Fishery Data Series No. 09-26

Salmon Age and Sex Composition and Mean Lengths for the Yukon River Area, 2007

by

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and

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May 2009

Alaska Department of Fish and Game **Divisions of Sport Fish and 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)

Measures (fisheries)

fork length	FL
mideye to fork	MEF
mideye to tail fork	METF
standard length	SL
total length	TL

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

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May 2009

This investigation was partially financed by the United States Fish and Wildlife Service Agreement No. 701816G415 (ADF&G IHG-07-002), under the authority of the Fish and Wildlife Coordination Act, 16 USC 661 to 667 (d), and the Yukon River Salmon Act 16 USC 5724 and 5727.

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This document should be cited as:
Horne-Brine, M. H., J. Bales, and L. DuBois. 2009. Salmon age and sex composition and mean lengths for the Yukon River Area, 2007. Alaska Department of Fish and Game, Fishery Data Series No. 09-26, Anchorage.

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ABSTRACT

Biological data were collected from Chinook *Oncorhynchus tshawytscha*, summer chum *O. keta*, fall chum *O. keta*, and coho salmon *O. kisutch* at 36 locations along the Yukon River drainage in 2007. Age, sex, and length (ASL) data were obtained from 10,408 Chinook, 7,716 summer chum, 4,317 fall chum, and 1,234 coho salmon from commercial and subsistence harvests, as well as test fisheries and escapement projects. Samples were collected using gillnets, fish wheels, beach seines, weir traps, and from carcass surveys. Where available, escapement estimates from sonar and weir projects were separated into temporal segments (strata) and commercial harvest numbers were separated into periods, and characterized by the ASL data collected during the corresponding strata or period. At most test fishery projects, data were stratified by quartiles based on the number of samples collected.

In 2007, Chinook salmon commercial harvests were primarily composed of age-1.4 (64.3%) and age-1.3 (21.4%) fish. Chinook salmon age-1.3 and age-1.5 percentages were below average in many of the commercial and escapement projects. Summer chum salmon commercial harvests in Districts 1, 2, 6 and Subdistrict 4-A were primarily composed of age-0.4 (50.1%) and age-0.3 (35.0%) fish. Fall chum salmon commercial harvests in Districts 1, 5, and 6 were predominately age-0.3 (82.6%) fish. Age-2.1 coho salmon predominated in the District 1 commercial harvest (86.6%), and in all test fisheries.

Key Words: ASL, salmon, Yukon River, Chinook, summer chum, fall chum, coho, age, sex, length, escapement, weir, test fish, subsistence, commercial, *Oncorhynchus tshawytscha, O. keta, O. kisutch.*

INTRODUCTION

The Yukon River drainage encompasses coastal waters from Canal Point light, near Cape Stephens, southward to the Naskonat Peninsula (Vania et al. 2002) to the headwaters upstream of Whitehorse, Canada (Figure 1). The Yukon River drainage supports major runs of Chinook *Oncorhynchus tshawytscha*, summer chum *O. keta*, fall chum *O. keta*, and coho salmon *O. kisutch*. All 3 of these salmon species are harvested in commercial, subsistence, personal use, test, and sport fisheries in Alaska. Harvests also occur in the Canadian portion of the Yukon River drainage by commercial, subsistence, aboriginal, sport, and domestic fishers (JTC 2006a). Pink *O. gorbuscha* and sockeye salmon *O. nerka* are also indigenous to the drainage; however, neither species are harvested by fishers to any significant extent.

Historically, the first adult Chinook and summer chum salmon runs enter the mouth of the Yukon River during late May to begin their upstream migration. These runs are followed by fall chum salmon, which enter the Yukon River from mid July through early September. Summer chum are genetically distinct from fall chum salmon (Crane et al. 2001). In addition, summer chum can be distinguished from their fall counterparts by their smaller size, lower oil content, and spawning locations. Summer chum spawn in the lower and middle portion of the drainage, whereas fall chum salmon spawn in the upper portion of the drainage (Vania et al. 2002). Coho salmon enter the Yukon River from late July through September.

Commercial fishing occurs throughout the main-stem Yukon River and in the lower 360 km of the Tanana River. For management purposes, the Alaskan portion is divided into 7 districts and 10 subdistricts (Figures 2 and 3). The Lower Yukon Area consists of the Coastal District and Districts 1, 2, and 3. Set and drift gillnets are the only legal gear in the Lower Yukon Area (ADF&G 2004). During the summer season when Chinook salmon are targeted, commercial fishing in the Lower Yukon Area is typically restricted to 8 inch and larger mesh sizes or unrestricted mesh size. In 2007, the gillnet mesh size was unrestricted for 8 of the 23 summer season commercial fishing periods that occurred in the Lower Yukon Districts. The remaining 15 commercial fishing periods were restricted to 6 inch maximum mesh size and were directed at

harvesting summer chum salmon. The Upper Yukon Area consists of Districts 4, 5, and 6. Historically, set gillnets and fish wheels were the only legal gear type in the Upper Yukon Area, except for Subdistrict 4-A where drift gillnets were allowed (ADF&G 2004). In 2005, regulations changed to allow drift gillnets to be used in Subdistricts 4-B and 4-C. The majority of the commercially caught Chinook salmon are harvested from Districts 1 and 2, with smaller harvests occurring in Districts 3, 5, and 6. Summer chum harvests are typically highest in Districts 1 and 2, with smaller harvests occurring in the Upper Yukon River districts. Fall chum and coho salmon are typically commercially harvested in Districts 1, 2, 5, and 6. Canadian fishers harvest Chinook and fall chum salmon predominantly with gillnets and fish wheels near Dawson, Yukon Territory (JTC 2006a).

Subsistence fishing occurs throughout the drainage, with most of the effort concentrated in the main-stem Yukon River. Alaska state law mandates that subsistence use of fish populations has priority over other uses (AS 16.05.258; ADF&G 2004). Chinook, summer chum, fall chum, and coho salmon are the principal salmon species utilized by subsistence fishers. The primary gear types used by subsistence salmon fishers in Districts 1, 2, and 3 are set and drift gillnets; a mixture of gillnets and fish wheels are used in Districts 4, 5, and 6 (Busher and Hamazaki 2004). In 2007, there was no mesh size restriction in the Lower Yukon Area for subsistence gillnets (ADF&G 2004). Many fishers chose 8 inch or larger mesh sizes, known as 'king nets', early in the summer run to target larger Chinook salmon; they changed to 6 inch or smaller mesh sizes, known as 'chum nets', later in the summer run to target chum salmon.

Test fishery projects provide assessments of run strength, timing, and age, sex and size composition. All test fishery projects were operated in the main-stem Yukon River and harvested mixed stocks. Recent test fishery projects that operated during the Chinook and summer chum salmon season were the Comparative Mesh Size study drift gillnet (2007) and Big Eddy and Middle Mouth set gillnet (1979–2007) in District 1 near Emmonak; Pilot Station sonar drift gillnet (1963–2007) and Marshall drift gillnet (1999–2000, 2005–2007) in District 2; Eagle sonar drift gillnet (2005–2007) just downstream of the Alaska-Canada border; and Sheep Rock and White Rock fish wheels (1982–2007) in Canada just upstream of the border (Figures 1–3).

Test fishery projects that operated during the fall chum and coho salmon season were Big Eddy and Middle Mouth drift gillnet (2001–2007) in District 1; Mountain Village drift gillnet (1995–2007) and Pilot Station sonar drift gillnet (1963–2007) in District 2; Kaltag drift gillnet (1991–2007) in Subdistrict 4-A; Eagle sonar drift gillnet (2005–2007) just downstream of the Alaska-Canada border; and Sheep Rock and White Rock fish wheels (1982–2007) in Canada (Figures 1–3). The Big Eddy and Middle Mouth test fisheries, both summer and fall season, are referred to as the Lower Yukon test fishery (LYTF).

Annual assessments of spawning escapements were monitored in Yukon River tributaries by means of weirs, counting towers, sonar projects, and carcass and aerial surveys (Vania et al. 2002). The ground based weir, tower, and sonar projects typically included a sampling program, whereby salmon were captured with a trap built into a weir, fishing a beach seine, or carcass sampling. Current weir projects operating in the Yukon River drainage are the East Fork Andreafsky River weir (1981–2007, operated as sonar and tower some years) near Saint Mary's; the Tozitna River weir (2002–2007) downstream of the village of Tanana; and the Gisasa River weir (1994–2007) and Henshaw Creek weir (2002–2007) operated in tributaries of the Koyukuk River (Figures 2 and 3). The Chena and Salcha River towers and carcass surveys (1993–2007) were operated in tributaries of the Tanana River near Fairbanks (Figure 3). Other projects that were operated in the

Tanana River drainage were the Kantishna River fish wheel (1999–2007) and the Delta River carcass survey (1971–2007) near Delta Junction. The Anvik River sonar project (1979–2007) was operated near Anvik; the Sheenjek River sonar (1981–2007), a tributary of the Porcupine River, was operated upstream of Fort Yukon; and the Chandalar River sonar and carcass survey (2005–2007) was conducted near Venetie (Figures 2 and 3). Escapement projects that were operated in Canada include the Big Salmon River carcass survey (sporadic sampling occurred in the late 1980s and early 1990s and a dedicated carcass program began in 2006).

Yukon River drainage salmon age, sex, and length (ASL) data have been collected since 1960. Data were historically recorded using handwritten forms, computerized mark–sense forms, and most recently, electronic data loggers. Annual Yukon ASL data summaries have been reported in various formats. From 1962 through 1968 these data were reported in Annual Management Reports or Arctic Anadromous Fishery Investigation Reports. From 1969 through 1981 data were reported in Salmon Age, Sex, and Size Composition, an Alaska Department of Fish and Game (ADF&G) special report series. From 1982 through 1988 data were published in the Technical Fisheries Report series (e.g., Buklis 1987). For the years 1989, 1992, and 1994 data were published in the Regional Information Report series (e.g., Menard 1996). For the years 1990, 1991, 1993, and 1995 through 2003, Yukon ASL data were reported as an unpublished memorandum (e.g., DuBois 2004[1]). In 2004, ADF&G Division of Commercial Fisheries (CFD) began using the ADF&G Division of Sport Fish Fishery Data Series to report annual Yukon ASL data (e.g., Bales 2007). Currently, there is an ADF&G project to incorporate all historic salmon ASL data into a centralized database; the database is currently available to the public, although all historical data are not yet incorporated.

The purpose of this report is to present the 2007 Yukon River drainage salmon ASL summary data collected from various commercial and subsistence harvests, test fisheries, and escapement projects throughout the drainage. Summary data are presented as sample percentages and by numbers of fish where possible. ASL data and summaries provide the basis for a variety of analyses including preseason run outlooks, assessment of the proportion of females and older-aged fish in escapements, and development of spawner-recruit models and biological escapement goals.

OBJECTIVE

Summarize age, sex, and size data from Chinook, summer chum, fall chum, and coho salmon collected by various organizations throughout the Yukon River drainage.

METHODS

Chinook, summer chum, fall chum, and coho salmon were sampled for ASL data from commercial and subsistence harvests, as well as test fishery and escapement projects throughout the Yukon River drainage. Various state, federal, Canadian, and tribal agencies collected these data. Division of Commercial Fisheries staff based in Anchorage process, analyze, and report ASL summary information. Methods described are those procedures recommended by ADF&G; other organizations may have collected and recorded data using slightly different procedures.

[1] DuBois, L. 2004 (Unpublished). Salmon age and sex composition and mean lengths for the Yukon River Area, 2003. Alaska Department of Fish and Game, Division of Commercial Fisheries, Anchorage.

SAMPLE DESIGN

A stratified random sampling design was used to obtain samples for estimating age, sex, and length compositions from most projects. Strata were assigned as individual fishing periods for commercial harvest samples, time strata of variable length for escapement estimates (weir and sonar projects), weekly strata for subsistence samples, run strength indices (such as quartiles for test fishery projects), and number of fish sampled for carcass samples. Strata were adjusted depending on the number and distribution of samples collected and an attempt was made to include sufficient sample sizes within each stratum to estimate the proportion of each major age class with α=0.05 and d=0.1 (Bromaghin 1993). The escapement/harvest for each stratum was provided by project leaders and ADF&G fish ticket harvest reports.

Proportion of j-th age-sex class at s-th strata ($\hat{P}_{sj}$) was estimated as:

$$\hat{P}_{sj} = \left(\frac{n_{sj}}{n_s} \right) \tag{1}$$

Where:

n_{sj} = number of samples for age-sex class j in stratum s,

n_s = number of samples in stratum s,

The number of j-th age-sex class at s-th strata ($\hat{N}_{sj}$) was estimated as:

$$\hat{N}_{sj} = N_s \cdot \hat{P}_{sj} \tag{2}$$

Where:

N_s = escapement/harvest of age-sex class j in stratum s,

When data for all strata were available, season-wide proportion and number of j-th age-sex class was estimated as:

$$\hat{P}_j = \frac{1}{N} \sum^{s} N_s \hat{P}_{sj} \tag{3}$$

$$\hat{N}_j = \sum^{s} N_s \hat{P}_{sj}$$

Where:

N = total season escapement/harvest.

As observed from a given location, the ASL composition of a returning salmon population often changes over the course of the season (Molyneaux et al. 2006); therefore, sample proportions were applied to harvest or escapement estimates only when adequate sample size, strata distribution, and numbers of fish by stratum were available. Commercial harvest samples and tributary escapement monitoring projects utilizing weir or sonar typically met the criteria for stratification. Subsistence, test fishery, and carcass sampling projects frequently failed to meet one or more of these criteria and were summarized by number of samples. Samples were stratified by mesh size at the Comparative Mesh Size study, Pilot Station sonar, and Eagle sonar. Age, sex and length percentages for commercial samples were weighted by the respective harvest for all species in District 1, Chinook and summer chum in District 2, summer chum in Subdistrict Y4-A, Chinook and fall chum in District 5, and Chinook, summer chum and fall chum in District 6. Age, sex, and length percentages for escapement samples were weighted by the respective escapement for summer chum salmon at the East Fork Andreafsky and Anvik Rivers, and Chinook and summer chum salmon at the Gisasa, Henshaw and Tozitna Rivers. East Fork Andreafsky Chinook salmon age and length escapement samples were also weighted by the project escapement estimate. These estimates are preliminary and individual project reports by the participating agencies should be referenced for final escapement, age, and sex estimates.

GENERAL SAMPLING PROCEDURES

Scales were removed from the preferred area of the fish and mounted on gum cards for future age determination by ADF&G (INPFC 1963). The preferred area is located on the left side of the fish, 2 rows above the lateral line along a line from the posterior insertion of the dorsal fin to the anterior insertion of the anal fin. One scale was removed from each chum salmon and 3 scales were removed from each Chinook and coho salmon. Scale regeneration, or scale loss and rapid replacement, contributes to aging uncertainties primarily in the freshwater growth area. Chinook and coho salmon usually rear in freshwater for 1 year or longer, hence 3 scales were removed from these fish to increase the chance of selecting a scale that could be aged. In some tributaries, vertebrae were used to age summer chum and fall chum salmon when scale reabsorption makes aging scales difficult. Vertebrae were removed from fish collected during selected carcass sampling and beach seining projects.

Sex was determined by examining internal reproductive organs or external characteristics such as kype development and presence of reproductive organs at the vent. The LYTF projects, the Comparative Mesh Size study, and carcass sampling surveys were the only projects where internal organs were examined; hence, these projects have accurate sex composition. Other test fishery projects conducted by non-ADF&G staff were instructed to examine internal organs; however, this protocol may not have been adhered to in all projects. Internal organs were not examined from commercial and subsistence harvests and some non-ADF&G staffed test fisheries, because cutting fish would decrease fish value to commercial buyers and subsistence fishers prefer to cut their fish immediately before processing.

Lengths from fish sampled in Alaska were determined by measuring each fish from mideye to fork of tail and were recorded to the nearest 5 mm increment. Field data were recorded in Rite-in-the-Rain books and transferred to mark–sense forms (ADF&G Adult Salmon Age-Length Form, Version 2.1) or entered into *MS Excel*[2] files. During the lower river commercial harvest

[2] Product names used in this report are included for scientific completeness, but do not constitute a product endorsement.

sampling sex and length data were entered directly into Juniper data loggers and loaded into an inseason database, which streamlined analyses.

Weight (lbs) and girth (mm) measurements were collected from Chinook salmon sampled in the LYTF projects and in the Comparative Mesh Size study; girth measurements were collected from Chinook salmon sampled in the Marshall test fishery and from Kaltag subsistence harvests. Weight was taken at the dock using a hanging warehouse scale suspended from a tripod. Girth was measured while the fish was hanging from the scale, with a "QM2000 Measure Mate – Girth and Linear Measure Tape," perpendicular to the longitudinal axis of the fish at the anterior insertion of the dorsal fin and recorded to the nearest 5 mm increment.

SAMPLE COLLECTION

Commercial Harvest Sampling

The CFD crews conducted commercial harvest sampling for Chinook, summer and fall chum, and coho salmon in Districts 1, 2, 5, 6 and Subdistrict 4-A. Sample goals were up to 400 Chinook salmon, 160 summer and fall chum salmon, and 120 coho salmon by period and district. District 1 samples were collected from fish processors in Emmonak, and District 2 samples were collected from fish processors in Mountain Village and St. Mary's (Figure 2). Off-loading crews placed each salmon in a species-specific tote or bin. When excess fish were not available, CFD crews sampled all available fish until the sample goal was attained. When excess fish were available, sampling crews selected a tote of fish and sampled every fish in the tote. Sampling crews worked quickly to attain sampling goals in the short time between fish delivery and processing.

Commercial harvests from Chinook and summer and fall chum salmon in Districts 5 and 6 were sampled at a processing plant in North Pole near Fairbanks. Similar to lower river sampling, CFD crews arrived before fish deliveries and worked quickly to achieve sample goals before processing began.

The Lower Yukon River summer season commercial fishery was directed at both Chinook (unrestricted mesh size gillnets) and summer chum salmon (restricted ≤6" mesh size gillnets). Gillnets were restricted to 6 inch or less mesh size in 9 District 1 and 6 District 2 commercial fishing periods; all other periods in Districts 1, 2, and 3 allowed unrestricted mesh size gillnets. Gillnets with a mesh size of 8.0 inches or larger were likely used during the unrestricted commercial fishing periods. Summer season commercial harvests in Subdistrict 4-A (roe fishery) and District 6 were from fish wheels. Gillnets and fish wheels were used in the District 5 summer season commercial fishery.

The District 1 fall season commercial fishing periods allowed unrestricted mesh size gillnets; gillnets with a mesh size of 6.0 inches or less were likely used. District 5 and 6 fall season commercial salmon harvests were from fish wheels.

Subsistence Harvest Sampling

Collecting subsistence harvest samples is opportunistic and depends on timing, availability, logistics, and willingness of fishers to participate. Crews typically sample every fish available because finding fish to sample, specifically when boat travel among fishing camps is required, is time consumptive. Subsistence harvest sampling design is therefore what Geiger et al. (1990) termed a "grab or haphazard sample", where the population is assumed to be nearly in random

order and all available fish are sampled. Assuming consistent effort by samplers, more fish are sampled when more fish are available which tends to self-weight the samples by gear, area, and time period collected.

Subsistence harvests of Chinook and summer chum salmon in District 1 were sampled by CFD staff during weekly subsistence fishing openings, which occurred from 8 PM Monday to 8 AM Wednesday and from 8 PM Thursday to 8 AM Saturday. Typically, on Tuesdays and Fridays, crews traveled by boat to subsistence fishing camps for sampling. In addition to sex and length data, mesh size was recorded as either chum or king gear as part of a United States Fish and Wildlife Service (USFWS) inseason survey. If fish were already processed, scales were collected without corresponding sex and length data.

The Tanana Chiefs Conference employed individuals from selected villages to sample subsistence harvests of Chinook salmon in Holy Cross and Bishop Rock. When sex and length data were unavailable or not corresponding with age data, only age composition was summarized. The City of Kaltag collected Chinook salmon samples from Subdistrict 4-A. Crews from the CFD collected Chinook samples in Ruby, Nulato, Galena and District 5, and fall chum salmon samples from Subdistricts 5-B and 6-B.

Test Fishery Sampling

The CFD test fishery crew sampled all of the Chinook caught during the Comparative Mesh Size study from 7.0-inch, 7.5-inch and 8.0-inch drift gillnets. For all other test fishery projects, sampling goals were up to 30 Chinook, summer chum, and fall chum salmon daily; and up to 20 coho salmon daily. The CFD crew sampled Chinook salmon at Big Eddy and Middle Mouth from 8.5-inch mesh set gillnets, summer chum salmon from one 5.5-inch set gillnet at Big Eddy, and fall chum and coho salmon from 6.0-inch mesh drift gillnets; fish sampled from the LYTF projects were cut for accurate sex determination. At Marshall, the Association of Village ‘ Presidents (AVCP) test fishery crew sampled Chinook salmon caught in 8.25-inch drift gillnets. Test fishery crews in Mountain Village (Asa’carsarmiut Tribal Council) and Kaltag (City of Kaltag) sampled fall chum and coho salmon from 5⅞-inch drift gillnets. The Pilot Station sonar crew (CFD) sampled Chinook salmon caught in drift gillnets of varying mesh sizes (2.75 inch, 4.0 inch, 5.0 inch 5.25 inch, 5.75 inch, 6.5 inch, 7.5 inch, 8.0 inch, 8.38 inch and 8.5 inch). The Eagle sonar crew (CFD) also used drift gillnets of varying mesh sizes to sample Chinook (5.25 inch, 6.5 inch, 7.5 inch, and 8.5 inch) and fall chum salmon (5.25 inch, 5.75 inch, 7.5 inch). Test fishery crews sampled every fish harvested until their daily sample goal was reached. Fish wheels were operated just upstream of the Alaska-Canada border at the Sheep Rock and White Rock sites, where Canada Department of Fisheries and Oceans (DFO) sampled Chinook salmon.

Escapement Sampling

Several organizations operating weirs, sonar projects, counting towers and other ground-based surveys conducted escapement sampling. Sampling goals varied among projects, but were loosely defined as 160 Chinook, 160 summer or fall chum, and 120 coho salmon per event. An event may be weekly sampling goals, quartile-based goals, or a single post season goal. Depending on the strength of the run, sample goals may only be achieved during periods of peak run passage at weir projects. Suggested sample goals, specific project objectives, fish abundance, historical fish passage, run timing, water levels, personnel, and budget are some of the issues considered by project leaders when assessing sample goals.

Chinook and summer chum salmon were live-sampled using a trap built into weirs at the East Fork Andreafsky, Gisasa, Henshaw, and Tozitna rivers. An example of weir sampling and operation methods is provided by Sundlov et al. (2004). Summer chum salmon were live-sampled using a beach seine in the Anvik River. Ground based surveys were used to sample Chinook and summer chum salmon carcasses at the Salcha River, Chinook carcasses at the Chena River, and Chinook carcasses at the Big Salmon River in Canada. Doxey et al. (2005) describes carcass sampling methods used in the Chena and Salcha Rivers.

Four fall chum salmon escapement projects, operating on the Delta, Sheenjek, Kantishna and Chandalar rivers, used vertebrae to determine ages. The fish sampled in these projects were either hand-picked carcasses, or captured with a beach seine or fish wheel at or near the spawning grounds. Because fish near the spawning grounds have started to reabsorb their scales, vertebrae are a more accurate aging structure than fish scales.

The USFWS collected samples at the East Fork Andreafsky, Gisasa, and Chandalar rivers. Samples from the Tozitna River were collected by the Bureau of Land Management. Samples collected from the Anvik, Chena, Kantishna, Delta, and Sheenjek rivers were collected by ADF&G. Bering Sea Fishermen's Association collected samples from the Salcha River. Henshaw River samples were collected by the Tanana Chiefs Conference. The DFO collected samples from the Canadian projects.

Age and sex percentages from the samples were applied to the escapement estimates from the East Fork Andreafsky River weir, Anvik River sonar, Gisasa River weir, Henshaw Creek weir, and Tozitna River weir. These estimates are preliminary and individual project reports by the participating agencies should be referenced for final estimates.

AGE DETERMINATION

Age was determined from the annuli of scales or vertebrae samples. The scales, which are mounted on gum cards, were impressed in cellulose acetate using methods described by Clutter and Whitesel (1956). Scale impressions were magnified and examined using a Microfiche reader. Age was determined by counting the number of freshwater and marine annuli, the regions of the scale where the circuli, or rings, are tightly spaced representing slower growth rates associated with winter conditions (Mosher 1969). Vertebrae samples were frozen, cleaned, and dried; ages were also determined by counting the annuli that form during winter conditions. Ages were entered into *MS Access*, onto mark–sense forms, or into a *MS Excel* file depending upon which format sex and length data were originally recorded in. Ages were recorded using European notation, the number of freshwater annuli separated by a decimal from the number of marine annuli. Total age from the brood year is the sum of freshwater and marine annuli plus one to account for time spent in the gravel before hatching.

RESULTS

CHINOOK SALMON

In 2007, a total of 10,408 Chinook salmon were sampled for ASL data from the Yukon River drainage (Table 1). Chinook salmon ASL summary tables for commercial and subsistence harvests, test fisheries, and escapement sampling projects are presented in Tables 1–6 and Appendices A1–A32.

Chinook Salmon Commercial Harvest Age and Sex Composition

Samples were collected from 3,909 commercially harvested Chinook salmon (Tables 1 and 2, Appendices A1–A4). The age composition of the combined commercial harvest was primarily made up of age-1.4 (64.3%) and age-1.3 (21.4%) Chinook salmon. Females represented 44.9% of the total (Table 2).

When comparing the 2007 District 1 unrestricted mesh size commercial harvest with the District 1 commercial large mesh (≥8.0 inch) historical data, the percentage of 6-year old fish (82.0%) was above the average (61.8%), and 5-year old fish (13.6%) and 7-year old fish (2.3%) were below average (25.3% and 10.1%, respectively). The percentage of females in 2007 (53.7%) was near the historical average of 51.4% (Table 3).

Chinook Salmon Subsistence Harvest Age and Sex Composition

Samples were collected from 1,371 subsistence harvested Chinook salmon; of these, 121 fish had age only; 1,250 fish had age, sex and length; and 228 fish had age, sex, length and girth (Table 1 and Appendices A5–A14). The age composition of the subsistence samples from large mesh (8.5 inch) and unknown mesh size gillnets was similar to the commercial harvest, with age-1.4 and age-1.3 fish most prevalent. The subsistence samples from small mesh (5.5 inch) size gillnets, fish wheels, or a combination of fish wheels and unknown mesh size gillnets were mostly age-1.3 and age-1.2 fish. The females in the subsistence samples ranged from 26.5% for the Galena samples to 59.6% for the Ruby samples (Appendices A11 and A13).

Chinook Salmon Test Fishery Age and Sex Composition

Samples were collected at 8 test fishery project sites: 2,492 Chinook salmon were sampled from 6 gillnet test fisheries in Alaska and 711 fish were sampled from 2 fish wheels in Canada (Table 1 and Appendices A15–A25). The age distribution of the test fishery samples from projects conducted in Alaska was similar to that of the commercial harvest, with age-1.4 and age-1.3 fish most prevalent. Drainage wide, age-1.4 fish predominated from all projects using gillnets (Table 1, Appendices A16 and A20). Age-1.3 fish predominated catches at the 2 Canadian fish wheel projects (Appendices A23 and A24). These 2 projects also had the highest percentages of age-1.2 fish. Females in the test fishery samples ranged from 21.5% at the White Rock fish wheel to 52.9% at the Middle Mouth project (Table 1, Appendices A16 and A24).

There was a significant difference in the age composition of male and female Chinook salmon collected in the LYTF projects (chi-square=39.52, df=1, $p<0.0001$). Males had a higher percentage of younger fish (ages-1.2 and -1.3) and females had a higher percentage of older fish (ages-1.4 and -1.5; Appendices A15–A17).

Comparing 2007 LYTF percentages with the historical average (1994, 1998–2006; Table 4), the percentage of 6-year old fish (80.2%) was greater then the average (64.3%), 5-year old fish (14.4%) was less than the average (27.9%), and 7-year old fish (0.8%) was less than the average (6.2%; Table 4). Females made up 52.5% of the 2007 samples, which was near the historical average of 53.0%.

Chinook Salmon Escapement Age and Sex Composition

Samples were collected from 1,925 Chinook salmon at 7 escapement sampling locations in tributaries of the Alaska and Canadian portions of the Yukon River (Table 1 and Appendices A26–A32). Age-1.4 Chinook salmon predominated at most escapement sampling projects,

ranging from 32.1% in the Chena River carcass samples to 76.2% in the Big Salmon River carcass samples (Table 1, Appendices 27 and 32). Projects where age-1.2 Chinook predominated include the East Fork Andreafsky River weir (41.7%) and the Henshaw Creek weir (46.6%; Appendices A26 and A29). The Tozitna weir had the highest percentage of age-1.3 fish (35.0%, Appendix A31). Females ranged from 24.9% at the Henshaw Creek weir to 71.3% in the Big Salmon River carcass samples (Appendices 29 and 32).

At the East Fork Andreafsky River weir, 6-year old fish (32.0%) were near the 1985–2006 historical average (32.8%) and 4-year old fish (41.7%) were above the historical average (20.9%) for the project. In the Salcha River, 6-year old (50.3%) and 4-year old fish (22.4%) were above the historical averages (47.9% and 13.2%, respectively) for the project (Table 5 and Appendix A30).

Chinook Salmon Mean Length

The average mean length for males by age was: 427 mm for age-1.1, 570 mm for age-1.2, 709 mm for age-1.3, 553 mm for age-2.2, 823 mm for age-1.4, 744 mm for age-2.3, 857 mm for age-1.5, and 804 mm for age-2.4. The average mean length for females by age was: 495 mm for age-1.1, 586 mm for age-1.2, 754 mm for age-1.3, 680 mm for age-2.2, 841 mm for age-1.4, 818 mm for age-2.3, 861 mm for age-1.5, and 811 mm for age-2.4 (Table 6).

There was a significant difference in the mean lengths between male and female Chinook salmon collected in the LYTF projects (one-tailed t-tests; $p<0.0001$, $df=693$). Males had a mean length of 798 mm and were smaller on average than females, which had a mean length of 854 mm (Appendix A17).

Chinook Salmon Mean Weight and Mean Girth

At the LYTF projects, the mean weight of males ranged from 6.2 lbs for age-1.2 to 27.6 lbs for age-1.5. The mean weight of females ranged from 7.2 lbs for age-1.2 to 22.9 lbs for age-1.4. The mean girth of males ranged from 343 mm for age-1.2 to 548 mm for age-1.5. The mean girth of females ranged from 350 mm for age-1.2 to 537 mm for age-1.5 (Appendices A15–A17).

At the Comparative Mesh Size study, for all mesh sizes combined, the mean weight of males ranged from 6.9 lbs for age-1.2 to 23.3 lbs for age-2.4. The mean weight of females ranged from 15.8 lbs for age-1.3 to 21.0 lbs for age-1.5. The mean girth of males ranged from 359 mm for age-1.2 to 538 mm for age-2.4, and the mean girth of females ranged from 464 mm for age-1.3 to 508 mm for age-1.4 (Appendix A19).

At the Marshall test fishery, the mean girth of males ranged from 385 mm for age-1.2 to 532 mm for age-1.4. The mean girth of females ranged from 380 mm for age-1.2 to 533 mm for age-1.4 (Appendix A20).

Chinook salmon girth measurements were also collected from subsistence harvests at Kaltag (Appendix A9). The mean girth of males ranged from 309 mm for age-1.2 to 540 mm for age-1.5. The mean girth of females ranged from 453 mm for age-1.3 to 504 mm for age-1.4.

SUMMER CHUM SALMON

A total of 7,716 summer chum salmon were sampled for ASL data from the Alaska portion of Yukon River drainage in 2007 (Table 7). Summer chum salmon ASL summary tables for commercial and subsistence harvests, test fisheries, and escapement sampling projects are presented in Tables 7–11 and Appendices B1–B13.

Summer Chum Salmon Commercial Harvest Age and Sex Composition

Samples were collected from 4,111 commercially harvested summer chum salmon (Tables 7 and 8, and Appendices B1–B4). Age-0.4 summer chum salmon predominated in the District 1 and 2 harvests, and age-0.3 fish predominated in the Subdistrict 4-A and District 6 harvests. Overall, the age composition for the combined commercial harvest was predominated by age-0.4 (50.1%), followed by age-0.3 (35.0%), and age-0.5 fish (14.8%; Table 8). Females represented 49.4% of the total harvest (Table 8).

Summer Chum Salmon Subsistence Harvest Age and Sex Composition

Samples were collected from 163 summer chum in the District 1 subsistence harvest (Table 7, Appendices B5 and B6). Age-0.4 fish made up 63.6% of the samples from the 5.5 inch mesh gillnets and 55.6% from the 8.5 inch mesh gillnets. Females represented 44.8% and 44.4% of the samples from the 5.5 inch and 8.5 inch mesh gillnets, respectively.

In 2007, the age composition from the combined subsistence and commercial summer chum samples, from all gear types and locations, was composed of 38.8% age-0.3, 48.6% age-0.4, and 12.5% age-0.5 fish. Age-0.3 and age-0.4 summer chum salmon were below the historical average (47.1% and 50.2%, respectively), and age-0.5 fish were well above the average (2.3%; Table 9).

Summer Chum Salmon Test Fishery Age and Sex Composition

Samples from 91 summer chum salmon were collected at the Big Eddy test fishery project (Appendix B7). Age-0.3 fish made up 42.9%, age-0.4 fish were 47.3%, and age-0.5 fish were 9.9% of the samples; 65.9% were female (Table 7 and Appendix B7).

Compared with the LYTF 5-year average (2002–2006), the 2007 Big Eddy summer chum salmon age composition showed a 9.1 increase in age-0.5 fish, a 7.7 increase in age-0.4 fish, and a 15.8 percentage point decrease in age-0.3 fish, (Table 10).

Summer Chum Salmon Escapement Age and Sex Composition

Samples from 3,351 summer chum salmon were collected at 6 escapement project sites in tributaries of the Yukon River (Table 7 and Appendices B8–B13). Age-0.3 fish predominated at all of the escapement projects and ranged from 55.5% for the Salcha River carcass samples to 71.5% at the East Fork Andreafsky River weir (Appendices B8 and B12). The average percentage of females from the escapement projects was 51.0% (Table 7).

Summer Chum Salmon Mean Length

The average mean length for males by age was: 553 mm for age-0.2, 565 mm for age-0.3, 585 mm for age-0.4, 587 mm for age-0.5, and 580 mm for age-0.6. The average mean length for females by age was: 533 mm for age-0.2, 547 mm for age-0.3, 561 mm for age-0.4, 570 mm for age-0.5, and 620 mm for age-0.6 (Table 11).

FALL CHUM SALMON

A total of 4,317 fall chum salmon were sampled for ASL data from the Alaskan portion of the Yukon River drainage in 2007 (Table 7). Fall chum salmon ASL summary tables for commercial and subsistence harvests, test fisheries, and escapement sampling projects are presented in Tables 7, 8, 11; and Appendices C1–C15.

Fall Chum Salmon Commercial Harvest Age and Sex Composition

Samples were collected from 1,227 commercially harvested fall chum salmon (Tables 7 and 8; Appendices C1–C3). The age composition for the fall chum salmon combined commercial harvest in 2007 was 82.6% age-0.3, and 14.9% age-0.4 fish. Females represented 59.6% of the total (Table 8).

Fall Chum Salmon Subsistence Harvest Age and Sex Composition

Samples were collected from 435 subsistence harvested fall chum salmon (Table 7; Appendices C4 and C5). In Subdistrict 5-B, age-0.3 fish made up 67.4% and age-0.4 fish made up 30.7% of the harvest samples (Appendix C4). In Subdistrict 6-B, age-0.3 fish made up 76.7% and age-0.4 fish made up 20.7% of the harvest samples (Appendix C5). Females made up 55.8% and 57.8% of the harvest samples from Subdistrict 5-B and 6-B, respectively (Appendices C4 and C5).

Fall Chum Salmon Test Fishery Age and Sex Composition

Samples from 2,046 fall chum salmon were collected from 6 test fishery project sites in the Yukon River (Table 7 and Appendices C6–C11). Overall, the test fishery samples were predominated by 74.0% age-0.3 fish and 22.1% age-0.4 fish. Females made up 49.9% of the test fishery samples (Table 7).

Fall Chum Salmon Escapement Age and Sex Composition

Vertebrae samples from 609 fall chum salmon were collected at 5 escapement project sites in Yukon River tributaries (Table 7 and Appendices C12–C15). Overall, the samples were predominated by age-0.3 (65.5%) and age-0.4 fish (26.5%), which was similar to the age composition at other fall chum salmon projects. Overall, the fish sampled from the escapement projects were composed of 41.0% females (Table 7).

Fall Chum Salmon Mean Length

The average mean length for males by age was: 590 mm for age-0.2, 592 mm for age-0.3, 607 mm for age-0.4, and 620 mm for age-0.5 fish. The average mean length for females by age was: 570 mm for age-0.2, 577 mm for age-0.3, 585 mm for age-0.4, 595 mm for age-0.5 and 630 mm for age-0.6 fish.

There were significant differences between male and female fall chum salmon mean lengths from the LYTF projects (one-tailed t-tests; $p<0.0001$, $df=421$). Males had a mean length of 591 mm and were larger than females, which had a mean length of 582 mm (Appendix C8).

COHO SALMON

A total of 1,234 coho salmon were sampled for ASL data from the Yukon River drainage in 2007 (Table 12). Coho salmon ASL summary tables for commercial and test fishery sampling projects are presented in Tables 12 and 13 and Appendices D1–D6.

Coho Salmon Commercial Harvest Age and Sex Composition

Samples were collected from 556 commercially harvested coho salmon (Table 12 and Appendix D1). Age-2.1 fish made up 86.6% of the sample; 51.9% of all coho sampled in the commercial harvest were female.

Coho Salmon Test Fishery Age and Sex Composition

Samples were collected from 678 coho salmon at 4 test fishery project sites (Table 12 and Appendices D2–D6). Overall, the test fishery samples were predominated by age-2.1 fish (81.8%); 49.8% of all coho sampled in the test fishery were female (Table 12).

Coho Salmon Mean Length

The average mean length for males by age was: 584 mm for age-1.1, 587 mm for age-2.1, and 567 mm for age-3.1 fish. The average mean length for females by age was: 588 mm for age-1.1, 590 mm for age-2.1, and 586 mm for age-3.1 fish (Table 13).

There was a significant difference between male and female coho salmon mean length (one-tailed t-tests; p=0.03, df=242) from the LYTF projects. Males had a mean length of 583 mm and were smaller on average than females, which had a mean length of 589 mm (Appendix D4).

DISCUSSION

Age, sex, and length data have been collected from Yukon River salmon species since the 1960s. This information aids in fishery management decisions and allows researchers to evaluate annual and historical changes in the ASL composition of salmon throughout the Yukon River drainage. Yukon River ASL sampling projects were designed to account for temporal and spatial variability that exists within a salmon population, but there is potential for some biases caused by small sample sizes, scale absorption, and collection methods. Age, sex and length data users are cautioned to be aware of these inherent biases when interpreting data.

Biases from a small sample size, stratum, or commercial fishing period are sometimes unavoidable. In Districts 1 and 2, Chinook salmon sample size goals were met during the 6 commercial fishing periods with unrestricted mesh size gillnets. However, Chinook sample size goals were not met during any of the restricted mesh periods and not all periods were sampled (Appendices A1 and A2). Some of the commercial fishing periods were not sampled due to a lack of harvest or a lack of personnel late in the season. Subsistence projects with small sample sizes include: District 1 Chinook (n=60) and summer chum salmon (n=9) from 8.5 inch gillnets, Subdistrict 4-A Nulato Chinook salmon (n=89) from gillnets, and District 5 Chinook salmon (n=85) from fish wheels (Table 1). Most test fishery sample sizes were adequate, with exception of the Big Eddy 5.5 inch set gillnet summer chum salmon samples (n=91). The sample sizes were satisfactory at most of the escapement projects as well, although the Chena River Chinook (n=53) and the Sheenjek River fall chum (n=76) escapement projects had small sample sizes (Tables 1 and 7). Insufficient samples sizes also exist for individual stratum for some of the projects. When sample sizes are below the targeted number, care should be used when interpreting the data.

Another possible bias, due to scale absorption, exists in samples collected from carcasses as well as from those taken on or near the spawning grounds. This potential bias is caused by the margin of the scale being absorbed in the last few weeks of a salmon's life as an energy reserve (Clutter and Whitesel 1956). Scale absorption normally becomes more pronounced the farther upriver the samples are collected and can lead to under aging when little evidence of the outermost annulus remains. For these reasons, vertebrae were collected for aging Salcha River summer chum carcasses, and all fall chum salmon carcasses.

A bias often results from inherent size selectivity in sample collection methods. This bias is most apparent with Chinook salmon, because of the large size range, where males and younger aged fish predominate the smaller size fish. Gillnets are size selective based on mesh size; fish wheels tend to be biased towards smaller sized fish that migrate near shore in lower water velocities (Meehan 1961). In spawning ground carcass recoveries, Kissner and Hubartt (1986) indicated Chinook salmon males tend to drift downstream while females tend to remain near their redds; and during periods of increased water velocities, smaller fish have a greater potential to be carried downstream and out of the study area. Zhou (2002) indicated that fish size and stream flow affect carcass recovery rates. This nonrandom dispersal of carcasses could bias ASL data towards females and larger older-aged fish, although proper sampling designs have been shown to reduce this (Evenson 1991; Skaugstad 1990). Many scientists believe a bias may exist in weir sampling towards smaller fish when larger fish are more reluctant, or "trap shy", to enter a confined weir trap structure and be available for live sampling. Though trap shyness has yet to be scientifically evaluated, users of these data should be aware that this potential bias exists. Sampling biases are described in greater detail by Molyneaux et al. (2006).

CHINOOK SALMON

Chinook Salmon Age Composition

In 2007, 6-year old Chinook salmon predominated most of the commercial, subsistence, and test fishery harvests as well as in the escapement projects (Table 1). This trend occurred in projects using various capture gear, such as, gillnets, weir traps, and carcass recoveries. Projects with relatively high percentages of 5-year old and 4-year old Chinook salmon in 2007 were those using fish wheels and small mesh (<6 inch) gillnets, both of which have been shown to select for smaller and younger fish (Meehan 1961; Molyneaux et al. 2005). Most sampling projects in 2007 had an above average percentage for 6-year old Chinook salmon and a below average percentage for 5-year old Chinook salmon (Tables 3–5).

At the LYTF projects, age distribution was different by sex, where more of the younger fish (4- and 5-year old) were male and more of the older fish (6- and 7-year old) were female. This difference in Chinook salmon age composition is normal and has been reported from the Yukon and Kuskokwim rivers in recent reports (Bales 2007; Karpovich and DuBois 2007; Molyneaux et al. 2006).

Chinook Salmon Sex Composition

Historically, LYTF Chinook salmon have been close to 50% female (Table 4). Samples collected from individual projects and locations can vary in sex composition, which is often related to the gear used to capture the fish and the relative percentage of smaller age-1.2 fish which are usually male (Table 5). A relatively low percentage of females can be attributable to the selectivity of fish wheels, where smaller and typically male fish are caught (Meehan 1961). For example, at the Canadian fish wheel projects, nearly three-quarters of the Sheep Rock and White Rock Chinook salmon were male. Additionally, younger fish comprised a large portion of the catch at these projects (Table 1, Appendix A21–A23). Low percentages of females can also be expected when using small mesh (<6 inch) gillnets (Molyneaux et al. 2005). The variable mesh (2.75 inch to 8.5 inch) gillnet test fishery samples from Pilot Station sonar had a relatively low overall percentage of females (34.2%) compared to projects that fished gillnets with medium to large mesh sizes (Table 1). Eagle sonar also fished variable mesh sizes, but the range focused

primarily on medium to large size mesh gillnets (5.25 inch to 8.5 inch), and the resulting proportion of females in the sample was 43.4%. Some of the escapement projects with high percentages of returning age-1.2 and age-1.3 Chinook salmon also had relatively low percentages of females (e.g., Tozitna and Henshaw Rivers; Appendices A31 and A29).

Chinook Salmon Length Composition

The size of Chinook salmon returning to the Yukon River has been a growing concern. Many fishers and researchers suggest fewer "large" fish returning than in the past. The Salmon Size Subcommittee of the US/Canada Yukon River Joint Technical Committee was formed in 2006 in response to these concerns. The Subcommittee was tasked with reviewing the existing information and literature and advising the Committee, with respect to changes in Chinook salmon age, sex, and size composition (JTC 2006b). As summarized by the Subcommittee, existing analyses document a decrease in the weight of commercial harvests (Bigler et al. 1996), a reduction in the prevalence of the largest fish (Hyer and Schleusner 2005), and the apparent near disappearance of age-8 fish (JTC 2006b). To address concerns about size, CFD collected weight and girth data at the LYTF projects, began the Comparative Mesh Size study, and conducted an age consistency study (DuBois and Liller *In prep*; JTC, 2008).

At the LYTF projects, Chinook salmon males were smaller on average than females, which is consistent with recent analyses. Karpovich and DuBois (2007) found that males were smaller than females with the exception of the age-1.5 fish. Molyneaux et al. (2006) also reported male Chinook salmon having a smaller mean length than females on the Kuskokwim River.

SUMMER CHUM SALMON

Summer Chum Salmon Age Composition

Age-0.3 and age-0.4 fish were the predominant age classes for summer chum salmon returning to the drainage in 2007 (Table 7). Additionally, age-0.5 summer chum composed a larger than average percentage of the return in 2007, which was consistent with the above average return of age-0.4 summer chum salmon in 2006 (Bales 2008) and the above average return of age-0.3 summer chum salmon in 2005 (Bales 2007).

Summer Chum Salmon Sex Composition

Samples from most summer chum salmon projects had female percentages near 50% (Table 7). The exception was the Subdistrict 4-A summer chum commercial fishery, which was directed towards females.

Summer Chum Salmon Length Composition

Length comparisons between males and females for summer chum salmon showed a trend opposite that of Chinook salmon. At the LYTF projects, males were found to be larger on average than females, which is consistent with findings by Karpovich and DuBois (2007). Molyneaux et al. (2006) also reported the mean lengths of females were generally less than males by age for summer chum salmon on the Kuskokwim River.

FALL CHUM SALMON

Fall Chum Salmon Age Composition

Age-0.3 fish were the most abundant age class at the fall chum salmon sampling projects (Table 7). Additionally, the percentage of age-0.5 fall chum salmon was above average, which was consistent with the exceptional returns of age-0.4 fish in 2006 and age-0.3 fish in 2005, from the 2001 brood year (Bue 2008).

Fall Chum Salmon Sex Composition

Samples from most fall chum salmon projects had female percentages near 50% (Table 7). The District 6 fall chum commercial harvest was presorted by the commercial processor prior to sampling, which increased the percentage of females at the project (Appendix C3).

Fall Chum Salmon Length Composition

At the LYTF projects, males were found to be larger on average than females for fall chum, which is consistent with findings by Karpovich and DuBois (2007).

COHO SALMON

Coho Age Composition

Coho salmon age-2.1 predominated in 2007 (Table 12). Age-2.1 fish are typically the most common age of coho salmon that return to the Yukon River drainage (Bue and Hayes 2006).

ACKNOWLEDGEMENTS

This investigation was funded by the United States Fish and Wildlife Service and the Alaska Department of Fish and Game. The authors thank all agencies that collected the salmon stock assessment data included in this report: the Alaska Department of Fish and Game, Commercial and Sport Fish Divisions; Asa'carsarmiut Tribal Council, Association of Village Council Presidents, Bering Sea Fishermen's Association, Canadian Department of Fisheries and Oceans, City of Kaltag, Tanana Chiefs Conference, United States Fish and Wildlife Service, United States Department of the Interior Bureau of Land Management, Yukon Delta Fisheries Development Association, and the Yukon River Drainage Fisheries Association.

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TABLES AND FIGURES

Table 1.–Yukon River Chinook salmon age and female percentages from commercial, subsistence, test fishery, and escapement projects, 2007.

Project Type	Sample	Percent (%)										
		Brood Year (Age)										
		2004	2003	2002		2001		2000		1999		
Location and (gear)	Size	(1.1)	(1.2)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)	Female
Commercial												
District 1 (gillnet)	1,977	0.0	8.7	18.7	0.0	70.7	0.0	1.7	0.2	0.0	0.0	48.9
District 2 (gillnet)	1,402	0.0	17.0	23.8	0.0	57.6	0.4	0.9	0.3	0.0	0.0	40.3
District 5 (gillnet and fish wheel)	439	0.0	15.6	37.4	0.3	45.9	0.0	0.8	0.0	0.0	0.0	37.9
District 6 (fish wheel)	91	3.2	34.2	18.8	0.0	42.1	0.0	1.6	0.0	0.0	0.0	35.4
Subsistence												
District 1 (5.5" mesh gillnet) [a]	190	0.0	22.1	53.2	0.0	24.2	0.0	0.5	0.0	0.0	0.0	31.9
District 1 (8.5" mesh gillnet)	60	0.0	3.3	18.3	0.0	78.3	0.0	0.0	0.0	0.0	0.0	56.7
District 3, Holy Cross (gillnet)	204	0.0	2.5	23.5	0.0	72.5	0.0	1.0	0.5	0.0	0.0	51.0
Subdistrict 4-A, Kaltag (8.5" mesh gillnet)	228	0.0	4.4	18.4	0.0	76.8	0.0	0.4	0.0	0.0	0.0	53.9
Subdistrict 4-A, Nulato (gillnet)	89	0.0	7.9	31.5	0.0	60.7	0.0	0.0	0.0	0.0	0.0	40.4
Subdistricts 4-B, 4-C Galena (gillnet and fish wheel)	136	0.0	41.9	30.1	0.7	26.5	0.0	0.7	0.0	0.0	0.0	26.5
Subdistricts 4-B, 4-C Bishop Rock (gillnet)	186	0.0	2.7	18.8	0.0	78.0	0.0	0.5	0.0	0.0	0.0	51.1
Subdistricts 4-B, 4-C Ruby (gillnet and fish wheel)	193	0.0	26.4	37.8	0.0	35.8	0.0	0.0	0.0	0.0	0.0	59.6
District 5 (fish wheel)	85	0.0	23.5	50.6	1.2	23.5	0.0	1.2	0.0	0.0	0.0	38.8
Test Fishery												
Big Eddy (8.5" mesh set gillnet)	387	0.0	1.8	18.3	0.0	78.3	0.3	1.3	0.0	0.0	0.0	51.9
Middle Mouth (8.5" mesh set gillnet)	643	0.0	6.4	12.0	0.0	81.2	0.0	0.5	0.0	0.0	0.0	52.9
Comparative Mesh Study (7.0 to 8.0" mesh gillnet)	381	0.0	3.7	26.0	0.0	68.8	0.0	1.0	0.5	0.0	0.0	51.2
Marshall (8.25" mesh drift gillnet)	210	0.0	3.8	17.1	0.0	78.6	0.0	0.5	0.0	0.0	0.0	38.1
Pilot Station (2.75 to 8.5" mesh gillnet)	482	0.0	13.1	34.9	0.0	50.8	0.2	0.8	0.2	0.0	0.0	34.2
Eagle Sonar (5.25 to 8.5" mesh gillnet)	389	0.0	5.7	40.1	0.0	53.5	0.3	0.5	0.0	0.0	0.0	43.4
Sheep Rock (fish wheel)	325	0.3	19.4	41.2	0.0	36.9	0.6	0.9	0.6	0.0	0.0	27.4
White Rock (fish wheel)	386	0.5	23.3	44.0	0.3	26.9	2.1	1.0	1.8	0.0	0.0	21.5
Escapement												
Andreafsky River, East Fork (weir trap) [b]	631	0.0	41.7	25.7	0.0	32.0	0.0	0.6	0.0	0.0	0.0	-
Chena River (carcass)	53	13.2	22.6	32.1	0.0	32.1	0.0	0.0	0.0	0.0	0.0	43.4
Gisasa River (weir trap)	336	0.0	30.4	20.7	0.0	48.5	0.2	0.2	0.0	0.0	0.0	39.0
Henshaw River (weir trap) [c]	258	0.0	46.6	20.4	0.0	33.0	0.0	0.0	0.0	0.0	0.0	24.9
Salcha River (carcass, hand-picked)	308	0.0	22.4	26.9	0.0	50.3	0.0	0.3	0.0	0.0	0.0	35.7
Tozitna River (weir trap)	217	0.0	29.2	35.0	0.0	35.4	0.0	0.4	0.0	0.0	0.0	26.1
Big Salmon River, Canada (carcass)	122	0.0	3.3	19.7	0.0	76.2	0.0	0.8	0.0	0.0	0.0	71.3
Total Chinook	10,408											

[a] Sex was determined for 69 of 190 aged fish.

[b] Percent female not available.

[c] Sex was determined for 164 of 258 aged fish.

Table 2.–Yukon River Districts 1, 2, 5, and 6 Chinook salmon commercial harvest age and sex composition, 2007.

			Brood Year (Age)																					
			2004		2003		2002				2001				2000				1999					
	Sample		(1.1)		(1.2)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total	
District	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1 [a]	1,977	Males	0	0.0	1,552	8.3	2,287	12.3	0	0.0	5,554	29.8	0	0.0	102	0.5	11	0.1	0	0.0	0	0.0	9,506	51.1
		Females	0	0.0	69	0.4	1,189	6.4	0	0.0	7,610	40.9	8	0.0	209	1.1	22	0.1	0	0.0	0	0.0	9,107	48.9
		Subtotal	0	0.0	1,621	8.7	3,476	18.7	0	0.0	13,164	70.7	8	0.0	312	1.7	32	0.2	0	0.0	0	0.0	18,613	100.0
2 [b]	1,402	Males	0	0.0	2,252	16.7	2,281	16.9	0	0.0	3,458	25.6	14	0.1	56	0.4	7	0.0	0	0.0	0	0.0	8,066	59.7
		Females	0	0.0	39	0.3	937	6.9	0	0.0	4,325	32.0	36	0.3	68	0.5	30	0.2	0	0.0	0	0.0	5,435	40.3
		Subtotal	0	0.0	2,290	17.0	3,217	23.8	0	0.0	7,782	57.6	50	0.4	124	0.9	37	0.3	0	0.0	0	0.0	13,501	100.0
5 [c]	439	Males	0	0.0	166	13.4	361	29.1	0	0.0	239	19.3	0	0.0	5	0.4	0	0.0	0	0.0	0	0.0	771	62.1
		Females	0	0.0	27	2.2	104	8.4	4	0.3	331	26.7	0	0.0	5	0.4	0	0.0	0	0.0	0	0.0	470	37.9
		Subtotal	0	0.0	193	15.6	465	37.4	4	0.3	570	45.9	0	0.0	10	0.8	0	0.0	0	0.0	0	0.0	1,241	100.0
6 [d]	91	Males	9.3	3.2	97.6	34.2	43.3	15.2	0.0	0.0	34.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	184.2	64.6
		Females	0	0.0	0	0.0	10	3.6	0	0.0	86	30.1	0	0.0	5	1.6	0	0.0	0	0.0	0	0.0	101	35.4
		Subtotal	9	3.2	98	34.2	54	18.8	0	0.0	120	42.1	0	0.0	5	1.6	0	0.0	0	0.0	0	0.0	285	100.0
All	3,909	Males	9	0.0	4,067	12.1	4,972	14.8	0	0.0	9,285	27.6	14	0.0	163	0.5	17	0.1	0	0.0	0	0.0	18,528	55.1
Districts		Females	0	0.0	135	0.4	2,240	6.7	4	0.0	12,351	36.7	44	0.1	287	0.9	52	0.2	0	0.0	0	0.0	15,112	44.9
		Total	9	0.0	4,202	12.5	7,212	21.4	4	0.0	21,637	64.3	57	0.2	450	1.3	69	0.2	0	0.0	0	0.0	33,640	100.0

[a] Gillnet mesh size was unrestricted during 3 commercial fishing periods, and was restricted to ≤6" during 9 commercial fishing periods.

[b] Gillnet mesh size was unrestricted during 3 commercial fishing periods, and was restricted to ≤6" during 6 commercial fishing periods.

[c] Commercial fishing gear included gillnets and fish wheels.

[d] Samples were collected from fish wheels.

Table 3.–Yukon River District 1 Chinook salmon age and female percentages from commercial harvests using 8.0 inch or larger mesh gillnets, 1985–2007.

		Percent (%)							
		Age							
Year [a]	Sample Size	3 yrs. (1.1)	4 yrs. (1.2)	5 yrs. (1.3, 2.2)	6 yrs. (1.4, 2.3)	7 yrs. (1.5, 2.4)	8 yrs. (1.6, 2.5)	Female	Total Catch
1985	576	0.0	1.4	6.6	80.3	11.4	0.4	57.8	75,944
1986	1,279	0.0	1.1	26.5	45.8	26.4	0.2	47.9	43,644
1987	1,436	0.0	1.2	5.6	79.9	12.9	0.6	55.3	62,148
1988	1,022	0.0	3.2	18.6	41.5	35.2	1.5	46.2	32,782
1989	982	0.0	0.8	27.0	59.0	11.8	1.3	48.6	32,180
1990	1,537	0.0	7.2	21.5	62.7	8.4	0.1	50.3	42,092
1991	1,532	0.0	1.3	39.4	50.0	9.0	0.2	47.0	52,074
1992	1,354	0.0	2.3	12.0	81.5	4.3	0.0	55.5	54,569
1993	1,673	0.0	4.5	21.2	64.9	9.5	0.0	49.2	47,084
1994	1,392	0.0	1.8	44.3	49.2	4.8	0.0	52.4	61,633
1995	1,884	0.0	3.0	11.3	81.4	4.3	0.1	50.1	74,827
1996	2,093	0.1	1.1	36.3	38.1	24.1	0.2	52.2	56,638
1997	1,881	0.0	4.0	10.9	83.3	1.8	0.0	47.2	63,062
1998	1,311	0.0	3.6	53.9	34.9	7.6	0.0	41.8	24,135
1999	1,857	0.0	2.1	14.8	81.4	1.7	0.0	43.6	37,145
2000	721	0.0	1.2	27.9	63.7	7.3	0.0	57.6	4,735
2001 [b]	-	-	-	-	-	-	-	-	-
2002	1,133	0.0	3.8	20.2	63.1	13.0	0.0	54.9	11,081
2003	1,405	0.0	0.5	26.1	65.4	7.9	0.1	53.3	22,710
2004	2,427	0.0	6.2	18.7	71.1	3.9	0.0	54.1	29,038
2005	1,410	0.0	1.7	42.4	51.8	4.2	0.0	59.7	16,927
2006	1,788	0.0	1.8	46.8	49.8	1.6	0.0	54.9	24,545
2007	1,183	0.0	2.2	13.6	82.0	2.3	0.0	53.7	13,558
Average [c]	1,462	0.0	2.6	25.3	61.8	10.1	0.2	51.4	41,381
(1985-2006)		*difference*	-0.4	-11.8	20.1	-7.8		2.3	
10-yr avg. [c]	1,548	0.0	2.8	29.1	62.7	5.5	0.0	51.9	25,931
(1997-2006)		*difference*	-0.6	-15.5	19.3	-3.1		1.8	
5-yr avg. [c]	1,633	0.0	2.8	30.8	60.2	6.1	0.0	55.4	20,860
(2002-2006)		*difference*	-0.6	-17.3	21.7	-3.8		-1.7	

[a] Includes commercial fishing periods with unrestricted mesh size gillnets, and periods with gillnet mesh size restricted to 8.0" or larger.

[b] No commercial fishing occurred in 2001.

[c] Averages are not weighted by number of fish sampled each year.

Table 4.–Yukon River Chinook salmon age and female percentages from the combined Big Eddy and Middle Mouth 8.5-inch mesh set gillnet test fishery catches, 1985–2007.

			Percent (%)						
			Age						
Year	Sample Size	Number of Days [a]	3 yrs. (1.1)	4 yrs. (1.2)	5 yrs. (1.3, 2.2)	6 yrs. (1.4, 2.3)	7 yrs. (1.5, 2.4)	8 yrs. (1.6, 2.5)	Female
1985	309	18	0.0	3.9	8.4	79.3	8.1	0.3	53.7
1986	533	25	0.3	0.9	22.7	52.9	23.1	0.2	46.3
1987	465	20	0.3	0.9	3.0	78.5	17.0	0.4	62.8
1988	262	30	0.0	2.3	15.3	43.9	37.8	0.8	56.1
1989	381	29	0.0	0.8	17.8	67.2	13.9	0.5	53.0
1990	227	23	0.0	3.5	11.0	76.7	8.8	0.0	56.4
1991	356	27	0.0	1.4	42.1	48.9	7.0	0.6	49.2
1992	359	19	0.0	1.1	10.6	82.7	5.0	0.6	56.5
1993	472	25	0.0	0.8	25.8	63.8	9.3	0.2	50.8
1994	653	41	0.2	1.4	41.3	51.8	5.5	0.0	47.3
1995	445	19	0.0	0.9	11.2	81.6	6.3	0.0	50.8
1996	355	13	0.0	1.1	61.4	21.4	16.3	0.0	53.0
1997	302	12	0.0	1.7	9.6	86.4	2.6	0.0	51.3
1998	928	39	0.0	1.3	43.4	45.3	9.9	0.1	50.2
1999	942	35	0.0	0.7	9.1	87.0	3.1	0.0	61.4
2000	950	42	0.2	0.7	19.2	71.1	9.1	0.0	53.4
2001	1,020	37	0.0	0.5	11.0	80.6	8.0	0.0	56.9
2002	1,050	43	0.0	2.5	20.5	64.9	12.1	0.0	52.2
2003	1,400	50	0.0	0.6	24.1	68.0	7.3	0.1	52.5
2004	865	48	0.1	4.3	18.5	74.5	2.7	0.0	58.2
2005	994	43	0.0	1.5	40.9	55.0	2.5	0.0	48.9
2006	987	38	0.0	2.2	50.6	45.0	2.2	0.0	48.5
2007	1,030	42	0.0	4.7	14.4	80.2	0.8	0.0	52.5
Average [b] (1994, 1998-2006)	979	42	0.1	1.6	27.9	64.3	6.2	0.0	53.0
			difference	3.1	-13.5	15.9	-5.5		-0.4
5-yr average [b] (2002-2006)	1,059	44	0.0	2.2	30.9	61.5	5.4	0.0	52.1
			difference	2.4	-16.5	18.7	-4.6		0.4

[a] The Big Eddy and Middle Mouth 8.5" set gillnet test fisheries were conducted from the end of May through July 15. Before 1998, these test fisheries were often discontinuous or were not conducted throughout the season. The "Number of Days" refers only to those days that scale samples were collected from Chinook salmon and aged.

[b] The averages only include years when samples were collected throughout the season and include samples with a 35 day season minimum. Averages were not weighted by number of fish sampled each year.

Table 5.–Yukon River Chinook salmon age and female percentages from selected escapement projects, 1985–2007.

		Percent (%)						
		Age						
Project	Year	3 yrs. (1.1)	4 yrs. (1.2)	5 yrs. (1.3, 2.2)	6 yrs. (1.4, 2.3)	7 yrs. (1.5, 2.4)	8 yrs. (1.6, 2.5)	Females
Andreafsky River, East Fork	1985 [a]	0.0	39.6	12.8	43.6	4.0	0.0	33.2
	1986 [b]	0.0	2.2	69.8	21.8	6.2	0.0	23.3
	1987 [b]	0.3	4.7	8.9	83.7	2.4	0.0	56.1
	1988 [b]	0.2	27.8	29.5	26.8	15.6	0.0	38.7
	1989	0.0	5.3	71.8	21.2	1.7	0.0	13.6
	1990	0.6	31.8	28.7	37.9	0.9	0.0	41.6
	1991	0.0	10.3	56.9	30.5	2.3	0.0	33.9
	1992	0.0	23.1	48.1	25.0	3.8	0.0	21.2
	1993	0.4	16.9	38.7	41.8	2.3	0.0	29.9
	1994 [c]	0.0	8.0	53.0	34.5	4.3	0.2	35.5
	1995 [c]	0.0	35.0	15.7	47.5	1.7	0.0	43.7
	1996 [c]	1.2	6.6	74.1	13.9	4.2	0.0	41.9
	1997 [c]	0.0	52.7	15.6	31.7	0.0	0.0	36.8
	1998 [c]	0.0	16.8	71.4	11.1	0.8	0.0	29.0
	1999 [c]	0.3	34.5	32.2	32.5	0.6	0.0	28.6
	2000 [c]	0.0	12.6	49.1	38.3	0.0	0.0	54.3
	2001 [c]	0.0	14.5	18.5	64.5	2.4	0.0	63.7
	2002 [c]	0.0	30.5	48.2	20.0	1.4	0.0	21.1
	2003 [c]	0.5	16.0	51.9	30.7	0.8	0.0	46.2
	2004 [c]	0.0	39.9	42.6	17.1	0.4	0.0	37.3
	2005 [c]	0.0	15.0	64.3	20.2	0.5	0.0	50.2
	2006 [c]	0.0	17.0	54.9	28.1	0.0	0.0	42.6
	2007 [c, d]	0.0	41.7	25.7	32.0	0.6	0.0	-
Average [e]	(1985-2006)	0.2	20.9	43.5	32.8	2.6	0.0	37.4
5-yr Average [e]	(2002-2006)	0.1	23.7	52.4	23.2	0.6	0.0	39.5
Chena River	1985 [f]	0.0	12.1	21.7	59.2	7.0	0.0	52.5
	1986 [f]	0.1	9.3	51.2	29.9	9.3	0.1	25.4
	1987 [f]	0.0	2.9	13.1	75.6	8.4	0.0	58.0
	1988 [f]	0.6	10.5	17.5	46.4	24.6	0.4	60.9
	1989 [f]	0.3	4.2	30.2	54.9	10.4	0.0	64.9
	1990 [f]	0.0	23.8	25.7	46.7	3.8	0.0	46.2
	1991 [f]	0.0	8.3	55.8	28.5	7.4	0.0	31.5
	1992 [f]	1.9	40.7	16.4	40.5	0.4	0.0	37.7
	1993 [b]	0.5	29.4	41.2	27.8	1.1	0.0	16.6
	1994 [b]	0.0	2.9	43.6	51.2	2.3	0.0	45.1
	1995 [b]	0.0	4.4	20.9	70.9	3.8	0.0	66.0
	1996 [b]	2.1	6.2	44.2	23.5	23.9	0.0	44.0
	1997 [b]	0.3	37.2	13.4	48.0	1.1	0.0	39.6
	1998 [b]	0.0	4.4	72.4	18.4	4.8	0.0	41.2
	1999 [b]	0.9	7.9	25.2	65.4	0.6	0.0	58.8
	2000 [b]	0.0	20.1	35.6	35.6	8.7	0.0	34.9
	2001 [b]	0.6	9.6	33.6	51.2	5.0	0.0	44.0
	2002 [b]	0.1	29.0	29.8	38.5	2.7	0.0	31.7
	2003 [b]	0.0	5.1	46.5	41.6	6.8	0.0	44.9
	2004 [b]	0.0	8.9	17.7	71.5	1.9	0.0	66.5
	2005 [b]	0.0	6.5	49.9	39.5	4.1	0.0	42.4
	2006 [b]	0.0	12.7	45.6	40.6	1.1	0.0	45.9
	2007 [b]	13.2	22.6	32.1	32.1	0.0	0.0	43.4
Average [e]	(1985-2006)	0.3	13.5	34.1	45.7	6.3	0.0	44.4
5-yr Average [e]	(2002-2006)	0.0	12.4	37.9	46.3	3.3	0.0	41.2

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Table 5.–Page 2 of 2.

Project	Year	Percent (%) Age 3 yrs. (1.1)	4 yrs. (1.2)	5 yrs. (1.3, 2.2)	6 yrs. (1.4, 2.3)	7 yrs. (1.5, 2.4)	8 yrs. (1.6, 2.5)	Females
Salcha River	1985 [f]	0.0	12.3	17.6	64.8	5.3	0.0	48.5
	1986 [f]	0.2	11.8	43.7	29.5	14.8	0.0	35.8
	1987 [f]	0.2	6.0	12.6	73.5	7.8	0.0	62.8
	1988 [f]	0.4	20.3	22.5	42.1	14.7	0.0	39.6
	1989 [f]	0.5	4.1	28.9	57.8	8.8	0.0	62.2
	1990 [f]	0.2	17.6	24.9	48.9	8.3	0.0	48.9
	1991 [f]	0.2	8.2	44.3	41.4	5.8	0.2	47.2
	1992 [f]	1.2	30.8	28.6	38.2	1.1	0.0	34.4
	1993 [b]	0.9	28.0	39.1	31.1	0.9	0.0	27.6
	1994 [b]	0.6	2.7	39.1	52.9	4.8	0.0	44.5
	1995 [b]	0.0	13.6	20.6	62.8	3.1	0.0	56.0
	1996 [b]	2.7	6.2	38.4	28.6	24.1	0.0	50.8
	1997 [b]	0.0	14.4	14.4	69.4	1.7	0.0	50.0
	1998 [b]	2.4	4.9	72.4	17.9	2.4	0.0	30.0
	1999 [b]	0.0	9.1	24.1	66.4	0.3	0.0	54.7
	2000 [b]	0.0	22.0	48.8	24.4	4.9	0.0	43.9
	2001 [b]	0.5	10.4	33.9	52.1	3.1	0.0	37.5
	2002 [b]	0.0	36.2	13.8	38.7	11.3	0.0	34.8
	2003 [b]	0.7	7.3	42.4	42.4	7.3	0.0	42.4
	2004 [b]	0.0	9.2	8.3	81.7	0.9	0.0	62.9
	2005 [b]	0.0	9.3	41.5	46.2	3.0	0.0	54.3
	2006 [b]	0.0	5.7	49.3	43.0	2.0	0.0	43.4
	2007 [b]	0.0	22.4	26.9	50.3	0.3	0.0	35.7
Average [e]	(1985-2006)	0.5	13.2	32.2	47.9	6.2	0.0	46.0
5-yr Average [e]	(2002-2006)	0.1	13.5	31.1	50.4	4.9	0.0	47.6

[a] Project was operated as sonar.

[b] Project was operated as a counting tower.

[c] Project was operated as a weir.

[d] Percent female data not available.

[e] Averages are not weighted by number of fish sampled each year.

[f] Estimates were from mark-recapture project.

Table 6.–Yukon River Chinook salmon mean lengths (mm) by project, gear, sex, and age, 2007.

			Brood Year (Age)									
	Project	Project Type	2004	2003	2002		2001		2000		1999	
Sex	Location	and (Gear) [a]	(1.1)	(1.2)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)
Male	District 1	Com (GN)	-	560	693	-	847	-	849	730	-	-
	District 2	Com (GN)	-	554	710	-	842	695	878	900	-	-
	District 5	Com (FW, GN)	-	557	699	-	844	-	828	-	-	-
	District 6	Com (FW)	343	541	654	-	813	-	-	-	-	-
	District 1	Sub (8.5" GN)	-	558	720	-	836	-	-	-	-	-
	District 3, Holy Cross	Sub (GN)	-	573	752	-	850	-	900	-	-	-
	Subdistrict 4-A, Kaltag	Sub (8.5" GN)	-	542	710	-	867	-	835	-	-	-
	Subdistrict 4-A, Nulato	Sub (GN)	-	634	772	-	873	-	-	-	-	-
	Subdistricts 4-B, 4-C Galena	Sub (FW, GN)	-	540	701	550	836	-	-	-	-	-
	Subdistricts 4-B, 4-C Bishop Rock	Sub (GN)	-	845	699	-	845	-	-	-	-	-
	Subdistricts 4-C, Ruby	Sub (FW, GN)	-	566	700	-	811	-	-	-	-	-
	Subdistricts 5-B, 5-C	Sub (FW)	-	548	688	555	766	-	-	-	-	-
	Big Eddy	TF (8.5" SGN)	-	572	753	-	849	700	940	-	-	-
	Middle Mouth	TF (8.5" SGN)	-	541	730	-	848	-	-	-	-	-
	Comparative Mesh Size Study	TF (7.0"- 8.0" DGN)	-	574	727	-	824	-	-	838	-	-
	Marshall	TF (8.25" DGN)	-	613	758	-	855	790	-	-	-	-
	Pilot Station	TF (DGN)	-	560	708	-	813	750	800	749	-	-
	Eagle Sonar	TF (DGN)	-	560	729	-	842	760	-	-	-	-
	Andreafsky, E.F.	Esc (WR)	-	529	679	-	798	-	825	-	-	-
	Chena	Esc (CR)	511	570	627	-	696	-	-	-	-	-
	Gisasa	Esc (WR)	-	533	691	-	792	770	-	-	-	-
	Henshaw	Esc (WR)	-	510	681	-	800	-	-	-	-	-
	Salcha	Esc (CR)	-	538	684	-	819	-	-	-	-	-
	Tozitna	Esc (WR)	-	531	686	-	761	-	-	-	-	-
	Big Salmon	Esc (CR)	-	596	778	-	836	-	-	-	-	-
		Male Average [b]	427	570	709	553	823	744	857	804	-	-

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Table 6.–Page 2 of 2.

Sex	Project Location	Project Type and (Gear) [a]	Brood Year (Age) 2004 (1.1)	2003 (1.2)	2002 (1.3)	2002 (2.2)	2001 (1.4)	2001 (2.3)	2000 (1.5)	2000 (2.4)	1999 (1.6)	1999 (2.5)
Female	District 1	Com (GN)	-	711	750	-	861	860	893	743	-	-
	District 2	Com (GN)	-	582	747	-	842	775	860	809	-	-
	District 5	Com (FW, GN)	-	580	734	680	858	-	810	-	-	-
	District 6	Com (FW)	-	-	805	-	839	-	810	-	-	-
	District 1	Sub (8.5" GN)	-	-	771	-	842	-	-	-	-	-
	Dist 3, Holy Cross	Sub (GN)	-	590	756	-	854	-	940	880	-	-
	Subdistrict 4-A, Kaltag	Sub (8.5" GN)	-	-	789	-	865	-	-	-	-	-
	Subdistrict 4-A, Nulato	Sub (GN)	-	583	745	-	848	-	-	-	-	-
	Subdistricts 4-B, 4-C Galena	Sub (FW, GN)	-	544	661	-	834	-	820	-	-	-
	Subdistricts 4-B, 4-C Bishop Rock	Sub (GN)	-	547	706	-	823	-	790	-	-	-
	Subdistricts 4-C, Ruby	Sub (FW, GN)	-	632	715	-	833	-	-	-	-	-
	Subdistricts 5-B, 5-C	Sub (FW)	-	600	708	-	830	-	940	-	-	-
	Big Eddy	TF (8.5" SGN)	-	-	802	-	869	-	872	-	-	-
	Middle Mouth	TF (8.5" SGN)	-	588	790	-	855	-	928	-	-	-
	Comparative Mesh Size Study	TF (7.0"- 8.0" DGN)	-	-	764	-	843	-	833	-	-	-
	Marshall	TF (8.25" DGN)	-	590	826	-	863	-	-	-	-	-
	Pilot Station	TF (DGN)	-	545	750	-	828	-	871	-	-	-
	Eagle Sonar	TF (DGN)	-	603	777	-	854	-	900	-	-	-
	Andreafsky, E.F.	Esc (WR)	-	523	731	-	827	-	803	-	-	-
	Chena	Esc (CR)	495	615	770	-	816	-	-	-	-	-
	Gisasa	Esc (WR)	-	538	740	-	826	-	915	-	-	-
	Henshaw	Esc (WR)	-	-	779	-	817	-	-	-	-	-
	Salcha	Esc (CR)	-	590	748	-	842	-	910	-	-	-
	Tozitna	Esc (WR)	-	-	756	-	820	-	900	-	-	-
	Big Salmon	Esc (CR)	-	-	735	-	847	-	710	-	-	-
		Female Average [b]	495	586	754	680	841	818	861	811	-	-

[a] Com is commercial, Sub is subsistence, TF is test fishery, Esc is escapement, GN is gillnet preceded by mesh size, SGN is set gillnet, DGN is drift gillnet, FW is fish wheel, WR is weir, SN is seine net, and CR is carcass.

[b] Averages were not weighted by number of fish sampled from each project.

Table 7.–Yukon River chum salmon age and female percentages from commercial, subsistence, test fishery, and escapement projects, 2007.

Project Type	Sample	Percent (%)					
		Age					
Location and (gear)	Size	0.2	0.3	0.4	0.5	0.6	Female
Commercial - Summer Chum							
District 1 (gillnet) [a]	1881	0.0	32.2	50.5	17.1	0.1	51.3
District 2 (gillnet) [b]	650	0.0	30.5	55.0	14.5	0.0	41.5
Subdistrict 4-A, Anvik (fish wheel) [c]	674	0.0	56.8	34.9	8.3	0.0	96.6
District 6 (fish wheel)	906	0.5	65.8	31.7	2.1	0.0	48.8
Commercial - Fall Chum							
District 1 (gillnet)	774	0.1	80.2	17.2	2.4	0.0	50.2
District 5 (fish wheel)	147	0.7	59.2	36.7	3.4	0.0	63.9
District 6 (fish wheel)	306	1.7	89.2	8.5	0.6	0.0	83.1
Subsistence - Summer Chum							
District 1 (5.5" gillnet)	154	0.0	14.3	63.6	22.1	0.0	44.8
District 1 (8.5" gillnet)	9	0.0	33.3	55.6	11.1	0.0	44.4
Subsistence - Fall Chum							
Subdistrict 5-B (fish wheel)	319	0.3	67.4	30.7	1.6	0.0	55.8
Subdistrict 6-B (fish wheel)	116	1.7	76.7	20.7	0.9	0.0	57.8
Test Fishery - Summer Chum							
Big Eddy (5.5" set gillnet)	91	0.0	42.9	47.3	9.9	0.0	65.9
Test Fishery - Fall Chum							
Big Eddy (6.0" drift gillnet)	336	0.0	74.1	21.7	4.2	0.0	50.9
Middle Mouth (6.0" drift gillnet)	183	0.0	75.4	22.4	2.2	0.0	68.9
Mountain Village (5 ⅞" drift gillnet)	532	0.4	69.4	24.4	5.8	0.0	52.4
Kaltag (5 ⅞" drift gillnet)	351	0.9	74.6	21.7	2.8	0.0	45.3
Eagle Sonar (2.75 to 7.5" mesh drift gillnet)	644	1.9	76.2	20.5	1.4	0.0	32.1
Test Fishery Fall Chum Average [d]		0.6	74.0	22.1	3.3	0.0	49.9
Escapement - Summer Chum							
Andreafsky River, East Fork (weir trap)	805	1.4	71.5	22.9	4.2	0.0	46.8
Anvik River (beach seine)	560	1.1	60.5	29.6	8.8	0.0	58.2
Gisasa River (weir trap)	579	2.3	55.5	36.6	5.6	0.0	55.6
Henshaw (weir trap)	540	2.2	59.0	36.6	2.2	0.0	44.0
Salcha River (carcass) [e]	159	4.4	49.1	33.3	11.3	1.9	59.1
Tozitna River (weir trap)	708	2.0	64.5	30.9	2.7	0.0	42.6

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Table 7.–Page 2 of 2.

Project Type Location and (gear)	Sample Size	Percent (%) Age 0.2	0.3	0.4	0.5	0.6	Female
	Escapement Summer Chum Average [d]	2.2	60.0	31.7	5.8	0.3	51.0
Escapement - Fall Chum							
Chandalar River (carcass, hand picked) [e]	175	8.0	65.1	25.1	1.7	0.0	41.1
Delta River (carcass, hand picked) [e]	179	2.2	73.2	22.9	1.7	0.0	40.2
Kantishna River (fish wheel) [e]	179	0.6	70.9	22.3	5.6	0.6	35.2
Sheenjek River (beach seine) [e]	76	0.0	52.6	35.5	11.8	0.0	47.4
	Escapement Fall Chum Average [d]	2.7	65.5	26.5	5.2	0.1	41.0
Total Summer Chum	7,716						
Total Fall Chum	4,317						

[a] Gillnet mesh size was unrestricted during 3 commercial fishing periods, and was restricted to ≤6" during 9 commercial fishing periods.

[b] Gillnet mesh size was unrestricted during 3 commercial fishing periods, and was restricted to ≤6" during 6 commercial fishing periods.

[c] Roe fishery. Commercial fishers visually estimated fish sex at the fish wheel in order to live-release males, resulting in a high percentage of females in the sample.

[d] Averages were not weighted by sample size.

[e] Vertebrae were used for age determination.

Table 8.–Yukon River Districts 1, 2, 6 and Subdistrict 4-A summer chum salmon, and Districts 1, 5 and 6 fall chum salmon commercial harvest age and sex composition, 2007.

Season / District	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
Summer Chum Salmon														
District 1 [a]	1881	Males	0	0.0	18,600	17.4	25,408	23.8	7,935	7.4	0	0.0	51,943	48.7
		Females	0	0.0	15,781	14.8	28,538	26.7	10,340	9.7	132	0.1	54,791	51.3
		Subtotal	0	0.0	34,381	32.2	53,946	50.5	18,275	17.1	132	0.1	106,734	100.0
District 2 [b]	650	Males	0	0.0	14,091	20.3	22,378	32.2	4,129	5.9	0	0.0	40,598	58.5
		Females	0	0.0	7,059	10.2	15,823	22.8	5,964	8.6	0	0.0	28,845	41.5
		Subtotal	0	0.0	21,150	30.5	38,201	55.0	10,092	14.5	0	0.0	69,443	100.0
Subdistrict 4-A [c]	674	Males	0	0.0	119	1.6	98	1.3	33	0.4	0	0.0	249	3.4
		Females	0	0.0	4,031	55.2	2,449	33.5	574	7.9	0	0.0	7,055	96.6
		Subtotal	0	0.0	4,150	56.8	2,547	34.9	607	8.3	0	0.0	7,304	100.0
District 6 [d]	906	Males	47	0.3	4,857	33.1	2,504	17.1	109	0.7	0	0.0	7,517	51.2
		Females	19	0.1	4,794	32.7	2,146	14.6	198	1.3	0	0.0	7,157	48.8
		Subtotal	66	0.5	9,651	65.8	4,650	31.7	307	2.1	0	0.0	14,674	100.0
Districts 1, 2, 6, &	4,111	Males	47	0.0	37,668	19.0	50,387	25.4	12,205	6.2	0	0.0	100,307	50.6
Subdistrict 4-A		Females	19	0.0	31,665	16.0	48,957	24.7	17,076	8.6	132	0.1	97,848	49.4
Combined		Total	66	0.0	69,333	35.0	99,344	50.1	29,281	14.8	132	0.1	198,155	100.0
Fall Chum Salmon														
District 1 [e]	774	Males	11	0.0	15,570	40.1	3,179	8.2	601	1.5	0	0.0	19,361	49.8
		Females	36	0.1	15,603	40.2	3,507	9.0	346	0.9	0	0.0	19,491	50.2
		Total	47	0.1	31,173	80.2	6,686	17.2	946	2.4	0	0.0	38,852	100.0
District 5 [d]	147	Males	3	0.7	90	21.1	52	12.2	9	2.0	0	0.0	154	36.1
		Females	0	0.0	163	38.1	105	24.5	6	1.4	0	0.0	273	63.9
		Total	3	0.7	253	59.2	157	36.7	15	3.4	0	0.0	427	100.0
District 6 [d]	306	Males	15	0.1	2,333	15.0	288	1.8	0	0.0	0	0.0	2,636	16.9
		Females	258	1.7	11,560	74.2	1,033	6.6	86	0.6	0	0.0	12,936	83.1
		Total	272	1.7	13,893	89.2	1,321	8.5	86	0.6	0	0.0	15,572	100.0
Districts 1, 5, 6	1,227	Males	28	0.1	17,993	32.8	3,519	6.4	610	1.1	0	0.0	22,150	40.4
Combined		Females	293	0.5	27,326	49.8	4,644	8.5	437	0.8	0	0.0	32,701	59.6
		Total	322	0.6	45,319	82.6	8,163	14.9	1,047	1.9	0	0.0	54,851	100.0

[a] Gillnet mesh size was unrestricted during 3 commercial fishing periods, and was restricted to ≤6" during 9 commercial fishing periods.

[b] Gillnet mesh size was unrestricted during 3 commercial fishing periods, and was restricted to ≤6" during 6 commercial fishing periods.

[c] Roe fishery. Commercial fishers visually estimated fish sex at the fish wheel in order to live-release males, resulting in a high percentage of females in the sample.

[d] Commercial fishing gear was fish wheels.

[e] Commercial fishing gear was unrestricted mesh size gillnets.

Table 9.–Yukon River summer chum salmon age percentages from combined commercial and subsistence samples, 1985–2007.

Year	Sample Size [a]	Percent (%) Age 0.2	0.3	0.4	0.5	0.6
1985	2,472	1.4	68.6	29.2	0.8	0.0
1986	3,473	0.1	29.1	69.8	1.0	0.0
1987	2,184	0.4	60.8	31.8	6.9	0.0
1988	5,112	0.0	70.1	29.1	0.8	0.0
1989	3,778	0.4	38.7	60.5	0.4	0.0
1990	3,155	0.4	38.3	58.9	2.4	0.0
1991	5,015	1.3	48.0	49.8	0.9	0.0
1992	4,303	0.2	31.0	65.0	3.8	0.0
1993	2,011	0.4	47.5	47.7	4.5	0.0
1994	3,820	0.1	51.3	46.6	2.0	0.0
1995	4,740	0.6	51.9	45.3	2.1	0.0
1996	3,863	0.4	46.2	48.8	4.5	0.1
1997 [b]	-	-	-	-	-	-
1998	1,147	0.3	62.8	34.2	2.7	0.0
1999	1,627	0.2	40.7	58.2	0.9	0.0
2000	442	0.0	44.2	53.4	2.4	0.0
2001 [c]	586	0.0	15.4	81.9	2.7	0.0
2002	1,103	0.1	52.9	44.4	2.6	0.0
2003	1,144	0.3	55.4	39.2	5.1	0.0
2004	2,742	1.3	37.2	60.4	1.0	0.1
2005	2,079	0.2	83.3	14.9	1.5	0.0
2006	2,287	0.0	15.7	84.1	0.2	0.0
2007	4,274	0.1	38.8	48.6	12.5	0.0
Average [d] (1985–1996, 1998–2006)	2,718	0.4	47.1	50.2	2.3	0.0
10-yr avg. [d] (1996–2006)	1,702	0.3	45.4	52.0	2.4	0.0
5-yr avg. [d] (2002–2006)	1,871	0.4	48.9	48.6	2.1	0.0

[a] Samples were from fish wheels and gillnets with various mesh sizes.

[b] Data unavailable.

[c] No commercial fishing occurred in 2001, samples were from subsistence harvests.

[d] Averages are not weighted by number of fish sampled each year.

Table 10.–Yukon River summer chum salmon age and female percentages from the combined Big Eddy and Middle Mouth 5.5 inch mesh gillnet test fishery catches, 1985–2007.

			Percent (%)					
	Sample	Number	Age					
Year	Size	of Days [a]	0.2	0.3	0.4	0.5	0.6	Females
1985	954	19	0.0	62.4	37.1	0.5	0.0	51.6
1986	1,125	27	0.1	26.2	73.2	0.4	0.0	55.1
1987	1,169	34	0.6	48.8	43.7	6.8	0.0	56.8
1988	804	30	0.1	50.5	48.4	1.0	0.0	59.5
1989	1,074	29	0.0	39.9	59.5	0.6	0.0	62.2
1990	1,328	42	0.8	46.1	50.1	3.1	0.0	66.0
1991	1,495	41	0.0	45.4	53.6	0.9	0.0	55.2
1992	1,089	32	0.0	22.0	71.8	6.2	0.0	61.4
1993	1,757	46	0.1	38.2	57.4	4.4	0.0	50.4
1994	2,385	49	0.0	35.6	61.9	2.6	0.0	62.5
1995	1,839	38	0.5	40.2	53.2	6.1	0.0	56.2
1996	1,936	47	0.1	42.3	52.4	5.2	0.0	63.7
1997	1,947	46	0.0	24.1	71.5	4.4	0.0	61.0
1998	1,649	47	0.0	62.5	33.5	4.0	0.0	52.5
1999	1,227	33	1.1	48.1	47.4	3.4	0.0	50.0
2000	950	38	0.2	52.5	45.8	1.5	0.0	63.8
2001	724	33	0.0	25.0	73.8	1.2	0.0	64.6
2002	792	45	0.5	57.3	40.4	1.8	0.0	63.3
2003	822	42	0.4	78.7	18.7	2.2	0.0	54.4
2004	521	45	3.1	40.1	56.8	0.0	0.0	66.0
2005	754	32	0.1	89.8	9.9	0.1	0.0	54.5
2006	860	30	0.3	27.3	72.2	0.1	0.0	59.0
2007 [b]	91	16	0.0	42.9	47.3	9.9	0.0	65.9
Average [c] (1987-1988, 1990-2006)	1,266	39	0.4	46.0	50.7	2.9	0.0	59.0
5-yr average [c] (2002-2006)	750	39	0.9	58.7	39.6	0.8	0.0	59.4

[a] Big Eddy and Middle Mouth 5.5" gillnet test fishery projects were conducted from the end of May through July 15; prior to 1990 these projects were often discontinuous within the season or were not conducted throughout the season. The "Number of Days" refers only to those days that scale samples were collected from summer chum salmon and aged.

[b] One 5.5" mesh set gillnet was operated at Big Eddy only.

[c] Years used for average only include years when samples were collected throughout the season and include samples with a 30 day season minimum. Average was not weighted by number of fish sampled each year.

Table 11.–Yukon River summer and fall chum salmon mean lengths (mm) by project, gear, sex and age, 2007.

Sex and Season	Project Location	Project Type and (Gear) [a]	Brood Year (Age) 2004 (0.2)	2003 (0.3)	2002 (0.4)	2001 (0.5)	2000 (0.6)
Male Summer Chum							
	District 1	Com (GN)	-	573	588	592	-
	District 2	Com (GN)	-	572	593	607	-
	Subdistrict 4-A	Com (FW)	-	547	586	577	-
	District 6	Com (FW)	555	574	602	588	-
	District 1	Sub (5.5" GN)	-	581	596	614	-
	District 1	Sub (8.5" GN)	-	585	598	-	-
	Big Eddy	TF (5.5" SGN)	-	560	578	555	-
	Andreafsky, E.F.	Esc (WR)	562	546	566	583	-
	Anvik	Esc (SN)	530	572	590	601	-
	Gisasa	Esc (WR)	561	562	579	579	-
	Henshaw	Esc (WR)	555	550	575	582	
	Tozitna	Esc (WR)	560	567	583	582	-
	Salcha [b]	Esc (CR)	545	554	572	585	580
		Male Summer Chum Average [c]	553	565	585	587	580
Female Summer Chum							
	District 1	Com (GN)	-	564	573	585	620
	District 2	Com (GN)	-	559	566	588	-
	Subdistrict 4-A	Com (FW)	-	537	552	558	-
	District 6	Com (FW)	575	560	580	587	-
	District 1	Sub (5.5" GN)	-	574	586	595	-
	District 1	Sub (8.5" GN)	-	560	600	585	-
	Big Eddy	TF (5.5" SGN)	-	554	553	561	-
	Andreafsky, E.F.	Esc (WR)	506	515	528	538	-
	Anvik	Esc (SN)	524	540	552	557	-
	Gisasa	Esc (WR)	532	540	554	552	-
	Henshaw	Esc (WR)	533	532	549	565	
	Tozitna	Esc (WR)	517	544	550	576	-
	Salcha [b]	Esc (CR)	544	528	544	559	-
		Female Summer Chum Average [c]	533	547	561	570	620

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Table 11.–Page 2 of 2.

Sex and Season	Project Location	Project Type and (Gear) [a]	Brood Year (Age) 2004 (0.2)	2003 (0.3)	2002 (0.4)	2001 (0.5)	2000 (0.6)
Male Fall Chum							
	District 1	Com (GN)	538	572	582	584	-
	District 5	Com (FW)	605	621	625	635	-
	District 6	Com (GN, FW)	615	607	626	-	-
	Subdistrict 5-B	Sub (FW)	-	605	622	633	-
	Subdistrict 6-B	Sub (FW)	595	595	602	630	-
	Big Eddy	TF (6.0" DGN)	-	586	602	599	-
	Middle Mouth	TF (6.0" DGN)	-	590	611	-	-
	Mt. Village	TF (5 ⅞" DGN)	583	580	589	610	-
	Kaltag	TF (5 ⅞" DGN)	610	597	611	621	-
	Eagle Sonar	TF (DGN)	622	595	619	609	-
	Delta [b]	Esc (CR)	580	598	619	653	-
	Sheenjek [b]	Esc (SN)	-	599	624	666	-
	Kantishna [b]	Esc (CR)	580	564	565	581	-
	Chandalar [b]	Esc (CR)	573	583	604	-	-
		Male Fall Chum Average [c]	590	592	607	620	-
Female Fall Chum							
	District 1	Com (GN)	545	564	579	578	-
	District 5	Com (FW)	597	615	610	-	-
	District 6	Com (GN, FW)	585	586	581	565	-
	Subdistrict 5-B	Sub (FW)	555	582	595	610	-
	Subdistrict 6-B	Sub (FW)	595	586	584	-	-
	Big Eddy	TF (6.0" DGN)	-	578	587	599	-
	Middle Mouth	TF (6.0" DGN)	-	579	590	604	-
	Mt. Village	TF (5 ⅞" DGN)	-	576	582	598	-
	Kaltag	TF (5 ⅞" DGN)	570	590	597	602	-
	Eagle Sonar	TF (DGN)	582	578	587	-	-
	Delta [b]	Esc (CR)	557	569	591	-	-
	Sheenjek [b]	Esc (SN)	-	584	581	597	-
	Kantishna [b]	Esc (CR)	-	542	558	585	630
	Chandalar [b]	Esc (CR)	543	551	564	607	-
		Female Fall Chum Average [c]	570	577	585	595	630

[a] Com is commercial, Sub is subsistence, TF is test fishery, Esc is escapement, GN is gillnet preceded by mesh size, DGN is drift gillnet, FW is fish wheel, WR is weir, SN is seine net, and CR is carcass.

[b] Ages were obtained from vertebrae.

[c] Average was not weighted by number of fish sampled in each project.

Table 12.–Yukon River coho salmon age and female percentages from commercial, test fishery, and escapement projects, 2007.

Project Type	Sample	Percent (%)			
		Age			
Location (gear)	Size	(1.1)	(2.1)	(3.1)	Female
Commercial					
District 1 (unrestricted gillnet)	556	10.4	86.6	3.1	51.9
Test Fishery					
Big Eddy (6.0" drift gillnet)	150	12.0	84.0	4.0	56.7
Middle Mouth (6.0" drift gillnet)	119	16.0	80.7	3.4	33.6
Mountain Village (5 ⅞" drift gillnet)	327	14.7	82.0	3.4	50.5
Kaltag (5 ⅞" drift gillnet)	82	19.5	80.5	0.0	58.5
	Test Fishery Average [a]	15.5	81.8	2.7	49.8
Total Samples	1,234				

[a] Averages were not weighted by sample sizes.

Table 13.–Yukon River coho salmon mean lengths (mm) by project, sex, gear, and age, 2007.

			Brood Year (Age)		
	Project	Project Type	2004	2003	2002
Sex	Location	and (Gear) [a]	(1.1)	(2.1)	(3.1)
Male	District 1	Com (GN)	570	587	564
	Big Eddy	TF (6.0" DGN)	585	587	595
	Middle Mouth	TF (6.0" DGN)	577	581	-
	Mt. Village	TF (5 ⅞" DGN)	586	587	543
	Kaltag	TF (5 ⅞" DGN)	603	595	-
		Male Average [b]	584	587	567
Female	District 1	Com (GN)	580	581	579
	Big Eddy	TF (6.0" DGN)	589	589	590
	Middle Mouth	TF (6.0" DGN)	583	591	586
	Mt. Village	TF (5 ⅞" DGN)	588	593	590
	Kaltag	TF (5 ⅞" DGN)	601	598	-
		Female Average [b]	588	590	586

[a] Com is commercial, TF is test fishery, Esc is escapement, GN is gillnet preceded by mesh size, DGN is drift gillnet, and WR is weir.

[b] Average was not weighted by number of fish sampled in each project.

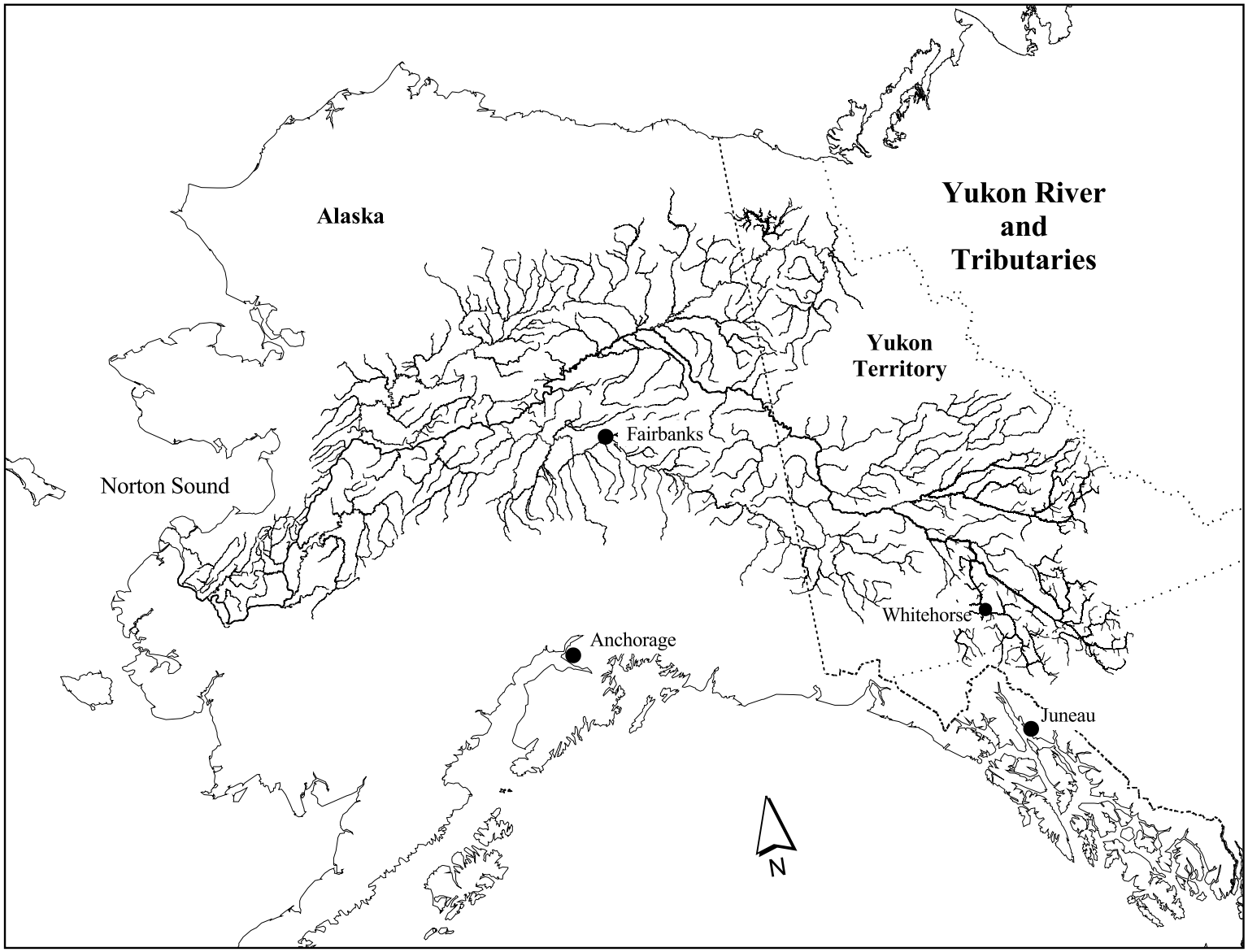
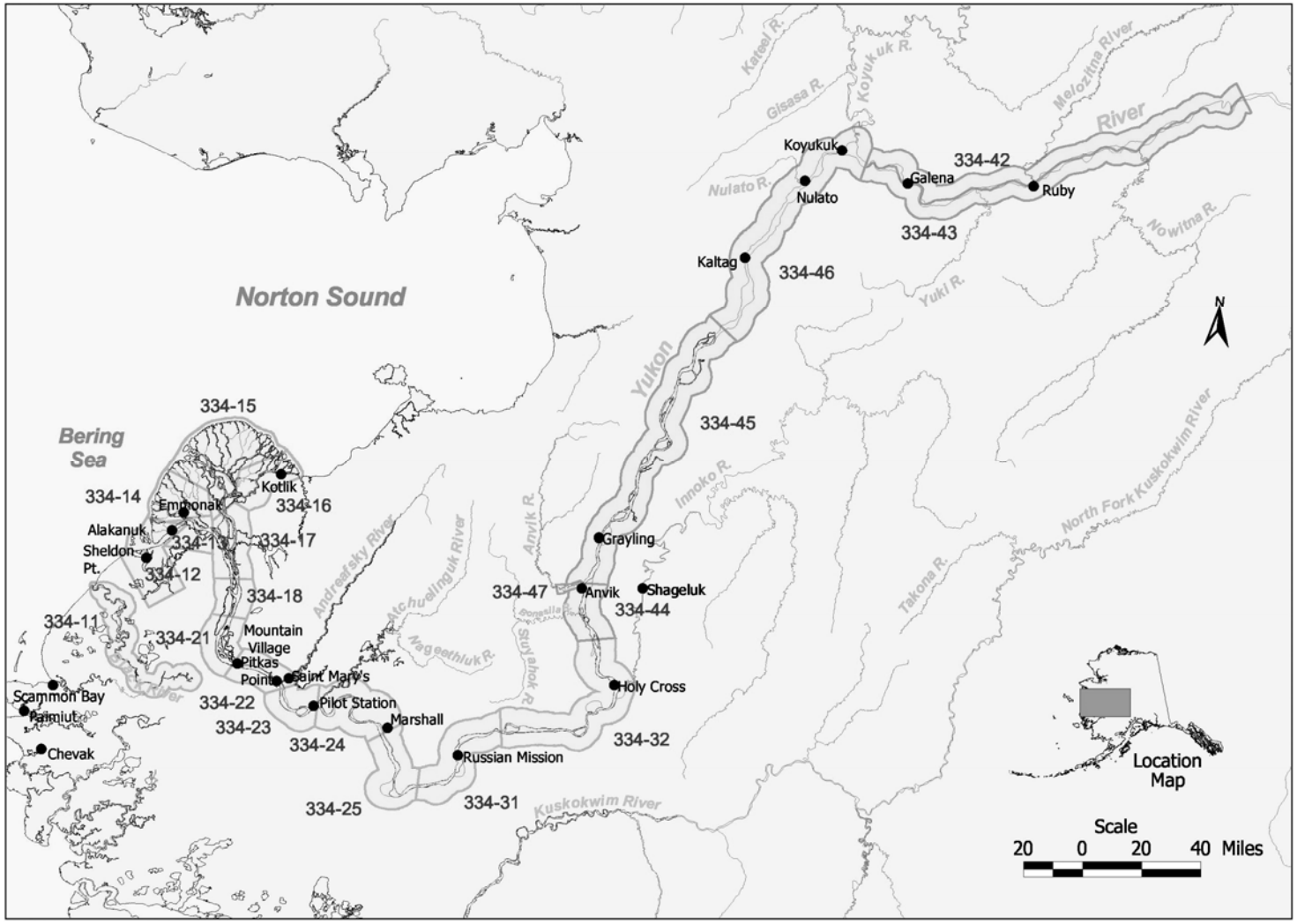
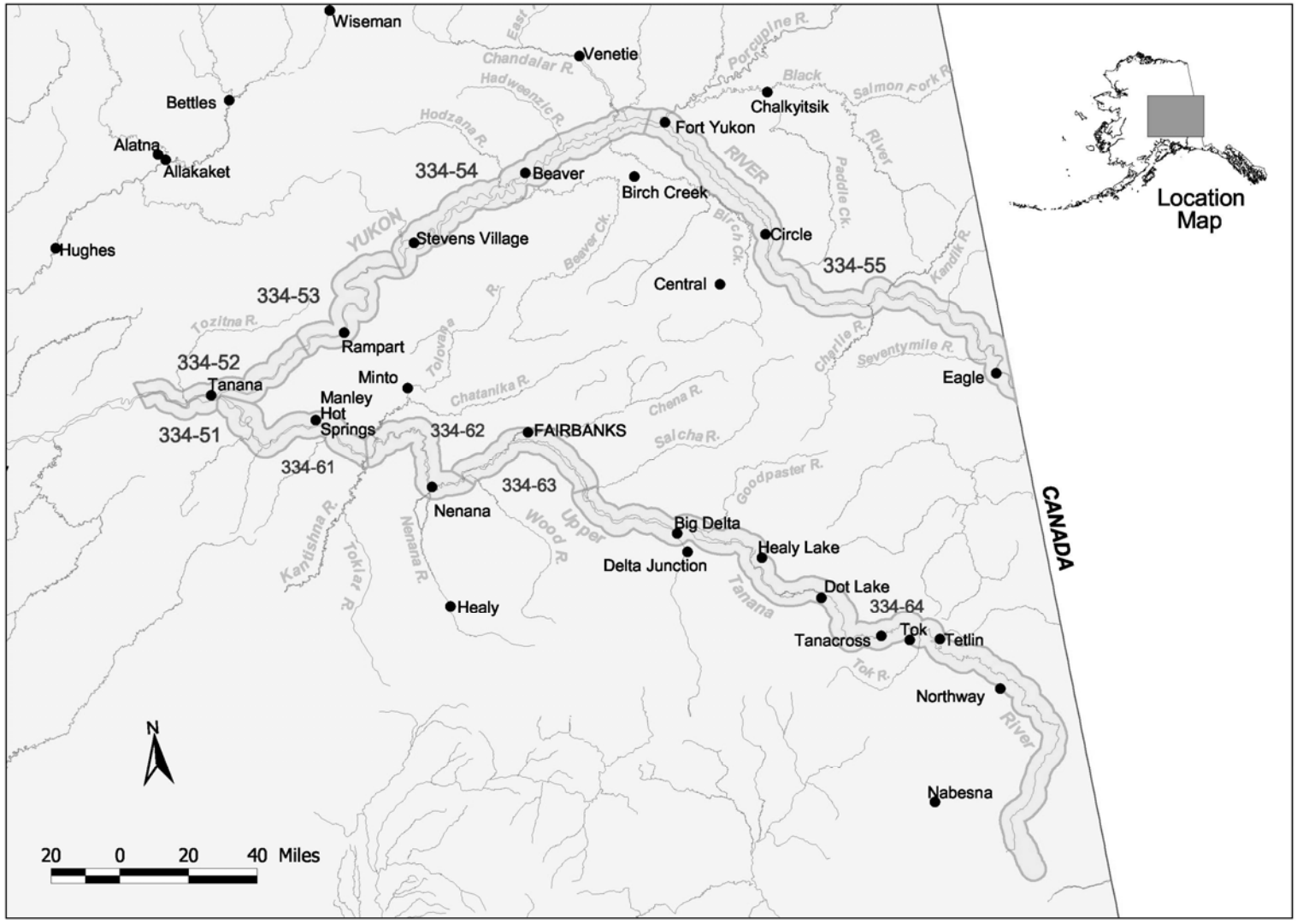


Figure 1.–Yukon River drainage in Alaska and Canada.



Note: District 1 is composed of areas 334-11 through 334-18, District 2 is areas 334-21 through 334-25, District 3 is areas 334-31 and 334-32, Subdistrict 4-A is areas 334-44 through 334-47, Subdistrict 4-B (north bank) is 334-42, and Subdistrict 4-C (south bank) is 334-43.

Figure 2.–Lower Yukon Area statistical codes.



Note: District 5 is composed of Subdistrict 5-A (south bank) area 334-51, Subdistrict 5-B is area 334-52, Subdistrict 5-C is area 334-53, and Subdistrict 5-D is areas 334-54 and 334-55. District 6 is composed of Subdistrict 6-A area 334-61, Subdistrict 6-B is area 334-62, and Subdistrict 6-C is area 334-63.

Figure 3.–Upper Yukon Area statistical codes.

APPENDIX A
CHINOOK SALMON TABLES

Appendix A1.–Yukon River, District 1, Chinook salmon commercial gillnet harvest age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	(2.2) No.	%	2001 (1.4) No.	%	(2.3) No.	%	2000 (1.5) No.	%	(2.4) No.	%	1999 (1.6) No.	%	(2.5) No.	%
6/18-19	397	Males	0	0.0	119	2.8	313	7.3	0	0.0	1,048	24.4	0	0.0	32	0.8	11	0.3	0	0.0	0	0.0
Period 1		Females	0	0.0	11	0.3	432	10.1	0	0.0	2,205	51.4	0	0.0	97	2.3	22	0.5	0	0.0	0	0.0
		Subtotal	0	0.0	130	3.0	746	17.4	0	0.0	3,253	75.8	0	0.0	130	3.0	32	0.8	0	0.0	0	0.0
6/20	0	Males	0	0.0	81	31.0	85	32.7	0	0.0	44	16.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Period 2 [a]		Females	0	0.0	2	0.9	14	5.3	0	0.0	35	13.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	83	31.9	99	38.1	0	0.0	79	30.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
6/21-22	396	Males	0	0.0	45	0.8	520	8.8	0	0.0	2,378	40.4	0	0.0	45	0.8	0	0.0	0	0.0	0	0.0
Period 3		Females	0	0.0	0	0.0	208	3.5	0	0.0	2,645	44.9	0	0.0	45	0.8	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	45	0.8	728	12.4	0	0.0	5,023	85.4	0	0.0	89	1.5	0	0.0	0	0.0	0	0.0
6/22	113	Males	0	0.0	196	31.0	207	32.7	0	0.0	106	16.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Period 4		Females	0	0.0	6	0.9	34	5.3	0	0.0	84	13.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	201	31.9	240	38.1	0	0.0	190	30.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
6/25-26	390	Males	0	0.0	121	3.6	295	8.7	0	0.0	1,335	39.5	0	0.0	17	0.5	0	0.0	0	0.0	0	0.0
Period 5		Females	0	0.0	0	0.0	69	2.1	0	0.0	1,500	44.4	0	0.0	43	1.3	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	121	3.6	364	10.8	0	0.0	2,836	83.8	0	0.0	61	1.8	0	0.0	0	0.0	0	0.0
6/27	138	Males	0	0.0	262	24.6	262	24.6	0	0.0	200	18.8	0	0.0	8	0.7	0	0.0	0	0.0	0	0.0
Period 6		Females	0	0.0	15	1.4	100	9.4	0	0.0	200	18.8	8	0.7	8	0.7	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	278	26.1	362	34.1	0	0.0	401	37.7	8	0.7	15	1.4	0	0.0	0	0.0	0	0.0
6/30	188	Males	0	0.0	338	27.1	199	16.0	0	0.0	219	17.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Period 7		Females	0	0.0	0	0.0	113	9.0	0	0.0	378	30.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	338	27.1	312	25.0	0	0.0	597	47.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
7/2	163	Males	0	0.0	222	27.0	176	21.5	0	0.0	106	12.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Period 8		Females	0	0.0	0	0.0	76	9.2	0	0.0	242	29.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	222	27.0	252	30.7	0	0.0	348	42.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

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Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	(2.2) No.	%	2001 (1.4) No.	%	(2.3) No.	%	2000 (1.5) No.	%	(2.4) No.	%	1999 (1.6) No.	%	(2.5) No.	%
7/6	132	Males	0	0.0	84	21.2	81	20.5	0	0.0	54	13.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Period 9		Females	0	0.0	3	0.8	27	6.8	0	0.0	141	35.6	0	0.0	6	1.5	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	87	22.0	108	27.3	0	0.0	195	49.2	0	0.0	6	1.5	0	0.0	0	0.0	0	0.0
7/9-10	60	Males	0	0.0	53	13.3	93	23.3	0	0.0	40	10.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Period 10		Females	0	0.0	20	5.0	73	18.3	0	0.0	112	28.3	0	0.0	7	1.7	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	73	18.3	165	41.7	0	0.0	152	38.3	0	0.0	7	1.7	0	0.0	0	0.0	0	0.0
7/13	0	Males	0	0.0	20	13.3	35	23.3	0	0.0	15	10.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Period 11 [b]		Females	0	0.0	7	5.0	27	18.3	0	0.0	42	28.3	0	0.0	2	1.7	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	27	18.3	62	41.7	0	0.0	57	38.3	0	0.0	2	1.7	0	0.0	0	0.0	0	0.0
7/15	0	Males	0	0.0	12	13.3	21	23.3	0	0.0	9	10.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Period 12 [b]		Females	0	0.0	4	5.0	16	18.3	0	0.0	25	28.3	0	0.0	1	1.7	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	16	18.3	37	41.7	0	0.0	34	38.3	0	0.0	1	1.7	0	0.0	0	0.0	0	0.0
Subtotal	1,183	Males	0	0.0	285	2.1	1,128	8.3	0	0.0	4,762	35.1	0	0.0	94	0.7	11	0.1	0	0.0	0	0.0
Unrestricted		Females	0	0.0	11	0.1	710	5.2	0	0.0	6,350	46.8	0	0.0	185	1.4	22	0.2	0	0.0	0	0.0
Periods		Total	0	0.0	296	2.2	1,838	13.6	0	0.0	11,112	82.0	0	0.0	280	2.1	32	0.2	0	0.0	0	0.0
Mean Length		Males	-		551		731		-		861		-		878		730		-		-	
Std. Error			-		7		6		-		3		-		16		-		-		-	
Mean Length		Females	-		615		766		-		871		-		904		743		-		-	
Std. Error			-		-		6		-		2		-		14		18		-		-	
Subtotal	794	Males	0	0.0	1,267	25.1	1,159	22.9	0	0.0	793	15.7	0	0.0	8	0.2	0	0.0	0	0.0	0	0.0
Restricted		Females	0	0.0	58	1.1	479	9.5	0	0.0	1,259	24.9	8	0.2	24	0.5	0	0.0	0	0.0	0	0.0
Periods		Total	0	0.0	1,325	26.2	1,638	32.4	0	0.0	2,052	40.6	8	0.2	32	0.6	0	0.0	0	0.0	0	0.0
Mean Length		Males	-		561		671		-		803		-		625		-		-		-	
Std. Error			-		3		5		-		8		-		-		-		-		-	
Mean Length		Females	-		725		736		-		835		860		845		-		-		-	
Std. Error			-		52		8		-		4		-		31		-		-		-	

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Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	(2.2) No.	%	2001 (1.4) No.	%	(2.3) No.	%	2000 (1.5) No.	%	(2.4) No.	%	1999 (1.6) No.	%	(2.5) No.	%
Total	1,977	Males	0	0.0	1,552	8.3	2,287	12.3	0	0.0	5,554	29.8	0	0.0	102	0.5	11	0.1	0	0.0	0	0.0
All Periods		Females	0	0.0	69	0.4	1,189	6.4	0	0.0	7,610	40.9	8	0.0	209	1.1	22	0.1	0	0.0	0	0.0
		Total	0	0.0	1,621	8.7	3,476	18.7	0	0.0	13,164	70.7	8	0.0	312	1.7	32	0.2	0	0.0	0	0.0
Mean Length		Males	-		560		693		-		847		-		849		730		-		-	
Std. Error			-		2		4		-		3		-		31		-		-		-	
Mean Length		Females	-		711		750		-		861		860		893		743		-		-	
Std. Error			-		47		5		-		2		-		13		18		-		-	
Y1& 2 Subtotal	2,288	Males	0	0	671	2.92	2,441	10.6	0	0	7,696	33.47	7	0.03	150	0.65	17	0.1	0	0	0	0
Unrestricted		Females	0	0	21	0.09	1,434	6.24	0	0	10,237	44.52	15	0.06	253	1.1	52	0.2	0	0	0	0
Periods		Total	0	0	692	3.0	3,875	16.9	0	0	17,933	78.0	21	0.1	404	1.8	69	0.3	0	0	0	0
Y2 Subtotal	1,105	Males	0	0.0	386	4.1	1,312	13.9	0	0.0	2,935	31.1	7	0.1	56	0.6	7	0.1	0	0.0	0	0.0
Unrestricted		Females	0	0.0	11	0.1	725	7.7	0	0.0	3,886	41.2	15	0.2	68	0.7	30	0.3	0	0.0	0	0.0
Periods		Total	0	0.0	396	4.2	2,037	21.6	0	0.0	6,821	72.3	21	0.2	124	1.3	37	0.4	0	0.0	0	0.0
Y2 Subtotal	297	Males	0	0.0	1,866	45.9	968	23.8	0	0.0	523	12.9	7	0.2	0	0.0	0	0.0	0	0.0	0	0.0
Restricted		Females	0	0.0	28	0.7	212	5.2	0	0.0	438	10.8	21	0.5	0	0.0	0	0.0	0	0.0	0	0.0
Periods		Total	0	0.0	1,894	46.6	1,180	29.0	0	0.0	961	23.7	28	0.7	0	0.0	0	0.0	0	0.0	0	0.0
Y1& 2 Subtotal	794	Males	0	0	1,267	25.1	1,159	22.9	0	0	793	15.68	0	0	8	0.15	0	0	0	0	0	0
restricted		Females	0	0	58	1.15	479	9.48	0	0	1,259	24.91	8	0.15	24	0.48	0	0	0	0	0	0
Periods		Total	0	0	1,325	26.2	1,638	32.4	0	0	2,052	40.6	8	0.2	32	0.6	0	0	0	0	0	0

Note: Mesh size was restricted to ≤6" for Periods 2, 4, and 6-12, and unrestricted for Periods 1, 3, and 5; unrestricted mesh size commercial periods were directed at harvesting Chinook and 8.0" or larger mesh was most likely used.

[a] Age and sex composition was estimated from Period 4.

[b] Age and sex composition was estimated from Period 10.

Appendix A2.–Yukon River, District 2, Chinook salmon commercial gillnet harvest age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	(2.2) No.	%	2001 (1.4) No.	%	(2.3) No.	%	2000 (1.5) No.	%	(2.4) No.	%	1999 (1.6) No.	%	(2.5) No.	%
6/15	316	Males	0	0.0	40	1.9	263	12.7	0	0.0	560	26.9	7	0.3	13	0.6	7	0.3	0	0.0	0	0.0
Period 1		Females	0	0.0	0	0.0	263	12.7	0	0.0	896	43.0	7	0.3	7	0.3	20	0.9	0	0.0	0	0.0
		Subtotal	0	0.0	40	1.9	527	25.3	0	0.0	1,455	69.9	13	0.6	20	0.9	26	1.3	0	0.0	0	0.0
6/19	158	Males	0	0.0	253	36.1	182	25.9	0	0.0	76	10.8	4	0.6	0	0.0	0	0.0	0	0.0	0	0.0
Period 2		Females	0	0.0	18	2.5	53	7.6	0	0.0	116	16.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	271	38.6	235	33.5	0	0.0	191	27.2	4	0.6	0	0.0	0	0.0	0	0.0	0	0.0
6/20	390	Males	0	0.0	233	5.6	572	13.8	0	0.0	1,155	27.9	0	0.0	11	0.3	0	0.0	0	0.0	0	0.0
Period 3		Females	0	0.0	11	0.3	275	6.7	0	0.0	1,843	44.6	0	0.0	21	0.5	11	0.3	0	0.0	0	0.0
		Subtotal	0	0.0	244	5.9	847	20.5	0	0.0	2,998	72.6	0	0.0	32	0.8	11	0.3	0	0.0	0	0.0
6/21	0	Males	0	0.0	150	36.1	108	25.9	0	0.0	45	10.8	3	0.6	0	0.0	0	0.0	0	0.0	0	0.0
Period 4 [a]		Females	0	0.0	11	2.5	32	7.6	0	0.0	68	16.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	160	38.6	139	33.5	0	0.0	113	27.2	3	0.6	0	0.0	0	0.0	0	0.0	0	0.0
6/24	399	Males	0	0.0	113	3.5	477	14.8	0	0.0	1,220	37.8	0	0.0	32	1.0	0	0.0	0	0.0	0	0.0
Period 5		Females	0	0.0	0	0.0	186	5.8	0	0.0	1,148	35.6	8	0.3	40	1.3	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	113	3.5	663	20.6	0	0.0	2,368	73.4	8	0.3	73	2.3	0	0.0	0	0.0	0	0.0
6/26	0	Males	0	0.0	421	49.6	195	23.0	0	0.0	116	13.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Period 6 [b]		Females	0	0.0	0	0.0	37	4.3	0	0.0	73	8.6	6	0.7	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	421	49.6	232	27.3	0	0.0	189	22.3	6	0.7	0	0.0	0	0.0	0	0.0	0	0.0
6/28	139	Males	0	0.0	400	49.6	185	23.0	0	0.0	110	13.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Period 7		Females	0	0.0	0	0.0	35	4.3	0	0.0	69	8.6	6	0.7	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	400	49.6	220	27.3	0	0.0	180	22.3	6	0.7	0	0.0	0	0.0	0	0.0	0	0.0
7/3	0	Males	0	0.0	448	49.6	208	23.0	0	0.0	123	13.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Period 8 [b]		Females	0	0.0	0	0.0	39	4.3	0	0.0	78	8.6	6	0.7	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	448	49.6	247	27.3	0	0.0	201	22.3	6	0.7	0	0.0	0	0.0	0	0.0	0	0.0

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Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	(2.2) No.	%	2001 (1.4) No.	%	(2.3) No.	%	2000 (1.5) No.	%	(2.4) No.	%	1999 (1.6) No.	%	(2.5) No.	%
7/8	0	Males	0	0.0	195	49.6	90	23.0	0	0.0	54	13.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Period 9 [b]		Females	0	0.0	0	0.0	17	4.3	0	0.0	34	8.6	3	0.7	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	195	49.6	107	27.3	0	0.0	87	22.3	3	0.7	0	0.0	0	0.0	0	0.0	0	0.0
Subtotal	1,105	Males	0	0.0	386	4.1	1,312	13.9	0	0.0	2,935	31.1	7	0.1	56	0.6	7	0.1	0	0.0	0	0.0
Unrestricted		Females	0	0.0	11	0.1	725	7.7	0	0.0	3,886	41.2	15	0.2	68	0.7	30	0.3	0	0.0	0	0.0
Periods		Total	0	0.0	396	4.2	2,037	21.6	0	0.0	6,821	72.3	21	0.2	124	1.3	37	0.4	0	0.0	0	0.0
Mean Length		Males	-		559		735		-		847		755		878		900		-		-	
Std. Error			-		6		5		-		4		-		25		-		-		-	
Mean Length		Females	-		520		753		-		844		748		860		809		-		-	
Std. Error			-		-		5		-		3		48		18		26		-		-	
Subtotal	297	Males	0	0.0	1,866	45.9	968	23.8	0	0.0	523	12.9	7	0.2	0	0.0	0	0.0	0	0.0	0	0.0
Restricted		Females	0	0.0	28	0.7	212	5.2	0	0.0	438	10.8	21	0.5	0	0.0	0	0.0	0	0.0	0	0.0
Periods		Total	0	0.0	1,894	46.6	1,180	29.0	0	0.0	961	23.7	28	0.7	0	0.0	0	0.0	0	0.0	0	0.0
Mean Length		Males	-		552		658		-		791		635		-		-		-		-	
Std. Error			-		4		8		-		15		-		-		-		-		-	
Mean Length		Females	-		598		719		-		818		830		-		-		-		-	
Std. Error			-		10		9		-		9		-		-		-		-		-	
Total	1,402	Males	0	0.0	2,252	16.7	2,281	16.9	0	0.0	3,458	25.6	14	0.1	56	0.4	7	0.0	0	0.0	0	0.0
All Periods		Females	0	0.0	39	0.3	937	6.9	0	0.0	4,325	32.0	36	0.3	68	0.5	30	0.2	0	0.0	0	0.0
		Total	0	0.0	2,290	17.0	3,217	23.8	0	0.0	7,782	57.6	50	0.4	124	0.9	37	0.3	0	0.0	0	0.0
Mean Length		Males	-		554		710		-		842		695		878		900		-		-	
Std. Error			-		3		5		-		4		60		25		-		-		-	
Mean Length		Females	-		582		747		-		842		775		860		809		-		-	
Std. Error			-		17		4		-		2		39		18		26		-		-	

Note: Mesh size was restricted to 6" for Periods 2, 4, and 6-9 and unrestricted for Periods 1, 3, and 5; unrestricted mesh size commercial periods were directed at harvesting Chinook and 8.0” or larger mesh was most likely used.

[a] Age and sex composition was estimated from Period 2.

[b] Age and sex composition was estimated from Period 7.

Appendix A3.–Yukon River, District 5 (Subdistricts 5-B and 5-C), Chinook salmon commercial harvest age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	2002 (2.2) No.	%	2001 (1.4) No.	%	2001 (2.3) No.	%	2000 (1.5) No.	%	2000 (2.4) No.	%	1999 (1.6) No.	%	1999 (2.5) No.	%	Total No.	%
7/3-4	146	Males	0	0.0	25	7.5	93	28.1	0	0.0	57	17.1	0	0.0	2	0.7	0	0.0	0	0.0	0	0.0	176	53.4
Period 1		Females	0	0.0	9	2.7	34	10.3	0	0.0	108	32.9	0	0.0	2	0.7	0	0.0	0	0.0	0	0.0	154	46.6
		Subtotal	0	0.0	34	10.3	127	38.4	0	0.0	165	50.0	0	0.0	5	1.4	0	0.0	0	0.0	0	0.0	330	100.0
7/4-5	146	Males	0	0.0	77	14.4	168	31.5	0	0.0	88	16.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	332	62.3
Period 2		Females	0	0.0	18	3.4	62	11.6	4	0.7	117	21.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	201	37.7
		Subtotal	0	0.0	95	17.8	230	43.2	4	0.7	204	38.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	533	100.0
7/10-11	147	Males	0	0.0	64	17.0	100	26.5	0	0.0	95	25.2	0	0.0	3	0.7	0	0.0	0	0.0	0	0.0	262	69.4
Period 3		Females	0	0.0	0	0.0	8	2.0	0	0.0	105	27.9	0	0.0	3	0.7	0	0.0	0	0.0	0	0.0	116	30.6
		Subtotal	0	0.0	64	17.0	108	28.6	0	0.0	201	53.1	0	0.0	5	1.4	0	0.0	0	0.0	0	0.0	378	100.0
	439	Males	0	0.0	166	13.4	361	29.1	0	0.0	239	19.3	0	0.0	5	0.4	0	0.0	0	0.0	0	0.0	771	62.1
All Periods		Females	0	0.0	27	2.2	104	8.4	4	0.3	331	26.7	0	0.0	5	0.4	0	0.0	0	0.0	0	0.0	470	37.9
		Season Total	0	0.0	193	15.6	465	37.4	4	0.3	570	45.9	0	0.0	10	0.8	0	0.0	0	0.0	0	0.0	1,241	100.0
Mean Length		Males	-		557		699		-		844		-		828		-		-		-			
Std. Error			-		6		5		-		9		-		28		-		-		-			
Mean Length		Females	-		580		734		680		858		-		810		-		-		-			
Std. Error			-		12		11		-		6		-		115		-		-		-			

Note: Samples were collected from mixed gear including gillnets and fish wheels.

Appendix A4.–Yukon River, District 6 (Subdistricts 6-A, 6-B, and 6-C), Chinook salmon commercial fish wheel harvest age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	(2.2) No.	%	2001 (1.4) No.	%	(2.3) No.	%	2000 (1.5) No.	%	(2.4) No.	%	1999 (1.6) No.	%	(2.5) No.	%	Total No.	%
7/21-22	25	Males	0	0.0	14	52.0	4	16.0	0	0.0	4	16.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	23	84.0
Period 1		Females	0	0.0	0	0.0	1	4.0	0	0.0	3	12.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	16.0
		Subtotal	0	0.0	14	52.0	5	20.0	0	0.0	8	28.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	27	100.0
7/23-25	39	Males	0	0.0	51	38.5	20	15.4	0	0.0	20	15.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	92	69.2
Period 2		Females	0	0.0	0	0.0	0	0.0	0	0.0	41	30.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	41	30.8
		Subtotal	0	0.0	51	38.5	20	15.4	0	0.0	61	46.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	133	100.0
7/27-8/1,	27	Males	9	7.4	32	25.9	19	14.8	0	0.0	9	7.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	69	55.6
4-8, 10-12		Females	0	0.0	0	0.0	9	7.4	0	0.0	42	33.3	0	0.0	5	3.7	0	0.0	0	0.0	0	0.0	56	44.4
Periods 3-7		Subtotal	9	7.4	32	25.9	28	22.2	0	0.0	51	40.7	0	0.0	5	3.7	0	0.0	0	0.0	0	0.0	125	100.0
	91	Males	9	3.2	98	34.2	43	15.2	0	0.0	34	11.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	184	64.6
All Periods		Females	0	0.0	0	0.0	10	3.6	0	0.0	86	30.1	0	0.0	5	1.6	0	0.0	0	0.0	0	0.0	101	35.4
		Season Total	9	3.2	98	34.2	54	18.8	0	0.0	120	42.1	0	0.0	5	1.6	0	0.0	0	0.0	0	0.0	285	100.0
Mean Length		Males	343		541		654		-		813		-		-		-		-		-			
Std. Error			8		7		15		-		17		-		-		-		-		-			
Mean Length		Females	-		-		805		-		839		-		810		-		-		-			
Std. Error			-		-		38		-		9		-		-		-		-		-			

Note: Samples were collected from fish wheels.

Appendix A5.–Yukon River, District 1, Chinook salmon subsistence 5.5" mesh gillnet harvest age and sex composition and mean length (mm), 2007.

			Brood Year (Age)																			
			2004		2003		2002			2001			2000			1999						
Sample	Sample		(1.1)		(1.2)		(1.3)		(2.2)	(1.4)		(2.3)	(1.5)		(2.4)	(1.6)		(2.5)		Total	
Dates [a]	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
6/12-13	69	Males	0	0.0	9	13.0	28	40.6	0	0.0	10	14.5	0	0.0	0	0.0	0	0.0	0	0.0	47	68.1
		Females	0	0.0	0	0.0	3	4.3	0	0.0	19	27.5	0	0.0	0	0.0	0	0.0	0	0.0	22	31.9
		Season Total	0	0.0	9	13.0	31	44.9	0	0.0	29	42.0	0	0.0	0	0.0	0	0.0	0	0.0	69	100.0
Mean Length		Males	-		562		696		-		756		-		-		-		-			
Std. Error			-		14		8		-		27		-		-		-		-			
Mean Length		Females	-		-		762		-		851		-		-		-		-			
Std. Error			-		-		29		-		10		-		-		-		-			

[a] Sample dates are stratified by week.

Appendix A6.–Yukon River, District 1, Chinook salmon subsistence 5.5" mesh gillnet harvest age composition, 2007.

		Brood Year (Age)																			
		2004		2003		2002			2001			2000			1999						
Sample	Sample	(1.1)		(1.2)		(1.3)		(2.2)	(1.4)		(2.3)	(1.5)		(2.4)	(1.6)		(2.5)		Total	
Dates [a]	Size	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
6/12-13																					
Season Total	190	0	0.0	42	22.1	101	53.2	0	0.0	46	24.2	0	0.0	1	0.5	0	0.0	0	0.0	0	0.0	190	100.0

[a] Sample dates are stratified by week.

Appendix A7.–Yukon River, District 1, Chinook salmon subsistence 8.5" mesh gillnet harvest age and sex composition and mean length (mm), 2007.

Sample Dates [a]	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	(2.2) No.	%	2001 (1.4) No.	%	(2.3) No.	%	2000 (1.5) No.	%	(2.4) No.	%	1999 (1.6) No.	%	(2.5) No.	%	Total No.	%
6/8	7	Males	0	0.0	0	0.0	1	14.3	0	0.0	2	28.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	42.9
		Females	0	0.0	0	0.0	0	0.0	0	0.0	4	57.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	57.1
		Subtotal	0	0.0	0	0.0	1	14.3	0	0.0	6	85.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	7	100.0
6/12, 15	31	Males	0	0.0	1	3.2	2	6.5	0	0.0	11	35.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	14	45.2
		Females	0	0.0	0	0.0	4	12.9	0	0.0	13	41.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	17	54.8
		Subtotal	0	0.0	1	3.2	6	19.4	0	0.0	24	77.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	31	100.0
6/24	22	Males	0	0.0	1	4.5	2	9.1	0	0.0	6	27.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	9	40.9
		Females	0	0.0	0	0.0	2	9.1	0	0.0	11	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	13	59.1
		Subtotal	0	0.0	1	4.5	4	18.2	0	0.0	17	77.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	22	100.0
	60	Males	0	0.0	2	3.3	5	8.3	0	0.0	19	31.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	26	43.3
		Females	0	0.0	0	0.0	6	10.0	0	0.0	28	46.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	34	56.7
		Season Total	0	0.0	2	3.3	11	18.3	0	0.0	47	78.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	60	100.0
Mean Length		Males	-		558		720		-		836		-		-		-		-		-			
Std. Error			-		3		25		-		16		-		-		-		-		-			
Mean Length		Females	-		-		771		-		842		-		-		-		-		-			
Std. Error			-		-		22		-		10		-		-		-		-		-			

[a] Sample dates are stratified by week.

Appendix A8.–Yukon River, District 3, Holy Cross, Chinook salmon subsistence gillnet harvest age and sex composition and mean length (mm), 2007.

Sample Dates [a]	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	2002 (2.2) No.	%	2001 (1.4) No.	%	2001 (2.3) No.	%	2000 (1.5) No.	%	2000 (2.4) No.	%	1999 (1.6) No.	%	1999 (2.5) No.	%	Total No.	%
6/13, 15	3	Males	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
		Females	0	0.0	0	0.0	1	33.3	0	0.0	2	66.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	100.0
		Subtotal	0	0.0	0	0.0	1	33.3	0	0.0	2	66.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	100.0
6/19-22	201	Males	0	0.0	4	2.0	25	12.4	0	0.0	70	34.8	0	0.0	1	0.5	0	0.0	0	0.0	0	0.0	100	49.8
		Females	0	0.0	1	0.5	22	10.9	0	0.0	76	37.8	0	0.0	1	0.5	1	0.5	0	0.0	0	0.0	101	50.2
		Subtotal	0	0.0	5	2.5	47	23.4	0	0.0	146	72.6	0	0.0	2	1.0	1	0.5	0	0.0	0	0.0	201	100.0
	204	Males	0	0.0	4	2.0	25	12.3	0	0.0	70	34.3	0	0.0	1	0.5	0	0.0	0	0.0	0	0.0	100	49.0
		Females	0	0.0	1	0.5	23	11.3	0	0.0	78	38.2	0	0.0	1	0.5	1	0.5	0	0.0	0	0.0	104	51.0
		Season Total	0	0.0	5	2.5	48	23.5	0	0.0	148	72.5	0	0.0	2	1.0	1	0.5	0	0.0	0	0.0	204	100.0
Mean Length		Males	-		573		752		-		850		-		900		-		-		-			
Std. Error			-		9		13		-		9		-		-		-		-		-			
Mean Length		Females	-		590		756		-		854		-		940		880		-		-			
Std. Error			-		-		11		-		8		-		-		-		-		-			

Note: Samples collected by the Tanana Chiefs Conference (TCC).

[a] Sample dates are stratified by week.

Appendix A9.–Yukon River, Subdistrict 4-A, Kaltag, Chinook salmon subsistence 8.5" mesh gillnet harvest age and sex composition and mean length (mm), 2007.

			Brood Year (Age)																			
			2004		2003		2002				2001				2000				1999			
Sample	Sample		(1.1)		(1.2)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total	
Dates [a]	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
6/27-30	64	Males	0	0.0	5	7.8	12	18.8	0	0.0	18	28.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	35	54.7
		Females	0	0.0	0	0.0	5	7.8	0	0.0	24	37.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	29	45.3
		Subtotal	0	0.0	5	7.8	17	26.6	0	0.0	42	65.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	64	100.0
7/3-5, 7	67	Males	0	0.0	2	3.0	11	16.4	0	0.0	19	28.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	32	47.8
		Females	0	0.0	0	0.0	4	6.0	0	0.0	31	46.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	35	52.2
		Subtotal	0	0.0	2	3.0	15	22.4	0	0.0	50	74.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	67	100.0
7/8-14	97	Males	0	0.0	3	3.1	7	7.2	0	0.0	27	27.8	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	38	39.2
		Females	0	0.0	0	0.0	3	3.1	0	0.0	56	57.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	59	60.8
		Subtotal	0	0.0	3	3.1	10	10.3	0	0.0	83	85.6	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	97	100.0
	228	Males	0	0.0	10	4.4	30	13.2	0	0.0	64	28.1	0	0.0	1	0.4	0	0.0	0	0.0	0	0.0	105	46.1
		Females	0	0.0	0	0.0	12	5.3	0	0.0	111	48.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	123	53.9
		Season Total	0	0.0	10	4.4	42	18.4	0	0.0	175	76.8	0	0.0	1	0.4	0	0.0	0	0.0	0	0.0	228	100.0
Mean Length		Males	-		542		710		-		867		-		835		-		-		-			
Std. Error			-		11		11		-		10		-		-		-		-		-			
Mean Length		Females	-		-		789		-		865		-		-		-		-		-			
Std. Error			-		-		12		-		5		-		-		-		-		-			
Mean Girth		Males	-		309		400		-		506		-		540		-		-		-			
Std. Error			-		7		7		-		8		-		-		-		-		-			
Mean Girth		Females	-		-		453		-		504		-		-		-		-		-			
Std. Error			-		-		10		-		4		-		-		-		-		-			

Note: Samples were collected by the City of Kaltag.

[a] Sample dates are stratified by week.

Appendix A10.–Yukon River, Subdistrict 4-A, Nulato, Chinook salmon subsistence gillnet harvest age and sex composition and mean length (mm), 2007.

			Brood Year (Age)																	
			2004		2003		2002				2001				2000				1999			
Sample	Sample		(1.1)		(1.2)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total	
Dates [a]	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
6/26-28	58	Males	0	0.0	4	6.9	13	22.4	0	0.0	23	39.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	40	69.0
		Females	0	0.0	1	1.7	6	10.3	0	0.0	11	19.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	18	31.0
		Subtotal	0	0.0	5	8.6	19	32.8	0	0.0	34	58.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	58	100.0
7/6	6	Males	0	0.0	0	0.0	0	0.0	0	0.0	2	33.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	33.3
		Females	0	0.0	0	0.0	0	0.0	0	0.0	4	66.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	66.7
		Subtotal	0	0.0	0	0.0	0	0.0	0	0.0	6	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6	100.0
7/8-12	25	Males	0	0.0	1	4.0	4	16.0	0	0.0	6	24.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	11	44.0
		Females	0	0.0	1	4.0	5	20.0	0	0.0	8	32.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	14	56.0
		Subtotal	0	0.0	2	8.0	9	36.0	0	0.0	14	56.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	25	100.0
	89	Males	0	0.0	5	5.6	17	19.1	0	0.0	31	34.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	53	59.6
		Females	0	0.0	2	2.2	11	12.4	0	0.0	23	25.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	36	40.4
		Season Total	0	0.0	7	7.9	28	31.5	0	0.0	54	60.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	89	100.0
Mean Length		Males	-		634		772		-		873		-		-		-		-		-			
Std. Error			-		52		22		-		11		-		-		-		-		-			
Mean Length		Females	-		583		745		-		848		-		-		-		-		-			
Std. Error			-		23		16		-		17		-		-		-		-		-			

[a] Sample dates are stratified by week.

Appendix A11.–Yukon River, Subdistricts 4-B, 4-C, Galena, Chinook salmon subsistence gillnet and fish wheel harvest age and sex composition and mean length (mm), 2007.

			Brood Year (Age)																			
			2004		2003		2002				2001				2000				1999			
Sample	Sample		(1.1)		(1.2)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total	
Dates [a]	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
6/21-22	2	Males	0	0.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	50.0
		Females	0	0.0	0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	50.0
		Subtotal	0	0.0	0	0.0	1	50.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	100.0
6/25-26, 29	15	Males	0	0.0	2	13.3	4	26.7	0	0.0	4	26.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	10	66.7
		Females	0	0.0	0	0.0	0	0.0	0	0.0	4	26.7	0	0.0	1	6.7	0	0.0	0	0.0	0	0.0	5	33.3
		Subtotal	0	0.0	2	13.3	4	26.7	0	0.0	8	53.3	0	0.0	1	6.7	0	0.0	0	0.0	0	0.0	15	100.0
7/2-7	107	Males	0	0.0	42	39.3	28	26.2	1	0.9	8	7.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	79	73.8
		Females	0	0.0	7	6.5	6	5.6	0	0.0	15	14.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	28	26.2
		Subtotal	0	0.0	49	45.8	34	31.8	1	0.9	23	21.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	107	100.0
7/9-10	11	Males	0	0.0	4	36.4	2	18.2	0	0.0	3	27.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	9	81.8
		Females	0	0.0	1	9.1	0	0.0	0	0.0	1	9.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	18.2
		Subtotal	0	0.0	5	45.5	2	18.2	0	0.0	4	36.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	11	100.0
7/17	1	Males	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0
		Females	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0
	136	Males	0	0.0	49	36.0	35	25.7	1	0.7	15	11.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	100	73.5
		Females	0	0.0	8	5.9	6	4.4	0	0.0	21	15.4	0	0.0	1	0.7	0	0.0	0	0.0	0	0.0	36	26.5
		Season Total	0	0.0	57	41.9	41	30.1	1	0.7	36	26.5	0	0.0	1	0.7	0	0.0	0	0.0	0	0.0	136	100.0
Mean Length		Males	-		540		701		550		836		-		-		-		-		-			
Std. Error			-		6		11		-		25		-		-		-		-		-			
Mean Length		Females	-		544		661		-		834		-		820		-		-		-			
Std. Error			-		15		34		-		12		-		-		-		-		-			

[a] Sample dates are stratified by week.

Appendix A12.–Yukon River, Subdistrict 4-B, 4-C (Bishop Rock), Chinook salmon subsistence gillnet harvest age and sex composition and mean length (mm), 2007.

			Brood Year (Age)																			
			2004		2003		2002				2001				2000				1999				
Sample	Sample		(1.1)		(1.2)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total	
Dates [a]	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
6/25-26,	102	Males	0	0.0	1	1.0	8	7.8	0	0.0	35	34.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	44	43.1
28-29		Females	0	0.0	0	0.0	8	7.8	0	0.0	50	49.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	58	56.9
		Subtotal	0	0.0	1	1.0	16	15.7	0	0.0	85	83.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	102	100.0
7/2-4, 6-7	84	Males	0	0.0	1	1.2	13	15.5	0	0.0	33	39.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	47	56.0
		Females	0	0.0	3	3.6	6	7.1	0	0.0	27	32.1	0	0.0	1	1.2	0	0.0	0	0.0	0	0.0	37	44.0
		Subtotal	0	0.0	4	4.8	19	22.6	0	0.0	60	71.4	0	0.0	1	1.2	0	0.0	0	0.0	0	0.0	84	100.0
	186	Males	0	0.0	2	1.1	21	11.3	0	0.0	68	36.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	91	48.9
		Females	0	0.0	3	1.6	14	7.5	0	0.0	77	41.4	0	0.0	1	0.5	0	0.0	0	0.0	0	0.0	95	51.1
		Season Total	0	0.0	5	2.7	35	18.8	0	0.0	145	78.0	0	0.0	1	0.5	0	0.0	0	0.0	0	0.0	186	100.0
Mean Length		Males	-		845		699		-		845		-		-		-		-		-			
Std. Error			-		35		12		-		8		-		-		-		-		-			
Mean Length		Females	-		547		706		-		823		-		790		-		-		-			
Std. Error			-		38		16		-		7		-		-		-		-		-			

Note: Samples collected by the Tanana Chiefs Conference (TCC).

[a] Sample dates are stratified by week.

Appendix A13.–Yukon River, Subdistrict 4-C, Ruby, Chinook salmon subsistence gillnet and fish wheel harvest age and sex composition and mean length (mm), 2007.

			Brood Year (Age)																			
			2004		2003		2002				2001				2000				1999			
Sample	Sample		(1.1)		(1.2)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total	
Dates [a]	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
6/28-29	23	Males	0	0.0	10	43.5	11	47.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	21	91.3
		Females	0	0.0	2	8.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	8.7
		Subtotal	0	0.0	12	52.2	11	47.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	23	100.0
7/2-3, 5-7	50	Males	0	0.0	23	46.0	9	18.0	0	0.0	3	6.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	35	70.0
		Females	0	0.0	8	16.0	3	6.0	0	0.0	4	8.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	15	30.0
		Subtotal	0	0.0	31	62.0	12	24.0	0	0.0	7	14.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	50	100.0
7/8-14	75	Males	0	0.0	3	4.0	7	9.3	0	0.0	3	4.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	13	17.3
		Females	0	0.0	4	5.3	30	40.0	0	0.0	28	37.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	62	82.7
		Subtotal	0	0.0	7	9.3	37	49.3	0	0.0	31	41.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	75	100.0
7/15-19	45	Males	0	0.0	0	0.0	3	6.7	0	0.0	6	13.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	9	20.0
		Females	0	0.0	1	2.2	10	22.2	0	0.0	25	55.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	36	80.0
		Subtotal	0	0.0	1	2.2	13	28.9	0	0.0	31	68.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	45	100.0
	193	Males	0	0.0	36	18.7	30	15.5	0	0.0	12	6.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	78	40.4
		Females	0	0.0	15	7.8	43	22.3	0	0.0	57	29.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	115	59.6
		Season Total	0	0.0	51	26.4	73	37.8	0	0.0	69	35.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	193	100.0
Mean Length		Males	-		566		700		-		811		-		-		-		-		-			
Std. Error			-		11		10		-		32		-		-		-		-		-			
Mean Length		Females	-		632		715		-		833		-		-		-		-		-			
Std. Error			-		27		15		-		10		-		-		-		-		-			

[a] Sample dates are stratified by week.

Appendix A14.–Yukon River, District 5 (Subdistricts 5-B and 5-C), Chinook salmon subsistence fish wheel harvest age and sex composition and mean length (mm), 2007.

Sample Dates [a]	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	2002 (2.2) No.	%	2001 (1.4) No.	%	2001 (2.3) No.	%	2000 (1.5) No.	%	2000 (2.4) No.	%	1999 (1.6) No.	%	1999 (2.5) No.	%	Total No.	%
7/1	57	Males	0	0.0	7	12.3	14	24.6	0	0.0	4	7.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	25	43.9
		Females	0	0.0	1	1.8	14	24.6	0	0.0	16	28.1	0	0.0	1	1.8	0	0.0	0	0.0	0	0.0	32	56.1
		Subtotal	0	0.0	8	14.0	28	49.1	0	0.0	20	35.1	0	0.0	1	1.8	0	0.0	0	0.0	0	0.0	57	100.0
7/8	28	Males	0	0.0	12	42.9	14	50.0	1	3.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	27	96.4
		Females	0	0.0	0	0.0	1	3.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	3.6
		Subtotal	0	0.0	12	42.9	15	53.6	1	3.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	28	100.0
	85	Males	0	0.0	19	22.4	28	32.9	1	1.2	4	4.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	52	61.2
		Females	0	0.0	1	1.2	15	17.6	0	0.0	16	18.8	0	0.0	1	1.2	0	0.0	0	0.0	0	0.0	33	38.8
		Season Total	0	0.0	20	23.5	43	50.6	1	1.2	20	23.5	0	0.0	1	1.2	0	0.0	0	0.0	0	0.0	85	100.0
Mean Length		Males	-		548		688		555		766		-		-		-		-		-			
Std. Error			-		9		10		-		31		-		-		-		-		-			
Mean Length		Females	-		600		708		-		830		-		940		-		-		-			
Std. Error			-		-		15		-		21		-		-		-		-		-			

[a] Sample dates are stratified by week.

Appendix A15.–Yukon River, Big Eddy, Chinook salmon 8.5" mesh set gillnet test fishery project age and sex composition and mean length (mm), mean weight (lbs), and mean girth (mm), 2007.

			Brood Year (Age)																			
			2004		2003		2002				2001				2000				1999			
Sample	Sample		(1.1)		(1.2)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)	
Dates [a]	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
6/3-16	165	Males	0	0.0	3	1.8	32	19.4	0	0.0	51	30.9	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0
Quartile 1		Females	0	0.0	0	0.0	4	2.4	0	0.0	72	43.6	0	0.0	2	1.2	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	3	1.8	36	21.8	0	0.0	123	74.5	1	0.6	2	1.2	0	0.0	0	0.0	0	0.0
6/17-22	72	Males	0	0.0	2	2.8	11	15.3	0	0.0	19	26.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Quartile 2		Females	0	0.0	0	0.0	4	5.6	0	0.0	35	48.6	0	0.0	1	1.4	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	2	2.8	15	20.8	0	0.0	54	75.0	0	0.0	1	1.4	0	0.0	0	0.0	0	0.0
6/23-28	63	Males	0	0.0	2	3.2	7	11.1	0	0.0	24	38.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Quartile 3		Females	0	0.0	0	0.0	3	4.8	0	0.0	27	42.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	2	3.2	10	15.9	0	0.0	51	81.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
6/29-7/4,	87	Males	0	0.0	0	0.0	8	9.2	0	0.0	24	27.6	0	0.0	2	2.3	0	0.0	0	0.0	0	0.0
7/6-7/-13		Females	0	0.0	0	0.0	2	2.3	0	0.0	51	58.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Quartile 4		Subtotal	0	0.0	0	0.0	10	11.5	0	0.0	75	86.2	0	0.0	2	2.3	0	0.0	0	0.0	0	0.0
	387	Males	0	0.0	7	1.8	58	15.0	0	0.0	118	30.5	1	0.3	2	0.5	0	0.0	0	0.0	0	0.0
		Females	0	0.0	0	0.0	13	3.4	0	0.0	185	47.8	0	0.0	3	0.8	0	0.0	0	0.0	0	0.0
		Season Total	0	0.0	7	1.8	71	18.3	0	0.0	303	78.3	1	0.3	5	1.3	0	0.0	0	0.0	0	0.0
Mean Length		Males	-		572		753		-		849		700		940		-		-		-	
Std. Error			-		14		8		-		5		-		30		-		-		-	
Mean Length		Females	-		-		802		-		869		-		872		-		-		-	
Std. Error			-		-		11		-		3		-		32		-		-		-	
Mean Weight		Males	-		6.8		15.5		-		21.4		12.2		27.6		-		-		-	
Std. Error			-		0.6		0.5		-		0.4		-		2.8		-		-		-	
Mean Weight		Females	-		-		18.3		-		22.9		-		21.2		-		-		-	
Std. Error			-		-		0.9		-		0.3		-		2.3		-		-		-	
Mean Girth		Males	-		357		456		-		508		430		548		-		-		-	
Std. Error			-		13		6		-		4		-		23		-		-		-	
Mean Girth		Females	-		-		480		-		522		-		502		-		-		-	
Std. Error			-		-		9		-		3		-		20		-		-		-	

[a] Sample dates were stratified by quartiles based on combined Big Eddy and Middle Mouth 8.5" mesh set gillnet catch totals.

Appendix A16.–Yukon River, Middle Mouth, Chinook salmon 8.5" mesh set gillnet test fishery project age and sex composition and mean length (mm), mean weight (lbs), and mean girth (mm), 2007.

Sample Dates [a]	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	(2.2) No.	%	2001 (1.4) No.	%	(2.3) No.	%	2000 (1.5) No.	%	(2.4) No.	%	1999 (1.6) No.	%	(2.5) No.	%	Total No.	%
6/8, 12-16	99	Males	0	0.0	6	6.1	7	7.1	0	0.0	30	30.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	43	43.4
Quartile 1		Females	0	0.0	0	0.0	7	7.1	0	0.0	49	49.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	56	56.6
		Subtotal	0	0.0	6	6.1	14	14.1	0	0.0	79	79.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	99	100.0
6/17-22	152	Males	0	0.0	14	9.2	15	9.9	0	0.0	61	40.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	90	59.2
Quartile 2		Females	0	0.0	0	0.0	6	3.9	0	0.0	56	36.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	62	40.8
		Subtotal	0	0.0	14	9.2	21	13.8	0	0.0	117	77.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	152	100.0
6/23-28	159	Males	0	0.0	14	8.8	9	5.7	0	0.0	61	38.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	84	52.8
Quartile 3		Females	0	0.0	0	0.0	4	2.5	0	0.0	71	44.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	75	47.2
		Subtotal	0	0.0	14	8.8	13	8.2	0	0.0	132	83.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	159	100.0
6/29-7/12, 15	233	Males	0	0.0	5	2.1	13	5.6	0	0.0	68	29.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	86	36.9
Quartile 4		Females	0	0.0	2	0.9	16	6.9	0	0.0	126	54.1	0	0.0	3	1.3	0	0.0	0	0.0	0	0.0	147	63.1
		Subtotal	0	0.0	7	3.0	29	12.4	0	0.0	194	83.3	0	0.0	3	1.3	0	0.0	0	0.0	0	0.0	233	100.0
	643	Males	0	0.0	39	6.1	44	6.8	0	0.0	220	34.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	303	47.1
		Females	0	0.0	2	0.3	33	5.1	0	0.0	302	47.0	0	0.0	3	0.5	0	0.0	0	0.0	0	0.0	340	52.9
		Season Total	0	0.0	41	6.4	77	12.0	0	0.0	522	81.2	0	0.0	3	0.5	0	0.0	0	0.0	0	0.0	643	100.0
Mean Length		Males	-		541		730		-		848		-		-		-		-		-			
Std. Error			-		5		10		-		3		-		-		-		-		-			
Mean Length		Females	-		588		790		-		855		-		928		-		-		-			
Std. Error			-		18		8		-		3		-		17		-		-		-			
Mean Weight		Males	-		5.9		15.2		-		22.2		-		-		-		-		-			
Std. Error			-		0.2		1.0		-		0.4		-		-		-		-		-			
Mean Weight		Females	-		7.2		17.9		-		22.8		-		23.3		-		-		-			
Std. Error			-		0.5		0.5		-		0.3		-		-		-		-		-			
Mean Girth		Males	-		340		454		-		525		-		-		-		-		-			
Std. Error			-		4		7		-		3		-		-		-		-		-			
Mean Girth		Females	-		350		498		-		537		-		572		-		-		-			
Std. Error			-		0		6		-		2		-		19		-		-		-			

[a] Sample dates were stratified by quartiles based on combined Big Eddy and Middle Mouth 8.5" mesh set gillnet catch totals.

Appendix A17.–Yukon River, Big Eddy and Middle Mouth combined, Chinook salmon 8.5" mesh set gillnet test fishery project age and sex composition and mean length (mm), mean weight (lbs), and mean girth (mm), 2007.

			Brood Year (Age)																			
			2004		2003		2002				2001				2000				1999			
Sample	Sample		(1.1)		(1.2)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total	
Dates [a]	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
6/3-6/16	264	Males	0	0.0	9	3.4	39	14.8	0	0.0	81	30.7	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0	130	49.2
Quartile 1		Females	0	0.0	0	0.0	11	4.2	0	0.0	121	45.8	0	0.0	2	0.8	0	0.0	0	0.0	0	0.0	134	50.8
		Subtotal	0	0.0	9	3.4	50	18.9	0	0.0	202	76.5	1	0.4	2	0.8	0	0.0	0	0.0	0	0.0	264	100.0
6/17-22	224	Males	0	0.0	16	7.1	26	11.6	0	0.0	80	35.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	122	54.5
Quartile 2		Females	0	0.0	0	0.0	10	4.5	0	0.0	91	40.6	0	0.0	1	0.4	0	0.0	0	0.0	0	0.0	102	45.5
		Subtotal	0	0.0	16	7.1	36	16.1	0	0.0	171	76.3	0	0.0	1	0.4	0	0.0	0	0.0	0	0.0	224	100.0
6/23-28	222	Males	0	0.0	16	7.2	16	7.2	0	0.0	85	38.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	117	52.7
Quartile 3		Females	0	0.0	0	0.0	7	3.2	0	0.0	98	44.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	105	47.3
		Subtotal	0	0.0	16	7.2	23	10.4	0	0.0	183	82.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	222	100.0
2/29-7/13, 15	320	Males	0	0.0	5	1.6	21	6.6	0	0.0	92	28.8	0	0.0	2	0.6	0	0.0	0	0.0	0	0.0	120	37.5
Quartile 4		Females	0	0.0	2	0.6	18	5.6	0	0.0	177	55.3	0	0.0	3	0.9	0	0.0	0	0.0	0	0.0	200	62.5
		Subtotal	0	0.0	7	2.2	39	12.2	0	0.0	269	84.1	0	0.0	5	1.6	0	0.0	0	0.0	0	0.0	320	100.0
	1,030	Males	0	0.0	46	4.5	102	9.9	0	0.0	338	32.8	1	0.1	2	0.2	0	0.0	0	0.0	0	0.0	489	47.5
		Females	0	0.0	2	0.2	46	4.5	0	0.0	487	47.3	0	0.0	6	0.6	0	0.0	0	0.0	0	0.0	541	52.5
		Season Total	0	0.0	48	4.7	148	14.4	0	0.0	825	80.1	1	0.1	8	0.8	0	0.0	0	0.0	0	0.0	1,030	100.0
Mean Length		Males	-		545		743		-		848		700		940		-		-		-			
Std. Error			-		5		6		-		3		-		30		-		-		-			
Mean Length		Females	-		588		793		-		860		-		900		-		-		-			
Std. Error			-		18		6		-		2		-		21		-		-		-			
Mean Weight		Males	-		6.2		15.4		-		21.9		12.2		27.6		-		-		-			
Std. Error			-		0.2		0.5		-		0.3		-		2.8		-		-		-			
Mean Weight		Females	-		7.2		18.0		-		22.9		-		21.7		-		-		-			
Std. Error			-		0.5		0.4		-		0.2		-		1.7		-		-		-			
Mean Girth		Males	-		343		455		-		519		430		548		-		-		-			
Std. Error			-		4		6		-		2		-		23		-		-		-			
Mean Girth		Females	-		350		493		-		531		-		537		-		-		-			
Std. Error			-		0		5		-		2		-		20		-		-		-			

[a] Sample dates were stratified by quartiles based on combined Big Eddy and Middle Mouth 8.5-inch mesh set gillnet catch totals.

Appendix A18.–Yukon River, Comparative Mesh Size study, Chinook salmon 7.0", 7.5", and 8.0" inch mesh drift gillnet test fishery project age and sex composition, 2007.

			Brood Year (Age)																			
			2004		2003		2002				2001				2000				1999			
	Sample		(1.1)		(1.2)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total	
Mesh Size	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
7.0"	114	Males	0	0.0	5	4.4	29	25.4	0	0.0	28	24.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	62	54.4
		Females	0	0.0	0	0.0	9	7.9	0	0.0	41	36.0	0	0.0	2	1.8	0	0.0	0	0.0	0	0.0	52	45.6
		Subtotal	0	0.0	5	4.4	38	33.3	0	0.0	69	60.5	0	0.0	2	1.8	0	0.0	0	0.0	0	0.0	114	100.0
7.5"	162	Males	0	0.0	5	3.1	32	19.8	0	0.0	42	25.9	0	0.0	0	0.0	1	0.6	0	0.0	0	0.0	80	49.4
		Females	0	0.0	0	0.0	13	8.0	0	0.0	68	42.0	0	0.0	1	0.6	0	0.0	0	0.0	0	0.0	82	50.6
		Subtotal	0	0.0	5	3.1	45	27.8	0	0.0	110	67.9	0	0.0	1	0.6	1	0.6	0	0.0	0	0.0	162	100.0
8.0"	105	Males	0	0.0	4	3.8	11	10.5	0	0.0	28	26.7	0	0.0	0	0.0	1	1.0	0	0.0	0	0.0	44	41.9
		Females	0	0.0	0	0.0	5	4.8	0	0.0	55	52.4	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	61	58.1
		Subtotal	0	0.0	4	3.8	16	15.2	0	0.0	83	79.0	0	0.0	1	1.0	1	1.0	0	0.0	0	0.0	105	100.0
	381	Males	0	0.0	14	3.7	72	18.9	0	0.0	98	25.7	0	0.0	0	0.0	2	0.5	0	0.0	0	0.0	186	48.8
		Females	0	0.0	0	0.0	27	7.1	0	0.0	164	43.0	0	0.0	4	1.0	0	0.0	0	0.0	0	0.0	195	51.2
		All Mesh Total	0	0.0	14	3.7	99	26.0	0	0.0	262	68.8	0	0.0	4	1.0	2	0.5	0	0.0	0	0.0	381	100.0

Appendix A19.–Yukon River, Comparative Mesh Size study, Chinook salmon 7.0", 7.5", and 8.0" inch mesh drift gillnet test fishery project mean length (mm), mean girth (mm) and mean weight (lbs.), 2007.

	Sample Size		Brood Year (Age)									
			2004	2003	2002		2001		2000		1999	
			(1.1)	(1.2)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)
Mean Length 7.0"	114	Males	-	586	734	-	821	-	-	-	-	-
		Std. Error	-	9	9	-	16	-	-	-	-	-
		Females	-	-	736	-	831	-	823	-	-	-
		Std. Error	-	-	13	-	9	-	48	-	-	-
Mean Length 7.5"	162	Males	-	561	717	-	839	-	-	780	-	-
		Std. Error	-	23	8	-	11	-	-	-	-	-
		Females	-	-	782	-	845	-	840	-	-	-
		Std. Error	-	-	10	-	5	-	-	-	-	-
Mean Length 8.0"	105	Males	-	576	735	-	804	-	-	895	-	-
		Std. Error	-	18	10	-	12	-	-	-	-	-
		Females	-	-	766	-	851	-	845	-	-	-
		Std. Error	-	-	21	-	5	-	-	-	-	-
All Mesh Mean Lengths		Males	-	574	727	-	824	-	-	838	-	-
		Std. Error	-	10	5	-	7	-	-	58	-	-
		Females	-	-	764	-	843	-	833	-	-	-
		Std. Error	-	-	8	-	4	-	20	-	-	-
Mean Girth 7.0"	114	Males	-	365	438	-	497	-	-	-	-	-
		Std. Error	-	4	6	-	11	-	-	-	-	-
		Females	-	-	446	-	503	-	510	-	-	-
		Std. Error	-	-	9	-	5	-	25	-	-	-
Mean Girth 7.5"	162	Males	-	362	434	-	500	-	-	475	-	-
		Std. Error	-	14	5	-	8	-	-	-	-	-
		Females	-	-	477	-	508	-	485	-	-	-
		Std. Error	-	-	7	-	4	-	-	-	-	-

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	Sample Size		Brood Year (Age)									
			2004	2003	2002		2001		2000		1999	
			(1.1)	(1.2)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)
Mean Girth 8.0"	105	Males	-	346	459	-	489	-	-	600	-	-
		Std. Error	-	13	10	-	10	-	-	-	-	-
		Females	-	-	467	-	512	-	510	-	-	-
		Std. Error	-	-	16	-	3	-	-	-	-	-
All Mesh Mean Girths		Males	-	359	439	-	496	-	-	538	-	-
		Std. Error	-	6	4	-	6	-	-	63	-	-
		Females	-	-	464	-	508	-	504	-	-	-
		Std. Error	-	-	6	-	2	-	12	-	-	-
Mean Weight 7.0"	114	Males	-	7.2	13.6	-	19.9	-	-	-	-	-
		Std. Error	-	0.2	0.5	-	1.3	-	-	-	-	-
		Females	-	-	13.8	-	20.1	-	20.7	-	-	-
		Std. Error	-	-	0.8	-	0.5	-	3.3	-	-	-
Mean Weight 7.5"	162	Males	-	6.8	13.0	-	20.5	-	-	17.1	-	-
		Std. Error	-	0.9	0.4	-	0.9	-	-	-	-	-
		Females	-	-	17.0	-	21.1	-	20.2	-	-	-
		Std. Error	-	-	0.7	-	0.4	-	-	-	-	-
Mean Weight 8.0"	105	Males	-	6.5	14.5	-	18.7	-	-	29.5	-	-
		Std. Error	-	0.6	0.6	-	1.0	-	-	-	-	-
		Females	-	-	16.2	-	21.1	-	22.3	-	-	-
		Std. Error	-	-	1.4	-	0.4	-	-	-	-	-
All Mesh Mean Weights		Males	-	6.9	13.4	-	19.8	-	-	23.3	-	-
		Std. Error	-	0.4	0.3	-	0.6	-	-	6.2	-	-
		Females	-	-	15.8	-	20.9	-	21.0	-	-	-
		Std. Error	-	-	0.5	-	0.3	-	1.4	-	-	-

Appendix A20.–Yukon River, Marshall, Chinook salmon 8.25" mesh drift gillnet test fishery project age and sex composition and mean length (mm), 2007.

Sample Dates [a]	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	(2.2) No.	%	2001 (1.4) No.	%	(2.3) No.	%	2000 (1.5) No.	%	(2.4) No.	%	1999 (1.6) No.	%	(2.5) No.	%	Total No.	%
6/12-13, 15-18	30	Males	0	0.0	1	3.3	6	20.0	0	0.0	11	36.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	18	60.0
Quartile 1		Females	0	0.0	0	0.0	1	3.3	0	0.0	11	36.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	12	40.0
		Subtotal	0	0.0	1	3.3	7	23.3	0	0.0	22	73.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	30	100.0
6/19, 21	27	Males	0	0.0	0	0.0	3	11.1	0	0.0	13	48.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	16	59.3
Quartile 2		Females	0	0.0	0	0.0	3	11.1	0	0.0	8	29.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	11	40.7
		Subtotal	0	0.0	0	0.0	6	22.2	0	0.0	21	77.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	27	100.0
6/22-25,	71	Males	0	0.0	2	2.8	8	11.3	0	0.0	37	52.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	47	66.2
27-7/1		Females	0	0.0	2	2.8	1	1.4	0	0.0	21	29.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	24	33.8
Quartile 3		Subtotal	0	0.0	4	5.6	9	12.7	0	0.0	58	81.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	71	100.0
7/2-6, 9-11,	82	Males	0	0.0	3	3.7	9	11.0	0	0.0	36	43.9	0	0.0	1	1.2	0	0.0	0	0.0	0	0.0	49	59.8
13, 15		Females	0	0.0	0	0.0	5	6.1	0	0.0	28	34.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	33	40.2
Quartile 4		Subtotal	0	0.0	3	3.7	14	17.1	0	0.0	64	78.0	0	0.0	1	1.2	0	0.0	0	0.0	0	0.0	82	100.0
	210	Males	0	0.0	6	2.9	26	12.4	0	0.0	97	46.2	0	0.0	1	0.5	0	0.0	0	0.0	0	0.0	130	61.9
		Females	0	0.0	2	1.0	10	4.8	0	0.0	68	32.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	80	38.1
		Season Total	0	0.0	8	3.8	36	17.1	0	0.0	165	78.6	0	0.0	1	0.5	0	0.0	0	0.0	0	0.0	210	100.0
Mean Length		Males	-		613		758		-		855		-		790		-		-		-			
Std. Error			-		43		12		-		7		-		-		-		-		-			
Mean Length		Females	-		590		826		-		863		-		-		-		-		-			
Std. Error			-		20		20		-		5		-		-		-		-		-			
Mean Girth		Males	-		385		468		-		532		-		450		-		-		-			
Std. Error			-		26		8		-		6		-		-		-		-		-			
Mean Girth		Females	-		380		514		-		533		-		-		-		-		-			
Std. Error			-		10		9		-		5		-		-		-		-		-			

[a] Sample dates were stratified by quartiles based on the Marshall 8.25" mesh drift gillnet catch totals.

Appendix A21.–Yukon River, Pilot Station sonar, Chinook salmon variable mesh drift gillnet test fishery project age and sex composition and mean length, 2007.

			Brood Year (Age)																	
			2004		2003		2002				2001		2000		1999					
Sample Dates	Sample		(1.1)		(1.2)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total	
Mesh Size	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
6/19 - 7/11	3	Males	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	100.0
Mesh Size 2.75"		Females	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	3	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	100.0
Mean Length		Males	-		555		-		-		-		-		-		-		-		-			
Std. Error			-		3		-		-		-		-		-		-		-		-			
Mean Length		Females	-		-		-		-		-		-		-		-		-		-			
Std. Error			-		-		-		-		-		-		-		-		-		-			
6/14 - 8/16	20	Males	0	0.0	10	50.0	5	25.0	0	0.0	2	10.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	17	85.0
Mesh Size 4.0"		Females	0	0.0	1	5.0	1	5.0	0	0.0	1	5.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	15.0
		Subtotal	0	0.0	11	55.0	6	30.0	0	0.0	3	15.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	20	100.0
Mean Length		Males	-		542		690		-		866		-		-		-		-		-			
Std. Error			-		15		30		-		11		-		-		-		-		-			
Mean Length		Females	-		545		780		-		813		-		-		-		-		-			
Std. Error			-		-		-		-		-		-		-		-		-		-			
7/20 - 29	4	Males	0	0.0	2	50.0	0	0.0	0	0.0	1	25.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	75.0
Mesh Size 5.0"		Females	0	0.0	0	0.0	1	25.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	25.0
		Subtotal	0	0.0	2	50.0	1	25.0	0	0.0	1	25.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	100.0
Mean Length		Males	-		505		-		-		845		-		-		-		-		-			
Std. Error			-		7		-		-		-		-		-		-		-		-			
Mean Length		Females	-		-		712		-		-		-		-		-		-		-			
Std. Error			-		-		-		-		-		-		-		-		-		-			
6/12 - 7/15	34	Males	0	0.0	14	41.2	12	35.3	0	0.0	3	8.8	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	30	88.2
Mesh Size 5.25"		Females	0	0.0	0	0.0	0	0.0	0	0.0	4	11.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	11.8
		Subtotal	0	0.0	14	41.2	12	35.3	0	0.0	7	20.6	0	0.0	0	0.0	1	2.9	0	0.0	0	0.0	34	100.0
Mean Length		Males	-		555		651		-		760		-		-		-		-		-			
Std. Error			-		13		17		-		23		-		-		-		-		-			
Mean Length		Females	-		-		-		-		840		-		-		-		-		-			
Std. Error			-		-		-		-		32		-		-		-		-		-			
7/23 - 25	2	Males	0	0.0	0	0.0	0	0.0	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	100.0
Mesh Size 5.75"		Females	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	0	0.0	0	0.0	0	0.0	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	100.0
Mean Length		Males	-		-		-		-		845		-		-		-		-		-			
Std. Error			-		-		-		-		28		-		-		-		-		-			
Mean Length		Females	-		-		-		-		-		-		-		-		-		-			
Std. Error			-		-		-		-		-		-		-		-		-		-			
6/6 - 7/26	114	Males	0	0.0	19	16.7	41	36.0	0	0.0	25	21.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	85	74.6
Mesh Size 6.50"		Females	0	0.0	0	0.0	10	8.8	0	0.0	19	16.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	29	25.4
		Subtotal	0	0.0	19	16.7	51	44.7	0	0.0	44	38.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	114	100.0

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Sample Dates / Mesh Size	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	(2.2) No.	%	2001 (1.4) No.	%	(2.3) No.	%	2000 (1.5) No.	%	(2.4) No.	%	1999 (1.6) No.	%	(2.5) No.	%	Total No.	%
Mean Length		Males	-		590		696		-		816		-		-		-		-		-			
Std. Error			-		9		6		-		18		-		-		-		-		-			
Mean Length		Females	-		-		721		-		826		-		-		-		-		-			
Std. Error			-		-		14		-		20		-		-		-		-		-			
6/8 - 7/16	193	Males	0	0.0	8	4.1	53	27.5	0	0.0	48	24.9	1	0.5	1	0.5	0	0.0	0	0.0	0	0.0	111	57.5
Mesh Size 7.50"		Females	0	0.0	0	0.0	20	10.4	0	0.0	61	31.6	0	0.0	1	0.5	0	0.0	0	0.0	0	0.0	82	42.5
		Subtotal	0	0.0	8	4.1	73	37.8	0	0.0	109	56.5	1	0.5	2	1.0	0	0.0	0	0.0	0	0.0	193	100.0
Mean Length		Males	-		555		721		-		812		750		750		-		-		-			
Std. Error			-		12		8		-		10		-		-		-		-		-			
Mean Length		Females	-		-		752		-		826		-		871		-		-		-			
Std. Error			-		-		12		-		9		-		-		-		-		-			
6/30	1	Males	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Mesh Size 8.0"		Females	0	0.0	0	0.0	0	0.0	0	0.0	1	0.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0
		Subtotal	0	0.0	0	0.0	0	0.0	0	0.0	1	0.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0
Mean Length		Males	-		-		-		-		-		-		-		-		-		-			
Std. Error			-		-		-		-		-		-		-		-		-		-			
Mean Length		Females	-		-		-		-		827		-		-		-		-		-			
Std. Error			-		-		-		-		-		-		-		-		-		-			
6/30	1	Males	0	0.0	0	0.0	0	0.0	0	0.0	1	0.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0
Mesh Size 8.38"		Females	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	0	0.0	0	0.0	0	0.0	1	0.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0
Mean Length		Males	-		-		-		-		874		-		-		-		-		-			
Std. Error			-		-		-		-		-		-		-		-		-		-			
Mean Length		Females	-		-		-		-		-		-		-		-		-		-			
Std. Error			-		-		-		-		-		-		-		-		-		-			
6/8 - 7/12	110	Males	0	0.0	6	5.5	14	12.7	0	0.0	43	39.1	0	0.0	2	1.8	0	0.0	0	0.0	0	0.0	65	59.1
Mesh Size 8.50"		Females	0	0.0	0	0.0	11	10.0	0	0.0	34	30.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	45	40.9
		Subtotal	0	0.0	6	5.5	25	22.7	0	0.0	77	70.0	0	0.0	2	1.8	0	0.0	0	0.0	0	0.0	110	100.0
Mean Length		Males	-		538		749		-		811		-		825		-		-		-			
Std. Error			-		7		14		-		20		-		45		-		-		-			
Mean Length		Females	-		-		774		-		833		-		-		-		-		-			
Std. Error			-		-		23		-		9		-		-		-		-		-			
Season Total [a]	482	Males	0	0.0	62	12.9	125	25.9	0	0.0	125	25.9	1	0.2	3	0.6	1	0.2	0	0.0	0	0.0	317	65.8
Combined Mesh		Females	0	0.0	1	0.2	43	8.9	0	0.0	120	24.9	0	0.0	1	0.2	0	0.0	0	0.0	0	0.0	165	34.2
		Total	0	0.0	63	13.1	168	34.9	0	0.0	245	50.8	1	0.2	4	0.8	1	0.2	0	0.0	0	0.0	482	100.0
Mean Length		Males	-		560		708		-		813		750		800		749		-		-			
Std. Error			-		6		5		-		9		-		36		-		-		-			
Mean Length		Females	-		545		750		-		828		-		871		-		-		-			
Std. Error			-		-		9		-		6		-		-		-		-		-			

[a] The season total percentages by age group are based on sample size and do not indicate the age composition of the run passage by Pilot Station sonar.

Appendix A22.–Yukon River, Eagle sonar, Chinook salmon variable mesh drift gillnet test fishery project age and sex composition and mean length, 2007.

			Brood Year (Age)															
			2004	2003	2002		2001		2000		1999							
Sample Dates	Sample		(1.1)	(1.2)	(1.3)	(2.2)	(1.4)	(2.3)	(1.5)	(2.4)	(1.6)	(2.5)	Total					
Mesh Size	Size		No. %	No. %	No. %	No. %	No. %	No. %	No. %	No. %	No. %	No. %	No. %					
7/17 - 8/22	49	Males	0 0.0	5 10.2	23 46.9	0 0.0	12 24.5	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	40	81.6				
Mesh Size 5.25"		Females	0 0.0	0 0.0	1 2.0	0 0.0	7 14.3	0 0.0	1 2.0	0 0.0	0 0.0	0 0.0	9	18.4				
		Subtotal	0 0.0	5 10.2	24 49.0	0 0.0	19 38.8	0 0.0	1 2.0	0 0.0	0 0.0	0 0.0	49	100.0				
Mean Length		Males	-	588	700	-	819	-	-	-	-	-						
Std. Error			-	23	12	-	25	-	-	-	-	-						
Mean Length		Females	-	-	795	-	794	-	890	-	-	-						
Std. Error			-	-	-	-	18	-	-	-	-	-						
7/9 - 8/12	113	Males	0 0.0	4 3.5	36 31.9	0 0.0	18 15.9	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	58	51.3				
Mesh Size 6.5"		Females	0 0.0	2 1.8	11 9.7	0 0.0	42 37.2	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	55	48.7				
		Subtotal	0 0.0	6 5.3	47 41.6	0 0.0	60 53.1	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	113	100.0				
Mean Length		Males	-	546	743	-	824	-	-	-	-	-						
Std. Error			-	42	14	-	23	-	-	-	-	-						
Mean Length		Females	-	603	767	-	848	-	-	-	-	-						
Std. Error			-	3	23	-	7	-	-	-	-	-						
7/11 - 8/27	164	Males	0 0.0	9 5.5	54 32.9	0 0.0	25 15.2	1 0.6	0 0.0	0 0.0	0 0.0	0 0.0	89	54.3				
Mesh Size 7.5"		Females	0 0.0	0 0.0	11 6.7	0 0.0	63 38.4	0 0.0	1 0.6	0 0.0	0 0.0	0 0.0	75	45.7				
		Subtotal	0 0.0	9 5.5	65 39.6	0 0.0	88 53.7	1 0.6	1 0.6	0 0.0	0 0.0	0 0.0	164	100.0				
Mean Length		Males	-	565	722	-	855	760	-	-	-	-						
Std. Error			-	10	8	-	18	-	-	-	-	-						
Mean Length		Females	-	-	785	-	857	-	910	-	-	-						
Std. Error			-	-	21	-	6	-	-	-	-	-						
7/9 - 8/15	63	Males	0 0.0	2 3.2	18 28.6	0 0.0	13 20.6	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	33	52.4				
Mesh Size 8.50"		Females	0 0.0	0 0.0	2 3.2	0 0.0	28 44.4	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	30	47.6				
		Subtotal	0 0.0	2 3.2	20 31.7	0 0.0	41 65.1	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	63	100.0				
Mean Length		Males	-	495	741	-	873	-	-	-	-	-						
Std. Error			-	45	18	-	27	-	-	-	-	-						
Mean Length		Females	-	-	778	-	871	-	-	-	-	-						
Std. Error			-	-	53	-	10	-	-	-	-	-						
Season Total [a]	389	Males	0 0.0	20 5.1	131 33.7	0 0.0	68 17.5	1 0.3	0 0.0	0 0.0	0 0.0	0 0.0	220	56.6				
Combined Mesh		Females	0 0.0	2 0.5	25 6.4	0 0.0	140 36.0	0 0.0	2 0.5	0 0.0	0 0.0	0 0.0	169	43.4				
		Total	0 0.0	22 5.7	156 40.1	0 0.0	208 53.5	1 0.3	2 0.5	0 0.0	0 0.0	0 0.0	389	100.0				
Mean Length		Males	-	560	729	-	842	760	-	-	-	-						
Std. Error			-	12	6	-	11	-	-	-	-	-						
Mean Length		Females	-	603	777	-	854	-	900	-	-	-						
Std. Error			-	3	14	-	4	-	10	-	-	-						

[a] The season total percentages by age group are based on sample size and do not indicate the age composition of the run passage by Eagle sonar.

Appendix A23.–Yukon River, Canada, Sheep Rock, Chinook salmon fish wheel test fishery project age and sex composition and mean length (mm), 2007.

			Brood Year (Age)																	
			2004		2003		2002			2001			2000			1999				
Sample	Sample		(1.1)		(1.2)		(1.3)		(2.2)	(1.4)		(2.3)	(1.5)		(2.4)	(1.6)		(2.5)	Total	
Dates [a]	Size		No.	%	No.	%	No.	%	No. %	No.	%	No. %	No.	%	No. %	No.	%	No. %	No.	%
7/4-15	100	Males	0	0.0	7	7.0	41	41.0	0 0.0	20	20.0	1 1.0	0	0.0	0 0.0	0	0.0	0 0.0	69	69.0
Quartile 1		Females	0	0.0	0	0.0	3	3.0	0 0.0	26	26.0	0 0.0	1	1.0	1 1.0	0	0.0	0 0.0	31	31.0
		Subtotal	0	0.0	7	7.0	44	44.0	0 0.0	46	46.0	1 1.0	1	1.0	1 1.0	0	0.0	0 0.0	100	100.0
7/16-18	78	Males	0	0.0	17	21.8	28	35.9	0 0.0	9	11.5	0 0.0	0	0.0	1 1.3	0	0.0	0 0.0	55	70.5
Quartile 2		Females	0	0.0	0	0.0	0	0.0	0 0.0	20	25.6	1 1.3	2	2.6	0 0.0	0	0.0	0 0.0	23	29.5
		Subtotal	0	0.0	17	21.8	28	35.9	0 0.0	29	37.2	1 1.3	2	2.6	1 1.3	0	0.0	0 0.0	78	100.0
7/19-23	72	Males	0	0.0	18	25.0	34	47.2	0 0.0	7	9.7	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0	59	81.9
Quartile 3		Females	0	0.0	1	1.4	0	0.0	0 0.0	12	16.7	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0	13	18.1
		Subtotal	0	0.0	19	26.4	34	47.2	0 0.0	19	26.4	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0	72	100.0
7/24-27	75	Males	0	0.0	20	26.7	25	33.3	0 0.0	8	10.7	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0	53	70.7
Quartile 4		Females	1	1.3	0	0.0	3	4.0	0 0.0	18	24.0	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0	22	29.3
		Subtotal	1	1.3	20	26.7	28	37.3	0 0.0	26	34.7	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0	75	100.0
	325	Males	0	0.0	62	19.1	128	39.4	0 0.0	44	13.5	1 0.3	0	0.0	1 0.3	0	0.0	0 0.0	236	72.6
		Females	1	0.3	1	0.3	6	1.8	0 0.0	76	23.4	1 0.3	3	0.9	1 0.3	0	0.0	0 0.0	89	27.4
		Season Total	1	0.3	63	19.4	134	41.2	0 0.0	120	36.9	2 0.6	3	0.9	2 0.6	0	0.0	0 0.0	325	100.0
Mean Length [b]		Males	-		590		749		-	872		710	-		870	-		-		
Std. Error			-		7		6		-	11		-	-		-	-		-		
Mean Length [b]		Females	960		810		860		-	894		770	960		720	-		-		
Std. Error			-		-		17		-	7		-	25		-	-		-		

Note: Samples were collected by the Canadian Department of Fisheries and Oceans (DFO).

[a] Sample dates were stratified by quartiles based on number sampled.

[b] Length type measured was tip-of-snout to fork-of-tail. Measurements were recorded to the nearest centimeter and converted to millimeters for this report.

Appendix A24.–Yukon River, Canada, White Rock, Chinook salmon fish wheel test fishery project age and sex composition and mean length (mm), 2007.

Sample Dates [a]	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	(2.2) No.	%	2001 (1.4) No.	%	(2.3) No.	%	2000 (1.5) No.	%	(2.4) No.	%	1999 (1.6) No.	%	(2.5) No.	%	Total No.	%
7/3-7/14	77	Males	0	0.0	12	15.6	40	51.9	0	0.0	10	13.0	0	0.0	0	0.0	1	1.3	0	0.0	0	0.0	63	81.8
Quartile 1		Females	0	0.0	0	0.0	2	2.6	0	0.0	11	14.3	0	0.0	0	0.0	1	1.3	0	0.0	0	0.0	14	18.2
		Subtotal	0	0.0	12	15.6	42	54.5	0	0.0	21	27.3	0	0.0	0	0.0	2	2.6	0	0.0	0	0.0	77	100.0
7/15-7/17	113	Males	0	0.0	22	19.5	45	39.8	0	0.0	12	10.6	3	2.7	2	1.8	2	1.8	0	0.0	0	0.0	86	76.1
Quartile 2		Females	0	0.0	0	0.0	6	5.3	0	0.0	20	17.7	0	0.0	1	0.9	0	0.0	0	0.0	0	0.0	27	23.9
		Subtotal	0	0.0	22	19.5	51	45.1	0	0.0	32	28.3	3	2.7	3	2.7	2	1.8	0	0.0	0	0.0	113	100.0
7/18-7/22	108	Males	2	1.9	32	29.6	40	37.0	0	0.0	8	7.4	3	2.8	0	0.0	1	0.9	0	0.0	0	0.0	86	79.6
Quartile 3		Females	0	0.0	0	0.0	1	0.9	0	0.0	17	15.7	1	0.9	1	0.9	2	1.9	0	0.0	0	0.0	22	20.4
		Subtotal	2	1.9	32	29.6	41	38.0	0	0.0	25	23.1	4	3.7	1	0.9	3	2.8	0	0.0	0	0.0	108	100.0
7/23-7/26	88	Males	0	0.0	24	27.3	33	37.5	1	1.1	9	10.2	1	1.1	0	0.0	0	0.0	0	0.0	0	0.0	68	77.3
Quartile 4		Females	0	0.0	0	0.0	3	3.4	0	0.0	17	19.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	20	22.7
		Subtotal	0	0.0	24	27.3	36	40.9	1	1.1	26	29.5	1	1.1	0	0.0	0	0.0	0	0.0	0	0.0	88	100.0
	386	Males	2	0.5	90	23.3	158	40.9	1	0.3	39	10.1	7	1.8	2	0.5	4	1.0	0	0.0	0	0.0	303	78.5
		Females	0	0.0	0	0.0	12	3.1	0	0.0	65	16.8	1	0.3	2	0.5	3	0.8	0	0.0	0	0.0	83	21.5
		Season Total	2	0.5	90	23.3	170	44.0	1	0.3	104	26.9	8	2.1	4	1.0	7	1.8	0	0.0	0	0.0	386	100.0
Mean Length [b]		Males	515		599		749		620		840		726		810		830		-		-			
Std. Error			25		6		5		-		18		26		50		25		-		-			
Mean Length [b]		Females	-		-		819		-		864		690		850		820		-		-			
Std. Error			-		-		13		-		7		-		90		44		-		-			

Note: Samples were collected by the Canadian Department of Fisheries and Oceans (DFO).

[a] Sample dates were stratified by quartiles based on number sampled.

[b] Length type measured was tip-of-snout to fork-of-tail. Measurements were taken to the nearest centimeter and converted to millimeters for this report.

Appendix A25.–Yukon River, Canada, Sheep Rock and White Rock, Chinook salmon fish wheel test fishery project age and sex composition and mean length (mm), 2007.

Sample Dates [a]	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	(2.2) No.	%	2001 (1.4) No.	%	(2.3) No.	%	2000 (1.5) No.	%	(2.4) No.	%	1999 (1.6) No.	%	(2.5) No.	%	Total No.	%
7/3-14	153	Males	0	0.0	19	12.4	72	47.1	0	0.0	27	17.6	0	0.0	0	0.0	1	0.7	0	0.0	0	0.0	119	77.8
Quartile 1		Females	0	0.0	0	0.0	3	2.0	0	0.0	29	19.0	0	0.0	1	0.7	1	0.7	0	0.0	0	0.0	34	22.2
		Subtotal	0	0.0	19	12.4	75	49.0	0	0.0	56	36.6	0	0.0	1	0.7	2	1.3	0	0.0	0	0.0	153	100.0
7/15-17	187	Males	0	0.0	30	16.0	73	39.0	0	0.0	21	11.2	4	2.1	2	1.1	2	1.1	0	0.0	0	0.0	132	70.6
Quartile 2		Females	0	0.0	0	0.0	8	4.3	0	0.0	42	22.5	1	0.5	3	1.6	1	0.5	0	0.0	0	0.0	55	29.4
		Subtotal	0	0.0	30	16.0	81	43.3	0	0.0	63	33.7	5	2.7	5	2.7	3	1.6	0	0.0	0	0.0	187	100.0
7/18-22	193	Males	2	1.0	54	28.0	78	40.4	0	0.0	17	8.8	3	1.6	0	0.0	2	1.0	0	0.0	0	0.0	156	80.8
Quartile 3		Females	0	0.0	1	0.5	1	0.5	0	0.0	31	16.1	1	0.5	1	0.5	2	1.0	0	0.0	0	0.0	37	19.2
		Subtotal	2	1.0	55	28.5	79	40.9	0	0.0	48	24.9	4	2.1	1	0.5	4	2.1	0	0.0	0	0.0	193	100.0
7/23-7/27	178	Males	0	0.0	49	27.5	63	35.4	1	0.6	18	10.1	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0	132	74.2
Quartile 4		Females	1	0.6	0	0.0	6	3.4	0	0.0	39	21.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	46	25.8
		Subtotal	1	0.6	49	27.5	69	38.8	1	0.6	57	32.0	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0	178	100.0
	711	Males	2	0.3	152	21.4	286	40.2	1	0.1	83	11.7	8	1.1	2	0.3	5	0.7	0	0.0	0	0.0	539	75.8
		Females	1	0.1	1	0.1	18	2.5	0	0.0	141	19.8	2	0.3	5	0.7	4	0.6	0	0.0	0	0.0	172	24.2
		Season Total	3	0.4	153	21.5	304	42.8	1	0.1	224	31.5	10	1.4	7	1.0	9	1.3	0	0.0	0	0.0	711	100.0
Mean Length [b]		Males	515		595		749		620		857		724		810		838		-		-			
Std. Error			25		5		4		-		10		22		50		21		-		-			
Mean Length		Females	960		810		833		-		880		730		916		795		-		-			
Std. Error			-		-		11		-		5		40		42		40		-		-			

Note: Samples were collected by the Canadian Department of Fisheries and Oceans (DFO).

[a] Sample dates were stratified by quartiles based on number sampled.

[b] Length type measured was tip-of-snout to fork-of-tail. Measurements were taken to the nearest centimeter and converted to millimeters for this report.

Appendix A26.–Andreafsky River (east fork) weir, Chinook salmon escapement project age composition and mean length (mm), 2007.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2004 (1.1) No. %	2003 (1.2) No. %	2002 (1.3) No. %	2002 (2.2) No. %	2001 (1.4) No. %	2001 (2.3) No. %	2000 (1.5) No. %	2000 (2.4) No. %	1999 (1.6) No. %	1999 (2.5) No. %	Total No. %
6/25-26, 29-7/5 (6/25-7/6)	181	Subtotal	0 0.0	729 55.2	284 21.5	0 0.0	299 22.7	0 0.0	7 0.6	0 0.0	0 0.0	0 0.0	1,320 100.0
7/8-11 (7/7-7/12)	148	Subtotal	0 0.0	665 35.1	499 26.4	0 0.0	716 37.8	0 0.0	13 0.7	0 0.0	0 0.0	0 0.0	1,892 100.0
7/15-17, 19-20 (7/13-21)	148	Subtotal	0 0.0	275 43.9	165 26.4	0 0.0	182 29.1	0 0.0	4 0.7	0 0.0	0 0.0	0 0.0	626 100.0
7/22-26, 29-30 (7/22-30)	154	Subtotal	0 0.0	208 31.2	208 31.2	0 0.0	247 37.0	0 0.0	4 0.6	0 0.0	0 0.0	0 0.0	666 100.0
	631	Season Total	0 0.0	1,877 41.7	1,156 25.7	0 0.0	1,443 32.0	0 0.0	29 0.6	0 0.0	0 0.0	0 0.0	4,504 100.0
Mean Length			-	527	694	-	808	-	814	-	-	-	
Std. Error			-	4	5	-	5	-	45	-	-	-	

Note: Samples were collected by the US Fish and Wildlife Service (USFWS).

Appendix A27.–Chena River carcass survey, Chinook salmon escapement project age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	(2.2) No.	%	2001 (1.4) No.	%	(2.3) No.	%	2000 (1.5) No.	%	(2.4) No.	%	1999 (1.6) No.	%	(2.5) No.	%	Total No.	%
8/3, 6-7	53	Males	6	11.3	8	15.1	9	17.0	0	0.0	7	13.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	30	56.6
		Females	1	1.9	4	7.5	8	15.1	0	0.0	10	18.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	23	43.4
		Season Total [a]	7	13.2	12	22.6	17	32.1	0	0.0	17	32.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	53	100.0
Mean Length		Males	511		570		627		-		696		-		-		-		-		-			
Std. Error [b]			33		57		36		-		42		-		-		-		-		-			
Mean Length		Females	495		615		770		-		816		-		-		-		-		-			
Std. Error [b]			-		72		38		-		19		-		-		-		-		-			

[a] The numbers of fish in each age group were based on sample size and do not indicate the Chena River run passage composition.

[b] Ages were determined by project staff. The data suggests there may be errors in aging or in the matching of ages with lengths.

Appendix A28.–Gisasa River weir, Chinook salmon escapement project age and sex composition and mean length (mm), 2007.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	2001 (2.2) No.	%	(1.4) No.	%	(2.3) No.	%	2000 (1.5) No.	%	(2.4) No.	%	1999 (1.6) No.	%	(2.5) No.	%	Total No.	%
7/4-16	112	Males	0	0.0	203	33.0	126	20.5	0	0.0	115	18.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	445	72.3
(6/30-7/16)		Females	0	0.0	49	8.0	11	1.8	0	0.0	110	17.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	170	27.7
		Subtotal	0	0.0	253	41.1	137	22.3	0	0.0	225	36.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	615	100.0
7/17-22	118	Males	0	0.0	89	19.5	85	18.6	0	0.0	70	15.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	243	53.4
(7/17-7/22)		Females	0	0.0	8	1.7	19	4.2	0	0.0	185	40.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	213	46.6
		Subtotal	0	0.0	97	21.2	104	22.9	0	0.0	255	55.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	456	100.0
7/23-28	106	Males	0	0.0	80	22.6	43	12.3	0	0.0	53	15.1	3	0.9	0	0.0	0	0.0	0	0.0	0	0.0	180	50.9
(7/23-28)		Females	0	0.0	3	0.9	10	2.8	0	0.0	157	44.3	0	0.0	3	0.9	0	0.0	0	0.0	0	0.0	174	49.1
		Subtotal	0	0.0	83	23.6	53	15.1	0	0.0	210	59.4	3	0.9	3	0.9	0	0.0	0	0.0	0	0.0	354	100.0
	336	Males	0	0.0	372	26.1	255	17.9	0	0.0	238	16.7	3	0.2	0	0.0	0	0.0	0	0.0	0	0.0	869	61.0
		Females	0	0.0	60	4.2	40	2.8	0	0.0	452	31.7	0	0.0	3	0.2	0	0.0	0	0.0	0	0.0	556	39.0
		Season Total	0	0.0	433	30.4	295	20.7	0	0.0	691	48.5	3	0.2	3	0.2	0	0.0	0	0.0	0	0.0	1,425	100.0
Mean Length		Males	-		533		691		-		792		770		-		-		-		-			
Std. Error			-		6		8		-		9		-		-		-		-		-			
Mean Length		Females	-		538		740		-		826		-		915		-		-		-			
Std. Error			-		16		15		-		4		-		-		-		-		-			

Note: Samples were collected by the US Fish and Wildlife Service (USFWS).

Appendix A29.–Henshaw Creek weir, Chinook salmon escapement project age and sex composition and mean length (mm), 2007.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2004 (1.1)		2003 (1.2)		2002 (1.3)		(2.2)		2001 (1.4)		(2.3)		2000 (1.5)		(2.4)		1999 (1.6)		(2.5)		Total	
			No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
7/4-11	94 [a]	Males	0	0.0	72	55.4	25	19.2	0	0.0	10	7.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	107	82.3
(7/2-11)		Females	0	0.0	0	0.0	7	5.4	0	0.0	16	12.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	23	17.7
		Subtotal	0	0.0	72	55.4	32	24.6	0	0.0	26	20.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	130	100.0
7/12-15, 22-24	102	Males	0	0.0	152	58.8	51	19.6	0	0.0	18	6.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	221	85.3
(7/12-15, 21-24) [b]		Females	0	0.0	0	0.0	13	4.9	0	0.0	25	9.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	38	14.7
		Subtotal	0	0.0	152	58.8	63	24.5	0	0.0	43	16.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	259	100.0
7/25-8/6	156	Males	0	0.0	40	22.4	15	8.3	0	0.0	44	24.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	99	55.1
(7/25-8/6)		Females	0	0.0	0	0.0	6	3.2	0	0.0	75	41.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	80	44.9
		Subtotal	0	0.0	40	22.4	21	11.5	0	0.0	118	66.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	179	100.0
	258	Males	0	0.0	265	46.6	91	15.9	0	0.0	71	12.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	426	75.1
		Females	0	0.0	0	0.0	25	4.5	0	0.0	116	20.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	142	24.9
		Season Total	0	0.0	265	46.6	116	20.4	0	0.0	188	33.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	568	100.0
Mean Length		Males	-		510		681		-		800		-		-		-		-		-			
Std. Error			-		5		12		-		7		-		-		-		-		-			
Mean Length		Females	-		-		779		-		817		-		-		-		-		-			
Std. Error			-		-		14		-		5		-		-		-		-		-			

Note: Samples were collected by the Tanana Chiefs Conference (TCC).

[a] Sexes were not included.

[b] Weir flooded from 7-16 to 7-20.

Appendix A30.–Salcha River carcass survey, Chinook salmon escapement project age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	(2.2) No.	%	2001 (1.4) No.	%	(2.3) No.	%	2000 (1.5) No.	%	(2.4) No.	%	1999 (1.6) No.	%	(2.5) No.	%	Total No.	%
7/28-29, 8/3	150	Males	0	0.0	31	20.7	30	20.0	0	0.0	25	16.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	86	57.3
		Females	0	0.0	1	0.7	7	4.7	0	0.0	55	36.7	0	0.0	1	0.7	0	0.0	0	0.0	0	0.0	64	42.7
		Subtotal	0	0.0	32	21.3	37	24.7	0	0.0	80	53.3	0	0.0	1	0.7	0	0.0	0	0.0	0	0.0	150	100.0
8/4, 13	158	Males	0	0.0	37	23.4	42	26.6	0	0.0	33	20.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	112	70.9
		Females	0	0.0	0	0.0	4	2.5	0	0.0	42	26.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	46	29.1
		Subtotal	0	0.0	37	23.4	46	29.1	0	0.0	75	47.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	158	100.0
	308	Males	0	0.0	68	22.1	72	23.4	0	0.0	58	18.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	198	64.3
		Females	0	0.0	1	0.3	11	3.6	0	0.0	97	31.5	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	110	35.7
		Season Total [a]	0	0.0	69	22.4	83	26.9	0	0.0	155	50.3	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	308	100.0
Mean Length		Males	-		538		684		-		819		-		-		-		-		-			
Std. Error			-		6		7		-		10		-		-		-		-		-			
Mean Length		Females	-		590		748		-		842		-		910		-		-		-			
Std. Error			-		-		10		-		6		-		-		-		-		-			

[a] The numbers of fish in each age group were based on sample size and do not indicate the Salcha River run passage composition.

Appendix A31.–Tozitna River weir, Chinook salmon escapement project age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	2002 (2.2) No.	%	2001 (1.4) No.	%	2001 (2.3) No.	%	2000 (1.5) No.	%	2000 (2.4) No.	%	1999 (1.6) No.	%	1999 (2.5) No.	%	Total No.	%
7/3-4, 7-15, 17-18	105	Males	0	0.0	66	34.3	68	35.2	0	0.0	35	18.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	169	87.6
		Females	0	0.0	0	0.0	6	2.9	0	0.0	17	8.6	0	0.0	2	1.0	0	0.0	0	0.0	0	0.0	24	12.4
		Subtotal	0	0.0	66	34.3	74	38.1	0	0.0	51	26.7	0	0.0	2	1.0	0	0.0	0	0.0	0	0.0	193	100.0
7/19-26, 28-8/2, 5	112	Males	0	0.0	78	25.9	89	29.5	0	0.0	30	9.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	196	65.2
		Females	0	0.0	0	0.0	11	3.6	0	0.0	94	31.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	105	34.8
		Subtotal	0	0.0	78	25.9	99	33.0	0	0.0	124	41.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	301	100.0
	217	Males	0	0.0	144	29.2	157	31.7	0	0.0	64	13.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	365	73.9
		Females	0	0.0	0	0.0	16	3.3	0	0.0	111	22.4	0	0.0	2	0.4	0	0.0	0	0.0	0	0.0	129	26.1
		Season Total	0	0.0	144	29.2	173	35.0	0	0.0	175	35.4	0	0.0	2	0.4	0	0.0	0	0.0	0	0.0	494	100.0
Mean Length		Males	-		531		686		-		761		-		-		-		-		-			
Std. Error			-		5		6		-		8		-		-		-		-		-			
Mean Length		Females	-		-		756		-		820		-		900		-		-		-			
Std. Error			-		-		15		-		7		-		-		-		-		-			

Note: Samples were collected by the Bureau of Land Management (BLM).

Appendix A32.–Big Salmon River, Canada, carcass survey, Chinook salmon escapement project age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (1.2) No.	%	2002 (1.3) No.	%	(2.2) No.	%	2001 (1.4) No.	%	(2.3) No.	%	2000 (1.5) No.	%	(2.4) No.	%	1999 (1.6) No.	%	(2.5) No.	%	Total No.	%
8/22-24, 28-30	122	Males	0	0.0	4	3.3	15	12.3	0	0.0	16	13.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	35	28.7
		Females	0	0.0	0	0.0	9	7.4	0	0.0	77	63.1	0	0.0	1	0.8	0	0.0	0	0.0	0	0.0	87	71.3
		Season Total [a]	0	0.0	4	3.3	24	19.7	0	0.0	93	76.2	0	0.0	1	0.8	0	0.0	0	0.0	0	0.0	122	100.0
Mean Length [b]		Males	-		596		778		-		836		-		-		-		-		-			
Std. Error			-		32		25		-		33		-		-		-		-		-			
Mean Length [b]		Females	-		-		735		-		847		-		710		-		-		-			
Std. Error			-		-		29		-		7		-		0		-		-		-			

Note: Samples were collected by the Canadian Department of Fisheries and Oceans (DFO).

[a] The numbers of fish in each age group were based on sample size and do not indicate the Big Salmon River run composition.

[b] Length type measured was mideye to fork (MEF).

APPENDIX B
SUMMER CHUM SALMON TABLES

Appendix B1.–Yukon River, District 1, summer chum salmon commercial gillnet harvest age and sex composition and mean length, 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
6/18-19	156	Males	0	0.0	175	17.3	272	26.9	130	12.8	0	0.0	577	57.1
Period 1		Females	0	0.0	130	12.8	233	23.1	71	7.1	0	0.0	434	42.9
		Subtotal	0	0.0	305	30.1	506	50.0	201	19.9	0	0.0	1,011	100.0
6/20	150	Males	0	0.0	334	18.0	396	21.3	235	12.7	0	0.0	965	52.0
Period 2		Females	0	0.0	210	11.3	532	28.7	148	8.0	0	0.0	890	48.0
		Subtotal	0	0.0	544	29.3	928	50.0	383	20.7	0	0.0	1,855	100.0
6/21-22	158	Males	0	0.0	507	12.7	1,066	26.6	457	11.4	0	0.0	2,030	50.6
Period 3		Females	0	0.0	507	12.7	990	24.7	457	11.4	25	0.6	1,979	49.4
		Subtotal	0	0.0	1,015	25.3	2,055	51.3	913	22.8	25	0.6	4,009	100.0
6/22	157	Males	0	0.0	1,703	21.0	1,858	22.9	619	7.6	0	0.0	4,181	51.6
Period 4		Females	0	0.0	1,136	14.0	1,807	22.3	981	12.1	0	0.0	3,923	48.4
		Subtotal	0	0.0	2,839	35.0	3,665	45.2	1,600	19.7	0	0.0	8,104	100.0
6/25-26	160	Males	0	0.0	707	18.8	1,084	28.8	165	4.4	0	0.0	1,956	51.9
Period 5		Females	0	0.0	801	21.3	754	20.0	259	6.9	0	0.0	1,815	48.1
		Subtotal	0	0.0	1,508	40.0	1,838	48.8	424	11.3	0	0.0	3,771	100.0
6/27	160	Males	0	0.0	3,397	20.0	4,883	28.8	2,017	11.9	0	0.0	10,297	60.6
Period 6		Females	0	0.0	2,017	11.9	3,609	21.3	955	5.6	106	0.6	6,688	39.4
		Subtotal	0	0.0	5,414	31.9	8,493	50.0	2,972	17.5	106	0.6	16,985	100.0
6/30	158	Males	0	0.0	2,742	15.8	3,510	20.3	1,097	6.3	0	0.0	7,350	42.4
Period 7		Females	0	0.0	2,852	16.5	5,814	33.5	1,316	7.6	0	0.0	9,982	57.6
		Subtotal	0	0.0	5,595	32.3	9,324	53.8	2,413	13.9	0	0.0	17,332	100.0
7/2	158	Males	0	0.0	4,658	16.5	6,449	22.8	1,612	5.7	0	0.0	12,719	44.9
Period 8		Females	0	0.0	3,941	13.9	7,524	26.6	4,120	14.6	0	0.0	15,585	55.1
		Subtotal	0	0.0	8,599	30.4	13,973	49.4	5,732	20.3	0	0.0	28,304	100.0
7/6	154	Males	0	0.0	688	11.7	1,415	24.0	268	4.5	0	0.0	2,370	40.3
Period 9		Females	0	0.0	1,185	20.1	1,682	28.6	650	11.0	0	0.0	3,518	59.7
		Subtotal	0	0.0	1,873	31.8	3,097	52.6	918	15.6	0	0.0	5,888	100.0
7/9-10	154	Males	0	0.0	1,612	17.5	2,329	25.3	776	8.4	0	0.0	4,717	51.3
Period 10		Females	0	0.0	1,194	13.0	2,747	29.9	537	5.8	0	0.0	4,478	48.7
		Subtotal	0	0.0	2,806	30.5	5,075	55.2	1,314	14.3	0	0.0	9,195	100.0
7/13	160	Males	0	0.0	1,286	21.9	1,102	18.8	220	3.8	0	0.0	2,609	44.4
Period 11		Females	0	0.0	1,102	18.8	1,690	28.8	478	8.1	0	0.0	3,270	55.6
		Subtotal	0	0.0	2,388	40.6	2,793	47.5	698	11.9	0	0.0	5,879	100.0
7/15	156	Males	0	0.0	790	17.9	1,044	23.7	339	7.7	0	0.0	2,172	49.4
Period 12		Females	0	0.0	705	16.0	1,157	26.3	367	8.3	0	0.0	2,229	50.6
		Subtotal	0	0.0	1,495	34.0	2,201	50.0	705	16.0	0	0.0	4,401	100.0

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Appendix B1.–Page 2 of 2.

Sample Dates	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
Subtotal	474	Males	0	0.0	1,390	15.8	2,422	27.6	751	8.5	0	0.0	4,563	51.9
Unrestricted		Females	0	0.0	1,438	16.4	1,977	22.5	787	9.0	25	0.3	4,228	48.1
Periods		Total	0	0.0	2,828	32.2	4,399	50.0	1,539	17.5	25	0.3	8,791	100.0
Mean Length		Males	-		579		595		604		-			
Std. Error			-		4		2		5		-			
Mean Length		Females	-		549		568		586		585			
Std. Error			-		3		3		5		-			
Subtotal	1,407	Males	0	0.0	17,211	17.6	22,986	23.5	7,183	7.3	0	0.0	47,380	48.4
Restricted		Females	0	0.0	14,343	14.6	26,561	27.1	9,553	9.8	106	0.1	50,563	51.6
Periods		Total	0	0.0	31,554	32.2	49,547	50.6	16,736	17.1	106	0.1	97,943	100.0
Mean Length		Males	-		573		588		592		-			
Std. Error			-		2		2		3		-			
Mean Length		Females	-		564		573		585		620			
Std. Error			-		2		1		2		-			
Total	1,881	Males	0	0.0	18,600	17.4	25,408	23.8	7,935	7.4	0	0.0	51,943	48.7
All Periods		Females	0	0.0	15,781	14.8	28,538	26.7	10,340	9.7	132	0.1	54,791	51.3
		Total	0	0.0	34,381	32.2	53,946	50.5	18,275	17.1	132	0.1	106,734	100.0
Mean Length		Males	-		574		590		596		-			
Std. Error			-		1		1		2		-			
Mean Length		Females	-		560		572		585		603			
Std. Error			-		2		1		2		18			

Note: Mesh size was restricted to ≤6" for Periods 2, 4, and 6-12, and unrestricted for Periods 1, 3, and 5; unrestricted mesh size commercial periods were directed at harvesting Chinook and 8.0" or larger mesh was most likely used.

Appendix B2.–Yukon River, District 2, summer chum salmon commercial gillnet harvest age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
6/15	20	Males	0	0.0	14	10.0	28	20.0	43	30.0	0	0.0	85	60.0
Period 1		Females	0	0.0	7	5.0	21	15.0	28	20.0	0	0.0	57	40.0
		Subtotal	0	0.0	21	15.0	50	35.0	71	50.0	0	0.0	142	100.0
6/19	158	Males	0	0.0	1,277	17.1	2,080	27.8	898	12.0	0	0.0	4,255	57.0
Period 2		Females	0	0.0	520	7.0	1,891	25.3	804	10.8	0	0.0	3,215	43.0
		Subtotal	0	0.0	1,797	24.1	3,971	53.2	1,702	22.8	0	0.0	7,470	100.0
6/20	157	Males	0	0.0	223	24.2	229	24.8	100	10.8	0	0.0	553	59.9
Period 3		Females	0	0.0	94	10.2	206	22.3	71	7.6	0	0.0	370	40.1
		Subtotal	0	0.0	317	34.4	435	47.1	170	18.5	0	0.0	923	100.0
6/21	0	Males	0	0.0	571	17.1	930	27.8	402	12.0	0	0.0	1,903	57.0
Period 4 [a]		Females	0	0.0	233	7.0	846	25.3	359	10.8	0	0.0	1,438	43.0
		Subtotal	0	0.0	804	24.1	1,776	53.2	761	22.8	0	0.0	3,341	100.0
6/24	158	Males	0	0.0	212	14.6	525	36.1	184	12.7	0	0.0	922	63.3
Period 5		Females	0	0.0	129	8.9	350	24.1	55	3.8	0	0.0	534	36.7
		Subtotal	0	0.0	341	23.4	875	60.1	240	16.5	0	0.0	1,456	100.0
6/26	0	Males	0	0.0	2,989	21.0	4,710	33.1	634	4.5	0	0.0	8,333	58.6
Period 6 [b]		Females	0	0.0	1,540	10.8	3,170	22.3	1,177	8.3	0	0.0	5,887	41.4
		Subtotal	0	0.0	4,529	31.8	7,880	55.4	1,811	12.7	0	0.0	14,220	100.0
6/28	157	Males	0	0.0	4,506	21.0	7,101	33.1	956	4.5	0	0.0	12,563	58.6
Period 7		Females	0	0.0	2,321	10.8	4,779	22.3	1,775	8.3	0	0.0	8,876	41.4
		Subtotal	0	0.0	6,828	31.8	11,880	55.4	2,731	12.7	0	0.0	21,439	100.0
7/3	0	Males	0	0.0	2,571	21.0	4,051	33.1	545	4.5	0	0.0	7,168	58.6
Period 8 [b]		Females	0	0.0	1,324	10.8	2,727	22.3	1,013	8.3	0	0.0	5,064	41.4
		Subtotal	0	0.0	3,896	31.8	6,778	55.4	1,558	12.7	0	0.0	12,232	100.0
7/8	0	Males	0	0.0	1,728	21.0	2,723	33.1	366	4.5	0	0.0	4,817	58.6
Period 9 [b]		Females	0	0.0	890	10.8	1,832	22.3	681	8.3	0	0.0	3,403	41.4
		Subtotal	0	0.0	2,618	31.8	4,555	55.4	1,047	12.7	0	0.0	8,220	100.0
Subtotal	335	Males	0	0.0	450	17.8	783	31.1	327	13.0	0	0.0	1,559	61.9
Unrestricted		Females	0	0.0	230	9.1	577	22.9	154	6.1	0	0.0	962	38.1
Periods		Total	0	0.0	680	27.0	1,360	54.0	481	19.1	0	0.0	2,521	100.0

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Sample Dates	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
Mean Length		Males	-		569		598		609		-			
Std. Error			-		3		3		4		-			
Mean Length		Females	-		557		563		590		-			
Std. Error			-		4		3		6		-			
Subtotal	315	Males	0	0.0	13,641	20.4	21,595	32.3	3,802	5.7	0	0.0	39,038	58.3
Restricted		Females	0	0.0	6,828	10.2	15,246	22.8	5,809	8.7	0	0.0	27,884	41.7
Periods		Total	0	0.0	20,470	30.6	36,841	55.1	9,611	14.4	0	0.0	66,922	100.0
Mean Length		Males	-		574		589		603		-			
Std. Error			-		4		3		5		-			
Mean Length		Females	-		560		568		586		-			
Std. Error			-		5		3		4		-			
Total	650	Males	0	0.0	14,091	20.3	22,378	32.2	4,129	5.9	0	0.0	40,598	58.5
All Periods		Females	0	0.0	7,059	10.2	15,823	22.8	5,964	8.6	0	0.0	28,845	41.5
		Total	0	0.0	21,150	30.5	38,201	55.0	10,092	14.5	0	0.0	69,443	100.0
Mean Length		Males	-		572		593		607		-			
Std. Error			-		2		2		3		-			
Mean Length		Females	-		559		566		588		-			
Std. Error			-		3		2		3		-			

Note: Mesh size was restricted to ≤6" for Periods 2, 4, and 6-12, and unrestricted for Periods 1, 3, and 5; unrestricted mesh size commercial periods were directed at harvesting Chinook and 8.0" or larger mesh was most likely used.

[a] Age and sex composition was estimated from Period 2.

[b] Age and sex composition was estimated from Period 7.

Appendix B3.–Yukon River, Subdistrict 4-A, summer chum salmon roe fishery commercial harvest age and sex composition and mean length (mm), 2007.

Sample Dates [a]	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
7/3-10	674	Males	0	0.0	87	1.6	72	1.3	24	0.4	0	0.0	183	3.4
Period 1		Females	0	0.0	2,958	55.2	1,797	33.5	421	7.9	0	0.0	5,176	96.6
		Subtotal	0	0.0	3,045	56.8	1,868	34.9	445	8.3	0	0.0	5,359	100.0
7/21-26	0	Males	0	0.0	32	1.6	26	1.3	9	0.4	0	0.0	66	3.4
Period 3 [b]		Females	0	0.0	1,074	55.2	652	33.5	153	7.9	0	0.0	1,879	96.6
		Subtotal	0	0.0	1,105	56.8	678	34.9	162	8.3	0	0.0	1,945	100.0
Total	674	Males	0	0.0	119	1.6	98	1.3	33	0.4	0	0.0	249	3.4
All Periods		Females	0	0.0	4,031	55.2	2,449	33.5	574	7.9	0	0.0	7,055	96.6
		Total	0	0.0	4,150	56.8	2,547	34.9	607	8.3	0	0.0	7,304	100.0
Mean Length		Males	-		547		586		577		-			
Std. Error			-		7		10		17		-			
Mean Length		Females	-		537		552		558		-			
Std. Error			-		1		2		3		-			

Note: Samples were collected from fish wheels. Commercial fishers visually estimated fish sex at the fish wheel in order to release males, resulting in a high percentage of females in the roe directed harvest.

[a] No fish were harvested during Period 2.

[b] Age and sex composition was estimated from Period 1.

Appendix B4.–Yukon River, District 6 (Subdistricts 6-A, 6-B, and 6-C), chum salmon commercial fish wheel harvest age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size [a]		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
7/21-22	152	Males	0	0.0	108	23.7	87	19.1	3	0.7	0	0.0	197	43.4
Period 1		Females	3	0.7	146	32.2	99	21.7	9	2.0	0	0.0	257	56.6
		Subtotal	3	0.7	254	55.9	185	40.8	12	2.6	0	0.0	454	100.0
7/23-25	146	Males	0	0.0	572	38.4	388	26.0	20	1.4	0	0.0	980	65.8
Period 2		Females	0	0.0	276	18.5	225	15.1	10	0.7	0	0.0	511	34.2
		Subtotal	0	0.0	848	56.8	613	41.1	31	2.1	0	0.0	1,491	100.0
7/27-29	153	Males	0	0.0	701	28.8	398	16.3	64	2.6	0	0.0	1,163	47.7
Period 3		Females	16	0.7	796	32.7	414	17.0	48	2.0	0	0.0	1,274	52.3
		Subtotal	16	0.7	1,497	61.4	812	33.3	111	4.6	0	0.0	2,437	100.0
7/30-8/1	158	Males	26	0.6	1,336	32.9	668	16.5	0	0.0	0	0.0	2,030	50.0
Period 4		Females	0	0.0	1,413	34.8	591	14.6	26	0.6	0	0.0	2,030	50.0
		Subtotal	26	0.6	2,749	67.7	1,259	31.0	26	0.6	0	0.0	4,059	100.0
8/4-5	0	Males	8	0.6	447	34.6	182	14.1	8	0.6	0	0.0	646	50.0
Period 5 [b]		Females	0	0.0	455	35.3	166	12.8	25	1.9	0	0.0	646	50.0
		Subtotal	8	0.6	902	69.9	348	26.9	33	2.6	0	0.0	1,291	100.0
8/6-8	156	Males	13	0.6	714	34.6	291	14.1	13	0.6	0	0.0	1,032	50.0
Period 6		Females	0	0.0	727	35.3	264	12.8	40	1.9	0	0.0	1,032	50.0
		Subtotal	13	0.6	1,441	69.9	555	26.9	53	2.6	0	0.0	2,063	100.0
8/10-12	141	Males	0	0.0	980	34.0	490	17.0	0	0.0	0	0.0	1,470	51.1
Period 7		Females	0	0.0	980	34.0	388	13.5	41	1.4	0	0.0	1,409	48.9
		Subtotal	0	0.0	1,960	68.1	878	30.5	41	1.4	0	0.0	2,879	100.0
Total	906	Males	47	0.3	4,857	33.1	2,504	17.1	109	0.7	0	0.0	7,517	51.2
All Periods		Females	19	0.1	4,794	32.7	2,146	14.6	198	1.3	0	0.0	7,157	48.8
		Total	66	0.5	9,651	65.8	4,650	31.7	307	2.1	0	0.0	14,674	100.0
Mean Length		Males	555		574		602		588		-			
Std. Error			10		2		2		10		-			
Mean Length		Females	575		560		580		587		-			
Std. Error			30		2		2		7		-			

Note: Samples were collected from fish wheels.

[a] Fish were often presorted by sex; samples should not be considered random.

[b] Age and sex composition was estimated from Period 6.

Appendix B5.–Yukon River, District 1, summer chum salmon subsistence 5.5" mesh gillnet harvest age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
6/12-13	154	Males	0	0.0	14	9.1	52	33.8	19	12.3	0	0.0	85	55.2
		Females	0	0.0	8	5.2	46	29.9	15	9.7	0	0.0	69	44.8
		Season Total	0	0.0	22	14.3	98	63.6	34	22.1	0	0.0	154	100.0
Mean Length		Males	-		581		596		614		-			
Std. Error			-		5		3		6		-			
Mean Length		Females	-		574		586		595		-			
Std. Error			-		8		3		6		-			

Appendix B6.–Yukon River, District 1, summer chum salmon subsistence 8.5" mesh gillnet harvest age and sex composition and mean length (mm), 2007.

Sample Dates [a]	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
6/8	1	Males	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	1	100.0
		Females	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
		Subtotal	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	1	100.0
6/12, 15	8	Males	0	0.0	1	12.5	3	37.5	0	0.0	0	0.0	4	50.0
		Females	0	0.0	1	12.5	2	25.0	1	12.5	0	0.0	4	50.0
		Subtotal	0	0.0	2	25.0	5	62.5	1	12.5	0	0.0	8	100.0
	9	Males	0	0.0	2	22.2	3	33.3	0	0.0	0	0.0	5	55.6
		Females	0	0.0	1	11.1	2	22.2	1	11.1	0	0.0	4	44.4
		Season Total	0	0.0	3	33.3	5	55.6	1	11.1	0	0.0	9	100.0
Mean Length		Males	-		585		598		-		-			
Std. Error			-		10		2		-		-			
Mean Length		Females	-		560		600		585		-			
Std. Error			-		-		0		-		-			

[a] Sample dates are stratified by week.

Appendix B7.–Yukon River, Big Eddy, summer chum salmon 5.5" mesh set gillnet test fishery project age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
6/12-13, 16-18,	91	Males	0	0.0	17	18.7	12	13.2	2	2.2	0	0.0	31	34.1
20-21, 23-30, 7/2		Females	0	0.0	22	24.2	31	34.1	7	7.7	0	0.0	60	65.9
		Season Total	0	0.0	39	42.9	43	47.3	9	9.9	0	0.0	91	100.0
Mean Length		Males	-		560		578		555		-			
Std. Error			-		6		9		0		-			
Mean Length		Females	-		554		553		561		-			
Std. Error			-		4		3		12		-			

Appendix B8.–Andreafsky River (east fork) weir, summer chum salmon escapement project age and sex composition and mean length (mm), 2007.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
6/22, 24-28	147	Males	25	0.7	1,576	43.5	690	19.0	517	14.3	0	0.0	2,808	77.6
(6/22-29)		Females	0	0.0	493	13.6	246	6.8	74	2.0	0	0.0	813	22.4
		Subtotal	25	0.7	2,069	57.1	936	25.9	591	16.3	0	0.0	3,621	100.0
7/1-5	178	Males	140	0.6	8,965	36.0	3,782	15.2	700	2.8	0	0.0	13,588	54.5
(6/30-7/6)		Females	0	0.0	8,265	33.1	2,802	11.2	280	1.1	0	0.0	11,346	45.5
		Subtotal	140	0.6	17,230	69.1	6,584	26.4	981	3.9	0	0.0	24,934	100.0
7/8-11	139	Males	421	2.2	7,441	38.1	2,387	12.2	0	0.0	0	0.0	10,249	52.5
(7/7-13)		Females	0	0.0	6,599	33.8	2,246	11.5	421	2.2	0	0.0	9,266	47.5
		Subtotal	421	2.2	14,040	71.9	4,633	23.7	421	2.2	0	0.0	19,515	100.0
7/15-18	134	Males	195	1.5	4,778	36.6	1,268	9.7	0	0.0	0	0.0	6,240	47.8
(7/14-20)		Females	98	0.7	5,070	38.8	1,073	8.2	585	4.5	0	0.0	6,826	52.2
		Subtotal	293	2.2	9,848	75.4	2,340	17.9	585	4.5	0	0.0	13,066	100.0
7/22-25, 29-30	207	Males	0	0.0	3,041	35.7	863	10.1	247	2.9	0	0.0	4,150	48.8
(7/21-30)		Females	123	1.4	3,534	41.5	616	7.2	82	1.0	0	0.0	4,356	51.2
		Subtotal	123	1.4	6,575	77.3	1,479	17.4	329	3.9	0	0.0	8,506	100.0
	805	Males	781	1.1	25,801	37.0	8,989	12.9	1,464	2.1	0	0.0	37,035	53.2
		Females	221	0.3	23,960	34.4	6,983	10.0	1,442	2.1	0	0.0	32,607	46.8
		Season Total	1,002	1.4	49,761	71.5	15,972	22.9	2,907	4.2	0	0.0	69,642	100.0
Mean Length		Males	562		546		566		583		-			
Std. Error			14		2		4		6		-			
Mean Length		Females	506		515		528		538		-			
Std. Error			4		2		4		6		-			

Note: Samples were collected by the US Fish and Wildlife Service (USFWS).

Appendix B9.–Anvik River sonar, summer chum salmon escapement project age and sex composition and mean length (mm), 2007.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
6/30-7/2	137	Males	592	0.7	18,348	22.6	14,205	17.5	5,327	6.6	0	0.0	38,471	47.4
(6/27-7/3)		Females	0	0.0	27,818	34.3	12,429	15.3	2,367	2.9	0	0.0	42,615	52.6
		Subtotal	592	0.7	46,166	56.9	26,634	32.8	7,694	9.5	0	0.0	81,086	100.0
7/5-6	141	Males	0	0.0	28,542	28.4	11,417	11.3	3,568	3.5	0	0.0	43,526	43.3
(7/4-8)		Females	1,427	1.4	34,250	34.0	18,552	18.4	2,854	2.8	0	0.0	57,083	56.7
		Subtotal	1,427	1.4	62,791	62.4	29,969	29.8	6,422	6.4	0	0.0	100,609	100.0
7/10-11	140	Males	0	0.0	31,062	25.0	23,074	18.6	6,212	5.0	0	0.0	60,348	48.6
(7/9-14)		Females	0	0.0	37,274	30.0	19,524	15.7	7,100	5.7	0	0.0	63,898	51.4
		Subtotal	0	0.0	68,335	55.0	42,599	34.3	13,312	10.7	0	0.0	124,246	100.0
7/17-18	142	Males	0	0.0	34,501	22.5	11,860	7.7	3,234	2.1	0	0.0	49,595	32.4
(7/15-26)		Females	3,234	2.1	65,767	43.0	24,797	16.2	9,703	6.3	0	0.0	103,502	67.6
		Subtotal	3,234	2.1	100,268	65.5	36,657	23.9	12,938	8.5	0	0.0	153,097	100.0
	560	Males	592	0.1	112,452	24.5	60,555	13.2	18,341	4.0	0	0.0	191,940	41.8
		Females	4,662	1.0	165,109	36.0	75,303	16.4	22,025	4.8	0	0.0	267,098	58.2
		Season Total	5,253	1.1	277,560	60.5	135,858	29.6	40,366	8.8	0	0.0	459,038	100.0
Mean Length		Males	530		572		590		601		-			
Std. Error			-		2		4		6		-			
Mean Length		Females	524		540		552		557		-			
Std. Error			6		2		3		5		-			

Note: Samples were collected with a beach seine.

Appendix B10.–Gisasa weir, summer chum salmon escapement project age and sex composition and mean length (mm), 2007.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
7/4-7	157	Males	0	0.0	4,651	24.8	3,697	19.7	477	2.5	0	0.0	8,824	47.1
(6/24-7/7)		Females	238	1.3	5,843	31.2	3,697	19.7	119	0.6	0	0.0	9,898	52.9
		Subtotal	238	1.3	10,494	56.1	7,393	39.5	596	3.2	0	0.0	18,722	100.0
7/8-9, 11,	129	Males	183	1.6	3,475	29.5	1,920	16.3	366	3.1	0	0.0	5,944	50.4
13-14		Females	274	2.3	3,201	27.1	2,012	17.1	366	3.1	0	0.0	5,853	49.6
(7/8-15)		Subtotal	457	3.9	6,676	56.6	3,932	33.3	732	6.2	0	0.0	11,797	100.0
7/16-21	154	Males	121	1.9	1,046	16.9	483	7.8	161	2.6	0	0.0	1,811	29.2
(7/16-21)		Females	121	1.9	2,455	39.6	1,409	22.7	402	6.5	0	0.0	4,387	70.8
		Subtotal	241	3.9	3,501	56.5	1,892	30.5	563	9.1	0	0.0	6,198	100.0
7/22-26, 28	139	Males	69	0.7	2,402	25.2	1,167	12.2	343	3.6	0	0.0	3,981	41.7
(7/22-28)		Females	69	0.7	2,608	27.3	2,539	26.6	343	3.6	0	0.0	5,559	58.3
		Subtotal	137	1.4	5,010	52.5	3,706	38.8	686	7.2	0	0.0	9,540	100.0
	579	Males	372	0.8	11,574	25.0	7,267	15.7	1,347	2.9	0	0.0	20,560	44.4
		Females	702	1.5	14,107	30.5	9,657	20.9	1,231	2.7	0	0.0	25,697	55.6
		Season Total	1,074	2.3	25,681	55.5	16,924	36.6	2,578	5.6	0	0.0	46,257	100.0
Mean Length		Males	561		562		579		579		-			
Std. Error			10		3		4		8		-			
Mean Length		Females	532		540		554		552		-			
Std. Error			18		2		3		8		-			

Note: Samples were collected by the US Fish and Wildlife Service (USFWS).

Appendix B11.–Henshaw Creek weir, summer chum salmon escapement project age and sex composition and mean length (mm), 2007.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
7/8, 10, 12	113	Males	102	0.9	3,483	30.1	2,459	21.2	410	3.5	0	0.0	6,454	55.8
(7/2-13)		Females	307	2.7	2,561	22.1	2,254	19.5	0	0.0	0	0.0	5,122	44.2
		Subtotal	410	3.5	6,044	52.2	4,712	40.7	410	3.5	0	0.0	11,576	100.0
7/14-15,	139	Males	81	0.7	4,612	41.0	1,942	17.3	0	0.0	0	0.0	6,636	59.0
22, 24		Females	81	0.7	2,832	25.2	1,618	14.4	81	0.7	0	0.0	4,612	41.0
(7/14-25) [a]		Subtotal	162	1.4	7,445	66.2	3,561	31.7	81	0.7	0	0.0	11,248	100.0
7/26-29	142	Males	40	0.7	1,597	28.2	1,477	26.1	0	0.0	0	0.0	3,114	54.9
(7/26-30)		Females	40	0.7	1,717	30.3	719	12.7	80	1.4	0	0.0	2,555	45.1
		Subtotal	80	1.4	3,314	58.5	2,196	38.7	80	1.4	0	0.0	5,669	100.0
7/31, 8/2-3, 5	146	Males	24	0.7	927	26.0	659	18.5	146	4.1	0	0.0	1,757	49.3
(7/31-8/6)		Females	24	0.7	1,171	32.9	610	17.1	0	0.0	0	0.0	1,805	50.7
		Subtotal	49	1.4	2,098	58.9	1,269	35.6	146	4.1	0	0.0	3,562	100.0
	540	Males	248	0.8	10,620	33.1	6,537	20.4	556	1.7	0	0.0	17,960	56.0
		Females	453	1.4	8,281	25.8	5,201	16.2	161	0.5	0	0.0	14,095	44.0
		Season Total	700	2.2	18,901	59.0	11,737	36.6	717	2.2	0	0.0	32,055	100.0
Mean Length		Males	555		550		575		582		-			
Std. Error			19		2		3		9		-			
Mean Length		Females	533		532		549		565		-			

Note: Samples were collected by the Tanana Chiefs Conference (TCC).

[a] Weir flooded from 7-16 to 7-20.

Appendix B12.–Salcha River carcass survey, summer chum salmon escapement project age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) [a] 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
8/24, 9/4	159	Males	2	1.3	29	18.2	23	14.5	8	5.0	3	1.9	65	40.9
		Females	5	3.1	49	30.8	30	18.9	10	6.3	0	0.0	94	59.1
		Season Total	7	4.4	78	49.1	53	33.3	18	11.3	3	1.9	159	100.0
Mean Length		Males	545		554		572		585		580			
Std. Error			5		5		6		8		6			
Mean Length		Females	544		528		544		559		-			
Std. Error			12		4		5		7					

Note: Samples were collected by Bering Sea Fishermen's Association.

[a] Ages were obtained using vertebrae.

Appendix B13.–Tozitna River weir, summer chum salmon escapement project age and sex composition and mean length (mm), 2007.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
7/4, 6-12	126	Males	4	0.8	168	35.7	141	30.2	15	3.2	0	0.0	328	69.8
(7/3-12)		Females	7	1.6	74	15.9	45	9.5	15	3.2	0	0.0	141	30.2
		Subtotal	11	2.4	242	51.6	186	39.7	30	6.3	0	0.0	469	100.0
7/13-19	135	Males	12	3.0	177	42.2	112	26.7	3	0.7	0	0.0	305	72.6
(7/13-19)		Females	16	3.7	62	14.8	34	8.1	3	0.7	0	0.0	115	27.4
		Subtotal	28	6.7	240	57.0	146	34.8	6	1.5	0	0.0	420	100.0
7/20-24	168	Males	88	3.6	1,140	46.4	395	16.1	29	1.2	0	0.0	1,652	67.3
(7/20-24)		Females	0	0.0	585	23.8	219	8.9	0	0.0	0	0.0	804	32.7
		Subtotal	88	3.6	1,725	70.2	614	25.0	29	1.2	0	0.0	2,456	100.0
7/25-30	142	Males	75	1.4	1,999	37.3	1,018	19.0	113	2.1	0	0.0	3,205	59.9
(7/25-30)		Females	38	0.7	1,659	31.0	453	8.5	0	0.0	0	0.0	2,150	40.1
		Subtotal	113	2.1	3,658	68.3	1,471	27.5	113	2.1	0	0.0	5,355	100.0
7/31-8/5	137	Males	0	0.0	1,670	30.7	835	15.3	119	2.2	0	0.0	2,624	48.2
(7/31-8/6)		Females	40	0.7	1,590	29.2	1,113	20.4	80	1.5	0	0.0	2,823	51.8
		Subtotal	40	0.7	3,260	59.9	1,948	35.8	199	3.6	0	0.0	5,447	100.0
	708	Males	179	1.3	5,154	36.4	2,501	17.7	280	2.0	0	0.0	8,114	57.4
		Females	100	0.7	3,971	28.1	1,864	13.2	98	0.7	0	0.0	6,033	42.6
		Season Total	280	2.0	9,125	64.5	4,365	30.9	377	2.7	0	0.0	14,147	100.0
Mean Length		Males	560		567		583		582		-			
Std. Error			8		2		3		7		-			
Mean Length		Females	517		544		550		576		-			
Std. Error			16		2		3		12		-			

Note: Samples were collected by the Bureau of Land Management (BLM).

APPENDIX C
FALL CHUM SALMON TABLES

Appendix C1.–Yukon River, District 1, fall chum salmon commercial gillnet harvest age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	No.	%
8/14	145	Males	0	0.0	2,697	33.8	716	9.0	275	3.4	0	0.0	3,688	46.2
Period 1		Females	0	0.0	2,917	36.6	1,266	15.9	110	1.4	0	0.0	4,293	53.8
		Subtotal	0	0.0	5,614	70.3	1,981	24.8	385	4.8	0	0.0	7,981	100.0
8/19	155	Males	0	0.0	895	38.7	179	7.7	45	1.9	0	0.0	1,119	48.4
Period 2		Females	0	0.0	1,015	43.9	149	6.5	30	1.3	0	0.0	1,194	51.6
		Subtotal	0	0.0	1,910	82.6	328	14.2	75	3.2	0	0.0	2,313	100.0
8/24	158	Males	0	0.0	7,316	43.0	1,184	7.0	108	0.6	0	0.0	8,608	50.6
Period 3		Females	0	0.0	6,994	41.1	1,291	7.6	108	0.6	0	0.0	8,392	49.4
		Subtotal	0	0.0	14,310	84.2	2,475	14.6	215	1.3	0	0.0	17,000	100.0
8/26	0	Males	0	0.0	2,520	43.0	408	7.0	37	0.6	0	0.0	2,965	50.6
Period 4 [a]		Females	0	0.0	2,409	41.1	445	7.6	37	0.6	0	0.0	2,890	49.4
		Subtotal	0	0.0	4,929	84.2	852	14.6	74	1.3	0	0.0	5,855	100.0
8/30	160	Males	0	0.0	1,404	35.0	476	11.9	125	3.1	0	0.0	2,006	50.0
Period 5		Females	25	0.6	1,705	42.5	226	5.6	50	1.3	0	0.0	2,006	50.0
		Subtotal	25	0.6	3,109	77.5	702	17.5	176	4.4	0	0.0	4,012	100.0
9/3	156	Males	5	0.6	325	43.6	96	12.8	5	0.6	0	0.0	430	57.7
Period 6		Females	5	0.6	248	33.3	57	7.7	5	0.6	0	0.0	315	42.3
		Subtotal	10	1.3	573	76.9	153	20.5	10	1.3	0	0.0	745	100.0
9/6	0	Males	2	0.6	147	43.6	43	12.8	2	0.6	0	0.0	195	57.7
Period 7 [b]		Females	2	0.6	113	33.3	26	7.7	2	0.6	0	0.0	143	42.3
		Subtotal	4	1.3	260	76.9	69	20.5	4	1.3	0	0.0	338	100.0
9/9	0	Males	4	0.6	265	43.6	78	12.8	4	0.6	0	0.0	351	57.7
Period 8 [b]		Females	4	0.6	203	33.3	47	7.7	4	0.6	0	0.0	257	42.3
		Subtotal	8	1.3	468	76.9	125	20.5	8	1.3	0	0.0	608	100.0
Total	774	Males	11	0.0	15,570	40.1	3,179	8.2	601	1.5	0	0.0	19,361	49.8
All Periods		Females	36	0.1	15,603	40.2	3,507	9.0	346	0.9	0	0.0	19,491	50.2
		Total	47	0.1	31,173	80.2	6,686	17.2	946	2.4	0	0.0	38,852	100.0
Mean Length		Males	538		572		582		584		-			
Std. Error			18		1		3		4		-			
Mean Length		Females	545		564		579		578		-			
Std. Error			-		1		3		5		-			

Note: All District 1 fall commercial fishing periods allowed unrestricted mesh size gillnets. However, it is likely fishers used 6-inch or smaller mesh size gillnets.

[a] Age and sex composition was estimated from Period 3.

[b] Age and sex composition was estimated from Period 6.

Appendix C2.–Yukon River, District 5 (Subdistricts 5-B and 5-C), fall chum salmon commercial harvest age and sex composition and mean length (mm), 2007.

Sample Dates [a]	Sample Size [b]		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
8/24-26	147	Males	3	0.7	90	21.1	52	12.2	9	2.0	0	0.0	154	36.1
Period 1		Females	0	0.0	163	38.1	105	24.5	6	1.4	0	0.0	273	63.9
		Season Total	3	0.7	253	59.2	157	36.7	15	3.4	0	0.0	427	100.0
Mean Length		Males	605		621		625		635		-			
Std. Error			-		5		4		16		-			
Mean Length		Females	-		597		615		610		-			
Std. Error			-		4		5		20		-			

Note: Samples were collected from fish wheels.

[a] Only Period 1 was fished.

[b] Fish were pre-sorted by the commercial processors; samples should not be considered random.

Appendix C3.–Yukon River, District 6 (Subdistricts 6-A, 6-B, and 6-C), fall chum salmon commercial harvest age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size [a]		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
9/10-12	150	Males	6	0.7	389	44.0	47	5.3	0	0.0	0	0.0	442	50.0
Period 1		Females	0	0.0	371	42.0	71	8.0	0	0.0	0	0.0	442	50.0
		Subtotal	6	0.7	759	86.0	118	13.3	0	0.0	0	0.0	883	100.0
9/14-16	0	Males	9	0.7	571	44.0	69	5.3	0	0.0	0	0.0	649	50.0
Period 2 [b]		Females	0	0.0	545	42.0	104	8.0	0	0.0	0	0.0	649	50.0
		Subtotal	9	0.7	1,116	86.0	173	13.3	0	0.0	0	0.0	1,298	100.0
9/21-23	0	Males	0	0.0	221	10.3	28	1.3	0	0.0	0	0.0	248	11.5
Period 3 [c]		Females	41	1.9	1,710	79.5	138	6.4	14	0.6	0	0.0	1,903	88.5
		Subtotal	41	1.9	1,930	89.7	165	7.7	14	0.6	0	0.0	2,151	100.0
9/24-26	156	Males	0	0.0	89	10.3	11	1.3	0	0.0	0	0.0	100	11.5
Period 4		Females	17	1.9	687	79.5	55	6.4	6	0.6	0	0.0	764	88.5
		Subtotal	17	1.9	775	89.7	66	7.7	6	0.6	0	0.0	864	100.0
9/28-30	0	Males	0	0.0	506	10.3	63	1.3	0	0.0	0	0.0	569	11.5
Period 5 [c]		Females	95	1.9	3,920	79.5	316	6.4	32	0.6	0	0.0	4,362	88.5
		Subtotal	95	1.9	4,425	89.7	379	7.7	32	0.6	0	0.0	4,931	100.0
10/1-3	0	Males	0	0.0	355	10.3	44	1.3	0	0.0	0	0.0	400	11.5
Period 6 [c]		Females	67	1.9	2,753	79.5	222	6.4	22	0.6	0	0.0	3,064	88.5
		Subtotal	67	1.9	3,109	89.7	266	7.7	22	0.6	0	0.0	3,464	100.0
10/5-7	0	Males	0	0.0	203	10.3	25	1.3	0	0.0	0	0.0	229	11.5
Period 7 [c]		Females	38	1.9	1,575	79.5	127	6.4	13	0.6	0	0.0	1,752	88.5
		Subtotal	38	1.9	1,778	89.7	152	7.7	13	0.6	0	0.0	1,981	100.0
Total	306	Males	15	0.1	2,333	15.0	288	1.8	0	0.0	0	0.0	2,636	16.9
All Periods		Females	258	1.7	11,560	74.2	1,033	6.6	86	0.6	0	0.0	12,936	83.1
		Total	272	1.7	13,893	89.2	1,321	8.5	86	0.6	0	0.0	15,572	100.0
Mean Length		Males	615		607		626		-		-			
Std. Error			-		4		9		-		-			
Mean Length		Females	585		586		581		565		-			
Std. Error			15		2		5		-		-			

Note: Samples were collected from fish wheels.

[a] Fish were often presorted by sex; samples should not be considered random.

[b] Age and sex composition was estimated from Period 1.

[c] Age and sex composition was estimated from Period 4.

Appendix C4.–Yukon River, Subdistrict 5-B, fall chum salmon subsistence harvest age and sex composition and mean length (mm), 2007.

Sample Dates [a]	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
8/25	56	Males	0	0.0	11	19.6	14	25.0	1	1.8	0	0.0	26	46.4
		Females	1	1.8	19	33.9	9	16.1	1	1.8	0	0.0	30	53.6
		Subtotal	1	1.8	30	53.6	23	41.1	2	3.6	0	0.0	56	100.0
9/1	110	Males	0	0.0	38	34.5	21	19.1	1	0.9	0	0.0	60	54.5
		Females	0	0.0	31	28.2	18	16.4	1	0.9	0	0.0	50	45.5
		Subtotal	0	0.0	69	62.7	39	35.5	2	1.8	0	0.0	110	100.0
9/16	153	Males	0	0.0	39	25.5	15	9.8	1	0.7	0	0.0	55	35.9
		Females	0	0.0	77	50.3	21	13.7	0	0.0	0	0.0	98	64.1
		Subtotal	0	0.0	116	75.8	36	23.5	1	0.7	0	0.0	153	100.0
	319	Males	0	0.0	88	27.6	50	15.7	3	0.9	0	0.0	141	44.2
		Females	1	0.3	127	39.8	48	15.0	2	0.6	0	0.0	178	55.8
		Season Total	1	0.3	215	67.4	98	30.7	5	1.6	0	0.0	319	100.0
Mean Length		Males	-		605		622		633		-			
Std. Error			-		3		5		21		-			
Mean Length		Females	555		582		595		610		-			
Std. Error			-		2		4		0		-			

Note: Samples were collected from fish wheels.

[a] Sample dates are stratified by week.

Appendix C5.–Yukon River, Subdistrict 6-B, fall chum salmon subsistence harvest age and sex composition and mean length (mm), 2007.

Sample Dates [a]	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
9/2	77	Males	1	1.3	18	23.4	10	13.0	1	1.3	0	0.0	30	39.0
		Females	0	0.0	39	50.6	8	10.4	0	0.0	0	0.0	47	61.0
		Subtotal	1	1.3	57	74.0	18	23.4	1	1.3	0	0.0	77	100.0
9/25	39	Males	0	0.0	16	41.0	3	7.7	0	0.0	0	0.0	19	48.7
		Females	1	2.6	16	41.0	3	7.7	0	0.0	0	0.0	20	51.3
		Subtotal	1	2.6	32	82.1	6	15.4	0	0.0	0	0.0	39	100.0
	116	Males	1	0.9	34	29.3	13	11.2	1	0.9	0	0.0	49	42.2
		Females	1	0.9	55	47.4	11	9.5	0	0.0	0	0.0	67	57.8
		Season Total	2	1.7	89	76.7	24	20.7	1	0.9	0	0.0	116	100.0
Mean Length		Males	595		595		602		630		-			
Std. Error			-		4		9		-		-			
Mean Length		Females	595		586		584		-		-			
Std. Error			-		4		8		-		-			

Note: Samples were collected from fish wheels.

[a] Sample dates are stratified by week.

Appendix C6.–Yukon River, Big Eddy, fall chum salmon 6.0" mesh drift gillnet test fishery project age and sex composition and mean length (mm), 2007.

Sample Dates [a]	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
7/16-20, 28	110	Males	0	0.0	35	31.8	18	16.4	5	4.5	0	0.0	58	52.7
8/2-3, 6-7		Females	0	0.0	29	26.4	17	15.5	6	5.5	0	0.0	52	47.3
Quartile 1		Subtotal	0	0.0	64	58.2	35	31.8	11	10.0	0	0.0	110	100.0
8/8-13	79	Males	0	0.0	36	45.6	8	10.1	1	1.3	0	0.0	45	57.0
Quartile 2		Females	0	0.0	21	26.6	13	16.5	0	0.0	0	0.0	34	43.0
		Subtotal	0	0.0	57	72.2	21	26.6	1	1.3	0	0.0	79	100.0
8/15, 17-19	63	Males	0	0.0	25	39.7	3	4.8	0	0.0	0	0.0	28	44.4
23-24		Females	0	0.0	30	47.6	5	7.9	0	0.0	0	0.0	35	55.6
Quartile 3		Subtotal	0	0.0	55	87.3	8	12.7	0	0.0	0	0.0	63	100.0
8/25-28	84	Males	0	0.0	30	35.7	3	3.6	1	1.2	0	0.0	34	40.5
Quartile 4		Females	0	0.0	43	51.2	6	7.1	1	1.2	0	0.0	50	59.5
		Subtotal	0	0.0	73	86.9	9	10.7	2	2.4	0	0.0	84	100.0
	336	Males	0	0.0	126	37.5	32	9.5	7	2.1	0	0.0	165	49.1
		Females	0	0.0	123	36.6	41	12.2	7	2.1	0	0.0	171	50.9
		Season Total	0	0.0	249	74.1	73	21.7	14	4.2	0	0.0	336	100.0
Mean Length		Males	-		586		602		599		-			
Std. Error			-		2		5		9		-			
Mean Length		Females	-		578		587		599		-			
Std. Error			-		2		4		9		-			

[a] Sample dates were stratified by quartiles based on combined Big Eddy and Middle Mouth 6.0-inch mesh drift gillnet catch totals.

Appendix C7.–Yukon River, Middle Mouth, fall chum salmon 6.0" mesh drift gillnet test fishery project age and sex composition and mean length (mm), 2007.

Sample Dates [a]	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
7/17-18, 20-21	70	Males	0	0.0	17	24.3	5	7.1	0	0.0	0	0.0	22	31.4
24, 28, 30, 8/4-7		Females	0	0.0	33	47.1	15	21.4	0	0.0	0	0.0	48	68.6
Quartile 1		Subtotal	0	0.0	50	71.4	20	28.6	0	0.0	0	0.0	70	100.0
8/8-9, 12-13	51	Males	0	0.0	15	29.4	2	3.9	0	0.0	0	0.0	17	33.3
Quartile 2		Females	0	0.0	26	51.0	7	13.7	1	2.0	0	0.0	34	66.7
		Subtotal	0	0.0	41	80.4	9	17.6	1	2.0	0	0.0	51	100.0
8/14-20, 24	44	Males	0	0.0	10	22.7	2	4.5	0	0.0	0	0.0	12	27.3
Quartile 3		Females	0	0.0	24	54.5	6	13.6	2	4.5	0	0.0	32	72.7
		Subtotal	0	0.0	34	77.3	8	18.2	2	4.5	0	0.0	44	100.0
8/25-26, 28	18	Males	0	0.0	5	27.8	1	5.6	0	0.0	0	0.0	6	33.3
Quartile 4		Females	0	0.0	8	44.4	3	16.7	1	5.6	0	0.0	12	66.7
		Subtotal	0	0.0	13	72.2	4	22.2	1	5.6	0	0.0	18	100.0
	183	Males	0	0.0	47	25.7	10	5.5	0	0.0	0	0.0	57	31.1
		Females	0	0.0	91	49.7	31	16.9	4	2.2	0	0.0	126	68.9
		Season Total	0	0.0	138	75.4	41	22.4	4	2.2	0	0.0	183	100.0
Mean Length		Males	-		590		611		-		-			
Std. Error			-		4		8		-		-			
Mean Length		Females	-		579		590		604		-			
Std. Error			-		2		5		5		-			

[a] Sample dates were stratified by quartiles based on combined Big Eddy and Middle Mouth 6.0-inch mesh drift gillnet catch totals.

Appendix C8.–Yukon River, Big Eddy and Middle Mouth combined, fall chum salmon 6.0" mesh drift gillnet test fishery project age and sex composition and mean length (mm), 2007.

Sample Dates [a]	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
7/16-21, 24,	180	Males	0	0.0	52	28.9	23	12.8	5	2.8	0	0.0	80	44.4
28, 30, 8/2-7		Females	0	0.0	62	34.4	32	17.8	6	3.3	0	0.0	100	55.6
Quartile 1		Subtotal	0	0.0	114	63.3	55	30.6	11	6.1	0	0.0	180	100.0
8/8-13	130	Males	0	0.0	51	39.2	10	7.7	1	0.8	0	0.0	62	47.7
Quartile 2		Females	0	0.0	47	36.2	20	15.4	1	0.8	0	0.0	68	52.3
		Subtotal	0	0.0	98	75.4	30	23.1	2	1.5	0	0.0	130	100.0
8/14-20	107	Males	0	0.0	35	32.7	5	4.7	0	0.0	0	0.0	40	37.4
23-24		Females	0	0.0	54	50.5	11	10.3	2	1.9	0	0.0	67	62.6
Quartile 3		Subtotal	0	0.0	89	83.2	16	15.0	2	1.9	0	0.0	107	100.0
8/25-28	102	Males	0	0.0	35	34.3	4	3.9	1	1.0	0	0.0	40	39.2
Quartile 4		Females	0	0.0	51	50.0	9	8.8	2	2.0	0	0.0	62	60.8
		Subtotal	0	0.0	86	84.3	13	12.7	3	2.9	0	0.0	102	100.0
	519	Males	0	0.0	173	33.3	42	8.1	7	1.3	0	0.0	222	42.8
		Females	0	0.0	214	41.2	72	13.9	11	2.1	0	0.0	297	57.2
		Season Total	0	0.0	387	74.6	114	22.0	18	3.5	0	0.0	519	100.0
Mean Length		Males	-		587		604		599		-			
Std. Error			-		2		4		9		-			
Mean Length		Females	-		579		588		601		-			
Std. Error			-		1		3		6		-			

[a] Sample dates were stratified by quartiles based on combined Big Eddy and Middle Mouth 6.0-inch mesh drift gillnet catch totals.

Appendix C9.–Yukon River, Mountain Village, fall chum salmon 5 7/8" mesh drift gillnet test fishery project age and sex composition and mean length (mm), 2007.

Sample Dates [a]	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
7/17-8/1	133	Males	0	0.0	34	25.6	22	16.5	11	8.3	0	0.0	67	50.4
Quartile 1		Females	0	0.0	30	22.6	25	18.8	11	8.3	0	0.0	66	49.6
		Subtotal	0	0.0	64	48.1	47	35.3	22	16.5	0	0.0	133	100.0
8/2-8/13	129	Males	0	0.0	48	37.2	16	12.4	6	4.7	0	0.0	70	54.3
Quartile 2		Females	0	0.0	38	29.5	19	14.7	2	1.6	0	0.0	59	45.7
		Subtotal	0	0.0	86	66.7	35	27.1	8	6.2	0	0.0	129	100.0
8/14, 16,	129	Males	2	1.6	51	39.5	10	7.8	0	0.0	0	0.0	63	48.8
18-22, 25-29		Females	0	0.0	50	38.8	16	12.4	0	0.0	0	0.0	66	51.2
Quartile 3		Subtotal	2	1.6	101	78.3	26	20.2	0	0.0	0	0.0	129	100.0
8/30-9/4,	141	Males	0	0.0	43	30.5	9	6.4	1	0.7	0	0.0	53	37.6
6, 8-10		Females	0	0.0	75	53.2	13	9.2	0	0.0	0	0.0	88	62.4
Quartile 4		Total	0	0.0	118	83.7	22	15.6	1	0.7	0	0.0	141	100.0
	532	Males	2	0.4	176	33.1	57	10.7	18	3.4	0	0.0	253	47.6
		Females	0	0.0	193	36.3	73	13.7	13	2.4	0	0.0	279	52.4
		Season Total	2	0.4	369	69.4	130	24.4	31	5.8	0	0.0	532	100.0
Mean Length		Males	583		580		589		610		-			
Std. Error			8		2		4		10		-			
Mean Length		Females	-		576		582		598		-			
Std. Error			-		2		3		8		-			

Note: Samples were collected by Asa'carsarmiut Tribal Council technicians.

[a] Sample dates were stratified by quartiles based on Mountain Village 5 ⅞-inch mesh drift gillnet catch totals.

Appendix C10.–Yukon River, Kaltag, fall chum salmon 5 7/8" mesh drift gillnet test fishery project age and sex composition and mean length (mm), 2007.

Sample Dates [a]	Sample Size		Brood Year (Age) 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
7/25-8/2, 4	115	Males	0	0.0	46	40.0	21	18.3	6	5.2	0	0.0	73	63.5
8-16, 18-20		Females	0	0.0	22	19.1	19	16.5	1	0.9	0	0.0	42	36.5
Quartile 1		Subtotal	0	0.0	68	59.1	40	34.8	7	6.1	0	0.0	115	100.0
8/21-25	57	Males	0	0.0	26	45.6	11	19.3	1	1.8	0	0.0	38	66.7
Quartile 2		Females	0	0.0	11	19.3	7	12.3	1	1.8	0	0.0	19	33.3
		Subtotal	0	0.0	37	64.9	18	31.6	2	3.5	0	0.0	57	100.0
8/26-28, 30-31,	89	Males	2	2.2	28	31.5	5	5.6	0	0.0	0	0.0	35	39.3
9/3-7		Females	1	1.1	46	51.7	6	6.7	1	1.1	0	0.0	54	60.7
Quartile 3		Subtotal	3	3.4	74	83.1	11	12.4	1	1.1	0	0.0	89	100.0
9/8, 10-18	90	Males	0	0.0	42	46.7	4	4.4	0	0.0	0	0.0	46	51.1
Quartile 4		Females	0	0.0	41	45.6	3	3.3	0	0.0	0	0.0	44	48.9
		Total	0	0.0	83	92.2	7	7.8	0	0.0	0	0.0	90	100.0
	351	Males	2	0.6	142	40.5	41	11.7	7	2.0	0	0.0	192	54.7
		Females	1	0.3	120	34.2	35	10.0	3	0.9	0	0.0	159	45.3
		Season Total	3	0.9	262	74.6	76	21.7	10	2.8	0	0.0	351	100.0
Mean Length		Males	610		597		611		621		-			
Std. Error			0		2		5		10		-			
Mean Length		Females	570		590		597		602		-			
Std. Error			-		2		4		9		-			

Note: Samples were collected by the City of Kaltag.

[a] Sample dates were stratified by quartiles based on Kaltag 5 ⅞-inch mesh drift gillnet catch totals.

Appendix C11.–Yukon River, Eagle sonar, fall chum salmon variable mesh drift gillnet test fishery project age and sex composition and mean length, 2007.

			Brood Year (Age)											
			2004		2003		2002		2001		2000			
Sample	Sample		(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		Total	
Dates	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
8/10 - 10/4	23	Males	0	0.0	5	21.7	1	4.3	0	0.0	0	0.0	6	26.1
Mesh Size 5.25"		Females	0	0.0	15	65.2	2	8.7	0	0.0	0	0.0	17	73.9
		Subtotal	0	0.0	20	87.0	3	13.0	0	0.0	0	0.0	23	100.0
Mean Length		Males	-		611		615		-		-			
Std. Error			-		14		-		-		-			
Mean Length		Females	-		583		595		-		-			
Std. Error			-		8		30		-		-			
9/8 - 10/4	440	Males	4	0.9	213	48.4	50	11.4	4	0.9	0	0.0	271	61.6
Mesh Size 5.75"		Females	5	1.1	132	30.0	32	7.3	0	0.0	0	0.0	169	38.4
		Subtotal	9	2.0	345	78.4	82	18.6	4	0.9	0	0.0	440	100.0
Mean Length		Males	624		589		611		575		-			
Std. Error			18		2		5		13		-			
Mean Length		Females	582		576		583		-		-			
Std. Error			9		2		4		-		-			
9/8 - 10/4	181	Males	3	1.7	109	60.2	43	23.8	5	2.8	0	0.0	160	88.4
Mesh Size 7.50"		Females	0	0.0	17	9.4	4	2.2	0	0.0	0	0.0	21	11.6
		Subtotal	3	1.7	126	69.6	47	26.0	5	2.8	0	0.0	181	100.0
Mean Length		Males	620		606		628		636		-			
Std. Error			13		3		5		13		-			
Mean Length		Females	-		588		614		-		-			
Std. Error			-		9		4		-		-			
Season Total [a]	644	Males	7	1.1	327	50.8	94	14.6	9	1.4	0	0.0	437	67.9
Combined Mesh		Females	5	0.8	164	25.5	38	5.9	0	0.0	0	0.0	207	32.1
		Subtotal	12	1.9	491	76.2	132	20.5	9	1.4	0	0.0	644	100.0
Mean Length		Males	622		595		619		609		-			
Std. Error			11		2		4		14		-			
Mean Length		Females	582		578		587		-		-			
Std. Error			9		2		4		-		-			

[a] The season total percentages by age group were based on sample size and do not indicate the age composition of the run passage by Eagle sonar.

Appendix C12.–Chandalar River carcass survey, fall chum salmon escapement project age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) [a] 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
9/9-11, 22, 24	175	Males	6	3.4	69	39.4	28	16.0	0	0.0	0	0.0	103	58.9
		Females	8	4.6	45	25.7	16	9.1	3	1.7	0	0.0	72	41.1
		Season Total	14	8.0	114	65.1	44	25.1	3	1.7	0	0.0	175	100.0
Mean Length		Males	573		583		604		-		-			
Std. Error			16		4		6		-		-			
Mean Length		Females	543		551		564		607		-			
Std. Error			13		4		6		19		-			

Note: Samples were collected by the US Fish and Wildlife Service (USFWS).

[a] Ages were obtained using vertebrae.

Appendix C13.–Delta River carcass survey, fall chum salmon escapement project age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) [a] 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
10/31, 11/7, 21	179	Males	1	0.6	78	43.6	25	14.0	3	1.7	0	0.0	107	59.8
		Females	3	1.7	53	29.6	16	8.9	0	0.0	0	0.0	72	40.2
		Season Total	4	2.2	131	73.2	41	22.9	3	1.7	0	0.0	179	100.0
Mean Length		Males	580		598		619		653		-			
Std. Error			-		3		5		24		-			
Mean Length		Females	557		569		591		-		-			
Std. Error			12		3		6		-		-			

[a] Ages were obtained using vertebrae.

Appendix C14.–Kantishna fish wheel, fall chum salmon escapement project age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) [a] 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
8/29-31, 9/1-24	179	Males	1	0.6	84	46.9	25	14.0	6	3.4	0	0.0	116	64.8
		Females	0	0.0	43	24.0	15	8.4	4	2.2	1	0.6	63	35.2
		Season Total	1	0.6	127	70.9	40	22.3	10	5.6	1	0.6	179	100.0
Mean Length		Males	580		564		565		581		-			
Std. Error			-		3		8		16		-			
Mean Length		Females	-		542		558		585		630			
Std. Error			-		3		8		7		-			

[a] Ages were obtained using vertebrae.

Appendix C15.–Sheenjek River beach seine, fall chum salmon escapement project age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) [a] 2004 (0.2) No.	%	2003 (0.3) No.	%	2002 (0.4) No.	%	2001 (0.5) No.	%	2000 (0.6) No.	%	Total No.	%
9/9, 11, 13, 15, 17, 19, 21, 23	76	Males	0	0.0	20	26.3	14	18.4	6	7.9	0	0.0	40	52.6
		Females	0	0.0	20	26.3	13	17.1	3	3.9	0	0.0	36	47.4
		Season Total	0	0.0	40	52.6	27	35.5	9	11.8	0	0.0	76	100.0
Mean Length		Males	-		599		624		666		-			
Std. Error			-		6		7		11		-			
Mean Length		Females	-		584		581		597		-			
Std. Error			-		6		6		3		-			

[a] Ages were obtained using vertebrae.

APPENDIX D
COHO SALMON TABLES

Appendix D1.–Yukon River, District 1, coho salmon commercial gillnet harvest age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (2.1) No.	%	2002 (3.1) No.	%	Total No.	%
8/14	113	Males	527	8.0	2,986	45.1	0	0.0	3,513	53.1
Period 1		Females	234	3.5	2,752	41.6	117	1.8	3,103	46.9
		Subtotal	761	11.5	5,738	86.7	117	1.8	6,616	100.0
8/19	111	Males	55	3.6	721	46.8	0	0.0	776	50.5
Period 2		Females	97	6.3	637	41.4	28	1.8	762	49.5
		Subtotal	152	9.9	1,358	88.3	28	1.8	1,538	100.0
8/24	109	Males	204	5.5	1,326	35.8	102	2.8	1,632	44.0
Period 3		Females	204	5.5	1,802	48.6	68	1.8	2,074	56.0
		Subtotal	408	11.0	3,128	84.4	170	4.6	3,706	100.0
8/26	0	Males	258	5.5	1,678	35.8	129	2.8	2,065	44.0
Period 4 [a]		Females	258	5.5	2,280	48.6	86	1.8	2,624	56.0
		Subtotal	516	11.0	3,958	84.4	215	4.6	4,689	100.0
8/30	112	Males	106	2.7	1,764	44.6	71	1.8	1,941	49.1
Period 5		Females	176	4.5	1,800	45.5	35	0.9	2,011	50.9
		Subtotal	282	7.1	3,564	90.2	106	2.7	3,952	100.0
9/3	111	Males	19	2.7	281	39.6	6	0.9	307	43.2
Period 6		Females	57	8.1	332	46.8	13	1.8	402	56.8
		Subtotal	77	10.8	613	86.5	19	2.7	709	100.0
9/6	0	Males	7	2.7	101	39.6	2	0.9	111	43.2
Period 7 [b]		Females	21	8.1	120	46.8	5	1.8	145	56.8
		Subtotal	28	10.8	221	86.5	7	2.7	256	100.0
9/9	0	Males	7	2.7	101	39.6	2	0.9	110	43.2
Period 8 [b]		Females	21	8.1	119	46.8	5	1.8	144	56.8
		Subtotal	27	10.8	220	86.5	7	2.7	254	100.0
Total	556	Males	1,183	5.4	8,958	41.2	313	1.4	10,454	48.1
All Periods		Females	1,069	4.9	9,842	45.3	356	1.6	11,266	51.9
		Total	2,252	10.4	18,799	86.6	669	3.1	21,720	100.0
Mean Length		Males	570		587		564			
Std. Error			7		2		16			
Mean Length		Females	580		581		579			
Std. Error			4		2		10			

Note: All District 1 fall commercial fishing periods allowed unrestricted mesh size gillnets. However, it is likely fishers used 6-inch or smaller mesh size.

[a] Age and sex composition was estimated from Period 3.

[b] Age and sex composition was estimated from Period 6.

Appendix D2.–Yukon River, Big Eddy, coho salmon 6.0" mesh drift gillnet test fishery project age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (2.1) No.	%	2002 (3.1) No.	%	Total No.	%
7/17, 30, 8/3, 6-7, 8/9-14, 17-19, 23-28	150	Males	9	6.0	53	35.3	3	2.0	65	43.3
		Females	9	6.0	73	48.7	3	2.0	85	56.7
		Season Total	18	12.0	126	84.0	6	4.0	150	100.0
Mean Length		Males	585		587		595			
Std. Error			8		4		25			
Mean Length		Females	589		589		590			
Std. Error			7		2		6			

Appendix D3.–Yukon River, Middle Mouth, coho salmon 6.0" mesh drift gillnet test fishery project age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (2.1) No.	%	2002 (3.1) No.	%	Total No.	%
7/28, 8/3-8, 11-23, 8/25-26, 28	119	Males	16	13.4	63	52.9	0	0.0	79	66.4
		Females	3	2.5	33	27.7	4	3.4	40	33.6
		Season Total	19	16.0	96	80.7	4	3.4	119	100.0
Mean Length		Males	577		581		-			
Std. Error			9		5		-			
Mean Length		Females	583		591		586			
Std. Error			12		4		11			

Appendix D4.–Yukon River, Big Eddy and Middle Mouth combined, coho salmon 6.0" mesh drift gillnet test fishery project age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (2.1) No.	%	2002 (3.1) No.	%	Total No.	%
7/17, 28, 30-8/28	269	Males	25	9.3	116	43.1	3	1.1	144	53.5
		Females	12	4.5	106	39.4	7	2.6	125	46.5
		Season Total	37	13.8	222	82.5	10	3.7	269	100.0
Mean Length		Males	580		584		595			
Std. Error			6		3		25			
Mean Length		Females	588		590		588			
Std. Error			6		2		6			

Appendix D5.–Yukon River, Mountain Village, coho salmon 5 7/8" mesh drift gillnet test fishery project age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (2.1) No.	%	2002 (3.1) No.	%	Total No.	%
7/18, 20, 22-25, 27-28, 31	327	Males	27	8.3	133	40.7	2	0.6	162	49.5
8/14, 16-22, 24, 27, 9/9, 11		Females	21	6.4	135	41.3	9	2.8	165	50.5
		Season Total	48	14.7	268	82.0	11	3.4	327	100.0
Mean Length		Males	586		587		543			
Std. Error			4		3		18			
Mean Length		Females	588		593		590			
Std. Error			6		2		7			

Note: Samples were collected by Asa'carsarmiut Tribal Council technicians.

Appendix D6.–Yukon River, Kaltag, coho salmon 5 7/8" mesh drift gillnet test fishery project age and sex composition and mean length (mm), 2007.

Sample Dates	Sample Size		Brood Year (Age) 2004 (1.1) No.	%	2003 (2.1) No.	%	2002 (3.1) No.	%	Total No.	%
8/15-16, 18, 20-28,	82	Males	7	8.5	27	32.9	0	0.0	34	41.5
30-31, 9/2-7, 9-18		Females	9	11.0	39	47.6	0	0.0	48	58.5
		Season Total	16	19.5	66	80.5	0	0.0	82	100.0
Mean Length		Males	603		595		-			
Std. Error			14		6		-			
Mean Length		Females	601		598		-			
Std. Error			6		3		-			

Note: Samples were collected by technicians employed by the City of Kaltag.