/lb paid in 2019 and \$0.57 less than the 2010–2019 average annual price of \$1.81.

Harvest statistics showed that salmon size was variable in 2020 (Appendix A14). The weights of salmon in the 2020 Upper Subdistrict commercial harvest showed a 12 lb average weight of Chinook salmon (Figure 9), which was lower than the 2019 average weight of 16 lb and even smaller than the previous 10-year average weight of 18 lb (Appendix B12). Sockeye salmon averaged 5 lb, which was lower than the 2010–2019 average weight of 5.9 lb and the smallest yearly average ever recorded for sockeye salmon in UCI (Appendix B12). The average size of 5.9 lb for coho salmon in 2020, although larger than 2019, was below the previous 10-year average of 6.1 lb. The average pink salmon size of 3.7 lb was slightly larger than the 2010–2019 average, and chum salmon in 2020 were approximately 0.5 lb larger than the 2010–2019 average.

The Commercial Fisheries Entry Commission (CFEC) reported that 567 active drift gillnet permits were issued in 2020, of which 421 (74%) were issued to Alaska residents (Appendix B13). In the setnet fishery, CFEC reported that 732 permits were issued, 613 (84%) of which were issued to Alaska residents. Of the active permits, 364 drift gillnet permit holders and 462 set gillnet permit holders reported harvest in UCI (Appendix A8). Twelve major fish processors (Appendix A16) purchased UCI fish from the above permit owners in 2020 for later sale. To a lesser degree, several types<sup>12</sup> of catcher-sellers and direct marketers also sell fish directly from UCI waters to consumers.

## STOCK STATUS

Overall, the status of UCI monitored salmon stocks is positive. However, some stocks that have driven significant management actions warrant additional review, including Susitna River sockeye salmon, NCI coho stocks, and UCI Chinook salmon stocks.

### SUSITNA RIVER SOCKEYE SALMON

From 1976–2008, Susitna River sockeye salmon total annual run estimates ranged from 147,000 to 773,000 fish (Fair et al. 2009). Declining sockeye salmon runs to the Susitna River drainage (Shields 2007) led the BOF to designate this as a stock of yield concern in 2008. As a result of this classification, an action plan was developed by ADF&G and the BOF to implement restrictive management measures in those fisheries harvesting Susitna River sockeye salmon stocks. These measures included time and area restrictions to the Central District drift gillnet fleet and gear reduction in the Northern District set gillnet fishery. At the 2020 BOF meeting the stock of yield concern was removed after evidence showed escapements had stabilized, but the restrictive measures to commercial fisheries have been codified in both the CDDGFMP and the NDSMP.

Due to potential undercounting bias at the Yentna River sockeye salmon sonar site (Shields and Dupuis 2013), ADF&G initiated an out-of-cycle Susitna River sockeye salmon escapement goal review in late 2008 (Fair et al. 2009). This analysis concluded that the existing method used to assess the escapement goal for the Susitna River drainage was inaccurate. The report from these analyses recommended the Yentna River sockeye salmon SEG should be eliminated and replaced with SEGs at 3 of the most productive lakes in the watershed: Chelatna, Judd, and Larson Lakes. Beginning in 2009, Susitna River sockeye salmon abundance was assessed at weirs on these 3 systems. In 2017, the SEGs at these 3 lakes were re-evaluated using 7 additional years of escapement data and an updated goal-setting methodology (Clark et al. 2014). This analysis

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<sup>12</sup> <http://www.adfg.alaska.gov/index.cfm?adfg=fishlicense.marketers>

produced modified SEGs at Chelatna Lake of 20,000–45,000 fish, 15,000–40,000 fish at Judd Lake, and 15,000–35,000 fish at Larson Lake (Table 1). In the past 5 years of weir counts at these 3 lakes (14 lake-years combined; Chelatna was not funded in 2020), the sockeye salmon SEGs have been achieved or exceeded 10 times (Appendix B10).

The 2020 sockeye salmon run to the Susitna River was estimated at 379,587 fish (using the inseason escapement and the mean harvest rate estimated from genetic stock composition of the commercial harvest in 2010–2019; Tables 5 and 6). The 2020 run was about 33% less than the preseason forecast (Table 3). The SEG was achieved at Judd Lake with 31,220 fish counted (SEG: 15,000–40,000), but escapement fell below the SEG (15,000–35,000) at Larson Lake, where the final weir estimate was 12,018 fish (Appendix A2). The Chelatna Lake weir was not funded in 2020, and no fish were counted.

## **NORTHERN COOK INLET COHO SALMON**

Recent coho salmon harvests may or may not be a true indication of run strength, largely due to regulatory changes that were made to reduce commercial harvest of coho salmon. Commercial coho salmon harvests in UCI during the 1980s and early 1990s were much higher than both recent harvests and the long-term average (Appendix B3). This can be attributed to good coho salmon production, but the difference could also be due to additional fishing time on strong UCI sockeye salmon and pink salmon runs (Table 7). Coho salmon harvest restrictions were increased in the late 1990s due to abundance shortfalls, and coho salmon runs in 2000 and 2001 improved; the 2002 run was also exceptional (Lafferty et al 2007). Therefore, at the 2005 BOF meeting, restrictions on commercial fishing in August in the ESSN fishery and Central District drift gillnet fishery were relaxed. Since 2008, coho salmon harvests have undoubtedly been affected by restrictions to the ESSN fishery for Chinook salmon conservation mentioned above, and by modifications made to the CDDGFMP at the 2014 BOF meeting to reduce coho salmon harvest by the drift gillnet fishery (Shields and Dupuis 2015).

### **Northern District**

The Division of Sport Fish has used coho salmon weir counts at the Little Susitna River to infer escapement performance for all Knik Arm coho salmon stocks since 2005<sup>13</sup>. The SEG for this system was set in 2000 at 9,200–17,700 fish (Fair et al. 2007). The other stream assessed for coho salmon by weir counts is Deshka River (SEG 10,200–24,100). The SEG was met or exceeded in 6 of 10 years from 2011–2020 at Little Susitna Weir, and the Deshka River coho salmon weir count has met or exceeded its goal range 6 of the last 10 years (Table 8). In 2020 the Little Susitna River coho salmon count lagged early in the season but increased quickly to achieve its goal in late August, after significant rainfall. At Deshka River, fish counts were average early in the season, but funding precluded running the weir after 12 August, at which time the current weir total (5,368) projected the Deshka River SEG for coho salmon would be met.

Substantial allocative discussions have occurred in recent years at BOF meetings regarding North Cook Inlet (NCI) coho salmon fisheries. However, in NCI there are currently no substantive concerns about the sustainability of coho salmon stocks (Table 8). As noted, Deshka River and Little Susitna River coho salmon escapement objectives are consistently being met. In addition, the coho salmon escapement goal at Fish Creek (SEG = 1,200–6,000) has been achieved or

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<sup>13</sup> Hasbrouck, J. J., and J. A. Edmundson. Unpublished. Escapement goals for salmon stocks in Upper Cook Inlet, Alaska. Alaska Department of Fish and Game, Report to the Board of Fisheries, 2005, Anchorage.

exceeded 10 years out of the 10 years. There is also a coho salmon single foot survey escapement goal at Jim Creek. Since 2011, the SEG of 250–700 has been achieved 5 of 10 times. In 2020, the foot survey was successfully conducted and produced a count of 735 fish, which meant the SEG was exceeded for this system.

## **Kenai River**

Although there is no escapement goal established for Kenai River coho salmon, nor is the run assessed, there are no known conservation concerns for this stock (Shields and Dupuis 2016). Current sport and commercial fishing regulations for Kenai River coho salmon are believed to be providing for sustainable harvest (Lipka et al 2020). Run assessments have not been done in recent years, but the most recent inriver run size estimates (Massengill and Evans 2007) were stable and near the historical average.

## **CHINOOK SALMON**

### **Northern District**

The Northern District has approximately 345 streams and rivers where Chinook salmon are present, and its largest drainage, the Susitna River, supports an annual run estimated to range between 100,000 and 200,000 fish (see Delaney and Vincent-Lang, *Unpublished*)<sup>14</sup>. In response to the proposed Susitna-Watana hydroelectric project, studies have been completed to document salmon abundance in the Susitna drainage. Based on these investigations, the estimated Chinook salmon abundance in the Susitna River upstream of the Yentna River was approximately 89,463 fish in 2013, 68,225 fish in 2014, and 88,600 fish in 2015 (Alaska Energy Authority 2014 and 2015). Additionally, the estimated Chinook salmon abundance in the Yentna River was approximately 22,267 fish in 2014 and 48,400 in 2015 (Alaska Energy Authority 2015). The 10-year average harvest in the Northern District directed commercial Chinook salmon fishery was approximately 1,814 fish (Table 2). This harvest is of all NCI Chinook salmon stocks, not just the Susitna River.

In an ADF&G memo (RC 6)<sup>15</sup> to the BOF dated 1 October 2010, a summary of results from the stock of concern evaluation for UCI salmon was presented. ADF&G's recommendation stated that despite sport fishery restrictions already in place and recent commercial fishery restrictions and closures on Westside fisheries, the Chuitna, Theodore, and Lewis Rivers' Chinook salmon escapement goals had not been achieved for 5 consecutive years. Escapements were evaluated with a single aerial census flight each year. ADF&G recommended the BOF consider these systems for stock of management concern status. In addition, ADF&G recommended Alexander Creek Chinook salmon as a stock of management concern because runs to this system had declined drastically over the previous 5 years despite closure of the sport fishery beginning in 2008. The ADF&G memo also recommended Chinook salmon in Willow and Goose Creeks be considered as stocks of yield concern in response to a failure to meet the SEG over several consecutive years prior to 2010. The BOF reviewed these ADF&G recommendations at the 2011 UCI finfish meeting in Anchorage and agreed with ADF&G staff to list Chinook salmon stocks in Alexander, Willow, and Goose Creeks and the Chuitna, Theodore, and Lewis Rivers as stocks of concern. At the 2014

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<sup>14</sup> Delaney, K., and D. Vincent-Lang. Unpublished. Current status and recommendations for the future management of the Chinook salmon stocks of Northern Cook Inlet. A report to the Alaska Board of Fisheries, Anchorage, Alaska, November 1992. Alaska Department of Fish and Game, Division of Sport Fish, Anchorage.

<sup>15</sup> [http://www.adfg.alaska.gov/static/regulations/regprocess/fisheriesboard/pdfs/2010\\_2011/Worksession/2010\\_uci\\_soc.pdf](http://www.adfg.alaska.gov/static/regulations/regprocess/fisheriesboard/pdfs/2010_2011/Worksession/2010_uci_soc.pdf)

BOF meeting, additional stock status information was presented<sup>16</sup>, including repeated failure to meet the SEG at Goose Creek. As a result, this system was elevated to a stock of management concern, and Sheep Creek was also added as a stock of management concern.

As a result of the decision to list the Theodore, Lewis, and Chuitna Rivers as stocks of concern, the sport fishery in these rivers has been closed by regulation since 2011. In response to the sport fishing closures, commercial fishing with set gillnets has also been closed in those waters from the wood chip dock to the Susitna River during the directed Chinook salmon fishery per the NDKSMP. Additional restrictions beyond the area closure above have also been implemented in the commercial fishery, including closures of fishing periods and reductions in hours fished (Shields and Dupuis 2016) and a full season closure in both 2018 and 2019 (Marston and Frothingham 2019). In 2020, the Northern District commercial Chinook salmon fishery was allowed, but hours were reduced from 12 hours per open period to 6 hours per open period.

### **Deshka River**

After experiencing a marked decline in abundance in the early to mid-1990s, Northern District Chinook salmon stocks rebounded, and exceptional runs were measured at the Deshka River weir, which was the only site where total counts of Chinook salmon occurred in the Northern District. In the early to mid-2000s Northern District Chinook runs were experiencing high abundance; the upper end of the Deshka River BEG of 13,000–28,000 fish (Fair et al. 2007) was exceeded from 1999 to 2006 (Table 9). As a result of strong runs during this time, there were numerous liberalizations to the inriver sport fishery through inseason EOs. In 2005, the BOF lengthened fishing periods for the commercial fishery from 6 hours to 12 hours and in 2008 allowed the commercial fishery to remain open through 24 June (Monday periods only). A commercial fishery harvest cap of 12,500 Chinook salmon remained in effect. Since 2016 smaller run sizes (Table 9) have occurred, leading to sport and commercial fishery restrictions, although the current escapement goal of 9,000–18,000 Chinook salmon has been achieved 9 of the last 10 years and 4 of the last 5 years. At the 2020 BOF meeting the NDKSMP was amended to include paired restrictions of commercial and sport fisheries when conservation of Chinook salmon is warranted, to alleviate allocative concerns among the fisheries.

### **Kenai River**

The early run of Kenai River Chinook salmon migrates through Cook Inlet in May and June, and therefore it receives very little commercial exploitation (Eskelin and Barclay 2019).

The management of Kenai River late-run Chinook salmon has changed frequently since 1985 with escapement goal changes, assessment methodology changes, and prescribed management plan amendments by the BOF. Beginning in 1986, Kenai River late-run Chinook salmon estimates of inriver passage were completed via traditional target-strength (TS) sonar by the Division of Sport Fish (Lipka et al 2020). The original escapement goal was developed in 1989 and set a minimum target of 15,500 fish of any size and an optimum escapement of 22,300 fish of any size (McBride et al. 1989). In 1999, this goal was revised to a BEG of 17,800–35,700 fish of any size (Fried 1999). In 2011, ADF&G changed the escapement goal from a BEG to an SEG including no change to the specified range (17,800–35,700 fish). This was the result of uncertainty in the estimates of escapement and lack of stock-specific information in the commercial harvest (Lipka et al 2020). In addition, ADF&G determined that it would discontinue use of TS-based estimates of inriver run

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<sup>16</sup> [http://www.adfg.alaska.gov/static/regulations/regprocess/fisheriesboard/pdfs/2013-2014/uci/action\\_plan\\_uci\\_2014.pdf](http://www.adfg.alaska.gov/static/regulations/regprocess/fisheriesboard/pdfs/2013-2014/uci/action_plan_uci_2014.pdf)

in favor of 5 abundance indices and would also continue development of the new DIDSON-based assessments (Shields and Dupuis 2013). In 2011, ADF&G managed the Kenai River late-run Chinook salmon fishery primarily on these indices of abundance, rather than use of traditional sonar technology. For the 2012 season, the TS-based sonar was replaced with the newer DIDSON sonar technology. Because the escapement goals were not DIDSON-based goals, estimation of late-run Chinook salmon passage was completed using several indices of abundance.

At its annual work session meeting in October 2012, the BOF formed the Cook Inlet Task Force. The mission of the task force was to evaluate the KRLKSMP and attempt to come to consensus on a set of recommended adjustments that would allow for both sport and commercial fishing opportunity during times of low Chinook salmon abundance, as experienced in the 2012 season. The 11-member task force (9 members of the public and BOF members Vince Webster and Tom Kluberton) met 3 different times (November 2012, January 2013, and February 2013) to address proposals submitted by task force members suggesting modifications to the management plan. A list of suggested changes was developed, but no consensus was reached on how to proceed. However, this list of changes formed the basis of a full BOF review at the statewide meeting in March of 2013.

In March 2013, ADF&G released a new DIDSON-based interim escapement goal for Kenai River late-run Chinook salmon (Fleischman and McKinley 2013). The new goal was developed, in part, to facilitate the change in sonar technology and to address the confusion over assessment methods in 2011 and 2012. An age-structured state-space model and Bayesian statistical methods were used to develop the new goal. It was recommended that an interim SEG of 15,000–30,000 fish of all sizes be adopted for the Kenai River late-run Chinook salmon. The BOF adopted the recommended SEG at the March 2013 meeting but left the rest of the KRLKSMP intact.

The BOF made numerous changes to the KRLKSMP at their 2014 UCI finfish meeting that affected prosecution of sport and commercial fisheries from 2014 to 2016 (Shields and Dupuis 2015). During each of these 3 years, restrictive actions to the ESSN fishery were implemented in compliance with the modified KRLKSMP, and the SEG was achieved in all 3 years (Lipka et al. 2020).

In 2015, the Division of Sport Fish announced that Chinook salmon sonar operations in the Kenai River at RM 8.6 (RM 9) would be discontinued and replaced with sonar counts from a site at RM 13.7 (RM 14). The SEG of 15,000–30,000 fish of all sizes remained in place for the 2015 and 2016 seasons. At the 2016 BOF work session, ADF&G published its annual escapement goal memo<sup>17</sup>, which stated that a new goal for both early- and late-run Chinook salmon stocks in the Kenai River was being developed. The memo clarified that ADF&G was finalizing run reconstructions and stock-recruit analyses for large fish approximately 75 cm (~33.3 inches) in length or greater for both Kenai River Chinook salmon runs. Based on these analyses, recommendations to determine new large-fish SEGs were being developed. At the 2017 UCI BOF meeting, ADF&G presented a written report detailing spawner-recruit analyses that were used to set the new large-fish SEGs for both early and late-run Kenai River Chinook salmon (Fleischman and Reimer 2017). Both new large-fish goals described above were still in place through 2020. A total of 2,444 early-run large Chinook salmon were counted at the sonar, which did not meet the OEG (3,900–6,600). The preliminary 2020 sonar count of large late-run Kenai River Chinook salmon was 11,499 fish, and after accounting for sport fish harvest above the sonar site and spawners below the sonar, the

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<sup>17</sup> <http://www.adfg.alaska.gov/static/regulations/regprocess/fisheriesboard/pdfs/2016-2017/worksession/rc6.pdf>



estimated escapement was 11,909 fish. Thus, the large-fish OEG of 15,000–30,000 fish for Kenai River late-run Chinook salmon was also not achieved.

## COMMERCIAL HERRING FISHERY

The total 2020 UCI herring fishery harvest was 38.3 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 10 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-4 fish dominated the population in 2020, making up 51% of the 265 samples collected from 3 sample dates (Appendix A19). The average by age classes in 2020 was as follows: age 3 (12%), age 4 (51%), age 5 (34%), age 6 (3%), 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 fishermen has resulted in an average price of at least \$1.00 per lb or \$2,000 per ton. Based on this price and a harvest of 38.3 tons (Appendix B8), the estimated exvessel value of the 2020 commercial herring fishery was approximately \$77,000.

## COMMERCIAL SMELT FISHERY

From 1978 to 2020, commercial smelt harvests in UCI have ranged from 0.2 tons to 212 tons (Table 10). For more details about the history of smelt fishing in UCI, see Shields (2005). The fishery is prosecuted under 5 AAC 21.505, the *Cook Inlet Smelt Fishery Management Plan*. In 2020, the total smelt harvest in UCI was approximately 212 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 U.S. The harvest is sold as bait or can be marketed for human consumption. The final value of the smelt fishery is unknown but likely exceeds \$1.00 per lb. Using this price estimate and the harvest of 423,613 lb (Table 10), the estimated exvessel value was approximately \$424,000.

Age composition analyses (determined from otoliths) of samples collected from the 2006–2020 harvests show that age-4 smelt were typically the most abundant age class, averaging 34% for females and 35% for males (Appendix A20). The 2020 samples were noteworthy in that 9% of the sample was of female fish that were 5 years old (average 9%), the highest yet seen for that age/sex class. The average fork length from the 2020 samples of 168 mm was smaller than the average fork length of 195 mm from 2006 to 2020. In 2020, of the 247 smelt sampled for age and length data, 129 fish (52%) were males and 118 were female (48%; 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 in 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.

The 2020 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 272,251 lb for the fishery from 2010-2019, but clam harvest in UCI has been below 200,000 lb since 2016 (Appendix B9).

## **SUBSISTENCE AND PERSONAL USE 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, in part, came because of challenges in the State of Alaska court system and the Alaska State Legislature, in addition to the BOF process. The only subsistence fishery that has occurred consistently in Cook Inlet during this entire period is the Tyonek Subdistrict subsistence fishery. Reviews 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**

The subsistence fishery in the Tyonek Subdistrict was mandated by an Anchorage Superior Court order in May 1980. In March 1981, the BOF adopted permanent regulations for this fishery (Stanek et al. 2007). Originally open only to those individuals living in the community of Tyonek, court decisions ruled that all Alaska residents are eligible to participate. According to 5AAC 01.560, *Fishing Seasons and Daily Fishing Periods*, subsistence fishing is allowed in the Tyonek Subdistrict of the Northern District 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 15 May to 15 June. The late-season permit allows for fishing from 6:00



AM to 6:00 PM each Saturday after 15 June. 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. At the 2011 BOF meeting in Anchorage, a report was given to BOF members by the Division of Subsistence (Holen and Fall 2011), which the BOF relied upon to specify the amounts necessary for subsistence of Chinook salmon and other salmon in the Tyonek Subdistrict as 700–2,700 Chinook salmon and 150–500 other salmon. Each permit holder is allowed a single 10-fathom gillnet, with a mesh size no greater than 6.0 inches. The early-season permit, primarily harvesting the Chinook salmon run, is the most popular fishery. Few late-season permits are issued.

In 2020, the Tyonek subsistence harvest included 1,342 Chinook, 164 sockeye, and 423 coho salmon. No pink or chum salmon were harvested by this fishery in 2020 (Appendix B15).

## **EDUCATIONAL FISHERIES**

Educational fisheries first began in UCI in 1989. The objectives for educational fisheries are specified in 5 AAC 93.235 as “educating persons concerning historic, contemporary, or experimental methods for locating, harvesting, handling, or processing fishery resources.” The present standards for educational fisheries are established by the BOF under 5 AAC 93.200

### **CENTRAL DISTRICT EDUCATIONAL FISHERIES**

In the Central District of UCI, there currently are 8 groups permitted to conduct educational fisheries: the Kenaitze Tribal Group, Ninilchik Traditional Council (NTC), Ninilchik Native Descendants (NND), Ninilchik Emergency Services, Anchor Point Veterans of Foreign Wars (VFW), Homer Sons of the American Legion Post 16, Kasilof Regional Historical Association, and the Southcentral Foundation.

In 2020 the Kenaitze Tribe harvested 7,231 sockeye, 528 coho, and 115 pink salmon, for a total of 7,881 salmon (Appendix B16). The total fish harvest quota for this group is 10,000 fish.

In 1993, NTC applied for and was granted a permit for an educational fishery (Szarzi and Begich 2004). In 1998, a group of NTC members formed a new organization, the NND, and requested a separate permit with similar goals of passing on traditional knowledge and providing food for tribal members. Initially 1 permit was issued for both groups, but this was not acceptable to the NTC and both groups were allowed to fish concurrently. There have been several changes to the annual harvest limits allowed under these permits, but the total salmon quota more than tripled in 2007 from 850 to 2,800 fish for both the NTC and NND groups. In 2020, the NTC harvested 6 Chinook, 232 sockeye, 112 coho, and 115 pink salmon. The NND reported a harvest of 3 Chinook, 57 sockeye, 0 coho, and 5 pink salmon (Appendix B16).

The Anchor Point VFW has been granted an educational fishery permit since 2007. They reported the following harvest from their 2020 fishing activities: 5 sockeye, 32 coho, 26 pink, and 0 chum salmon (Appendix B16).

In 2011, the Sons of the American Legion applied for and were granted their first educational fishery permit. They reported a harvest of 11 sockeye, 19 coho, and 30 pink salmon in 2020 (Appendix B16).

The Kasilof Regional Historical Association applied for an educational permit beginning with the 2008 season. In 2020, they reported a total harvest of 9 sockeye, 47 coho, and 6 pink salmon (Appendix B16).

The Southcentral Foundation (SCF) applied for an educational permit beginning in 2010. They are an Alaska Native-owned, nonprofit health care organization serving nearly 60,000 Alaska Native and American Indian people living in Anchorage, the Matanuska-Susitna Valley, and 60 rural villages in the Anchorage Service Unit. This fishery occurs on the west side of Cook Inlet, in the Silver Salmon Creek area. The SCF harvest in 2020 was 0 sockeye, 15 coho, and 2 pink salmon (Appendix B16).

## **NORTHERN DISTRICT EDUCATIONAL FISHERIES**

In the Northern District of UCI, 3 groups have received permits for educational fisheries: the Knik Tribal Council, Native Village of Eklutna, and Alaska's Territorial Homestead Lodge (Appendix B16).

The Knik Tribal Council began an educational fishery in 1994 (Sweet et al. 2004). Total harvest in 2020 included 121 sockeye, 49 coho, 19 pink, and 102 chum salmon.

The Native Village of Eklutna was also issued an educational fishery permit beginning in 1994. They reported a harvest in 2020 of 124 sockeye, 194 coho, 12 pink, and 13 chum salmon (Appendix B16).

The Native Village of Tyonek began an educational fishery in 1997. This educational fishery was denied a permit beginning in 2011 as a result of Chuitna, Theodore, and Lewis Rivers Chinook salmon stocks being designated as stocks of management concern by the BOF.

Alaska's Territorial Homestead Lodge applied for and received an educational fishery permit beginning in 2007. This fishery is located near Moose Point in the Eastern Subdistrict of the Northern District. In 2020, the harvest from this fishery was 3 Chinook, 80 sockeye, 24 coho, 68 pink, and 4 chum salmon (Appendix B16).

The Chickaloon Native Village applied for and received their first educational fishery permit in 2016. No fishing activity took place under this permit in 2020.

## **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. The 5 dip net fisheries are managed and harvest is monitored by the Division of Sport Fish (Lipka et al 2020; Appendix B17). The Soldotna office of the 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.

## **KASILOF RIVER GILLNET**

In 2020, EO No. 2S-03-20, issued 10 June, 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 11:00 AM–11:00 PM daily, from Saturday 15 June to Monday 24 June. The reduction in hours was in response to the poor abundance of early-run Kasilof River Chinook salmon. For the 2020 season, 75 Chinook, 14,656 sockeye, 85 coho, 62 pink, and 23 chum salmon were harvested in this fishery (Appendices A17 and A18). The 2010–2019 average annual Chinook salmon harvest was 107 fish. The average annual sockeye salmon harvest from 2010–2019 was 20,764 fish (calculated from Appendix B17).

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## **TABLES AND FIGURES**

Table 1.—Upper Cook Inlet sockeye salmon goals and passage, 2020.

System	Goal type	Goal range		2020 passage
		Lower	Upper	
Fish Creek	SEG	15,000	45,000	64,423
Kasilof River	BEG	140,000	320,000	545,654
Kenai River	IRG	1,000,000	1,200,000	1,714,565
Larson Lake	SEG	15,000	35,000	12,018
Judd Lake	SEG	15,000	40,000	31,220
Packers Creek	SEG	15,000	30,000	15,903 <sup>a</sup>

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

<sup>a</sup> Incomplete count. Video data collected from 15 June through 15 August.

Table 2.—Chinook salmon harvest during the directed fishery in the Northern District, 1987–2020.

Year	Chinook	Permits	Periods	Year	Chinook	Permits	Periods
1987	11,541	129	4	2004	1,819	44	3
1988	11,122	142	3	2005	3,150	52	3
1989	11,068	137	3	2006	3,887	59	3
1990	8,072	130	3	2007	3,132	62	3
1991	6,305	140	4	2008	3,855	74	4
1992	3,918	137	3	2009	1,266	55	3
1993	3,072	80	4	2010	1,674	51	4
1994	3,014	73	2	2011	2,187	61	4
1995	3,837	65	1	2012	1,030	38	4
1996	1,690	58	1	2013	1,134	38	4
1997	894	45	2	2014	1,377	44	4
1998	2,240	51	2	2015	1,560	40	4
1999	2,259	56	2	2016	2,030	41	4
2000	2,046	47	3	2017	2,031	44	4
2001	1,616	43	3	2018	ND	ND	0
2002	1,747	36	3	2019	ND	ND	0
2003	1,185	30	3	2020	1,500	29	5
2018–2017 average = 1,814							

Note: In 2018 and 2019 there was no directed Chinook salmon fishery in the Northern District.



Table 3.–Upper Cook Inlet sockeye salmon forecast versus actual run by river system, 2020.

System	Forecast	Actual	Difference
Kenai River	2,231,000	2,552,000	14%
Kasilof River	723,000	821,000	14%
Susitna River	571,000	380,000	-33%
Fish Creek	121,000	74,000	-39%
Minor systems	624,000	483,000	-23%
Overall total	4,270,000	4,310,000	1%

Table 4.—Upper Subdistrict set gillnet fishing hours allowed beyond regular periods and mandatory closures, 2020.

Week	Kasilof Section				Kenai Section				East Foreland section			
	Additional or EO		Window		Additional or EO		Window		Additional or EO		Window	
	Hours in plans	Hours used <sup>a</sup>	Hours in plan	Hours used	Hours in plans	Hours used <sup>a</sup>	Hours in plan	Hours used	Hours in plans	Hours used <sup>a</sup>	Hours in plan	Hours used
Jun 14–20	Closed season				Closed season				Closed season			
June 21–June 27	36	36	36	36	Closed season				Closed season			
June 28–Jul 4 <sup>b</sup>	36	36	36	36	Closed season				Closed season			
Jul 5–11	36	36	36	36	36	36	36	36	36	36	36	36
Jul 12–18 <sup>c</sup>	24	29	36	36	24	24	36	36	24	24	36	36
Jul 19–25 <sup>d</sup>	24	24	36	36	24	24	36	36	24	24	36	36
Jul 26–Aug 1	51	0	36	36	51	0	36	36	51	0	36	36
Aug 2–8	36	0	36	36	36	0	36	36	51	0	36	36
Aug 9–15	36	0	36	36	36	0	36	36	51	0	36	36
Totals	279	161	288	288	207	84	216	216	237	84	216	216

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

<sup>a</sup> Does not include hours limited to 600 ft of shore.

<sup>b</sup> Kenai River Chinook salmon sport fishery restricted to no bait and retention of Chinook salmon 34 inches and greater; commercial fishing restricted to 36 total hours per week.

<sup>c</sup> Kenai River Chinook salmon sport fishery restricted to no retention, restricting commercial fishing to 24 hours per week.

<sup>d</sup> Kenai River Chinook salmon sport fishery closed, effective July 24, and Upper Subdistrict set gillnet fishery closed.

Table 5.—Production of sockeye salmon in Big Lake, 1997–2020.

Year	Total run	Weir	Spawners	Spring fry release	Fall fry release	Smolt release	Smolt emigration	
							Age-1	Age-2
1997	131,814	54,656	48,513	4,018,000	0	0	0	0
1998	45,622	22,859	18,789	5,000,000	0	0	0	0
1999	45,714	26,749	25,199	0	197,000	0	0	0
2000	37,635	19,533	16,704	846,000	0	0	0	0
2001	70,013	43,486	39,093	0	0	0	0	0
2002	133,640	90,483	86,181	4,316,000	0	0	0	0
2003	149,586	91,743	86,858	3,589,000	0	0	114,654	2,340
2004	42,160	22,157	20,065	5,000,000	0	0	251,195	25,632
2005	21,967	14,215	12,140	1,742,300	0	0	135,739	22,623
2006	36,567	32,562	26,712	444,200	426,000	0	205,135	19,307
2007	48,277	27,948	23,845	3,812,400	702,500	315,700	278,351	30,928
2008	26,872	19,339	19,314	3,610,000	0	433,000	592,919	38,785
2009	121,965	83,477	83,477	0	0	0	0	0
2010	209,000	126,826	126,826	0	0	0	0	0
2011	119,528	66,183	66,183	0	0	0	269,020	23,722
2012	32,460	18,813	18,713	0	0	0	178,081	11,857
2013	25,082	18,912	18,315	0	0	0	422,258	8,241
2014	64,729	43,915	43,824	0	0	0	271,557	7,828
2015	120,085	102,309	102,124	0	0	0	424,112	8,552
2016	63,938	46,202	46,202	0	0	0	0	0
2017	98,281	61,469	61,310	0	0	0	0	0
2018	116,081	72,148	70,840	0	0	0	0	0
2019	108,801	72,259	75,411	0	0	0	0	0
2020	106,087	64,242	62,479	0	0	0	0	0

Note: The smolt emigration project was discontinued before the 2016 season.

Table 6.—Upper Cook Inlet sockeye salmon run, 2020.

System	Commercial harvest	Escapement	Other harvests	Total
Fish Creek	9,379	64,243	67	73,689
Kasilof River	133,012	541,651	145,989	820,652
Kenai River	389,820	1,563,386	598,765	2,551,971
Susitna River	47,933	331,179	475	379,587
All others	64,719	417,499	705	482,923
Total	644,863	2,917,958	746,001	4,308,822

Table 7.—Upper Cook Inlet pink salmon commercial harvests and Deshka River escapements, 1997–2020.

Year	Commercial harvest		Deshka River count	
	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 <sup>a</sup>
2012	469,598	–	78,853	–
2013	–	48,275	–	27,926
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 <sup>a</sup>	–
2019	–	70,741	–	67,772
2020	345,072	–	150,523 <sup>b</sup>	–

<sup>a</sup> Counts limited in August due to high water.

<sup>b</sup> Weir pulled on Aug 13.

Table 8.—Coho salmon escapement and counts, 1996–2020.

Year	Location				
	Fish Creek	Little Susitna River	Jim Creek <sup>c</sup>	Deshka River	OTF CPUE <sup>d</sup>
1996	–	15,803	–	–	534
1997	2,578 <sup>a</sup>	9,894	–	–	362
1998	5,463	15,159	–	–	403
1999	1,766	3,017	–	–	294
2000	5,979	14,436	657	–	766
2001	10,047	30,587	1,019	–	838
2002	15,187	47,938	2,473	24,612	798
2003	2,142	10,877	1,421	17,305	368
2004	3,255 <sup>a</sup>	40,199	4,652	62,940	785
2005	3,836 <sup>a</sup>	16,839 <sup>b</sup>	1,464	47,887	367
2006	5,723 <sup>a</sup>	8,786 <sup>b</sup>	2,389	59,419	1,034
2007	9,618 <sup>a</sup>	17,573	725	10,575	482
2008	9,603 <sup>a</sup>	18,485	1,890	12,724	718
2009	8,666	9,523	1,331	27,348	283
2010	7,034	9,214	242	10,393	454
2011	1,428 <sup>a</sup>	4,826	261	7,326	264
2012	1,237	6,770	213	6,825	154
2013	7,593	13,583 <sup>b</sup>	663	22,141	494
2014	10,283	24,211	122	11,578	661
2015	7,912	12,756	571	10,775	277
2016	2,483	9,998	106	6,820	396
2017	8,966	17,781	5,646	36,869	527
2018	5,023	7,583	758	12,962	952
2019	3,025	4,229	162	10,445	291
2020	4,555	9,931	735	5,368	382

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

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

<sup>c</sup> Escapement is a foot index survey of a section of McRoberts Creek, a tributary of the Jim Creek drainage.

<sup>d</sup> OTF CPUE (catch per unit effort) represents the number of fish caught in 100 fathoms of gillnet in 1 hour in the southern offshore test fishery.

Table 9.–Deshka River Chinook salmon passage, 1995–2020.

Year	Passage	Year	Passage
1995	10,044	2008	7,533
1996	14,349	2009	11,960
1997	35,587	2010	18,594
1998	15,409	2011	19,026
1999	29,649	2012	14,088
2000	35,242	2013	18,532
2001	29,004	2014	16,335
2002	29,427	2015	24,395
2003	40,069	2016	22,774
2004	57,934	2017	11,383
2005	37,725	2018	8,549
2006	31,150	2019	9,711
2007	18,714	2020	10,638

Table 10.–Commercial eulachon harvest, 1978, 1980, 1998–99, and 2006–2020.

Year	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	194.6	6
2020	423,613	211.8	7

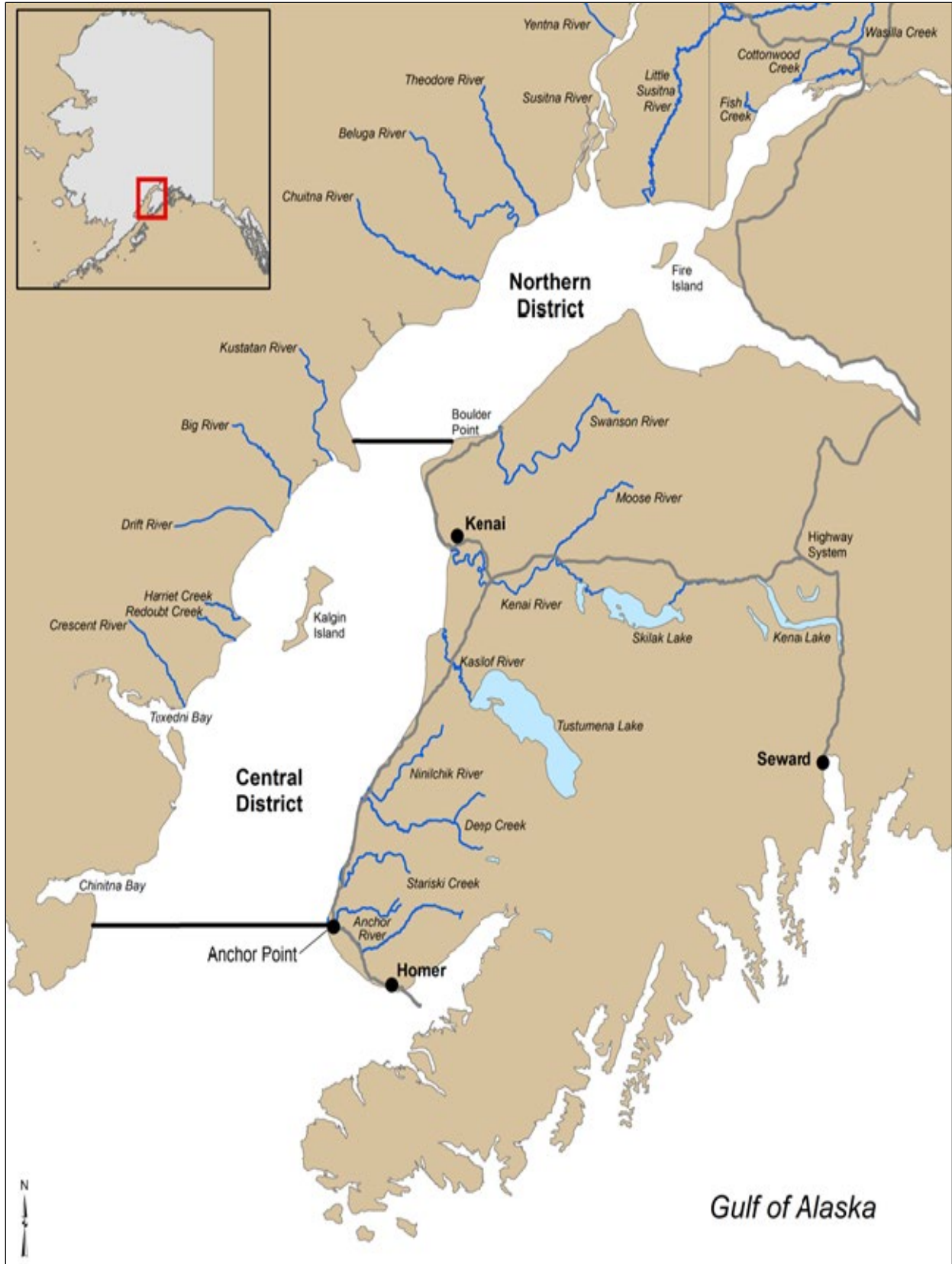


Figure 1.—Major tributaries of the Cook Inlet basin.

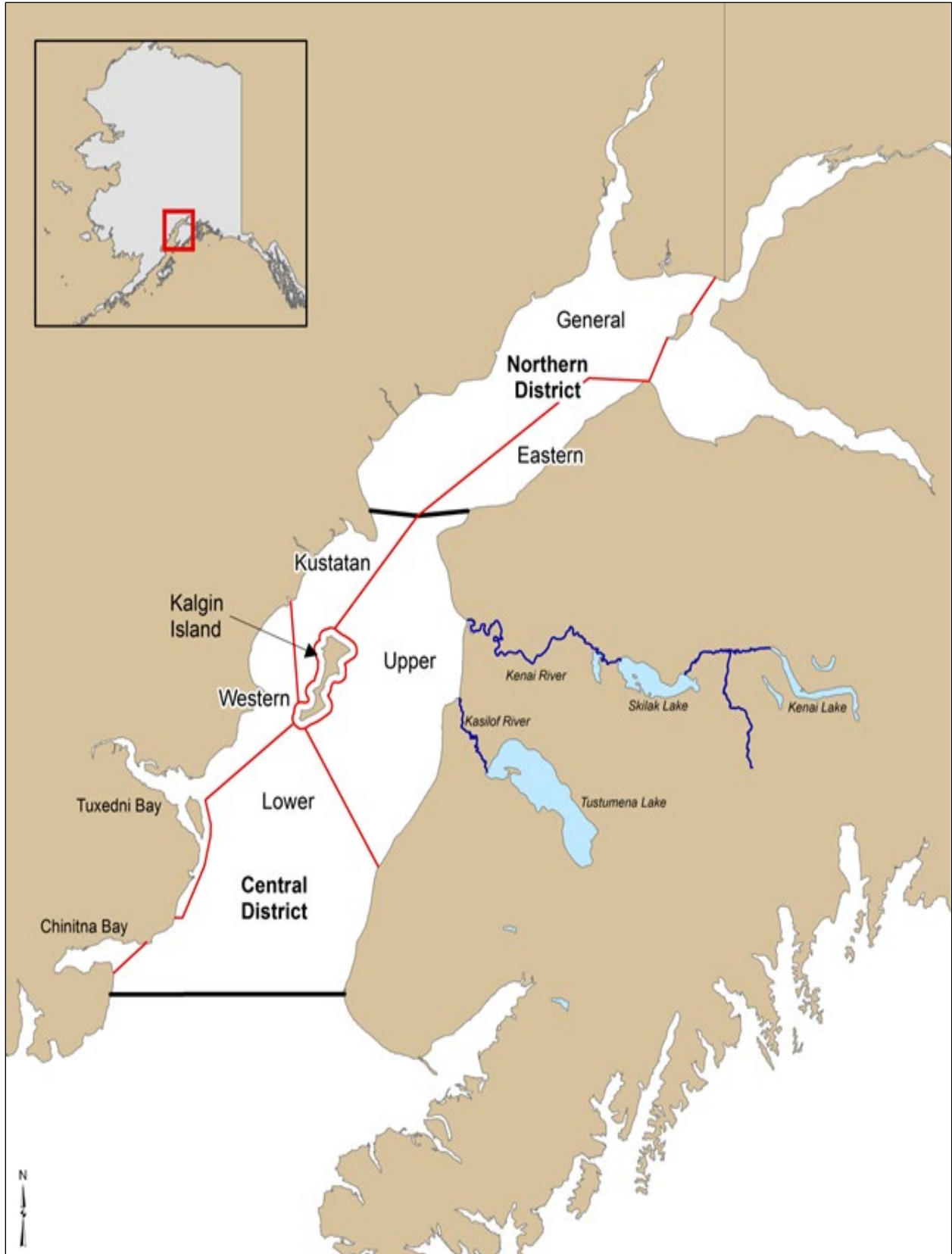


Figure 2.—Upper Cook Inlet commercial fisheries subdistrict fishing boundaries.



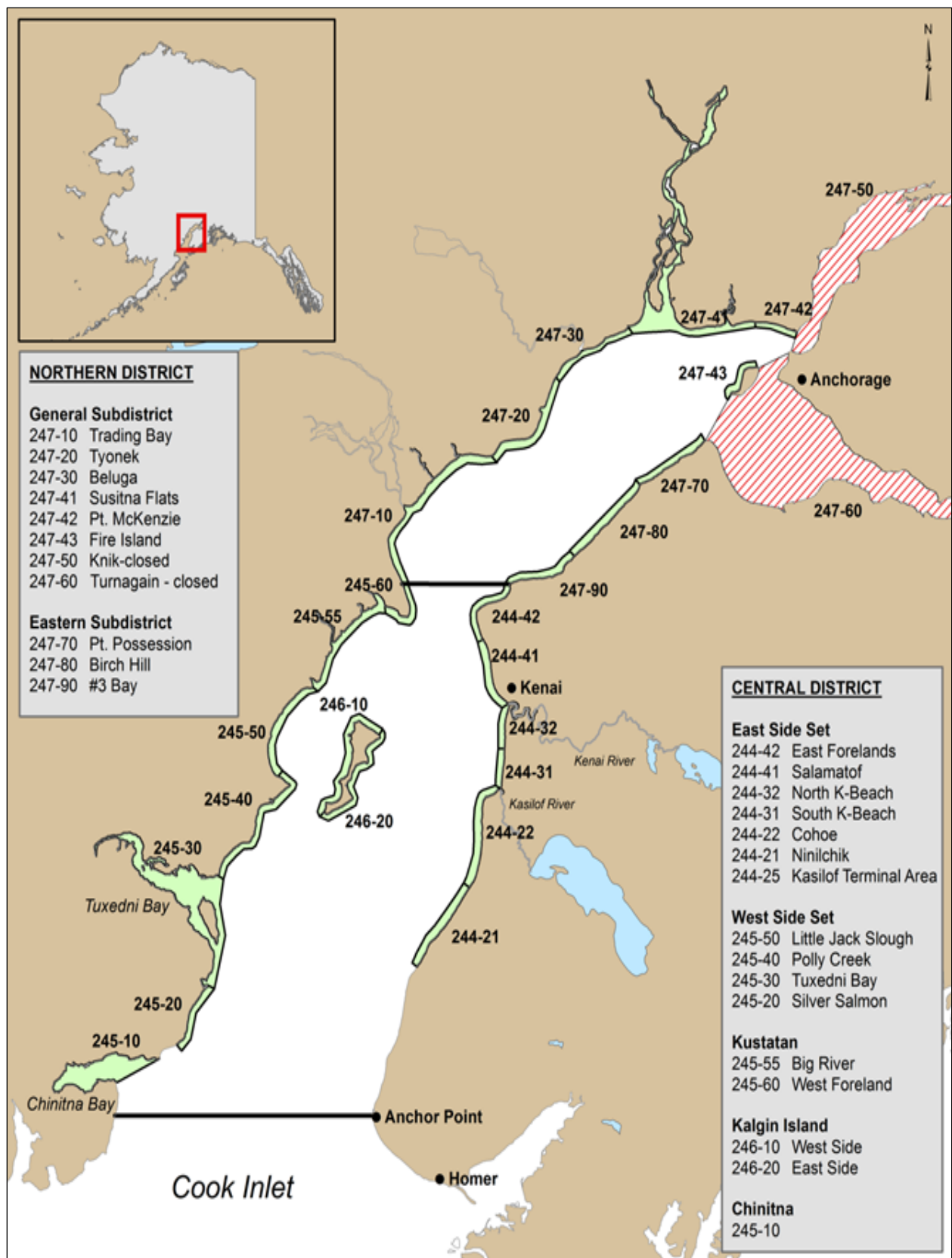


Figure 3.—Upper Cook Inlet commercial set gillnet statistical areas.

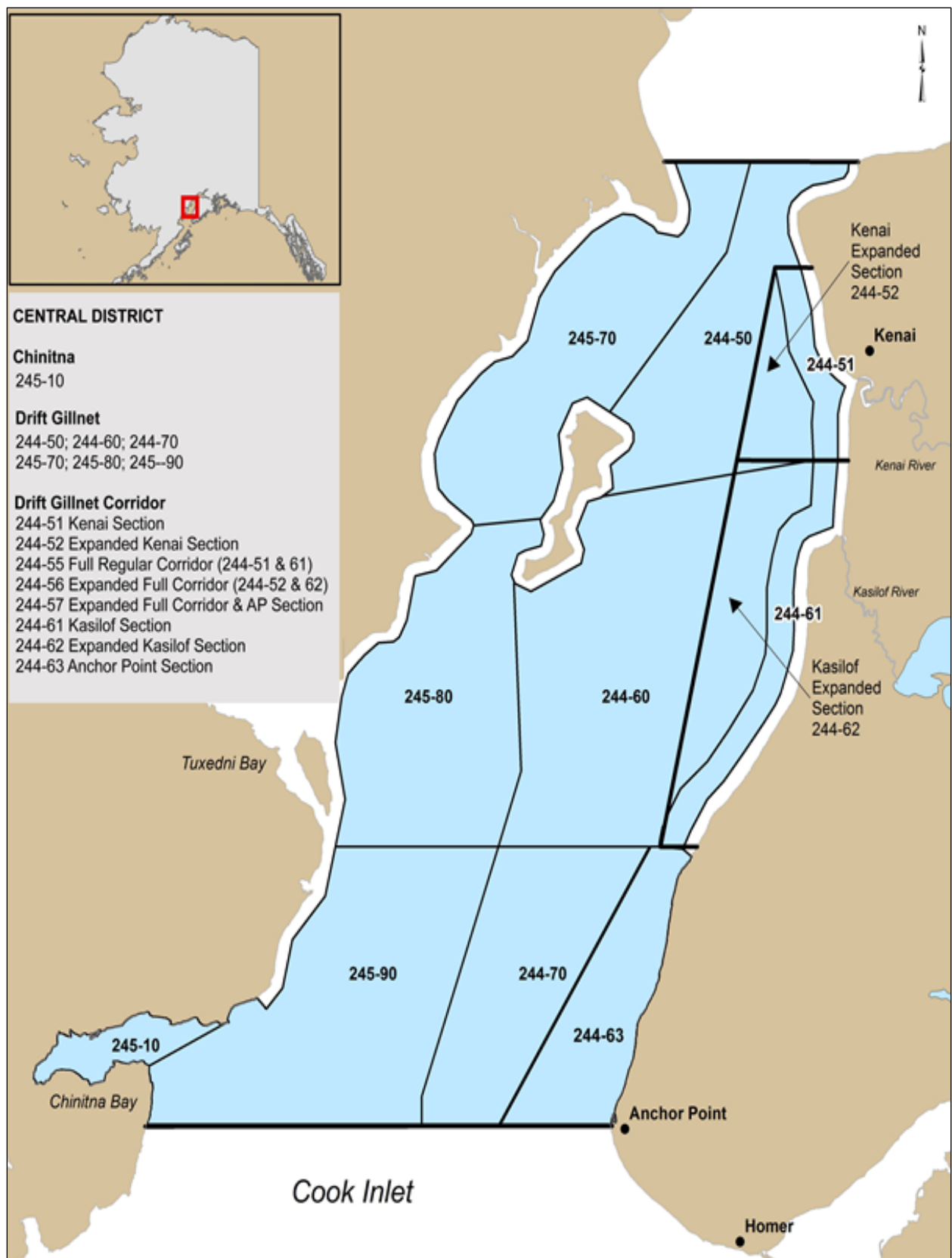


Figure 4.—Upper Cook Inlet commercial drift gillnet statistical areas.

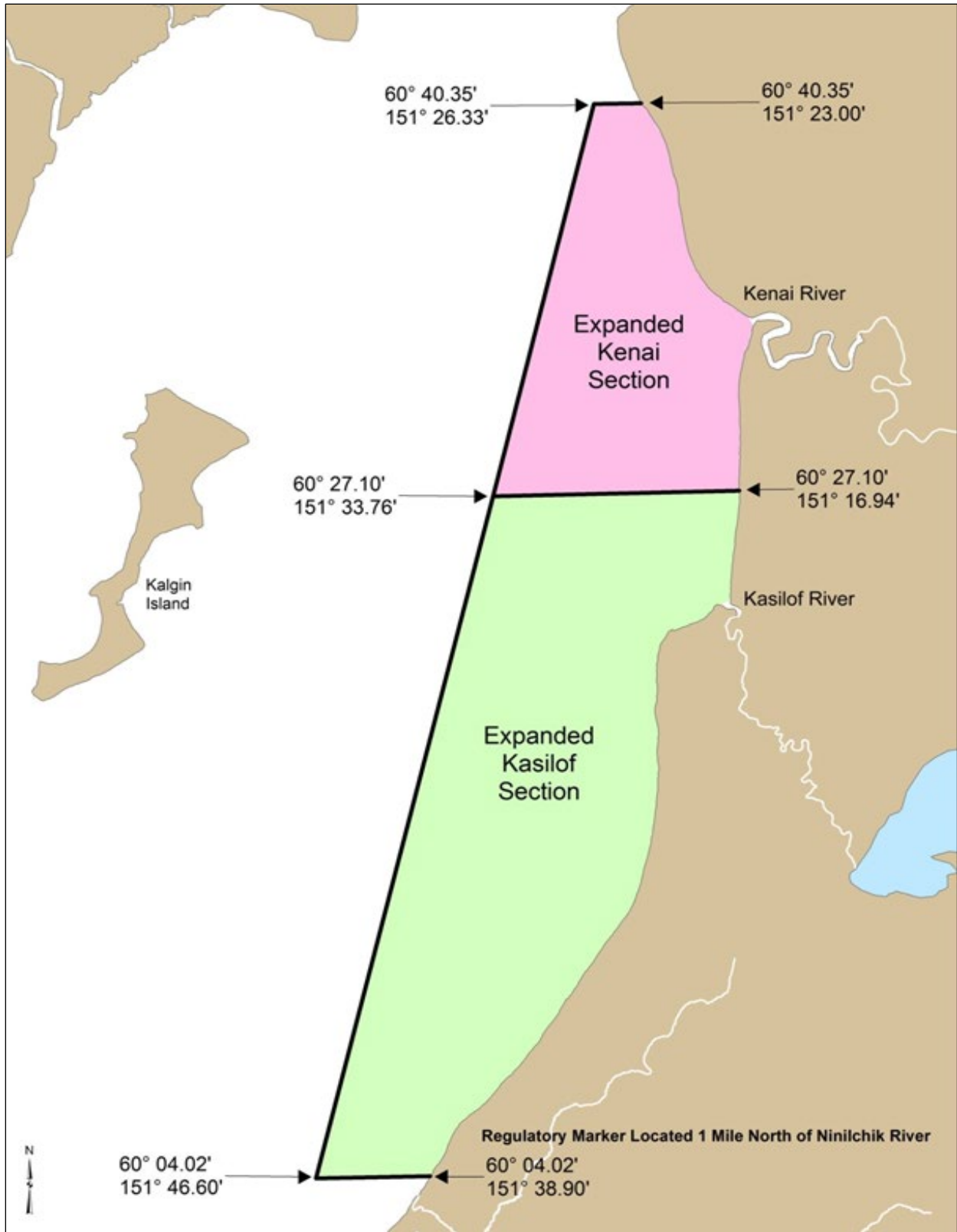


Figure 5.—Map of the Expanded Kenai and Expanded Kasilof Sections with waypoint descriptions.

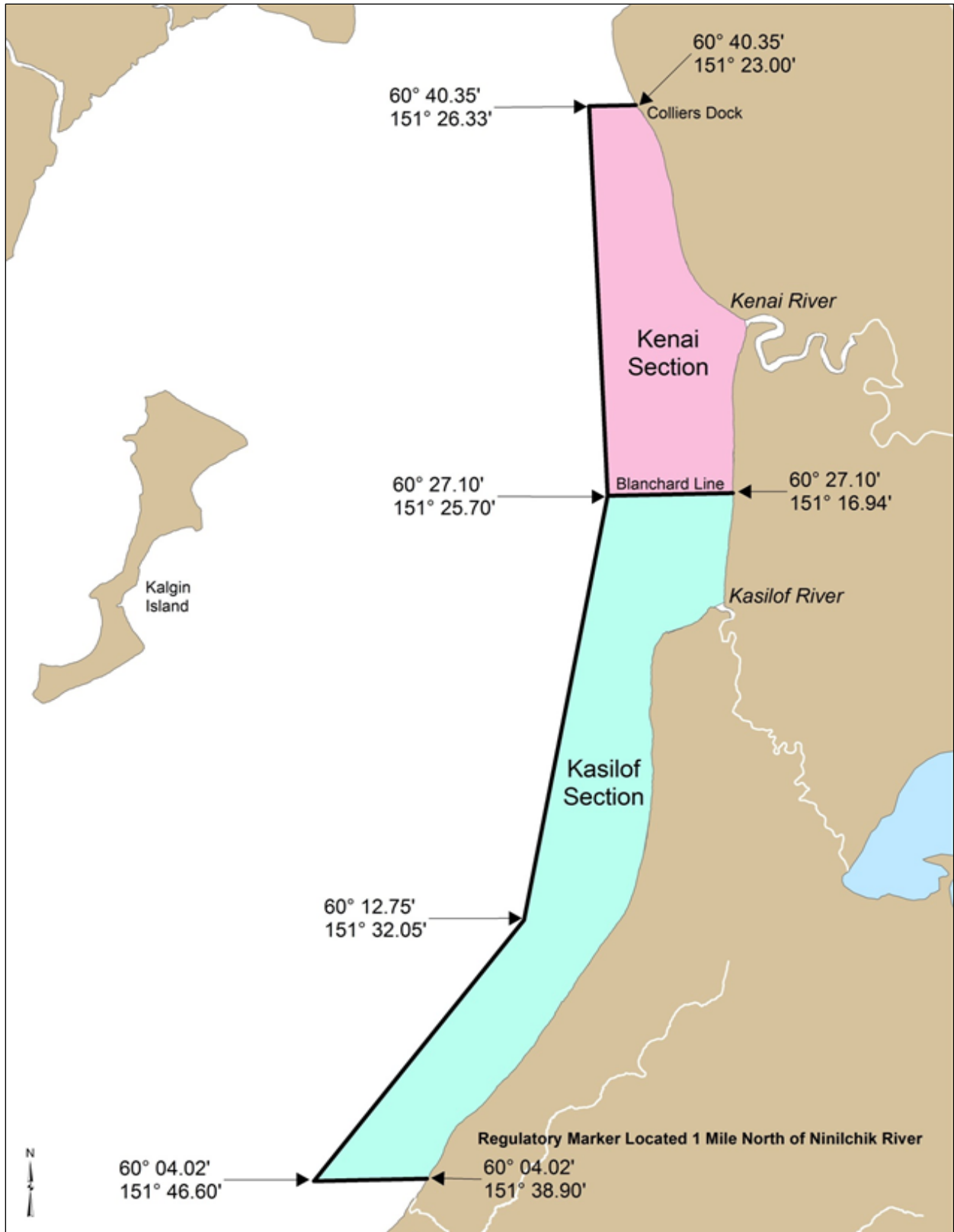


Figure 6.—Map of the Kenai and Kasilof Sections with waypoint descriptions.

## Drift Gillnet Area 1 and Area 2 Descriptions

### Area 2 Description and Coordinates

- A. Southwest Corner: 60° 20.43' N. lat, 151° 54.83' W. lon.
- B. Northwest Corner: 60° 41.08' N. lat., 151° 39.00' W. lon.
- C. Northeast Corner: 60° 41.08' N. lat., 151° 24.00' W. lon.
- D. Blanchard Line Corridor Boundary: 60° 27.10' N. lat., 151° 25.70' W. lon.
- E. Southeast Corner: 60° 20.43' N. lat., 151° 28.00' W. lon.

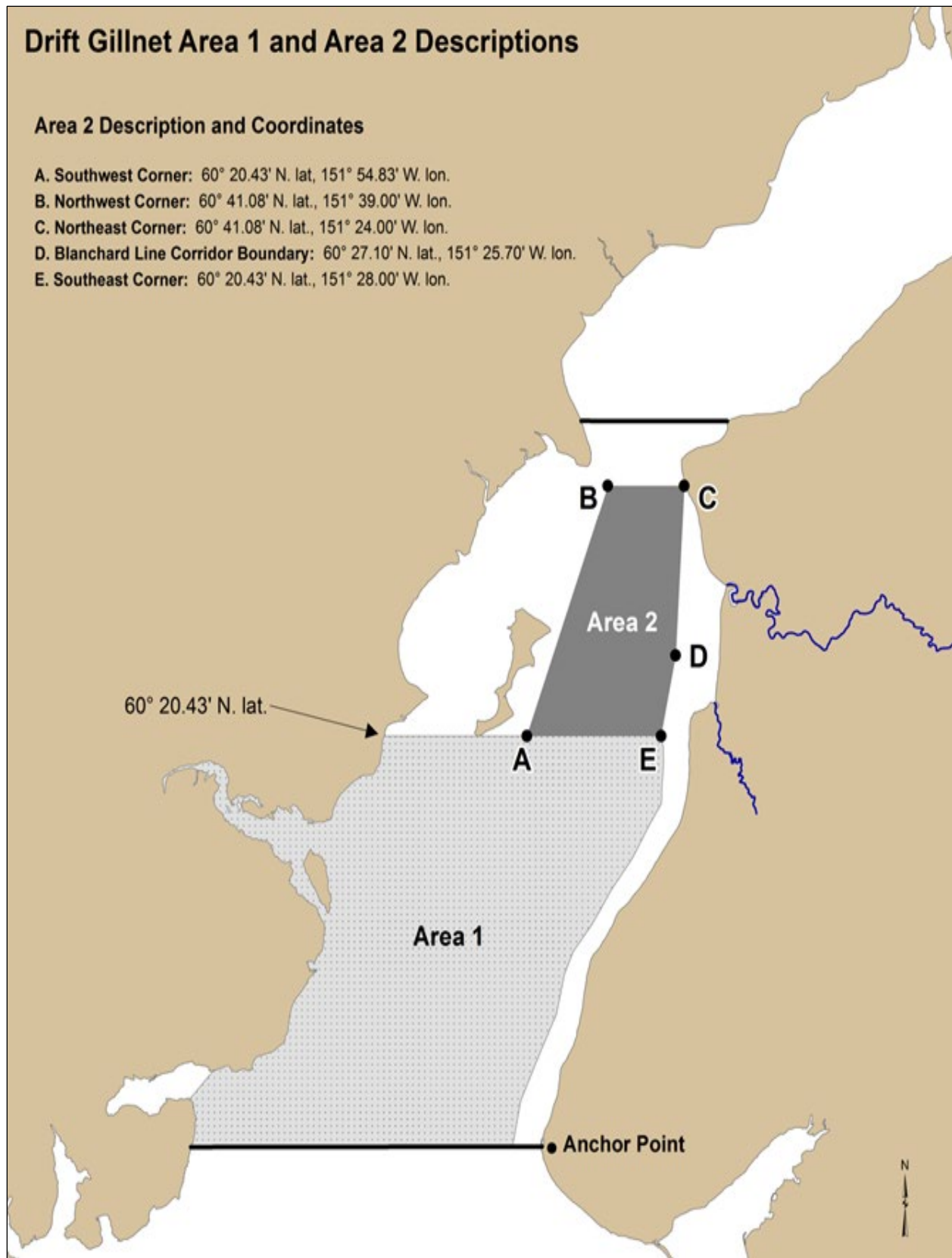


Figure 7.—Drift gillnet boundaries for fishing Areas 1 and 2.

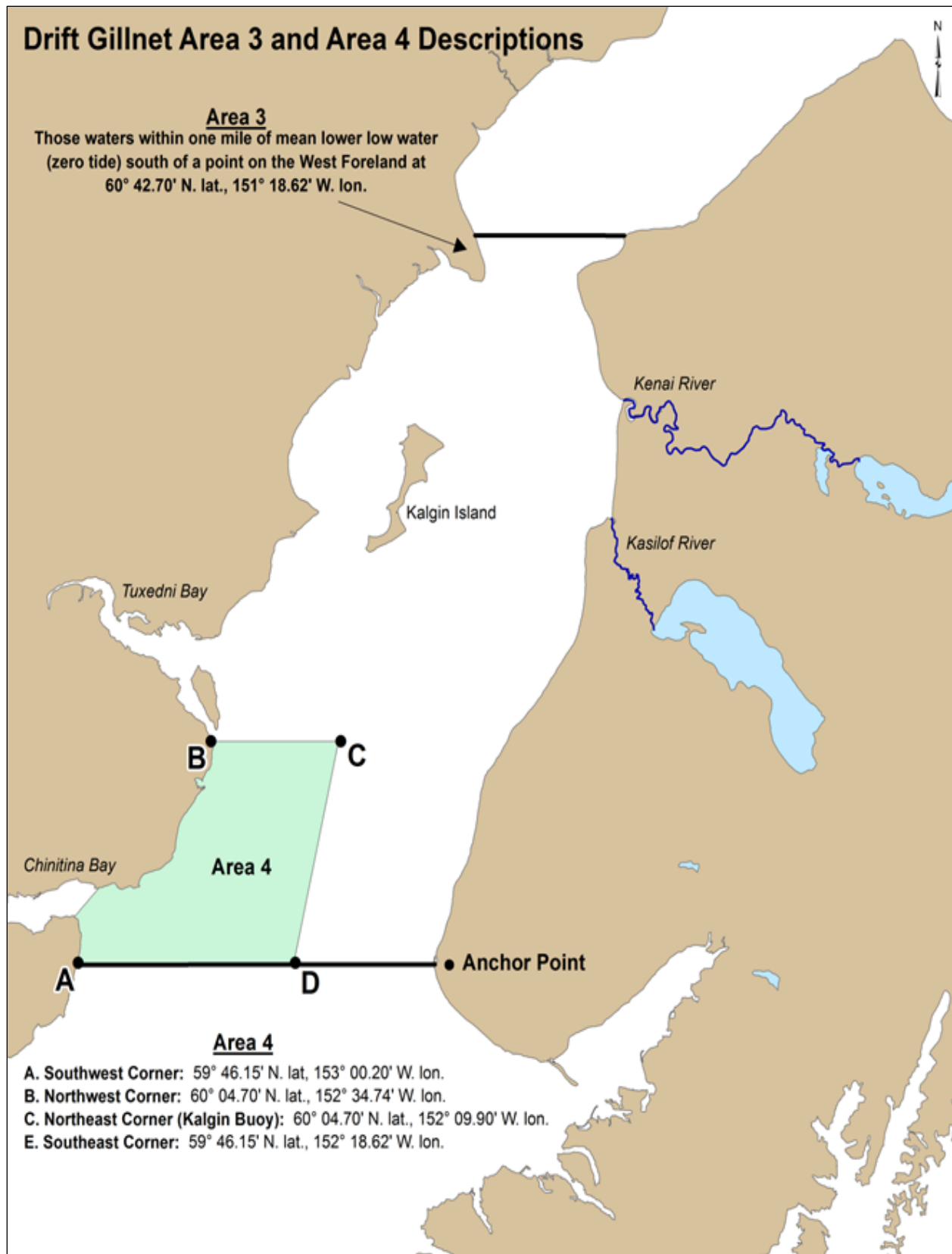


Figure 8.—Drift gillnet boundaries for fishing Areas 3 and 4.



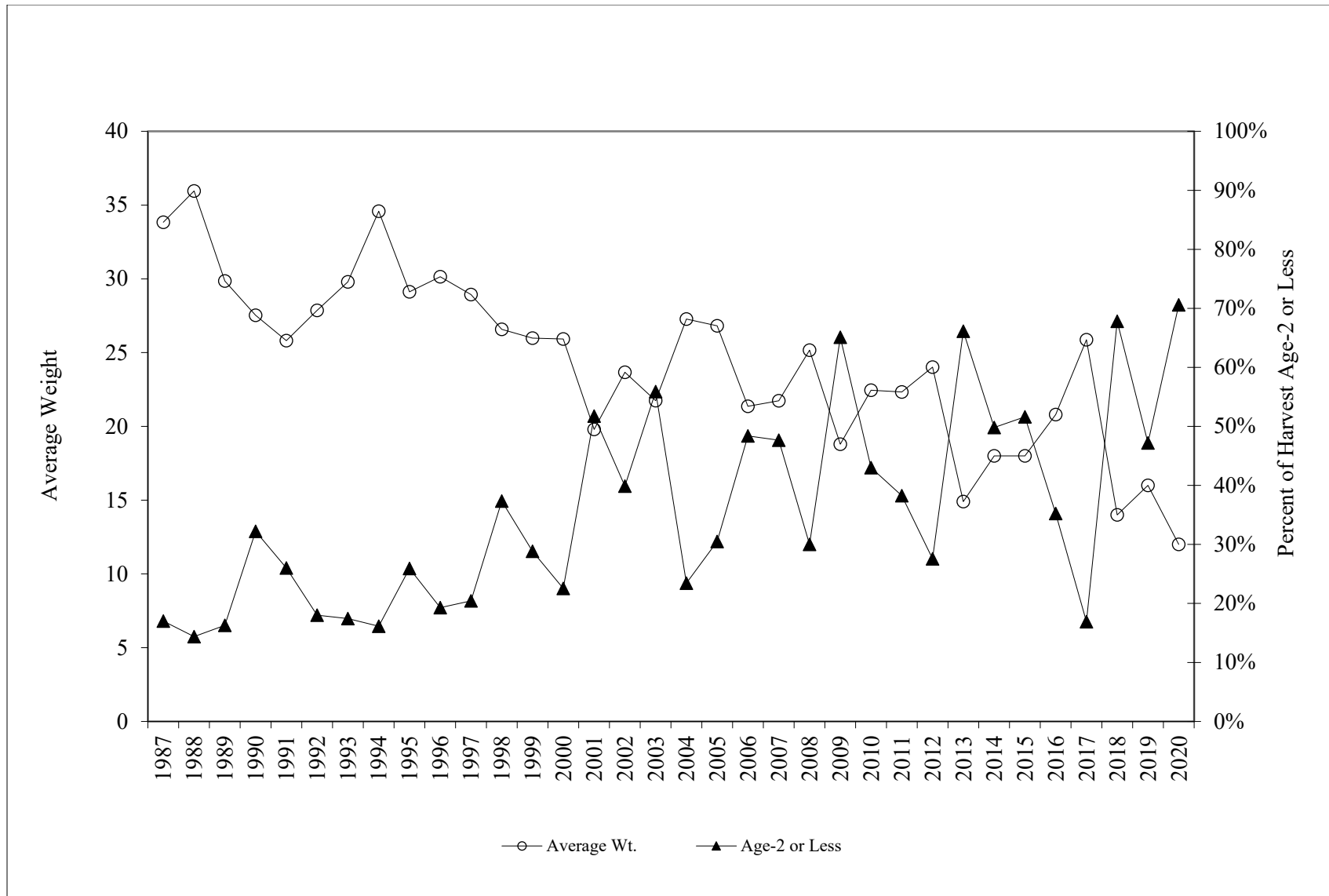


Figure 9.—Chinook salmon average weight (all fish) and percent of the harvest composed of fish ocean-age-2 or less in the Upper Subdistrict set gillnet commercial fishery, 1987–2020.

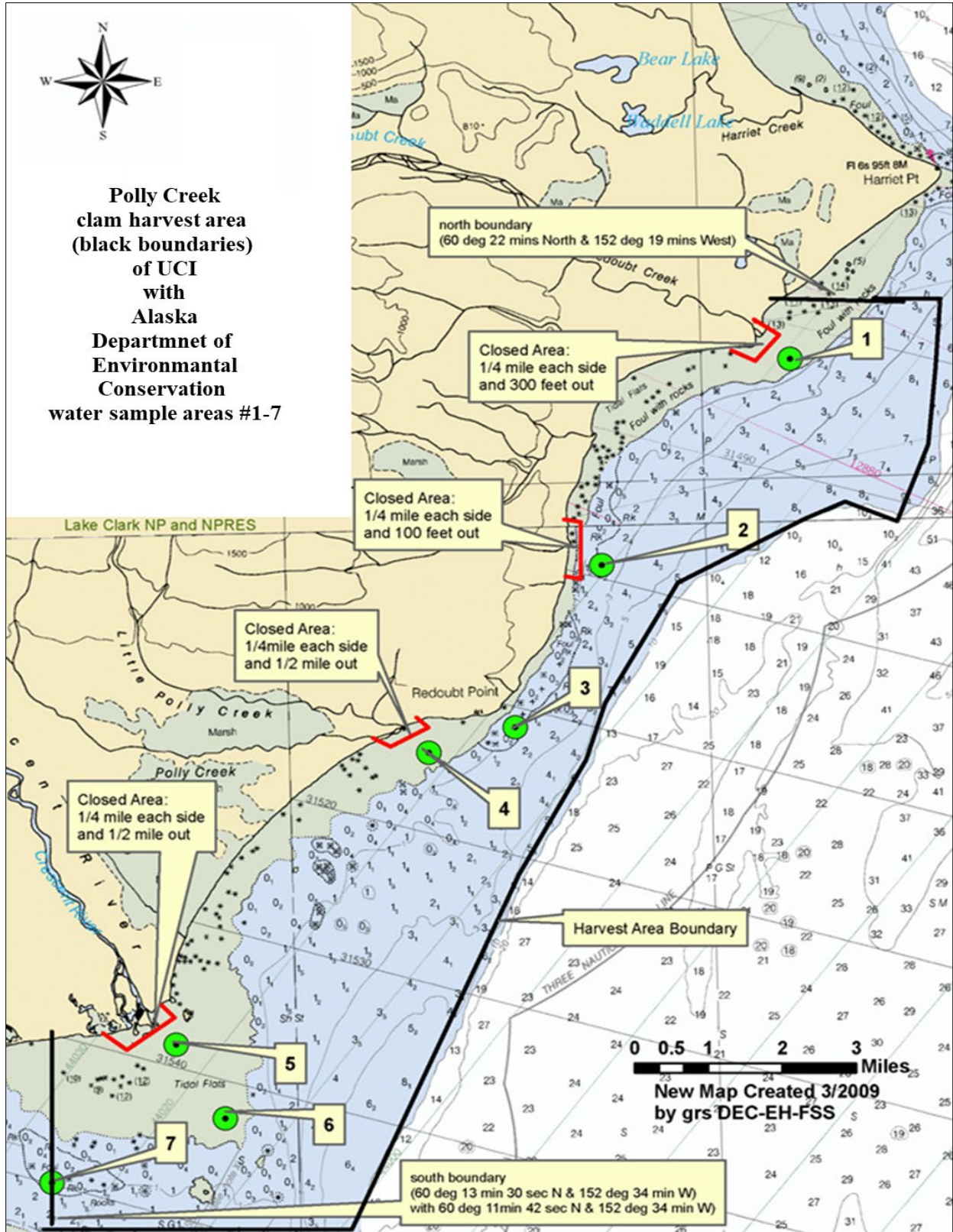


Figure 10.—Area open to the commercial razor clam fishery on the west side of Cook Inlet, Alaska.



## **APPENDIX A: 2020 SEASON DATA**

Appendix A1.–Offshore test fish sockeye salmon catch results and environmental data, 2020.

Date	No. of stations	Fishing time (min)	Catch		Index <sup>b</sup>		Mean length (mm)	Water temp (c)	Air temp (c)	Salinity (ppm)	Beginning wind		Ending wind	
			Daily	Cum	Daily	Cum					Vel	Dir	Vel	Dir
1-Jul	6	219	27	27	32	32	513	10.8	15.2	32.0	5	SE	5	SE
2-Jul	6	223	31	58	25	57	513	10.0	10.5	32.1	10	S	12	S
3-Jul	6	226	62	120	50	107	539	10.2	13.3	32.4	10	S	10	S
4-Jul	6	191	23	143	20	127	534	10.4	12.5	32.1	10	S	0	–
5-Jul	0 <sup>a</sup>	–	0	143	0	127	–	–	–	–	–	–	–	–
6-Jul	6	219	41	184	33	160	544	10.1	11.7	32.3	10	SW	10	SW
7-Jul	6	213	5	189	4	164	554	10.3	11.7	32.5	5	SW	5	SW
8-Jul	4	143	52	241	43	207	541	10.8	12.5	32.1	5	SW	10	SW
9-Jul	6	213	12	253	10	218	543	10.7	12.5	32.3	12	SW	5	SW
10-Jul	6	212	32	285	27	244	541	10.9	13.5	31.7	12	S	5	SW
11-Jul	6	216	83	368	68	312	556	10.9	12.0	31.9	5	S	20	S
12-Jul	6	197	73	441	64	377	551	11.4	12.0	31.2	18	SW	15	SW
13-Jul	6	213	25	466	21	398	552	11.7	11.8	30.1	12	N	15	N
14-Jul	6	226	77	543	61	458	554	12.1	14.8	30.8	5	S	5	S
15-Jul	6	239	272	815	190	648	560	12.2	13.0	29.9	10	S	12	SW
16-Jul	5	219	223	1,038	142	791	551	12.7	13.2	28.0	17	S	10	SW
17-Jul	6	217	50	1,088	38	829	556	12.7	13.5	28.8	0	–	12	N
18-Jul	6	216	21	1,109	17	846	552	12.5	13.7	28.8	10	SW	10	SW
19-Jul	4	122	11	1,120	11	857	567	11.9	12.3	30.0	10	SW	10	N
20-Jul	6	227	123	1,243	88	945	558	11.1	14.0	32.2	10	S	10	SW
21-Jul	6	197	8	1,251	7	952	550	11.5	14.0	30.7	5	S	10	S
22-Jul	4	132	37	1,288	37	989	554	10.7	12.0	32.6	11	NW	12	SW
23-Jul	6	217	45	1,333	37	1,026	439	11.3	12.2	32.2	10	SE	5	S
24-Jul	6	223	102	1,435	74	1,100	556	11.0	11.6	32.2	2	N	10	NE
25-Jul	6	208	19	1,454	15	1,115	555	10.7	12.2	32.4	10	–	0	–
26-Jul	6	227	40	1,494	66	1,181	552	11.3	13.5	32.2	8	SW	15	SW
27-Jul	6	202	119	1,613	105	1,286	566	11.1	12.5	32.5	10	S	20	S
28-Jul	6	217	30	1,643	22	1,308	552	11.5	16.5	32.1	10	S	0	–
29-Jul	6	201	9	1,652	8	1,316	560	11.9	14.3	31.4	5	SW	5	S
30-Jul	6	207	13	1,665	11	1,327	542	12.2	16.0	31.0	0	–	5	NW

Note: Wind speed (Vel) is measured in knots. En dash indicates no data.

<sup>a</sup> Not all stations fished due to weather or mechanical issues.

<sup>b</sup> Sockeye salmon indices were linearly interpolated for days with missing stations.

Appendix A2.–Upper Cook Inlet sockeye salmon count by watershed and date, 2020.

Date	Kenai River		Kasilof River		Fish Creek		Larson Lake		Judd Lake	
	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
15-Jun	–	–	3,942	3,942	–	–	–	–	–	–
16-Jun	–	–	4,759	8,701	–	–	–	–	–	–
17-Jun	–	–	2736	11,437	–	–	–	–	–	–
18-Jun	–	–	3,096	14,533	–	–	–	–	–	–
19-Jun	–	–	4,134	18,667	–	–	–	–	–	–
20-Jun	–	–	5,160	23,827	–	–	–	–	–	–
21-Jun	–	–	4,878	28,705	–	–	–	–	–	–
22-Jun	–	–	4,773	33,478	–	–	–	–	–	–
23-Jun	–	–	7,956	41,434	–	–	–	–	–	–
24-Jun	–	–	4,284	45,718	–	–	–	–	–	–
25-Jun	–	–	3,654	49,372	–	–	–	–	–	–
26-Jun	–	–	5,112	54,484	–	–	–	–	–	–
27-Jun	–	–	8,537	63,021	–	–	–	–	–	–
28-Jun	–	–	5,508	68,529	–	–	–	–	–	–
29-Jun	–	–	10,764	79,293	–	–	–	–	–	–
30-Jun	–	–	12,056	91,349	–	–	–	–	–	–
1-Jul	5,355	5,355	6,960	98,309	–	–	–	–	–	–
2-Jul	3,468	8,823	7,287	105,596	0	0	–	–	–	–
3-Jul	3,576	12,399	3,732	109,328	4	4	–	–	–	–
4-Jul	3,965	16,364	6,690	116,018	170	174	–	–	–	–
5-Jul	4,290	20,654	6,006	122,024	0	174	–	–	–	–
6-Jul	11,190	31,844	18,453	140,477	0	174	–	–	–	–
7-Jul	15,138	46,982	8,574	149,051	7	181	–	–	–	–
8-Jul	12,127	59,109	6,585	155,636	161	342	–	–	–	–
9-Jul	8,686	67,795	4,310	159,946	452	794	–	–	–	–
10-Jul	6,032	73,827	6,282	166,228	165	959	–	–	–	–
11-Jul	10,104	83,931	10,758	176,986	426	1,385	–	–	–	–
12-Jul	16,526	100,457	11,619	188,605	820	2,205	–	–	–	–
13-Jul	36,322	136,779	15,522	204,127	2,743	4,948	–	–	–	–
14-Jul	30,084	166,863	13,170	217,297	3,359	8,307	–	–	–	–
15-Jul	35,528	202,391	9,025	226,322	3,578	11,885	–	–	–	–

-continued-

Date	Kenai River		Kasilof River		Fish Creek		Larson Lake		Judd Lake	
	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
16-Jul	19,086	221,477	9,339	235,661	15,868	240,141	0	0	0	0
17-Jul	31,392	252,869	10,957	246,618	20,081	240,746	0	0	0	0
18-Jul	26,143	279,012	9,417	256,035	21,030	198,280	2	2	0	0
19-Jul	32,598	311,610	14,088	270,123	21,038	152,374	15	17	0	0
20-Jul	46,306	357,916	8,964	279,087	21,068	115,013	19	36	0	0
21-Jul	17,854	375,770	7,590	286,677	21,325	88,832	18	54	1	1
22-Jul	17,316	393,086	6,432	293,109	21,930	72,409	51	105	1	2
23-Jul	20,172	413,258	7,022	300,131	22,966	62,866	64	169	7	9
24-Jul	20,562	433,820	8,528	308,659	23,050	54,157	14	183	1	10
25-Jul	23,922	457,742	6,882	315,541	24,399	50,440	22	205	0	10
26-Jul	20,117	477,859	8,052	323,593	25,287	47,004	0	205	3	13
27-Jul	38,004	515,863	13,134	336,727	27,352	46,716	0	205	54	67
28-Jul	47,946	563,809	17,472	354,199	27,492	43,413	787	992	54	121
29-Jul	40,632	604,441	11,850	366,049	29,175	43,628	37	1,029	458	579
30-Jul	43,048	647,489	13,884	379,933	29,844	42,395	22	1,051	892	1,471
31-Jul	40,718	688,207	9,516	389,449	30,102	41,047	577	1,628	2,331	3,802
1-Aug	23,055	711,262	9,078	398,527	36,393	47,480	163	1,791	1,346	5,148
2-Aug	35,719	746,981	8,508	407,035	43,979	54,691	882	2,673	1,186	6,334
3-Aug	41,814	788,795	10,272	417,307	53,347	64,118	92	2,765	1,295	7,629
4-Aug	38,859	827,654	7,252	424,559	56,934	66,425	254	3,019	1,676	9,305
5-Aug	36,938	864,592	6,040	430,599	58,226	66,284	437	3,456	1,319	10,624
6-Aug	38,712	903,304	5,647	436,246	59,610	66,649	60	3,516	1,954	12,578
7-Aug	25,368	928,672	5,160	441,406	60,977	66,778	1,103	4,619	1,156	13,734
8-Aug	24,396	953,068	5,874	447,280	60,987	65,891	284	4,903	1,219	14,953
9-Aug	34,137	987,205	6,741	454,021	61,013	65,204	320	5,223	1,181	16,134
10-Aug	24,163	1,011,368	8,526	462,547	61,787	65,189	680	5,903	1,191	17,325
11-Aug	41,832	1,053,200	8,164	470,711	62,838	65,598	587	6,490	1,220	18,545
12-Aug	47,067	1,100,267	8,356	479,067	62,907	64,977	699	7,189	1,165	19,710
13-Aug	62,807	1,163,074	8,209	487,276	63,390	64,940	441	7,630	1,305	21,015
14-Aug	99,875	1,262,949	8,096	495,372	64,408	65,620	554	8,184	746	21,761
15-Aug	57,310	1,320,259	9,982	505,354	–	–	348	8,532	1,293	23,054

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Date	Kenai River		Kasilof River		Fish Creek		Larson Lake		Judd Lake	
	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
16-Aug	96,766	1,417,025	9,121	514,475	–	–	470	9,002	787	23,841
17-Aug	121,031	1,538,056	7,206	521,681	–	–	372	9,374	1,038	24,879
18-Aug	46,259	1,584,315	5,731	527,412	–	–	457	9,831	790	25,669
19-Aug	20,052	1,604,367	8,134	535,546	–	–	352	10,183	713	26,382
20-Aug	34,742	1,639,109	4,415	539,961	–	–	297	10,480	948	27,330
21-Aug	34,459	1,673,568	2,756	542,717	–	–	388	10,868	565	27,895
22-Aug	17,777	1,691,345	2,937	545,654	–	–	405	11,273	635	28,530
23-Aug	16,512	1,707,857	–	–	–	–	249	11,522	541	29,071
24-Aug	6,708	1,714,565	–	–	–	–	202	11,724	446	29,517
25-Aug	–	–	–	–	–	–	81	11,805	440	29,957
26-Aug	–	–	–	–	–	–	99	11,904	487	30,444
27-Aug	–	–	–	–	–	–	114	12,018	493	30,937
28-Aug	–	–	–	–	–	–	–	–	210	31,147
29-Aug	–	–	–	–	–	–	–	–	73	31,220

Appendix A3.–Commercial Chinook salmon catch by area and date, Upper Cook Inlet, 2020.

Northern District set gillnet																					
Area # name	247-10		247-20		247-30		247-41		247-42		247-43		247-70		247-80		247-90		All		
	Trading Bay		Tyonek		Beluga		Su. Flats		Pt. McKenzie		Fire Island		Pt. Possession		Birch Hill		#3 Bay				
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	
25-May	10	10	22	22	0	0	0	0	7	7	26	26	7	7	5	5	1	1	78	78	
1-Jun	70	80	91	113	0	0	1	1	35	42	29	55	52	59	16	21	9	10	303	381	
8-Jun	43	123	180	293	0	0	0	1	69	111	118	173	100	159	12	33	0	10	522	903	
15-Jun	79	202	234	527	0	0	6	7	40	151	53	226	29	188	4	37	1	11	446	1,349	
22-Jun	2	204	117	644	0	0	0	7	1	152	8	234	15	203	8	45	0	11	151	1,500	
25-Jun	21	225	31	675	0	0	0	7	2	154	9	243	3	206	2	47	2	13	70	1,570	
29-Jun	0	225	8	683	0	0	0	7	3	157	1	244	12	218	4	51	0	13	28	1,598	
2-Jul	7	232	18	701	0	0	0	7	0	157	1	245	1	219	0	51	0	13	27	1,625	
6-Jul	0	232	3	704	0	0	0	7	0	157	0	245	1	220	1	52	0	13	5	1,630	
9-Jul	1	233	6	710	0	0	0	7	0	157	3	248	0	220	0	52	0	13	10	1,640	
13-Jul	0	233	3	713	0	0	0	7	0	157	0	248	0	220	0	52	0	13	3	1,643	
16-Jul	0	233	1	714	1	1	0	7	0	157	0	248	0	220	0	52	0	13	2	1,645	
20-Jul	0	233	1	715	1	2	0	7	0	157	0	248	0	220	0	52	0	13	2	1,647	
23-Jul	0	233	2	717	0	2	0	7	0	157	0	248	0	220	1	53	1	14	4	1,651	
27-Jul	0	233	0	717	0	2	0	7	0	157	1	249	0	220	0	53	2	16	3	1,654	
3-Aug	2	235	0	717	0	2	0	7	0	157	0	249	0	220	0	53	0	16	2	1,656	
10-Aug	0	235	0	717	0	2	0	7	0	157	1	250	0	220	0	53	0	16	1	1,657	
17-Aug	0	235	0	717	0	2	0	7	0	157	0	250	0	220	0	53	1	17	1	1,658	

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Upper Subdistrict set gillnet																
Area # name	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		All Total	
	Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily
23-Jun	15	15	25	25	0	0	7	7	0	0	0	0	0	0	47	47
25-Jun	10	25	17	42	0	0	1	8	0	0	0	0	0	0	28	75
27-Jun	7	32	18	60	0	0	2	10	0	0	0	0	0	0	27	102
30-Jun	11	43	17	77	0	0	9	19	0	0	0	0	0	0	37	139
2-Jul	16	59	20	97	0	0	6	25	1	1	0	0	0	0	43	182
4-Jul	23	82	23	120	0	0	6	31	0	1	0	0	0	0	52	234
6-Jul	11	93	27	147	0	0	18	49	1	2	0	0	0	0	57	291
7-Jul	5	98	12	159	0	0	7	56	1	3	0	0	0	0	25	316
8-Jul	13	111	25	184	0	0	2	58	0	0	0	0	0	0	40	356
9-Jul	16	127	9	193	0	0	2	60	1	4	41	41	2	2	71	427
13-Jul	7	134	13	206	0	0	9	69	5	9	33	74	0	0	67	494
15-Jul	16	150	12	218	0	0	11	80	6	15	60	134	0	0	105	599
16-Jul	5	155	5	223	0	0	4	84	0	0	0	0	0	0	14	613
20-Jul	9	164	16	239	0	0	9	93	13	26	63	197	2	3	112	725
21-Jul	4	168	5	244	0	0	3	96	0	0	0	0	0	0	12	737
22-Jul	14	182	13	257	0	0	13	109	15	39	56	253	4	7	115	852

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Appendix A3.–Page 3 of 4.

Central District - west side set gillnet																				
Area #	245-10		245-20		245-30		245-40		245-50		245-55		245-60		246-10		246-20		All	
name	Chinitna Bay		Silv. Salmon		Tuxedni Bay		Polly Cr.		L. J. Slough		Big River		W. Forelands		Kalgin west		Kalgin east			
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
1-Jun	0	0	0	0	0	0	0	0	0	0	18	18	0	0	21	21	0	0	39	39
3-Jun	0	0	0	0	0	0	0	0	0	0	33	51	0	0	32	53	0	0	65	104
5-Jun	0	0	0	0	0	0	0	0	0	0	8	59	0	0	19	72	0	0	27	131
8-Jun	0	0	0	0	0	0	0	0	0	0	1	60	0	0	5	77	0	0	6	137
10-Jun	0	0	0	0	0	0	0	0	0	0	11	71	0	0	51	128	0	0	62	199
12-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	131	0	0	3	202
15-Jun	0	0	0	0	0	0	0	0	0	0	1	72	0	0	5	136	0	0	6	208
18-Jun	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2	210
22-Jun	0	0	0	0	8	10	0	0	0	0	2	74	0	0	4	140	0	0	14	224
24-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	148	0	0	8	232
25-Jun	0	0	0	0	13	23	0	0	0	0	0	0	4	4	2	150	0	0	19	251
29-Jun	0	0	0	0	14	37	0	0	0	0	0	0	0	0	2	152	0	0	16	267
2-Jul	0	0	0	0	9	46	0	0	0	0	0	0	2	6	0	0	0	0	11	278
6-Jul	0	0	0	0	2	48	0	0	0	0	0	0	0	0	0	0	0	0	2	280
9-Jul	0	0	0	0	8	56	0	0	0	0	0	0	0	0	0	0	0	0	8	288
13-Jul	0	0	0	0	2	58	0	0	1	1	0	0	0	0	2	154	0	0	5	293
16-Jul	0	0	0	0	7	65	0	0	0	0	0	0	0	0	2	156	0	0	9	302
18-Jul	0	0	0	0	1	66	0	0	0	0	0	0	0	0	0	0	0	0	1	303
20-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	159	0	0	3	306
23-Jul	0	0	0	0	1	67	0	0	0	0	0	0	0	0	3	162	0	0	4	310
25-Jul	0	0	0	0	1	68	0	0	0	0	0	0	0	0	0	0	0	0	1	311
27-Jul	0	0	0	0	1	69	0	0	0	0	0	0	0	0	1	163	0	0	2	313
1-Aug	0	0	0	0	1	70	0	0	0	0	0	0	0	0	0	0	0	0	1	314
3-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	164	0	0	1	315
10-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	165	0	0	1	316
20-Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	166	0	0	1	317

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Central District drift gillnet															
Area #		244-56		244-57		244-60		244-61		244-60		245-10		Total	
name		Exp. Ken/Kas		Exp. Ken/Kas & AP		Area 1/Districtwide		Kas. Section		Areas 3 and 4		Chinitna Bay			
Date	Deliveries	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
22-Jun	<3	0	0	0	0	1	1	0	0	0	0	0	0	1	1
25-Jun	5	0	0	0	0	6	7	0	0	0	0	0	0	6	7
29-Jun	6	0	0	0	0	7	14	0	0	0	0	0	0	7	14
2-Jul	11	0	0	0	0	11	25	0	0	0	0	0	0	11	25
6-Jul	11	0	0	0	0	13	38	0	0	0	0	0	0	13	38
9-Jul	21	0	0	0	0	73	111	0	0	0	0	0	0	73	111
13-Jul	20	0	0	0	0	20	131	0	0	0	0	0	0	20	131
15-Jul	11	12	12	0	0	0	131	0	0	0	0	0	0	12	143
16-Jul	8	13	25	0	0	0	131	0	0	0	0	0	0	13	156
20-Jul	5	0	25	6	6	0	131	0	0	0	0	0	0	6	162
22-Jul	5	0	25	6	12	0	131	0	0	0	0	0	0	6	168
23-Jul	6	6	31	0	12	0	131	0	0	0	0	0	0	6	174
27-Jul	3	4	35	0	12	0	131	0	0	0	0	0	0	4	178
3-Aug	<3	0	35	1	13	0	131	0	0	0	0	0	0	1	179
17-Aug	<3	0	35	0	13	0	131	0	0	1	1	0	0	1	180
25-Aug	<3	0	35	0	13	0	131	0	0	0	0	1	1	1	181

Appendix A4.–Commercial sockeye salmon catch by area and date, Upper Cook Inlet 2020.

Northern District set gillnet																					
Area # name	247-10		247-20		247-30		247-41		247-42		247-43		247-70		247-80		247-90		Total		
	Trading Bay		Tyonek		Beluga		Su. Flats		Pt. McKenzie		Fire Island		Pt. Possession		Birch Hill		#3 Bay		Day	Cum	
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	
25-May	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	3	3	4	4
1-Jun	7	7	0	0	0	0	0	0	5	5	3	3	15	16	12	12	31	34	73	77	
8-Jun	4	11	2	2	0	0	0	0	0	0	0	3	141	157	23	35	41	75	211	288	
15-Jun	27	38	8	10	0	0	0	0	1	6	1	4	64	221	34	69	36	111	171	459	
22-Jun	1	39	5	15	0	0	0	0	0	6	0	4	22	243	13	82	80	191	121	580	
25-Jun	10	49	1	16	0	0	0	0	2	8	0	4	7	250	52	134	182	373	254	834	
29-Jun	5	54	7	23	0	0	0	0	8	16	3	7	119	369	68	202	83	456	293	1,127	
2-Jul	58	112	136	159	0	0	0	0	2	18	10	17	212	581	149	351	293	749	860	1,987	
6-Jul	154	266	417	576	0	0	18	18	0	18	16	33	887	1,468	619	970	868	1,617	2,979	4,966	
9-Jul	93	359	618	1,194	0	0	35	53	120	138	94	127	702	2,170	420	1,390	251	1,868	2,333	7,299	
13-Jul	168	527	976	2,170	393	393	124	177	113	251	42	169	682	2,852	819	2,209	417	2,285	3,734	11,033	
16-Jul	539	1,066	746	2,916	233	626	186	363	346	597	79	248	313	3,165	662	2,871	606	2,891	3,710	14,743	
20-Jul	29	1,095	1,314	4,230	823	1,449	211	574	353	950	202	450	588	3,753	803	3,674	712	3,603	5,035	19,778	
23-Jul	106	1,201	402	4,632	205	1,654	171	745	368	1,318	177	627	234	3,987	176	3,850	511	4,114	2,350	22,128	
27-Jul	881	2,082	775	5,407	146	1,800	133	878	101	1,419	251	878	298	4,285	483	4,333	1,072	5,186	4,140	26,268	
30-Jul	270	2,352	561	5,968	92	1,892	26	904	121	1,540	42	920	429	4,714	643	4,976	1,374	6,560	3,558	29,826	
3-Aug	239	2,591	832	6,800	700	2,592	165	1,069	210	1,750	113	1,033	770	5,484	975	5,951	1,182	7,742	5,186	35,012	
6-Aug	58	2,649	331	7,131	95	2,687	0	1,069	292	2,042	0	1,033	270	5,754	516	6,467	644	8,386	2,206	37,218	
10-Aug	136	2,785	445	7,576	27	2,714	135	1,204	162	2,204	211	1,244	324	6,078	801	7,268	1,002	9,388	3,243	40,461	
13-Aug	1,046	3,831	419	7,995	0	2,714	116	1,320	11	2,215	60	1,304	298	6,376	449	7,717	657	10,045	3,056	43,517	
17-Aug	524	4,355	21	8,016	0	2,714	12	1,332	114	2,329	44	1,348	136	6,512	203	7,920	563	10,608	1,617	45,134	
20-Aug	386	4,741	0	8,016	0	2,714	0	1,332	24	2,353	36	1,384	125	6,637	292	8,212	481	11,089	1,344	46,478	
24-Aug	124	4,865	11	8,027	0	2,714	0	1,332	8	2,361	17	1,401	202	6,839	150	8,362	421	11,510	933	47,411	
27-Aug	4	4,869	2	8,029	0	2,714	0	1,332	0	2,361	0	1,401	69	6,908	70	8,432	89	11,599	234	47,645	
31-Aug	2	4,871	0	8,029	0	2,714	0	1,332	0	2,361	0	1,401	28	6,936	63	8,495	4	11,603	97	47,742	
3-Sep	1	4,872	0	8,029	0	2,714	0	1,332	0	2,361	0	1,401	16	6,952	11	8,506	45	11,648	73	47,815	
7-Sep	1	4,873	0	8,029	0	2,714	0	1,332	0	2,361	0	1,401	0	6,952	3	8,509	0	11,648	4	47,819	
10-Sep	0	4,873	0	8,029	0	2,714	0	1,332	0	2,361	0	1,401	0	6,952	2	8,511	0	11,648	2	47,821	
21-Sep	1	4,874	0	8,029	0	2,714	0	1,332	0	2,361	0	1,401	0	6,952	0	8,511	0	11,648	1	47,822	

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Appendix A4.–Page 2 of 6.

Upper Subdistrict set gillnet														
Area #	244-21		244-22		244-31		244-32		244-41		244-42		Total	
name	Ninilchik		Cohoe		South K-Beach		North K-Beach		Salamatof		E. Forelands			
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
23-Jun	4,769	4,769	3,614	3,614	5,257	5,257	0	0	0	0	0	0	13,640	13,640
25-Jun	6,365	11,134	4,528	8,142	1,816	7,073	0	0	0	0	0	0	12,709	26,349
27-Jun	5,193	16,327	3,740	11,882	2,282	9,355	0	0	0	0	0	0	11,215	37,564
30-Jun	4,231	20,558	3,821	15,703	8,288	17,643	0	0	0	0	0	0	16,340	53,904
2-Jul	8,263	28,821	3,967	19,670	2,823	20,466	1,897	1,897	0	0	0	0	16,950	70,854
4-Jul	5,916	34,737	3,977	23,647	2,280	22,746	684	2,581	0	0	0	0	12,857	83,711
6-Jul	8,747	43,484	9,939	33,586	6,506	29,252	2,260	4,841	0	0	0	0	27,452	111,163
7-Jul	3,154	46,638	2,416	36,002	1,291	30,543	1,796	6,637	0	0	0	0	8,657	119,820
8-Jul	6,070	52,708	2,615	38,617	1,144	31,687	629	7,266	0	0	0	0	10,458	130,278
9-Jul	6,145	58,853	4,040	42,657	1,406	33,093	1,479	8,745	2,587	2,587	889	889	16,546	146,824
13-Jul	6,966	65,819	4,145	46,802	3,781	36,874	3,032	11,777	9,918	12,505	3,833	4,722	31,675	178,499
15-Jul	4,256	70,075	3,159	49,961	4,201	41,075	3,420	15,197	7,260	19,765	1,577	6,299	23,873	202,372
16-Jul	2,583	72,658	992	50,953	940	42,015	2,275	17,472	0	19,765	0	6,299	6,790	209,162
20-Jul	5,644	78,302	2,962	53,915	2,994	45,009	2,947	20,419	24,066	43,831	6,840	13,139	45,453	254,615
21-Jul	1,601	79,903	979	54,894	1,382	46,391	0	20,419	0	43,831	0	13,139	3,962	258,577
22-Jul	2,084	81,987	1,727	56,621	1,926	48,317	2,207	22,626	17,788	61,619	11,032	24,171	36,764	295,341

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Appendix A4.–Page 3 of 6.

Central District - west side set gillnet																
Area # name	245-10		245-30		245-50		245-55		245-60		246-10		246-20		Total	
	Chinitna Bay		Tuxedni Bay		L. J. Slough		Big River		W. Forelands		Kalgin west		Kalgin east			
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
1-Jun	0	0	0	0	0	0	117	117	0	0	373	373	0	0	490	490
3-Jun	0	0	0	0	0	0	475	592	0	0	729	1,102	0	0	1,204	1,694
5-Jun	0	0	0	0	0	0	206	798	0	0	583	1,685	0	0	789	2,483
8-Jun	0	0	0	0	0	0	95	893	0	0	243	1,928	0	0	338	2,821
10-Jun	0	0	0	0	0	0	308	1,201	0	0	983	2,911	0	0	1,291	4,112
12-Jun	0	0	0	0	0	0	0	1,201	0	0	279	3,190	0	0	279	4,391
15-Jun	0	0	0	0	0	0	90	1,291	0	0	225	3,415	0	0	315	4,706
18-Jun	0	0	164	164	10	10	0	1,291	0	0	0	3,415	0	0	174	4,880
19-Jun	0	0	0	164	0	10	0	1,291	0	0	225	3,640	0	0	225	5,105
22-Jun	0	0	473	637	0	10	24	1,315	0	0	1,312	4,952	0	0	1,809	6,914
24-Jun	0	0	0	637	0	10	0	1,315	0	0	1,018	5,970	0	0	1,018	7,932
25-Jun	0	0	677	1,314	0	10	0	1,315	20	20	760	6,730	250	250	1,707	9,639
29-Jun	0	0	1,334	2,648	15	25	0	1,315	0	20	609	7,339	0	250	1,958	11,597
2-Jul	0	0	1,268	3,916	60	85	205	1,520	112	132	1,952	9,291	278	528	3,875	15,472
6-Jul	0	0	1,904	5,820	69	154	0	1,520	352	484	1,186	10,477	283	811	3,794	19,266

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Appendix A4.–Page 4 of 6.

Central District - west side set gillnet																
Area #	245-10		245-30		245-50		245-55		245-60		246-10		246-20		Total	
name	Chinitna Bay		Tuxedni Bay		L. J. Slough		Big River		W. Forelands		Kalgin west		Kalgin east			
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
9-Jul	0	0	1,280	7,100	86	240	171	1,691	50	534	2,127	12,604	396	1,207	4,110	23,376
13-Jul	0	0	1,842	8,942	187	427	324	2,015	0	534	1,186	13,790	344	1,551	3,883	27,259
16-Jul	0	0	1,206	10,148	148	575	390	2,405	402	936	1,736	15,526	248	1,799	4,130	31,389
18-Jul	0	0	2,086	12,234	0	575	0	2,405	0	936	0	15,526	0	1,799	2,086	33,475
20-Jul	0	0	1,320	13,554	140	715	331	2,736	60	996	2,161	17,687	515	2,314	4,527	38,002
23-Jul	0	0	1,606	15,160	158	873	128	2,864	147	1,143	1,033	18,720	312	2,626	3,384	41,386
25-Jul	0	0	1,644	16,804	0	873	0	2,864	0	1,143	0	18,720	0	2,626	1,644	43,030
27-Jul	0	0	1,387	18,191	333	1,206	30	2,894	590	1,733	2,664	21,384	789	3,415	5,793	48,823
30-Jul	0	0	1,196	19,387	199	1,405	29	2,923	1,120	2,853	1,389	22,773	432	3,847	4,365	53,188
1-Aug	0	0	1,415	20,802	0	1,405	0	2,923	0	2,853	0	22,773	0	3,847	1,415	54,603
3-Aug	3	3	780	21,582	190	1,595	331	3,254	531	3,384	2,261	25,034	1,368	5,215	5,464	60,067
6-Aug	0	3	427	22,009	94	1,689	141	3,395	310	3,694	1,344	26,378	422	5,637	2,738	62,805
10-Aug	2	5	0	22,009	63	1,752	118	3,513	182	3,876	899	27,277	244	5,881	1,508	64,313
13-Aug	3	8	248	22,257	68	1,820	145	3,658	0	3,876	625	27,902	322	6,203	1,411	65,724
17-Aug	10	18	0	22,257	50	1,870	163	3,821	0	3,876	995	28,897	127	6,330	1,345	67,069
20-Aug	0	18	0	22,257	761	2,631	175	3,996	0	3,876	481	29,378	0	6,330	1,417	68,486
24-Aug	0	18	0	22,257	0	2,631	163	4,159	0	3,876	134	29,512	0	6,330	297	68,783
3-Sep	0	18	0	22,257	0	2,631	49	4,208	0	3,876	0	29,512	0	6,330	49	68,832
7-Sep	0	18	0	22,257	0	2,631	0	4,208	0	3,876	0	29,512	0	6,330	0	68,832
10-Sep	0	18	0	22,257	0	2,631	32	4,240	0	3,876	0	29,512	0	6,330	32	68,864

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Central District drift gillnet															
Date	Deliveries	244-56		244-57		244-60		244-61		244-60		245-10		Total	
		Exp. Ken/Kas		Exp. Ken/Kas/A.P.		Area 1/District W.		Kas. Section		Areas 3 and 4		Chinitna Bay			
		Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
22-Jun	31	0	0	0	0	1,043	1,043	0	0	0	0	0	0	1,043	1,043
25-Jun	68	0	0	0	0	3,554	4,597	0	0	0	0	0	0	3,554	4,597
27-Jun	<3	0	0	0	0	0	4,597	79	79	0	0	0	0	79	4,676
29-Jun	55	0	0	0	0	4,699	9,296	0	79	0	0	0	0	4,699	9,375
30-Jun	8	0	0	0	0	0	9,296	155	234	0	0	0	0	155	9,530
2-Jul	183	0	0	0	0	14,652	23,948	0	234	0	0	0	0	14,652	24,182
4-Jul	<3	0	0	0	0	0	23,948	9	243	0	0	0	0	9	24,191
6-Jul	209	0	0	0	0	16,782	40,730	0	243	0	0	0	0	16,782	40,973
7-Jul	<3	0	0	0	0	0	40,730	13	256	0	0	0	0	13	40,986
8-Jul	5	0	0	0	0	0	40,730	54	310	0	0	0	0	54	41,040
9-Jul	248	0	0	0	0	24,616	65,346	0	310	0	0	0	0	24,616	65,656
13-Jul	263	0	0	0	0	41,568	106,914	0	310	0	0	0	0	41,568	107,224
15-Jul	189	21,055	21,055	0	0	0	106,914	0	310	0	0	0	0	21,055	128,279
16-Jul	245	44,254	65,309	0	0	0	106,914	0	310	0	0	0	0	44,254	172,533
20-Jul	266	0	65,309	19,998	19,998	0	106,914	0	310	0	0	0	0	19,998	192,531
22-Jul	229	0	65,309	16,935	36,933	0	106,914	0	310	0	0	0	0	16,935	209,466
23-Jul	232	19,790	85,099	0	36,933	0	106,914	0	310	0	0	0	0	19,790	229,256
27-Jul	232	20,306	105,405	0	36,933	0	106,914	0	310	0	0	0	0	20,306	249,562

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Central District drift gillnet																			
Date	Deliveries	244-56		244-57		244-60		244-61		244-60		245-10		Total					
		Exp. Ken/Kas	Day	Cum	Exp. Ken/Kas/A.P.	Day	Cum	Area 1/Districtwide	Day	Cum	Kas. section	Day	Cum	Areas 3 and 4	Day	Cum	Chinitna Bay	Day	Cum
30-Jul	221	10,730	116,135	0	36,933	0	106,914	0	310	0	0	0	0	0	10,730	260,292			
31-Jul	<3	41	116,176	0	36,933	0	106,914	0	310	0	0	0	0	0	41	260,333			
3-Aug	168	7,306	123,482	0	36,933	0	106,914	0	310	0	0	0	0	0	7,306	267,639			
6-Aug	105	0	123,482	5,339	42,272	0	106,914	0	310	0	0	0	0	0	5,339	272,978			
8-Aug	<3	0	123,482	42	42,314	0	106,914	0	310	0	0	0	0	0	42	273,020			
10-Aug	76	0	123,482	3,961	46,275	0	106,914	0	310	0	0	0	0	0	3,961	276,981			
13-Aug	63	0	123,482	3,029	49,304	0	106,914	0	310	0	0	0	0	0	3,029	280,010			
15-Aug	23	0	123,482	858	50,162	0	106,914	0	310	0	0	0	0	0	858	280,868			
17-Aug	26	0	123,482	0	50,162	0	106,914	0	310	1,492	1,492	0	0	1,492	282,360				
18-Aug	7	0	123,482	0	50,162	0	106,914	0	310	0	1,492	131	131	131	282,491				
20-Aug	25	0	123,482	0	50,162	0	106,914	0	310	500	1,992	0	131	500	282,991				
21-Aug	16	0	123,482	0	50,162	0	106,914	0	310	0	1,992	184	315	184	283,175				
24-Aug	18	0	123,482	0	50,162	0	106,914	0	310	244	2,236	0	315	244	283,419				
25-Aug	15	0	123,482	0	50,162	0	106,914	0	310	0	2,236	96	411	96	283,515				
27-Aug	4	0	123,482	0	50,162	0	106,914	0	310	46	2,282	0	411	46	283,561				
28-Aug	4	0	123,482	0	50,162	0	106,914	0	310	0	2,282	16	427	16	283,577				
3-Sep	9	0	123,482	0	50,162	0	106,914	0	310	99	2,381	0	427	99	283,676				
4-Sep	6	0	123,482	0	50,162	0	106,914	0	310	0	2,381	35	462	35	283,711				

Appendix A5.–Commercial coho salmon catch by area and date, Upper Cook Inlet 2020.

Central District - west side set gillnet																				
Area #	245-10		245-20		245-30		245-40		245-50		245-55		245-60		246-10		246-20		Total	
name	Chinitna Bay		Silv. Salmon		Tuxedni Bay		Polly Cr.		L. J. Slough		Big River		W. Forelands		Kalgin west		Kalgin east		Day	Cum
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
29-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1
6-Jul	0	0	0	0	8	8	0	0	2	2	0	0	0	0	13	14	0	0	23	24
9-Jul	0	0	0	0	13	21	0	0	1	3	2	2	0	0	29	43	3	3	48	72
13-Jul	0	0	0	0	91	112	0	0	3	6	8	10	0	0	103	146	8	11	213	285
16-Jul	0	0	0	0	80	192	0	0	8	14	56	66	40	40	165	311	28	39	377	662
18-Jul	0	0	0	0	130	322	0	0	0	14	0	66	0	40	0	311	0	39	130	792
20-Jul	0	0	0	0	239	561	0	0	44	58	321	387	31	71	793	1,104	248	287	1,676	2,468
23-Jul	0	0	0	0	246	807	0	0	269	327	279	666	104	175	1,103	2,207	230	517	2,231	4,699
25-Jul	0	0	0	0	758	1,565	0	0	0	327	0	666	0	175	0	2,207	0	517	758	5,457
27-Jul	0	0	0	0	684	2,249	0	0	159	486	95	761	217	392	1,694	3,901	591	1,108	3,440	8,897
30-Jul	0	0	0	0	836	3,085	0	0	569	1,055	237	998	1,084	1,476	2,194	6,095	322	1,430	5,242	14,139
1-Aug	0	0	0	0	1,107	4,192	0	0	0	0	0	0	0	1,476	0	0	0	0	1,107	15,246
3-Aug	51	51	0	0	898	5,090	0	0	874	1,929	861	1,859	415	1,891	3,946	10,041	1,495	2,925	8,540	23,786
6-Aug	0	0	0	0	432	5,522	0	0	380	2,309	343	2,202	316	2,207	2,125	12,166	257	3,182	3,853	27,639
10-Aug	65	116	0	0	0	0	0	0	638	2,947	301	2,503	188	2,395	1,274	13,440	265	3,447	2,731	30,370
13-Aug	304	420	0	0	92	5,614	0	0	504	3,451	115	2,618	305	2,700	740	14,180	154	3,601	2,214	32,584
17-Aug	544	964	0	0	0	0	0	0	643	4,094	0	0	175	2,875	130	14,310	10	3,611	1,502	34,086
20-Aug	31	995	0	0	0	0	0	0	752	4,846	27	2,645	139	3,014	123	14,433	0	3,611	1,072	35,158
24-Aug	0	0	0	0	0	0	0	0	0	0	84	2,729	137	3,151	47	14,480	0	3,611	268	35,426
3-Sep	0	0	0	0	0	0	0	0	0	0	67	2,796	0	3,151	0	14,480	0	3,611	67	35,493
10-Sep	0	0	0	0	0	0	0	0	0	0	119	2,915	0	3,151	0	14,480	0	3,611	119	35,612

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Appendix A5.--Page 2 of 5.

Upper Subdistrict set gillnet														
Area #	244-21		244-22		244-31		244-32		244-41		244-42		Total	
name	Ninilchik		Cohoe		South K-Beach		North K-Beach		Salamatof		E. Forelands			
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
2-Jul	1	1	0	0	0	0	0	0	0	0	0	0	1	1
8-Jul	1	2	2	2	0	0	1	1	0	0	0	0	4	5
9-Jul	1	3	0	2	0	0	1	2	2	2	0	0	4	9
13-Jul	1	4	3	5	0	0	1	3	4	6	1	1	10	19
15-Jul	4	8	4	9	0	0	0	3	8	14	8	9	24	43
16-Jul	2	10	4	13	0	0	1	4	0	14	0	9	7	50
20-Jul	27	37	23	36	7	7	2	6	13	27	15	24	87	137
21-Jul	13	50	8	44	1	8	0	6	0	27	0	24	22	159
22-Jul	60	110	19	63	3	11	11	17	31	58	89	113	213	372

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Northern District set gillnet																				
Area #	247-10		247-20		247-30		247-41		247-42		247-43		247-70		247-80		247-90		Total	
name	Trading Bay		Tyonek		Beluga		Su. Flats		Pt. McKenzie		Fire Island		Pt. Possession		Birch Hill		#3 Bay			
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
29-Jun	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
2-Jul	1	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4
6-Jul	1	3	20	22	0	0	0	0	0	0	0	0	2	2	1	1	2	2	26	30
9-Jul	8	11	29	51	0	0	2	2	4	4	3	3	7	9	3	4	0	2	56	86
13-Jul	32	43	318	369	205	205	12	14	10	14	18	21	32	41	20	24	3	5	650	736
16-Jul	65	108	358	727	55	260	13	27	35	49	40	61	25	66	15	39	7	12	613	1,349
20-Jul	18	126	1,456	2,183	785	1,045	54	81	80	129	136	197	112	178	63	102	13	25	2,717	4,066
23-Jul	72	198	895	3,078	416	1,461	153	234	160	289	242	439	70	248	35	137	19	44	2,062	6,128
27-Jul	580	778	2,079	5,157	394	1,855	357	591	175	464	594	1,033	246	494	144	281	141	185	4,710	10,838
30-Jul	378	1,156	2,282	7,439	951	2,806	253	844	325	789	333	1,366	446	940	355	636	251	436	5,574	16,412
3-Aug	182	1,338	4,497	11,936	550	3,356	325	1,169	419	1,208	280	1,646	524	1,464	633	1,269	668	1,104	8,078	24,490
6-Aug	104	1,442	1,723	13,659	308	3,664	0	1,169	639	1,847	0	1,646	303	1,767	676	1,945	493	1,597	4,246	28,736
10-Aug	250	1,692	2,902	16,561	55	3,719	455	1,624	587	2,434	915	2,561	1,208	2,975	1,231	3,176	710	2,307	8,313	37,049
13-Aug	323	2,015	2,297	18,858	0	3,719	329	1,953	16	2,450	449	3,010	846	3,821	1,081	4,257	1,138	3,445	6,479	43,528
17-Aug	136	2,151	427	19,285	0	3,719	49	2,002	354	2,804	158	3,168	258	4,079	976	5,233	845	4,290	3,203	46,731
20-Aug	183	2,334	0	19,285	0	3,719	0	2,002	32	2,836	186	3,354	243	4,322	1,261	6,494	533	4,823	2,438	49,169
24-Aug	76	2,410	569	19,854	0	3,719	0	2,002	10	2,846	49	3,403	535	4,857	1,054	7,548	676	5,499	2,969	52,138
27-Aug	59	2,469	235	20,089	0	3,719	0	2,002	0	2,846	0	3,403	298	5,155	652	8,200	151	5,650	1,395	53,533
31-Aug	5	2,474	0	20,089	0	3,719	0	2,002	0	2,846	0	3,403	85	5,240	165	8,365	27	5,677	282	53,815
3-Sep	3	2,477	0	20,089	0	3,719	0	2,002	0	2,846	0	3,403	28	5,268	262	8,627	155	5,832	448	54,263
7-Sep	0	2,477	0	20,089	0	3,719	0	2,002	0	2,846	0	3,403	0	5,268	87	8,714	0	5,832	87	54,350
10-Sep	8	2,485	0	20,089	0	3,719	0	2,002	0	2,846	0	3,403	0	5,268	85	8,799	0	5,832	93	54,443
14-Sep	10	2,495	0	20,089	0	3,719	0	2,002	0	2,846	0	3,403	0	5,268		8,799	0	5,832	10	54,453

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Appendix A5.–Page 4 of 5.

Central District drift gillnet															
Area #	244-56			244-57		244-60		244-61		244-60		245-10		Total	
name	Exp. Ken/Kas		Exp. Ken/Kas & A.P.		Area 1/Districtwide		Kas. Section		Areas 3 and 4		Chinitna Bay				
Date	Deliveries	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
29-Jun	5	0	0	0	0	8	8	0	0	0	0	0	0	8	8
2-Jul	19	0	0	0	0	21	29	0	0	0	0	0	0	21	29
6-Jul	64	0	0	0	0	139	168	0	0	0	0	0	0	139	168
8-Jul	<3	0	0	0	0	0	168	1	1	0	0	0	0	1	169
9-Jul	144	0	0	0	0	463	631	0	1	0	0	0	0	463	632
13-Jul	220	0	0	0	0	1,324	1,955	0	1	0	0	0	0	1,324	1,956
15-Jul	124	449	449	0	0	0	1,955	0	1	0	0	0	0	449	2,405
16-Jul	205	1,524	1,973	0	0	0	1,955	0	1	0	0	0	0	1,524	3,929
20-Jul	217	0	1,973	1,348	1,348	0	1,955	0	1	0	0	0	0	1,348	5,277
22-Jul	205	0	1,973	2,606	3,954	0	1,955	0	1	0	0	0	0	2,606	7,883
23-Jul	214	3,297	5,270	0	3,954	0	1,955	0	1	0	0	0	0	3,297	11,180
27-Jul	209	2,302	7,572	0	3,954	0	1,955	0	1	0	0	0	0	2,302	13,482
30-Jul	197	1,829	9,401	0	3,954	0	1,955	0	1	0	0	0	0	1,829	15,311
31-Jul	<3	14	9,415	0	3,954	0	1,955	0	1	0	0	0	0	14	15,325
3-Aug	162	0	9,415	2,684	6,638	0	1,955	0	1	0	0	0	0	2,684	18,009
6-Aug	101	0	9,415	2,387	9,025	0	1,955	0	1	0	0	0	0	2,387	20,396
7-Aug	<3	0	9,415	13	9,038	0	1,955	0	1	0	0	0	0	13	20,409
10-Aug	74	0	9,415	1,598	10,636	0	1,955	0	1	0	0	0	0	1,598	22,007
13-Aug	57	0	9,415	1,649	12,285	0	1,955	0	1	0	0	0	0	1,649	23,656
15-Aug	22	0	9,415	240	12,525	0	1,955	0	1	0	0	0	0	240	23,896
17-Aug	25	0	9,415	0	12,525	4,021	5,976	0	1	0	0	0	0	4,021	27,917

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Appendix A5.–Page 5 of 5.

Central district drift gillnet															
Area #	244-56			244-57		244-60		244-61		244-60		245-10		Total	
<u>name</u>	Exp. Ken/Kas		Exp. Ken/Kas & A.P.		Area 1/Districtwide		Kas. section		Areas 3 and 4		Chinitna Bay				
Date	Deliveries	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
18-Aug	9	0	9,415	0	12,525	0	5,976	0	1	0	0	2,337	2,337	2,337	30,254
20-Aug	27	0	9,415	0	12,525	0	5,976	0	1	4,645	4,645	0	2,337	4,645	34,899
21-Aug	21	0	9,415	0	12,525	0	5,976	0	1	0	4,645	2,053	4,390	2,053	36,952
24-Aug	23	0	9,415	0	12,525	0	5,976	0	1	4,584	9,229	0	4,390	4,584	41,536
25-Aug	19	0	9,415	0	12,525	0	5,976	0	1	0	9,229	1,893	6,283	1,893	43,429
27-Aug	8	0	9,415	0	12,525	0	5,976	0	1	1,595	10,824	0	6,283	1,595	45,024
28-Aug	5	0	9,415	0	12,525	0	5,976	0	1	0	10,824	1,127	7,410	1,127	46,151
3-Sep	10	0	9,415	0	12,525	0	5,976	0	1	1,046	11,870	0	7,410	1,046	47,197
4-Sep	12	0	9,415	0	12,525	0	5,976	0	1	0	11,870	1,278	8,688	1,278	48,475
8-Sep	<3	0	9,415	0	12,525	0	5,976	0	1	0	11,870	42	8,730	42	48,517
9-Sep	<3	0	9,415	0	12,525	0	5,976	0	1	195	12,065	0	8,730	195	48,712
11-Sep	<3	0	9,415	0	12,525	0	5,976	0	1	0	12,065	91	8,821	91	48,803

Appendix A6.—Commercial pink salmon catch by area and date, Upper Cook Inlet 2020.

Northern district set gillnet																				
Area #	247-10		247-20		247-30		247-41		247-42		247-43		247-70		247-80		247-90		Total	
name	Trading Bay		Tyonek		Beluga		Su. Flats		Pt. McKenzie		Fire Island		Pt. Possession		Birch Hill		#3 Bay			
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
29-Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
2-Jul	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
6-Jul	0	1	0	0	0	0	0	0	0	0	0	0	1	1	7	7	2	3	10	12
9-Jul	0	1	3	3	0	0	0	0	0	0	1	1	23	24	15	22	7	10	49	61
13-Jul	2	3	0	3	77	77	1	1	1	1	0	1	438	462	210	232	145	155	874	935
16-Jul	6	9	342	345	25	102	5	6	7	8	31	32	354	816	395	627	445	600	1,610	2,545
20-Jul	2	11	1,680	2,025	920	1,022	0	6	34	42	48	80	660	1,476	1,004	1,631	574	1,174	4,922	7,467
23-Jul	9	20	496	2,521	32	1,054	64	70	91	133	113	193	879	2,355	1,024	2,655	883	2,057	3,591	11,058
27-Jul	7	27	1,824	4,345	105	1,159	54	124	35	168	235	428	2,672	5,027	2,433	5,088	1,555	3,612	8,920	19,978
30-Jul	3	30	396	4,741	3	1,162	0	124	41	209	0	428	743	5,770	413	5,501	1,168	4,780	2,767	22,745
3-Aug	0	30	0	4,741	3	1,165	38	162	66	275	105	533	275	6,045	485	5,986	537	5,317	1,509	24,254
6-Aug	0	30	0	4,741	7	1,172	0	162	89	364	0	533	165	6,210	268	6,254	343	5,660	872	25,126
10-Aug	0	30	0	4,741	0	1,172	28	190	25	389	227	760	156	6,366	361	6,615	423	6,083	1,220	26,346
13-Aug	131	161	0	4,741	0	1,172	19	209	0	389	0	760	72	6,438	115	6,730	167	6,250	504	26,850
17-Aug	3	164	0	4,741	0	1,172	0	209	9	398	9	769	1	6,439	38	6,768	90	6,340	150	27,000
20-Aug	32	196	0	4,741	0	1,172	0	209	0	398	0	769	4	6,443	47	6,815	121	6,461	204	27,204
24-Aug	18	214	0	4,741	0	1,172	0	209	0	398	0	769	68	6,511	51	6,866	116	6,577	253	27,457
27-Aug	0	214	0	4,741	0	1,172	0	209	0	398	0	769	0	6,511	4	6,870	4	6,581	8	27,465
3-Sep	0	214	0	4,741	0	1,172	0	209	0	398	0	769	0	6,511	0	6,870	2	6,583	2	27,467

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Appendix A6.–Page 2 of 5.

Central District - west side set gillnet																				
Area #	245-10		245-20		245-30		245-40		245-50		245-55		245-60		246-10		246-20		Total	
name	Chinitna Bay		Silv. Salmon		Tuxedni Bay		Polly Cr.		L. J. Slough		Big River		W. Forelands		Kalgin west		Kalgin east			
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
25-Jun	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
29-Jun	0	0	0	0	1	2	0	0	0	0	0	0	0	0	4	4	0	0	5	6
2-Jul	0	0	0	0	2	4	0	0	1	1	0	0	0	0	1	5	0	0	4	10
6-Jul	0	0	0	0	4	8	0	0	2	3	0	0	0	0	1	6	1	1	8	18
9-Jul	0	0	0	0	7	15	0	0	1	4	1	1	0	0	6	12	1	2	16	34
13-Jul	0	0	0	0	14	29	0	0	4	8	7	8	0	0	33	45	6	8	64	98
16-Jul	0	0	0	0	14	43	0	0	4	12	8	16	75	75	348	393	4	12	453	551
18-Jul	0	0	0	0	11	54	0	0	0	12	0	16	0	75		393	0	12	11	562
20-Jul	0	0	0	0	20	74	0	0	10	22	26	42	9	84	241	634	27	39	333	895
23-Jul	0	0	0	0	16	90	0	0	2	24	40	82	14	98	615	1,249	50	89	737	1,632
25-Jul	0	0	0	0	33	123	0	0	0	24	0	82		98	0	1,249	0	89	33	1,665
27-Jul	0	0	0	0	59	182	0	0	52	76	0	82	98	196	1,661	2,910	96	185	1,966	3,631
30-Jul	0	0	0	0	119	301	0	0	111	187	0	82	239	435	893	3,803	90	275	1,452	5,083
1-Aug	0	0	0	0	99	400	0	0	0	187	0	82	0	435	0	3,803	0	275	99	5,182
3-Aug	11	11	0	0	93	493	0	0	93	280	1	83	75	510	1,659	5,462	353	628	2,285	7,467
6-Aug	0	11	0	0	31	524	0	0	59	339	1	84	42	552	1,421	6,883	14	642	1,568	9,035
10-Aug	12	23	0	0	0	524	0	0	119	458	8	92	0	552	1,286	8,169	137	779	1,562	10,597
13-Aug	3	26	0	0	50	574	0	0	146	604	43	135	0	552	691	8,860	39	818	972	11,569
17-Aug	25	51	0	0	0	574	0	0	92	696	2	137	0	552	142	9,002	9	827	270	11,839
20-Aug	2	53	0	0	0	574	0	0	206	902	24	161	0	552	240	9,242	0	827	472	12,311
24-Aug	0	53	0	0	0	574	0	0	0	902	0	161	0	552	14	9,256	0	827	14	12,325

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Appendix A6.–Page 3 of 5.

Upper Subdistrict set gillnet														
Area # name	244-21 Ninilchik		244-22 Cohoe		244-31 South K-Beach		244-32 North K-Beach		244-41 Salamatof		244-42 E. Forelands		Total	
	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
23-Jun	0	0	1	1	0	0	0	0	0	0	0	0	1	1
25-Jun	0	0	2	3	0	0	0	0	0	0	0	0	2	3
27-Jun	2	2	1	4	0	0	0	0	0	0	0	0	3	6
30-Jun	4	6	6	10	1	1	0	0	0	0	0	0	11	17
2-Jul	7	13	8	18	1	2	1	1	0	0	0	0	17	34
4-Jul	9	22	5	23	1	3	3	4	0	0	0	0	18	52
6-Jul	8	30	16	39	6	9	2	6	0	0	0	0	32	84
7-Jul	9	39	9	48	2	11	5	11	0	0	0	0	25	109
8-Jul	38	77	25	73	0	11	2	13	0	0	0	0	65	174
9-Jul	47	124	50	123	2	13	8	21	88	88	67	67	262	436
13-Jul	66	190	25	148	5	18	2	23	276	364	642	709	1,016	1,452
15-Jul	333	523	389	537	22	40	38	61	499	863	753	1,462	2,034	3,486
16-Jul	58	581	48	585	1	41	3	64	0	863	0	1,462	110	3,596
20-Jul	508	1,089	214	799	76	117	27	91	992	1,855	1,964	3,426	3,781	7,377
21-Jul	166	1,255	86	885	3	120	0	91	0	1,855	0	3,426	255	7,632
22-Jul	141	1,396	65	950	31	151	28	119	683	2,538	3,024	6,450	3,972	11,604

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Appendix A6.–Page 4 of 5.

Central District drift gillnet															
Area # name	Deliveries	244-56		244-57		244-60		244-61		244-60		245-10		Total	
		Exp. Ken/Kas	Cum	Exp. Ken/Kas & A.P.	Cum	Area 1/Districtwide	Cum	Kas. Section	Cum	Areas 3 and 4	Cum	Chinitna Bay	Cum	Day	Cum
Date		Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
22-Jun	<3	0	0	0	0	2	2	0	0	0	0	0	0	2	2
25-Jun	5	0	0	0	0	5	7	0	0	0	0	0	0	5	7
29-Jun	20	0	0	0	0	40	47	0	0	0	0	0	0	40	47
30-Jun	<3	0	0	0	0	0	47	3	3	0	0	0	0	3	50
2-Jul	44	0	0	0	0	61	108	0	3	0	0	0	0	61	111
6-Jul	162	0	0	0	0	575	683	0	3	0	0	0	0	575	686
8-Jul	<3	0	0	0	0	0	683	3	6	0	0	0	0	3	689
9-Jul	226	0	0	0	0	1,986	2,669	0	6	0	0	0	0	1,986	2,675
13-Jul	259	0	0	0	0	12,957	15,626	0	6	0	0	0	0	12,957	15,632
15-Jul	179	4,946	4,946	0	0	0	15,626	0	6	0	0	0	0	4,946	20,578
16-Jul	237	19,417	24,363	0	0	0	15,626	0	6	0	0	0	0	19,417	39,995
20-Jul	263	0	24,363	34,431	34,431	0	15,626	0	6	0	0	0	0	34,431	74,426
22-Jul	226	0	24,363	28,130	62,561	0	15,626	0	6	0	0	0	0	28,130	102,556
23-Jul	230	32,803	57,166	0	62,561	0	15,626	0	6	0	0	0	0	32,803	135,359
27-Jul	225	33,342	90,508	0	62,561	0	15,626	0	6	0	0	0	0	33,342	168,701
30-Jul	220	15,544	106,052	0	62,561	0	15,626	0	6	0	0	0	0	15,544	184,245
31-Jul	<3	108	106,160	0	62,561	0	15,626	0	6	0	0	0	0	108	184,353
3-Aug	174	37,792	143,952	0	62,561	0	15,626	0	6	0	0	0	0	37,792	222,145
6-Aug	105	31,024	174,976	0	62,561	0	15,626	0	6	0	0	0	0	31,024	253,169
7-Aug	<3	244	175,220	0	62,561	0	15,626	0	6	0	0	0	0	244	253,413
10-Aug	77	25,032	200,252	0	62,561	0	15,626	0	6	0	0	0	0	25,032	278,445
13-Aug	61	13,382	213,634	0	62,561	0	15,626	0	6	0	0	0	0	13,382	291,827

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Appendix A6.–Page 5 of 5.

Central District drift gillnet																
Area #	244-56			244-57		244-60		244-61		244-60		245-10		Total		
Name	Exp. Ken/Kas		Exp. Ken/Kas & A.P.		Area 1/Districtwide		Kas. section		Areas 3 and 4		Chinitna Bay					
Date	Deliveries	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	
15-Aug	23	0	213,634	456	63,017	0	15,626	0	6	0	0	0	0	456	292,283	
17-Aug	23	0	213,634	0	63,017	0	15,626	0	6	1,131	1,131	0	0	1,131	293,414	
18-Aug	<3	0	213,634	0	63,017	0	15,626	0	6	0	1,131	11	11	11	293,425	
20-Aug	16	0	213,634	0	63,017	0	15,626	0	6	86	1,217	0	11	86	293,511	
21-Aug	13	0	213,634	0	63,017	0	15,626	0	6	0	1,217	87	98	87	293,598	
24-Aug	12	0	213,634	0	63,017	0	15,626	0	6	39	1,256	0	98	39	293,637	
25-Aug	7	0	213,634	0	63,017	0	15,626	0	6	0	1,256	15	113	15	293,652	
27-Aug	3	0	213,634	0	63,017	0	15,626	0	6	10	1,266	0	113	10	293,662	
28-Aug	<3	0	213,634	0	63,017	0	15,626	0	6	0	1,266	2	115	2	293,664	
3-Sep	5	0	213,634	0	63,017	0	15,626	0	6	10	1,276	0	115	10	293,674	
4-Sep	<3	0	213,634	0	63,017	0	15,626	0	6	0	1,276	1	116	1	293,675	
10-Sep	<3	0	213,634	0	63,017	0	15,626	0	6	1	1,277	0	116	1	293,676	

Appendix A7.–Commercial chum salmon catch by area and date, Upper Cook Inlet 2020.

Upper subdistrict - set gillnet														
Area #	244-21		244-22		244-31		244-32		244-41		244-42		Total	
name	Ninilchik		Cohoe		South K-Beach		North K-Beach		Salamatof		E. Forelands			
Date	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
30-Jun	1	1	0	0	0	0	0	0	0	0	0	0	1	1
9-Jul	0	1	1	1	2	2	0	0	1	1	0	0	4	5
13-Jul	1	2	0	1	0	2	0	0	0	1	5	5	6	11
15-Jul	2	4	1	2	1	3	0	0	1	2	1	6	6	17
20-Jul	0	4	1	3	3	6	0	0	2	4	2	8	8	25
21-Jul	2	6	1	4	0	6	0	0	0	4	0	8	3	28
22-Jul	0	6	0	4	0	6	0	0	0	4	3	11	3	31

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Appendix A7.–Page 2 of 5.

Central District - west side set gillnet																		
Area #	245-10		245-30		245-40		245-50		245-55		245-60		246-10		246-20		Total	
name	Chinitna Bay		Tuxedni Bay		Polly Cr.		L. J. Slough		Big River		W. Forelands		Kalgin west		Kalgin east			
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
2-Jul	0	0	1	1	0	0	0	0	0	0	0	0	0	0		0	1	1
6-Jul	0	0	4	5	0	0	0	0	0	0	0	0	0	0	0	0	4	5
9-Jul	0	0	5	10	0	0	1	1	0	0	0	0	3	3	0	0	9	14
13-Jul	0	0	79	89	0	0	0	1	0	0	0	0	6	9	0	0	85	99
16-Jul	0	0	57	146	0	0	0	1	1	1	0	0	17	26	0	0	75	174
18-Jul	0	0	76	222	0	0	0	1	0	1	0	0	0	26	0	0	76	250
20-Jul	0	0	45	267	0	0	2	3	3	4	0	0	45	71	2	2	97	347
23-Jul	0	0	37	304	0	0	0	3	3	7	0	0	35	106	0	2	75	422
25-Jul	0	0	99	403	0	0	0	3	0	7	0	0	0	106	0	2	99	521
27-Jul	0	0	183	586	0	0	10	13	0	7	3	3	58	164	3	5	257	778
30-Jul	0	0	228	814	0	0	12	25	0	7	23	26	24	188	6	11	293	1,071
1-Aug	0	0	117	931	0	0	0	25	0	7	0	26	0	188	0	11	117	1,188
3-Aug	39	39	90	1,021	0	0	10	35	8	15	6	32	5	193	13	24	171	1,359
6-Aug	0	39	60	1,081	0	0	3	38	0	15	3	35	21	214	0	24	87	1,446
10-Aug	176	215	0	1,081	0	0	3	41	11	26	0	35	40	254	5	29	235	1,681
13-Aug	39	254	55	1,136	0	0	3	44	7	33	0	35	8	262	1	30	113	1,794
17-Aug	25	279	0	1,136	0	0	0	44	1	34	0	35	0	262	0	30	26	1,820
20-Aug	13	292	0	1,136	0	0	2	46	5	39	0	35	0	262	0	30	20	1,840
24-Aug	0	292	0	1,136	0	0	0	46	1	40	0	35	0	262	0	30	1	1,841

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Appendix A7.–Page 3 of 5.

Northern District - set gillnet																					
Area #	247-10		247-20		247-30		247-41		247-42		247-43		247-70		247-80		247-90		Total		
name	Trading Bay		Tyonek		Beluga		Su. Flats		Pt. McKenzie		Fire Island		Pt. Possession		Birch Hill		#3 Bay				
Date	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	
6-Jul	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	
9-Jul	0	0	1	4	0	0	0	0	1	1	1	1	2	2	0	0	0	0	5	8	
13-Jul	0	0	0	4	23	23	5	5	3	4	9	10	10	12	13	13	0	0	63	71	
16-Jul	0	0	28	32	1	24	9	14	16	20	10	20	18	30	9	22	0	0	91	162	
20-Jul	0	0	99	131	93	117	10	24	25	45	14	34	7	37	3	25	1	1	252	414	
23-Jul	0	0	0	131	94	211	50	74	39	84	36	70	6	43	9	34	0	1	234	648	
27-Jul	3	3	36	167	72	283	43	117	26	110	95	165	22	65	0	34	1	2	298	946	
30-Jul	7	10	42	209	61	344	30	147	31	141		165	20	85	10	44	0	2	201	1,147	
3-Aug	0	10	247	456	160	504	27	174	49	190	2	167	15	100	6	50	3	5	509	1,656	
6-Aug	0	10	0	456	27	531	0	174	82	272	0	167	9	109	3	53	0	5	121	1,777	
10-Aug	3	13	19	475	13	544	71	245	50	322	17	184	13	122	17	70	1	6	204	1,981	
13-Aug	4	17	0	475	0	544	45	290	0	322	13	197	15	137	10	80	2	8	89	2,070	
17-Aug	0	17	0	475	0	544	0	290	21	343	5	202	1	138	2	82	2	10	31	2,101	
20-Aug	0	17	0	475	0	544	0	290	8	351	3	205	0	138	1	83	0	10	12	2,113	
24-Aug	2	19	0	475	0	544	0	290	0	351	0	205	1	139	1	84	1	11	5	2,118	
27-Aug	0	19	0	475	0	544	0	290	0	351	0	205	0	139	1	85	0	11	1	2,119	
31-Aug	0	19	0	475	0	544	0	290	0	351	0	205	2	141	0	85	0	11	2	2,121	
3-Sep	0	19	0	475	0	544	0	290	0	351	0	205	1	142	0	85	0	11	1	2,122	

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Central District drift gillnet															
Area #	244-56			244-57		244-60		244-61		244-60		245-10		Total	
Name	Exp. Ken/Kas		Exp. Ken/Kas & AP		Area 1/Districtwide		Kas. Section		Areas 3 and 4		Chinitna Bay				
Date	Deliveries	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum	Day	Cum
22-Jun	6	0	0	0	0	26	26	0	0	0	0	0	0	26	26
25-Jun	37	0	0	0	0	297	323	0	0	0	0	0	0	297	323
29-Jun	47	0	0	0	0	562	885	0	0	0	0	0	0	562	885
30-Jun	<3	0	0	0	0	0	885	6	6	0	0	0	0	6	891
2-Jul	124	0	0	0	0	1,715	2,600	0	6	0	0	0	0	1,715	2,606
6-Jul	193	0	0	0	0	1,909	4,509	0	6	0	0	0	0	1,909	4,515
9-Jul	221	0	0	0	0	2,446	6,955	0	6	0	0	0	0	2,446	6,961
13-Jul	257	0	0	0	0	4,791	11,746	0	6	0	0	0	0	4,791	11,752
15-Jul	165	1,272	1,272	0	0	0	11,746	0	6	0	0	0	0	1,272	13,024
16-Jul	229	2,512	3,784	0	0	0	11,746	0	6	0	0	0	0	2,512	15,536
20-Jul	224	0	3,784	1,658	1,658	0	11,746	0	6	0	0	0	0	1,658	17,194
22-Jul	218	0	3,784	1,443	3,101	0	11,746	0	6	0	0	0	0	1,443	18,637
23-Jul	217	2,073	5,857	0	3,101	0	11,746	0	6	0	0	0	0	2,073	20,710
27-Jul	210	1,202	7,059	0	3,101	0	11,746	0	6	0	0	0	0	1,202	21,912
30-Jul	175	623	7,682	0	3,101	0	11,746	0	6	0	0	0	0	623	22,535

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Area # name	Deliveries	244-56		244-57		244-60		244-61		244-60		245-10		Total	
		Exp. Ken/Kas	Day	Exp. Ken/Kas & AP	Day	Districtwide	Day	Cum	Kas section	Day	Cum	Areas 3 and 4	Day	Cum	Day
31-Jul	<3	1	7,683	0	3,101	0	11,746	0	6	0	0	0	0	1	22,536
3-Aug	147	676	8,359	0	3,101	0	11,746	0	6	0	0	0	0	676	23,212
6-Aug	96	438	8,797	0	3,101	0	11,746	0	6	0	0	0	0	438	23,650
7-Aug	<3	2	8,799	0	3,101	0	11,746	0	6	0	0	0	0	2	23,652
10-Aug	58	245	9,044	0	3,101	0	11,746	0	6	0	0	0	0	245	23,897
13-Aug	46	158	9,202	0	3,101	0	11,746	0	6	0	0	0	0	158	24,055
15-Aug	16	45	9,247	0	3,101	0	11,746	0	6	0	0	0	0	45	24,100
17-Aug	19	0	9,247	0	3,101	0	11,746	0	6	200	200	0	0	200	24,300
18-Aug	9	0	9,247	0	3,101	0	11,746	0	6	0	200	272	272	272	24,572
20-Aug	12	0	9,247	0	3,101	0	11,746	0	6	318	518	0	272	318	24,890
21-Aug	18	0	9,247	0	3,101	0	11,746	0	6	0	518	141	413	141	25,031
24-Aug	13	0	9,247	0	3,101	0	11,746	0	6	41	559	0	413	41	25,072
25-Aug	14	0	9,247	0	3,101	0	11,746	0	6	0	559	73	486	73	25,145
27-Aug	4	0	9,247	0	3,101	0	11,746	0	6	10	569	0	486	10	25,155
28-Aug	3	0	9,247	0	3,101	0	11,746	0	6	0	569	21	507	21	25,176
3-Sep	6	0	9,247	0	3,101	0	11,746	0	6	31	600	0	507	31	25,207
4-Sep	5	0	9,247	0	3,101	0	11,746	0	6	0	600	16	523	16	25,223

Appendix A8.–Commercial catch by gear, statistical area and species, Upper Cook Inlet, 2020.

Gear	District	Subdistrict	Stat area	Permits <sup>a</sup>	Chinook	Sockeye	Coho	Pink	Chum	Total	
Drift	Central	Drift	All	364	181	283,727	48,803	293,676	25,223	651,610	
Setnet	Central	Upper	24421	95	182	81,987	110	1,396	6	83,681	
			24422	66	257	56,621	63	950	4	57,895	
			24431	49	109	48,317	11	151	6	48,594	
			24432	41	43	22,626	17	119	0	22,805	
			24441	46	253	61,619	58	2,538	4	64,472	
			24442	30	8	24,171	113	6,450	11	30,753	
			All	317	852	295,341	372	11,604	31	308,200	
	Kalgin Is.			24610	22	166	29,512	14,480	9,256	262	53,676
				24620	7	0	6,330	3,611	827	30	10,798
				All	26	166	35,842	18,091	10,083	292	64,474
	Chinitna			24510	1	0	18	995	53	292	1,358
				All	1	0	18	995	53	292	1,358
	Western			24520	0	0	0	0	0	0	0
				24530	18	70	22,257	5,614	574	1,136	29,651
				24540	0	0	0	0	0	0	0
				24550	8	1	2,631	4,846	902	46	8,426
				All	26	71	24,888	10,460	1,476	1,182	38,077
	Kustatan			24555	13	74	4,240	2,915	161	40	7,430
				24560	5	6	3,876	3,151	552	35	7,620
				All	17	80	8,116	6,066	713	75	15,050
Setnet	Central	All		386	1,169	364,205	35,984	23,929	1,872	427,159	
Setnet	Northern	General	24710	9	235	4,874	2,495	214	19	7,837	
			24720	8	717	8,029	20,089	4,741	475	34,051	
			24730	8	2	2,714	3,719	1,172	544	8,151	
			24741	7	7	1,332	2,002	209	290	3,840	
			24742	8	157	2,361	2,846	398	351	6,113	
			24743	7	250	1,401	3,403	769	205	6,028	
			All	43	1,368	20,711	34,554	7,503	1,884	66,020	
Setnet	Northern	Eastern	24770	13	220	6,952	5,268	6,511	142	19,093	
			24780	16	53	8,511	8,799	6,870	85	24,318	
			24790	8	17	11,648	5,832	6,583	11	24,091	
			All	33	290	27,111	19,899	19,964	238	67,502	
Setnet	Northern	All		76	1,658	47,822	54,453	27,467	2,122	133,522	
Setnet		All		462	2,827	412,027	90,437	51,396	3,994	560,681	
		All UCI		826	3,008	695,754	139,240	345,072	29,217	1,212,291	

<sup>a</sup> Permit totals may be less than the sum of individual stat areas if the same permit was fished in multiple stat areas.

Appendix A9.–Commercial salmon catch per permit by statistical area, Upper Cook Inlet, 2020.

Gear	District	Subdistrict	Stat area	Permits <sup>a</sup>	Chinook	Sockeye	Coho	Pink	Chum	Total	
Drift	Central	All	All	364	0	779	134	807	69	1,790	
Set	Central	Upper	24421	95	2	863	1	15	0	976	
			24422	66	4	858	1	14	0	943	
			24431	49	2	986	0	3	0	1,041	
			24432	41	1	552	0	3	0	597	
			24441	46	6	1,340	1	55	0	1,448	
			24442	30	0	806	4	215	0	1,055	
			All	317	3	932	1	37	0	1,289	
		Kalgin Is.	24610	22	8	1,341	658	421	12	2,462	
			24620	7	0	904	516	118	4	1,550	
			All	26	6	1,379	696	388	11	2,506	
		Chinitna	24510	1	0	18	995	53	292	1,359	
			All	1	0	18	995	53	292	1,359	
		Western	24520	0	0	0	0	0	0	0	
			24530	18	4	1,237	312	32	63	1,665	
			24540	0	0	0	0	0	0	0	
			24550	8	0	146	269	50	3	476	
			All	26	3	957	402	57	45	1,491	
		Kustatan	24555	13	6	326	224	12	3	585	
			24560	5	1	775	630	110	7	1,529	
			All	17	5	477	357	42	4	902	
		All	All	All	386	3	944	93	62	5	1,493
Northern	General	24710	9	26	542	277	24	2	880		
		24720	8	90	1,004	2,511	593	59	4,264		
		24730	8	0	339	465	147	68	1,027		
		24741	7	1	190	286	30	41	556		
		24742	8	20	295	356	50	44	772		
		24743	7	36	200	486	110	29	868		
		All	43	32	482	804	174	44	1,578		
		Eastern	24770	13	17	535	405	501	11	1,482	
			24780	16	3	532	550	429	5	1,536	
			24790	8	2	1,456	729	823	1	3,019	
			All	33	9	822	603	605	7	2,079	
		All	All	All	76	22	629	716	361	28	1,833
		All	All	All	462	6	892	196	111	9	1,676
		All	All	All	All	826	4	842	169	418	35

<sup>a</sup> 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 2020 Upper Cook Inlet season.

Emergency order no.	Effective date	Action	Reason
2S-01-20	25-May	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 2020 season. The fishing dates affected by the announcement were 25 May, and 1,8,15 and 22 June.	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-02-20	25-May	Closed that portion of the General Subdistrict of the Northern District from a point at the wood chip dock located approximately 3 miles south of Tyonek, approximately at 61° 02.77' N lat, 151° 10.04' W. long., to the Susitna River during the 2020 directed king salmon fishing season (Figure 1). The fishing periods affected by this announcement were May 25, and 1, 8, 15, and 22 June.	Chuitna River king salmon area a stock of management concern. As a result, the king salmon sport fishery in this drainage has been closed since the 2011 season. 5 AAC 21.366) specifies that if the Chuitna River is closed to sport fishing, the commissioner shall close the commercial king salmon fishery, by EO, from the wood chip dock to the Susitna River.
2S-03-20	15-Jun	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 11:00 AM to 11:00 PM daily, from Monday, 15 June, through Wednesday, 24 June.	To reduce the harvest of Kasilof River king salmon.
2S-04-20	23-Jun	Modified weekly fishing periods in the Upper Subdistrict of the Central District beginning 12:01 AM on 25 June2020.	To reduce the harvest of Kenai bound king salmon and to comply with the Kenai River Late-Run King Salmon Management Plan.

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Emergency order no.	Effective date	Action	Reason
2S-05-20	23-Jun	Opened commercial fishing with set gillnets in the Kasilof Section of the Upper Subdistrict from 5:00 AM until 8:00 PM on Tuesday, June 23, 2020. Opened drift gillnetting in the Kasilof Section from 5:00 AM until 8:00 PM on Tuesday, 23 June 2020.	To reduce the escapement rate of Kasilof River sockeye salmon.
2S-06-20	25-Jun	'Opened commercial fishing with set gillnets in the Kasilof Section of the Upper Subdistrict from 7:00 AM until 7:00 PM on Thursday, 25 June 2020.	To reduce the escapement rate of Kasilof River sockeye salmon.
2S-07-20	27-Jun	'Opened commercial fishing with set gillnets in the Kasilof Section of the Upper Subdistrict from 2:00 PM until 11:00 PM on Saturday, 27 June 2020. Opened drift gillnetting in the Kasilof Section from 2:00 PM until 11:00 PM on Saturday, 27 June 2020.	To reduce the escapement rate of Kasilof River sockeye salmon.
2S-08-20	30-Jun	Opened commercial fishing with set gillnets in the Kasilof Section of the Upper Subdistrict from 7:00 AM until 7:00 PM on Tuesday, 30 June 2020. Opened drift gillnetting in the Kasilof Section from 7:00 AM until 7:00 PM on Tuesday, 30 June 2020.	To reduce the escapement rate Kasilof River sockeye salmon.
2S-09-20	2-Jul	Opened commercial fishing with set gillnets in the Kasilof Section 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 Thursday, 2 July 2020. Announcement also extended drift gillnetting in the Kasilof Section from 7:00 PM to 10:00 PM on Thursday, 2 July 2020.	To reduce the escapement rate Kasilof River sockeye salmon.

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Emergency Order No.	Effective date	Action	Reason
2S-10-20	4-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 10:00 a.m. until 7:00 p.m. on Saturday, 4 July 2020. Commercial fishing with drift gillnets was opened in the Kasilof Section from 10:00 a.m. until 7:00 p.m. on Saturday, 4 July 2020.	To reduce the escapement rate Kasilof River sockeye salmon.
2S-11-20	6-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 11:00 a.m. until 11:59 p.m. on Monday, 6 July 2020. This announcement also extended commercial fishing with drift gillnets in the Kasilof Section from 7:00 p.m. to 11:59 p.m. on Monday, 6 July 2020.	To reduce the escapement rate Kasilof River sockeye salmon.
2S-12-20	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 11:00 a.m. until 11:59 p.m. on Tuesday, 7 July 2020. Commercial fishing with drift gillnets was opened in the Kasilof Section from 11:00 a.m. until 11:59 p.m. on Tuesday, 7 July 2020.	To reduce the escapement rate Kasilof River sockeye salmon.

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Emergency order no.	Effective date	Action	Reason
2S-13-20	8-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 12:00 PM noon until 8:00 PM on Wednesday, 8 July 2020. Commercial fishing with drift gillnets was opened in the Kasilof Section from 12:00 PM noon until 8:00 PM on Wednesday, 8 July 2020.	To reduce the escapement rate Kasilof River sockeye salmon.
2S-14-20	9-Jul	Opened commercial salmon fishing with set gillnets in the Kenai, Kasilof, and East Foreland sections of the Upper Subdistrict from 7:00 AM until 10:00 PM on Thursday, 9 July 2020. Announcement also extended drift gillnetting in the Expanded Kenai and Expanded Kasilof Sections from 7:00 PM until 10:00 PM on Thursday, 9 July 2020	To reduce the escapement rate Kasilof River sockeye salmon.
2S-15-20	13-Jul	Opened commercial salmon fishing with set gillnets in the Kenai, Kasilof, and East Foreland sections of the Upper Subdistrict from 6:00 AM until 6:00 PM on Monday, 13 July 2020.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-16-20	13-Jul	Opened commercial salmon fishing with set gillnets in that portion of the Western Subdistrict of the Central District south of the latitude of Redoubt Point from 6:00 AM until 10:00 PM on Mondays; from 6:00 AM until 10:00 PM on Thursdays; and from 6:00 AM until 10:00 PM on Saturdays each week until further notice, effective beginning at 6:00 AM on Monday, 13 July 2020.	To reduce the escapement rate of Crescent River sockeye salmon.

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Emergency order no.	Effective date	Action	Reason
2S-17-20	15-Jul	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 Wednesday, 15 July 2020. Announcement also opened commercial salmon fishing with drift gillnets from 7:00 AM to 7:00 PM on Wednesday, 15 July 2020 in the Expanded Kenai and Expanded Kasilof sections of the Upper Subdistrict.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-18-20	16-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 7:00 AM until 7:00 PM on Thursday, 16 July 2020.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-19-20	20-Jul	Reduced legal gear to 1 net per permit in General Subdistrict of the Northern District and to 2 set gillnets per permit, in the Eastern Subdistrict of the Northern District.	To comply with the Northern District Salmon Management Plan and the Susitna River Sockeye Action Plan
2S-20-20	20-Jul	Opened commercial salmon fishing with set gillnets in the Kenai, Kasilof, and East Foreland sections of the Upper Subdistrict from 10:00 AM until 10:00 PM on Monday, 20 July 2020. Announcement extended drift gillnet fishing to the Expanded Kenai, Expanded Kasilof, and Anchor Point sections of the Central District from 7:00 PM to 10:00 PM on Monday, 20 July 2020.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.

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Emergency order no.	Effective date	Action	Reason
2S-21-20	21-Jul	Opened commercial salmon fishing with set gillnets in the Kasilof Section of the Upper Subdistrict within 600 feet of the mean high tide mark on the Kenai Peninsula shoreline from 1:00 PM until 9:00 PM on Tuesday, 21 July 2020.	To reduce the escapement rate Kasilof River sockeye salmon.
2S-22-20	22-Jul	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 Wednesday, 22 July 2020. Opened commercial salmon fishing with drift gillnets from 7:00 AM to 7:00 PM on Wednesday, 22 July 2020 in the Expanded Kenai, Expanded Kasilof, and Anchor Point sections of the Upper Subdistrict.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-23-20	23-Jul	Closed commercial salmon fishing with set gillnet gear in the Kenai, Kasilof, and East Forelands sections of the Upper Subdistrict until further notice.	To conserve Kenai River late-run king salmon.
2S-24-20	3-Aug	Reduced legal gear in the General Subdistrict of the Northern District south of the Susitna River, and in the Eastern Subdistrict of the Northern District to no more than 2 set gillnets per permit. Legal gear in the General Subdistrict of the Northern District east of the Susitna River, which includes Fire Island was limited to no more than one set gillnet per permit.	To comply with the Northern District Salmon Management Plan and the Susitna River Sockeye Action Plan
2S-25-20	3-Aug	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, 3 August 2020.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.

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Emergency order no.	Effective date	Action	Reason
2S-26-20	6-Aug	Opened commercial fishing with drift gillnets only 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, 6 August 2020.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-27-20	10-Aug	Rescinded emergency order No. 2S-16-20 and closed set gillnetting in Western Subdistrict south of Redoubt Point. This area was then reopened to set gillnetting during regular fishing periods only.	To reduce the harvest of sockeye salmon returning to the Crescent River.
2S-28-20	10-Aug	Opened commercial fishing with drift gillnets only 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, 10 August 2020.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-29-20	13-Aug	Reduced the open fishing time for set gillnets from twelve hours to 6 hours per day, or from 7:00 AM until 1:00 PM, in that portion of the General Subdistrict of the Northern District east of the Susitna River, including Fire Island, on Thursday, 13 August 2020.	To conserve coho salmon bound for the Little Susitna River.
2S-30-20	13-Aug	Opened commercial fishing with drift gillnets only 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, 13 August 2020.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.

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Emergency order no.	Effective date	Action	Reason
2S-31-20	18-Aug	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 Tuesday, 18 August 2020.	To provide fishing opportunity in the Chinitna Bay Subdistrict
2S-32-20	15-Aug	Opened commercial fishing with drift gillnets only 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 Saturday, 15 August 2020.	To reduce the escapement rate of Kenai River and Kasilof River sockeye salmon.
2S-33-20	17-Aug	Reduced the open fishing time for set gillnets from twelve hours to 6 hours per day, or from 7:00 AM until 1:00 PM, in that portion of the General Subdistrict of the Northern District east of the Susitna River, including Fire Island, on Monday, 17 August 2020.	To conserve coho salmon bound for the Little Susitna River.
2S-34-20	20-Aug	Reduced the open fishing time for set gillnets from twelve hours to 6 hours per day, or from 7:00 AM until 1:00 PM, in that portion of the General Subdistrict of the Northern District east of the Susitna River, including Fire Island, on Thursday, 20 August 2020.	To conserve coho salmon bound for the Little Susitna River.
2S-35-20	24-Aug	Reduced the open fishing time to 6 hours per day, or from 7:00 AM until 1:00 PM, in the General Subdistrict of the Northern District east of the Susitna River, on Monday, 24 August 2020.	To conserve coho salmon bound for the Little Susitna River.
2S-35-20	3-Oct	Closed commercial salmon fishing with set gillnets for the 2020 season, effective at 7:00 PM, Friday 2 October 2020. Commercial salmon fishing with drift gillnets was also closed in the Central District of Upper Cook Inlet for the 2020 season.	Commercial salmon fishing with drift and set gillnets closes by emergency or by regulation.



Appendix A11.–Commercial salmon fishing periods, Upper Cook Inlet, 2020.

Date	Day	Time	Set gillnet	Drift gillnet
25-May	Mon	0700–1300	Northern District	
1-Jun	Mon	0700–1300	Northern District	
		0700–1900	Kustatan (Big River) - Kalgin Island	
3-Jun	Wed	0700–1900	Kustatan (Big River) - Kalgin Island	
5-Jun	Fri	0700–1900	Kustatan (Big River) - Kalgin Island	
8-Jun	Mon	0700–1300	Northern District	
		0700–1900	Kustatan (Big River) - Kalgin Island	
10-Jun	Wed	0700–1900	Kustatan (Big River) - Kalgin Island	
12-Jun	Fri	0700–1900	Kustatan (Big River) - Kalgin Island	
15-Jun	Mon	0700–1300	Northern District	
		0700–1900	Kustatan (Big River) - Kalgin Island	
17-Jun	Wed	0700–1900	Kustatan (Big River) - Kalgin Island	
18-Jun	Thu	0700–1900	Western Subdistrict	
19-Jun	Fri	0700–1900	Kustatan (Big River) - Kalgin Island	All
22-Jun	Mon	0700–1300	Northern District	
		0700–1900	Kustatan (Big River) - Kalgin Island	All
		0700–1900	Western Subdistrict	
23-Jun	Tue	0500–2200	Kasilof Section	Kasilof Section
24-Jun	Wed	0700–1900	Kustatan (Big River) - Kalgin Island	
25-Jun	Thu	0900–2100	All except Kenai & E. Foreland Sections	All
27-Jun	Sat	1400–2300	Kasilof Section	Kasilof Section
29-Jun	Mon	0700–1900	All except Kenai & E. Foreland Sections	All
30-Jun	Tue	0700–1900	Kasilof Section	Kasilof Section
2-Jul	Thu	0700–1900	Kustatan - Kalgin - Western Subdistrict - Northern	
		0700–2200	Kasilof Section - NKB 600ft	Kasilof Section
4-Jul	Sat	1000–2100	Kasilof Section - NKB 600ft	Kasilof Section
6-Jul	Mon	0700–1900	Kustatan - Kalgin - Western Subdistrict - Northern	All
		1100–2400	Kasilof Section - NKB 600ft	Kasilof Section
7-Jul	Tue	1100–2400	Kasilof Section - NKB 600ft	Kasilof Section
8-Jul	Wed	1200–2000	Kasilof Section - NKB 600ft	Kasilof Section
9-Jul	Thu	0700–1900	All	Drift Area 1, Ex Ken/Kas Sec
		1900–2200	Kasilof, Kenai, & E. Foreland Sections	Expanded Kenai/Kasilof Sections
13-Jul	Mon	0600–2200	Western Subdistrict south of Redoubt Pt.	
		0600–1800	Upper Subdistrict	
		0700–1900	Kustatan - Kalgin - Western Subdistrict - Northern	Drift Area 1, Ex Ken/Kas Sec
15-Jul	Wed	1200–2000	Upper Subdistrict	Expanded Kenai/Kasilof Sections
16-Jul	Thu	0600–2200	Western Subdistrict south of Redoubt Pt.	
		0700–1900	Kustatan - Kalgin - Western Subdistrict - Northern	Drift Area 1, Ex Ken/Kas Sec
		0700–1900	Kasilof 600ft & NKB 600ft	

-continued-

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Date	Day	Time	Set gillnet	Drift gillnet
18-Jul	Sat	0600–2200	Western Subdistrict south of Redoubt Pt.	
20-Jul	Mon	0600–2200	Western Subdistrict south of Redoubt Pt.	
		0700–1900		All Expanded Kenai/Kasilof Sections
		1900–2200	Upper Subdistrict	Exp. Ken/Kas, & Anchor Pt.
21-Jul	Tue	1300–2100	Kasilof 600ft	
22-Jul	Wed	0700–1900	Kasilof, Kenai, & E. Foreland Sections	Exp. Ken/Kas, & Anchor Pt.
23-Jul	Thu	0600–2200	Western Subdistrict south of Redoubt Pt.	
		0700–1900	Kustatan - Kalgin - Western Subdistrict - Northern	Expanded Kenai/Kasilof Sections
25-Jul	Sat	0600–2200	Western Subdistrict south of Redoubt Pt.	
27-Jul	Mon	0600–2200	Western Subdistrict south of Redoubt Pt.	
		0700–1900	Kustatan - Kalgin - Western Subdistrict - Northern	Expanded Kenai/Kasilof Sections
30-Jul	Thu	0600–2200	Western Subdistrict south of Redoubt Pt.	
		0700–1900	Kustatan - Kalgin - Western Subdistrict - Northern	Expanded Kenai/Kasilof Sections
1-Aug	Sat	0600–2200	Western Subdistrict south of Redoubt Pt.	
3-Aug	Mon	0600–2200	Western Subdistrict south of Redoubt Pt.	
		0700–1900	Kasilof, Kenai, & E. Foreland Sections	Exp. Ken/Kas, & Anchor Pt.
5-Aug	Mon	0600–2200	Western Subdistrict south of Redoubt Pt.	
		0700–1900	Kustatan, Kalgin, Western Subdistricts, & N. District	Exp. Ken/Kas, & Anchor Pt.
6-Aug	Thu	0600–2200	Western Subdistrict south of Redoubt Pt.	
		0700–1900	Kustatan, Kalgin, Western Subdistricts, & N. District	Exp. Ken/Kas, & Anchor Pt.
8-Aug	Sat	0600–2200	Western Subdistrict south of Redoubt Pt.	Exp. Ken/Kas, & Anchor Pt.
10-Aug	Mon	0700–1900	Kustatan, Kalgin, Western Subdistricts, & N. District	Exp. Ken/Kas, & Anchor Pt.
13-Aug	Thu	0700–1300	Portion of General Subdistrict of Northern District	
		0700–1900	All except U. Sub. & Portion of General Subdistrict	Exp. Ken/Kas, & Anchor Pt.
17-Aug	Mon	0700–1300	Portion of General Subdistrict of Northern District	
		0700–1900	All except U. Sub. & Portion of General Subdistrict	Drift Areas 3 & 4
18-Aug	Tue	0700–1900		Chinitna Bay
20-Aug	Thu	0700–1300	Portion of General Subdistrict of Northern District	
		0700–1900	All except U. Sub. & Portion of General Subdistrict	Drift Areas 3 & 4
21-Aug	Fri	0700–1900		Chinitna Bay
24-Aug	Mon	0700–1300	Portion of General Subdistrict of Northern District	
		0700–1900	All except U. Sub. & Portion of General Subdistrict	Drift Areas 3 & 4
25-Aug	Tue	0700–1900	Chinitna Bay	Chinitna Bay
27-Aug	Thu	0700–1900	All except Upper Subdistrict	Drift Areas 3 & 4
28-Aug	Fri	0700–1900	Chinitna Bay	Chinitna Bay
31-Aug	Mon	0700–1900	All except Upper Subdistrict	Drift Areas 3 & 4

*Note:* Fishing continued each Monday, Tuesday, Thursday, and Friday, as described above for 25 to 31 August, for the remainder of the year. The last day of recorded fishing was October 2, 2020.

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

Yentna River Passage	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 <sup>a</sup>	2016 <sup>a</sup>
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	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

<sup>a</sup> DIDSON was not operational in 2015 and 2016.

Appendix A13.—Age composition (in percent) of sockeye salmon passage, Upper Cook Inlet, 2020.

Stream	Age Group													Total <sup>a</sup>
	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	
Kenai River	0%	0%	0%	12%	0%	81%	3%	1%	2%	0%	0%	0%	0%	100%
Kasilof River	0%	0%	1%	59%	0%	28%	12%	0%	1%	0%	0%	0%	0%	100%
Fish Creek	0%	0%	6%	79%	0%	7%	6%	0%	2%	0%	0%	0%	0%	100%
Hidden Creek	0%	0%	3%	32%	3%	32%	32%	0%	0%	0%	0%	0%	0%	100%
Larson	0%	0%	1%	9%	1%	59%	19%	0%	12%	0%	0%	0%	0%	100%
Judd	0%	0%	1%	37%	0%	52%	7%	0%	0%	0%	0%	0%	0%	97%

<sup>a</sup> May not sum to 100 due to rounding.

Appendix A14.–Upper Cook Inlet salmon average weights, in pounds, by area, 2020.

Fishery	Chinook	Sockeye	Coho	Pink	Chum
Upper Cook Inlet total	12.3	5.0	5.9	3.7	7.8
Northern District total	11.3	4.7	5.8	3.7	7.1
Northern District west	10.7	4.5	5.1	3.6	7.7
Trading Bay 24710	9.8	5.1	5.8	3.2	7.9
Tyonek 24720	16.6	5.0	5.6	3.5	6.8
Beluga 24730	6.0	5.0	4.8	4.1	7.5
Susitna Flat 24741	NA	3.7	4.3	NA	8.8
Pt. Mackenzie 24742	9.4	3.5	4.3	NA	7.5
Fire Island 24743	11.8	4.6	5.8	NA	7.6
Northern District East	10.3	4.5	6.1	3.8	6.3
Pt. Possession 24770	11.5	4.5	6.0	3.8	6.5
Birch Hill 24780	11.6	4.6	6.5	3.7	6.7
Number 3 Bay 24790	7.9	4.5	5.8	3.8	5.7
Central District total	15.0	5.0	5.8	3.7	6.9
East side set total	13.4	4.8	4.9	3.5	6.9
Salamatof 24441	8.9	5.4	5.0	3.8	8.8
East Forelands 24442	14.5	5.4	5.1	3.4	6.8
South K. Beach 24431	14.7	4.3	4.3	3.8	6.7
North K. Beach 24432	18.4	4.8	4.5	3.5	NA
Cohoe 24422	9.6	4.4	5.2	3.4	7.5
Ninilchik 24421	14.3	4.6	5.2	3.4	5.7
West Side set total	15.0	4.8	5.6	3.7	6.9
Little Jack Slough 24550	10.0	4.6	5.8	3.6	6.7
Tuxedni Bay 24530	19.9	4.9	5.5	3.8	7.0
Kustatan total	19.3	4.9	6.0	3.9	6.4
Big River 24555	19.3	4.9	6.0	4.0	6.1
West Foreland 24560	NA	5.0	6.0	3.9	6.7
Kalgin Island total	14.9	5.0	5.7	4.2	7.0
West Side 24610	14.9	4.9	5.7	3.9	7.2
East Side 24620	NA	5.2	5.6	4.4	6.8
Chinitna Bay total	11.0	5.1	6.6	3.4	7.1
Set 24510	NA	5.0	6.0	3.2	7.5
Drift 24510	11.0	5.2	7.1	3.5	6.6
Central District set total	14.1	4.8	5.5	3.7	6.0
Central District drift total	10.8	5.2	6.3	3.7	7.5
Area 1/Districtwide 24460	7.5	5.2	5.6	3.6	8.4
Kasilof Section, narrow 24461	NA	4.9	6.0	3.8	7.8
Full Ex. Corridor 24456 & 24457	15.5	5.4	5.7	3.7	7.3
Area 3/4 24460	6.0	5.1	7.0	3.8	6.7

Note: Average weights determined from total pounds of fish divided by numbers of fish reported on fish tickets.

Appendix A15.—Age composition of Chinook salmon harvested in the Upper Subdistrict commercial set gillnet fishery, Upper Cook Inlet, Alaska, 1990–2020.

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%
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%
1992	688	–	2.5	–	15.0	–	–	27.6	0.6	49.6	0.9	3.8	0.2	–	–	100	18%
1993	992	–	3.3	–	14.0	–	–	20.8	0.1	56.5	0.8	4.0	0.5	–	–	100	17%
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%
1995	1,508	–	2.7	–	22.4	0.1	–	32.9	0.8	35.0	0.1	5.9	0.2	0.1	–	100	26%
1996	2,186	–	3.3	–	15.8	0.1	–	34.9	0.2	42.3	1.6	1.5	0.5	–	–	100	19%
1997	1,691	–	6.4	–	13.5	0.3	–	31.1	0.3	45.6	0.7	0.7	1.4	–	–	100	20%
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%
1999	1,818	0.1	2.3	–	26.3	0.2	–	24.5	–	43.5	0.4	2.8	–	–	–	100	29%
2000	991	–	9.2	0.1	12.2	0.9	–	38.7	0.3	37.6	0.3	0.8	0.1	–	–	100	23%
2001	989	–	11.7	–	40.0	–	–	14.5	–	32.5	–	1.2	–	–	–	100	52%
2002	1,224	–	10.6	0.0	29.3	–	–	36.7	–	22.6	–	0.7	0.1	–	–	100	40%
2003	678	–	3.8	–	51.8	–	–	23.6	0.3	18.7	–	1.8	–	–	–	100	56%
2004	1,409	–	3.5	–	19.8	0.1	–	48.2	–	27.6	0.0	0.7	–	–	–	100	23%
2005	482	0.2	2.9	–	27.0	–	–	20.1	0.4	47.5	–	1.7	0.2	–	–	100	31%
2006	560	–	12.9	–	35.4	–	–	22.0	0.2	27.1	–	2.5	–	–	–	100	48%
2007	789	–	4.8	–	42.7	–	–	22.4	0.1	28.5	–	1.3	0.1	–	–	100	48%
2008	380	–	10.3	–	19.7	–	–	27.6	–	40.8	–	1.6	–	–	–	100	30%
2009	487	–	13.8	–	51.3	–	–	12.3	–	22.0	–	0.6	–	–	–	100	65%
2010	743	–	18.3	–	24.6	–	–	36.0	0.1	20.1	0.2	0.8	–	–	–	100	43%
2011	1,187	–	4.6	–	33.7	–	–	25.2	–	35.3	0.1	1.2	–	–	–	100	38%
2012	167	–	9.6	–	18.0	–	–	36.6	–	35.8	–	–	–	–	–	100	28%
2013	668	–	22.7	–	43.4	–	–	15.2	–	18.7	–	–	–	–	–	100	66%
2014	459	–	17.6	–	32.3	–	–	29.1	–	20.9	–	0.1	–	–	–	100	50%
2015	610	–	14.2	–	37.4	–	–	24.3	–	23.8	–	0.3	–	–	–	100	52%
2016	809	–	6.7	–	28.5	–	–	36.2	–	26.7	–	1.9	–	–	–	100	35%
2017	881	–	3.6	–	13.3	–	–	43.0	–	39.7	–	0.4	–	–	–	100	17%
2018	300	–	13.3	–	54.5	–	–	12.0	–	19.8	–	0.4	–	–	–	100	68%
2019	600	–	14.1	–	33.1	–	–	41.5	–	11.1	–	0.1	–	–	–	100	47%
2020	778	–	32.8	–	37.8	–	–	20.5	–	8.9	–	–	–	–	–	100	71%
2010–2019 year mean	642	0.0	12.5	0.0	31.9	0.0	0.0	29.9	0.1	25.2	0.1	0.7	0.0	0.0	0.0		44.4%
All year mean	882.9	0.2	9.0	0.1	28.5	0.3	0.3	27.6	0.4	32.5	0.5	1.8	0.6	0.1	0.1		37.8%

Appendix A16.–Major buyers and processors of Upper Cook Inlet fishery products, 2020.

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 F12263	Anchorage Kenai	Nicole Holiday Christine Flake	1118 E. 5th Ave. Anchorage, AK 99501
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 aka Inlet Fish Inc.	F10419 F10419	Kenai	Bobbie Heimgartner Alicia Medina	PO Box 114 Kenai, AK 99611
Inlet Fish Producers	F10420	Kasilof	Kim Hansen	52444 Skein Ave Kasilof, Alaska 99611

Appendix A17.—Number of salmon harvested by gear, area, and species in personal use fisheries, Upper Cook Inlet, 2020.

Fishery	Harvest					Total
	Chinook	Sockeye	Coho	Pink	Chum	
Kasilof gillnet	75	14,656	85	62	23	14,901
Kasilof dipnet	22	91,203	4,170	4,752	807	100,954
Kenai dipnet	31	253,739	5,140	13,622	1,540	274,072
Fish Creek dipnet	7	28,109	1,736	1,369	337	31,558
Beluga dipnet	ND	ND	ND	ND	ND	ND
Susitna dipnet	22	2296	538	747	68	3671
No site reported	15	1916	55	62	7	2056
<b>Total</b>	<b>173</b>	<b>391,919</b>	<b>11,723</b>	<b>20,614</b>	<b>2,782</b>	<b>427,212</b>



Appendix A18.—Personal use sockeye salmon harvest by day, 2020.

Date	Kasilof gillnet		Kasilof dipnet		Kenai dipnet		Susitna dipnet	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
15-Jun	1,044	1,044	0	0	0	0	0	0
16-Jun	1,079	2,123	0	0	0	0	0	0
17-Jun	921	3,044	0	0	0	0	0	0
18-Jun	999	4,043	0	0	0	0	0	0
19-Jun	1,673	5,716	0	0	0	0	0	0
20-Jun	1,846	7,562	0	0	0	0	0	0
21-Jun	1,441	9,003	0	0	0	0	0	0
22-Jun	1,667	10,670	0	0	0	0	0	0
23-Jun	582	11,252	0	0	0	0	0	0
24-Jun	787	12,039	0	0	0	0	0	0
25-Jun	0	12,039	632	632	0	0	0	0
26-Jun	0	12,039	1,361	1,993	0	0	0	0
27-Jun	0	12,039	962	2,955	0	0	0	0
28-Jun	0	12,039	889	3,844	0	0	0	0
29-Jun	0	12,039	544	4,388	0	0	0	0
30-Jun	0	12,039	556	4,944	0	0	0	0
1-Jul	0	12,039	862	5,806	0	0	0	0
2-Jul	0	12,039	362	6,168	0	0	0	0
3-Jul	0	12,039	1,450	7,618	0	0	0	0
4-Jul	0	12,039	1,506	9,124	0	0	0	0
5-Jul	0	12,039	969	10,093	0	0	0	0
6-Jul	0	12,039	921	11,014	0	0	0	0
7-Jul	0	12,039	1,216	12,230	0	0	0	0
8-Jul	0	12,039	822	13,052	0	0	0	0
9-Jul	0	12,039	862	13,914	0	0	0	0
10-Jul	0	12,039	2,229	16,143	1,969	1,969	0	0
11-Jul	0	12,039	3,297	19,440	2,252	4,221	21	21
12-Jul	0	12,039	2,607	22,047	2,350	6,571	0	21
13-Jul	0	12,039	1,529	23,576	2,637	9,208	0	21
14-Jul	0	12,039	3,008	26,584	3,543	12,751	0	21
15-Jul	0	12,039	1,721	28,305	3,723	16,474	28	49
16-Jul	0	12,039	2,257	30,562	5,398	21,872	0	49
17-Jul	0	12,039	4,300	34,862	14,055	35,927	0	49
18-Jul	0	12,039	4,617	39,479	18,357	54,284	59	108
19-Jul	0	12,039	2,859	42,338	16,454	70,738	0	108
20-Jul	0	12,039	1,658	43,996	12,305	83,043	0	108
21-Jul	0	12,039	1,545	45,541	10,253	93,296	0	108
22-Jul	0	12,039	1,175	46,716	8,180	101,476	143	251
23-Jul	0	12,039	1,699	48,415	9,187	110,663	0	251
24-Jul	0	12,039	2,110	50,525	12,402	123,065	0	251
25-Jul	0	12,039	2,847	53,372	9,456	132,521	272	523
26-Jul	0	12,039	1,988	55,360	11,375	143,896	0	523
27-Jul	0	12,039	2,162	57,522	15,743	159,639	0	523
28-Jul	0	12,039	1,589	59,111	12,210	171,849	0	523
29-Jul	0	12,039	1,326	60,437	11,135	182,984	401	924
30-Jul	0	12,039	1,346	61,783	12,523	195,507	0	924
31-Jul	0	12,039	1,490	63,273	9,700	205,207	0	924
1-Aug	0	12,039	2,132	65,405	0	205,207	0	924
2-Aug	0	12,039	1,370	66,775	0	205,207	0	924
3-Aug	0	12,039	858	67,633	0	205,207	0	924
4-Aug	0	12,039	998	68,631	0	205,207	0	924
5-Aug	0	12,039	991	69,622	0	205,207	0	924
6-Aug	0	12,039	783	70,405	0	205,207	0	924
7-Aug	0	12,039	725	71,130	0	205,207	0	924

Note: Data presented are for known permits during legal harvest dates.

Appendix A19.–Age, weight, sex, and size distribution of Pacific herring sampled by gillnet in Upper Cook Inlet, 2015–2020.

Sample date = all 2015														
Sample area	Age	No. of fish						Percent of Total	Weight			Length		
		Male	Immature female	Ripe female	Spawned female	Unknown	Total		Mean (g)	SD	Number weighed	Mean (mm)	SD	Number Measured
ESSN	2	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
Sex composition		48%	0%	42%	11%	0%								

Sample date = all 2016														
Sample area	Age	No. of fish						Percent of Total	Weight			Length		
		Male	Immature female	Ripe female	Spawned female	Unknown	Total		Mean (g)	SD	Number weighed	Mean (mm)	SD	Number measured
ESSN	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	0	0	0	0	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
Sex composition		61%	0%	24%	15%	0%								

-continued-

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Sample date = all 2017															
Sample area	Age	No. of fish						Percent of Total	Weight			Length			
		Male	Immature Female	Ripe Female	Spawned Female	Unknown	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	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						Percent of Total	Weight			Length			
		Male	Immature Female	Ripe Female	Spawned Female	Unknown	Total		Mean (g)	SD	Number Weighed	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	0	0	0	0	
	9	0	0	0	0	0	0	0	0	0	0	0	0	0	
	10	0	0	0	0	0	0	0	0	0	0	0	0	0	
	11	0	0	0	0	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%									

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Sample date = all 2019														
Sample area	Age	No. of fish						Percent of Total	Weight			Length		
		Male	Immature female	Ripe female	Spawned female	Unknown	Total		Mean (g)	SD	Number weighed	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	0	0	0	0
	7	0	0	0	0	0	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0	0	0	0	0	0
	9	0	0	0	0	0	0	0	0	0	0	0	0	0
	10	0	0	0	0	0	0	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sample total		99	0	167	0	0	266		118	16	266	216	10
Sex composition		37%	0%	63%	0%	0%								

Sample date = all 2020														
Sample area	Age	No. of fish						Percent of Total	Weight			Length		
		Male	Immature female	Ripe female	Spawned female	Unknown	Total		Mean (g)	SD	Number weighed	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	18.6	32	216	10.4	32
	4	69	0	66	0	0	135	51%	120	17.5	135	219	13.0	135
	5	48	0	41	0	0	89	34%	129	20.5	89	222	10.7	89
	6	4	0	3	0	0	7	3%	130	19.4	7	221	9.6	7
	7	2	0	0	0	0	2	1%	121	1.6	2	225	4.9	2
	8	0	0	0	0	0	0	0	0	0	0	0	0	0
	9	0	0	0	0	0	0	0	0	0	0	0	0	0
	10	0	0	0	0	0	0	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sample total		135	0	130	0	0	265		123	16	265	220	10
Sex composition		51%	0%	49%	0%	0%								

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Sample date all year averages 2015–2019														
Sample area	Age	No. of fish						Percent of Total	Weight			Length		
		Male	Immature female	Ripe female	Spawned female	Unknown	Total		Mean (g)	SD	Number weighed	Mean (mm)	SD	Number measured
ESSN	2	29	0	38	0	0	67	5%	62	54.8	67	129	113.3	67
	3	102	0	162	0	0	264	21%	95	64.7	264	160	107.3	264
	4	46	0	74	2	0	122	10%	116	13.0	122	203	10.8	122
	5	78	0	90	17	0	185	14%	127	13.2	185	211	6.4	185
	6	96	0	85	18	0	199	16%	114	66.5	199	174	97.2	199
	7	123	0	66	29	0	218	17%	118	67.3	218	179	100.3	218
	8	105	0	34	23	0	162	13%	91	83.0	162	137	124.9	162
	9	32	0	11	8	0	51	4%	98	90.0	51	139	127.3	51
	10	8	0	3	1	0	12	1%	103	96.1	12	143	130.8	12
	11	2	0	0	0	0	2	0%	119	137.1	2	101	120.5	2
	Sample total		621	0	563	98	0	1282		104	69	128	158	94
Sex composition		48%	0%	44%	8%	0%								

Appendix A20.–Age, sex, and size distribution of eulachon (smelt) from Upper Cook Inlet commercial dipnet fishery, 2006–2020.

2006				
Age	Sex	Length (mm)	No. Sampled	%
3	Male	185	1	1%
	Female	0	0	0%
4	Male	194	46	54%
	Female	186	22	26%
5	Male	200	14	16%
	Female	203	2	2%
All	Male	196	61	72%
	Female	187	24	28%
Avg - All		193	85	100%

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

2011				
Age	Sex	Length (mm)	No. Sampled	%
3	Male	192	25	13%
	Female	185	47	24%
4	Male	205	48	24%
	Female	203	41	21%
5	Male	210	28	14%
	Female	208	11	6%
All	Male	203	101	51%
	Female	195	99	50%
Avg - All		199	200	100%

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

2009				
Age	Sex	Length (mm)	No. Sampled	%
3	Male	195	12	7%
	Female	191	18	10%
4	Male	203	74	41%
	Female	194	58	32%
5	Male	203	13	7%
	Female	203	5	3%
All	Male	202	99	55%
	Female	194	81	45%
Avg - All		198	180	100%

2012				
Age	Sex	Length (mm)	No. Sampled	%
3	Male	191	20	11%
	Female	198	19	10%
4	Male	204	50	27%
	Female	207	88	47%
5	Male	208	2	1%
	Female	215	7	4%
All	Male	201	72	39%
	Female	206	114	61%
Avg - All		204	186	100%

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

2010				
Age	Sex	Length (mm)	No. Sampled	%
3	Male	189	14	7%
	Female	194	10	5%
4	Male	197	61	31%
	Female	204	105	53%
5	Male	204	3	2%
	Female	203	6	3%
All	Male	196	78	39%
	Female	203	121	61%
Avg - All		200	199	100%

2013				
Age	Sex	Length (mm)	No. Sampled	%
3	Male	212	7	4%
	Female	216	7	4%
4	Male	219	78	50%
	Female	212	37	24%
5	Male	224	22	14%
	Female	217	5	3%
All	Male	220	107	69%
	Female	213	49	31%
Avg - All		218	156	100%

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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%

2017				
Age	Sex	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%

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%

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%

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%

All Years (2006-2020)				
Age	Sex	Length (mm)	No. Sampled	%
3	Male	187	251	9%
	Female	185	385	13%
4	Male	198	975	34%
	Female	193	996	35%
5	Male	207	182	6%
	Female	172	79	3%
All	Male	199	1408	49%
	Female	191	1460	51%
Avg - All		195	2,868	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%

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%

Appendix A21.—Seldovia District tide tables, May through August 2020.

May											
High tides						Low tides					
Date	Day	AM		PM		Date	Day	AM		PM	
		Time	Feet	Time	Feet			Time	Feet	Time	Feet
1	Fri	9:15	13.9	10:59	14.4	1	Fri	3:23	7.0	4:04	2.3
2	Sat	10:46	14.4	11:56	15.9	2	Sat	4:49	5.7	5:16	1.6
3	Sun	12:01	15.7	.....	.....	3	Sun	5:58	3.5	6:16	0.7
4	Mon	12:43	17.6	1:02	17.3	4	Mon	6:53	0.9	7:07	-0.2
5	Tue	1:26	19.3	1:56	18.7	5	Tue	7:41	-1.6	7:53	-0.9
6	Wed	2:07	20.7	2:45	19.7	6	Wed	8:27	-3.6	8:37	-1.1
7	Thu	2:47	21.6	3:33	20.1	7	Thu	9:10	-4.9	9:20	-0.9
8	Fri	3:28	22.0	4:20	19.9	8	Fri	9:54	-5.4	10:03	-0.1
9	Sat	4:08	21.6	5:07	19.2	9	Sat	10:38	-5.1	10:46	1.1
10	Sun	4:49	20.6	5:56	18.0	10	Sun	11:23	-3.9	11:32	2.6
11	Mon	5:32	19.1	6:49	16.6	11	Mon	12:10	-2.2	.....	.....
12	Tue	6:19	17.2	7:48	15.3	12	Tue	12:22	4.2	1:01	-0.3
13	Wed	7:13	15.2	8:56	14.3	13	Wed	1:20	5.7	2:01	1.5
14	Thu	8:22	13.6	10:09	14.1	14	Thu	2:32	6.6	3:11	2.9
15	Fri	9:49	12.7	11:14	14.4	15	Fri	3:59	6.5	4:27	3.6
16	Sat	11:13	12.7	.....	.....	16	Sat	5:21	5.6	5:32	3.7
17	Sun	12:04	14.9	12:17	13.4	17	Sun	6:18	4.2	6:22	3.5
18	Mon	12:42	15.7	1:06	14.3	18	Mon	7:00	2.7	7:01	3.2
19	Tue	1:15	16.4	1:47	15.2	19	Tue	7:35	1.3	7:36	2.9
20	Wed	1:45	17.2	2:24	16.0	20	Wed	8:08	0.0	8:10	2.6
21	Thu	2:15	18.0	3:01	16.6	21	Thu	8:41	-1.1	8:43	2.5
22	Fri	2:45	18.6	3:38	17.0	22	Fri	9:14	-1.9	9:17	2.6
23	Sat	3:17	18.9	4:15	17.1	23	Sat	9:48	-2.4	9:52	2.9
24	Sun	3:50	18.9	0.2	16.9	24	Sun	10:23	-2.5	10:29	3.4
25	Mon	4:24	18.7	5:35	16.5	25	Mon	11:00	-2.3	11:09	4.1
26	Tue	5:02	18.0	6:20	15.9	26	Tue	11:41	-1.7	11:53	4.8
27	Wed	5:45	17.1	7:11	15.3	27	Wed	12:26	-0.9	.....	.....
28	Thu	6:36	16.0	8:08	14.9	28	Thu	12:45	5.4	1:19	0.1
29	Fri	7:41	14.9	9:11	15.0	29	Fri	1:49	5.7	2:20	1.0
30	Sat	9:00	14.2	10:13	15.6	30	Sat	3:04	5.4	3:27	1.7
31	Sun	10:23	14.3	11:11	16.7	31	Sun	4:21	4.2	4:35	1.9

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June											
High tides						Low tides					
Date	Day	AM		PM		Date	Day	AM		PM	
		Time	Feet	Time	Feet			Time	Feet	Time	Feet
1	Mon	11:39	15.0	.....	.....	1	Mon	5:30	2.3	5:38	1.8
2	Tue	12:02	17.9	12:44	16.1	2	Tue	6:30	0.1	6:35	1.6
3	Wed	12:50	19.1	1:42	17.2	3	Wed	7:22	-1.9	7:26	1.3
4	Thu	1:36	20.2	2:34	18.1	4	Thu	8:10	-3.5	8:14	1.2
5	Fri	2:21	20.9	3:24	18.7	5	Fri	8:55	-4.6	9:00	1.2
6	Sat	3:04	21.1	4:11	18.8	6	Sat	9:40	-5.0	9:46	1.6
7	Sun	3:48	20.8	4:58	18.5	7	Sun	10:23	-4.7	10:31	2.2
8	Mon	4:31	19.9	5:44	17.8	8	Mon	11:07	-3.7	11:17	3.1
9	Tue	5:15	18.6	6:31	17.0	9	Tue	11:51	-2.3	.....	.....
10	Wed	6:01	17.0	7:21	16.0	10	Wed	12:06	4.0	12:37	-0.7
11	Thu	6:51	15.4	8:13	15.2	11	Thu	12:59	4.9	1:25	1.0
12	Fri	7:48	13.8	9:08	14.6	12	Fri	1:58	5.5	2:19	2.5
13	Sat	8:57	12.7	10:03	14.5	13	Sat	3:07	5.7	3:17	3.7
14	Sun	10:13	12.3	10:54	14.6	14	Sun	4:19	5.2	4:18	4.5
15	Mon	11:25	12.4	11:40	15.1	15	Mon	5:24	4.3	5:16	4.9
16	Tue	12:25	13.1	.....	.....	16	Tue	6:16	3.1	6:07	4.9
17	Wed	12:21	15.8	1:16	13.9	17	Wed	7:00	1.8	6:53	4.7
18	Thu	12:59	16.6	2:01	14.8	18	Thu	7:39	0.5	7:35	4.4
19	Fri	1:36	17.5	2:43	15.7	19	Fri	8:16	-0.8	8:15	4.0
20	Sat	2:14	18.3	3:23	16.5	20	Sat	8:53	-1.9	8:55	3.6
21	Sun	2:52	18.8	4:03	17.0	21	Sun	9:30	-2.7	9:35	3.4
22	Mon	3:31	19.2	4:43	17.3	22	Mon	10:08	-3.2	10:16	3.3
23	Tue	4:11	19.2	5:24	17.4	23	Tue	10:47	-3.3	10:58	3.4
24	Wed	4:54	18.8	6:06	17.2	24	Wed	11:28	-2.9	11:45	3.5
25	Thu	5:40	18.0	6:51	17.0	25	Thu	12:12	-2.1	.....	.....
26	Fri	6:32	16.9	7:39	16.7	26	Fri	12:36	3.7	1:00	-1.0
27	Sat	7:32	15.7	8:32	16.6	27	Sat	1:34	3.7	1:54	0.4
28	Sun	8:42	14.7	9:29	16.7	28	Sun	2:40	3.5	2:53	1.7
29	Mon	10:00	14.2	10:28	17.1	29	Mon	3:51	2.8	3:57	2.7
30	Tue	11:20	14.3	11:26	17.8	30	Tue	5:03	1.7	5:04	3.4

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July											
High tides						Low tides					
Date	Day	AM		PM		Date	Day	AM		PM	
		Time	Feet	Time	Feet			Time	Feet	Time	Feet
1	Wed	12:32	15.0	.....	.....	1	Wed	6:09	0.2	6:07	3.6
2	Thu	12:21	18.5	1:34	16.0	2	Thu	7:07	-1.4	7:05	3.4
3	Fri	1:14	19.2	2:29	16.9	3	Fri	7:58	-2.7	7:58	3.1
4	Sat	2:03	19.8	3:18	17.7	4	Sat	8:45	-3.6	8:47	2.7
5	Sun	2:50	20.0	4:03	18.2	5	Sun	9:28	-4.0	9:33	2.5
6	Mon	3:35	19.9	4:45	18.3	6	Mon	10:10	-3.9	10:17	2.5
7	Tue	4:18	19.4	5:25	18.1	7	Tue	10:49	-3.3	11:01	2.7
8	Wed	5:00	18.5	6:04	17.5	8	Wed	11:28	-2.2	11:44	3.1
9	Thu	5:42	17.4	6:43	16.8	9	Thu	12:07	-0.9	.....	.....
10	Fri	6:25	16.0	7:22	16.0	10	Fri	12:29	3.6	12:47	0.7
11	Sat	7:12	14.6	8:03	15.3	11	Sat	1:16	4.2	1:28	2.3
12	Sun	8:05	13.3	8:48	14.8	12	Sun	2:09	4.7	2:14	3.8
13	Mon	9:10	12.3	9:38	14.5	13	Mon	3:10	4.9	3:06	5.1
14	Tue	10:26	11.9	10:32	14.7	14	Tue	4:18	4.7	4:07	6.0
15	Wed	11:43	12.2	11:25	15.2	15	Wed	5:25	3.9	5:11	6.4
16	Thu	12:48	13.0	.....	.....	16	Thu	6:23	2.7	6:12	6.3
17	Fri	12:17	16.0	1:41	14.1	17	Fri	7:12	1.2	7:05	5.7
18	Sat	1:05	16.9	2:27	15.3	18	Sat	7:54	-0.3	7:53	4.9
19	Sun	1:50	18.0	3:07	16.5	19	Sun	8:34	-1.7	8:37	3.9
20	Mon	2:35	19.0	3:46	17.5	20	Mon	9:12	-3.0	9:20	3.0
21	Tue	3:18	19.7	4:25	18.3	21	Tue	9:51	-3.8	10:02	2.2
22	Wed	4:02	20.1	5:03	18.8	22	Wed	10:30	-4.1	10:45	1.6
23	Thu	4:46	20.0	5:41	18.9	23	Thu	11:11	-3.7	11:30	1.3
24	Fri	5:33	19.3	6:22	18.8	24	Fri	11:53	-2.8	.....	.....
25	Sat	6:22	18.1	7:05	18.4	25	Sat	12:18	1.3	12:37	-1.3
26	Sun	7:18	16.6	7:53	17.9	26	Sun	1:11	1.6	1:26	0.5
27	Mon	8:23	15.1	8:47	17.4	27	Mon	2:12	1.9	2:21	2.4
28	Tue	9:41	14.0	9:49	17.0	28	Tue	3:22	2.1	3:24	4.0
29	Wed	11:07	13.7	10:57	17.0	29	Wed	4:39	1.7	4:37	5.1
30	Thu	12:28	14.3	.....	.....	30	Thu	5:55	0.8	5:51	5.4
31	Fri	12:03	17.4	1:33	15.4	31	Fri	6:59	-0.3	6:57	4.9

-continued-

August											
High tides						Low tides					
Date	Day	AM		PM		Date	Day	AM		PM	
		Time	Feet	Time	Feet			Time	Feet	Time	Feet
1	Sat	1:04	18.0	2:25	16.5	1	Sat	7:52	-1.5	7:52	4.1
2	Sun	1:56	18.7	3:09	17.5	2	Sun	8:37	-2.3	8:40	3.2
3	Mon	2:43	19.2	3:48	18.2	3	Mon	9:16	-2.8	9:22	2.4
4	Tue	3:26	19.4	4:23	18.5	4	Tue	9:53	-2.9	10:02	1.8
5	Wed	4:05	19.3	4:56	18.5	5	Wed	10:27	-2.5	10:39	1.6
6	Thu	4:42	18.8	5:28	18.2	6	Thu	11:01	-1.7	11:17	1.8
7	Fri	5:19	18.0	5:59	17.6	7	Fri	11:34	0.6	11:54	2.2
8	Sat	5:56	16.8	6:30	16.9	8	Sat	12:07	0.8	.....	.....
9	Sun	6:36	15.5	7:03	16.1	9	Sun	12:33	2.9	12:41	2.4
10	Mon	7:20	14.0	7:40	15.3	10	Mon	1:16	3.6	1:19	4.1
11	Tue	8:16	12.7	8:24	14.7	11	Tue	2:06	4.4	2:03	5.7
12	Wed	9:31	11.8	9:22	14.3	12	Wed	3:10	4.8	3:02	7.0
13	Thu	11:04	11.8	10:32	14.5	13	Thu	4:28	4.6	4:20	7.7
14	Fri	12:25	12.7	11:41	15.2	14	Fri	5:45	3.6	5:40	7.5
15	Sat	1:22	14.1	.....	.....	15	Sat	6:44	2.0	6:44	6.4
16	Sun	12:41	16.5	2:06	15.6	16	Sun	7:31	0.2	7:35	5.0
17	Mon	1:33	17.9	2:44	17.2	17	Mon	8:12	-1.5	8:20	3.3
18	Tue	2:20	19.4	3:21	18.6	18	Tue	8:51	-2.9	9:03	1.6
19	Wed	3:06	20.5	3:07	19.7	19	Wed	9:30	-3.9	9:44	0.2
20	Thu	3:50	21.2	4:33	20.4	20	Thu	10:09	-4.2	10:26	-0.8
21	Fri	4:34	21.2	5:10	20.7	21	Fri	10:48	-3.8	11:10	-1.2
22	Sat	5:20	20.5	5:48	20.4	22	Sat	11:29	-2.6	11:56	-1.0
23	Sun	6:08	19.1	6:30	19.7	23	Sun	12:11	-0.8	.....	.....
24	Mon	7:02	17.3	7:15	18.7	24	Mon	12:46	-0.2	12:58	1.4
25	Tue	8:06	15.4	8:09	17.5	25	Tue	1:44	0.8	1:52	3.7
26	Wed	9:27	13.9	9:16	16.4	26	Wed	2:54	1.8	2:59	5.6
27	Thu	11:02	13.6	10:38	15.9	27	Thu	4:19	2.2	4:22	6.6
28	Fri	12:27	14.4	11:58	16.3	28	Fri	5:46	1.8	5:49	6.5
29	Sat	1:28p	15.7	.....	.....	29	Sat	6:53	0.8	6:58	5.4
30	Sun	1:02	17.0	2:13	16.8	30	Sun	7:43	-0.3	7:49	4.1
31	Mon	1:53	17.9	2:51	17.8	31	Mon	8:23	-1.0	8:31	2.7

Appendix A22.—Total sockeye salmon harvest from all sources in Upper Cook Inlet, 1996-2020.

Year	Commercial			Sport <sup>a,b</sup>			Personal use/Subsistence/Educational (Ed)						Total	
	Drift	Set	Test fishery	All	Kenai River	All Other UCI	All	Kas. gillnet	Kas. Dipnet	Kenai Dipnet	Other	Subsist.		Ed
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	557	9379	1,464,246

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

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

Appendix A23.–Hours fished in the Upper Subdistrict set gillnet fishery, 2020.

		Week of June 22–27						
		Sun	Mon	Tue	Wed	Thu	Fri	Sat
		21	22	23	24	25	26	27
Midnight								
1								
2								
3								
4								
5				EO#5				
6								
7						EO#6		
8								
9								
10								
11								
Noon								
1								
2								EO#7
3								
4								
5								
6								
7								
8								
9								
10								
11								

EO #5 Kasilof Section from 5 AM to 8 PM  
 EO #6 Kasilof Section from 7 AM to 7 PM  
 EO #7 Kasilof Section from 2 PM to 11 PM

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

EO #8 Kasilof Section from 7 AM to 7 PM  
 EO #9 Kasilof Section from 7 AM to 10 PM  
 EO #10 Kasilof Section from 10 AM to 7 PM

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

- EO #11 Kasilof Section & NKB 600 ft from 11 AM to midnight
- EO #12 Kasilof 600 ft and NKB 600 ft 11 AM to midnight
- EO #13 Kasilof 1/2 mile and NKB 600 ft noon to 8 PM
- EO #14 Kenai, Kasilof, E. Foreland section from 7 AM to 10 PM

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

- EO #15 Kenai, Kasilof, E. Foreland section from 6 AM to 6 PM
- EO #17 Kenai, Kasilof, E. Foreland section from 7 AM to 7 PM
- EO #18 Kasilof 600 ft and NKB 600 ft 7 AM to 7 PM

		Week of July 9–25						
		Sun	Mon	Tue	Wed	Thu	Fri	Sat
		19	20	21	22	23	24	25
Midnight								
1								
2								
3								
4								
5								
6								
7					EO#22			
8								
9								
10			EO#20					
11								
Noon								
1				EO#21				
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

		Week of July 26–Aug 1						
		Sun	Mon	Tue	Wed	Thu	Fri	Sat
		26	27	28	29	30	31	1
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 10 AM to 10 PM
- EO #21 Kasilof 600 ft 1 PM to 9 PM
- EO #22 Kenai, Kasilof, E. Foreland section from 7AM to 7PM





## **APPENDIX B: HISTORICAL DATA**

Appendix B1.—Upper Cook Inlet commercial Chinook salmon harvest by gear type and area, 1970–2020.

Year	Central District						Northern District		Total
	Drift gillnet		upper subdistrict set		Kalgin/west side set		set gillnet		
	Number <sup>a</sup>	%	number <sup>a</sup>	%	number <sup>a</sup>	%	number <sup>a</sup>	%	
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-

Year	Central District						Northern District		Total
	Drift gillnet		upper subdistrict set		Kalgin/west side set		set gillnet		
	number <sup>a</sup>	%	number <sup>a</sup>	%	number <sup>a</sup>	%	number <sup>a</sup>	%	
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
1970–2019 Avg <sup>b</sup>	963	7	9,274	65	1,172	9	3,071	20	14,480
2010–2019 Avg	433	7	4,463	61	522	10	1,986	22	6,877

<sup>a</sup> Harvest data prior to 2020 reflect minor adjustments to historical catch database.

<sup>b</sup> 1989 was not used in averages because the drift fleet did not fish due to the Exxon Valdez oil spill and this had an effect on all fisheries.

Appendix B2.–Upper Cook Inlet commercial sockeye salmon harvest by gear type and area, 1970–2020.

Year	Drift gillnet		Central District upper subdistrict set		Kalgin/west side set		Northern District set gillnet		Total
	number <sup>a</sup>	%	number <sup>a</sup>	%	number <sup>a</sup>	%	number <sup>a</sup>	%	
	1970	460,690	62.9	142,701	19.5	62,723	8.6	66,458	
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

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Year	Central district						Northern district		Total
	Drift gillnet		upper subdistrict set		Kalgin/west side set		set gillnet		
	number <sup>a</sup>	%	number <sup>a</sup>	%	number <sup>a</sup>	%	number <sup>a</sup>	%	
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
1970–2019 Avg <sup>b</sup>	1,649,058	54.9	1,091,591	36.3	103,040	4.8	80,599	4.0	2,924,289
2010–2019 Avg	1,518,615	56.7	909,213	36.6	97,834	4.4	44,510	2.3	2,570,174

<sup>a</sup> Harvest data prior to 2020 reflect minor adjustments to historical catch database.

<sup>b</sup> 1989 was not used in averages because the drift fleet did not fish due to the Exxon Valdez oil spill and this had an effect on all fisheries.

Appendix B3.–Upper Cook Inlet commercial coho salmon harvest by gear type and area, 1970–2020.

Year	Central District						Northern District		Total
	Drift gillnet		upper subdistrict set		Kalgin/west side set		set gillnet		
	number <sup>a</sup>	%	number <sup>a</sup>	%	number <sup>a</sup>	%	number <sup>a</sup>	%	
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

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Year	Central District						Northern District		Total
	Drift gillnet		upper subdistrict set		Kalgin/west side set		set gillnet		
	number <sup>a</sup>	%	number <sup>a</sup>	%	number <sup>a</sup>	%	number <sup>a</sup>	%	
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
1970–2019 Avg <sup>b</sup>	146,881	50	30,970	11	46,635	16	60,396	22	284,882
2010–2019 Avg	115,060	56	9,904	5	27,542	14	47,612	25	200,118

<sup>a</sup> Harvest data prior to 2020 reflect minor adjustments to historical catch database.

<sup>b</sup> 1989 was not used in averages due to the Exxon Valdez oil spill.

Appendix B4.—Upper Cook Inlet commercial pink salmon harvest by gear type and area, 1970–2020.

Year	Central District						Northern District		Total
	Drift gillnet		upper subdistrict set		Kalgin/west side set		set gillnet		
	Pink <sup>a</sup>	%	Pink <sup>a</sup>	%	Pink <sup>a</sup>	%	Pink <sup>a</sup>	%	
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

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Year	Central District						Northern District		Total
	Drift Gillnet		upper subdistrict set		Kalgin/west side set		set gillnet		
	Pink <sup>a</sup>	%	Pink <sup>a</sup>	%	Pink <sup>a</sup>	%	Pink <sup>a</sup>	%	
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
1970–2019 Avg <sup>b</sup>	186,088	47.6	137,574	36.9	9,289	3.6	47,472	11.9	380,424
2010–2019 Avg	142,217	56.8	76,568	35.9	3,738	3.1	5,852	4.2	228,367
							Odd-year average		90,009
							Even-year average		343,954

<sup>a</sup> Harvest data prior to 2020 reflect minor adjustments to historical catch database.

<sup>b</sup> 1989 was not used in averages due to the Exxon Valdez oil spill.

Appendix B5.–Upper Cook Inlet commercial chum salmon harvest by gear type and area, 1970–2019.

Year	Central District						Northern District		Total
	Drift gillnet		Upper subdistrict set		Kalgin/west side set		set gillnet		
	number <sup>a</sup>	%	number <sup>a</sup>	%	number <sup>a</sup>	%	number <sup>a</sup>	%	
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

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Year	Central District						Northern District		Total
	Drift gillnet		upper subdistrict set		Kalgin/west side set		set gillnet		
	number <sup>a</sup>	%	number <sup>a</sup>	%	number <sup>a</sup>	%	number <sup>a</sup>	%	
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
1970–2019 Avg <sup>b</sup>	347,754	88.9	2,360	0.8	17,924	4.6	21,626	5.8	389,664
2010–2019 Avg	161,647	93.2	980	0.6	5,981	3.7	3,884	2.5	172,491

<sup>a</sup> Harvest data prior to 2020 reflect minor adjustments to historical catch database.

<sup>b</sup> 1989 was not used in averages due to the Exxon Valdez oil spill and this had an effect on all fisheries.

Appendix B6.—Upper Cook Inlet commercial salmon harvest by species, 1970–2020.

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

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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
1970–2019 Avg <sup>a</sup>	14,480	2,924,285	287,901	384,737	394,247	4,005,651
2010–2019 Avg	6,877	2,570,148	187,112	228,367	177,128	3,169,631

Note: Catch statistics prior to 2020 reflect minor adjustments to harvest database.

<sup>a</sup> 1989 was not used in averages because the drift fleet did not fish due to the Exxon Valdez oil spill, and this had an effect on all other fisheries.

Appendix B7.—Approximate exvessel value of Upper Cook Inlet commercial salmon harvest by species, 1970–2020.

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

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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
Rank	50		45		35		20		50		48
N=	51		51		51		51		51		51
2010–2019 average	\$ 339,910		\$ 27,465,515		\$ 964,824		\$ 222,238		\$ 798,264		\$ 29,790,752
10 previous odd years average							\$ 42,200				
10 previous even years average							\$240,358				

Appendix B8.—Commercial herring harvest by fishery, Upper Cook Inlet, 1978–2020.

Year	Harvest (Tons <sup>a</sup> )				Total
	Upper Subdistrict	Chinitna Bay	Tuxedni Bay	Kalgin Island	
1978	8	55	–	–	63
1979	67	96	25	–	188
1980	37	20	87	–	144
1981	86	51	85	–	222
1982	60	92	50	–	202
1983	165	49	238	–	453
1984	118	91	159	–	367
1985	136	46	216	–	398
1986	143	111	192	–	446
1987	126	65	153	–	344
1988	51	23	14	–	88
1989	55	122	34	–	212
1990	55	56	16	–	127
1991	13	16	2	–	31
1992	25	10	–	–	35
1993	–	–	–	–	0
1994	–	–	–	–	0
1995	–	–	–	–	0
1996	–	–	–	–	0
1997	–	–	–	–	0
1998	20	–	–	–	19
1999	10	–	–	–	10
2000	15	–	–	–	16
2001	10	–	–	–	10
2002	16	2	0	–	18
2003	4	0	0	–	4
2004	7	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

Note: Dashes indicate years when fisheries were closed.

<sup>a</sup> Tons = short tons = 2,000 lb or 907.2 kg.



Appendix B9.—Commercial harvest of razor clams in Upper Cook Inlet, 1919–2020.

Year	Pounds	Year	Pounds
1919	76,963	1970	0
1920	11,952	1971	14,755
1921	72,000	1972	31,360
1922	510,432	1973	34,415
1923	470,280	1974	0
1924	156,768	1975	10,020
1925	0	1976	0
1926	0	1977	1,762
1927	25,248	1978	45,931
1928	0	1979	144,358
1929	0	1980	140,420
1930	0	1981	441,949
1931	ND	1982	460,639
1932	93,840	1983	269,618
1933	ND	1984	261,742
1934	ND	1985	319,034
1935	ND	1986	258,632
1936	ND	1987	312,349
1937	8,328	1988	399,376
1938	ND	1989	222,747
1939	ND	1990	323,602
1940	ND	1991	201,320
1941	0	1992	296,727
1942	0	1993	310,481
1943	0	1994	355,165
1944	0	1995	248,358
1945	15,000	1996	355,448
1946	11,424	1997	366,532
1947	11,976	1998	371,877
1948	2,160	1999	352,910
1949	9,672	2000	369,397
1950	304,073	2001	348,917
1951	112,320	2002	338,938
1952	0	2003	411,403
1953	0	2004	419,697
1954	0	2005	371,395
1955	0	2006	368,953
1956	0	2007	283,085
1957	0	2008	390,999
1958	0	2009	361,388
1959	0	2010	379,547
1960	372,872	2011	189,172
1961	277,830	2012	307,409
1962	195,650	2013	380,912
1963	0	2014	348,294
1964	0	2015	318,538
1965	0	2016	284,800
1966	0	2017	177,147
1967	0	2018	199,162
1968	0	2019	137,530
1969	0	2020	NA
2010–2019 Average			272,251

Note: NA indicates that no fishery occurred because of logistics.

Appendix B10.—Abundance goals and estimates of sockeye salmon in selected streams, 1978–2020.

Year	Kenai River		Kasilof River		Fish Creek	
	Abundance goal <sup>a</sup>	Abundance estimate <sup>b,c</sup>	Abundance goal	Abundance estimate <sup>b,c</sup>	Abundance goal	Abundance estimate <sup>c</sup>
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

-continued-

Year	Larson		Chelatna		Judd	
	Abundance goal	Abundance estimate <sup>c</sup>	Abundance goal	Abundance estimate <sup>c</sup>	Abundance goal	Abundance estimate <sup>c</sup>
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

-continued-

Year	Yentna River		Crescent River		Packers Creek	
	Abundance goal	Abundance estimate <sup>d</sup>	Abundance goal	Abundance estimate <sup>c</sup>	Abundance goal	Abundance estimate <sup>c,e</sup>
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 <sup>f</sup>	–	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 <sup>e</sup>
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	– <sup>d</sup>	– <sup>d</sup>	30,000–70,000	–	15,000–30,000	16,473 <sup>e</sup>
2010	– <sup>d</sup>	– <sup>d</sup>	30,000–70,000	86,333	15,000–30,000	–
2011	– <sup>d</sup>	– <sup>d</sup>	30,000–70,000	81,952	15,000–30,000	–
2012	– <sup>d</sup>	– <sup>d</sup>	30,000–70,000	58,838	15,000–30,000	–
2013	– <sup>d</sup>	– <sup>d</sup>	30,000–70,000	ND	15,000–30,000	–
2014	– <sup>d</sup>	– <sup>d</sup>	30,000–70,000	ND	15,000–30,000	19,242 <sup>e</sup>
2015	– <sup>d</sup>	– <sup>d</sup>	30,000–70,000	ND	15,000–30,000	28,072 <sup>e</sup>
2016	– <sup>d</sup>	– <sup>d</sup>	30,000–70,000	ND	15,000–30,000	–
2017	– <sup>d</sup>	– <sup>d</sup>	30,000–70,000	ND	15,000–30,000	17,106 <sup>e</sup>
2018	– <sup>d</sup>	– <sup>d</sup>	30,000–70,000	ND	15,000–30,000	16,271 <sup>e</sup>
2019	– <sup>d</sup>	– <sup>d</sup>	30,000–70,000	ND	15,000–30,000	7,719 <sup>e</sup>
2020	– <sup>d</sup>	– <sup>d</sup>	30,000–70,000	ND	15,000–30,000	15,903 <sup>e</sup>

Note: ND = no data; dash = incomplete count.

<sup>a</sup> Inriver goal

<sup>b</sup> From 1978 to 2010, count estimates and goals prior were in BENDIX units; 2011–2019 are in DIDSON units.

<sup>c</sup> Count estimates prior to 2019 reflect minor adjustments to the escapement database.

<sup>d</sup> Yentna River SEG replaced with lake goals at Judd, Chelatna, and Larson Lakes.

<sup>e</sup> Escapement 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, Upper Cook Inlet, 1975–2020.

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

Note: Price is expressed as dollars per pound. Data source: 1969–1983: Commercial Fisheries Entry Commission (<https://www.cfec.state.ak.us>); 1984–2020: random fish ticket averages, which do not include bonuses or postseason adjustments.

Appendix B12.—Average weight (in pounds) of commercially harvested salmon, Upper Cook Inlet, 1975–2020.

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
2010–2019 Avg	17.6	5.9	6.1	3.6	7.3
1975–2019 Avg	23.5	6.2	6.4	3.6	7.3

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

Appendix B13.—Registered active units of gillnet fishing effort by gear type in Cook Inlet, 1975–2020.

Year	Drift gillnet			Set gillnet			Total
	Resident	Nonresident	Subtotal	Resident	Nonresident	Subtotal	
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

Source: Commercial Fisheries Entry Commission ([https://www.cfec.state.ak.us/fishery\\_statistics/permits.htm](https://www.cfec.state.ak.us/fishery_statistics/permits.htm))

Appendix B14.–Forecast and projected harvests of salmon by species, Upper Cook Inlet, 1990–2020.

Year	Sockeye			Coho			Pink			Chum			Chinook		
	Forecast <sup>a</sup>	Actual <sup>b,c,d</sup>	Error	Projected	Actual <sup>c,d</sup>	Error	Projected	Actual <sup>c,d</sup>	Error	Projected	Actual <sup>c,d</sup>	Error	Projected	Actual <sup>c,d</sup>	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	1,720,295	-74%	207,000	163,859	-26%	103,000	70,741	-46%	175,000	129,176	-35%	7,300	3,148	-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%
Avg.	3,283,871	3,603,048	-10%	244,806	239,366	-20%	236,355	246,401	-52%	200,871	169,419	-55%	13,610	12,439	-40%

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

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

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

<sup>d</sup> Actual harvests prior to 2020 reflect minor adjustments to the harvest database.



Appendix B15.—Upper Cook Inlet subsistence fishery salmon harvests, 1982–2020.

Year	No. of permits		Tyonek subsistence fishery					Total
	Issued	Returned	Chinook	Sockeye	Coho	Pink	Chum	
1982	69	69	1,590	310	113	4	14	2,031
1983	73	73	2,755	251	78	6	0	3,090
1984	70	70	2,364	310	66	23	3	2,766
1985	176	ND	1,967	163	91	10	0	2,231
1986	101	ND	1,674	198	210	44	45	2,171
1987	64	61	1,689	174	156	25	10	2,055
1988	47	42	1,776	102	283	13	9	2,183
1989	49	47	1,303	89	120	1	0	1,513
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

-continued-

Yentna subsistence fishery								
Year/Fishery	No. of permits		Chinook	Sockeye	Coho	Pink	Chum	Total
	Issued	Returned						
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	No data							

Appendix B16.–Upper Cook Inlet educational fisheries salmon harvest, 2020.

Year	Fishery <sup>a</sup>	Chinook	Sockeye	Coho	Pink	Chum	Total
2020	Kenaitze	7	7,231	528	115	0	7,881
	NTC	6	232	112	68	0	418
	NND	3	57	0	5	0	65
	NES	0	0	0	0	0	0
	APVFW	0	5	32	26	0	63
	Sons of American Legion	0	11	19	30	0	60
	Kasilof H.A.	0	9	47	6	0	62
	SCF	0	0	15	2	0	17
	Knik Tribal Council	0	121	49	19	102	291
	Big Lake	0	0	0	0	0	0
	Native Village of Eklutna	0	124	194	12	13	343
	Territorial Homestead Lodge	3	80	24	68	4	179
	Total	19	7,870	1,020	351	119	9,379

<sup>a</sup> 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 H. A. = Kasilof Regional Historical Association; SCF = Southcentral Foundation; Knik = Knik Tribal Council; Eklutna = Native Village of Eklutna; Territorial Homestead Lodge = Alaska’s Territorial Homestead Lodge.

Appendix B17.—Effort and harvest in Upper Cook Inlet personal use set gillnet salmon fishery, 1996–2020.

Kasilof River Gillnet															
Year	Days	Days fished		Sockeye		Chinook		Coho		Pink		Chum		Total	
	Open	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE	Est.	SE
1996	5	582	16	9,506	156	46	3	0	0	8	0	1	0	9,561	157
1997	5	815	26	17,997	231	65	2	1	0	102	7	3	1	18,168	233
1998	5	1,075	24	15,975	425	126	7	0	0	15	4	12	10	16,128	426
1999	10	1,287	39	12,832	371	442	27	25	2	10	0	10	0	13,319	374
2000	13	1,252	23	14,774	275	514	15	9	0	17	2	10	0	15,324	276
2001	8	1,001	20	17,201	394	174	6	6	0	11	0	7	5	17,399	397
2002	10	1,025	16	17,980	274	192	5	12	0	30	2	13	4	18,227	277
2003	10	1,206	17	15,706	277	400	13	107	0	9	0	4	0	16,226	284
2004	10	1,272	10	25,417	203	163	4	58	13	6	1	0	0	25,644	205
2005	11	1,506	6	26,609	104	87	1	326	5	16	1	1	0	27,039	104
2006	10	1,724	5	28,867	91	287	2	420	16	11	0	6	0	29,591	94
2007	10	1,570	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	85	0	62	53	23	0	14,901	631
10-year average	10	1,659		20,764		107		63		39		13		20,985	