Regional Information Report 13-07

Salmon Age, Sex, and Length Catalog for the Kuskokwim Area, 2012

Annual Report for Project 10-303
USFWS Office of Subsistence Management
Fisheries Resource Monitoring Program

by

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Alaska Department of Fish and Game **Division of Commercial Fisheries**

Symbols and Abbreviations

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Weights and measures (metric)

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

Weights and measures (English)

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

Time and temperature

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

Physics and chemistry

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

General

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

Mathematics, statistics

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

REGIONAL INFORMATION REPORT 13-07

SALMON AGE, SEX, AND LENGTH CATALOG FOR THE KUSKOKWIM AREA, 2012

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The Regional Information Report Series was established in 1987 and was redefined in 2006 to meet the Division of Commercial Fisheries regional need for publishing and archiving information such as area management plans, budgetary information, staff comments and opinions to Board of Fisheries proposals, interim or preliminary data and grant agency reports, special meeting or minor workshop results and other regional information not generally reported elsewhere. Reports in this series may contain raw data and preliminary results. Reports in this series receive varying degrees of regional, biometric and editorial review; information in this series may be subsequently finalized and published in a different department reporting series or in the formal literature. Please contact the author or the Division of Commercial Fisheries if in doubt of the level of review or preliminary nature of the data reported. Regional Information Reports are available through the Alaska State Library and on the Internet at http://www.adfg.alaska.gov/sf/publications/.

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ABSTRACT

Pacific salmon *Oncorhynchus* spp. age, sex, and length (ASL) data have been collected from Kuskokwim Area harvests and escapements since 1961. Since 1995, the salmon age, sex, and length catalog for the Kuskokwim Area has been produced as a means to compile ASL data into historical summaries useful to Kuskokwim Area fishery managers, contributing project leaders, and other interested parties. This report provides (1) an overview of projects that collected ASL information in 2012, and highlights new data added to the AYK DBMS, (2) a single source document for project specific data summaries produced in 2012, (3) a historical summary of ASL data for select long-term monitoring projects, and (4) a quick reference guide to the available historical ASL data archived in the AYK DBMS. During the 2012 season, ASL samples were collected from 17 locations representing 21 projects including commercial catch, subsistence catch, escapement, general escapement, mark–recapture, and test fishery. Sampling during the 2012 seasons resulted in 21,029 salmon sampled for age, sex, or length. Chum salmon made up 37% of the samples collected, followed by sockeye salmon (25%), coho salmon (22%), and Chinook salmon (16%).

Key words: age, sex, length, ASL, Pacific salmon, *Oncorhynchus* spp., Kuskokwim River, age class composition, sex composition, length composition, AYK DBMS.

INTRODUCTION

Since 1961, age, sex, and length (ASL) data have been collected from Chinook *Oncorhynchus tshawytscha*, chum *O. keta*, sockeye *O. nerka*, and coho *O. kisutch* salmon returning to the Kuskokwim Management Area (Figure 1; Brannian et al. 2005). Data are available from various sometimes discontinuous time series of sample collections from commercial, subsistence, and sport harvests, escapement monitoring projects, test fisheries, mark–recapture studies, and other special projects. A variety of organizations including state, federal, tribal, and non-government groups have jointly funded and participated in the collection of Kuskokwim Area salmon ASL data. Primary data are archived in the Arctic-Yukon-Kuskokwim salmon Database Management System (AYK DBMS). The AYK DBMS is an online clearinghouse maintained by the Alaska Department of Fish and Game (ADF&G) and provides a public interface for querying and downloading data. Summarized data have most commonly been reported in agency project reports and fisheries management reports. Since 1995, data have also been published by the ADF&G as part of the salmon ASL catalog for the Kuskokwim Area (Molyneaux and DuBois 1996, 1998, 1999; DuBois and Molyneaux 2000; Molyneaux and Folletti 2005, 2007; Molyneaux et al. 2006, 2008, 2009, 2010; Liller et al. 2013).

Continuation and expansion of the ASL catalog for the Kuskokwim Area and regular updates to the AYK DBMS are integral parts of the Kuskokwim Area stock biology program's data management process. Since 2004, the U.S. Fish and Wildlife Service (USFWS) Office of Subsistence Management (OSM) has funded the *Kuskokwim salmon age, sex, and length assessment project* through 3 consecutive Fisheries Resource Monitoring Program (FRMP) grants: 04-086, 07-303, and 10-303. The overriding purpose of that project is to standardize and manage the fast growing collection of ASL data.

Regular format revisions to the ASL catalog are warranted in order to meet evolving needs of Kuskokwim Area ASL data users. Catalogs produced from 2005 to 2010 consisted of 2 parts, a narrative published in the ADF&G Regional Information Report series and a collection of historical summary tables accessible online at the ADF&G website. By the end of the 2009 project year, online historical tables were exhaustive at nearly 1,200 pages (Molyneaux et al. 2010). Beginning with 2010 project year data, online historical tables were discontinued and the catalog was revised in an attempt to refocus and streamline reporting based on input from ADF&G research and management staff at the area and regional levels (Liller et al. 2013). The

revised format provides a general description of methods used to collect ASL data and highlights the similarities and differences among project types. Detailed annual summaries are presented for each project that collected ASL data during the current project. A historical perspective for long-term projects was provided by presenting a time series of annual estimates of ASL composition and corresponding abundance information. The report format complements the AYK DBMS by providing a quick reference guide to the archived raw data by species, project type (e.g., harvest or escapement), project name, and year.

OBJECTIVES

The overriding objective of this project was to process, compile, and analyze salmon scale, sex, and length samples collected in 2012 from Kuskokwim Area subsistence and commercial fisheries, escapement, and other projects.

Specific objectives of this report were to:

1. Provide an overview of projects that collected ASL information in 2012 and highlight new data that were added to the AYK DBMS;
2. Provide a single source document for detailed project ASL data summaries produced in 2012;
3. Provide a historical summary of annual ASL composition estimates for select long-term monitoring projects; and
4. Provide a quick reference guide to the available historical ASL data archived in the AYK DBMS.

METHODS AND RESULTS

In 2012, ASL samples were collected from 17 locations representing 21 projects. Target species differed by project type and location (Table 1). Project types included commercial catch, subsistence catch, escapement, mark–recapture, and test fishery. All salmon species harvested commercially were sampled in Districts 1, 4, and 5. Chinook and sockeye salmon were sampled from a test fishery in the lower Kuskokwim River. Subsistence catch sampling was conducted for Chinook salmon only. Lower Kuskokwim River subsistence catch was sampled by 8 local residents from the communities of Tuntutuliak, Napaskiak, and Bethel (Table 2). Upper Kuskokwim River subsistence samples from Salmon River (Pitka Fork) were collected by U.S. Fish and Wildlife Service as part of broad-scale effort to quantify the occurrence of *Ichthyophonus* parasites in Chinook salmon (Ken Harper, Fishery Biologist, U.S. Fish and Wildlife Service, Kenai, personal communication). Escapement of Chinook, sockeye, and chum salmon to Kuskokwim Bay tributaries was sampled at 2 locations, and coho salmon were sampled at 1 location. Escapement of Chinook and chum salmon to Kuskokwim River was sampled at 7 locations, coho salmon were sampled at 6 locations, and sockeye salmon were sampled at 5 locations. Sockeye salmon escapement samples collected at Telaquana River were separated into 2 project types. Sockeye sampled for age, sex, and length were categorized as escapement, while fish sampled for length and sex only were categorized as general escapement to highlight differences in sampling objectives. A mark–recapture study of Kuskokwim River sockeye salmon was conducted, and ASL data were collected from all fish marked at the Kalskag fish wheel tag site and all fish recaptured at 3 upriver spawning tributaries.

Age, sex, and length data were collected following standardized procedures similar to those described by Molyneaux et al. 2010. Detailed information regarding project specific methods can be found by reviewing individual project reports (Table 3). General methods used to collect ASL data for each species by project are shown in Tables 4–7. All salmon lengths were measured as mideye to fork (MEF) to the nearest millimeter. Age was determined by examining scales (Mosher 1969. Scales were collected from the left side of the fish approximately two rows above the lateral line in an area crossed by a diagonal from the posterior insertion of the dorsal fin to the anterior insertion of the anal fin (INPFC 1963). Because of the high rate of scale regeneration among Chinook and coho salmon, three scales were collected from each fish. Only one scale per fish was collected from chum salmon. The number of scales collected from each sockeye salmon differed by project (Table 6), with more scales collected from locations where reabsorption is prolific. Scales were mounted on gummed cards and impressions were made in cellulose acetate (Clutter and Whitesel 1956). European notation (Koo 1962) was used to record ages; numerals preceding the decimal refer to the number of freshwater annuli and numerals following the decimal refer to the number of marine annuli. Total age from time of egg deposition, or brood year, is the sum of these two numbers plus one to account for incubation time. The sex of each salmon sampled was verified by visual examination of the gonads (harvest projects) or visual examination of external characteristics (escapement projects).

Salmon harvested in commercial, test, and subsistence fisheries used a wide range of gillnet mesh sizes. Commercial harvest of all salmon species was restricted to gillnet mesh sizes of 6 in or less within each commercial fishing district. Test fish harvest of Chinook salmon was from 5 3/8 in and 8 in mesh nets. Test fish harvest of sockeye salmon was from 4 5/8 in and 5 3/8 in mesh nets. ASL samples were collected from Chinook salmon harvested in the lower Kuskokwim River using 10 different mesh sizes ranging from 4 in to 8 in mesh (Table 8).

A total of 21,029 salmon were sampled for age, sex, or length during the 2012 season. Chum salmon made up 37% of the samples collected, followed by sockeye salmon (25%), coho salmon (22%), and Chinook salmon (16%; Table 9–12). Nearly all projects attempted to collect paired age, sex, and length data from each fish. The exception was the Telaquana River sockeye salmon escapement project where only sex and length were collected from a subset of fish sampled. Although age samples were collected for majority of fish sampled, not all fish could be successfully aged (Table 9–12).

The number of scale samples that were not aged for at least 1 of 7 different reasons is shown by species and project in Tables 13–16. Overall, the percentage of Chinook, chum, sockeye, and coho salmon scales that were not successfully aged was 23%, 16%, 22%, and 13% respectively. Collection of regenerated scales was the primary reason Chinook (n=575, 17%) and coho salmon samples (n=584, 13%) could not be aged. Collection of reabsorbed scales was the primary reason chum (n=827, 11%) and sockeye salmon samples (n=615, 12%) could not be aged. Although less common, reabsorbed Chinook salmon and regenerated chum and sockeye scales were prolific throughout the 2012 collections. All sockeye salmon scales collected at Kogrukluk, Salmon River (Aniak), and Telaquana River showed considerable reabsorption. Age was assigned for these samples, but age estimates are likely biased low and should be considered a minimum. Presentation of age errors was intended as feedback to project leaders but may also be useful when considering sample sizes needed to achieve desired statistical accuracy and precision.

ASL data collected in 2012 were summarized by project for each salmon species sampled. Many, but not all, of these summary tables will be published in individual annual project reports (Table

3). To assist in review of the 2012 ASL summaries, they have been combined into a single collection representing the full range of projects that collected ASL data (Table 1). Chinook salmon summaries include commercial harvest composition for 2 Kuskokwim Bay subdistricts (Table 17 and 18), one test fishery operated near Bethel (Table 19), subsistence harvest composition from the lower Kuskokwim River (Table 20 and 21), subsistence harvest composition from the Salmon River (Pitka Fork) in the upper Kuskokwim River (Table 22), 2 escapement monitoring weirs operated in tributaries that drain into Kuskokwim Bay (Tables 23 and 24), and 7 escapement monitoring weirs operated in tributaries throughout the lower, middle, and upper Kuskokwim River (Tables 25–31). Chum salmon summaries include commercial harvest composition for one Kuskokwim River (Table 32) and 2 Kuskokwim Bay subdistricts (Table 33 and 34), 2 escapement monitoring weirs operated in tributaries that drain into Kuskokwim Bay (Table 35 and 36), and 7 escapement monitoring weirs operated in tributaries throughout the lower, middle, and upper Kuskokwim River (Tables 37–43). Sockeye salmon summaries include commercial harvest composition for one Kuskokwim River (Table 44) and 2 Kuskokwim Bay subdistricts (Table 45 and 46), one test fishery operated near Bethel (Table 47), 2 escapement monitoring weirs operated in tributaries that drain into Kuskokwim Bay (Table 48 and 49), 5 escapement monitoring weirs operated in tributaries throughout the lower, middle, and upper Kuskokwim River (Tables 50–54), and samples collected from tagged fish as part of a two-sample one mark–recapture project (Table 55 and 56). Coho salmon summaries include commercial harvest composition for one Kuskokwim River (Table 57) and 2 Kuskokwim Bay subdistricts (Table 58 and 59), one escapement monitoring weir operated in a tributary that drains into Kuskokwim Bay (Table 60), and 6 escapement monitoring weirs operated in tributaries throughout the lower, middle, and upper Kuskokwim River (Tables 61–66). Each table consists of 2 parts. The top portion of the table presents an estimate of the percent and number of fish by age and sex class, and when appropriate, the age composition was applied to total abundance. The bottom portion of the table presents length (mm, mideye to tail fork MEF) summaries by age and sex class.

HISTORICAL DATA SUMMARIES

Historical ASL data summaries were produced for select projects as a convenient way to compile foundational data needed for additional analysis, such as development of brood tables for a particular project or for broader geographic areas (e.g., Kuskokwim River Chinook salmon). Each summary table presents total abundance, percent by age and sex, and mean length (mm MEF) for each project year. Annual estimates of ASL composition prior to 2010 were from Molyneaux et al. 2010, with the exception of Chinook salmon subsistence harvest compositions which were recalculated based on data archived in the AYK DBMS. Abundance information was from multiple sources: commercial harvest was from Brazil et al. (2011) and the Statewide electronic fish ticket database (ADF&G); subsistence harvest was from Carroll and Hamazaki (2012); and escapement data was from the *Kuskokwim Area Master Escapement File* maintained by ADF&G Division of Commercial Fisheries. Historical ASL data summaries for Chinook salmon include commercial harvest composition from one Kuskokwim River (Table 67) and 2 Kuskokwim Bay (Table 68 and 69) subdistricts, subsistence harvest composition from the lower Kuskokwim River (Table 70), 2 escapement monitoring weir projects located on tributaries that drain into Kuskokwim Bay (Table 71 and 72), and 6 escapement monitoring weirs operated in tributaries throughout the lower, middle, and upper Kuskokwim River (Tables 73–78). Historical ASL summaries for chum salmon include commercial harvest composition from one

Kuskokwim River (Table 78) and 2 Kuskokwim Bay (Table 79 and 80) subdistricts, 2 escapement monitoring weir projects located on tributaries that drain into Kuskokwim Bay (Table 81 and 82), and 6 escapement monitoring weirs operated in tributaries throughout the lower, middle, and upper Kuskokwim River (Tables 83–88). Historical ASL summaries for sockeye salmon include commercial harvest composition from one Kuskokwim River (Table 89) and 2 Kuskokwim Bay (Table 90 and 91) subdistricts, 2 escapement monitoring weir projects located on tributaries that drain into Kuskokwim Bay (Table 92 and 93), and 2 escapement monitoring weirs operated in lower Kuskokwim River tributaries (Table 94 and 95). Historical ASL summaries for coho salmon include commercial harvest composition from one Kuskokwim River (Table 96) and 2 Kuskokwim Bay (Table 97 and 98) subdistricts, one escapement monitoring weir project located on a tributary that drains into Kuskokwim Bay (Table 99), and 5 escapement monitoring weirs operated in tributaries throughout the lower, middle, and upper Kuskokwim River (Tables 100–104). Historical summaries were not produced for short-term special projects (e.g., tagging studies) or long-term projects with inconsistent sampling (e.g., test fisheries).

KUSKOKWIM AREA ASL DATA IN THE AYK DBMS

The goal of the AYK DBMS is to provide managers, researchers, and the public involved in fisheries in the AYK Region with a system to enter and process new data, as well as to retrieve historical data. The AYK DBMS provides access to Kuskokwim Area project descriptions and biological measurements of salmon age, sex, and length. For each salmon species, we provided a comprehensive list of all Kuskokwim Area projects that have collected salmon ASL data and highlighted the years for which at least some data are available. Tables were developed by querying data directly from the AYK DBMS. Overview tables provide a quick reference for agency staff and members of the public who may be interested in Kuskokwim Area ASL data for independent research but are unfamiliar with the scope of the data available. The AYK DBMS contains Chinook salmon ASL data collected from 27 different projects (Table 105), chum salmon data from 24 projects (Table 106), sockeye salmon data from 27 projects (Table 107), and coho salmon data from 19 projects (Table 108). For each salmon species, ASL data are available from a range of project types including commercial catch, subsistence catch, escapement monitoring, mark–recapture experiments, and test fisheries. The length and continuity of the time series of available data varies considerably within and between project types (Tables 105–108).

The AYK DBMS public interface is located at the following web site: www.adfg.alaska.gov/CommFishR3/WebSite/AYKDBMSWebsite/Default.aspx. By following the "Search" link on the main database page, users are directed to a series of data filters that allow for focused searches by management area, data type, project type, and method type. An alphabetical list of all projects and associated date ranges that meet the user defined search criteria is available by selecting the "Go to Projects" link. Selection of a specific project yields a general project description and annual year notes that provide context (i.e., metadata) regarding the type, quality, quantity, and utility of the data available. ASL data for a specific project are available by selecting the "ASL" link and selecting from the range of years of available data. A report is generated with all associated data for each fish sampled, including information about data collection (e.g., date of sample, location, method of capture, method of sex determination, etc.), archival references (i.e., scale card number and fish number) and primary biological data such as fresh water age, saltwater age, sex, and length.

DISCUSSION

ESTIMATION OF SOCKEYE SALMON FRESHWATER AGE

Estimating freshwater age of sockeye salmon returning to the Kuskokwim Area in 2012 was confounded due to ambiguous growth patterns. The freshwater zone of many scales displayed extended periods of slow growth with no distinct broken or constricted circuli, which signifies one year of growth. As a result, determining if an individual fish spent one or two years in fresh water was difficult. These patterns were most prevalent in samples collected from Middle Fork Goodnews and Telaquana River projects, although the patterns were observed in samples collected throughout the Kuskokwim Area. Independent agers from Region II and III were consulted in order to achieve an estimate based on consensus. A consensus was not achieved; rather, an informed decision was made by the Kuskokwim Area ager based on input from other agers and review of sex and length trends. All sockeye salmon scales collected in 2012 were re-aged post season using a consistent interpretation of the scale patterns.

EVALUATION OF CHUM SALMON FRESHWATER AGE

Beginning in 2012, the regional AYK stock biologist determined that chum salmon scales with more than 10 mm of regeneration in the freshwater zone would not be aged (Larry Dubois, AYK Regional Stock Biologist, ADF&G, personal communication). That standard has been in place since approximately 2010 for Chinook, sockeye, and coho salmon, as a general safeguard to prevent staff from estimating freshwater age based on insufficient information. Chum salmon, however, were exempt because they do not display a complex freshwater life history strategy. Kuskokwim chum salmon out migrate immediately following emergence from the gravel, rarely spending a full year in freshwater. Consequently, prior to 2012, freshwater age of chum salmon was commonly assumed to be zero, and total age was routinely estimated from chum salmon scales with more than 10 mm of regeneration. Implementation of the 10 mm standard resulted in an approximate 10% increase in the percent of un-aged chum salmon scales compared to recent years.

SOURCES OF BIAS

Users of Kuskokwim Area ASL data are responsible for ensuring that all data used are appropriate for the intended purpose. Since 1961, numerous changes have occurred regarding how fisheries and fisheries monitoring projects are executed, including how ASL data are collected, processed, and analyzed. Examples of differences between project types or between years at the same project include: (1) changes in harvest regulation including time, area, and gear restrictions; (2) changes in capture methods including weir picket spacing and gillnet dimensions and mesh sizes; (3) differences in length measurement methods including cloth tape, hard rulers, fish cradles, and calipers; (4) changes in method used to sex fish including using internal or external characteristics; (5) changes in staff responsible for collection and processing ASL samples; and (6) changes in study design including assumptions and sample size requirements. Prospective users are encouraged to review the original reports or other sources to understand the methods used for specific ASL data collections, including any changes in methodology. Previous versions of the Kuskokwim Area ASL catalog also provide some examples of bias and data quality concerns (e.g., Molyneaux et al. 2010).

DATA QUALITY, AYK DBMS

The AYK DBMS was populated with data archived in a variety of formats, including paper data forms, digital scan forms, spreadsheets, and other database programs. Considerable care was taken to reduce transcription errors during the data upload process. However, most of the Kuskokwim Area ASL data in the AYK DBMS has not been reviewed for errors. As such, we acknowledge that some unknown level of data transcription errors, incorrect labeling, and erroneous data may exist in the database. ADF&G stock biologists, who regularly use the database, generally agree that fewer errors exist for data collected after 2000. Earlier data should be used with caution, and if a data quality concern exists, users are encouraged to contact agency staff for assistance.

The AYK DBMS provides project leaders with tools for archiving metadata. To date, the level of metadata available for database users is not sufficient. Kuskokwim Area ADF&G staff is working to update project descriptions, methods, and project year notes in the AYK DBMS. In the interim, users of the database should review annual project reports or consult ADF&G staff for information regarding data collection and limitations.

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FIGURE AND TABLES

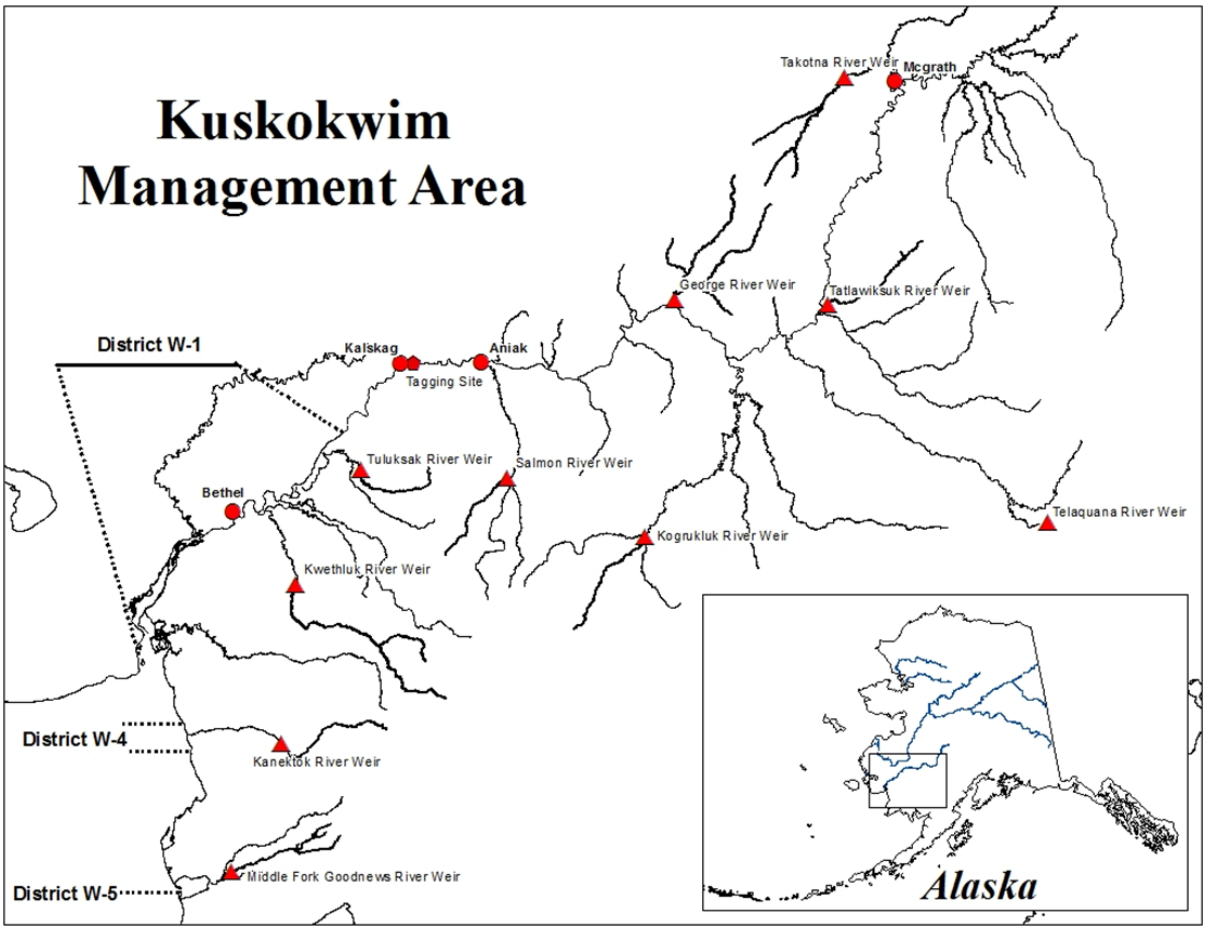

Figure 1.–Map depicting the location of the Kuskokwim Area, commercial salmon harvest districts, and escapement monitoring projects.

Table 1.–Projects and salmon species for which age, sex, and length data were collected in 2012.

			Species			
Project Type	Location	River km	Chinook	Sockeye	Chum	Coho
Commercial Catch	W1(Subdistrict 1)	- [a]		X	X	X
	W4 (Subdistrict 4)	- [b]	X	X	X	X
	W5 (Goodnews Bay Subdistrict)	- [c]	X	X	X	X
Test Fishery	Bethel - subdistrict W1A (Above Bethel)	111	X	X		
Subsistence Catch	Lower Kuskokwim River	- [d]	X			
	Salmon River (Pitka Fork)	845	X			
Escapement	Goodnews River (Middle Fork)	- [e]	X	X	X	X
	Kanektok River	- [f]	X	X	X	
	Kwethluk River	216	X	X	X	X
	Tuluksak River	248	X	X	X	X
	Salmon River (Aniak)	404	X	X	X	
	George River	453	X		X	X
	Tatlawiksuk River	568	X		X	X
	Kogrukluk River	710	X	X	X	X
	Telaquana River	772		X		
	Takotna River	835	X		X	X
Mark/Recapture [g]	Kalskag Fish Wheel	270		X		
	Salmon River (Aniak)	404		X		
	Kogrukluk River	710		X		
	Telaquana River	772		X		

Note: "X" designates that samples were collected. All escapement projects were weirs. Harvest and test fisheries used gillnets of variable mesh size.

[a] District W1 is located in the lower Kuskokwim River and extends from the southernmost tip of Eek Island to the Bogus Creek, a distance of 203 rkm.

[b] District W4 consists of Kuskokwim Bay between the mouth of Weelung Creek and the Arolik River.

[c] District W5 consists of Goodnews Bay.

[d] The lower Kuskokwim river consists of all waters between the Kuskokwim Bay and the Village of Tuluksak and approximates District W1.

[e] Flows into Goodnews Bay.

[f] Flows into Kuskokwim Bay and District W4.

[g] Fish were tagged at the Kalskag fish wheel location. Tagged fish were recaptured at Salmon, Kogrukluk, and Telaquana rivers.

Table 2.–Sample collections by community residents used to represent the age, sex, and length composition of Chinook salmon harvested in lower Kuskokwim River subsistence fishery, 2012.

Location	River km	Number of Samplers	Harvests Sampled [a]	Sample Size [b]	Percent
Tuntutuliak	45	2	2	134	36.5%
Napaskiak	97	1	1	6	1.6%
Bethel	106	5	5	227	61.9%
Total		8	8	367	100.0%

[a] Participants were encouraged to sample from as many households as possible.

[b] Sample sizes include Chinook salmon whose age could not be determined.

Table 3.–Reporting status and citations for salmon monitoring projects that collected ASL data from the Kuskokwim Area in 2012.

Project Type and Location	Report Status	Citation [a]
Commercial Catch		
W1 (Subdistrict 1)	No report [b]	
W4 (Subdistrict 4)	No report [b]	
W5 (Goodnews Bay Subdistrict)	No report [b]	
Test Fishery	No report [b]	
Subsistence Catch		
Lower Kuskokwim River	In prep	Working title: Age, sex, and length composition of Chinook salmon in the 2012–2015 Lower Kuskokwim River subsistence harvest. Contact Zachary W. Liller, Fishery Biologist, Alaska Department of Fish and Game, 333 Raspberry Rd. Anchorage, AK. 99518.
Salmon River (Pitka Fork)	No report [b]	
Escapement		
Goodnews River (Middle Fork)	In prep	Taylor, D. V. In prep. Goodnews River salmon monitoring and assessment, 2012. Alaska Department of Fish and Game, Fishery Data Series, Anchorage.
Kanektok River	In prep	Taylor, D. V. In prep. Kanektok River salmon monitoring and assessment, 2012. Alaska Department of Fish and Game, Fishery Data Series, Anchorage.
Kwethluk River	In prep	Miller, S. J., and K. C. Harper. In prep. Abundance and run timing of adult Pacific salmon in the Kwethluk River, Yukon Delta National Wildlife Refuge, Alaska, 2012. U.S. Fish and Wildlife Service, Kenai Fish and Wildlife Field Office. Alaska Fisheries Data Series, Kenai, Alaska.
Tuluksak River	In prep	Miller, S. J., and K. C. Harper. In prep. Abundance and run timing of adult Pacific salmon in the Tuluksak River, Yukon Delta National Wildlife Refuge, Alaska, 2012. U.S. Fish and Wildlife Service, Kenai Fish and Wildlife Field Office. Alaska Fisheries Data Series, Kenai, Alaska.
Salmon River (Aniak)	In prep	
George River	In prep	Blain, B. J. In prep. Escapement monitoring in the Kuskokwim area, 2012. Alaska Department of fish and Game, Fishery Data Series, Anchorage.
Tatlawiksuk River	In prep	
Kogrukluk River	In prep	
Takotna River	In prep	
Telaquana River	In prep	Liller, Z. W., D. Williams, and S. D. Ayers. In prep. Telaquana Lake sockeye salmon studies, 2010-2012. Alaska Department of Fish and Game, Fishery Data Series, Anchorage.
Mark/Recapture		
Kalskag Fish Wheel	No report [b]	
Kogrukluk River	No report [b]	
Salmon River (Aniak)	No report [b]	
Telaquana River	No report [b]	

Note: Summary tables are provided within this report but for more detailed information or source data, please see relevant project reports.

[a] In prep draft reports are on file with ADF&G Division of Commercial Fisheries; Anchorage.

[b] No annual report has been designated. Methods followed guidelines presented by Molyneaux et al. 2010.

Table 4.–Summary of Chinook salmon age, sex, and length sampling methods by project, 2012.

Project Type	Location	Capture Gear			Sample Design					Length Measurement		Sexing	
		Gillnet [a]	Weir	Unknown	Census [b]	Daily [c]	Pulse [d]	Grab [e]	Opportunistic [f]	Caliper	Straight Edge [g]	External [h]	Internal [i]
Commercial Catch	W4 (Subdistrict 4)	X						X		X			X
	W5 (Goodnews Bay Sub district)	X						X		X			X
Test Fishery	Bethel - subdistrict W1A (Above Bethel	X				X				X			X
Subsistence Catch	Lower Kuskokwim River	X							X		X		X
	Salmon River (Pitka Fork)			X					X		X		X
Escapement	Goodnews River (Middle Fork)		X			X					X	X	
	Kanektok River		X			X					X	X	
	Kwethluk River		X				X				X	X	
	Tuluksak River		X				X				X	X	
	Salmon River (Aniak)		X			X					X	X	
	George River		X			X					X	X	
	Tatlawiksuk River		X			X					X	X	
	Kogrukluk River		X			X					X	X	
	Takotna River		X			X					X	X	

Note: "X" designates the primary method used.

[a] Includes a range of mesh sizes.

[b] Intent was to sample all harvested fish.

[c] Season sampling goal was stratified such that small numbers of samples were collected daily in proportion to historic run timing.

[d] Target sample goals were collected systematically over a short period of time throughout the duration of the migration.

[e] Target sample goals were collected opportunistically over a short period of time throughout the duration of the migration.

[f] Samples were collected by self-selected subsistence fishermen who sampled opportunistically from their own harvest or the harvest of others.

[g] Includes a variety of straight-edge measuring devices such as fish cradles, meter sticks, and fish measuring boards.

[h] Based on external sexual characteristics such as kype development, roundness of belly, and egg or milt secretion.

[i] Abdominal cavity was cut and visually inspected for gonads.

Table 5.–Summary of chum salmon age, sex, and length sampling methods by project, 2012.

Project Type	Location	Capture Gear		Sampling Type			Length Measurement		Sexing	
		Gillnet [a]	Weir	Daily [b]	Pulse [c]	Grab [d]	Caliper	Straight Edge [e]	External [f]	Internal [g]
Commercial Catch	W1 (Subdistrict 1)	X				X	X			X
	W4 (Subdistrict 4)	X				X	X			X
	W5 (Goodnews Bay Subdistrict)	X				X	X			X
Escapement	Goodnews River (Middle Fork)		X		X			X	X	
	Kanektok River		X		X			X	X	
	Kwethluk River		X		X			X	X	
	Tuluksak River		X		X			X	X	
	Salmon River (Aniak)		X		X			X	X	
	George River		X		X			X	X	
	Tatlawiksuk River		X		X			X	X	
	Kogrukluk River		X		X			X	X	
	Takotna River		X		X			X	X	

Note: "X" designates the primary method used.

[a] Includes a range of mesh sizes.

[b] Season sampling goal was stratified such that small number of samples were collected daily in proportion to historic run timing.

[c] Target sample goals were collected systematically over a short period of time throughout the duration of the migration.

[d] Target sample goals were collected opportunistically over a short period of time throughout the duration of the migration.

[e] Includes a variety of straight-edge measuring devices such as fish cradles, meter sticks, and fish measuring boards.

[f] Based on external sexual characteristics such as kype development, roundness of belly, and egg or milt secretion.

[g] Abdominal cavity was cut and visually inspected for gonads.

Table 6.–Summary of sockeye salmon age, sex, and length sampling methods by project, 2012.

Project Type	Location	Number of Scales per Fish		Capture Gear			Sample Design				Length Measurement		Sexing	
		One	Three	Gillnet [a]	Weir	Fish Wheel	Census [b]	Daily [c]	Pulse [d]	Grab [e]	Caliper	Straight Edge [f]	External [g]	Internal [h]
Commercial Catch	W1 (Subdistrict 1)	X		X						X	X			X
	W4 (Subdistrict 4)	X		X						X	X			X
	W5 (Goodnews Bay Subdistrict)	X		X						X	X			X
Test Fishery	Bethel - subdistrict W1A (Above Bethel)		X	X			X				X		X	
Escapement	Goodnews River (Middle Fork)	X			X			X				X	X	
	Kanektok River		X		X			X				X	X	
	Kwethluk River		X		X				X			X	X	
	Tuluksak River		X		X				X			X	X	
	Salmon River (Aniak)		X		X			X				X	X	
	Kogrukluk River		X		X			X				X	X	
	Telaquana River		X		X			X				X	X	
Mark/Recapture	Kalskag Fish Wheels		X			X	X					X	X	
	Kogrukluk River		X		X		X					X	X	
	Salmon River (Aniak)		X		X		X					X	X	
	Telaquana River		X		X		X					X	X	

Note: "X" designates the primary method used.

[a] Includes a range of mesh sizes.

[b] Intent was to sample all harvested and marked fish.

[c] Season sampling goal was stratified such that small numbers of samples were collected daily in proportion to historic run timing.

[d] Target sample goals were collected systematically over a short period of time throughout the duration of the migration.

[e] Target sample goals were collected opportunistically over a short period of time throughout the duration of the migration.

[f] Includes a variety of straight-edge measuring devices such as fish cradles, meter sticks, and fish measuring boards.

[g] Based on external sexual characteristics such as kype development, roundness of belly, and egg or milt secretion.

[h] Abdominal cavity was cut and visually inspected for gonads.

Table 7.–Summary of coho salmon age, sex, and length sampling methods by project, 2012.

Project Type	Location	Capture Gear		Sample Design			Length Measurement		Sexing	
		Gillnet [a]	Weir	Daily [b]	Pulse [c]	Grab [d]	Caliper	Straight Edge [e]	External [f]	Internal [g]
Commercial Catch	W1 (Subdistrict 1)	X				X	X			X
	W4 (Subdistrict 4)	X				X	X			X
	W5 (Goodnews Bay Subdistrict)	X				X	X			X
	Goodnews River (Middle Fork)		X		X			X	X	
	Kwethluk River		X		X			X	X	
	Tuluksak River		X		X			X	X	
Escapement	George River		X		X			X	X	
	Kogrukluk River		X		X			X	X	
	Tatlawiksuk River		X		X			X	X	
	Takotna River		X		X			X	X	

Note: "X" designates the primary method used.

[a] Includes a range of mesh sizes.

[b] Season sampling goal was stratified such that small number of samples were collected daily in proportion to historic run timing.

[c] Target sample goals were collected systematically over a short period of time throughout the duration of the migration.

[d] Target sample goals were collected opportunistically over a short period of time throughout the duration of the migration.

[e] Includes a variety of straight-edge measuring devices such as fish cradles, meter sticks, and fish measuring boards.

[f] Based on external sexual characteristics such as kype development, roundness of belly, and egg or milt secretion.

[g] Abdominal cavity was cut and visually inspected for gonads.

Table 8.–Percent of samples collected by gillnet mesh size in the lower Kuskokwim River Chinook salmon subsistence fishery, 2012.

Mesh Size [a]	Tuntutuliak (n=134)	Napaskiak (n=6)	Bethel (n=227)	Total (n=367)
Small				
4 inch	0.0%	0.0%	11.0%	6.8%
4.25 inch	0.0%	0.0%	21.1%	13.1%
5.5 inch	2.2%	100.0%	0.0%	2.5%
5.75 inch	37.3%	0.0%	0.0%	13.6%
5.875 inch	0.0%	0.0%	5.7%	3.5%
6 inch	27.6%	0.0%	11.9%	17.4%
Subtotal	67.2%	100.0%	49.8%	56.9%
Intermediate	0.0%	0.0%	0.0%	0.0%
7.375 inch	0.0%	0.0%	3.5%	2.2%
7.5 inch	0.0%	0.0%	6.2%	3.8%
7.75 inch	0.0%	0.0%	5.7%	3.5%
Subtotal	0.0%	0.0%	15.4%	9.5%
Large	0.0%	0.0%	0.0%	0.0%
8 inch	32.8%	0.0%	34.8%	33.5%
Subtotal	32.8%	0.0%	34.8%	33.5%

[a] Drift and set gillnets combined.

Table 9.–Summary of Chinook salmon age, sex, and length samples collected from Kuskokwim Area projects, 2012.

Project Type	Location	Age Samples	Number Aged	Number Sexed	Number Lengths
Commercial Catch	W4 (Subdistrict 4)	937	789	937	937
	W5 (Goodnews Bay Subdistrict)	762	664	762	762
Test Fishery	Bethel - subdistrict W1A (Above Bethel)	306	228	306	306
Subsistence Catch	Lower Kuskokwim River	367	265	367	366
	Salmon River (Pitka Fork)	72	13	88	88
Escapement	Goodnews River (Middle Fork)	55	45	55	55
	Kanektok River	60	48	60	60
	Kwethluk River	124	86	134	134
	Tuluksak River	8	3	8	8
	Salmon River (Aniak)	73	48	73	73
	George River	197	138	197	197
	Tatlawiksuk River	159	91	159	159
	Kogrukluk River	119	87	120	120
	Takotna River	66	42	67	67
	Totals	3,305	2,547	3,333	3,332

Table 10.–Summary of chum salmon age, sex, and length samples collected from Kuskokwim Area projects, 2012.

Project Type	Location	Age Samples	Number Aged	Number Sexed	Number Lengths
Commercial Catch	W1 (Subdistrict 1)	680	668	680	680
	W4 (Subdistrict 4)	938	921	938	938
	W5 (Goodnews Bay Subdistrict)	1,309	1,288	1,309	1,309
Escapement	Goodnews River (Middle Fork)	398	347	403	403
	Kanektok River	391	382	391	391
	Kwethluk River	597	451	597	597
	Tuluksak River	163	136	163	162
	Salmon River (Aniak)	341	253	341	341
	George River	888	672	887	888
	Tatlawiksuk River	886	593	886	886
	Kogrukluk River	304	229	304	304
	Takotna River	932	673	932	932
	Totals	7,827	6,613	7,831	7,831

Table 11.–Summary of sockeye salmon age, sex, and length samples collected from Kuskokwim Area projects, 2012.

Project Type	Location	Age Samples	Number Aged	Number Sexed	Number Lengths
Commercial Catch	W1 (Subdistrict 1)	414	315	417	417
	W4 (Subdistrict 4)	947	836	950	950
	W5 (Goodnews Bay Subdistrict)	1,436	1,217	1,438	1,438
Test Fishery	Bethel - subdistrict W1A (Above Bethel)	526	493	538	538
Escapement	Goodnews River (Middle Fork)	378	331	378	378
	Kanektok River	708	575	708	708
	Kwethluk River	19	16	19	19
	Tuluksak River	2	1	2	2
	Salmon River (Aniak)	150	138	150	150
	Kogrukluk River	47	43	47	47
	Telaquana River	235	225	285	285
Mark/Recapture	Kalskag Fishwheel	379	326	379	378
	Kogrukluk River a	3	3	3	3
	Salmon River (Aniak)	1	1	1	1
	Telaquana River	26	25	26	26
	Totals	5,271	4,545	5,341	5,340

Table 12.–Summary of coho salmon age, sex and length samples collected from Kuskokwim Area projects in 2012.

Project Type	Location	Age Samples	Number Aged	Number Sexed	Number Lengths
Commercial Catch	W1 (Subdistrict 1)	774	702	790	788
	W4 (Subdistrict 4)	588	519	590	590
	W5 (Goodnews Bay Subdistrict)	628	542	630	630
Escapement	Goodnews River (Middle Fork)	312	262	312	312
	Kwethluk River	628	543	629	629
	Tuluksak River	139	112	139	139
	George River	425	366	425	425
	Tatlawiksuk River	384	323	384	383
	Kogrukluk River	215	187	215	215
	Takotna River	413	349	413	413
	Totals	4,506	3,905	4,527	4,524

Table 13.–Aging errors for Chinook salmon scale samples collected in the Kuskokwim Management Area, 2012.

Project Type	Location	Number Sampled	Number Age Errors	% Age Errors	Illegible [a]	Inverted [b]	Missing [c]	Reabsorbed [d]	Regenerated [e]	Wrong Species [f]
Commercial Catch	W4 (Subdistrict 4)	937	148	16%	6		7		133	2
	W5 (Goodnews Bay Subdistrict)	762	98	13%	2		4	2	90	
Subsistence Catch	Lower Kuskokwim River	367	102	28%	9	5			88	
	Salmon River (Pitka Fork)	72	59	82%	16			24	19	
Escapement	George River	197	59	30%				25	33	1
	Goodnews River (Middle Fork)	55	10	18%	1		3		6	
	Kanektok River	60	12	20%				8	4	
	Kogrukluk River	119	32	27%	1			7	24	
	Kwethluk River	124	38	31%				5	33	
	Salmon River (Aniak)	73	25	34%	1			4	20	
	Takotna River	66	24	36%				12	12	
	Tatlawiksuk River	159	68	43%	1			23	44	
	Tuluksak River	8	5	63%				4	1	
Test Fishery	Bethel - subdistrict W1A (Above Bethel)	306	78	25%	6	3	1		68	
	Totals	3,305	758	23%	43	8	15	114	575	3

Note: More than one age error may apply to a single scale.

[a] Illegible scales have debris or scratches on the gummed card or acetate that obscure the circuli.

[b] Inverted scales are mounted on the gummed card so that their circuli are facing the gummed paper, and an impression cannot be made.

[c] Missing scales were collected, but fell off of the gummed card before an impression was made.

[d] Reabsorbed scales show deterioration along the outer edge and are missing age information necessary for estimating saltwater age.

[e] Regenerated scales have a missing or inadequate age information near the center inhibiting estimation of freshwater age. As a general rule, scales with an area of regeneration > 10 mm in diameter were not aged.

[f] Wrong Species, are scales collected from another species other than what was labeled on the gummed card.

Table 14.–Aging errors for chum salmon scale samples collected in the Kuskokwim Management Area, 2012.

Project Type	Location	Number Sampled	Number Age Errors	% Age Errors	Illegible [a]	Inverted [b]	Missing [c]	Not Preferred [d]	Reabsorbed [e]	Regenerated [f]	Wrong species [g]
Commercial Catch	W1 (Subdistrict 1)	680	12	2%			4		1	6	1
	W4 (Subdistrict 4)	938	17	2%	3		2			10	2
	W5 (Goodnews Bay Subdistrict)	1,309	21	2%	3	1	4			13	
Escapement	George River	888	216	24%	3	13	2		115	83	
	Goodnews River (Middle Fork)	398	51	13%	7	1	3		15	25	
	Kanektok River	391	9	2%	2				4	3	
	Kogrukluk River	304	75	25%	3				66	6	
	Kwethluk River	597	146	24%	5	14	3	2	96	25	1
	Salmon River (Aniak)	341	88	26%	5	1	2		67	13	
	Takotna River	932	259	28%	7	4	3		209	36	
	Tatlawiksuk River	886	293	33%	3		1		244	45	
	Tuluksak River	163	27	17%	3		3		10	11	
	Totals	7,832	1,214	16%	44	34	27	2	827	276	4

Source: AYK DBMS.

Note: More than one age error may apply to a single scale.

[a] Illegible scales have debris or scratches on the gummed card or acetate that obscure the circuli.

[b] Inverted scales are mounted on the gummed card so that their circuli are facing the gummed paper, and an impression cannot be made.

[c] Missing scales were collected, but fell off of the gummed card before an impression was made.

[d] Not Preferred are scales were taken from outside of the Preferred area (INPFC 1963) on the fish.

[e] Reabsorbed scales show deterioration along the outer edge and are missing age information necessary for estimating saltwater age.

[f] Regenerated scales have a missing or inadequate age information near the center inhibiting estimation of freshwater age. As a general rule, scales with an area of regeneration > 10 mm in diameter were not aged.

[g] Wrong Species, are scales collected from another species other than what was labeled on the gummed card.

Table 15.–Aging errors for sockeye salmon scale samples collected in the Kuskokwim Management Area, 2012.

Project Type	Location	Number Sampled	Number Age Errors	% Age Errors	Illegible [a]	Inverted [b]	Missing [c]	Reabsorbed [d]	Regenerated [e]	Wrong species [f]
Commercial Catch	W1 (Subdistrict 1)	414	99	24%	1			46	51	1
	W4 (Subdistrict 4)	947	111	12%	2	2	2	5	92	8
	W5 (Goodnews Bay Subdistrict)	1,436	219	15%	6		4	30	169	10
Escapement	Goodnews River (Middle Fork)	378	47	12%			6	23	18	
	Kanektok River	708	133	19%	2		6	51	74	
	Kogrukluk River	47	47	100%				47	4	
	Kwethluk River	19	3	16%				2	1	
	Salmon River (Aniak)	150	150	100%	2			150	10	
	Telaquana River	235	235	100%				235	10	
	Tuluksak River	2	1	50%					1	
Mark/Recapture	Kalskag Fish Wheel	379	53	14%		3	1	22	27	
	Kogrukluk River	3	0	0%						
	Salmon River (Aniak)	1	0	0%						
	Telaquana River	26	1	4%					1	
Test Fishery	Bethel - subdistrict W1A (Above Bethel)	526	33	6%		1	1	4	22	5
	Totals	5,329	1,158	22%	13	6	20	615	480	24

Source: AYK DBMS.

Note: More than one age error may apply to a single scale.

[a] Illegible scales have debris or scratches on the gummed card or acetate that obscure the circuli.

[b] Inverted scales are mounted on the gummed card so that their circuli are facing the gummed paper, and an impression cannot be made.

[c] Missing scales were collected, but fell off of the gummed card before an impression was made.

[d] Reabsorbed scales show deterioration along the outer edge and are missing age information necessary for estimating saltwater age.

[e] Regenerated scales have a missing or inadequate age information near the center inhibiting estimation of freshwater age. As a general rule, scales with an area of regeneration > 10 mm in diameter were not aged.

[f] Wrong Species, are scales collected from another species other than what was labeled on the gummed card.

Table 16.–Aging errors for coho salmon scale samples collected in the Kuskokwim Management Area, 2012.

Project Type	Location	Age Samples	Number Age Errors	% Age Errors	Illegible [a]	Inverted [b]	Regenerated [c]	Wrong Species [d]
Commercial Catch	W1 (Subdistrict 1)	774	72	9%			71	1
	W4 (Subdistrict 4)	588	69	12%	1		68	
	W5 (Goodnews Bay Subdistrict)	628	86	14%			83	3
Escapement	George River	425	59	14%			59	
	Goodnews River (Middle Fork)	312	50	16%	2		48	
	Kogrukluk River	215	28	13%	1		27	
	Kwethluk River	628	85	14%	2	1	81	1
	Takotna River	413	64	15%			64	
	Tatlawiksuk River	384	61	16%	2		59	
	Tuluksak River	139	27	19%	3		24	
	Totals	4,527	601	13%	11	1	584	5

Note: More than one age error may apply to a single scale.

[a] Illegible scales have debris or scratches on the gummed card or acetate that obscure the circuli.

[b] Inverted scales are mounted on the gummed card so that their circuli are facing the gummed paper, and an impression cannot be made.

[c] Regenerated scales have a missing or inadequate age information near the center inhibiting estimation of freshwater age. As a general rule, scales with an area of regeneration > 10 mm in diameter were not aged.

[d] Wrong Species, are scales collected from another species other than what was labeled on the gummed card.

Table 17.–Age-sex composition and mean length (mm) of Kuskokwim Area Chinook salmon harvested in the District W4 restricted mesh (≤6 inch) commercial gillnet fishery, 2012.

			Brood Year (Age)																			
			2009		2009		2008		2008		2008		2007		2007		2006		2005			
			0.2		1.1		0.3		1.2		2.1		1.3		2.2		1.4		1.5		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
6/27, 7/04, 7/07, 7/09, 7/11, 7/13, 7/16	789	Male	24	0.4	33	0.5	9	0.1	1,896	28.4	5	0.1	1,805	27.0	28	0.4	610	9.1	20	0.3	4,430	66.4
		Female	0	0.0	0	0.0	0	0.0	29	0.4	0	0.0	763	11.4	5	0.1	1,428	21.4	20	0.3	2,245	33.6
		Total	24	0.4	33	0.5	9	0.1	1,925	28.8	5	0.1	2,568	38.5	33	0.5	2,038	30.5	39	0.6	6,675	100.0
		95% C.I. (± %)		0.3		0.4		0.3		3.1		0.1		3.3		0.5		3.1		0.5		0.1
		Male Mean Length	441		363		616		541		382		698		589		829		832			
		SE	9		1		-		4		-		5		60		10		44			
		Range	405-458		347-387		-		407-698		-		533-867		500-678		646-996		788-875			
		n	5		5		1		219		1		206		3		74		2			
		Female Mean Length	-		-		-		500		-		777		699		824		903			
		SE	-		-		-		41		-		5		-		4		30			
		Range	-		-		-		422-560		-		675-853		-		708-928		852-972			
		n	-		-		-		3		-		90		1		176		3			

Note: Samples were used to estimate total number and percent of harvest by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 18.–Age-sex composition and mean length (mm) of Kuskokwim Area Chinook salmon harvested in the District W5 (Goodnews Bay Subdistrict) restricted mesh (≤6 inch) commercial gillnet fishery, 2012.

			Brood Year (Age)									
			2008		2007		2007		2006			
			1.2		1.3		2.2		1.4		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%
6/27, 7/04, 7/07, 7/09, 7/11, 7/14, 7/16	664	Male	291	19.0	708	46.2	3	0.2	91	5.9	1,092	71.3
		Female	3	0.2	296	19.3	0	0.0	140	9.1	439	28.7
		Total	294	19.2	1,004	65.6	3	0.2	230	15.1	1,531	100.0
		95% C.I. (± %)		2.8		3.4		0.3		2.4		0.1
		Male Mean Length	557		698		601		830			
		SE	5		4		-		9			
		Range	439-670		515-885		-		687-994			
		n	129		308		1		41			
		Female Mean Length	579		773		-		821			
		SE	23		4		-		6			
		Range	556-624		553-879		-		702-949			
		n	3		118		-		64			

Note: Samples were used to estimate total number and percent of harvest by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 19.–Age-sex composition and mean length (mm) of Kuskokwim Area Chinook salmon harvested in the Bethel test fishery, 2012.

			Brood Year (Age)													
			2008		2007		2006		2006		2005		2005			
			1.2		1.3		1.4		2.3		1.5		2.4		Total	
Mesh Size	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%	N	%
5.4 inch	89	Male	51	40.4	54	42.7	7	5.6	1	1.1	0	0.0	0	0.0	113	89.9
		Female	0	0.0	7	5.6	6	4.5	0	0.0	0	0.0	0	0.0	13	10.1
		Subtotal	51	40.4	61	48.3	13	10.1	1	1.1	0	0.0	0	0.0	126	100.0
		Male Mean Length	564		688		783		640		-		-			
		SE	9		12		20		-		-		-			
		Range	445-681		548-841		712-838		-		-		-			
		n	36		38		5		1		-		-			
		Female Mean Length	-		765		860		-		-		-			
		SE	-		17		19		-		-		-			
		Range	-		708-815		821-899		-		-		-			
		n	-		5		4		-		-		-			
8 inch	139	Male	11	5.8	94	47.5	21	10.8	0	0.0	1	0.7	1	0.7	129	65.5
		Female	0	0.0	28	14.4	40	20.1	0	0.0	0	0.0	0	0.0	68	34.5
		Subtotal	11	5.8	122	61.9	61	30.9	0	0.0	1	0.7	1	0.7	197	100.0
		Male Mean Length	639		723		809		-		661		664			
		SE	14		5		15		-		-		-			
		Range	553-682		639-830		687-907		-		-		-			
		n	8		66		15		-		1		1			
		Female Mean Length	-		773		842		-		-		-			
		SE	-		11		10		-		-		-			
		Range	-		679-853		732-955		-		-		-			
		n	-		20		28		-		-		-			

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Mesh Size	Sample Size		Brood Year (Age) 2008 1.2 N	%	2007 1.3 N	%	2006 1.4 N	%	2006 2.3 N	%	2005 1.5 N	%	2005 2.4 N	%	Total N	%
Total *All Mesh Combined*	228	Male	62	19.3	147	45.6	28	8.8	1	0.4	1	0.4	1	0.4	242	75.0
		Female	0	0.0	35	11.0	45	14.0	0	0.0	0	0.0	0	0.0	81	25.0
		Total	62	19.3	183	56.6	74	22.8	1	0.4	1	0.4	1	0.4	323	100.0
		95% C.I. (± %)		2.5		3.5		2.9		0.5		0.5		0.5		0.0
		Male Mean Length	578		710		802		640		661		664			
		SE	8		5		12		-		-		-			
		Range	445-682		548-841		687-907		-		-		-			
		n	44		104		20		1		1		1			
		Female Mean Length	-		771		844		-		-		-			
		SE	-		9		9		-		-		-			
		Range	-		679-853		732-955		-		-		-			
		n	-		25		32		-		-		-			

Note: Samples were used to estimate total number and percent of harvest by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 20.–Age-sex composition and mean length (mm) of Kuskokwim Area Chinook salmon harvested in the lower Kuskokwim River subsistence gillnet fishery, 2012.

			Brood Year (Age)											
			2008		2007		2006		2006		2005			
			1.2		1.3		1.4		2.3		1.5		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%
6/9-7/17	265	Male	37	14.0	114	43.0	27	10.2	0	0.0	2	0.8	180	67.9
		Female	0	0.0	26	9.8	53	20.0	1	0.4	5	1.9	85	32.1
		Total	37	14.0	140	52.8	80	30.2	1	0.4	7	2.6	265	100.0
		Male Mean Length	548		713		768		-		802			
		SE	9		7		13		-		69			
		Range	460-685		530-870		640-920		-		733-870			
		n	37		113		27		-		2			
		Female Mean Length	-		788		847		780		819			
		SE	-		13		8		-		34			
		Range	-		595-930		700-950		-		720-930			
		n	-		26		53		1		5			

Note: Samples were collected by subsistence fishermen who sampled their own harvests or the harvests of others. ASL samples were not applied to the total harvest. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 21.–Age-sex composition and mean length (mm) of Kuskokwim Area Chinook salmon harvested in the lower Kuskokwim River subsistence fishery by gillnet mesh size, 2012.

			Brood Year (Age)											
			2008		2007		2006		2006		2005			
			1.2		1.3		1.4		2.3		1.5		Total	
Mesh Size	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%
Small ≤6 in	151	Male	33	21.9	61	40.4	15	9.9	0	0.0	1	0.7	110	72.8
		Female	0	0.0	8	5.3	30	19.9	1	0.7	2	1.3	41	27.2
		Subtotal	33	21.9	69	45.7	45	29.8	1	0.7	3	2.0	151	100.0
		Male Mean Length	542		695		771		-		870			
		SE	9		9		20		-		-			
		Range	460-680		530-850		660-920		-		-			
		n	33		61		15		-		1			
		Female Mean Length	-		772		850		780		774			
		SE	-		34		10		-		54			
		Range	-		595-930		700-950		-		720-828			
		n	-		8		30		1		2			
Medium > 6 in and < 8 in	24	Male	1	4.2	15	62.5	2	8.3	0	0.0	0	0.0	18	75.0
		Female	0	0.0	2	8.3	3	12.5	0	0.0	1	4.2	6	25.0
		Subtotal	1	4.2	17	70.8	5	20.8	0	0.0	1	4.2	24	100.0
		Male Mean Length	610		720		808		-		-			
		SE	-		18		43		-		-			
		Range	-		580-832		765-850		-		-			
		n	1		15		2		-		-			
		Female Mean Length	-		818		837		-		785			
		SE	-		20		54		-		-			
		Range	-		798-838		730-897		-		-			
		n	-		2		3		-		1			

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Mesh Size	Sample Size		Brood Year (Age) 2008 1.2 N	%	2007 1.3 N	%	2006 1.4 N	%	2006 2.3 N	%	2005 1.5 N	%	Total N	%
Large ≥ 8 in	90	Male	3	3.3	38	42.2	10	11.1	0	0.0	1	1.1	52	57.8
		Female	0	0.0	16	17.8	20	22.2	0	0.0	2	2.2	38	42.2
		Subtotal	3	3.3	54	60.0	30	33.3	0	0.0	3	3.3	90	100.0
		Male Mean Length	600		742		756		-		733			
		SE	45		10		20		-		-			
		Range	530-685		630-870		640-850		-		-			
		n	3		37		10		-		1			
		Female Mean Length	-		793		845		-		880			
		SE	-		12		12		-		50			
		Range	-		723-912		752-934		-		830-930			
		n	-		16		20		-		2			

Note: Samples were collected by subsistence fishermen who sampled their own harvests or the harvests of others. ASL samples were not applied to the total harvest. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 22.–Age-sex composition and mean length (mm) of Kuskokwim Area Chinook salmon harvested in the Salmon River (Pitka Fork) subsistence fishery, 2012.

			Brood Year (Age)							
			2008		2007		2006			
			1.2		1.3		1.4		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
7/10, 7/11, 7/12, 7/13, 7/14, 7/15	13	Male	0	0.0	4	30.8	2	15.4	6	46.2
		Female	2	15.4	2	15.4	3	23.1	7	53.8
		Subtotal	2	15.4	6	46.2	5	38.5	13	100.0
		Male Mean Length	-		765		841			
		SE	-		20		11			
		Range	-		725-800		830-852			
		n	-		4		2			
		Female Mean Length	750		813		822			
		SE	25.00		3		3			
		Range	725-775		810-816		815-825			
		n	2		2		3			

Note: ASL samples were not applied to the total harvest. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 23.–Age-sex composition and mean length (mm) of Kuskokwim Area Chinook salmon sampled at the Goodnews River (Middle Fork) weir, 2012.

			Brood Year (Age)							
			2008		2007		2006			
			1.2		1.3		1.4		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
7/03, 7/04, 7/05, 7/06, 7/07, 7/08, 7/09, 7/13,7/21, 7/26, 8/01, 8/06, 8/10, 8/17	45	Male	3	6.7	16	35.6	4	8.9	23	51.1
		Female	1	2.2	14	31.1	7	15.6	22	48.9
		Total	4	8.9	30	66.7	11	24.4	45	100.0
		Male Mean Length	598		757		732			
		SE	35		18		56			
		Range	533-651		643-898		598-867			
		n	3		16		4			
		Female Mean Length	603		785		847			
		SE	-		7		17			
		Range	603-603		746-862		805-923			
		n	1		14		7			

Note: High water prevented collection of samples during a portion of the season. Samples were not applied to the escapement. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 24.–Age-sex composition and mean length (mm) of Kuskokwim Area Chinook salmon sampled at the Kanektok River weir, 2012.

			Brood Year (Age)									
			2008		2007		2006		2005			
			1.2		1.3		1.4		2.4		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%
7/10, 7/12, 7/15, 7/16, 7/17, 7/20, 7/22, 7/24, 7/29, 7/30, 8/01, 8/03, 8/04, 8/05, 8/06, 8/07, 8/10, 8/12	48	Male	12	25.0	14	29.2	5	10.4	1	2.1	32	66.7
		Female	1	2.1	4	8.3	11	22.9	0	0.0	16	33.3
		Total	13	27.1	18	37.5	16	33.3	1	2.1	48	100.0
		Male Mean Length	507		671		808		823			
		SE	17		14		53		-			
		Range	407-585		542-723		643-967		-			
		n	12		14		5		1			
		Female Mean Length	483		760		829		-			
		SE	-		42		11		-			
		Range	-		638-832		760-884		-			
		n	1		4		11		-			

Note: Samples were not applied to the escapement. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 25.–Age-sex composition and mean length (mm) of Kuskokwim Area Chinook salmon that escaped past the Kwethluk River weir, 2012.

			Brood Year (Age)							
			2008		2007		2006			
			1.2		1.3		1.4		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
7/04, 7/08, 7/09, 7/19, 7/20, 7/21, 7/22, 7/30, 7/31, 8/01, 8/05, 8/06, 8/09, 8/20	86	Male	43	4.6	463	49.0	55	5.8	561	59.4
		Female	73	7.7	188	19.9	124	13.1	384	40.6
		Total	116	12.3	651	68.9	178	18.9	945	100.0
		95% C.I. (± %)		7.8		10.8		9.0		0.6
		Male Mean Length	623		715		809			
		SE	12		10		50			
		Range	600-640		605-820		750-925			
		n	4		34		4			
		Female Mean Length	522		784		836			
		SE	11		15		8			
		Range	490-545		640-865		790-915			
		n	6		25		13			

Note: Kwethluk weir is operated by USFWS. Summary was produced by ADF&G and may differ from estimates reported by USFWS. Weir was not operational during much of the season due to high water. Samples were used to estimate total number and percent of observed escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 26.–Age-sex composition and mean length (mm) of Kuskokwim Area Chinook salmon sampled at the Tuluksak River weir, 2012.

Sample Dates	Sample Size		Brood Year (Age) 2007 1.3 N	%	2006 1.4 N	%	Total N	%
7/02, 7/08, 8/15	3	Male	0	0.0	0	0.0	0	0.0
		Female	2	66.7	1	33.3	3	100.0
		Total	2	66.7	1	33.3	3	100.0
		Male Mean Length	-		-			
		SE	-		-			
		Range	-		-			
		n	-		-			
		Female Mean Length	625		740			
		SE	15		-			
		Range	610-640		-			
		n	2		1			

Note: Tuluksak weir is operated by USFWS. Summary was produced by ADF&G and may differ from estimates reported by USFWS. High water prevented collection of ASL samples for much of the season. Samples were not applied to the escapement. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 27.–Age-sex composition and mean length (mm) of Kuskokwim Area Chinook salmon sampled at the Salmon River (Aniak) weir, 2012.

			Brood Year (Age)									
			2008		2007		2006		2005			
			1.2		1.3		1.4		1.5		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%
7/18, 7/19, 7/20, 7/21, 7/26, 7/28, 7/31, 8/02, 8/03, 8/04, 8/05, 8/06, 8/09, 8/10,	48	Male	6	12.5	21	43.8	8	16.7	0	0.0	35	72.9
		Female	0	0.0	1	2.1	10	20.8	2	4.2	13	27.1
		Total	6	12.5	22	45.8	18	37.5	2	4.2	48	100.0
		95% C.I. (± %)		0.0		0.0		0.0		0.0		0.0
		Male Mean Length	539		715		812		-			
		SE	14		12		27		-			
		Range	454-601		582-796		670-915		-			
		n	6		21		8		-			
		Female Mean Length	-		771		866		826			
		SE	-		-		14		15			
		Range	-		-		800-930		811-840			
		n	-		1		10		2			

Note: High water prevented collection of ASL samples for much of the season. Samples were not applied to the escapement. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 28.–Age-sex composition and mean length (mm) of Kuskokwim Area Chinook salmon that escaped past the George River weir, 2012.

			Brood Year (Age)													
			2009		2008		2007		2006		2006		2005			
			0.2		1.2		1.3		1.4		2.3		1.5		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%	N	%
7/03, 7/04, 7/05, 7/06, 7/07, 7/11, 7/12, 7/13, 7/14, 7/15, 7/16, 7/17, 7/18, 7/19, 7/20, 7/21, 7/22, 7/23, 7/24, 7/25, 7/26, 7/27, 7/28	138	Male	13	0.6	695	30.2	719	31.2	159	6.9	16	0.7	0	0.0	1,601	69.5
		Female	0	0.0	0	0.0	229	10.0	430	18.7	16	0.7	26	1.1	701	30.5
		Total	13	0.6	695	30.2	948	41.2	589	25.6	32	1.4	26	1.1	2,302	100.0
		95% C.I. (± %)		1.0		7.7		8.3		7.2		1.8		1.5		0.3
		Male Mean Length	460		555		670		825		664		-			
		SE	-		9		9		28		-		-			
		Range	-		435-657		557-834		669-931		-		-			
		n	1		42		41		10		1		-			
		Female Mean Length	-		-		801		846		784		863			
		SE	-		-		15		11		-		7			
		Range	-		-		738-871		738-935		-		856-869			
		n	-		-		13		27		1		2			

Note: Samples were used to estimate total number and percent of escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 29.–Age-sex composition and mean length (mm) of Kuskokwim Area Chinook salmon that escaped past the Tatlawiksuk River weir, 2012.

			Brood Year (Age)							
			2008		2007		2006			
			1.2		1.3		1.4		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
7/05, 7/06, 7/07, 7/08, 7/14, 7/15, 7/16, 7/17, 7/18, 7/19, 7/20, 7/21, 7/22, 7/27, 7/28, 7/29, 8/02	91	Male	235	21.1	384	34.4	19	1.7	639	57.2
		Female	10	0.9	301	27.0	167	15.0	477	42.8
		Total	245	21.9	685	61.4	186	16.7	1,116	100.0
		95% C.I. (± %)		8.9		9.9		6.7		0.5
		Male Mean Length	590		700		876			
		SE	10		13		51			
		Range	521-685		591-872		825-927			
		n	19		27		2			
		Female Mean Length	666		747		809			
		SE	-		14		14			
		Range	-		602-850		713-894			
		n	1		26		16			

Note: Samples were used to estimate total number and percent of escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 30.–Age-sex composition and mean length (mm) of Kuskokwim Area Chinook salmon sampled at Kogrukluk River weir, 2012.

			Brood Year (Age)									
			2008		2007		2006		2006			
			1.2		1.3		1.4		2.3		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%
7/06, 7/07, 8/02, 8/03, 8/04, 8/06, 8/07, 8/08, 8/09, 8/10, 8/11	87	Male	5	5.7	27	31.0	7	8.0	1	1.1	40	46.0
		Female	0	0.0	22	25.3	25	28.7	0	0.0	47	54.0
		Total	5	5.7	49	56.3	32	36.8	1	1.1	87	100.0
		Male Mean Length	547		710		803		563			
		SE	39		13		4		-			
		Range	397-625		584-855		792-823		-			
		n	5		27		7		1			
		Female Mean Length	-		792		840		-			
		SE	-		9		11		-			
		Range	-		701-902		706-942		-			
		n	-		22		25		-			

Note: Weir was not operational during much of the season due to high water. Samples were not applied to the observed escapement. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 31.–Age-sex composition and mean length (mm) of Kuskokwim Area Chinook salmon that escaped past the Takotna River weir, 2012.

			Brood Year (Age)							
			2008		2007		2006			
			1.2		1.3		1.4		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
7/11, 7/12, 7/13, 7/14, 7/16, 7/17, 7/18, 7/19, 7/21, 7/22, 7/23, 7/24, 7/25, 7/26, 7/27, 7/29, 8/21	42	Male	102	44.6	59	26.0	0	0.0	161	70.6
		Female	4	1.8	47	20.8	16	6.9	67	29.4
		Total	106	46.4	107	46.8	16	6.9	228	100.0
		95% C.I. (± %)		14.2		13.9		6.8		0.9
		Male Mean Length	586		691		-			
		SE	12		16		-			
		Range	512-650		545-771		-			
		n	17		12		-			
		Female Mean Length	650		754		850			
		SE	-		12		18			
		Range	-		641-793		803-890			
		n	1		9		3			

Note: Samples were used to estimate total number and percent of escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 32.–Age-sex composition and mean length (mm) of Kuskokwim Area chum salmon harvested in the District W1 restricted mesh (≤6 inch) commercial gillnet fishery, 2012.

			Brood Year (Age)									
			2009		2008		2007		2006			
			0.2		0.3		0.4		0.5		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%
7/13, 7/15, 7/24	668	Male	303	0.5	21,188	32.5	6,026	9.2	648	1.0	28,166	43.2
		Female	835	1.3	26,494	40.7	9,184	14.1	492	0.8	37,005	56.8
		Total	1,138	1.7	47,682	73.2	15,210	23.3	1,140	1.7	65,171	100.0
		95% C.I. (± %)		1.0		3.6		3.4		1.0		0.1
		Male Mean Length	532		554		575		558			
		SE	10		2		4		11			
		Range	497-568		487-620		498-658		501-605			
		n	4		220		60		7			
		Female Mean Length	521		537		544		570			
		SE	6		1		2		7			
		Range	495-545		473-626		490-593		552-602			
		n	9		277		86		5			

Note: All samples were collected in Subdistrict 1A (i.e., above Bethel). Samples were used to estimate total number and percent of harvest by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 33.–Age-sex composition and mean length (mm) of Kuskokwim Area chum salmon harvested in the District W4 (Subdistrict 4) restricted mesh (≤6 inch) commercial gillnet fishery, 2012.

			Brood Year (Age)									
			2009		2008		2007		2006			
			0.2		0.3		0.4		0.5		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%
6/27, 7/04, 7/07, 7/09, 7/11, 7/16, 7/18, 7/23	921	Male	62	0.1	20,129	32.9	7,047	11.5	698	1.1	27,937	45.7
		Female	308	0.5	24,385	39.9	8,179	13.4	331	0.5	33,203	54.3
		Total	370	0.6	44,515	72.8	15,226	24.9	1,029	1.7	61,140	100.0
		95% C.I. (± %)		0.5		3.0		2.9		0.8		0.1
		Male Mean Length	486		579		599		591			
		SE	-		2		3		10			
		Range	-		496-671		516-661		551-625			
		n	1		288		110		11			
		Female Mean Length	530		556		564		565			
		SE	12		1		2		7			
		Range	496-557		491-622		504-633		523-608			
		n	5		363		135		8			

Note: Samples were used to estimate total number and percent of harvest by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 34.–Age-sex composition and mean length (mm) of Kuskokwim Area chum salmon harvested in the District W5 (Goodnews Bay Subdistrict) restricted mesh (≤6 inch) commercial gillnet fishery, 2012.

			Brood Year (Age)											
			2009		2008		2007		2006		2005			
			0.2		0.3		0.4		0.5		0.6		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%
6/27, 7/04, 7/07, 7/09, 7/11, 7/12, 7/16, 7/18, 7/20, 7/23, 7/25	1,288	Male	83	0.3	8,160	33.3	3,956	16.2	392	1.6	12	0.0	12,603	51.5
		Female	0	0.0	7,916	32.3	3,576	14.6	391	1.6	0	0.0	11,884	48.5
		Total	83	0.3	16,076	65.7	7,532	30.8	784	3.2	12	0.0	24,487	100.0
		95% C.I. (± %)		0.3		2.7		2.6		1.0		0.1		0.0
		Male Mean Length	545		577		592		581		550			
		SE	2		1		2		7		-			
		Range	531-558		499-649		514-689		523-641		-			
		n	5		416		210		19		1			
		Female Mean Length	-		556		566		566		-			
		SE	-		1		2		3		-			
		Range	-		481-633		496-643		535-588		-			
		n	-		424		192		21		-			

Note: Samples were used to estimate total number and percent of harvest by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 35.–Age-sex composition and mean length (mm) of Kuskokwim Area chum salmon sampled at the Goodnews River (Middle Fork) weir, 2012.

			Brood Year (Age)									
			2009		2008		2007		2006			
			0.2		0.3		0.4		0.5		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%
7/04, 7/12, 7/13, 7/27, 7/29, 7/31, 8/01, 8/03, 8/05, 8/06, 8/08, 8/10, 8/12, 8/14	347	Male	0	0.0	135	38.9	48	13.8	2	0.6	185	53.3
		Female	2	0.6	132	38.0	25	7.2	3	0.9	162	46.7
		Total	2	0.6	267	76.9	73	21.0	5	1.4	347	100.0
		Male Mean Length	-		583		583		572			
		SE	-		3		4		1			
		Range	-		505-692		514-648		571-573			
		n	-		135		48		2			
		Female Mean Length	519		541		563		563			
		SE	15		3		6		23			
		Range	504-533		442-613		513-615		537-608			
		n	2		132		25		3			

Note: High water prevented collection of ASL samples during a portion of the season. Samples were not applied to the escapement. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 36.–Age-sex composition and mean length (mm) of Kuskokwim Area chum salmon that escaped past the Kanektok River weir, 2012.

			Brood Year (Age)							
			2008		2007		2006			
			0.3		0.4		0.5		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
7/07, 7/10, 7/11, 7/13, 7/14, 7/15, 7/23, 8/01, 8/06, 8/10, 8/12	382	Male	7,624	31.5	4,524	18.7	494	2.0	12,643	52.3
		Female	5,925	24.5	4,690	19.4	916	3.8	11,530	47.7
		Total	13,549	56.1	9,214	38.1	1,410	5.8	24,173	100.0
		95% C.I. (± %)		5.0		5.0		2.6		0.1
		Male Mean Length	589		610		614			
		SE	3		3		23			
		Range	526-697		532-696		568-690			
		n	128		71		7			
		Female Mean Length	557		574		577			
		SE	3		4		8			
		Range	486-630		489-646		531-620			
		n	97		67		12			

Note: Samples were used to estimate total number and percent of escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 37.–Age-sex composition and mean length (mm) of Kuskokwim Area chum salmon that escaped past the Kwethluk River weir, 2012.

			Brood Year (Age)									
			2009		2008		2007		2006			
			0.2		0.3		0.4		0.5		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%
7/04, 7/08, 7/09, 7/19, 7/20, 7/21, 7/22, 7/30, 7/31, 8/01, 8/05, 8/06, 8/09, 8/10, 8/14, 8/21, 8/23	451	Male	11	0.2	1,945	44.0	855	19.4	127	2.9	2,938	66.5
		Female	33	0.7	1,096	24.8	315	7.1	34	0.8	1,479	33.5
		Total	44	1.0	3,041	68.9	1,170	26.5	162	3.7	4,417	100.0
		95% C.I. (± %)		0.9		4.5		4.3		1.8		0.1
		Male Mean Length	485		577		598		596			
		SE	-		2		4		8			
		Range	-		490-645		520-695		520-630			
		n	1		187		78		11			
		Female Mean Length	538		547		557		549			
		SE	10		2		4		1			
		Range	520-555		485-600		490-620		515-580			
		n	3		130		36		5			

Note: Kwethluk weir is operated by USFWS. Summary was produced by ADF&G and may differ from estimates reported by USFWS. Weir was not operational during much of the season due to high water. Samples were used to estimate total number and percent of observed escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 38.–Age-sex composition and mean length (mm) of Kuskokwim Area chum salmon sampled at the Tuluksak River weir, 2012.

			Brood Year (Age)							
			2008		2007		2006			
			0.3		0.4		0.5		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
7/02, 7/04, 7/08, 7/09, 7/22, 8/01, 8/14, 8/15, 8/17, 8/18, 8/19, 8/22, 8/23	136	Male	41	30.1	49	36.0	1	0.7	91	66.9
		Female	21	15.4	22	16.2	2	1.5	45	33.1
		Total	62	45.6	71	52.2	3	2.2	136	100.0
		Male Mean Length	556		578		614			
		SE	7		7		-			
		Range	430-624		498-680		-			
		n	41		48		1			
		Female Mean Length	501		541		556			
		SE	10		9		44			
		Range	410-556		460-584		512-600			
		n	21		22		2			

Note: Tuluksak weir is operated by USFWS. Summary was produced by ADF&G and may differ from estimates reported by USFWS. High water prevented collection of ASL samples for much of the season. Samples were not applied to the escapement. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 39.–Age-sex composition and mean length (mm) of Kuskokwim Area chum salmon that escaped past the George River weir, 2012.

			Brood Year (Age)							
			2008		2007		2006			
			0.3		0.4		0.5		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
7/06, 7/07, 7/08, 7/13, 7/14, 7/15, 7/20, 7/21, 7/22, 7/27, 7/28, 7/29	672	Male	9,041	26.3	5,856	17.1	1,442	4.2	16,339	47.6
		Female	10,953	31.9	5,764	16.8	1,283	3.7	17,999	52.4
		Total	19,994	58.2	11,619	33.8	2,725	7.9	34,338	100.0
		95% C.I. (± %)		3.7		3.6		2.1		0.1
		Male Mean Length	566		583		576			
		SE	2		3		6			
		Range	445-639		505-655		522-645			
		n	176		113		27			
		Female Mean Length	531		541		551			
		SE	2		2		6			
		Range	430-605		460-623		503-629			
		n	216		116		24			

Note: Samples were used to estimate total number and percent of escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 40.–Age-sex composition and mean length (mm) of Kuskokwim Area chum salmon sampled at the Salmon River (Aniak) weir, 2012.

			Brood Year (Age)									
			2009		2008		2007		2006			
			0.2		0.3		0.4		0.5		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%
7/18, 7/20, 7/21, 7/26, 7/27, 7/28, 7/30, 7/31, 8/02, 8/04, 8/05, 8/06, 8/07, 8/08, 8/09, 8/10, 8/11, 8/12, 8/13, 8/14, 8/16, 8/18,	253	Male	1	0.4	73	28.9	71	28.1	16	6.3	161	63.6
		Female	4	1.6	57	22.5	28	11.1	3	1.2	92	36.4
		Total	5	2.0	130	51.4	99	39.1	19	7.5	253	100.0
		95% C.I. (± %)		0.0		0.0		0.0		0.0		0.0
		Male Mean Length	541		556		576		576			
		SE	-		3		3		8			
		Range	-		489-614		506-635		515-621			
		n	1		73		71		16			
		Female Mean Length	506		525		542		515			
		SE	10		4		5		29			
		Range	492-532		476-608		498-596		458-554			
		n	4		57		28		3			

Note: High water prevented collection of ASL samples for much of the season. Samples were not applied to the escapement. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 41.–Age-sex composition and mean length (mm) of Kuskokwim Area chum salmon that escaped past the Tatlawiksuk River weir, 2012.

			Brood Year (Age)									
			2009		2008		2007		2006			
			0.2		0.3		0.4		0.5		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%
7/03, 7/04, 7/06, 7/14, 7/20, 7/21, 7/22, 7/30, 7/31, 8/01, 8/02	593	Male	183	0.4	8,410	18.9	10,488	23.5	1,122	2.5	20,203	45.3
		Female	103	0.2	11,975	26.9	11,421	25.6	869	2.0	24,369	54.7
		Total	286	0.6	20,386	45.7	21,909	49.2	1,991	4.5	44,572	100.0
		95% C.I. (± %)		0.6		4.1		4.1		1.8		0.1
		Male Mean Length	505		566		584		592			
		SE	22		3		3		8			
		Range	483-526		490-650		502-692		530-651			
		n	2		108		135		14			
		Female Mean Length	492		542		555		563			
		SE	16		2		3		4			
		Range	473-523		468-615		488-666		538-593			
		n	3		169		151		11			

Note: Samples were used to estimate total number and percent of escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 42.–Age-sex composition and mean length (mm) of Kuskokwim Area chum salmon that escaped past the Kogrukluk River weir, 2012.

			Brood Year (Age)									
			2009		2008		2007		2006			
			0.2		0.3		0.4		0.5		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%
7/07, 8/02, 8/04, 8/06, 8/07, 8/08, 8/09, 8/10	229	Male	129	0.9	7,960	55.7	2,648	18.5	242	1.7	10,979	76.8
		Female	0	0.0	2,254	15.8	1,063	7.4	0	0.0	3,317	23.2
		Total	129	0.9	10,214	71.4	3,711	26.0	242	1.7	14,296	100.0
		95% C.I. (± %)		1.2		5.6		5.5		1.6		0.1
		Male Mean Length	514		547		578		560			
		SE	21		3		5		31			
		Range	493-534		447-631		505-681		503-617			
		n	2		126		43		4			
		Female Mean Length	-		529		550		-			
		SE	-		4		6		-			
		Range	-		482-574		513-596		-			
		n	-		36		18		-			

Note: Weir was not operational during much of the season due to high water. Samples were used to estimate total number and percent of observed escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 43.–Age-sex composition and mean length (mm) of Kuskokwim Area chum salmon that escaped past the Takotna River weir, 2012.

			Brood Year (Age)									
			2009		2008		2007		2006			
			0.2		0.3		0.4		0.5		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%
7/08, 7/09, 7/10, 7/14, 7/15, 7/16, 7/20, 7/21, 7/22, 7/23, 7/27, 7/28, 7/29	673	Male	37	0.6	1,290	21.3	1,618	26.7	177	2.9	3,123	51.6
		Female	37	0.6	1,363	22.5	1,407	23.3	120	2.0	2,927	48.4
		Total	74	1.2	2,654	43.9	3,025	50.0	297	4.9	6,050	100.0
		95% C.I. (± %)		0.8		3.6		3.6		1.5		0.1
		Male Mean Length	536		557		575		563			
		SE	15		3		2		8			
		Range	511-570		482-641		491-654		481-613			
		n	4		142		186		22			
		Female Mean Length	501		535		549		548			
		SE	3		2		2		8			
		Range	488-508		435-619		479-625		511-602			
		n	4		146		155		14			

Note: Samples were used to estimate total number and percent of escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 44.–Age-sex composition and mean length (mm) of Kuskokwim Area sockeye salmon harvested in the District W1 restricted mesh (≤6 inch) commercial gillnet fishery, 2012.

			Brood Year (Age)																	
			2008		2008		2007		2007		2007		2006		2006		2005			
			0.3		1.2		0.4		1.3		2.2		1.4		2.3		1.5		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
7/13, 7/17, 7/20	315	Male	61	2.1	111	3.9	11	0.4	1,000	35.0	23	0.8	162	5.7	83	2.9	0	0.0	1,450	50.7
		Female	75	2.6	53	1.9	30	1.1	1,077	37.7	0	0.0	145	5.1	19	0.7	7	0.3	1,407	49.3
		Total	136	4.8	164	5.7	42	1.5	2,077	72.7	23	0.8	307	10.8	101	3.5	7	0.3	2,857	100.0
		95% C.I. (± %)		2.4		2.7		1.4		4.8		1.1		3.3		2.0		0.5		0.1
		Male Mean Length	572		527		594		564		536		592		592		-			
		SE	3		8		-		2		40		4		9		-			
		Range	561-581		492-570		-		464-632		496-575		546-628		540-633		-			
		n	6		10		1		112		2		17		9		-			
		Female Mean Length	529		492		571		536		-		560		583		560			
		SE	6		8		4		2		-		6		0		-			
		Range	508-550		470-510		563-579		486-588		-		505-617		574-597		-			
		n	8		5		3		122		-		17		2		1			

Note: All samples were collected in Subdistrict 1A (i.e., above Bethel). Samples were used to estimate total number and percent of harvest by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 45.–Age-sex composition and mean length (mm) of Kuskokwim Area sockeye salmon harvested in the District W4 (Subdistrict 4) restricted mesh (≤6 inch) commercial gillnet fishery, 2012.

			Brood Year (Age)																			
			2009		2008		2008		2007		2007		2007		2006		2006		2005			
Sample			0.2		0.3		1.2		0.4		1.3		2.2		1.4		2.3		2.4		Total	
Dates	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
6/27, 7/04, 7/07, 7/09, 7/11, 7/16, 7/18, 7/23	836	Male	77	0.2	301	0.8	2,590	6.9	69	0.2	13,877	36.8	69	0.2	320	0.8	744	2.0	0	0.0	18,047	47.9
		Female	0	0.0	555	1.5	2,013	5.3	12	0.0	15,643	41.5	23	0.1	146	0.4	1,171	3.1	77	0.2	19,641	52.1
		Total	77	0.2	856	2.3	4,603	12.2	81	0.2	29,520	78.3	93	0.2	466	1.2	1,915	5.1	77	0.2	37,688	100.0
		95% C.I. (± %)		0.4		1.2		2.2		0.3		3.0		0.3		0.9		1.7		0.4		0.1
		Male Mean Length	536		537		512		600		567		545		603		564		-			
		SE	-		36.68		6.38		0.00		1.62		0.00		14.19		7.26		-			
		Range	-		454-606		374-573		576-605		478-620		510-552		569-657		493-604		-			
		n	1		5		79		2		280		2		6		17		-			
		Female Mean Length	-		535		500		565		534		512		555		533		567			
		SE	-		7.92		2.77		-		1.44		3.50		0.00		4.94		-			
		Range	-		498-567		409-582		-		425-584		508-515		546-565		470-564		-			
		n	-		11		98		1		303		2		3		25		1			

Note: Samples were used to estimate total number and percent of harvest by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 46.–Age-sex composition and mean length (mm) of Kuskokwim Area sockeye salmon harvested in the District W5 (Goodnews Bay Subdistrict) restricted mesh (≤6 inch) commercial gillnet fishery, 2012.

			Brood Year (Age)															
			2008		2008		2007		2007		2007		2006		2006		2005			
			0.3		1.2		0.4		1.3		2.2		1.4		2.3		3.3		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
6/27, 7/04, 7/07, 7/09, 7/11, 7/12, 7/16, 7/18, 7/20, 7/23, 7/25, 7/27	1,217	Male	225	0.4	2,210	4.4	34	0.1	18,329	36.2	1,722	3.4	410	0.8	3,963	7.8	96	0.2	26,989	53.3
		Female	132	0.3	1,777	3.5	135	0.3	17,373	34.3	774	1.5	527	1.0	2,866	5.7	62	0.1	23,646	46.7
		Total	357	0.7	3,987	7.9	169	0.3	35,702	70.5	2,496	4.9	937	1.9	6,829	13.5	158	0.3	50,635	100.0
		95% C.I. (± %)		0.5		1.5		0.3		2.6		1.2		0.8		1.9		0.3		0.0
		Male Mean Length	568		510		603		570		522		587		575		563			
		SE	9		4		-		1		3		9		3		6			
		Range	545-590		414-557		-		502-621		486-553		556-625		521-652		528-592			
		n	5		54		1		443		42		9		99		3			
		Female Mean Length	518		491		541		540		496		559		542		549			
		SE	5		3		0		1		4		4		2		10			
		Range	504-524		440-534		533-544		483-599		449-536		526-577		482-594		539-559			
		n	4		40		3		412		20		11		69		2			

Note: Samples were used to estimate total number and percent of harvest by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 47.–Age-sex composition and mean length (mm) of Kuskokwim Area sockeye salmon harvested in the Bethel test fishery, 2012.

			Brood Year (Age)													
			2008		2008		2007		2007		2006		2006			
			0.3		1.2		1.3		2.2		1.4		2.3		Total	
Mesh Size	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%	N	%
4.6 inch	150	Male	0	0.0	12	6.0	45	22.7	0	0.0	1	0.7	8	4.0	66	33.3
		Female	0	0.0	8	4.0	105	53.3	5	2.7	3	1.3	11	5.3	131	66.7
		Subtotal	0	0.0	20	10.0	150	76.0	5	2.7	4	2.0	18	9.3	197	100.0
		Male Mean Length	-		458		591		-		606		553			
		SE	-		13		4		-		-		18			
		Range	-		415-544		518-635		-		-		495-610			
		n	-		9		34		-		1		6			
		Female Mean Length	-		504		542		501		569		564			
		SE	-		9		3		9		24		10			
		Range	-		481-535		463-596		486-528		545-593		523-607			
		n	-		6		80		4		2		8			
5.4 inch	341	Male	0	0.0	3	0.9	132	34.9	1	0.3	7	1.8	7	1.8	150	39.6
		Female	1	0.3	2	0.6	210	55.4	2	0.6	2	0.6	11	2.9	228	60.4
		Subtotal	1	0.3	6	1.5	341	90.3	3	0.9	9	2.3	18	4.7	378	100.0
		Male Mean Length	-		539		582		487		618		586			
		SE	-		12		3		-		12		11			
		Range	-		515-557		488-658		-		576-657		561-635			
		n	-		3		119		1		6		6			
		Female Mean Length	537		504		546		498		601		560			
		SE	-		4		1		22		5		8			
		Range	-		500-508		502-606		476-519		596-605		517-590			
		n	1		2		189		2		2		10			
Total	491	Male	0	0.0	15	2.6	177	30.7	1	0.2	8	1.4	15	2.5	215	37.4
All Mesh		Female	1	0.2	10	1.8	315	54.7	7	1.3	5	0.8	22	3.8	360	62.6
Combined		Total	1	0.2	25	4.4	491	85.4	9	1.5	13	2.2	36	6.3	575	100.0
		95% C.I. (± %)		0.1		0.8		1.3		0.5		0.5		0.9		0.0
		Male Mean Length	-		476		584		487		616		568			
		SE	-		11		2		-		10		11			
		Range	-		415-557		488-658		-		576-657		495-635			
		n	-		12		153		1		7		12			
		Female Mean Length	537		504		544		500		583		562			
		SE	-		7		1		9		13		6			
		Range	-		481-535		463-606		476-528		545-605		517-607			
		n	1		8		269		6		4		18			

Note: Two aged fish were not included in analysis because sex and length data were not available. Samples were used to estimate total number and percent of harvest by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 48.–Age-sex composition and mean length (mm) of Kuskokwim Area sockeye salmon that escaped past the Goodnews River (Middle Fork) weir, 2012.

			Brood Year (Age)															
			2008		2008		2007		2007		2006		2006		2006			
			0.3		1.2		1.3		2.2		1.4		2.3		3.2		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
6/30, 7/01, 7/02, 7/03, 7/04, 7/06, 7/08, 7/12, 7/13, 7/29, 7/31, 8/01, 8/05, 8/08, 8/10, 8/11, 8/12, 8/14, 7/12, 7/13, 7/29, 7/31, 8/01, 8/05, 8/08, 8/10, 8/11, 8/12, 8/14	331	Male	277	0.9	831	2.7	10,794	35.4	536	1.8	210	0.7	769	2.5	0	0.0	13,417	44.0
		Female	192	0.6	1,212	4.0	12,727	41.8	826	2.7	594	2.0	1,379	4.5	125	0.4	17,056	56.0
		Total	469	1.5	2,043	6.7	23,521	77.2	1,362	4.5	805	2.6	2,148	7.0	125	0.4	30,473	100.0
		95% C.I. (± %)		1.4		2.7		4.7		2.4		1.9		2.7		0.8		0.2
		Male Mean Length	559		520		568		510		586		556		-			
		SE	0		13		2		11		0		10		-			
		Range	535-585		463-574		507-675		476-542		573-595		493-584		-			
		n	3		9		117		6		2		9		-			
		Female Mean Length	505		485		528		491		527		522		477			
		SE	0		8		2		14		16		3		-			
		Range	499-516		448-572		453-586		457-564		467-565		494-542		-			
		n	2		15		138		8		6		15		1			

Note: Samples were used to estimate total number and percent of escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 49.–Age-sex composition and mean length (mm) of Kuskokwim Area sockeye salmon that escaped past the Kanektok River weir, 2012.

			Brood Year (Age)													
			2008		2008		2007		2007		2006		2006			
			0.3		1.2		1.3		2.2		1.4		2.3		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%	N	%
7/07, 7/08, 7/09, 7/10, 7/11, 7/12, 7/13, 7/14, 7/17, 7/20, 7/24, 7/27, 7/30, 8/01, 8/02, 8/03, 8/10, 8/15	575	Male	0	0.0	7,177	8.1	32,157	36.2	217	0.2	329	0.4	2,006	2.3	41,887	47.2
		Female	1,025	1.2	9,076	10.2	34,806	39.2	211	0.2	112	0.1	1,683	1.9	46,913	52.8
		Total	1,025	1.2	16,253	18.3	66,963	75.4	429	0.5	441	0.5	3,690	4.2	88,800	100.0
		95% C.I. (± %)		1.4		3.9		4.5		0.5		0.5		2.1		0.2
		Male Mean Length	-		536		576		541		534		551			
		SE	-		5		2		0		40		7			
		Range	-		388-606		501-648		512-571		487-605		486-614			
		n	-		58		212		2		3		14			
		Female Mean Length	533		491		535		470		552		539			
		SE	1		3		2		10		-		4			
		Range	516-577		439-582		448-604		460-480		-		515-577			
		n	5		62		205		2		1		11			

Note: Samples were used to estimate total number and percent of escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 50.–Age-sex composition and mean length (mm) of Kuskokwim Area sockeye salmon sampled at the Kwethluk River weir, 2012.

			Brood Year (Age)							
			2007		2006		2006			
			1.3		1.4		2.3		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
7/04, 7/08, 7/20, 7/22, 7/09, 7/31, 8/09	16	Male	9	56.3	1	6.3	1	6.3	11	68.8
		Female	4	25.0	1	6.3	0	0.0	5	31.3
		Total	13	81.3	2	12.5	1	6.3	16	100.0
		Male Mean Length	584		590		565			
		SE	4		-		-			
		Range	570-605		590-590		565-565			
		n	9		1		1			
		Female Mean Length	534		560		-			
		SE	10		-		-			
		Range	515-560		560-560		-			
		n	4		1		-			

Note: Kwethluk weir is operated by USFWS. Summary was produced by ADF&G and may differ from estimates reported by USFWS. Weir was not operational during much of the season due to high water. Samples were not applied to the escapement. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 51.–Age-sex composition and mean length (mm) of Kuskokwim Area sockeye salmon sampled at the Tuluksak River weir, 2012.

Sample Dates	Sample Size		Brood Year (Age) 2008 0.3 N	%	Total N	%
7/8	1	Male	0	0.0	0	0.0
		Female	1	100.0	1	100.0
		Total	1	100.0	1	100.0
		Male Mean Length	-			
		SE	-			
		Range	-			
		n	-			
		Female Mean Length	520			
		SE	-			
		Range	-			
		n	1			

Note: Tuluksak weir is operated by USFWS. Summary was produced by ADF&G and may differ from estimates reported by USFWS. High water prevented collection of ASL samples for much of the season. Samples were not applied to the escapement. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 52.–Age-sex composition and mean length (mm) of Kuskokwim Area sockeye salmon that escaped past the Salmon River weir, 2012.

			Brood Year (Age)															
			2009		2009		2008		2008		2007		2007		2007		2006			
			0.2		1.1		0.3		1.2		0.4		1.3		2.2		2.3		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
7/21, 7/26, 7/30, 8/02, 8/03, 8/04, 8/05, 8/06, 8/07, 8/08, 8/09, 8/10, 8/11, 8/12, 8/13, 8/14, 8/16, 8/18, 8/19,	138	Male	23	2.5	14	1.5	5	0.5	344	36.5	0	0.0	7	0.7	0	0.0	0	0.0	393	41.6
		Female	5	0.5	0	0.0	14	1.5	396	42.0	7	0.7	115	12.2	9	1.0	5	0.5	550	58.4
		Total	28	3.0	14	1.5	19	2.0	740	78.4	7	0.7	122	13.0	9	1.0	5	0.5	943	100.0
		95% C.I. (± %)		3.7		1.5		1.7		6.7		1.3		5.4		1.2		0.9		0.3
		Male Mean Length	562		458		595		556		-		563		-		-			
		SE	0		52		-		5		-		-		-		-			
		Range	554-580		394-562		-		390-596		-		-		-		-			
		n	2		3		1		37		-		1		-		-			
		Female Mean Length	546		-		533		526		585		527		535		532			
		SE	-		-		25		4		-		7		13		-			
		Range	-		-		489-574		450-586		-		463-598		522-548		-			
		n	1		-		3		66		1		20		2		1			

Note: Samples were used to estimate total number and percent of escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 53.–Age-sex composition and mean length (mm) of Kuskokwim Area sockeye salmon sampled at the Kogrukluk River weir, 2012.

			Brood Year (Age)											
			2009		2009		2008		2007		2006			
			0.2		1.1		1.2		1.3		2.3		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%
7/07, 8/02, 8/03, 8/04, 8/06, 8/07, 8/08, 8/11	43	Male	0	0.0	1	2.3	24	55.8	1	2.3	0	0.0	26	60.5
		Female	1	2.3	0	0.0	12	27.9	3	7.0	1	2.3	17	39.5
		Total	1	2.3	1	2.3	36	83.7	4	9.3	1	2.3	43	100.0
		Male Mean Length	-		561		556		558		-			
		SE	-		-		3		-		-			
		Range	-		-		522-588		-		-			
		n	-		1		24		1		-			
		Female Mean Length	479		-		518		559		504			
		SE	-		-		5		14		-			
		Range	-		-		484-550		534-584		-			
		n	1		-		12		3		1			

Note: Weir was not operational during much of the season due to high water. Samples were not applied to the escapement. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 54.–Age-sex composition and mean length (mm) of Kuskokwim Area sockeye salmon that escaped past the Telaquana River weir, 2012.

			Brood Year (Age)																	
			2010		2009		2009		2008		2008		2007		2007		2006			
			0.1		0.2		1.1		1.2		2.1		1.3		2.2		2.3		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
7/16, 7/17, 7/18, 7/19, 7/20, 7/21, 7/27, 7/28, 7/29, 7/30, 7/31, 8/01, 8/04, 8/06, 8/07	225	Male	102	0.4	0	0.0	505	2.2	4,155	18.3	102	0.4	604	2.7	3,547	15.6	908	4.0	9,922	43.6
		Female	0	0.0	102	0.4	102	0.4	4,753	20.9	0	0.0	2,622	11.5	2,334	10.3	2,925	12.9	12,838	56.4
		Total	102	0.4	102	0.4	607	2.7	8,908	39.1	102	0.4	3,226	14.2	5,881	25.8	3,833	16.8	22,760	100.0
		95% C.I. (± %)		0.9		0.9		2.1		6.3		0.9		4.4		5.5		4.7		0.2
		Male Mean Length	401		-		459		542		431		605		591		617			
		SE	-		-		33		11		-		13		9		9			
		Range	-		-		413-590		409-640		-		564-646		426-643		572-642			
		n	1		-		5		41		1		6		35		9			
		Female Mean Length	-		489		483		527		-		550		543		554			
		SE	-		-		-		6		-		5		9		4			
		Range	-		-		-		410-583		-		513-590		453-614		521-590			
		n	-		1		1		47		-		26		23		29			

Note: Samples were used to estimate total number and percent of escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 55.–Age-sex composition and mean length (mm) of Kuskokwim Area sockeye salmon sampled at the Kalskag fish wheel tagging site, 2012.

			Brood Year (Age)													
			2008		2008		2007		2007		2006		2006			
			0.3		1.2		0.4		1.3		1.4		2.3		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%	N	%
6/17-7/29	326	Male	2	0.6	12	3.7	0	0.0	117	35.9	11	3.4	10	3.1	152	46.6
		Female	4	1.2	9	2.8	2	0.6	139	42.6	12	3.7	8	2.5	174	53.4
		Subtotal	6	1.8	21	6.4	2	0.6	256	78.5	23	7.1	18	5.5	326	100.0
		Male Mean Length	590		451		-		569		619		598			
		SE	10		16		-		3		8		13			
		Range	580-599		408-602		-		450-655		587-658		520-649			
		n	2		12		-		117		11		10			
		Female Mean Length	532		474		625		536		562		573			
		SE	7		13		45		2		7		9			
		Range	510-541		420-557		580-670		481-628		521-605		542-605			
		n	4		9		2		138		12		8			

Note: Samples were not applied to the total catch. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 56.–Age-sex composition and mean length (mm) of Kuskokwim Area sockeye salmon tagged at the Kalskag fish wheel site and recaptured at upriver spawning tributaries, 2012.

			Brood Year (Age)											
			2009		2008		2007		2007		2006			
			1.1		1.2		1.3		2.2		2.3		Total	
Location	Sample Size		N	%	N	%	N	%	N	%	N	%	N	%
Telaquana River	25	Male	3	12.0	4	16.0	1	4.0	5	20.0	0	0.0	13	52.0
		Female	0	0.0	5	20.0	1	4.0	3	12.0	3	12.0	12	48.0
		Subtotal	3	12.0	9	36.0	2	8.0	8	32.0	3	12.0	25	100.0
		Male Mean Length	424		517		616		615		-			
		SE	3		51		-		10		-			
		Range	418-429		423-616		-		583-643		-			
		n	3		4		1		5		-			
		Female Mean Length	-		549		562		622		546			
		SE	-		15		-		19		23			
		Range	-		515-583		-		602-661		522-592			
		n	-		5		1		3		3			
Kogrukluk River	3	Male	0	0.0	0	0.0	1	33.3	0	0.0	0	0.0	1	33.3
		Female	0	0.0	2	66.7	0	0.0	0	0.0	0	0.0	2	66.7
		Subtotal	0	0.0	2	66.7	1	33.3	0	0.0	0	0.0	3	100.0
		Male Mean Length	-		-		562		-		-			
		SE	-		-		-		-		-			
		Range	-		-		-		-		-			
		n	-		-		1		-		-			
		Female Mean Length	-		486		-		-		-			
		SE	-		19		-		-		-			
		Range	-		467-504		-		-		-			
		n	-		2		-		-		-			
Salmon River (Aniak)	1	Male	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
		Female	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	1	100.0
		Subtotal	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	1	100.0
		Male Mean Length	-		-		-		-		-			
		SE	-		-		-		-		-			
		Range	-		-		-		-		-			
		n	-		-		-		-		-			
		Female Mean Length	-		-		554		-		-			
		SE	-		-		-		-		-			
		Range	-		-		-		-		-			
		n	-		-		1		-		-			

Table 57.–Age-sex composition and mean length (mm) of Kuskokwim Area coho salmon harvested in the District W1 restricted mesh (≤6 inch) commercial gillnet fishery, 2012.

			Brood Year (Age)									
			2009		2008		2007		2006			
			1.1		2.1		3.1		4.1		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%
8/02, 8/03, 8/09, 8/14, 8/21	702	Male	8,834	10.2	35,758	41.4	2,244	2.6	87	0.1	46,922	54.3
		Female	4,774	5.5	32,305	37.4	2,389	2.8	0	0.0	39,467	45.7
		Total	13,607	15.8	68,062	78.8	4,633	5.4	87	0.1	86,389	100.0
		95% C.I. (± %)		3.0		3.3		1.7		0.2		0.1
		Male Mean Length	514		519		529		506			
		SE	4		2		9		-			
		Range	451-594		440-598		440-592		-			
		n	62		295		19		1			
		Female Mean Length	522		526		539		-			
		SE	5		2		7		-			
		Range	467-583		455-606		453-576		-			
		n	40		262		21		-			

Note: Samples were used to estimate total number and percent of harvest by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 58.–Age-sex composition and mean length (mm) of Kuskokwim Area coho salmon harvested in the District W4 (Subdistrict 4) restricted mesh (≤ 6 inch) commercial gillnet fishery, 2012.

			Brood Year (Age)							
			2009		2008		2007			
			1.1		2.1		3.1		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
8/10, 8/15, 8/22	519	Male	1,755	5.6	12,622	40.4	490	1.6	14,867	47.6
		Female	2,321	7.4	13,431	43.0	596	1.9	16,347	52.4
		Total	4,076	13.1	26,053	83.5	1,085	3.5	31,214	100.0
		95% C.I. (± %)		3.2		3.5		1.6		0.1
		Male Mean Length	537		544		536			
		SE	8		3		18			
		Range	375-605		409-641		488-599			
		n	31		220		9			
		Female Mean Length	538		551		565			
		SE	7		2		10			
		Range	472-611		481-614		479-611			
		n	31		217		11			

Note: Samples were used to estimate total number and percent of harvest by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 59.–Age-sex composition and mean length (mm) of Kuskokwim Area coho salmon harvested in the District W5 (Goodnews Bay Subdistrict) restricted mesh (≤6 inch) commercial gillnet fishery, 2012.

			Brood Year (Age)							
			2009		2008		2007			
			1.1		2.1		3.1		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
8/10, 8/15, 8/22	542	Male	1,661	6.5	12,055	47.2	410	1.6	14,126	55.4
		Female	836	3.3	9,802	38.4	751	2.9	11,389	44.6
		Total	2,497	9.8	21,857	85.7	1,161	4.6	25,515	100.0
		95% C.I. (± %)		2.8		3.4		2.1		0.1
		Male Mean Length	528		546		560			
		SE	7		3		14			
		Range	443-587		402-648		466-604			
		n	36		273		9			
		Female Mean Length	562		557		576			
		SE	7		2		4			
		Range	502-603		498-630		534-599			
		n	14		196		14			

Note: Samples were used to estimate total number and percent of harvest by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 60.–Age-sex composition and mean length (mm) of Kuskokwim Area coho salmon sampled at the Goodnews River (Middle Fork) weir, 2012.

			Brood Year (Age)							
			2009		2008		2007			
			1.1		2.1		3.1		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
7/31, 8/01, 8/05, 8/06, 8/08, 8/10, 8/14, 8/15, 8/16, 8/18, 8/20, 8/22, 8/23, 8/25, 8/27	262	Male	17	6.5	114	43.5	7	2.7	138	52.7
		Female	17	6.5	103	39.3	4	1.5	124	47.3
		Total	34	13.0	217	82.8	11	4.2	262	100.0
		Male Mean Length	540		545		518			
		SE	10		4		12			
		Range	478-614		412-646		476-556			
		n	17		114		7			
		Female Mean Length	551		555		571			
		SE	10		3		8			
		Range	464-600		411-642		556-587			
		n	17		103		4			

Note: High water prevented the collection of ASL samples late in the season. Samples were not applied to the escapement. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 61.–Age-sex composition and mean length (mm) of Kuskokwim Area coho salmon that escaped past the Kwethluk River weir, 2012.

			Brood Year (Age)							
			2009		2008		2007			
			1.1		2.1		3.1		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
7/30, 7/31, 8/01, 8/05, 8/06, 8/09, 8/10, 8/14, 8/20, 8/21, 8/22, 8/23, 8/27, 8/28, 8/29, 8/30, 8/31, 9/04, 9/05	543	Male	2,161	10.8	7,295	36.5	223	1.1	9,679	48.5
		Female	2,033	10.2	7,958	39.9	290	1.5	10,281	51.5
		Total	4,194	21.0	15,252	76.4	513	2.6	19,960	100.0
		95% C.I. (± %)		3.6		3.8		1.4		0.1
		Male Mean Length	534		543		534			
		SE	5		3		10			
		Range	470-600		435-625		485-605			
		n	57		204		8			
		Female Mean Length	536		550		551			
		SE	4		2		8			
		Range	455-590		480-635		525-570			
		n	50		217		7			

Note: Kwethluk weir is operated by USFWS. Summary was produced by ADF&G and may differ from estimates reported by USFWS. Weir was not operational during much of the season due to high water. Samples were used to estimate total number and percent of observed escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 62.–Age-sex composition and mean length (mm) of Kuskokwim Area coho salmon sampled at the Tuluksak River weir, 2012.

			Brood Year (Age)									
			2009		2008		2007		2006			
			1.1		2.1		3.1		4.1		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%	N	%
8/14, 8/15, 8/17, 8/18, 8/19, 8/21, 8/22, 8/23	112	Male	100	2.3	2,019	45.8	85	1.9	0	0.0	2,203	50.0
		Female	209	4.8	1,894	43.0	75	1.7	25	0.6	2,204	50.0
		Total	309	7.0	3,913	88.8	160	3.6	25	0.6	4,407	100.0
		95% C.I. (± %)		4.9		6.3		4.2		1.1		0.6
		Male Mean Length	494		488		557		-			
		SE	9		8		-		-			
		Range	470-510		410-562		-		-			
		n	4		45		1		-			
		Female Mean Length	526		500		492		410			
		SE	17		4		9		-			
		Range	406-560		420-581		480-510		-			
		n	6		52		3		1			

Note: Tuluksak weir is operated by USFWS. Summary was produced by ADF&G and may differ from estimates reported by USFWS. Samples were used to estimate total number and percent of escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 63.–Age-sex composition and mean length (mm) of Kuskokwim Area coho salmon that escaped past the George River weir, 2012.

			Brood Year (Age)							
			2009		2008		2007			
			1.1		2.1		3.1		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
8/19, 8/20, 8/21, 8/22, 9/01, 9/02, 9/03, 9/04	366	Male	247	1.6	6,177	40.4	1,507	9.9	7,931	51.9
		Female	40	0.3	5,059	33.1	2,243	14.7	7,342	48.1
		Total	287	1.9	11,236	73.6	3,750	24.6	15,273	100.0
		95% C.I. (± %)		1.4		4.5		4.3		0.1
		Male Mean Length	468		495		506			
		SE	15		4		7			
		Range	408-517		412-601		410-603			
		n	6		149		36			
		Female Mean Length	555		514		513			
		SE	-		3		5			
		Range	-		436-604		420-574			
		n	1		121		53			

Note: Samples were used to estimate total number and percent of escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 64.–Age-sex composition and mean length (mm) of Kuskokwim Area coho salmon sampled at the Tatlawiksuk River weir, 2012.

			Brood Year (Age)							
			2009		2008		2007			
			1.1		2.1		3.1		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
8/14, 8/15, 8/16, 8/22, 8/23, 8/24, 8/25	323	Male	447	5.5	3,583	44.4	68	0.8	4,098	50.8
		Female	185	2.3	3,710	46.0	77	1.0	3,972	49.2
		Total	632	7.8	7,293	90.4	145	1.8	8,070	100.0
		95% C.I. (± %)		2.9		3.2		1.4		0.1
		Male Mean Length	513		509		540			
		SE	9		4		18			
		Range	416-575		393-605		515-574			
		n	17		145		3			
		Female Mean Length	520		521		533			
		SE	11		3		11			
		Range	488-575		393-599		515-545			
		n	7		147		3			

Note: Samples were used to estimate total number and percent of escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 65.–Age-sex composition and mean length (mm) of Kuskokwim Area coho salmon sampled at the Kogrukluk River weir, 2012.

			Brood Year (Age)							
			2009		2008		2007			
			1.1		2.1		3.1		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
8/24, 8/25, 8/26, 8/28, 9/15	187	Male	10	5.3	78	41.7	8	4.3	96	51.3
		Female	8	4.3	79	42.2	4	2.1	91	48.7
		Total	18	9.6	157	84.0	12	6.4	187	100.0
		Male Mean Length	479		495		472			
		SE	11		4		13			
		Range	400-535		420-564		397-526			
		n	10		78		8			
		Female Mean Length	482		502		516			
		SE	7		3		18			
		Range	460-511		431-570		473-558			
		n	8		79		4			

Note: High water prevented collection of ASL samples late in the season. Samples were not applied to the escapement. Statistics shown represent the number, mean length, and percent composition of the samples by age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 66.–Age-sex composition and mean length (mm) of Kuskokwim Area coho salmon that escaped past the Takotna River weir, 2012.

			Brood Year (Age)							
			2009		2008		2007			
			1.1		2.1		3.1		Total	
Sample Dates	Sample Size		N	%	N	%	N	%	N	%
8/21, 8/22, 8/23, 8/24, 8/30, 8/31, 9/1, 9/2, 9/3	349	Male	21	1.1	874	47.5	89	4.9	984	53.5
		Female	37	2.0	724	39.4	93	5.0	854	46.5
		Total	58	3.2	1,598	86.9	182	9.9	1,838	100.0
		95% C.I. (± %)		1.7		3.2		2.8		0.1
		Male Mean Length	473		510		507			
		SE	5		3		8			
		Range	444-529		402-603		449-559			
		n	4		165		17			
		Female Mean Length	524		520		521			
		SE	12		2		7			
		Range	476-571		446-581		479-579			
		n	7		138		18			

Note: Samples were used to estimate total number and percent of escapement by age and sex category. Samples were used to estimate mean length and summary statistics for each age and sex category. Discrepancies in sums or statistics are attributed to rounding errors.

Table 67.–Estimated age and sex composition, mean length, and total number of Kuskokwim Area Chinook salmon harvested in the W1 commercial gillnet fishery, 1964–2012

Year	Sample Size	Total Harvest	Percent by Age Class												Percent Females	Mean Length (mm)
			(0.2)	(1.1)	(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)		
1964	535	17,149	0.0	0.0	0.5	0.0	19.6	1.0	58.8	4.3	9.0	6.8	0.0	0.0	52.8	911
1965	322	21,989	0.0	0.0	0.0	0.0	43.4	0.0	27.5	5.0	12.8	9.4	0.0	1.9	45.1	884
1966	468	25,545	0.0	0.0	0.2	0.0	12.4	0.0	85.1	0.0	2.3	0.0	0.0	0.0	50.3	911
1967	654	29,986	0.0	0.0	0.1	0.0	8.2	0.0	74.4	0.0	17.3	0.0	0.0	0.0	55.8	880
1968	540	34,278	0.0	0.0	3.9	0.0	25.1	0.0	49.2	2.0	19.0	0.8	0.0	0.0	42.6	848
1969 [a]		43,997														
1970 [a]		39,290														
1971	791	40,274	0.0	0.0	2.9	0.1	23.0	0.0	73.3	0.0	0.7	0.0	0.0	0.0	53.0	865
1972	500	39,454	0.0	0.0	0.0	0.0	20.3	0.0	74.7	0.0	5.0	0.0	0.0	0.0	50.4	877
1973	470	32,838	0.0	0.0	2.3	0.0	25.7	0.0	65.4	0.0	6.6	0.0	0.0	0.0	55.3	857
1974 [b]	42	18,664														
1975 [b]	307	22,135														
1976 [a]		30,735														
1977	234	35,830	0.0	0.0	0.7	0.0	31.2	0.0	65.3	0.0	2.8	0.0	0.0	0.0	36.3	836
1978	289	45,641	0.0	0.0	0.2	0.0	12.8	0.0	82.2	0.0	4.8	0.0	0.0	0.0	58.2	856
1979 [b]	302	38,966														
1980	273	35,881	0.0	0.0	10.9	0.0	65.1	0.0	20.7	0.0	3.2	0.0	0.0	0.0	29.0	759
1981	467	47,663	0.0	0.0	7.7	0.0	40.5	0.0	48.5	0.0	3.3	0.0	0.0	0.0	39.0	794
1982	715	48,234	0.0	0.3	10.4	0.0	23.2	0.0	63.1	0.0	2.8	0.1	0.0	0.0	41.1	791
1983	1,255	33,174	0.0	1.5	21.1	0.0	19.5	0.0	52.2	0.0	5.1	0.6	0.0	0.0	36.8	812
1984	664	31,742	0.0	0.7	12.3	0.1	39.0	0.4	36.7	1.3	8.1	1.4	0.0	0.0	29.9	783
1985	634	37,889	0.0	0.0	34.5	0.0	29.7	0.4	31.8	0.0	3.6	0.0	0.0	0.0	36.2	713
1986	141	19,414	0.0	2.2	12.5	0.0	56.5	0.0	24.2	0.0	4.6	0.0	0.0	0.0	32.0	715
1987	549	36,179	0.0	0.0	47.2	0.0	15.7	0.0	35.7	0.0	1.5	0.0	0.0	0.0	21.9	632
1988	645	55,716	0.0	0.0	30.9	0.0	44.0	0.0	19.1	0.0	6.0	0.0	0.0	0.0	35.5	699

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Year	Sample Size	Total Harvest	Percent by Age Class												Percent Females	Mean Length (mm)
			(0.2)	(1.1)	(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)		
1989	353	43,217	0.0	0.0	33.1	0.0	24.8	3.5	29.7	1.4	5.2	2.2	0.0	0.0	28.2	719
1990	408	53,504	0.0	0.0	41.4	0.0	37.7	0.0	17.4	0.0	3.5	0.0	0.0	0.0	18.0	691
1991	420	37,778	0.2	0.0	33.0	0.0	30.5	1.9	28.4	1.5	2.8	1.3	0.0	0.5	36.0	712
1992	717	46,872	0.0	1.2	45.7	0.0	27.7	0.2	24.0	0.0	1.0	0.1	0.0	0.0	22.6	658
1993	102	8,735	0.0	0.0	61.6	0.0	21.5	0.0	9.6	4.8	0.5	1.0	0.0	1.0	6.3	621
1994	208	16,211	0.0	0.5	17.3	0.0	50.3	1.9	26.0	1.0	2.0	1.0	0.0	0.0	23.7	708
1995	578	30,846	0.0	0.1	34.2	0.0	15.9	0.0	49.0	0.0	0.8	0.0	0.0	0.0	31.2	715
1996	592	7,419	0.0	0.3	27.7	0.0	42.6	0.0	19.9	0.1	9.4	0.0	0.1	0.0	20.6	686
1997	162	10,441	0.0	0.0	52.5	0.0	16.7	0.0	30.2	0.0	0.6	0.0	0.0	0.0	18.5	673
1998	437	17,359	0.0	1.1	23.8	0.0	59.0	0.0	13.9	0.0	2.2	0.0	0.0	0.0	22.0	692
1999	190	4,705	0.0	0.5	29.5	0.0	23.2	0.0	45.8	0.0	1.1	0.0	0.0	0.0	28.4	704
2000 [a]		444														
2001 [b]	20	90														
2002 [b]		72														
2003 [a]		158														
2004	353	2,305	0.0	1.2	58.2	0.0	25.4	0.0	14.6	0.0	0.6	0.0	0.0	0.0	11.6	645
2005	488	4,784	0.0	0.0	36.8	0.0	48.0	0.2	14.8	0.0	0.2	0.0	0.0	0.0	16.0	667
2006 [c]	184	2,777	0.0	1.1	60.9	0.0	27.2	0.0	10.3	0.0	0.5	0.0	0.0	0.0	7.1	617
2007 [b]		179														
2008	455	8,865	0.0	0.0	40.3	0.0	46.6	0.3	10.0	1.3	1.5	0.0	0.0	0.0	10.4	627
2009	388	6,664	0.0	0.0	41.9	0.0	30.0	0.5	26.3	0.0	1.0	0.2	0.0	0.0	20.1	673
2010	290	2,731	0.0	0.0	35.6	0.0	38.7	0.0	24.9	0.0	0.3	0.4	0.0	0.0	29.0	660
2011 [bd]	13	49														
2012 [ad]		14														

Source: Harvest data for years 1964 to 2010 were from Brazil et al. 2011. Data for 2011 and 2012 are from the ADF&G Fish Ticket Database.

Note: Harvest totals are Districts W1 and W2 combined. From 1964 to 1971 mesh size was unrestricted, from 1972 to 1984, both restricted (≤ 6 inch) and unrestricted mesh sizes were used, since 1985 mesh size has been restricted (≤ 6 inch).

[a] ASL data were not collected.

[b] Sampling was not appropriate for estimating ASL composition for the season.

[c] Samples were collected, are archived at ADF&G, but data are not available through the AYK DBMS.

[d] Sale of Chinook salmon was prohibited.

Table 68.–Estimated age and sex composition, mean length, and total number of Kuskokwim Area Chinook salmon harvested in the W4 commercial gillnet fishery, 1969–2012.

Year	Sample Size	Total Harvest	Percent by Age Class													Percent Females	Mean Length (mm)
			(0.2)	(1.1)	(0.3)	(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)		
1969	204	16,802	0.0	1.7	0.0	31.1	0.0	19.3	0.0	39.8	0.0	6.7	1.3	0.0	0.0	39.1	709
1970	259	18,269	0.0	0.0	0.0	19.4	0.0	34.6	0.2	34.5	2.4	7.7	1.1	0.0	0.0	30.1	727
1971 [a]		4,185															
1972 [a]		15,880															
1973	213	14,993	0.0	0.0	0.0	6.1	0.0	11.0	0.0	70.8	0.0	12.1	0.0	0.0	0.0	53.8	848
1974	150	8,704	0.0	1.4	0.0	30.9	0.0	13.6	0.0	25.0	0.0	29.1	0.0	0.0	0.0	32.8	771
1975	198	3,928	0.0	1.1	0.0	33.3	0.0	44.6	0.0	16.3	0.0	4.7	0.0	0.0	0.0	26.1	679
1976	349	14,110	0.0	0.0	0.0	49.5	0.0	32.2	0.0	17.5	0.0	0.7	0.0	0.0	0.0	23.8	656
1977	480	19,090	0.0	0.0	0.0	2.5	0.0	39.0	0.0	56.5	0.0	2.0	0.0	0.0	0.0	49.0	818
1978	234	12,335	0.0	0.0	0.0	0.0	0.0	3.0	0.0	91.9	0.0	4.3	0.0	0.8	0.0	52.4	887
1979 [b]	377	11,144															
1980	495	10,387	0.0	4.6	0.0	29.6	0.0	40.8	0.2	20.2	0.8	3.6	0.2	0.0	0.0	43.1	705
1981	612	24,524	0.0	0.1	0.0	55.1	0.0	23.6	0.0	19.2	0.0	1.9	0.0	0.0	0.0	57.9	667
1982 [b]	715	22,106															
1983	762	46,385	0.0	0.3	0.0	26.2	0.0	7.2	0.0	64.0	0.0	2.3	0.0	0.0	0.0	39.1	779
1984	583	33,663	0.0	0.0	0.0	12.7	0.0	55.0	0.0	25.1	0.0	7.2	0.0	0.0	0.0	15.2	719
1985	568	30,401	0.0	0.0	0.0	19.4	0.0	23.1	0.0	55.3	0.0	2.2	0.0	0.0	0.0	32.3	778
1986	502	22,835	0.0	1.6	0.0	5.8	0.0	45.5	0.0	35.1	0.0	12.1	0.0	0.0	0.0	28.8	771
1987	524	26,022	0.0	0.5	0.0	27.0	0.0	17.5	0.0	52.5	0.0	2.5	0.0	0.0	0.0	16.3	738
1988	591	13,883	0.0	0.0	0.0	24.0	0.0	33.4	0.0	30.5	0.0	12.1	0.0	0.0	0.0	38.6	749
1989	422	20,820	0.0	2.2	0.0	20.4	0.0	18.8	0.0	53.3	0.0	5.3	0.0	0.0	0.0	46.0	780
1990	349	27,644	0.0	0.0	0.0	21.8	0.0	34.9	0.0	31.2	0.1	10.7	0.3	0.5	0.1	38.8	743
1991	503	9,480	0.0	0.1	0.0	18.5	0.0	25.8	0.0	48.4	0.4	6.6	0.0	0.0	0.1	39.5	768
1992	501	17,197	0.0	4.9	0.0	31.3	0.0	35.3	0.0	24.7	0.0	3.7	0.0	0.0	0.0	66.1	N/A
1993	337	15,784	0.0	0.0	0.0	36.4	0.0	27.9	0.3	30.9	1.0	3.3	0.2	0.0	0.0	38.5	706
1994	326	8,564	0.0	1.1	0.0	17.2	0.0	40.3	0.0	36.6	0.0	4.4	0.3	0.0	0.0	45.1	739
1995	603	38,584	0.0	0.0	0.0	23.6	0.0	15.8	0.0	60.0	0.0	0.6	0.0	0.0	0.0	44.4	761

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Table 68.–Page 2 of 2.

Year	Sample Size	Total Harvest	Percent by Age Class													Percent Females	Mean Length (mm)
			(0.2)	(1.1)	(0.3)	(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)		
1996 [c]	399	14,165															
1997	573	35,510	0.0	1.1	0.0	35.2	0.1	12.0	0.0	51.0	0.0	0.6	0.0	0.0	0.0	35.0	710
1998	724	23,158	0.0	3.1	0.0	24.1	0.0	51.3	0.0	19.4	0.0	2.1	0.0	0.0	0.0	20.7	692
1999	662	18,426	0.0	0.4	0.0	29.8	0.0	22.2	0.1	45.6	0.0	1.6	0.2	0.0	0.0	30.2	718
2000	480	21,229	0.0	0.7	0.0	13.3	0.0	43.0	0.0	40.5	0.0	2.4	0.0	0.0	0.0	30.4	734
2001	570	12,775	0.0	0.3	0.0	9.6	0.0	13.5	0.0	75.3	0.0	1.2	0.0	0.0	0.0	39.5	791
2002	436	11,480	0.0	1.0	0.0	30.8	0.0	27.6	0.0	36.3	0.0	4.3	0.0	0.0	0.0	23.3	687
2003	547	14,444	0.0	2.9	0.0	27.6	0.0	34.3	0.0	32.6	0.0	2.5	0.0	0.0	0.0	23.7	681
2004	208	25,465	0.0	0.5	0.0	46.6	0.0	29.4	0.0	21.7	0.0	1.9	0.0	0.0	0.0	14.0	677
2005	866	24,195	0.0	0.5	0.0	22.1	0.0	49.4	0.0a	27.3	0.0	0.7	0.0	0.0	0.0	25.8	717
2006	658	19,184	0.0	0.2	0.0	32.9	0.0	30.9	0.3	33.4	0.0	2.3	0.0	0.0	0.0	26.9	696
2007	615	19,573	0.0	0.4	0.0	36.0	0.0	23.2	0.0	38.0	0.2	1.6	0.6	0.0	0.0	26.9	687
2008	529	13,812	0.0	0.0	0.0	30.3	0.0	42.4	0.0	25.7	0.0	1.1	0.5	0.0	0.0	24.0	678
2009	567	13,920	0.0	1.5	0.0	44.5	0.0	26.9	0.5	26.0	0.1	0.4	0.1	0.0	0.0	17.6	657
2010	479	14,230	0.0	2.0	0.0	22.7	0.0	50.3	0.0	24.5	0.0	0.5	0.0	0.0	0.0	28.4	692
2011	749	15,387	0.0	1.4	0.0	42.0	0.0	32.7	0.5	22.1	0.4	0.8	0.2	0.0	0.0	20.1	658
2012	789	6,675	0.4	0.5	0.1	28.8	0.1	38.5	0.5	30.5	0.0	0.6	0.0	0.0	0.0	33.6	700

Source: Harvest data for years 1996–2010 were from Brazil et al. 2011. Data for 2011 and 2012 are from the ADF&G Fish Ticket Database.

Note: From 1969 to 1971 mesh size was unrestricted, from 1972 to 1984 both restricted (≤ 6 inch) and unrestricted mesh sizes were used, and since 1985 mesh size has been restricted mesh (≤ 6 inch). N/A designates years when length data were not available or not summarized.

[a] ASL data were not collected.

[b] Samples were not summaries in Molyneaux et al. 2010.

[c] Sampling was not appropriate for estimating ASL composition for the season.

Table 69.–Estimated age and sex composition, mean length, and total number of Kuskokwim Area Chinook salmon harvest in the W5 commercial gillnet fishery, 1990–2012.

Year	Sample Size	Total Harvest	Percent by Age Class												Percent Females	Mean Length (mm)
			(0.2)	(1.1)	(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)		
1990 [a]	148	3,303														
1991	258	912	0.0	0.0	27.9	0.0	41.5	0.2	24.1	0.0	3.6	2.3	0.0	0.4	38.6	N/A
1992	140	3,528	0.0	0.7	29.9	0.0	35.3	1.1	30.5	0.0	1.5	1.1	0.0	0.0	35.2	N/A
1993 [a]	152	2,117														
1994 [a]	150	2,570														
1995 [a]	196	2,922														
1996 [b]		1,375														
1997	471	2,039	0.0	0.9	46.6	0.0	12.3	0.0	38.8	0.0	1.4	0.0	0.0	0.0	32.1	714
1998	404	3,675	0.0	1.5	16.2	0.0	57.6	0.0	22.3	0.0	2.4	0.0	0.0	0.0	25.8	722
1999 [a]	312	1,888														
2000	376	4,442	0.0	0.0	20.4	0.0	58.4	0.0	19.5	0.0	1.7	0.0	0.0	0.0	51.7	705
2001	262	1,519	0.0	0.2	12.5	0.0	22.4	0.0	63.1	0.0	1.8	0.0	0.0	0.0	60.1	775
2002	164	979	0.0	0.8	38.2	0.0	31.4	0.0	27.9	0.0	1.7	0.0	0.0	0.0	22.0	644
2003 [a]	142	1,412														742
2004	129	2,565	0.0	0.0	53.2	0.0	26.1	0.0	16.3	0.0	4.5	0.0	0.0	0.0	N/A	655
2005 [a]	208	2,035														683
2006	182	2,892	0.0	0.0	33.0	0.0	45.1	0.0	20.3	0.0	1.6	0.0	0.0	0.0	17.6	674
2007	369	3,126	0.0	0.0	39.8	0.0	21.9	0.0	35.0	0.6	0.4	2.3	0.0	0.0	27.5	696
2008 [b]		1,281														
2009	515	1,509	0.0	0.3	52.9	0.0	19.2	0.2	26.1	0.8	0.5	0.0	0.0	0.0	21.3	643
2010	621	1,752	0.0	2.2	32.3	0.0	50.8	0.2	13.7	0.0	0.9	0.0	0.0	0.0	23.4	666
2011	540	2,091	0.0	0.2	62.6	0.0	21.4	0.3	15.1	0.0	0.4	0.0	0.0	0.0	12.1	611
2012	664	1,531	0.0	0.0	19.2	0.0	65.6	0.2	15.1	0.0	0.0	0.0	0.0	0.0	28.7	703

Source: Harvest data for years 1990–2010 are from Brazil et al. 2011. Data for 2011 and 2012 are from the ADF&G Fish Ticket Database.

Note: From 1990 to 2012 restricted mesh (≤ 6 inch) gillnets were used. ASL samples are available discontinuously back to 1973 but summaries have not been produced. N/A designates years when data were not available or not summarized.

[a] Sampling was not appropriate for estimating ASL composition for the season.

[b] ASL data were not collected.

Table 70.–Estimated age and sex composition, mean length, and total number of Chinook salmon harvest in the lower Kuskokwim River subsistence fishery, 2001–2012.

Year	Number of Samplers	Sample Size	Total Harvest	Percent by Age Class											Percent Females	Mean Length (mm)
				(1.1)	(0.3)	(1.2)	(0.4)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)		
2001	18	1,059	78,009	0.0	0.0	4.7	0.0	30.2	0.0	60.6	0.0	4.3	0.1	0.0	33.6	777
2002	24	2,015	80,982	0.0	0.0	7.8	0.0	33.0	0.0 [a]	53.9	0.0	5.2	0.0	0.0 [a]	40.5	769
2003	32	2,035	67,134	0.2	0.0	6.7	0.0	44.2	0.0	42.1	0.0	6.7	0.0	0.0	37.3	781
2004	21	2,032	96,788	0.1	0.0	15.2	0.0	35.9	0.3	45.9	0.0 [a]	2.6	0.0	0.0	33.2	759
2005	30	2,409	85,090	0.0 [a]	0.0	5.4	0.0	49.8	0.0	42.7	0.2	1.8	0.1	0.0	36.7	776
2006	23	1,684	90,085	0.2	0.0	6.3	0.0	35.7	0.1	53.3	0.2	4.1	0.1	0.0	42.3	787
2007	32	1,987	96,155	0.0	0.0	6.5	0.0	37.1	0.0	52.8	0.3	2.6	0.7	0.0	42.2	734
2008	46	2,802	98,521	0.2	0.0	8.2	0.0	53.8	0.0 [a]	34.3	0.6	2.6	0.2	0.0	33.8	752
2009	54	3,606	78,491	0.1	0.0	10.0	0.0	34.7	0.1	53.6	0.1	1.3	0.1	0.0 [a]	38.0	770
2010	35	1,695	66,056	0.1	0.1	7.8	0.1	49.2	0.1	39.7	0.0	3.0	0.0	0.0	42.4	773
2011	20	968	NA [b]	0.3	0.0	13.3	0.0	47.7	0.0	36.5	0.2	1.9	0.0	0.1	34.4	746
2012	8	265	NA [b]	0.0	0.0	14.0	0.0	52.8	0.0	30.2	0.4	2.6	0.0	0.0	32.1	758

Source: Estimates of total Kuskokwim River harvest (inclusive of North Kuskokwim Bay) are from Carroll and Hamazaki 2012.

Note: Samples were collected by subsistence fishermen who sampled their own harvests or the harvests of others.

[a] Age class was present but represented less than 0.1%

[b] Harvest estimates were not available for publication. Contact Chris Shelden, ADF&G, Division of Commercial Fisheries, Anchorage.

Table 71.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area Chinook salmon past the Middle Fork Goodnews River weir, 1991–2012.

Year	Sample Size	Total Escapement	Percent by Age Class									Percent Females
			(1.1)	(1.2)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(2.5)	
1991	279	1,952	0.0	17.3	32.0	0.0	39.1	0.0	11.0	0.3	0.3	44.7
1992 [a]	70	1,905										
1993 [a]	31	2,349										
1994 [a]	208	3,856										
1995	308	4,836	0.0	17.4	17.5	0.0	64.3	0.0	0.8	0.0	0.0	43.8
1996 [a]	42	2,931										
1997	121	2,937	0.6	60.3	9.1	0.0	30.0	0.0	0.0	0.0	0.0	25.0
1998 [a]	8	4,584										
1999 [a]	28	3,221										35.7
2000	214	2,500	1.1	11.9	63.9	0.0	22.2	0.0	0.9	0.0	0.0	32.0
2001 [a]	39	5,351										46.2
2002	199	3,085	0.0	31.0	23.7	0.0	41.1	0.0	4.2	0.0	0.0	32.2
2003	241	2,389	3.2	13.6	44.1	0.0	34.4	0.0	4.7	0.0	0.0	41.6
2004 [a]	174	4,388										
2005 [a]	155	4,633										
2006 [a]	57	4,559										
2007	209	3,852	1.2	33.7	27.2	0.0	34.8	0.3	1.2	1.6	0.0	37.2
2008	123	2,161	7.8	17.5	42.0	0.0	26.1	0.0	6.5	0.0	0.0	46.6
2009 [a]	57	1,630										47.4
2010 [a]	76	2,244										
2011 [a]	44	1,861										
2012 [a]	45	513										

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

Note: N/A designates years when length data were not available or not summarized.

[a] Sampling was not appropriate for estimating ASL composition for the season.

Table 72.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area Chinook salmon past the Kanektok River weir, 2002–2012.

Year	Sample Size	Total Escapement	Percent by Age Class							Percent Females	Mean Length (mm)
			(1.1)	(1.2)	(1.3)	(2.2)	(1.4)	(1.5)	(2.4)		
2002	188	5,343	2.3	22.9	25.0	0.0	43.1	6.6	0.0	37.5	712
2003	174	8,231	2.3	23.6	35.3	0.0	36.7	2.0	0.0	32.7	704
2004	428	19,528	0.2	58.3	25.2	0.0	15.6	0.7	0.0	13.6	658
2005 [a]	224	14,331									
2006 [b]											
2007	431	14,120	0.9	32.9	19.1	0.0	44.2	2.7	0.2	34.9	706
2008 [a]	34	6,578									
2009	468	6,841	0.4	26.2	23.2	0.2	49.5	0.2	0.2	37.3	740
2010	224	5,799	0.9	35.2	44.0	0.4	19.1	0.5	0.0	23.7	659
2011	159	5,032	0.0	59.2	27.9	0.0	12.9	0.0	0.0	22.0	617
2012 [a]	48	1,568									

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

[a] Sampling was not appropriate for estimating ASL composition for the season.

[b] Weir did not operate.

Table 73.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area Chinook salmon past the Kwethluk River weir, 1992 and 2000–2012.

Year	Sample Size	Total Escapement	Percent by Age Class								Percent Females	Mean Length (mm)
			(1.1)	(1.2)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)		
1992	759	9,675	6.6	37.6	23.8	0.4	30.1	0.1	1.2	0.1	25.0	649
2000	301	3,547	0.0	29.9	36.4	0.0	27.5	0.0	6.2	0.0	21.7	688
2001 [ab]	2	129										
2002	807	8,502	0.0	44.4	33.1	0.0	20.6	0.0	1.9	0.0	20.8	655
2003	1,133	14,474	0.3	30.7	43.3	0.0	23.2	0.0	2.5	0.0	18.3	688
2004	1,151	28,604	0.7	56.1	22.7	0.1	19.9	0.0	0.6	0.0	16.7	672
2005 [c]												
2006	923	17,618	0.3	32.4	22.5	0.0	40.1	0.0	4.6	0.0	39.9	736
2007	836	12,927	0.2	44.8	30.8	0.0	22.6	0.0	1.7	0.0	25.4	665
2008	567	5,275	0.0	19.5	42.3	0.1	34.0	0.7	3.4	0.0	34.5	759
2009	488	5,744	0.0	22.6	27.8	1.0	48.1	0.0	0.5	0.0	42.3	779
2010	334	1,669	0.0	16.8	43.3	0.0	35.8	0.0	4.0	0.0	50.3	759
2011	582	4,079	0.0	28.2	25.8	0.2	43.6	0.3	1.8	0.0	34.1	736
2012 [ad]	86	945	0.0	12.3	68.9	0.0	18.9	0.0	0.0	0.0	40.6	740

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

Note: The Kwethluk River weir is operated by USFWS. Summaries were generated by the ADF&G and may not be consistent with published USFWS data.

[a] Weir did not operate for much of the season. Escapement shown is partial.

[b] Sampling was not appropriate for estimating ASL composition for the season.

[c] Weir did not operate.

[d] Samples were applied to observed escapement.

Table 74.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area Chinook salmon past the Tuluksak River weir, 1991–1994 and 2001–2012.

Year	Sample Size	Total Escapement	Percent by Age Class												Percent Females	Mean Length (mm)
			(0.2)	(1.1)	(1.2)	(2.1)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)		
1991	346	697	0.0	0.0	16.0	0.0	20.9	10.2	33.2	6.9	8.2	3.0	0.3	1.3	29.1	715
1992	538	1,083	0.0	8.8	38.8	0.0	32.6	2.3	15.4	0.5	1.5	0.0	0.0	0.0	14.7	639
1993	619	2,218	0.0	1.2	52.0	0.0	28.2	0.6	15.9	0.8	0.9	0.3	0.0	0.0	13.8	637
1994	475	2,917	0.2	1.2	18.8	0.4	52.9	1.3	17.9	3.7	0.5	3.0	0.0	0.0	23.1	710
2001 [a]	22	998														
2002	188	1,346	0.0	2.4	38.0	0.0	30.9	0.0	27.5	0.0	2.4	0.0	0.0	0.0	37.8	684
2003	225	1,064	0.0	0.2	33.4	0.0	39.8	0.0	22.4	0.0	4.2	0.0	0.0	0.0	30.5	709
2004	255	1,475	0.0	0.8	24.6	0.0	62.4	0.0	31.2	0.0	1.0	0.0	0.0	0.0	35.6	730
2005	438	2,653	0.0	0.0	31.7	0.0	33.3	0.0	34.4	0.0	0.7	0.0	0.0	0.0	40.8	696
2006	149	1,043	0.0	0.0	36.5	0.0	32.8	0.0	28.3	0.0	2.4	0.0	0.0	0.0	27.7	691
2007	197	374	0.0	1.0	13.1	0.0	27.0	0.0	55.7	0.0	3.1	0.0	0.0	0.0	48.5	757
2008	255	701	0.0	0.0	15.8	0.0	49.3	0.2	30.2	2.0	2.5	0.0	0.0	0.0	51.4	761
2009	220	362	0.0	0.0	20.9	0.0	34.1	0.8	43.1	0.0	1.2	0.0	0.0	0.0	45.9	739
2010	85	201	0.0	0.0	52.9	0.0	35.3	0.0	10.6	0.0	1.2	0.0	0.0	0.0	29.4	636
2011 [a]	19	284														
2012 [a]	3	560														

Source: Escapement data are from the Kuskokwin Area master escapement file maintained by ADF&G Kuskokwim Research Group.

Note: The Tuluksak River weir is operated by USFWS. Summaries were generated by the ADF&G and may not be consistent with published USFWS data.

[a] Sampling was not appropriate for estimating ASL composition for the season.

Table 75.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim River Chinook salmon past the George River weir, 1996–2012.

Year	Sample Size	Total Escapement	Percent by Age Class									Percent Females	Mean Length (mm)
			(0.2)	(1.1)	(1.2)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)		
1996	191	7,716	0.0	0.0	7.1	23.2	0.4	39.8	0.0	29.4	0.0	44.3	816
1997	269	7,823	0.0	0.0	34.6	11.7	0.0	53.7	0.0	0.0	0.0	37.4	736
1998 [a]	75	2,505											
1999 [a]	54	3,548											
2000 [a]	72	2,960											
2001	62	3,309	0.0	0.0	12.5	30.9	0.0	48.8	0.0	8.1	0.0	33.0	757
2002	315	2,444	0.0	0.0	12.6	18.3	0.0	60.9	0.0	8.2	0.0	40.6	759
2003 [a]	23	4,693											
2004	269	5,207	0.0	0.5	25.9	21.2	0.0	49.6	0.0	2.7	0.0	37.7	763
2005	471	3,845	0.0	0.0	10.6	43.9	0.0	40.7	1.2	3.3	0.3	35.7	756
2006	223	4,357	0.0	0.2	24.9	28.2	0.0	35.8	0.0	10.8	0.0	35.1	736
2007 [a]	249	4,883											
2008	288	2,698	0.0	0.0	19.8	48.7	0.0	27.3	1.0	3.2	0.0	27.9	699
2009	152	3,663	0.0	0.0	21.1	25.0	0.0	52.0	0.0	1.0	0.9	41.9	762
2010	163	1,500	0.0	1.1	35.8	27.9	0.0	29.9	0.0	5.3	0.0	30.6	647
2011	167	1,571	0.0	1.2	35.2	33.5	0.0	27.7	0.4	1.7	0.4	37.5	686
2012	138	2,302	0.6	0.0	30.2	41.2	0.0	25.6	1.4	1.1	0.0	30.5	695

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

[a] Sampling was not appropriate for estimating ASL composition for the season.

Table 76.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area Chinook salmon past the Tatlawiksuk River weir, 1998–2012.

Year	Sample Size	Total Escapement	Percent by Age Class								Percent Females	Mean Length (mm)
			(1.1)	(1.2)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)		
1998 [ab]	15	970										
1999 [b]	7	1,413										
2000 [b]	7	810										
2001 [b]	74	2,010										
2002	279	2,237	0.0	23.2	19.7	0.4	52.9	0.0	3.6	0.0	36.8	716
2003 [ab]	39	601										
2004	301	2,833	0.0	26.5	40.6	0.0	32.9	0.0	0.0	0.0	32.6	716
2005	384	2,918	0.0	13.4	49.5	0.0	35.6	0.0	1.4	0.0	42.6	729
2006	178	1,700	0.0	21.0	44.1	0.0	30.4	0.0	4.6	0.0	41.4	682
2007	275	2,061	0.4	34.7	43.9	0.0	19.7	0.0	1.0	0.4	27.2	653
2008	93	1,071	0.0	10.3	57.4	0.0	32.3	0.0	0.0	0.0	39.0	709
2009	93	1,071	0.0	31.7	40.1	0.0	27.5	0.0	0.0	0.8	40.0	730
2010	80	567	1.0	29.4	43.2	0.0	23.3	0.0	2.0	1.1	39.4	706
2011	123	1,012	0.0	45.5	30.2	0.0	21.7	0.0	1.7	0.8	25.5	664
2012	91	1,116	0.0	21.9	61.4	0.0	16.7	0.0	0.0	0.0	42.8	713

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

[a] Weir did not operate for most of the season. Escapement shown is partial.

[b] Sampling was not appropriate for estimating ASL composition for the season.

Table 77.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area Chinook salmon past the Kogrukluk River weir, 1976–2012.

Year	Sample Size	Total Escapement	Percent by Age Class									Percent Females	Mean Length (mm)
			(1.1)	(1.2)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)		
1976	347	5,600	0.0	7.6	40.7	0.4	50.8	0.0	0.4	0.0	0.0	44.7	815
1977 [ab]		1,385											
1978	516	13,667	0.2	17.0	10.5	0.0	55.9	1.4	3.0	12.1	0.0	46.2	849
1979	383	11,338	0.0	66.2	14.4	0.0	16.3	0.0	3.1	0.0	0.0	13.3	691
1980 [ac]	118	843											
1981	797	16,809	0.3	7.4	30.3	0.0	58.2	0.0	3.9	0.0	0.0	44.0	830
1982	392	10,993	0.0	4.1	24.5	0.0	66.3	0.0	5.1	0.0	0.0	51.7	779
1983	448	3,025	0.2	20.0	19.6	0.0	55.9	0.0	4.2	0.0	0.0	30.5	763
1984	1,376	4,928	0.1	22.5	47.5	0.0	26.4	0.0	3.5	0.0	0.1	21.0	701
1985	1,042	4,625	0.0	16.2	35.7	0.0	44.9	0.0	3.2	0.0	0.1	31.5	745
1986	679	5,038	0.4	8.6	50.9	0.0	32.8	0.0	7.2	0.0	0.0	30.4	726
1987 [ac]	141	770											
1988	867	8,520	0.0	8.0	52.7	0.0	31.4	0.0	8.0	0.0	0.0	35.3	728
1989	217	11,940											
1990 [d]	367	10,214										22.2	714
1991	315	7,850	0.0	6.4	29.8	0.3	62.4	0.0	1.1	0.0	0.0	49.3	830
1992 [c]	349	6,755											
1993 [c]	313	12,333											
1994 [c]	232	15,227											
1995	533	18,651	0.0	19.1	25.5	0.0	55.1	0.1	0.2	0.1	0.0	42.9	796
1996	480	14,199	0.0	12.6	54.9	0.0	25.3	0.4	6.8	0.0	0.0	24.0	761
1997	472	13,285	0.0	33.7	20.4	0.0	45.4	0.0	0.4	0.0	0.0	31.4	758
1998 [c]	86	12,107											
1999	305	5,570	0.3	5.4	25.2	0.3	67.3	0.0	1.5	0.0	0.0	53.2	782

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Year	Sample Size	Total Escapement	Percent by Age Class									Percent Females	Mean Length (mm)
2000	98	3,310	0.0	9.9	49.2	0.0	39.1	0.0	1.8	0.0	0.0	41.2	743
2001	397	9,298	0.0	15.3	39.3	0.0	43.8	0.0	1.5	0.0	0.0	28.5	739
2002	466	10,104	0.0	17.4	50.0	0.0	31.2	0.0	1.4	0.0	0.0	25.5	719
2003	373	11,771	0.0	18.7	42.6	0.0	36.0	0.0	2.8	0.0	0.0	31.3	732
2004	731	19,651	0.0	44.7	36.2	0.0	18.5	0.0	0.6	0.0	0.0	16.4	675
2005	734	22,000	0.3	24.3	46.5	0.0	28.1	0.0	0.9	0.0	0.0	34.7	714
2006	711	19,414	0.5	34.9	30.9	0.0	29.4	0.0	4.3	0.0	0.0	33.4	705
2007	289	13,029	0.0	32.3	33.0	0.0	31.7	0.0	2.9	0.0	0.0	28.4	699
2008	296	9,730	0.5	35.9	43.4	0.0	19.1	0.2	1.0	0.0	0.0	23.2	676
2009	245	9,702	0.0	22.2	52.4	0.7	22.9	0.4	1.4	0.0	0.0	28.2	730
2010	298	5,690	0.0	44.0	28.8	0.0	25.6	0.0	1.5	0.0	0.0	26.2	672
2011	268	6,891	0.0	47.2	32.6	0.3	19.5	0.3	0.0	0.0	0.0	20.1	673
2012 [ac]	87	1,156											

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

[a] Weir inoperable for a majority of the season. Escapement shown is partial.

[b] ASL Samples were not collected.

[c] Sampling was not appropriate for estimating ASL composition for the season.

[d] All 1990 scales need re-aged due to potential errors.

Table 78.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area Chinook salmon past the Takotna River weir, 2000–2012.

Year	Sample Size	Total Escapement	Percent by Age Class							Percent Females	Mean Length (mm)
			(1.1)	(1.2)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)		
2000	78	345	1.4	30.7	31.6	0.0	35.7	0.0	0.6	24.6	653
2001 [a]	74	718									
2002	98	316	0.0	22.3	30.4	0.0	46.3	0.0	0.9	30.0	725
2003 [a]	61	354									
2004	69	461									
2005	170	499									
2006	269	537	1.7	42.4	30.2	0.0	23.1	0.0	2.6	23.3	670
2007	269	410	0.0	50.6	33.5	0.0	14.8	0.3	0.8	12.9	620
2008	154	413	0.0	21.8	52.2	0.0	25.2	0.4	0.4	24.6	685
2009	107	311	0.0	28.4	29.7	0.0	41.9	0.0	0.0	41.6	721
2010 [a]	76	178									
2011	56	148	0.0	41.4	40.9	0.0	17.7	0.0	0.0	34.1	668
2012	42	228	0.0	46.4	46.8	0.0	6.9	0.0	0.0	29.4	672

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

[a] Sampling was not appropriate for estimating ASL composition for the season.

Table 79.–Estimated age and sex composition, mean length, and total number of Kuskokwim Area chum salmon harvested in the District W4 commercial gillnet fishery, 1984–2012.

Year	Sample Size	Total Harvest	Percent by Age Class (0.2)	(0.3)	(0.4)	(0.5)	Percent Females	Mean Length (mm)
1984	464	50,422	0.3	75.5	23.6	0.6	54.1	589
1985	457	20,418	0.0	46.2	53.1	0.7	53.5	597
1986	398	29,700	0.0	58.6	41.4	0.0	53.8	584
1987 [a]	241	8,557						
1988	593	29,220	1.3	68.0	29.3	1.4	49.6	583
1989	703	39,395	0.0	49.0	49.7	1.3	53.4	590
1990	618	47,717	0.8	77.3	21.3	0.6	55.0	584
1991	656	54,493	1.0	72.5	26.5	0.0	52.0	565
1992	546	73,383	0.2	35.4	62.9	1.5	52.3	590
1993	398	40,943	0.9	42.2	47.1	9.8	51.1	550
1994 [a]	547	61,301						
1995	598	81,462	7.6	48.5	43.1	0.8	64.1	574
1996 [a]	615	83,005						
1997	1,221	38,445	1.5	37.5	59.9	1.1	54.4	582
1998	857	45,095	0.7	89.0	9.6	0.7	58.5	574
1999	814	38,091	0.2	70.0	29.6	0.2	57.7	583
2000	1,043	30,553	0.5	54.0	44.9	0.6	54.3	595
2001	576	17,209	0.4	49.9	49.5	0.2	59.0	575
2002	449	29,252	4.0	56.9	36.8	2.2	63.8	574
2003	243	27,868	1.1	88.0	9.7	1.3	52.1	562
2004	225	25,820	4.2	40.2	55.0	0.6	44.3	586
2005	958	13,529	0.6	86.0	12.7	0..7	48.0	561
2006 [b]	1,320	39,151	4.6	43.7	51.4	0.4	50.5	559
2007	1,134	61,228	0.0	79.1	19.2	1.8	55.6	549
2008	585	57,033	0.8	34.6	60.5	4.2	47.3	580
2009	1,101	91,158	2.6	69.3	27.1	1.1	55.4	573
2010	1,174	106,610	1.0	66.8	31.0	1.2	46.9	566
2011	903	93,760	1.6	61.2	36.3	1.0	50.2	567
2012	921	61,140	0.6	72.8	24.9	1.7	54.3	570

Source: Harvest data for years 1984–2010 are from Brazil et al. 2011. Data for 2011 and 2012 are from the ADF&G Fish Ticket Database.

Note: Commercial chum salmon fishery was executed using restricted mesh (≤ 6 inch) gillnets.

[a] Sampling was not appropriate for estimating ASL composition for the season.

[b] Samples were collected and are archived at ADF&G, but data are not available through the AYK DBMS.

Table 80.–Estimated age and sex composition, mean length, and total number of Kuskokwim Area chum salmon harvested in the District W5 commercial gillnet fishery, 1984–2012.

Year	Sample Size	Total Harvest	Percent by Age Class (0.2)	(0.3)	(0.4)	(0.5)	Percent Females	Mean Length (mm)
1984 [a]	459	14,340						
1985 [a]	270	4,784						
1986	353	10,356	0.4	69.3	29.4	1.0	48.5	588
1987	430	20,381	0.0	68.2	31.8	0.0	46.7	589
1988	469	33,059	0.3	17.4	80.5	1.7	54.4	606
1989	543	13,622	0.1	45.2	52.5	2.2	39.4	597
1990	359	13,194	0.4	77.6	21.8	0.2	43.9	583
1991	565	15,892	2.0	79.8	18.2	0.0	52.3	571
1992	418	18,520	0.0	14.5	83.5	2.0	59.4	573
1993 [a]	191	10,657						
1994 [a]	512	28,477						
1995 [a]	355	19,832						
1996 [a]	190	11,093						
1997	805	11,729	0.6	30.0	69.0	0.4	51.9	585
1998	469	14,155	0.5	85.7	13.3	0.5	48.6	576
1999	455	11,562	0.2	77.0	22.5	0.3	55.0	579
2000	598	7,450	0.0	42.5	57.1	0.4	60.4	601
2001	647	3,412	0.2	56.9	42.9	0.0	61.4	583
2002	234	3,799	0.3	50.3	47.9	15.0	56.1	590
2003	296	5,593	0.0	88.0	9.3	2.7	44.1	564
2004 [a]	76	5,965						
2005 [a]	105	2,568						
2006 [ab]	193	11,568						
2007 [a]	543	7,853						
2008 [c]		10,408						
2009	1,268	16,985	2.1	40.1	55.6	2.3	37.9	579
2010	752	26,914	1.8	74.5	21.0	2.6	36.2	564
2011	644	13,190	0.2	43.7	55.2	1.0	33.1	567
2012	1,288	24,487	0.3	65.7	30.8	3.2	0.0	570

Source: Harvest data for years 1984–2010 are from Brazil et al. 2011. Data from 2011 and 2012 are from the ADF&G Fish Ticket Database.

Note: Commercial chum salmon fishery was executed using restricted mesh (≤ 6 inch) gillnets.

[a] Samples were not appropriate for estimating ASL composition for the season.

[b] Samples were collected, are archived at ADF&G, but data are not available through the AYK DBMS.

[c] ASL Samples were not collected.

Table 81.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area chum salmon past the Middle Fork Goodnews River weir, 1990–2012.

Year	Sample Size	Total Escapement	Percent by Age Class (0.2)	(0.3)	(0.4)	(0.5)	Percent Females	Mean Length (mm)
1990	139	6,410	0.0	67.9	29.8	2.3	39.4	585
1991	291	31,644	0.0	73.1	26.9	0.0	40.5	566
1992 [a]	493	22,023						
1993 [a]	236	14,952						
1994 [a]	207	34,849						
1995 [a]	280	33,699						
1996 [a]	311	40,450						
1997	526	17,369	0.4	31.5	67.8	0.2	44.4	589
1998	705	28,832	0.3	86.1	13.4	0.2	49.9	578
1999	672	19,513	0.0	65.4	34.3	0.3	49.9	587
2000 [a]	418	13,791						
2001	768	26,820	0.7	70.6	28.7	0.1	55.5	587
2002	725	30,300	2.9	37.1	58.6	1.4	55.0	600
2003	556	21,637	0.7	84.5	12.6	2.3	45.6	572
2004	1,220	31,616	4.2	59.3	36.4	0.1	51.8	579
2005	907	26,690	1.5	83.4	15.0	0.1	52.9	571
2006	776	54,699	1.3	69.7	28.6	0.3	23.9	574
2007	865	49,285	0.8	54.1	44.2	0.9	51.4	570
2008	1,241	44,699	0.3	44.9	49.0	5.7	61.5	578
2009 [a]	196	19,715						
2010	189	26,687	2.1	74.5	22.7	0.7	59.7	564
2011	447	19,974	0.6	44.2	52.6	2.6	43.0	572
2012 [a]	347	10,723						

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

[a] Sampling was not appropriate for estimating ASL composition for the season.

Table 82.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area chum salmon past the Kanektok River weir, 1997 and 2002–2012.

Year	Sample Size	Total Escapement	Percent by Age Class (0.2)	(0.3)	(0.4)	(0.5)	Percent Females	Mean Length (mm)
1997	1,096	51,180	0.9	34.6	63.0	1.5	41.3	589
2002	738	42,009	2.5	43.1	53.0	1.4	57.5	586
2003	733	40,066	0.8	86.8	10.4	1.9	49.6	566
2004	736	46,444	5.7	49.9	44.2	0.3	48.2	568
2005 [a]	894	53,580						
2006 [b]								
2007	1,121	133,215	0.1	63.3	34.7	2.0	48.4	566
2008 [a]	725	54,024						
2009	631	51,652	0.6	68.0	29.4	2.1	35.9	591
2010	663	62,567	1.2	65.1	32.3	1.4	51.5	573
2011	936	50,908	0.2	44.7	53.8	1.3	51.9	570
2012	382	24,173	0.0	56.1	38.1	5.8	47.7	582

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

[a] Sampling was not appropriate for estimating ASL composition for the season.

[b] Weir did not operate.

Table 83.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area chum salmon past the Kwethluk River weir, 1992 and 2000–2012.

Year	Sample Size	Total Escapement	Percent by Age Class (0.2)	(0.3)	(0.4)	(0.5)	Percent Females	Mean Length (mm)
1992	1,198	30,595	1.8	59.2	36.7	2.3	57.7	537
2000	995	11,691	0.7	62.8	36.0	0.5	49.5	570
2001 [ab]	7	353						
2002	1,066	34,681	5.4	71.2	22.1	1.3	47.2	582
2003	1,530	41,812	1.9	85.0	12.1	0.9	45.3	562
2004	1,309	38,646	18.3	40.7	40.9	0.1	42.9	559
2005 [c]								
2006	1,201	47,490	1.5	48.4	49.7	0.4	41.3	567
2007	1,336	57,913	1.8	71.5	23.6	3.2	45.2	558
2008	983	20,030	1.2	22.3	74.4	2.1	43.5	583
2009	1,004	32,191	2.7	79.5	16.2	1.5	47.8	557
2010	909	19,242	2.8	63.5	33.1	0.7	40.8	570
2011	910	18,329	0.3	42.0	55.7	2.0	37.5	563
2012 [bd]	451	4,417	1.0	68.9	26.5	3.7	33.5	570

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

Note: The Kwethluk River weir is operated by USFWS. Summaries were generated by the ADF&G and may not be consistent with published USFWS data.

[a] Sampling was not appropriate for estimating ASL composition for the season.

[b] Weir did not operate for majority of the season. Escapement shown is partial.

[c] Weir did not operate.

[d] Samples were applied to observed escapement.

Table 84.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area chum salmon past the Tuluksak River weir, 1991–1994 and 2001–2012.

Year	Sample Size	Total Escapement	Percent by Age Class (0.2)	(0.3)	(0.4)	(0.5)	(0.6)	Percent Females	Mean Length (mm)
1991	1,083	7,675	4.2	62.0	33.6	0.2	0.0	47.4	541
1992	1,206	11,183	1.0	51.2	45.7	2.1	0.0	51.6	557
1993	1,163	13,804	2.1	36.4	56.5	5.1	0.0	50.1	545
1994	851	15,725	0.6	49.8	44.9	4.7	0.0	51.0	553
2001	808	19,311	0.4	75.1	24.5	0.0	0.0	43.6	564
2002	928	9,958	7.3	53.0	39.1	0.6	0.0	44.3	564
2003	1,103	11,724	2.4	89.5	7.1	1.0	0.0	31.1	556
2004	1,186	11,796	19.4	35.8	44.6	0.3	0.0	42.7	562
2005	1,147	35,696	4.1	93.1	2.6	0.3	0.0	40.3	565
2006	1,056	25,650	3.1	46.3	50.5	0.1	0.0	48.4	551
2007	1,023	17,647	3.0	74.1	20.7	2.1	0.0	32.2	554
2008	1,296	12,550	0.7	16.8	78.1	4.3	0.0	42.7	566
2009	1,122	13,671	3.6	82.4	12.0	2.0	0.0	33.3	548
2010	930	13,042	2.8	68.3	28.3	0.4	0.1	31.8	555
2011	672	10,010	0.4	51.7	47.0	0.9	0.0	35.8	545
2012 [a]	136	16,981							

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

Note: The Tuluksak River weir is operated by USFWS. Summaries were generated by the ADF&G and may not be consistent with published USFWS data.

[a] Sampling was not appropriate for estimating ASL composition for the season.

Table 85.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area chum salmon past the George River weir, 1996–2012.

Year	Sample Size	Total Escapement	Percent by Age Class (0.2)	(0.3)	(0.4)	(0.5)	(0.6)	Percent Females	Mean Length (mm)
1996	765	19,393	1.6	59.9	36.8	1.7	0.0	46.1	582
1997	641	5,907	0.7	51.4	46.3	1.6	0.0	42.8	562
1998 [ab]	322	6,391							
1999 [a]	611	11,552							
2000	235	3,492	1.4	46.7	50.4	1.6	0.0	43.5	580
2001	782	11,601	0.0	66.3	33.7	0.0	0.0	53.8	556
2002	955	6,543	6.4	46.3	45.8	1.5	0.0	47.3	571
2003	597	33,666	1.5	88.2	10.0	0.3	0.0	49.7	540
2004	923	14,409	9.2	38.6	52.0	0.2	0.0	47.9	555
2005	985	14,828	5.2	89.8	4.5	0.6	0.0	46.8	539
2006	934	41,467	3.5	50.8	45.5	0.2	0.0	57.5	542
2007 [a]	705	55,842							
2008	787	29,978	0.6	17.4	78.8	3.2	0.0	48.4	551
2009	690	7,941	10.6	52.7	30.6	6.1	0.0	50.0	545
2010	1,067	26,154	3.9	87.8	7.5	0.7	0.1	51.6	531
2011	1,023	44,640	0.8	50.0	48.8	0.4	0.0	48.2	547
2012	672	34,338	0.0	58.2	33.8	7.9	0.0	52.4	553

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

[a] Sampling was not appropriate for estimating ASL composition for the season.

[b] Weir did not operate for much of the chum salmon run. Escapement shown is partial.

Table 86.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area chum salmon past the Tatlawiksuk River weir, 1998–2012.

Year	Sample Size	Total Escapement	Percent by Age Class (0.2)	(0.3)	(0.4)	(0.5)	Percent Females	Mean Length (mm)
1998 [ab]	330	5,726						
1999	856	9,599	0.1	72.1	27.5	0.3	52.6	575
2000	705	6,965	2.0	57.6	39.9	0.5	48.2	577
2001	847	23,718	0.4	65.7	33.5	0.4	51.0	571
2002	1,346	24,542	6.7	58.6	33.2	1.5	50.3	567
2003 [ab]	57	479						
2004	1,299	21,245	14.6	42.1	43.1	0.2	38.7	565
2005	1,075	55,722	5.2	89.4	5.4	0.0	58.1	557
2006	935	32,301	1.8	55.6	42.3	0.3	42.1	560
2007	920	83,246	3.3	80.2	15.8	0.6	52.3	549
2008	799	30,896	0.5	21.3	76.2	2.0	52.3	559
2009	829	19,975	7.8	64.4	23.9	3.8	51.9	540
2010	1,082	36,701	8.9	82.7	7.9	0.5	51.6	551
2011	938	84,202	0.5	67.9	31.3	0.3	52.5	554
2012	593	44,572	0.6	45.7	49.2	4.5	54.7	560

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

[a] Sampling was not appropriate for estimating ASL composition for the season.

[b] Weir did not operate for much of the season. Escapement shown is partial.

Table 87.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area chum salmon past the Kogrukluk River weir, 1976–2012.

Year	Sample Size	Total Escapement	Percent by Age Class (0.2)	(0.3)	(0.4)	(0.5)	Percent Females	Mean Length (mm)
1976	219	8,117	0.3	37.8	60.5	1.4	18.7	602
1977 [a]								
1978	322	48,125	0.8	49.9	49.3	0.0	44.2	597
1979 [bc]	59	18,599						
1980	83	6,323	0.0	90.5	9.5	0.0	10.2	572
1981	191	57,374	0.0	15.0	84.4	0.6	40.0	601
1982	259	64,077	0.0	59.9	40.0	0.1	48.8	577
1983 [bd]	484	3,257						
1984	1,252	41,484	0.0	81.4	17.4	1.3	36.3	572
1985	874	15,005	0.2	27.9	71.3	0.5	41.7	574
1986	566	14,693	0.5	71.5	25.7	2.3	39.3	574
1987 [bd]	160	2,365						
1988 [c]	665	39,543						
1989 [bd]	147	15,543						
1990	371	26,765	1.4	65.5	31.7	1.4	20.9	585
1991	293	24,188	0.4	57.9	41.6	0.0	15.8	580
1992	362	34,104	2.7	42.9	53.7	0.8	33.0	582
1993	361	31,901	0.0	34.0	61.0	5.0	18.4	589
1994 [b]	125	46,635						
1995	848	31,265	1.4	45.9	51.8	0.8	13.3	587
1996	827	48,494	1.8	67.8	28.8	1.6	15.4	605
1997	641	7,958	0.4	42.9	56.0	0.6	4.1	603
1998 [bd]	193	13,013						
1999	737	13,820	0.0	49.3	50.4	0.3	8.5	593
2000	583	11,491	1.2	67.4	31.0	0.3	15.3	586
2001	738	30,570	0.5	58.5	41.0	0.0	17.4	583
2002	999	51,570	0.2	75.7	23.1	1.1	15.1	579
2003	1,014	23,413	1.8	65.9	31.7	0.6	8.9	573
2004	1,033	24,201	9.2	59.4	30.9	0.5	9.2	565
2005	1,198	197,723	4.0	90.5	5.6	0.0	45.1	545
2006	1,275	180,594	1.6	62.2	36.0	0.3	38.2	550
2007	640	49,505	2.9	59.2	34.9	3.0	37.6	555
2008	524	44,978	1.5	53.8	42.0	2.6	34.9	560
2009	806	84,940	2.6	74.8	21.8	0.8	44..8	561
2010	746	63,583	2.8	62.2	34.1	0.8	45.3	553
2011	788	76,384	1.8	64.2	32.7	1.2	42.0	552
2012 [de]	229	14,296	0.9	71.4	26.0	1.7	23.2	550

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

[a] ASL data were not collected. Weir data not sufficient to produce estimate of escapement.

[b] Sampling was not appropriate for estimating ASL composition for the season.

[c] Historical data summary not available.

[d] Weir was inoperable for much of the season. Escapement shown is partial.

[e] Samples were applied to observed escapement.

Table 88.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area chum salmon past the Takotna River weir, 2000–2012.

Year	Sample Size	Total Escapement	Percent by Age Class (0.2)	(0.3)	(0.4)	(0.5)	Percent Females	Mean Length (mm)
2000	365	1,265	2.7	61.7	35.2	0.4	57.7	559
2001	573	5,411	0.1	75.1	24.7	0.2	50.3	567
2002	824	4,399	2.5	45.6	50.7	1.2	47.0	579
2003	564	3,388	5.0	83.6	10.9	0.5	47.7	559
2004	343	1,633	14.5	47.5	38.1	0.0	49.9	551
2005	836	6,488	8.6	89.9	1.5	0.0	51.3	551
2006	1,169	12,651	2.2	62.2	35.5	0.1	46.9	555
2007	946	8,873	3.4	60.1	33.7	2.7	47.8	547
2008	601	5,704	0.0	32.4	61.3	6.3	49.7	552
2009	948	2,528	3.6	75.8	18.3	2.4	49.4	556
2010	1,023	4,057	10.4	79.6	9.6	0.5	55.0	546
2011	980	8,414	1.9	60.7	37.0	0.4	55.2	545
2012	673	6,050	1.2	43.9	50.0	4.9	48.4	555

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

Table 89.–Estimated age and sex composition, mean length, and total number of Kuskokwim Area sockeye salmon harvested in the District W1 commercial gillnet fishery, 1984–2012.

Year	Sample Size	Total Harvest	Percent by Age Class												Percent Females	Mean Length (mm)
			(0.2)	(1.1)	(0.3)	(1.2)	(0.4)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(3.3)		
1984	296	48,575	0.3	0.3	6.8	9.4	0.3	56.9	6.8	0.6	18.6	0.0	0.0	0.0	52.6	N/A
1985	893	106,647	0.0	0.0	2.7	5.7	1.1	65.6	10.9	1.1	12.9	0.0	0.0	0.0	55.9	N/A
1986	535	95,433	0.0	0.0	2.4	4.6	1.3	64.4	11.6	1.3	14.5	0.0	0.0	0.0	50.3	N/A
1987	567	136,602	0.0	0.0	1.4	6.7	0.4	75.7	1.3	1.3	13.2	0.0	0.0	0.0	53.0	N/A
1988	453	92,025	0.0	0.0	0.2	1.4	0.0	73.0	1.4	2.2	21.0	0.0	0.4	0.4	56.5	N/A
1989	175	42,747	0.0	0.0	0.0	3.4	0.0	59.0	10.3	4.5	21.1	0.0	1.1	0.6	55.5	590
1990	250	84,870	0.0	0.4	0.4	3.6	0.8	77.2	4.8	2.8	10.0	0.0	0.0	0.0	51.2	576
1991	513	108,946	0.3	0.0	1.6	10.0	0.8	81.1	0.8	2.0	3.5	0.0	0.0	0.0	49.8	N/A
1992	504	92,218	0.0	0.0	2.4	6.1	0.8	69.2	3.2	6.3	12.0	0.0	0.0	0.0	51.1	553
1993	186	27,008	0.0	0.0	1.6	22.1	1.1	55.3	9.1	2.2	8.6	0.0	0.0	0.0	50.0	557
1994	173	49,365	0.0	0.0	0.6	1.8	0.0	72.0	0.6	1.8	22.0	0.0	1.2	0.0	49.7	571
1995	419	92,500	0.0	0.0 [a]	1.8	7.8	0.3	81.8	1.7	2.5	4.0	0.0	0.0	0.0	58.3	564
1996	520	33,878	0.2	0.3	6.3	3.5	0.0	82.1	1.5	1.5	4.7	0.0	0.0	0.0	42.9	566
1997	89	21,989	0.0	0.0	0.0	25.8	0.0	50.6	11.2	2.2	10.1	0.0	0.0	0.0	50.6	566
1998	493	60,906	0.0	0.0	1.4	5.9	0.1	62.6	9.4	1.5	18.7	0.0	0.4	0.0	49.6	563
1999	189	16,976	0.0	0.0	0.0	4.2	0.0	65.6	5.8	5.3	19.0	0.0	0.0	0.0	58.7	578
2000	170	4,130	0.0	0.0	2.9	9.4	0.0	60.0	2.4	0.0	25.3	0.0	0.0	0.0	57.1	574
2001 [b]		84														
2002 [b]		84														
2003 [b]		282														
2004 [c]	416	8,532														
2005	551	27,645	0.0	0.0	1.4	8.9	0.0	80.7	0.8	1.2	7.0	0.0	0.0	0.0	54.3	562
2006 [cd]	179	12,618														572
2007 [b]		703														
2008	509	15,601	0.0	0.0	2.5	5.2	0.0	84.5	0.1	4.6	3.0	0.0	0.0	0.0	53.2	550
2009	525	25,673	0.0	0.0	6.9	6.3	0.0	67.4	1.8	12.8	4.8	0.0	0.0	0.0	52.3	557
2010	1,120	22,428	0.0	0.0	3.8	17.3	1.9	66.3	0.3	8.9	1.3	0.0	0.0	0.0	52.5	564
2011	682	13,497	0.0	0.0	13.3	2.5	2.6	64.6	0.6	13.1	2.8	0.1	0.3	0.0	54.7	562
2012	315	2,857	0.0	0.0	4.8	5.7	1.5	72.7	0.8	10.8	3.5	0.3	0.0	0.0	49.3	552

Source: Harvest data for years 1984–2009 are from Brazil et al. 2011. Data for 2011 and 2012 are from the ADF&G Fish Ticket Database.

Note: Harvest data are from Districts W1 and W2 combined. The commercial sockeye salmon fishery was executed using restricted mesh (≤ 6 inch) gillnets. N/A designates years when length data were not available or not summarized.

[a] Age class was represented in samples but percent composition was <0.05.

[b] ASL data were not collected.

[c] Sampling was not appropriate for estimating ASL composition for the season.

[d] Samples were collected, are archived at ADF&G, but data are not available through the AYK DBMS.

Table 90.–Estimated age and sex composition, mean length, and total number of Kuskokwim Area sockeye salmon harvested in the District W4 commercial gillnet fishery, 1990–2012.

Year	Sample Size	Total Harvest	Percent by Age Class												Percent Females	Mean Length (mm)
			(0.2)	(1.1)	(0.3)	(1.2)	(0.4)	(1.3)	(2.2)	(1.4)	(2.3)	(3.2)	(2.4)	(3.3)		
1990	573	83,681	0.2	0.1	6.7	49.3	0.3	41.7	0.1	0.3	1.2	0.0	0.0	0.0	44.0	N/A
1991	420	53,657	0.2	0.0	11.0	10.8	0.9	74.2	0.0	2.6	0.2	0.0	0.0	0.0	57.9	N/A
1992 [a]	255	60,929														
1993	535	80,934	0.9	0.0	8.0	24.2	3.5	55.3	1.4	4.8	1.9	0.0	0.0	0.0	42.6	N/A
1994	527	72,314	0.0	0.0	10.0	14.0	0.3	68.4	0.2	4.4	2.6	0.0	0.1	0.0	46.2	N/A
1995	620	68,194	0.7	0.0	0.0	37.6	0.0	49.8	6.3	4.3	1.3	0.0	0.0	0.0	46.8	540
1996	509	57,665	0.2	0.0	5.8	16.6	0.0	68.1	2.5	0.6	5.8	0.0	0.0	0.3	57.0	559
1997	952	69,562	0.2	0.0	3.2	17.9	3.4	55.2	1.3	10.4	8.5	0.0	0.0	0.0	51.1	561
1998	757	41,382	0.3	0.0	4.0	23.4	0.4	65.3	2.4	1.2	2.9	0.0	0.2	0.0	53.0	544
1999	539	41,315	0.0	0.0	1.7	46.2	0.3	45.4	1.1	3.6	1.7	0.0	0.0	0.0	43.6	545
2000	880	68,557	0.0	0.0	0.6	22.5	0.1	74.1	0.5	0.2	1.9	0.0	0.0	0.0	54.8	559
2001	713	33,807	0.0	0.0	1.0	2.7	0.0 [b]	89.8	0.2	1.8	4.5	0.0	0.0	0.0	44.0	568
2002 [b]	307	17,802	2.6	0.0	0.3	49.7	0.3	38.0	3.0	2.1	3.9	0.0	0.0	0.0	46.1	530
2003	365	33,941	0.0	0.0	0.2	26.5	0.0	66.2	2.8	1.8	2.5	0.0	0.0	0.0	45.7	558
2004	217	34,627	0.0	0.0	2.2	30.9	1.1	59.0	0.6	5.6	0.6	0.0	0.0	0.0	47.1	547
2005	937	68,801	0.1	0.0	2.0	28.6	0.0	66.6	0.5	1.0	1.3	0.0	0.0	0.0	45.8	538
2002 [b]	807	106,308	0.1	0.0	0.9	22.9	0.2	73.2	0.2	2.0	0.4	0.0	0.0	0.0	33.1	528
2007	1,005	109,343	0.0 [c]	0.0	4.4	45.7	0.0	45.8	0.1	2.4	1.6	0.0	0.0	0.0	44.6	524
2008	488	69,743	0.0	0.0	2.5	19.6	0.5	74.1	0.3	2.2	0.8	0.0	0.0	0.0	47.0	542
2009	976	112,153	0.0	0.0	2.4	53.8	0.1	40.5	0.5	1.5	1.2	0.0	0.0	0.0	51.7	540
2010	844	138,362	0.0 [c]	0.0	2.8	14.5	1.2	78.7	0.2	2.0	0.6	0.0	0.0	0.0	49.0	549
2011	602	38,535	0.3	0.0	5.3	29.3	1.6	50.1	5.3	4.2	3.5	0.2	0.2	0.0	48.9	541
2012	836	37,688	0.2	0.0	2.3	12.2	0.2	78.3	0.2	1.2	5.1	0.0	0.2	0.0	52.1	540

Source: Harvest data for years 1990–2010 are from Brazil et al. 2011. Data for 2011 and 2012 are from the ADF&G Fish Ticket Database.

Note: Commercial sockeye salmon fishery was executed using restricted mesh (≤ 6 inch) gillnets. N/A designates years when length data were not available or not summarized.

[a] Sampling was not appropriate for estimating ASL composition for the season.

[b] Samples were collected, are archived at ADF&G, but data are not available through the AYK DBMS.

[c] Age class was represented in samples but percent composition was <0.05.

Table 91.–Estimated age and sex composition, mean length, and total number of Kuskokwim Area sockeye salmon harvested in the District W5 commercial gillnet fishery, 1985–2012.

Year	Sample Size	Total Harvest	Percent by Age Class											Percent Females	Mean Length (mm)
			(0.2)	(1.1)	(0.3)	(1.2)	(0.4)	(1.3)	(2.2)	(1.4)	(2.3)	(2.4)	(3.3)		
1985	485	6,698	0.0	0.0	0.0	25.1	0.0	73.8	1.1	0.0	0.0	0.0	0.0	46.8	570
1986	548	25,112	0.0	0.0	0.0	7.6	0.0	91.8	0.7	0.0	0.0	0.0	0.0	43.5	586
1987	545	27,758	0.0	0.0	0.0	7.0	0.0	93.0	0.0	0.0	0.0	0.0	0.0	51.9	584
1988	738	36,368	0.1	0.0	0.4	3.9	0.4	90.0	0.4	4.5	0.2	0.1	0.0	43.6	597
1989	577	19,299	0.0	0.0	0.0	8.9	0.3	86.0	0.5	2.9	1.4	0.0	0.0	48.2	584
1990	458	35,823	0.0	0.0	5.9	11.2	0.5	63.7	8.0	1.5	9.3	0.0	0.0	33.7	575
1991	564	39,838	0.1	0.0	2.3	3.1	0.9	78.7	4.6	0.9	9.5	0.0	0.0	45.2	564
1992	573	39,194	4.6	0.6	9.1	23.3	1.4	53.4	0.9	3.5	2.5	0.8	0.0	42.6	575
1993	489	59,293	0.2	0.0	6.5	26.8	0.7	53.3	2.5	1.6	8.1	0.4	0.0	54.4	560
1994	485	69,490	0.0	0.0	5.3	1.8	0.2	83.4	0.6	1.8	6.8	0.1	0.0	53.4	567
1995 [a]	369	37,351													
1996 [a]	343	30,717													
1997	833	31,451	0.4	0.0	2.5	13.8	1.4	56.4	3.2	6.8	14.9	0.6	0.0	48.6	563
1998	840	27,161	0.0	0.0	3.1	8.9	0.1	72.9	3.9	0.5	10.4	0.1	0.2	45.7	555
1999	532	22,910	0.0	0.0	1.3	18.5	0.0	68.9	2.2	3.5	5.7	0.0	0.0	41.3	556
2000	715	37,252	0.0	0.0	1.1	7.5	0.0	82.1	5.1	0.0	4.3	0.0	0.0	40.2	575
2001	576	25,654	0.0	0.0	0.4	2.2	0.0	90.3	0.0	2.2	5.0	0.0	0.0	51.0	581
2002	539	6,304	0.0	0.0	2.8	19.4	0.0	51.6	6.5	8.9	10.7	0.3	0.0	46.4	562
2003	329	29,423	0.0	0.0	0.4	7.2	0.0	71.9	2.6	1.4	16.6	0.0	0.0	32.5	579
2004	182	20,523	0.0	0.0	0.0	21.1	0.0	62.6	6.8	1.7	7.9	0.0	0.0	29.8	547
2005 [a]	191	23,933													
2006 [ab]	95	29,857													
2007	705	43,766	0.0	0.0	4.2	10.0	0.0	71.4	2.0	3.6	8.7	0.0	0.0	37.7	549
2008 [c]		27,236													
2009	1,353	32,544	0.1	0.0	3.9	14.0	1.3	64.2	3.4	2.8	10.4	0.0	0.0	41.9	557
2010	685	41,074	0.0	0.0	2.2	13.2	1.1	79.6	0.8	2.3	0.8	0.0	0.0	36.9	550
2011	607	24,463	0.3	0.0	3.2	13.3	0.8	74.0	3.7	1.7	2.9	0.0	0.0	42.3	553
2012	1,217	50,635	0.0	0.0	0.7	7.7	0.3	70.3	5.1	1.6	13.8	0.0	0.4	46.1	550

Source: Harvest data for years 1985–2010 are from Brazil et al. 2011. Data for 2011 and 2012 data are from the ADF&G Fish Ticket Database.

Note: Commercial sockeye salmon fishery was executed using restricted mesh (≤ 6 inch) gillnets.

[a] Sampling was not appropriate for estimating ASL composition for the season.

[b] Samples were collected, are archived at ADF&G, but data are not available through the AYK DBMS.

[c] ASL data were not collected.

Table 92.– Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area sockeye salmon past the Middle Fork Goodnews River weir, 1984–2012.

Year	Sample Size	Total Escapement	Percent by Age Class												Percent Females	Mean Length (mm)
			(0.2)	(1.1)	(0.3)	(1.2)	(0.4)	(1.3)	(2.2)	(1.4)	(2.3)	(3.2)	(2.4)	(3.3)		
1984 [ab]	47	32,053														
1985 [a]	9	24,131														
1986 [a]	91	51,069														
1987	578	28,871	0.0	0.0	0.0	6.9	0.0	89.1	0.0	4.0	0.0	0.0	0.0	0.0	46.7	575
1988 [a]	314	15,799														
1989 [a]	93	21,186														
1990	117	31,679	0.9	0.8	19.4	12.9	0.0	54.9	1.5	0.4	9.3	0.0	0.0	0.0	48.2	551
1991 [a]	272	47,397														
1992 [a]	204	27,268														
1993 [a]	312	26,452														
1994 [a]	160	50,801														
1995	454	39,009	0.0	0.0	0.2	13.7	0.0	76.8	2.8	2.7	3.8	0.0	0.0	0.0	50.4	543
1996 [a]	246	58,290														
1997	733	35,530	0.2	0.0	1.4	20.9	0.7	63.2	2.4	2.5	8.2	0.0	0.4	0.0	54.0	543
1998 [a]	542	49,513														
1999	789	48,205	0.0	0.0	1.2	11.6	0.2	77.9	2.0	1.7	5.1	0.0	0.3	0.0	48.4	548
2000	607	32,341	0.0	0.0	1.3	2.0	0.0	91.2	1.4	1.4	2.7	0.0	0.0	0.0	54.1	560
2001	432	21,024	0.0	0.0	0.9	2.1	0.0	79.2	0.6	9.6	7.7	0.0	0.0	0.0	48.9	572
2002	485	22,101	0.0	0.0	0.5	54.5	0.2	27.6	8.8	2.6	5.4	0.0	0.2	0.1	55.7	520
2003	657	44,387	0.0	0.0	0.6	8.5	0.0	86.6	0.4	1.7	2.3	0.0	0.0	0.0	45.6	575
2004	806	55,926	0.0	0.0	1.4	31.8	0.0	55.8	2.9	5.6	2.5	0.0	0.0	0.0	54.5	540
2005	955	113,809	0.0 [c]	0.0	0.1	13.5	0.0	79.0	2.7	1.1	3.6	0.0	0.0	0.0	54.3	543
2006	576	126,772	0.0	0.0	2.4	18.7	0.0	70.4	0.7	3.5	4.3	0.0	0.0	0.0	57.1	533
2007	727	72,282	0.6	0.0	8.1	12.2	0.4	70.0	1.6	3.0	4.2	0.0	0.0	0.0	50.1	550
2008	512	50,459	0.0	0.0	4.3	9.0	0.2	78.7	1.0	3.3	3.4	0.0	0.0	0.0	56.8	540
2009 [a]	161	25,465														540
2010	307	35,762	0.0	0.0	2.0	4.6	0.0	85.8	1.0	2.6	3.9	0.0	0.0	0.0	54.6	539
2011	440	17,946	0.0	0.0	3.0	6.4	0.2	84.1	0.2	3.9	2.0	0.0	0.2	0.0	56.1	550
2012	331	30,472	0.0	0.0	1.5	6.7	0.0	77.2	4.5	2.6	7.0	0.4	0.0	0.0	56.0	539

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

[a] Sampling was not appropriate for estimating ASL composition for the season.

[b] Samples were collected, are archived at ADF&G, but data are not available through the AYK DBMS.

[c] Age class was represented in samples but percent composition was <0.05.

Table 93.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area sockeye salmon past the Kanektok River weir, 1997 and 2002–2012.

Year	Sample Size	Total Escapement	Percent by Age Class											Percent Females	Mean Length (mm)
			(0.2)	(1.1)	(0.3)	(1.2)	(0.4)	(1.3)	(2.2)	(1.4)	(2.3)	(2.4)	(3.3)		
1997	740	96,528	0.2	0.3	5.3	24.3	4.0	54.7	0.4	4.2	6.4	0.0	0.0	50.9	554
2002	663	58,326	0.0	0.0	0.5	56.2	0.3	34.7	1.1	2.3	4.1	0.5	0.3	57.7	529
2003	403	127,471	0.0	0.0	0.2	26.6	0.0	69.0	0.2	2.0	2.0	0.0	0.0	50.6	551
2004	470	102,867	0.2	0.0	0.2	48.3	0.0	46.5	3.3	1.0	0.5	0.0	0.0	43.5	530
2005 [a]	688	242,208													
2006 [b]															
2007	793	307,750	0.5	0.0	2.9	45.3	0.0	48.3	0.0	2.2	0.8	0.0	0.0	36.0	542
2008 [a]	307	141,388												36.8	558
2009	585	272,483	0.0	0.0	1.9	62.1	0.0	34.9	0.4	0.1	0.5	0.0	0.0	51.7	538
2010	819	202,643	0.0	0.0	0.8	8.5	0.4	87.8	0.2	2.2	0.1	0.0	0.0	45.8	563
2011	697	84,805	0.9	0.0	3.9	40.0	0.2	48.0	4.1	1.7	1.1	0.0	0.1	50.8	543
2012	575	88,800	0.0	0.0	1.2	18.3	0.0	75.4	0.5	0.5	4.2	0.0	0.0	52.8	546

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

[a] Sampling was not appropriate for estimating ASL composition for the season.

[b] Weir did not operate.

Table 94.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area sockeye salmon past the Kwethluk River weir, 1992 and 2000–2012.

Year	Sample Size	Total Escapement	Percent by Age Class											Percent Females	Mean Length (mm)
			(0.2)	(1.1)	(0.3)	(1.2)	(0.4)	(1.3)	(2.2)	(1.4)	(2.3)	(2.4)	(3.3)		
1992	272	1,316	0.7	0.0	6.2	13.7	1.3	68.3	1.8	4.1	3.9	0.0	0.0	59.6	518
2000 [a]	155	1,049													
2001 [b]															
2002 [c]	36	272													
2003	391	2,928	0.0	0.0	2.3	19.9	0.0	71.7	0.2	2.4	3.6	0.0	0.0	51.9	568
2004 [c]	118	3,491													
2005 [b]															
2006 [c]	118	6,732													
2007	201	5,262	0.0	0.0	0.7	34.4	0.0	60.9	1.5	1.3	1.3	0.0	0.0	49.7	560
2008	78	2,451	0.0	0.0	1.3	20.5	0.0	76.9	0.0	0.0	1.3	0.0	0.0	65.4	546
2009	222	4,230	0.3	0.0	6.5	22.3	0.0	61.7	2.3	2.6	4.2	0.0	0.0	65.9	540
2010	495	4,242	0.0	0.0	4.1	15.9	0.6	73.7	0.6	2.5	2.7	0.0	0.0	51.7	555
2011	100	2,031	0.0	0.0	12.0	4.0	5.0	59.0	1.0	9.0	9.0	1.0	0.0	57.0	560
2012[cd]	16	250													

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

Note: The Kwethluk River weir is operated by USFWS. Summaries were generated by the ADF&G and may not be consistent with published USFWS data.

[a] Samples were not summarized.

[b] Weir did not operate.

[c] Sampling was not appropriate for estimating ASL composition for the season.

[d] Weir was inoperable for much of the season. Escapement shown is partial.

Table 95.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area sockeye salmon past the Tuluksak River weir, 1991–1994 and 2001–2012.

Year	Sample Size	Total Escapement	Percent by Age Class											Percent Females	Mean Length (mm)
			(0.2)	(1.1)	(0.3)	(1.2)	(0.4)	(1.3)	(2.2)	(1.4)	(2.3)	(2.4)	(3.3)		
1991	20	34	0.0	0.0	0.0	30.0	0.0	30.0	25.0	5.0	10.0	0.0	0.0	35.0	552
1992	29	129	3.4	0.0	3.4	10.3	0.0	82.8	0.0	0.0	0.0	0.0	0.0	37.9	563
1993	33	88	3.0	0.0	12.2	24.3	0.0	54.6	0.0	0.0	6.1	0.0	0.0	48.5	522
1994	18	82	0.0	0.0	0.0	27.8	0.0	55.6	0.0	0.0	16.7	0.0	0.0	83.3	516
2001 [a]		137													
2002 [b]	9	82													
2003 [b]	43	288													
2004 [a]		136													
2005 [a]		642													
2006 [a]		985													
2007	65	352	0.0	0.0	0.0	21.5	0.0	75.4	0.0	1.5	1.6	0.0	0.0	40.0	560
2008	90	188	0.0	0.0	0.0	15.6	0.0	68.9	1.1	12.2	2.2	0.0	0.0	53.3	553
2009	66	686	0.0	0.0	1.5	32.2	0.0	63.3	1.6	1.5	0.0	0.0	0.0	49.6	554
2010	54	437	1.9	0.0	0.0	5.6	0.0	66.7	0.0	9.3	16.7	0.0	0.0	66.7	537
2011 [b]	16	126													
2012 [b]	1	181													

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

Note: The Tuluksak River weir is operated by USFWS. Summaries were generated by the ADF&G and may not be consistent with published USFWS data.

[a] ASL samples were not collected.

[b] Sampling was not appropriate for estimating ASL composition for the season.

Table 96.–Estimated age and sex composition, mean length, and total number of Kuskokwim Area coho salmon harvested in the District W1 commercial gillnet fishery, 1984–2012.

Year	Sample Size	Total Harvest	Percent by Age Class (1.1)	(2.1)	(3.1)	Percent Females	Mean Length (mm)
1984	1,333	623,447	4.4	92.5	3.1	48.2	N/A
1985	1,119	335,606	8.5	86.8	4.7	45.8	N/A
1986	841	659,988	4.8	92.0	3.2	46.1	N/A
1987	820	399,467	7.2	76.9	15.9	53.1	N/A
1988	1,427	524,296	4.4	94.1	1.5	50.1	N/A
1989	743	479,856	8.9	88.3	2.8	45.5	N/A
1990	389	410,332	4.8	90	5.2	43.1	N/A
1991	573	500,935	4.7	87.4	7.9	33.8	554
1992	804	666,170	13.5	81.6	4.9	50.3	563
1993	540	610,739	5.8	91.2	3.0	48.1	549
1994	826	724,689	6.7	83.7	9.6	39.5	566
1995	565	471,461	12.3	79.3	8.4	44.7	558
1996	666	937,299	4.3	94.4	1.3	48.6	570
1997 [a]	324	130,803					
1998	1,194	210,481	4.9	93.0	2.1	49.5	572
1999	151	23,593	4.6	82.1	13.2	43.7	550
2000	2,616	261,379	3.5	94.4	2.1	53.2	555
2001	422	192,998	6.7	82.6	10.8	56.8	573
2002	428	83,463	1.0	93.2	5.8	51.7	572
2003 [b]		284,064					
2004	662	435,407	1.1	89.1	9.8	48.2	550
2005	412	142,319	7.3	83.5	9.2	50.2	552
2006	411	185,598	14.1	82.2	3.8	50.7	539
2007	448	141,049	5.0	90.5	4.5	53.5	548
2008	493	142,862	5.6	78.3	16.0	50.4	554
2009	669	104,546	5.0	87.4	7.5	50.0	563
2010	425	58,031	7.7	89.1	3.2	51.3	549
2011	667	74,122	15.1	79.3	5.5	48.6	555
2012	702	86,389	15.8	78.8	5.4	45.7	522

Source: Harvest data for years 1990–2010 came from Brazil et al. 2011. Data from 2011 and 2012 came from the ADF&G Fish Ticket Database.

Note: Harvest data are from Districts W1 and W2 combined. The commercial coho salmon fishery was executed using restricted mesh (≤ 6 inch) gillnets. N/A designates years when length data were not available or not summarized.

[a] Sampling was not appropriate for estimating ASL composition for the season.

[b] ASL data were not collected.

Table 97.–Estimated age and sex composition, mean length, and total number of Kuskokwim Area coho salmon harvested in the District W4 commercial gillnet fishery, 1990–2012.

Year	Sample Size	Total Harvest	Percent by Age Class (1.1)	(2.1)	(3.1)	Percent Females	Mean Length (mm)
1990	607	26,926	5.8	88.4	5.8	42.4	N/A
1991	535	42,571	13.2	74.5	12.3	50.2	N/A
1992	590	86,404	16.9	79.1	4.0	46.6	N/A
1993	300	55,817	3.6	92.5	3.9	45.3	N/A
1994	429	83,912	6.6	89.7	3.7	52.8	N/A
1995	653	66,203	8.6	84.3	7.2	45.0	N/A
1996	556	118,718	6.0	92.5	1.5	43.1	596
1997 [a]	359	32,862					
1998	446	80,183	6.0	93.2	0.9	57.4	601
1999 [b]		6,184					
2000	285	30,529	1.4	97.0	1.6	49.2	580
2001	415	18,531	7.8	85.2	7.0	39.3	596
2002	460	26,695	1.4	89.1	9.6	50.3	599
2003	153	49,833	7.1	82.9	10.1	32.3	582
2004	186	82,398	4.8	94.3	0.9	46.3	573
2005	666	51,708	15.6	79.3	5.1	43.5	564
2006 [c]	377	26,831	13.3	84.8	1.9	48.8	538
2007 [a]	224	34,710					
2008	499	94,257	8.6	87.5	3.9	47.9	568
2009 [a]	198	48,115					
2010	189	13,690	11.6	85.8	2.6	46.4	566
2011	482	27,754	26.8	69.3	3.9	46.9	569
2012	519	31,214	13.1	83.5	3.5	52.4	547

Source: Harvest data for years 1990–2010 came from Brazil et al. 2011. Data from 2011 and 2012 came from the ADF&G Fish Ticket Database.

Note: Commercial coho salmon fishery was executed using restricted mesh (≤ 6 inch) gillnets. N/A designates years when length data were not available or not summarized.

[a] Sampling was not appropriate for estimating ASL composition for the season.

[b] ASL data were not collected.

[c] Samples were collected, are archived at ADF&G, but data are not available through the AYK DBMS.

Table 98.–Estimated age and sex composition, mean length, and total number of Kuskokwim Area coho salmon harvested in the District W5 commercial gillnet fishery, 1990–2012.

Year	Sample Size	Total Harvest	Percent by Age Class (1.1)	(2.1)	(3.1)	Percent Females	Mean Length (mm)
1990	250	7,804	5.2	91.6	3.2	42.8	N/A
1991	430	13,312	7.5	85.4	7.2	24.1	N/A
1992	404	19,875	12.0	85..5	2.6	42.7	N/A
1993	429	20,014	2.9	92.5	4.6	52.4	N/A
1994	415	47,499	9.0	86.5	4.5	48.1	N/A
1995	299	17,875	3.1	92.4	4.5	49.6	N/A
1996	457	43,836	6.3	90.2	3.5	52.3	622
1997 [a]	271	2,983					
1998	315	21,246	9.9	87.7	2.5	52.5	611
1999	205	2,474	10.3	84.9	4.8	47.7	592
2000	439	15,531	0.7	97.6	1.8	52.1	598
2001	414	9,275	4.8	89.6	5.5	47.4	619
2002 [b]		3,041					
2003 [a]	109	12,658					
2004 [c]	163	24,089	12.5	84.2	3.3	38.9	584
2005 [a]	69	11,735					
2006 [b]		12,436					
2007 [b]		13,697					
2008 [b]		22,547					
2009 [a]	43	8,406					
2010	600	4,900	10.6	87.3	2.2	40.7	572
2011	558	13,475	15.4	77.8	6.8	45.1	573
2012	542	25,515	9.8	85.7	4.6	44.6	551

Source: Harvest data for years 1990–2010 came from Brazil et al. 2011. Data from 2011 and 2012 came from the ADF&G Fish Ticket Database.

Note: Commercial coho salmon fishery was executed using small mesh (≤ 6 inch) gillnets. N/A designates years when length data were not available or not summarized.

[a] Sampling was not appropriate for estimating ASL composition for the season.

[b] ASL data were not collected.

[c] Samples were collected, are archived at ADF&G, but data are not available through the AYK DBMS.

Table 99.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area coho salmon past the Middle Fork Goodnews River weir, 1991–2012.

Year	Sample Size	Total Escapement	Percent by Age Class (1.1)	(2.1)	(3.1)	Percent Females	Mean Length (mm)
1991 [a]	182	1,978					
1992 [ab]		150					
1993 [ab]		1,451					
1994 [ab]		309					
1995	191	5,415	2.5	93.9	3.6	42.0	571
1996	150	10,869	2.0	93.3	4.0	36.7	608
1997 [b]		13,413					
1998	429	36,596	8.4	89.6	2.0	57.9	605
1999	411	11,545	10.0	88.0	2.0	55.8	590
2000	419	13,907	1.5	97.9	0.6	48.1	595
2001	439	19,626	7.1	89.0	3.9	50.6	613
2002 [c]	564	27,364	1.4	92.6	6.0	41.7	620
2003	167	52,810	5.0	87.1	7.9	44.0	608
2004	197	47,916	12.2	84.5	3.4	55.8	579
2005 [d]	328	15,683					586
2006	343	15,969	20.0	78.3	1.7	47.8	563
2007	463	20,975	12.7	83.1	4.3	52.4	582
2008	579	36,630	9.2	85.5	5.3	53.0	543
2009	358	20,000	7.4	87.3	5.2	48.2	606
2010	438	23,839	13.1	83.4	3.4	53.6	598
2011	251	23,826	21.1	72.9	6.0	41.8	592
2012 [d]	262	13,679					

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

[a] Weir did not operate throughout the entire the coho salmon return. Partial escapement is shown.

[b] ASL data were not collected.

[c] Samples were collected, are archived at ADF&G, but data are not available through the AYK DBMS.

[d] Sampling was not appropriate for estimating ASL composition for the season.

Table 100.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area coho salmon past the Kwethluk River weir, 1992 and 2000–2012.

Year	Sample Size	Total Escapement	Percent by Age Class (1.1)	(2.1)	(3.1)	Percent Females	Mean Length (mm)
1992 [a]	734	45,605	13.7	83.2	3.1	42.5	562
2000	669	25,610	6.7	92.7	0.6	47.1	558
2001	181	20,723	12.4	85.6	2.0	51.1	597
2002	570	23,298	1.5	92.4	6.1	43.9	594
2003	217	109,163	10.3	88.5	1.1	51.9	586
2004	185	64,216	5.7	92.3	2.0	43.8	559
2005 [b]							
2006	806	34,868	14.2	83.3	2.5	36.9	537
2007	394	20,257	10.7	88.5	0.8	37.0	563
2008	828	49,971	5.7	88.6	5.7	58.0	564
2009	885	21,911	4.8	90.1	5.1	50.6	573
2010 [bc]	55	795					
2011	574	4,482	22.5	74.6	3.0	47.4	575
2012 [bd]	543	19,960	21.0	76.4	2.6	51.5	544

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

Note: The Kwethluk River weir is operated by USFWS. Summaries were generated by the ADF&G and may not be consistent with published USFWS data.

[a] Samples were collected, are archived at ADF&G, but data are not available through the AYK DBMS.

[b] Weir did not operate through coho season. Escapement, if shown, is partial.

[c] Sampling was not appropriate for estimating ASL composition for the season.

[d] Samples were applied to observed escapement.

Table 101.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area coho salmon past the George River weir, 1997–2012.

Year	Sample Size	Total Escapement	Percent by Age Class (1.1)	(2.1)	(3.1)	(3.2)	Percent Females	Mean Length (mm)
1997	205	9,210	2.2	95.9	1.9	0.0	42.2	557
1998 [a]								
1999	338	8,914	2.7	69.8	27.4	0.0	40.9	547
2000	365	11,262	1.3	97.6	1.1	0.0	43.2	548
2001	371	14,398	0.8	65.6	33.6	0.0	53.3	557
2002 [b]	72	6,759						
2003	171	33,280	0.9	88.0	11.0	0.0	52.7	556
2004	191	12,499	1.3	89.8	8.9	0.0	36.6	538
2005	463	8,200	1.0	80.2	18.8	0.0	48.6	539
2006	440	11,296	4.4	88.0	7.7	0.0	50.5	525
2007 [b]	442	29,317						
2008	429	21,931	0.5	63.4	36.2	0.0	52.3	543
2009	524	12,464	1.6	92.8	5.6	0.0	44.7	553
2010	559	12,961	2.7	89.6	7.7	0.0	51.5	545
2011	552	30,028	4.9	90.0	5.0	0.1	51.2	552
2012	366	15,273	1.9	73.6	24.6	0.0	48.1	505

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

[a] Weir was inoperable during coho salmon season.

[b] Sampling was not appropriate for estimating ASL composition for the season.

Table 102.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area coho salmon past the Tatlawiksuk River weir, 1999–2012.

Year	Sample Size	Total Escapement	Percent by Age Class (1.1)	(2.1)	(3.1)	Percent Females	Mean Length (mm)
1999	287	3,455	8.0	79.1	12.9	43.3	550
2000	188	5,646	0.0	100.0	0.0	39.9	564
2001	518	10,539	2.2	91.2	6.6	52.1	571
2002	596	11,345	1.2	89.3	9.5	38.7	565
2003 [a]							
2004	361	16,410	3.1	94.4	2.5	50.6	544
2005	476	7,495	4.4	89.7	5.9	48.2	557
2006 [b]	155	9,453					
2007 [b]	419	8,685					
2008	485	11,065	3.8	84.3	11.9	52.7	542
2009	508	10,148	6.3	83.9	9.8	47.8	551
2010	517	3,520	5.4	92.9	1.7	53.6	534
2011	359	12,928	5.0	87.5	7.5	56.3	560
2012	323	8,070	7.8	90.4	1.8	49.2	516

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

[a] Weir did not operate.

[b] Sampling was not appropriate for estimating ASL composition for the season.

Table 103.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area coho salmon past the Kogrukluk River weir, 1989–2012.

Year	Sample Size	Total Escapement	Percent by Age Class (1.1)	(2.1)	(3.1)	Percent Females	Mean Length (mm)
1989 [ab]	75	1,272					
1990 [b]	173	6,132					
1991	377	9,964	1.8	96.0	2.2	42.5	558
1992 [b]	158	26,057					
1993	157	20,517	2.5	94.3	3.1	40.1	564
1994	463	34,695	1.5	90.1	8.3	47.8	581
1995	364	27,862	4.1	88.5	7.0	39.1	557
1996	639	50,555	3.0	94.9	2.1	37.0	594
1997 [c]		12,238					
1998	455	24,348	1.6	94.1	4.2	40.9	580
1999	343	12,609	2.5	88.1	9.4	17.0	563
2000	604	33,135	1.0	96.9	2.1	30.5	568
2001	504	19,387	1.5	91.3	7.2	49.1	577
2002	423	14,516	0.0	86.4	13.6	30.9	561
2003	161	74,604	1.6	81.5	16.8	40.2	566
2004	176	27,041	0.6	87.6	11.7	29.8	547
2005	447	24,116	6.0	84.9	9.1	49.7	543
2006	426	17,011	10.6	86.5	2.8	55.0	514
2007	394	27,033	3.5	90.7	5.8	44.6	542
2008	455	29,661	2.9	81.4	15.7	55.1	536
2009	520	22,981	1.5	90.2	8.2	56.5	541
2010	549	13,971	4.7	87.4	7.9	49.1	551
2011	535	24,174	4.5	87.3	8.2	51.1	545
2012 [b]	187	13,697					

Source: Escapement data are from the Kuskokwim Area master escapement file maintained by ADF&G Kuskokwim Research Group.

[a] Partial escapement is shown, no estimate of missed passage.

[b] Sampling was not appropriate for estimating ASL composition for the season.

[c] ASL Samples were not collected.

Table 104.–Estimated age and sex composition, mean length, and total escapement of Kuskokwim Area coho salmon past the Takotna River weir, 2000–2012.

Year	Sample Size	Total Escapement	Percent by Age Class (1.1)	(2.1)	(3.1)	Percent Females	Mean Length (mm)
2000	395	3,944	0.3	97.7	2.0	51.9	544
2001	305	2,606	0.3	87.9	11.8	41.3	568
2002	349	3,982	0.2	94.3	5.5	39.5	557
2003	183	7,146	0.9	86.4	12.7	52.1	555
2004	380	3,201	0.3	98.1	1.6	40.9	523
2005	546	2,209	0.2	87.7	12.0	48.1	550
2006	435	556	0.4	93.2	3.4	45.0	519
2007	441	2,837	2.2	92.5	5.2	52.3	539
2008	440	2,807	2.2	76.8	21.0	51.4	533
2009	349	2,704	6.2	92.4	1.5	42.6	553
2010	517	3,217	5.4	92.9	1.7	53.6	534
2011	531	4,063	5.3	89.1	5.6	50.9	550
2012	349	1,838	2.1	88.3	9.6	46.2	514

Table 105.–List of years for which Chinook salmon age-sex-length data was collected from Kuskokwim Management Area projects.

Project Type / Name	Years with available ASL data
Commercial Catch	
W1 (Subdistrict 1)	1964-1968, 1971-1975, 1977-1999, 2001, 2004, 2005, 2008-2011
W4 (Subdistrict 4)	1968-1970, 1973-2005, 2007-2012
W5 (Goodnews Bay Subdistrict)	1973, 1974, 1977, 1978, 1980-1995, 1997-2005, 2007, 2009-2012
Subsistence Catch	
Upper Kuskokwim River	1987, 1992, 2001-2003, 2012
Middle Kuskokwim River	1975, 1992, 2001-2003
Lower Kuskokwim River	1964, 1968, 1970, 1986, 1987, 1991-1995, 2001-2012
Kuskokwim Bay	1975, 2007
Escapement	
Aniak River	1980-1983, 1985, 1989, 1996, 2007
Eek River	1989
George River	1996-2012
Goodnews River (Middle Fork)	1983-1985, 1987-2012
Kanektok River	1983-1987, 1989, 1997, 2002-2005, 2007-2012
Kipchuk River	1989
Kisaralik River	1986, 2001
Kogrukluk River	1968, 1969, 1971-1973, 1976, 1978-2012
Kwethluk River	1989, 1991, 1992, 2000-2004, 2006-2012
NYAC Weir	1988
Salmon River (Aniak)	1989, 2006-2008, 2012
Salmon River (Pitka Fork)	1981, 1982, 1989
Takotna River	2000-2012
Tatlawiksuk River	1998-2012
Tuluksak River	1991-1994, 2001-2012
Mark/Recapture	
Kalskag Fish Wheel	2007
Sport Catch (freshwater)	
Kanektok River	1983, 1985
Sport Catch (marine)	
W5 (Goodnews Bay Subdistrict)	1996
Test Fishing	
Kwegooyuk (Village/City)	1967, 1969, 1972-1976, 1978-1980, 1982, 1983
W1 (Subdistrict 1)	1981, 1993-1995, 2001-2008, 2011, 2012

Table 106.–List of years for which chum salmon age-sex-length data was collected from Kuskokwim Management Area projects.

Project Type / Name	Years with available ASL data
Commercial Catch	
Aniak River	1992
W1 (Subdistrict 1)	1966-1968, 1972-2005, 2007-2012
W4 (Subdistrict 4)	1965, 1967-1970, 1973-2005, 2007-2012
W5 (Goodnews Bay Subdistrict)	1974, 1978, 1980-2005, 2007, 2009-2012
Subsistence Catch	
Lower Kuskokwim River	1964, 1984-1986, 1993
Upper Kuskokwim River	1987, 1992
Escapement	
Aniak River	1980-1982, 1984, 1985, 1989, 1994-2011
George River	1996-2012
Goodnews River (Middle Fork)	1983-2012
Kanektok River	1983-1987, 1989, 1997, 2002-2005, 2007-2012
Kisaralik River	1986
Kogrukluk River	1971-1973, 1976, 1978-2012
Kwethluk River	1989, 1991, 1992, 1997, 2000-2012
Nikolai (Village/City)	2004
NYAC Weir	1988
Salmon River (Aniak)	2006-2008, 2012
Salmon River (Pitka Fork)	1981, 1982
Takotna River	2000-2012
Tatlawiksuk River	1998-2012
Tuluksak River	1991-1994, 2001-2012
Mark/Recapture	
Birch Tree Crossing	2002
Kalskag Fish Wheel	2002
Test Fishing	
Kwegooyuk (Village/City)	1967, 1969, 1971-1975, 1977-1981
W1 (Subdistrict 1)	1981, 1993-1995, 2000-2005, 2007, 2008

Table 107.–List of years for which sockeye salmon age-sex-length data was collected from Kuskokwim Management Area projects.

Project Type / Name	Years with available ASL data
Commercial Catch	
W1 (Subdistrict 1)	1969, 1972, 1975, 1977, 1980-2000, 2004, 2005, 2008-2012
W4 (Subdistrict 4)	1964, 1965, 1967-1970, 1974-1978, 1980-1985, 1987-2001, 2003-2005, 2007-2012
W5 (Goodnews Bay Subdistrict)	1969, 1974, 1977, 1978, 1980-2005, 2007, 2009-2012
Subsistence Catch	
Upper Kuskokwim River	1987
Kuskokwim Bay	1980
Escapement	
Aniak River	1981, 1983, 1985, 2007
George River	2007
Goodnews River (Middle Fork)	1983, 1985-2012
Goodnews River (North Fork)	1989
Kanektok River	1984, 1985, 1987, 1989, 1997, 2002-2005, 2007-2012
Kisaralik River	1986
Kogrukluk River	1968, 1976, 1978, 1980-1994, 2007, 2009-2012
Kwethluk River	1991, 1992, 2000, 2003, 2004, 2006-2012
Salmon River (Aniak)	2007, 2008, 2012
Stony River	1989
Takotna River	2007
Tatlawiksuk River	2007
Telaquana River	2010-2012
Tuluksak River	1991-1994, 2002, 2003, 2007-2012
Mark/Recapture	
Birch Tree Crossing	2002
Kalskag Fish Wheel	2002, 2005-2007, 2012
Salmon River (Aniak)	2012
Kogrukluk River	2012
Telaquana River	2012
Test Fishing	
W1 (Subdistrict 1)	1981, 1994, 1995, 2001-2005, 2012
Kwegooyuk (Village/City)	1967, 1971-1981

Table 108.–List of years for which coho salmon age-sex-length data was collected from Kuskokwim Management Area projects.

Project Type / Name	Years with available ASL data
Commercial Catch	
W1 (Subdistrict 1)	1961, 1965-1969, 1971-1978, 1980-2002, 2004-2012
W4 (Subdistrict 4)	1967, 1968, 1974-1978, 1980-1998, 2000-2005, 2007-2012
W5 (Goodnews Bay Subdistrict)	1974, 1977, 1980-2001, 2003, 2005, 2009-2012
Subsistence Catch	
Lower Kuskokwim River	1989, 1992
Escapement	
Aniak River	1980
George River	1997, 1999-2012
Goodnews River (Middle Fork)	1988, 1991, 1995, 1996, 1998-2001, 2003-2012
Kanektok River	1983, 1997, 2001-2005, 2007-2009
Kisaralik River	1986
Kogrukluk River	1981-1996, 1998-2012
Kwethluk River	1989, 2000-2004, 2006-2012
Salmon River (Aniak)	2008, 2009
Takotna River	2000-2012
Tatlawiksuk River	1999-2002, 2004-2012
Tuluksak River	1991-1994, 2001-2012
Mark/Recapture	
Kalskag Fish Wheel	2008, 2009
Test Fishing	
Aniak River	1995
Kwegooyuk (Village/City)	1974, 1975
W1 (Subdistrict 1)	1980, 1994, 1995