Fishery Data Series No. 07-04

Salmon Age and Sex Composition and Mean Lengths for the Yukon River Area, 2005

by

James Bales

February 2007

Alaska Department of Fish and Game **Divisions of Sport Fish and Commercial Fisheries**

Symbols and Abbreviations

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

Weights and measures (metric)

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

Weights and measures (English)

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

Time and temperature

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

Physics and chemistry

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

General

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

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

FISHERY DATA SERIES NO. 07-04

SALMON AGE AND SEX COMPOSITION AND MEAN LENGTHS FOR THE YUKON RIVER AREA, 2005

by

James Bales

Alaska Department of Fish and Game, Division of Commercial Fisheries, Anchorage

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

February 2007

This investigation was partially financed by the United States Fish and Wildlife Service Agreement No. 701815G339 (ADF&G IHG-05-017), 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.

The Division of Sport Fish Fishery Data Series was established in 1987 for the publication of technically oriented results for a single project or group of closely related projects. Since 2004, the Division of Commercial Fisheries has also used the Fishery Data Series. Fishery Data Series reports are intended for fishery and other technical professionals. Fishery Data Series reports are available through the Alaska State Library and on the Internet: http://www.sf.adfg.state.ak.us/statewide/divreports/html/intersearch.cfm This publication has undergone editorial and peer review.

James Bales,
Alaska Department of Fish and Game, Division of Commercial Fisheries,
333 Raspberry Rd., Anchorage, AK 99518, USA

This document should be cited as:
Bales, J. 2007. Salmon age and sex composition and mean lengths for the Yukon River Area, 2005. Alaska Department of Fish and Game, Fishery Data Series No. 07-04, Anchorage.

TABLE OF CONTENTS

Page

TABLE OF CONTENTS (Continued)

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF APPENDICES (Continued)

LIST OF APPENDICES (Continued)

ABSTRACT

Biological data were collected from Chinook *Oncorhynchus tshawytscha*, summer chum *O. keta*, fall chum *O. keta*, and coho salmon *O. kisutch* runs at 31 locations along the Yukon River drainage in 2005. Age, sex, and length (ASL) data were obtained from 9,692 Chinook, 7,035 summer chum, 4,718 fall chum, and 2,293 coho salmon from commercial and subsistence harvests, as well as test fisheries and escapement projects. Samples were collected from 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.

In 2005, Chinook salmon commercial harvests were primarily composed of age-1.3 (45.8%) and age-1.4 (48.3%) fish. Chinook salmon age-1.2 and age-1.5 percentages were below average in many of the commercial and escapement projects. Summer chum salmon commercial harvests were dominated by age-0.3 fish; 88.4% in gillnet and fish wheel harvests from Districts 1, 2, and 6. Fall chum salmon commercial harvests in District 1 and 6, were primarily composed of age-0.3 fish (97.4%). Both summer and fall chum salmon samples collected in all other projects (subsistence, test fish, and escapement) were also largely made up of age-0.3 fish. In 2005, summer and fall chum salmon age-0.3 percentages were above average compared with historical percentages.

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

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 Yukon headwaters in 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 three 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 2005). 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 to begin their upstream migration during late May. These runs are followed by fall chum salmon, which enter the Yukon River from mid-July through early September. Fall chum are genetically distinct from summer chum salmon (Crane et al. 2001). 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 mainstem 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" and larger mesh sizes or unrestricted mesh size. In 2005, there were no mesh size restrictions. 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 gillets 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 4, 5, and 6. In recent years, summer chum salmon have not been targeted by commercial fishers (Steve Hayes, Summer Season Area Manager, Alaska Department of Fish and Game (ADF&G), personal communication). Fall chum and coho salmon are typically commercially harvested in Districts 1, 2, 4, and 5. Canadian fishers harvest Chinook and fall chum salmon predominantly with gillnets and fish wheels near Dawson, Yukon Territory (JTC 2005).

Subsistence fishing occurs throughout the drainage with most of the effort concentrated in the mainstem 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 were set and drift gillnets, and a mixture of gillnets and fish wheels in Districts 4, 5, and 6 (Busher and Hamazaki 2004). As with commercial fishing, 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 and changed to 6-inch or smaller mesh sizes, known as 'chum nets', later in the summer run to target smaller chum salmon.

Test fish projects provide assessments of run strength, timing, and age and sex composition. Test fish projects were operated in the mainstem Yukon River; hence, the harvest was composed of mixed stocks. Recent test fish projects operated during the Chinook and summer chum salmon season were Big Eddy and Middle Mouth set gillnet (1979–2005) and Big Eddy and Middle Mouth drift gillnet (2001–2003, 2005) in District 1 near Emmonak, Pilot Station sonar drift gillnet (1963–2005) and Marshall drift gillnet (1999–2000, 2005) in District 2, Eagle sonar drift gillnet (2005) just downstream of the Alaska-Canada border, and Sheep Rock and White Rock fish wheels (1982–2005) in Canada just upstream of the border (Figures 1 and 2). Test fish projects operated during the fall chum and coho salmon season were Big Eddy and Middle Mouth drift gillnet (2001–2005), Mountain Village drift gillnet (1995–2005) in District 2, and Kaltag drift gillnet (1991–2005) in Subdistrict 4-A (Figure 2).

Annual assessments of spawning escapements were monitored in Yukon River tributaries by means of weirs, counting towers, sonar projects, 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 (1981–2005, operated as sonar and tower some years) near Saint Mary's and Tozitna River weir (2002–2005) downstream of the village of Tanana (Figures 2 and 3). Three weirs are currently operated in tributaries of the Koyukuk River: Gisasa River weir (1994–2005), Henshaw Creek weir (2000–2005) near Allakaket, and Clear Creek weir (1995–2005 operated as a tower some years). The Chena River tower (1993–2005) and Salcha River tower (1993–2005) operated in tributaries of the Tanana River near Fairbanks (Figure 3). Other projects operating in the Tanana River drainage were the Toklat River carcass survey (1994–2005, operated as sonar some years) in a tributary of the Kantishna River and the Delta River escapement/tagging/carcass survey (1971–2005) near Delta Junction. The Anvik River sonar project (1979–2005) operated near Anvik, Sheenjek River sonar (1981–2005), a tributary of the Porcupine River, operated upstream

of Fort Yukon, and Chandalar River sonar conducted a carcass survey in 2005 near Venetie (Figures 2 and 3).

Yukon River Area salmon age, sex, and length (ASL) data have been collected since 1960. Data were historically recorded on 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 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). 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., Karpovich and DuBois *In prep*). Currently, there is an Alaska Department of Fish and Game (ADF&G) project to incorporate all historic salmon ASL data into a centralized database; it is expected that this project will be completed shortly and will be accessible to the public in June 2007.

The purpose of this report is to present the 2005 Yukon River Area salmon ASL summary data collected at various commercial, subsistence, test, 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 pre-season run outlooks, assessment of the proportion of females and older aged fish in escapements, and development of spawner-recruit models and biological escapement goals.

OBJECTIVES

Summarize age, sex, and length data from Chinook, summer chum, fall chum, and coho salmon collected by various organizations in 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 fish, and escapement projects throughout the Yukon River drainage. Various state, federal, Canadian, and tribal agencies collected these data. ADF&G 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.

SAMPLE DESIGN

A stratified systematic sampling design (Cochran 1977) 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 fish 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 $\alpha = 0.05$ and $d = 0.1$ (Bromaghin 1993).

The proportion assigned by age and sex in each stratum were used to characterize the harvest by period in commercial samples and escapement estimates by stratum for sonar and weir projects. Commercial harvest data was from ADF&G fish ticket harvest reports and daily escapement estimates were provided by project leaders. The apportioned fish in each stratum were then summed by age and sex to estimate the composition of the population for the entire season. These procedures for estimating the age and sex compositions for stratified sampling designs were outlined by Cochran (1977):

$$Ctj = CtPtj, \tag{1}$$

$$C.j = \sum_{t=1}^{T} Ctj$$

Where:

C_{tj} = estimated number of fish of age/sex class j in stratum t,

C_t = number of fish caught in stratum t,

P_{tj} = proportion of sample in stratum t of age/sex class j,

T = total number of strata, and

$C_{.j}$ = estimated number of fish of age/sex class j for all strata T.

As observed from a given location, the ASL composition of a returning salmon population often changes over the course of the season (Molyneaux and Folletti 2005); 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 usually met these criteria. Subsistence, test fish, and carcass sampling projects frequently failed to meet one or more of these criteria and were summarized by sample size only. Sample age and sex percentages, as well as length data, were weighted by the respective harvest or escapement from all species in the commercial harvests, all species at the East Fork Andreafsky River, summer chum salmon in the Anvik River, summer chum salmon in Clear Creek, all species in the Gisasa River, all species in Henshaw Creek, and all species in the Tozitna River.

GENERAL SAMPLING PROCEDURES

Scales were removed from the preferred area of the fish and mounted on gum cards for future age determination in the ADF&G laboratory (INPFC 1963). The preferred area is located on the left side of the fish, two 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 three 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 one year or longer, hence three scales were removed from these fish to increase the chance of selecting a scale that could

be aged. In some tributaries, vertebrae are used to age the fish 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. Big Eddy and Middle Mouth test fisheries and carcass sampling surveys were the only projects where internal organs were examined; hence, these projects have accurate sex composition. Other test fish 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 tail fork (METF) 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 Excel files. During lower river commercial harvest, test, and subsistence sampling, age and length data were recorded directly into Juniper data loggers and loaded into an inseason database which streamlined analyses.

SAMPLE COLLECTION

Commercial Harvest Sampling

CFD crews conducted commercial harvest sampling for Chinook, summer and fall chum, and coho salmon in Districts 1, 2, 5, and 6. Sample goals were up to 400 Chinook salmon, 160 summer and fall chum salmon, and 120 coho salmon per period per district. District 1 samples were collected from a fish processor in Emmonak and District 2 samples were 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 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. In District 5, 30 female Chinook were sampled as part of a fecundity study in addition to the regular commercial sample.

Subsistence Harvest Sampling

Collecting subsistence harvest samples is opportunistic and depends on timing, availability, willingness of fishers to participate, and logistics. 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 staff from CFD, USFWS, and Emmonak Tribal Council. Crews sampled fish during weekly subsistence fishing openings in District 1, which occurred from 8 PM Monday to 8 AM Wednesday and from 8 PM Thursday to 8 AM Saturday. Typically crews traveled by boat on Tuesdays and Fridays 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 USFWS inseason survey. If fish were already processed, scales were collected without corresponding sex and length data.

The Yukon River Drainage Fisheries Association (YRDFA) employed individuals from selected villages to sample subsistence harvests of Chinook salmon. These samples were primarily from villages and fishing camps located in District 4 along the mainstem Yukon River: Nulato, Galena, Bishop Rock, and Ruby. 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 and CFD crews collected fall chum salmon samples from Subdistrict 5-B.

Test Fish Sampling

Test fish crews sampled up to 30 Chinook, summer chum, and fall chum salmon daily; and up to 20 coho salmon daily. CFD test fish crews at Big Eddy and Middle Mouth sampled Chinook salmon from 8.5" mesh set gillnets and 8.25" mesh drift gillnets, summer chum salmon from 5.5” drift gillnets, and fall chum and coho salmon from 6.0" mesh drift gillnets. These lower river test fish were cut for accurate sex determination. At Marshall, Association of Village Council Presidents test fish crews sampled Chinook salmon using 8.25" drift gillnets. Test fish crews in Mountain Village (Asacarsarmiut Traditional Council) and Kaltag (City of Kaltag) sampled fall chum and coho salmon from 5 ⅞" drift gillnets. Pilot Station sonar crew (CFD) sampled Chinook salmon from a variable mesh drift gillnet, consisting of 2.75", 4.0", 5.0" 5.25", 5.75", 6.5", 7.5", and 8.5" mesh panels. The Eagle sonar crew (CFD) also sampled Chinook salmon using drift gillnets of varying mesh sizes (2.75", 4.0", 5.5", 6.5", 7.5", and 8.5"). Test fish 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 sampled Chinook salmon (data from this project were not included in this report).

Escapement Sampling

Escapement sampling was conducted by several organizations operating weirs, sonar projects, counting towers, and other ground based surveys. Escapement 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, and Tozitna rivers; and Henshaw Creek. Summer chum salmon were live sampled using a weir trap in Clear Creek and a beach seine in the Anvik River. An example of weir sampling and operation methods is provided by Sundlov et al. (2003). Chinook salmon

carcasses were sampled using ground based surveys in the Anvik, Chena, and Salcha rivers. Doxey et al. (2005) describes carcass sampling methods in the Chena and Salcha rivers.

Four fall chum salmon escapement projects, operating on the Chandalar, Delta, Sheenjek, and Toklat Rivers, used vertebrae to determine ages. The fish collected in these projects were either hand-picked carcasses or captured with a beach seine at or near the spawning grounds, where scales typically exhibit reabsorbtion ; hence vertebrae are a more accurate aging structure than fish scales. Coho salmon were sampled from a weir trap on the East Fork Andreafsky River.

USFWS collected samples at the East Fork Andreafsky, Gisasa, Henshaw, and Chandalar rivers. Samples from Clear Creek and the Tozitna River were collected by the Bureau of Land Management (BLM). ADFG-CFD collected samples from the Anvik, Chena, Salcha, Toklat, Delta, and Sheenjek rivers.

AGE DETERMINATION

Age is determined from the annuli of scales or vertebrae samples. The scales, which are mounted on gum cards, are 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 are frozen, cleaned, and dried; ages are also determined by counting the annuli that form during winter conditions. Ages were entered into Access, onto mark-sense forms, or into an Excel file depending upon which format sex and length data were originally recorded in. Ages were recorded using European notation, number of freshwater annuli separated by a decimal from 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.

DATA PROCESSING

Age, sex, and length data collected from various projects were summarized by species, project, and gear type. Chinook and summer chum salmon ASL data from lower river commercial harvests (Districts 1 and 2), District 1 subsistence harvest, Big Eddy and Middle Mouth test fisheries, and Anvik escapement projects were summarized from a Access database. Students from the University of Alaska in Anchorage created this database and wrote summary ASL programs. These programs summarized sample data only; ADF&G staff were responsible for applying sample data to harvest numbers. Most other projects used mark-sense forms for recording data. An Opscanner reads the mark-sense forms and creates an ASCII file. Summary programs were run which weight the season total for age, sex, and average length by the harvest or escapement in each stratum from the processed mark sense forms. A third data processing method was used for data received in Excel format and summaries were based on sample sizes calculated using Excel functions. The District 5 and 6 commercial ASL data was received in Excel format and weighted by harvest. The commercial ASL data in Access and Excel formats were converted into the ASCII file format to run the summary program for average length calculation weighted by harvest.

RESULTS

CHINOOK SALMON

A total of 9,692 Chinook salmon were sampled for ASL data from the Yukon River in 2005 (Table 1). Chinook salmon ASL summary tables for commercial, subsistence, test fishery, and escapement sampling projects are presented in Tables 1–6 and Appendices A1–A29.

Chinook Salmon Commercial Harvest Age and Sex Composition

Commercial harvest samples were collected from 3,261 Chinook salmon in Districts 1, 2, 5, and 6 (Tables 1 and 2; Appendices A1–A4). The age and sex from these samples were applied to the harvests by ADF&G. All commercial periods in Districts 1 and 2 permitted unrestricted mesh size gillnets. During June, the lower river commercial fishery was directed towards Chinook salmon because the summer chum salmon market was lacking; therefore 8.0" or larger mesh gillnets were likely used. Gillnets and fish wheels were used in District 5, and fish wheels were used in District 6. The combined age composition of the Yukon River Chinook salmon commercial harvest samples in 2005 was primarily made up of both age-1.3 (45.8%) and age-1.4 (48.3%) fish. Females represented 55.7% of the total (Table 2).

Table 3 presents the District 1 commercial Chinook salmon age distribution from 8.0" and larger mesh gillnets from 1985 through 2005. In 2005, the percentage of 5-year old fish (42.4%) was greater compared with the historical average (23.3%) and the 2005 percentage of 6-year old fish (51.8%) was lower than the average (63.0%). The percentages of both 4-year and 7-year old fish were lower than the historical averages in 2005. The percentage of the 2005 samples that were female (59.7%) was above the historical average of 50.8%.

Chinook Salmon Subsistence Harvest Age and Sex Composition

Subsistence harvest samples were collected from 1,224 Chinook salmon in Districts 1 and 4. (Table 1; Appendices A5–A13). Subsistence harvest estimates are not available, therefore sample age and sex percentages by location and gear type are reported. Subsistence harvest samples were collected from 5.5" and 8.5" mesh gillnets in District 1, and 8.5" and unknown mesh size gillnets in District 4 (Subdistricts 4-A, 4-B, and 4-C). The age composition of the subsistence samples was similar the commercial harvest, with age-1.3 and age-1.4 fish being most prevalent. One exception to this was samples collected from smaller 5.5" mesh gillnets in District 1, which had a larger percentage of age-1.2 (30.3%) fish than age-1.4 (24.2%). The percentage of females in the subsistence samples ranged from 13.9% of the 5.5" mesh gillnet District 1 samples (sample size of only 36 fish) to 61.3% of the Kaltag samples.

Chinook Salmon Test Fish Projects Age and Sex Composition

Samples were collected at five test fish project sites from 2,392 Chinook salmon in the Alaskan portion of the Yukon River (Table 1; Appendices A14–A22). Samples were stratified by test fish catch quartiles or by mesh size at Pilot Station and Eagle Sonar. The age distribution of the 2005 test fish samples differed between projects. The Big Eddy and Middle Mouth 8.5" mesh set gillnet projects had the highest percentages of age-1.4 fish with 58.1% and 51.7%, respectively. The lowest percentages of age-1.4 fish were at the Pilot Station (30.1%) and Eagle (36.8%) sonar projects. These variable mesh size gillnet projects had the highest percentages of age-1.2 fish with 9.7% at Pilot Station and 8.2% at Eagle. The 8.25" mesh drift gillnet project samples all had fairly even representation of age-1.3 and -1.4 fish (42.9% and 48.1% at Big Eddy; 51.5% and

47.0% at Middle Mouth; 45.5% and 49.0% at Marshall). The percentage of females in the test fish samples ranged from 32.1% at Pilot Station to 55.3% in the Big Eddy 8.5" mesh set gillnet samples.

Table 4 presents the combined Big Eddy and Middle Mouth Chinook salmon age distribution from the 8.5" mesh set gillnet test fish catches from 1985 through 2005. In 2005, the percentage of 5-year old fish (40.9%) was greater compared with the historical average (23.4%) and the 2005 percentage of 6-year old fish (55.0%) was lower than the average (67.9%). The percentage of 7-year olds was lower in 2005 (2.5%) than the historical average of 7.2%. Females made up 48.9% of the 2005 samples, which was below the historical average of 54.0%.

Chinook Salmon Escapement Projects Age and Sex Composition

Samples were collected from 2,785 Chinook salmon at seven escapement sampling locations in tributaries of the lower and middle Yukon River (Table 1; Appendices A23–A29). Age and sex composition from the weir trap samples collected at the East Fork Andreafsky River, Gisasa River, Henshaw Creek, and Tozitna River escapement monitoring projects were applied to the escapement estimates. These estimates are preliminary and individual project reports by the participating agencies should be referenced for final escapement, age, and sex estimates. The dominant Chinook salmon age class at most escapement sampling projects was age 1.3, ranging from 43.1% in the Tozitna River weir samples to 64.3% in the Andreafsky East Fork weir samples. This was not observed in the Salcha River carcass samples which had a higher percentage of age-1.4 fish (46.2%) than age-1.3 fish (41.5%). Sampling projects that had relatively high percentages of age-1.2 fish include the East Fork Andreafsky River (15.0%), the Gisasa River (28.5%), Henshaw Creek (27.9%), and the Tozitna River (29.0%). The percentage of females in the escapement samples ranged from 27.2% in the Tozitna River weir samples to 54.3% in the Salcha River carcass samples.

A historical summary of age and female percentages from long standing escapement projects is presented in Table 5. At the Anvik and Salcha rivers, samples were collected using carcass surveys. At the Chena River, samples were collected primarily from carcasses; however, some years include a mixture of samples from carcasses and electro-shocked fish. The East Fork Andreafsky River samples were collected from a weir trap since 1994; before that, sample collection methods were not well documented. The percentages of age-1.3 fish in the 2005 samples were above the historical averages for all four locations (Table 5).

Chinook Salmon Mean Length

The mean lengths of Chinook salmon, by sex and project, are summarized in Table 6. The average of the mean lengths for males by age were 325 mm for age 1.1, 583 mm for age 1.2, 747 mm for age 1.3, 824 mm for age 1.4, 747 mm for age 2.3, 910 mm for age 1.5, 837 mm for age 2.4, and 900 mm for age 2.5. The average of the mean lengths for females by age were 569 mm for age 1.2, 786 mm for age 1.3, 841 mm for age 1.4, 771 mm for age 2.3, 901 mm for age 1.5, and 843 mm for age 2.4.

SUMMER CHUM SALMON

A total of 7,035 summer chum salmon were sampled for ASL data from the Yukon River area in 2005 (Table 7). Summer chum salmon ASL summary tables for commercial, subsistence, test, and escapement sampling projects are presented in Tables 7–11; Appendices B1–B14.

Summer Chum Salmon Commercial Catch Age and Sex Composition

Commercial harvest samples were collected from 1,703 summer chum salmon in Districts 1, 2, and 6 (Tables 7 and 8; Appendices B1–B3). All commercial periods in District 1 and 2 permitted unrestricted mesh size gillnets. District 6 commercial harvests of summer chum salmon were from fish wheels. The combined age composition of the Yukon River summer chum salmon commercial harvest in 2005 was dominated by age-0.3 fish (88.4%). Females represented 48.0% of the harvest (Table 8).

Summer Chum Salmon Subsistence Harvest Age and Sex Composition

Subsistence harvest samples were collected from 376 summer chum salmon in District 1 (Table 7; Appendices B4–B5). Samples were collected from 5.5" mesh gillnets. Age-0.3 fish made up 74.5% of the sampled fish, while females made up 33.8%. Sex was not recorded for all fish sampled.

The age composition from the combined subsistence and commercial summer chum samples (n=2,079) from all gear types and locations was composed of 83.3% age-0.3 fish in 2005 (Table 9). This is different from the historical average (1985 through 2004) which was made up of 46.8% age-0.3 and 50.2% age-0.4 fish.

Summer Chum Salmon Test Fish Projects Age and Sex Composition

Samples were collected at two test fish project sites from 754 summer chum salmon in the Lower Yukon River (Table 7; Appendices B6–B8). Age-0.3 fish made up 89.2% of the samples collected, with 53.9% of the samples being female.

Table 10 presents the combined Big Eddy and Middle Mouth summer chum salmon age distribution from the 5.5" mesh gillnet test fish catches from 1985 through 2005. In 2005, the percentage of age-0.3 fish (89.8%) was greater compared with the historical average (44.2%) and the 2005 percentage of age-0.4 fish (9.9%) was lower than the average (52.0%). Females made up 54.5% of the 2005 samples, which was below the historical average of 59.2%.

Summer Chum Salmon Escapement Projects Age and Sex Composition

Samples were collected at six escapement project sites from 4,202 summer chum salmon in tributaries of the lower and middle Yukon River (Table 7; Appendices B9–B14). Age and sex percentages from the samples were applied to the escapement estimates. These estimates are preliminary and individual project reports by the participating agencies should be referenced for final escapement age and sex estimates. Similar to what was found in the other projects, age-0.3 (94.4%) fish were the dominant age class in the escapement samples. The average percentage of females in the escapement samples was 46.7%.

Summer Chum Salmon Mean Length

The mean lengths of summer chum salmon by sex and project are summarized in Table 11. The average of the mean lengths for age-0.3 summer chum males was 582 mm and the average for age-0.3 females was 556 mm (Table 11; Appendices B1–B14).

FALL CHUM SALMON

A total of 4,718 fall chum salmon were sampled for ASL data from the Yukon River in 2005 (Table 7). Fall chum salmon ASL summary tables for commercial, subsistence, test, and escapement sampling projects are presented in Tables 7, 8, 11 and Appendices C1–C12.

Fall Chum Salmon Commercial Harvest Age and Sex Composition

Commercial harvest samples were collected from 2,776 fall chum salmon in the District 1 and 6 (Tables 7, 8; Appendices C1–C2). All District 1 fall chum commercial fishing periods were restricted to 6.0" or smaller mesh gillnets by regulation. District 6 commercial harvests of fall chum salmon were from fish wheels. Age-0.3 (97.4%) fish dominated the fall chum commercial harvest. Females represented 54.8% of the total.

Fall Chum Salmon Subsistence Harvest Age and Sex Composition

Subsistence fish wheel harvest samples were collected from 302 fall chum salmon in Subdistrict 5-B (Table 7; Appendix C3). Age-0.3 fish made up 98.7% of the subsistence sampled fish and 45.0% were females.

Fall Chum Salmon Test Fish Projects Age and Sex Composition

Samples were collected from four test fish projects from 1,195 fall chum salmon in the lower and middle Yukon River (Table 7; Appendices C3–C8). The samples were primarily made up of age-0.3 (96.9%) fish. Females made up 58.5% of the fish sampled during the test fish projects.

Fall Chum Salmon Escapement Projects Age and Sex Composition

Samples were collected at four escapement project sites from 710 fall chum salmon in Yukon River tributaries (Table 7; Appendices C9–C12). Fall chum escapement projects collected vertebrae samples to determine age instead of scales, which are used in all other projects in the Yukon area. Ages from vertebrae samples were 91.2 % age-0.3 fish, similar to ages from scale samples in the other fall chum projects. Fish sampled during the escapement projects were composed of 41.1% females.

Fall Chum Salmon Mean Length

The mean lengths of fall chum salmon, by sex and project, are summarized in Table 11. The average of the mean lengths of the age-0.3 fish for all projects combined were 607 mm for males and 584 mm for females (Table 11; Appendices C1–C12).

COHO SALMON

A total of 2,293 coho salmon were sampled for ASL data from the Yukon River Area in 2005 (Table 12). Coho salmon ASL summary tables for commercial, test fishery, and escapement sampling projects are presented in Tables 12 and 13 and Appendices D1–D8.

Coho Salmon Commercial Harvest Age and Sex Composition

ASL data was collected from 1,716 coho salmon in the Districts 1 and 6 commercial harvests (Table 12; Appendices D1–D2). All District 1 coho commercial fishing periods were restricted to 6.0" or smaller mesh gillnets by regulation. Fish wheels were used to harvest the fish in District 6. Most of the commercial samples were collected in District 1, with age-2.1 fish making up 88.9% of the fish sampled, 49.6% of which were female.

Coho Salmon Test Fish Projects Age and Sex Composition

Samples were collected at four test fish project sites from 301 coho salmon in the lower and middle Yukon River (Table 12; Appendices D3–D7). The test fish samples were dominated by age-2.1 (81.6%) fish with 45.9% of them being female.

Coho Salmon Escapement Projects Age and Sex Composition

Samples were collected at the East Fork Andreafsky River weir from 276 coho salmon (Table 12; Appendix D8). Age-2.1 fish made up 84.8% of the samples and 52.6% were female.

Coho Salmon Mean Length

The mean lengths of coho salmon are summarized by sex and project in Table 13. The average mean lengths of the age-2.1 fish for all projects combined were 569 mm for both males and females (Table 13; Appendices D1–D8).

DISCUSSION

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

Biases from small sample sizes, stratum, or period are sometimes unavoidable. Sufficient sample sizes were collected during most commercial openings. Small sample sizes of Chinook salmon were collected from District 6 commercial openings, but this was a function of small harvests (Appendix A4). There were a large number of fall chum and coho salmon commercial samples collected due to the large number of commercial openings during the fall season (Appendices C1, C2, D1, and D2). Most of the subsistence sampling projects had adequate sample sizes (Tables 1 and 7), with the Galena Chinook salmon project having the smallest number of samples (n = 64). Test fish sample sizes were also adequate, with the Big Eddy and Middle Mouth drift projects collecting the smallest number of samples. Sample sizes were satisfactory at most escapement projects (Tables 1, 7, and 12). Insufficient samples sizes do exist for individual strata for some of the projects. When sample sizes are below the targeted number, care should be used when interpreting the data.

Another possible bias, scale reabsorption, exists in samples collected from carcasses as well as from many of the escapement projects. This potential bias is caused by the margin of the scale being reabsorbed in the last few weeks of a salmon's life as an energy reserve (Clutter and Whitesel 1956). Scale reabsorption can lead to the under aging of salmon when little evidence of the outermost annulus remains. Scale reabsorption normally becomes more pronounced the farther upriver the samples are collected. For these reasons, vertebrae are collected for aging 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 dominate the smaller sizes. Gillnets are size selective in relation to mesh size and 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. 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 and Folletti (2005).

SALMON AGE COMPOSITION

The 2005 Yukon River escapement sampling projects had higher percentages of 4-year old Chinook salmon than most of the commercial, subsistence, and test fish projects (Table 1). Projects that also had relatively high percentages of 4-year old fish in 2005 include those with samples collected from fish wheels and small mesh (< 6") gillnets, both of which have been shown to select for smaller, younger fish (Meehan 1961; Molyneaux et al. 2004). Most sampling projects in 2005 revealed above average percentages of 5-year old Chinook salmon returning to the Yukon River. In 2004, samples collected at many of the projects had above average percentages of 4-year old fish (Tables 3–5; Karpovich and DuBois *In prep*). Above average returns of fish from the 2000 brood year during the past two years suggests an above average percentage of 6-year old Chinook salmon will return to the Yukon River in 2006. Above average percentages of 6-year old fish are typically correlated with below average percentages of 5-year old fish (Tables 3–5).

The dominant age class for both summer and fall chum salmon in 2005 was age 0.3. Samples from most projects had above average percentages of age-0.3 fish (Tables 9 and 10). In 2004, above average numbers of age-0.2 fall chum salmon returned to the Yukon River (Bue and Lingnau 2005; Karpovich and DuBois *In prep*). Age-0.3 fall chum salmon were forecasted to dominate the run in 2005 (Bue and Lingnau 2005). Above average returns of fish from the 2001 brood year during the past two years suggests an above average percentage of age-0.4 chum salmon returning to the Yukon River in 2006.

The main age class for coho salmon collected on the Yukon River in 2005 was age 2.1 (Table 12). Age-2.1 fish are typically the most common age class of returning coho salmon (Bue and Lingnau 2005).

SALMON SEX COMPOSITION

Samples collected from the lower Yukon River test fishery (LYTF), which includes Big Eddy and Middle Mouth locations, are an accurate estimate of sex composition (percent female) because these fish are sexed by examining the internal organs. LYTF Chinook salmon samples have historically been close to 50% female (Table 4), usually ranging from 45% to 60%. 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 proportion of smaller age-1.2 fish which are usually male. The sex composition of age-1.3 Chinook salmon is also related to gear selectivity with males typically smaller than females (Table 6). For example, in the District 5 commercial harvest, 595 of 685 (87%) age-1.3 Chinook salmon were male and only 29.0% of the total were female (Table 1; Appendix A3). This relatively low percentage of females is likely attributable to the fact that many of the samples were collected from fish wheels, which select for smaller, typically male fish (Meehan 1961). Low percentages of females can also be expected when using small mesh (< 6") gillnets (Molyneaux et al. 2004). This was observed in the District 1 (5.5" mesh gillnet) subsistence samples, where only 13.9% of the Chinook salmon were female (Appendix A5). The variable (both large and small) mesh gillnet test fishery samples collected at the Pilot Station and Eagle sonars also had relatively low percentages (32.1% and 33.8%, respectively) of females compared to projects that only fished large (≥ 8") mesh nets (Table 1). Some of the escapement projects with above average percentages of age-1.2 Chinook salmon returning also had relatively low percentages of females (e.g., the Gisasa and Tozitna rivers; Appendices A26 and A29).

Samples from most summer and fall chum salmon projects had female percentages near 50% (usually 40% to 60% female; Table 7). The Toklat River was the most extreme outlier with only 23.4% of the samples being female.

Coho salmon samples also revealed female percentages near 50% for most projects (Table 12). Middle Mouth test fish samples were the major outlier with a female percentage of 0%, although the sample size was small (n = 21).

SALMON LENGTH COMPOSITION

Many fishers and researchers have expressed concern that the size of harvested Chinook salmon have declined in the Yukon River. This topic was discussed at recent Yukon Area meetings including the December 2005 Yukon River Panel meeting in Anchorage. In a review of available historic data, Hyer and Schleusner (2005) showed the proportion of large (≥ 900 mm) spawning Chinook has declined in the Anvik, Chena, Salcha and Big Salmon Rivers, with no significant trend in the Andreafsky or Gisasa. These authors recognized that a lack of continuous time series data sets presents problems for this analysis. In 2005, proportions of large Chinook (>900 mm) in the Salcha, Chena and Anvik were 0.105, 0.061 and 0.004 respectively. These proportions were below those reported by Hyer and Schleusner (2005) for most years in these tributaries.

The lack of "large" fish has not been a concern with Yukon River chum and coho salmon populations.

ACKNOWLEDGEMENTS

This investigation was funded by the United States Fish and Wildlife Service Agreement and the Alaska Department of Fish and Game. I would like to thank the sampling crews from the Alaska Department of Fish and Game, Asacarsarmiut Traditional Council, the Association of Village Council Presidents, the Bureau of Land Management, the Emmonak Tribal Council, the City of Kaltag, the U. S. Fish and Wildlife Service, and the Yukon River Drainage Fisheries Association for collecting the samples used for this project. I would also like to thank Larry DuBois and Dani Evenson for reviewing earlier drafts of this report.

REFERENCES CITED

ADF&G (Alaska Department of Fish and Game). 2004. 2004–2007 Arctic-Yukon-Kuskokwim commercial finfish-subsistence-personal use finfish and shellfish fishing regulations. Alaska Department of Fish and Game, Division of Commercial Fisheries, Juneau.

Bromaghin, J. F. 1993. Sample size determination for interval estimation of multinomial probabilities. The American Statistician August 1993 47(3):203-206.

Busher, W. H. and T. Hamazaki. 2004. Subsistence and personal use salmon harvests in the Alaska portion of the Yukon River drainage, 2003. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3A04-33, Anchorage.

Bue, F. J. and Lingnau, T. L. 2005. 2005 Yukon Area subsistence, personal use, and commercial salmon fisheries outlook and management strategies. Alaska Department of Fish and Game, Fishery Management Report No. 05-31, Anchorage.

Buklis, L. S. 1987. Age, sex, and size of Yukon River salmon catch and escapement, 1986. Alaska Department of Fish and Game, Division of Commercial Fisheries, Technical Data Report No. 221, Anchorage.

Clutter, R., and L. Whitesel. 1956. Collection and interpretation of sockeye salmon scales. Bulletin of the International North Pacific Fisheries Commission 9.

Cochran, W. G. 1977. Sampling techniques, *third edition*. John Wiley and Sons, Inc., New York.

Crane, P. A., Spearaman, W. J., and Seeb, L. W. 2001. Yukon River chum salmon: report for genetic stock identification studies, 1992-1997. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 5J01-08, Juneau.

Doxey, M., A. L. J. Brase, and D. J. Reed. 2005. Salmon studies in the Chena, Chatanika, Delta Clearwater, and Salcha rivers, 2002 and 2003. Alaska Department of Fish and Game, Fishery Data Series No. 05-65, Anchorage.

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.

Evenson, M. J. 1991. Abundance, egg production, and age-sex-size composition of Chinook salmon escapement in the Chena River, 1990. Alaska Department of Fish and Game, Fishery Data Series No. 91-6, Anchorage.

Geiger, H. J., J. E. Clark, B. Cross, and S. McPherson. 1990. Report from the work group on sampling. Pages 3-12 [*In*] Proceedings of the 1990 Alaska stock separation workshop. Alaska Department of Fish and Game, Division of Commercial Fisheries, Special Publication No. 2, Juneau.

Hyer, K. E. and C. J. Schleusner. 2005. Chinook salmon age, sex, and length analysis from selected escapement projects on the Yukon River. U. S. Fish and Wildlife Service, Office of Subsistence Management, Alaska Fisheries Technical Report No. 87, Anchorage, Alaska.

INFPC (International North Pacific Fisheries Commission). 1963. Annual report, 1961. Vancouver, British Columbia.

JTC (Joint Technical Committee) of the Yukon River US/Canada Panel. 2005. Yukon River salmon 2004 season review and 2005 season outlook. Fisheries and Oceans Canada, Stock Assessment and Fisheries Management Section, Yukon and Transboundary Area. Whitehorse, Yukon Territory.

Karpovich, S. and L. DuBois. *In prep*. Salmon age and sex composition and mean lengths for the Yukon River Area, 2004. Alaska Department of Fish and Game, Fishery Data Series, Anchorage.

Kissner, P. D., Jr. and D. J. Hubartt. 1986. A study of Chinook salmon in Southeast Alaska. Alaska Department of Fish and Game, Federal Aid in Fish Restoration, Annual Performance Report 1985-1966. Project F-10-1, 27(ASW-41), Juneau.

Meehan, W. R. 1961. Use of a fish wheel in salmon research and management. Transactions of the American Fisheries Society 90(4):490-494.

REFERENCES CITED (Continued)

Menard, J. 1996. Age, sex, and length of Yukon River salmon catches and escapements, 1994. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3A96-16, Anchorage.

Mosher, K. H. 1969. Identification of Pacific salmon and steelhead trout by scale characteristics. United States Department of the Interior, United States Fish and Wildlife Service, Bureau of Commercial Fisheries, Circular 317, Washington, D.C.

Molyneaux, D. B., D. Folletti, L. DuBoise, G. Roczicka, and W. Morgan. 2004. Age, sex, and length composition of Chinook salmon from the 2002 Kuskokwim River subsistence fishery. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3A04-13, Anchorage.

Molyneaux, D. B. and D. L. Folletti. 2005. Salmon age, sex, and length catalog for the Kuskokwim area, 2004. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3A05-03, Anchorage.

Skaugstad, C. 1990. Abundance, egg production, and age-sex-size composition of Chinook salmon escapement in the Salcha River, 1989. Alaska Department of Fish and Game, Fishery Data Series No. 90-23, Anchorage.

Sundlov, T. J., C. F. Kresinger and B. Karlen. 2003. Abundance and run timing of adult salmon in the Tozitna River, Alaska, 2003. United States Fish and Wildlife Service, Office of Subsistence Management, Fisheries Resource Monitoring Program, Annual Report No. 13-203, Anchorage, Alaska.

Vania, T., V. Golembeski, B. M. Borba, T. L. Lingnau, J. S. Hayes, K. R. Boeck, and W. H. Busher. 2002. Annual management report Yukon and Northern Areas 2000. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3A02-29, Anchorage.

Zar, J. H. 1996. Biostatistical analysis, *third edition*. Prentice-Hall, Inc., New Jersey.

TABLES AND FIGURES

Table 1.–Yukon River Chinook salmon age and female percentages from commercial, subsistence, test fish, escapement, and research projects, 2005.

Project Type Location and (gear)	Sample Size	Percent (%) Brood Year (Age) 2002 (1.1)	2001 (1.2)	2000 (1.3)	1999 (2.2)	1999 (1.4)	1998 (2.3)	1998 (1.5)	1997 (2.4)	1997 (1.6)	1996 (2.5)	Female
Commercial												
District 1 (Unrestricted mesh gillnet)	1,410	0.0	1.7	42.4	0.0	51.6	0.2	4.2	0.0	0.0	0.0	59.7
District 2 (Unrestricted mesh gillnet)	1,184	0.0	2.9	49.8	0.0	45.3	0.1	1.6	0.1	0.0	0.0	53.7
District 5 (gillnet and fish wheel)	441	0.0	11.6	46.6	0.0	39.8	0.9	0.4	0.6	0.0	0.0	29.0
District 5 Fecundity Study	30	0.0	0.0	23.3	0.0	70.0	0.0	3.3	3.3	0.0	0.0	100.0 [a]
District 6 (fish wheel)	226	0.0	4.3	53.5	0.0	40.7	0.2	1.2	0.0	0.0	0.0	53.6
Subsistence												
District 1 (5.5" mesh gillnet)	99	0.0	30.3	44.4	0.0	24.2	0.0	1.0	0.0	0.0	0.0	13.9 [b]
District 1 (8.5" mesh gillnet)	226	0.0	2.7	38.5	0.0	55.8	0.4	2.7	0.0	0.0	0.0	42.3 [c]
Subdistrict 4-A, Kaltag (8.5" mesh gillnet)	229	0.0	1.8	31.8	0.0	63.4	0.0	2.6	0.4	0.0	0.0	61.3
Subdistrict 4-A, Nulato (gillnet)	166	0.0	6.6	47.0	0.0	42.8	0.0	3.0	0.6	0.0	0.0	38.0
Subdistricts 4-B, 4-C Galena (gillnet)	64	0.0	4.7	43.8	0.0	46.9	1.6	0.0	1.6	0.0	1.6	31.3
Subdistricts 4-B, 4-C Bishop Rock (gillnet)	175	0.0	0.6	32.0	0.0	58.3	0.0	9.1	0.0	0.0	0.0	49.1
Subdistricts 4-B, 4-C Ruby (gillnet)	265	0.0	8.7	56.2	0.0	34.0	0.0	0.8	0.4	0.0	0.0	35.5
Test Fish												
Big Eddy (8.5" mesh set gillnet)	497	0.0	1.4	37.8	0.0	58.1	0.0	2.6	0.0	0.0	0.0	55.3
Middle Mouth (8.5" mesh set gillnet)	520	0.0	1.5	44.2	0.0	51.7	0.2	1.7	0.6	0.0	0.0	42.5
Big Eddy (8.25" mesh drift gillnet)	77	0.0	3.9	42.9	0.0	48.1	1.3	3.9	0.0	0.0	0.0	51.9
Middle Mouth (8.25" mesh drift gillnet)	66	0.0	1.5	51.5	0.0	47.0	0.0	0.0	0.0	0.0	0.0	43.9
Marshall (8.25" mesh drift gillnet)	420	0.0	2.4	45.5	0.0	49.0	0.0	3.1	0.0	0.0	0.0	46.7
Pilot Station (2.75 to 8.5" mesh gillnet)	641	0.0	9.7	59.0	0.0	30.1	0.0	1.2	0.0	0.0	0.0	32.1
Eagle Sonar (2.75 to 8.5" mesh gillnet)	171	0.0	8.2	50.3	0.0	36.8	1.2	2.3	1.2	0.0	0.0	33.8
Escapement												
Andreafsky River, East Fork (weir trap)	389	0.0	15.0	64.3	0.0	20.2	0.0	0.5	0.0	0.0	0.0	50.2
Anvik River (carcass, hand-picked)	227	0.0	8.8	61.2	0.0	27.3	0.4	2.2	0.0	0.0	0.0	51.1
Chena River (carcass, hand-picked)	553	0.0	6.5	49.9	0.0	39.3	0.2	2.7	1.4	0.0	0.0	42.4
Gisasa River (weir trap)	591	0.0	28.5	55.3	0.0	15.6	0.2	0.4	0.0	0.0	0.0	34.0
Henshaw Creek (weir trap)	127	0.0	27.9	49.3	0.0	22.8	0.0	0.0	0.0	0.0	0.0	41.4
Salcha River (carcass, hand-picked)	602	0.0	9.3	41.5	0.0	46.2	0.0	2.8	0.2	0.0	0.0	54.3
Tozitna River (weir trap)	296	0.1	29.0	43.1	0.0	27.1	0.7	0.0	0.0	0.0	0.0	27.2
Total Chinook	9,692											

[a] Only females were selected for sampling.

[b] Sex was recorded for 36 of 99 aged fish.

[c] Sex was recorded for 156 of 226 aged fish.

Table 2.–Yukon River Districts 1, 2, 5, and 6 Chinook salmon commercial harvest age and sex composition, 2005.

			Brood Year (Age)																			
			2002		2001		2000				1999				1998				1997			
	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]	1,410	Males	0	0.0	285	1.7	3,497	20.7	0	0.0	2,854	16.9	21	0.1	167	1.0	0	0.0	0	0.0	0	0.0	6,824	40.3
		Females	0	0.0	0	0.0	3,673	21.7	0	0.0	5,874	34.7	8	0.0	541	3.2	8	0.0	0	0.0	0	0.0	10,103	59.7
		Subtotal	0	0.0	285	1.7	7,170	42.4	0	0.0	8,728	51.6	28	0.2	708	4.2	8	0.0	0	0.0	0	0.0	16,927	100.0
2 [a]	1,184	Males	0	0.0	392	2.9	3,802	28.3	0	0.0	1,939	14.5	16	0.1	64	0.5	0	0.0	0	0.0	0	0.0	6,213	46.3
		Females	0	0.0	0	0.0	2,884	21.5	0	0.0	4,143	30.9	0	0.0	156	1.2	16	0.1	0	0.0	0	0.0	7,200	53.7
		Subtotal	0	0.0	392	2.9	6,686	49.8	0	0.0	6,083	45.3	16	0.1	220	1.6	16	0.1	0	0.0	0	0.0	13,413	100.0
5 [b]	441	Males	0	0.0	171	11.6	595	40.5	0	0.0	267	18.2	7	0.5	0	0.0	3	0.2	0	0.0	0	0.0	1,042	71.0
		Females	0	0.0	0	0.0	89	6.1	0	0.0	318	21.7	6	0.4	6	0.4	6	0.4	0	0.0	0	0.0	427	29.0
		Subtotal	0	0.0	171	11.6	685	46.6	0	0.0	585	39.8	13	0.9	6	0.4	9	0.6	0	0.0	0	0.0	1,469	100.0
6 [c]	226	Males	0	0.0	20	4.3	156	34.4	0	0.0	35	7.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	210	46.4
		Females	0	0.0	0	0.0	87	19.1	0	0.0	150	33.1	1	0.2	6	1.2	0	0.0	0	0.0	0	0.0	243	53.6
		Subtotal	0	0.0	20	4.3	242	53.5	0	0.0	184	40.7	1	0.2	6	1.2	0	0.0	0	0.0	0	0.0	453	100.0
All	3,261	Males	0	0.0	867	2.7	8,050	25.0	0	0.0	5,095	15.8	44	0.1	231	0.7	3	0.0	0	0.0	0	0.0	14,290	44.3
Districts		Females	0	0.0	0	0.0	6,733	20.9	0	0.0	10,485	32.5	15	0.0	709	2.2	30	0.1	0	0.0	0	0.0	17,972	55.7
		Total	0	0.0	867	2.7	14,783	45.8	0	0.0	15,580	48.3	59	0.2	940	2.9	33	0.1	0	0.0	0	0.0	32,262	100.0

[a] District 1 and 2 commercial fishing periods were unrestricted. 8.0" and larger mesh gillnets were likely used because it was a Chinook directed fishery.

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

[c] Commercial fishing gear consisted of fish wheels.

Table 3.–Yukon River District 1 Chinook salmon age and female percentages from commercial harvests using 8.0" or larger mesh gillnets, 1985–2005.

		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
Average (1985–2004) [c]	1,447	0.0	2.6	23.3	63.0	10.8	0.2	50.8	43,554
10-yr avg. (1995–2004) [c]	1,635	0.0	2.8	24.5	64.7	8.0	0.0	50.5	35,930
5-yr avg. (2000–2004) [c]	1,422	0.0	2.9	23.2	65.8	8.0	0.0	55.0	16,891

[a] District 1 commercial gillnet harvests using 8.0" or larger mesh size include periods with both restricted and unrestricted mesh sizes. Prior to 2000, commercial fishing periods with restricted gillnet mesh size permitted ≤6.0" mesh; after 2000, restricted mesh gillnet periods permitted ≥8.0" mesh gillnets. Also, after 2000, the summer chum market declined and the fishery was directed towards Chinook salmon, therefore ≥8.0" mesh gillnets were likely used during unrestricted periods.

[b] No commercial fishing occurred in 2001.

[c] Averages were 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" mesh set gillnet test fish catches, 1985–2005.

			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
Average [b] (1994, 1998–2004)	976	42	0.1	1.5	23.4	67.9	7.2	0.0	54.0
5-yr average [b] (2000–2004)	1,057	44	0.1	1.7	18.7	71.8	7.8	0.0	54.6

[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, 1985–2005.

		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	1985 [a]	0.0	39.6	12.8	43.6	4.0	0.0	33.2
River,	1986 [b]	0.0	2.2	69.8	21.8	6.2	0.0	23.3
East Fork	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
	Average [d] (1985–2004)	0.2	21.4	41.9	33.7	2.8	0.0	36.5
	5-yr avg. [d] (2000–2004)	0.1	22.7	42.1	34.1	1.0	0.0	44.5
Anvik	1985 [a]	0.0	30.3	39.4	30.3	0.0	0.0	24.2
River	1986 [a]	0.0	0.7	50.0	38.0	11.3	0.0	67.2
	1987 [a]	0.0	9.5	13.1	73.9	3.7	0.0	58.7
	1988 [a]	0.0	30.5	38.2	27.2	4.1	0.0	29.7
	1989 [a]	0.3	4.2	49.1	43.5	2.9	0.0	40.7
	1990 [a]	0.3	26.3	26.0	43.8	3.8	0.0	37.0
	1991 [a]	0.0	10.3	55.0	31.7	2.9	0.0	41.0
	1992 [a]	0.0	9.5	38.1	50.8	1.6	0.0	41.3
	1993 [a]	0.0	13.8	38.5	45.6	2.1	0.0	42.1
	1994 [a]	0.0	3.0	51.9	39.8	5.4	0.0	42.0
	1995 [a]	0.0	9.5	38.1	50.8	1.6	0.0	41.3
	1996 [a]	0.0	9.9	55.4	24.4	9.9	0.4	35.1
	1997 [a]	0.0	25.0	30.6	44.1	0.3	0.0	36.8
	1998 [a]	0.3	14.7	59.9	23.9	1.2	0.0	32.7
	1999 [a]	0.0	9.3	42.5	48.1	0.0	0.0	37.9
	2000 [a]	0.0	4.9	41.9	52.7	0.5	0.0	40.9
	2001 [a]	0.0	11.1	30.1	53.0	5.7	0.0	38.3
	2002 [a]	0.0	19.5	43.1	34.2	3.2	0.0	28.8
	2003 [a]	0.2	8.9	54.7	33.2	3.0	0.0	37.6
	2004 [a]	0.6	32.2	40.7	25.6	0.9	0.0	27.6
	2005 [a]	0.0	8.8	61.2	27.7	2.2	0.0	51.1
	Average [d] (1985–2004)	0.1	14.2	41.8	40.7	3.2	0.0	39.6
	5-yr avg. [d] (2000–2004)	0.2	15.3	42.1	39.7	2.7	0.0	36.4

-continued-

Table 5.–Page 2 of 2.

		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
Chena	1985 [e]	0.0	12.1	21.7	59.2	7.0	0.0	52.5
River	1986 [e]	0.1	9.3	51.2	29.9	9.3	0.1	25.4
	1987 [e]	0.0	2.9	13.1	75.6	8.4	0.0	58.0
	1988 [e]	0.6	10.5	17.5	46.4	24.6	0.4	60.9
	1989 [e]	0.3	4.2	30.2	54.9	10.4	0.0	64.9
	1990 [e]	0.0	23.8	25.7	46.7	3.8	0.0	46.2
	1991 [e]	0.0	8.3	55.8	28.5	7.4	0.0	31.5
	1992 [e]	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
	Average [d] (1985–2004)	0.4	13.8	32.8	46.3	6.7	0.0	44.4
	5-yr avg. [d] (2000–2004)	0.1	14.5	32.6	47.7	5.0	0.0	38.9
Salcha	1985 [e]	0.0	12.3	17.6	64.8	5.3	0.0	48.5
River	1986 [e]	0.2	11.8	43.7	29.5	14.8	0.0	35.8
	1987 [e]	0.2	6.0	12.6	73.5	7.8	0.0	62.8
	1988 [e]	0.4	20.3	22.5	42.1	14.7	0.0	39.6
	1989 [e]	0.5	4.1	28.9	57.8	8.8	0.0	62.2
	1990 [e]	0.2	17.6	24.9	48.9	8.3	0.0	48.9
	1991 [e]	0.2	8.2	44.3	41.4	5.8	0.2	47.2
	1992 [e]	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
	Average [d] (1985–2004)	0.5	13.8	30.9	48.2	6.6	0.0	45.7
	5-yr avg. [d] (2000–2004)	0.2	17.0	29.4	47.9	5.5	0.0	44.3

[a] Estimates were from sonar counts.
[b] Estimates were from tower counts.
[c] Estimates were from weir counts.
[d] Averages were not weighted by number of fish sampled each year.
[e] Estimates were from mark–recapture project.

Table 6.–Yukon River Chinook salmon mean lengths (mm) by project, gear, sex, and age, 2005.

			Brood Year (Age)									
	Project	Project Type	2002	2001	2000		1999		1998		1997	
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)	-	597	767	-	857	810	946	-	-	-
	District 2	Com (GN)	-	571	760	-	849	765	965	-	-	-
	District 5	Com (FW, GN)	-	593	719	-	818	647	-	835	-	-
	District 6	Com (FW)	-	607	726	-	779	-	-	-	-	-
	District 1	Sub (5.5" GN)	-	576	717	-	782	-	-	-	-	-
	District 1	Sub (8.5" GN)	-	633	777	-	852	805	993	-	-	-
	Subdistrict 4-A, Kaltag	Sub (8.5" GN)	-	598	749	-	879	-	915	-	-	-
	Subdistrict 4-A, Nulato	Sub (GN)	-	586	756	-	826	-	873	800	-	-
	Subdistricts 4-B, 4-C Galena	Sub (GN)	-	605	754	-	839	765	-	-	-	900
	Subdistricts 4-B, 4-C Bishop Rock	Sub (GN)	-	620	795	-	870	-	897	-	-	-
	Subdistricts 4-B, 4-C Ruby	Sub (GN)	-	592	735	-	795	-	-	-	-	-
	Big Eddy	TF (8.5" SGN)	-	585	784	-	860	-	910	-	-	-
	Middle Mouth	TF (8.5" SGN)	-	625	772	-	848	770	914	900	-	-
	Big Eddy	TF (8.25" DGN)	-	568	787	-	854	-	-	-	-	-
	Middle Mouth	TF (8.25" DGN)	-	525	766	-	835	-	-	-	-	-
	Marshall	TF (8.25" DGN)	-	611	779	-	850	-	913	-	-	-
	Eagle Sonar	TF (DGN)	-	604	739	-	860	670	963	875	-	-
	Pilot Station	TF (DGN)	-	587	743	-	832	-	845	-	-	-
	Andreafsky, E.F.	Esc (WR)	-	585	728	-	809	-	-	-	-	-
	Anvik	Esc (CR)	-	589	715	-	771	-	720	-	-	-
	Chena	Esc (CR)	-	541	732	-	819	-	911	805	-	-
	Gisasa	Esc (WR)	-	551	724	-	776	-	-	-	-	-
	Henshaw	Esc (WR)	-	535	710	-	765	-	-	-	-	-
	Salcha	Esc (CR)	-	552	753	-	840	-	980	805	-	-
	Tozitna	Esc (WR)	325	550	693	-	744	-	-	-	-	-
		Male Average [b]	325	583	747	-	824	747	910	837	-	900

-continued-

Table 6.–Page 2 of 2.

Sex	Project Location	Project Type and (Gear) [a]	Brood Year (Age) 2002 (1.1)	2001 (1.2)	2000 (1.3)	2000 (2.2)	1999 (1.4)	1999 (2.3)	1998 (1.5)	1998 (2.4)	1997 (1.6)	1997 (2.5)
Female	District 1	Com (GN)	-	-	796	-	859	725	917	870	-	-
	District 2	Com (GN)	-	-	797	-	861	-	920	810	-	-
	District 5	Com (FW, GN)	-	-	787	-	846	860	917	751	-	-
	District 5 (Fecundity Study)	Com (FW, GN)	-	-	831	-	840	-	875	970	-	-
	District 6	Com (FW)	-	-	790	-	834	800	865	-	-	-
	District 1	Sub (5.5" GN)	-	-	713	-	840	-	-	-	-	-
	District 1	Sub (8.5" GN)	-	-	801	-	858	-	900	-	-	-
	Subdistrict 4-A, Kaltag	Sub (8.5" GN)	-	625	775	-	854	-	936	760	-	-
	Subdistrict 4-A, Nulato	Sub (GN)	-	590	757	-	829	-	853	-	-	-
	Subdistricts 4-B, 4-C Galena	Sub (GN)	-	-	804	-	846	-	-	920	-	-
	Subdistricts 4-B, 4-C Bishop Rock	Sub (GN)	-	-	835	-	868	-	882	-	-	-
	Subdistricts 4-B, 4-C Ruby	Sub (GN)	-	620	766	-	799	-	940	830	-	-
	Big Eddy	TF (8.5" SGN)	-	-	816	-	862	-	908	-	-	-
	Middle Mouth	TF (8.5" SGN)	-	-	790	-	852	-	892	850	-	-
	Big Eddy	TF (8.25" DGN)	-	-	824	-	851	790	935	-	-	-
	Middle Mouth	TF (8.25" DGN)	-	-	813	-	836	-	-	-	-	-
	Marshall	TF (8.25" DGN)	-	-	813	-	861	-	968	-	-	-
	Eagle Sonar	TF (DGN)	-	-	794	-	838	-	990	-	-	-
	Pilot Station	TF (DGN)	-	-	805	-	853	-	932	-	-	-
	Andreafsky, E.F.	Esc (WR)	-	562	761	-	837	-	928	-	-	-
	Anvik	Esc (CR)	-	-	744	-	796	705	723	-	-	-
	Chena	Esc (CR)	-	465	779	-	832	760	882	824	-	-
	Gisasa	Esc (WR)	-	548	755	-	817	860	850	-	-	-
	Henshaw	Esc (WR)	-	573	720	-	827	-	-	-	-	-
	Salcha	Esc (CR)	-	-	798	-	846	-	899	-	-	-
	Tozitna	Esc (WR)	-	-	762	-	817	665	-	-	-	-
		Female Average [b]	-	569	786	-	841	771	901	843	-	-

[a] Com is commercial, Sub is subsistence, TF is test fish, 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 fish, and escapement projects, 2005.

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 (unrestricted gillnet)	621	0.5	86.4	11.0	2.1	0.0	47.1
District 2 (unrestricted gillnet)	464	0.2	86.2	12.3	1.3	0.0	50.6
District 6 (fish wheel)	618	0.0	95.8	4.2	0.0	0.0	48.3
Commercial - Fall Chum							
District 1 (≤ 6" gillnet)	2,030	0.0	96.5	3.1	0.4	0.0	58.3
District 6 (fish wheel)	746	0.0	99.6	0.4	0.0	0.0	45.4
Subsistence - Summer Chum							
District 1 (5.5" gillnet)	376	0.0	74.5	23.9	1.6	0.0	33.8 [a]
Subsistence - Fall Chum							
Subdistrict 5-B (fish wheel)	302	0.0	98.7	1.0	0.3	0.0	45.0
Test Fish - Summer Chum							
Big Eddy (5.5" drift gillnet)	515	0.2	90.9	8.7	0.2	0.0	55.5
Middle Mouth (5.5" drift gillnet)	239	0.0	87.4	12.6	0.0	0.0	52.3
Test Fish Summer Chum Average [b]		0.1	89.2	10.6	0.1	0.0	53.9
Test Fish - Fall Chum							
Big Eddy (6.0" drift gillnet)	493	0.0	94.3	5.3	0.4	0.0	61.1
Middle Mouth (6.0" drift gillnet)	85	0.0	98.8	1.2	0.0	0.0	57.6
Mountain Village (5 ⅞" drift gillnet)	497	0.0	96.4	3.2	0.4	0.0	60.8
Kaltag (5 ⅞" drift gillnet)	601	0.0	98.0	2.0	0.0	0.0	54.5
Test Fish Fall Chum Average [b]		0.0	96.9	2.9	0.2	0.0	58.5
Escapement - Summer Chum							
Andreafsky River, East Fork (weir trap)	658	0.0	93.3	6.5	0.2	0.0	44.0
Anvik River (beach seine)	600	0.0	96.4	3.0	0.5	0.0	48.0
Clear Creek (weir trap)	805	0.0	83.2	16.6	0.2	0.0	45.8
Gisasa River (weir trap)	619	0.0	98.4	1.6	0.0	0.0	46.3
Henshaw Creek (weir trap)	693	0.0	98.3	1.7	0.0	0.0	42.6
Tozitna River (weir trap)	827	0.0	97.0	3.0	0.0	0.0	53.4
Escapement Summer Chum Average [b]		0.0	94.4	5.4	0.2	0.0	46.7
Escapement - Fall Chum							
Delta River (carcass, hand picked) [c]	173	0.6	90.8	8.7	0.0	0.0	48.0
Sheenjek River (beach seine) [c]	194	0.0	92.3	6.7	1.0	0.0	45.4
Toklat River (carcass, hand picked) [c]	171	1.2	90.6	8.2	0.0	0.0	23.4
Chandalar River (carcass, hand picked) [c]	172	0.0	91.3	8.1	0.6	0.0	47.7
Escapement Fall Chum Average [b]		0.4	91.2	7.9	0.4	0.0	41.1
Total Summer Chum	7,035						
Total Fall Chum	4,718						

[a] Sex was recorded for 195 of 376 aged fish.

[b] Averages were calculated for groups only if the gear type is comparable and were not weighted by number of fish sampled in each project.

[c] Ages were obtained from vertebrae.

Table 8.–Yukon River Districts 1, 2, and 6 summer chum salmon, and District 1 and 6 fall chum salmon commercial harvest age and sex composition, 2005.

Season / District	Sample Size		Brood Year (Age) 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
Summer Chum Salmon														
District 1 [a]	621	Males	111	0.5	10,836	45.1	1,412	5.9	367	1.5	0	0.0	12,727	52.9
		Females	0	0.0	9,944	41.4	1,239	5.2	131	0.5	0	0.0	11,314	47.1
		Subtotal	111	0.5	20,781	86.4	2,651	11.0	498	2.1	0	0.0	24,041	100.0
District 2 [a]	464	Males	0	0.0	3,580	43.1	462	5.6	69	0.8	0	0.0	4,111	49.4
		Females	19	0.2	3,585	43.1	559	6.7	39	0.5	0	0.0	4,202	50.6
		Subtotal	19	0.2	7,165	86.2	1,021	12.3	108	1.3	0	0.0	8,313	100.0
District 6 [b]	618	Males	0	0.0	4,446	49.5	196	2.2	0	0.0	0	0.0	4,642	51.7
		Females	0	0.0	4,159	46.3	185	2.1	0	0.0	0	0.0	4,344	48.3
		Subtotal	0	0.0	8,605	95.8	381	4.2	0	0.0	0	0.0	8,986	100.0
Districts 1, 2, 6 Combined	1,703	Males	111	0.3	18,862	45.6	2,070	5.0	436	1.1	0	0.0	21,479	52.0
		Females	19	0.0	17,688	42.8	1,983	4.8	170	0.4	0	0.0	19,861	48.0
		Total	131	0.3	36,550	88.4	4,053	9.8	606	1.5	0	0.0	41,340	100.0
Fall Chum Salmon														
District 1 [b]	2,030	Males	0	0.0	51,389	39.7	2,443	1.9	126	0.1	0	0.0	53,959	41.7
		Females	13	0.0	73,605	56.8	1,586	1.2	345	0.3	0	0.0	75,550	58.3
		Total	13	0.0	124,995	96.5	4,030	3.1	471	0.4	0	0.0	129,509	100.0
District 6 [c]	746	Males	0	0.0	26,984	54.5	46	0.1	0	0.0	0	0.0	27,030	54.6
		Females	0	0.0	22,307	45.1	141	0.3	0	0.0	0	0.0	22,448	45.4
		Total	0	0.0	49,291	99.6	187	0.4	0	0.0	0	0.0	49,478	100.0
Districts 1, 6 Combined	2,776	Males	0	0.0	78,374	43.8	2,489	1.4	126	0.1	0	0.0	80,988	45.2
		Females	13	0.0	95,912	53.6	1,728	1.0	345	0.2	0	0.0	97,999	54.8
		Total	13	0.0	174,286	97.4	4,217	2.4	471	0.3	0	0.0	178,987	100.0

[a] All commercial fishing periods in District 1 and 2 summer season allowed unrestricted mesh sizes. Because it was a Chinook salmon directed fishery, 8.0" or larger mesh size gillnets were likely used.

[b] Commercial fishing periods in District 1 during the fall season were restricted to ≤ 6" mesh size gillnets.

[c] Commercial fishing gear was fish wheels.

Table 9.–Yukon River summer chum salmon age percentages from combined commercial and subsistence samples, 1985–2005.

		Percent (%)				
	Sample	Age				
Year	Size [a]	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
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 [b]	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
Average [c] (1985–2004)	2,775	0.4	46.8	50.2	2.5	0.0
10-yr avg. [c] (1995–2004)	1,933	0.4	45.2	51.8	2.7	0.0
5-yr avg. [c] (2000–2004)	1,203	0.3	41.0	55.9	2.8	0.0

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

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

[c] Averages were 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" mesh gillnet test fish catches, 1985–2005.

			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
Average [b] (1987, 1990–2004)	1,396	41	0.5	44.2	52.0	3.4	0.0	59.2
5-yr average [b] (2000–2004)	762	41	0.8	50.7	47.1	1.3	0.0	62.4

[a] Big Eddy and Middle Mouth 5.5" gillnet test fish 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 Chinook salmon and aged.

[b] Years used for average only include years when samples were collected throughout the season and include samples with a 32 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, 2005.

Sex and Season	Project Location	Project Type and (Gear) [a]	Brood Year (Age) 2002 (0.2)	2001 (0.3)	2000 (0.4)	1999 (0.5)	1998 (0.6)
Male Summer Chum							
	District 1	Com (GN)	539	589	604	602	-
	District 2	Com (GN)	-	599	604	609	-
	District 6	Com (FW)	-	600	631	-	-
	District 1	Sub (5.5" GN)	-	591	602	636	-
	Big Eddy	TF (5.5" DGN)	-	579	594	570	-
	Middle Mouth	TF (5.5" DGN)	-	569	586	-	-
	Andreafsky, E.F.	Esc (WR)	-	582	610	630	-
	Anvik	Esc (SN)	-	579	601	613	-
	Clear	Esc (WR)	-	566	569	595	-
	Gisasa	Esc (WR)	-	581	587	-	-
	Henshaw	Esc (WR)	-	574	608	-	-
	Tozitna	Esc (WR)	-	569	603	-	-
		Male Summer Chum Average [b]	539	582	600	608	-
Female Summer Chum							
	District 1	Com (GN)	-	559	589	580	-
	District 2	Com (GN)	560	571	583	608	-
	District 6	Com (FW)	-	577	596	-	-
	District 1	Sub (5.5" GN)	-	587	591	-	-
	Big Eddy	TF (5.5" DGN)	535	562	580	-	-
	Middle Mouth	TF (5.5" DGN)	-	553	583	-	-
	Andreafsky, E.F.	Esc (WR)	-	537	555	-	-
	Anvik	Esc (SN)	-	546	584	555	-
	Clear	Esc (WR)	-	543	569	545	-
	Gisasa	Esc (WR)	-	550	539	-	-
	Henshaw	Esc (WR)	-	543	583	-	-
	Tozitna	Esc (WR)	-	542	572	-	-
		Female Summer Chum Average [b]	548	556	577	572	-
Male Fall Chum							
	District 1	Com (GN)	-	600	620	608	-
	District 6	Com (FW)	-	614	649	-	-
	District 5	Sub (FW)	-	611	605	610	-
	Big Eddy	TF (6.0" DGN)	-	599	622	565	-
	Middle Mouth	TF (6.0" DGN)	-	607	670	-	-
	Mt. Village	TF (5 7/8" DGN)	-	603	614	-	-
	Kaltag	TF (5 7/8" DGN)	-	618	620	-	-
	Delta [c]	Esc (CR)	575	602	586	-	-
	Sheenjek [c]	Esc (SN)	-	623	633	635	-
	Toklat [c]	Esc (CR)	540	593	597	-	-
	Chandalar [c]	Esc (CR)	-	604	615	699	-
		Male Fall Chum Average [b]	558	607	621	623	-
Female Fall Chum							
	District 1	Com (GN)	555	583	611	645	-
	District 6	Com (FW)	-	588	660	-	-
	District 5	Sub (FW)	-	583	575	-	-
	Big Eddy	TF (6.0" DGN)	-	593	610	650	-
	Middle Mouth	TF (6.0" DGN)	-	586	-	-	-
	Mt. Village	TF (5 7/8" DGN)	-	593	586	618	-
	Kaltag	TF (5 7/8" DGN)	-	595	605	-	-
	Delta [c]	Esc (CR)	-	573	598	-	-
	Sheenjek [c]	Esc (SN)	-	600	596	-	-
	Toklat [c]	Esc (CR)	-	560	530	-	-
	Chandalar [c]	Esc (CR)	-	575	566	-	-
		Female Fall Chum Average [b]	555	584	594	638	-

[a] Com is commercial, Sub is subsistence, TF is test fish, 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] Average was not weighted by number of fish sampled in each project.

[c] Ages were obtained from vertebrae.

Table 12.–Yukon River coho salmon age and female percentages from commercial, test fish, and escapement projects, 2005**.**

Project Type Location (gear)	Sample Size	Percent (%) Age (1.1)	(2.1)	(3.1)	Female
Commercial					
District 1 (unrestricted gillnet)	1,252	7.3	88.9	3.8	49.6
District 6 (fish wheel)	464	9.5	81.7	8.9	38.8
Test Fish					
Big Eddy (6.0" drift gillnet)	75	9.3	82.7	8.0	50.7
Middle Mouth (6.0" drift gillnet)	21	23.8	71.4	4.8	0.0
Mountain Village (5 ⅞" drift gillnet)	97	5.1	81.5	13.4	47.2
Kaltag (5 ⅞" drift gillnet)	108	7.4	80.6	12.0	39.9
	Test Fish Average [ab]	7.3	81.6	11.1	45.9
Escapement					
Andreafsky River, East Fork (weir trap)	276	8.0	84.8	7.2	52.6
Total Samples	2,293				

[a] Averages were not weighted by number of fish sampled in each project.

[b] Middle Mouth was not included in the test fish average because of small sample size.

Table 13.–Yukon River coho salmon mean lengths (mm) by project, sex, gear, and age, 2005.

Sex	Project Location	Project Type and (Gear) [a]	Brood Year (Age) 2002 (1.1)	2001 (2.1)	2000 (3.1)
Male	District 1	Com (GN)	568	569	587
	District 6	Com (FW)	547	554	540
	Big Eddy	TF (6.0" DGN)	572	583	588
	Middle Mouth	TF (6.0" DGN)	586	572	520
	Mt. Village	TF (5 ⅞" DGN)	580	576	572
	Kaltag	TF (5 ⅞" DGN)	587	586	556
	Andreafsky, E.F.	Esc (WR)	527	541	530
		Male Average [b]	567	569	556
Female	District 1	Com (GN)	561	566	565
	District 6	Com (FW)	575	574	570
	Big Eddy	TF (6.0" DGN)	583	581	585
	Middle Mouth	TF (6.0" DGN)	-	-	-
	Mt. Village	TF (5 ⅞" DGN)	588	579	557
	Kaltag	TF (5 ⅞" DGN)	565	573	584
	Andreafsky, E.F.	Esc (WR)	538	541	538
		Female Average [b]	568	569	567

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

[b] Average was calculated using comparable gillnet samples only and not weighted by number of fish sampled in each project.

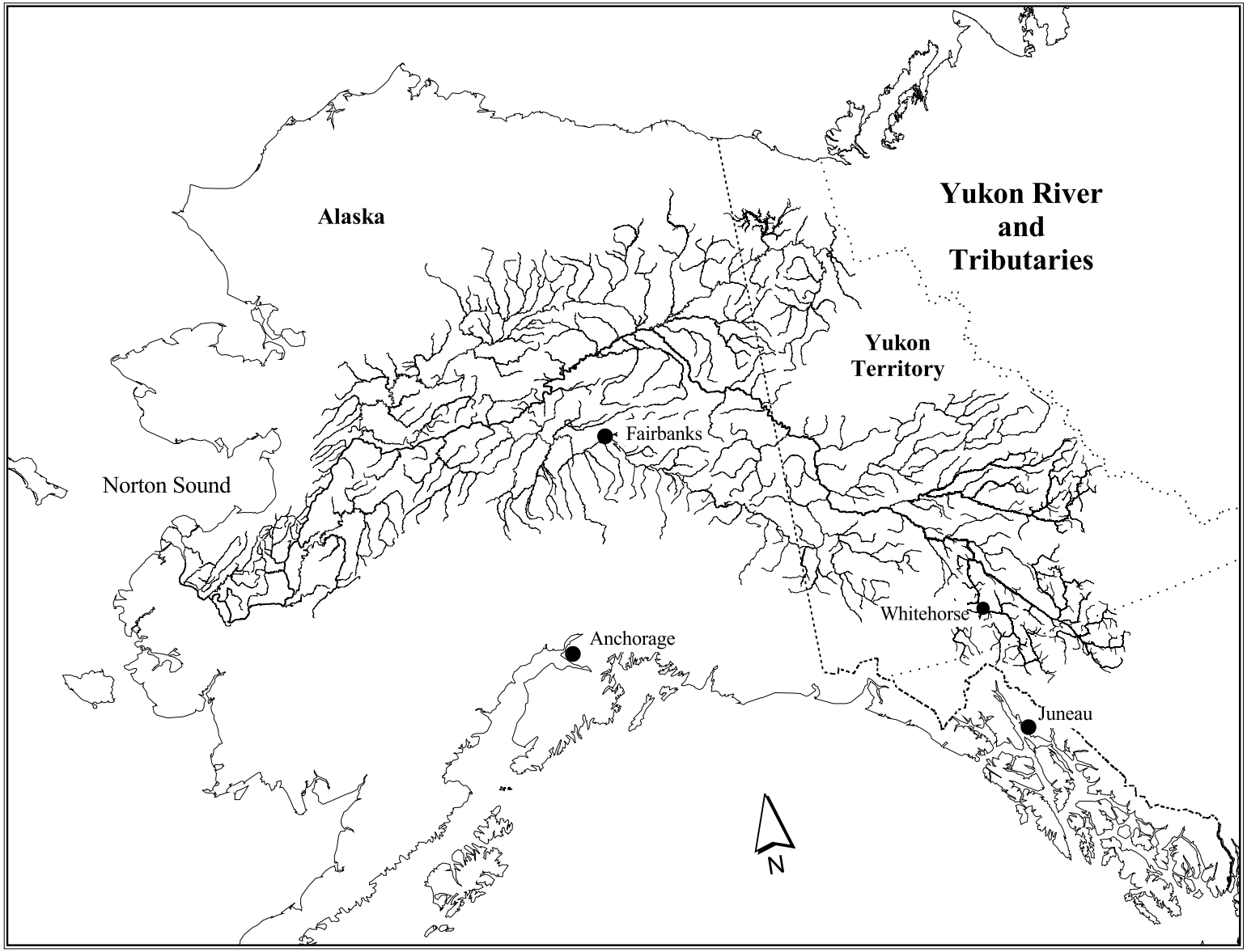
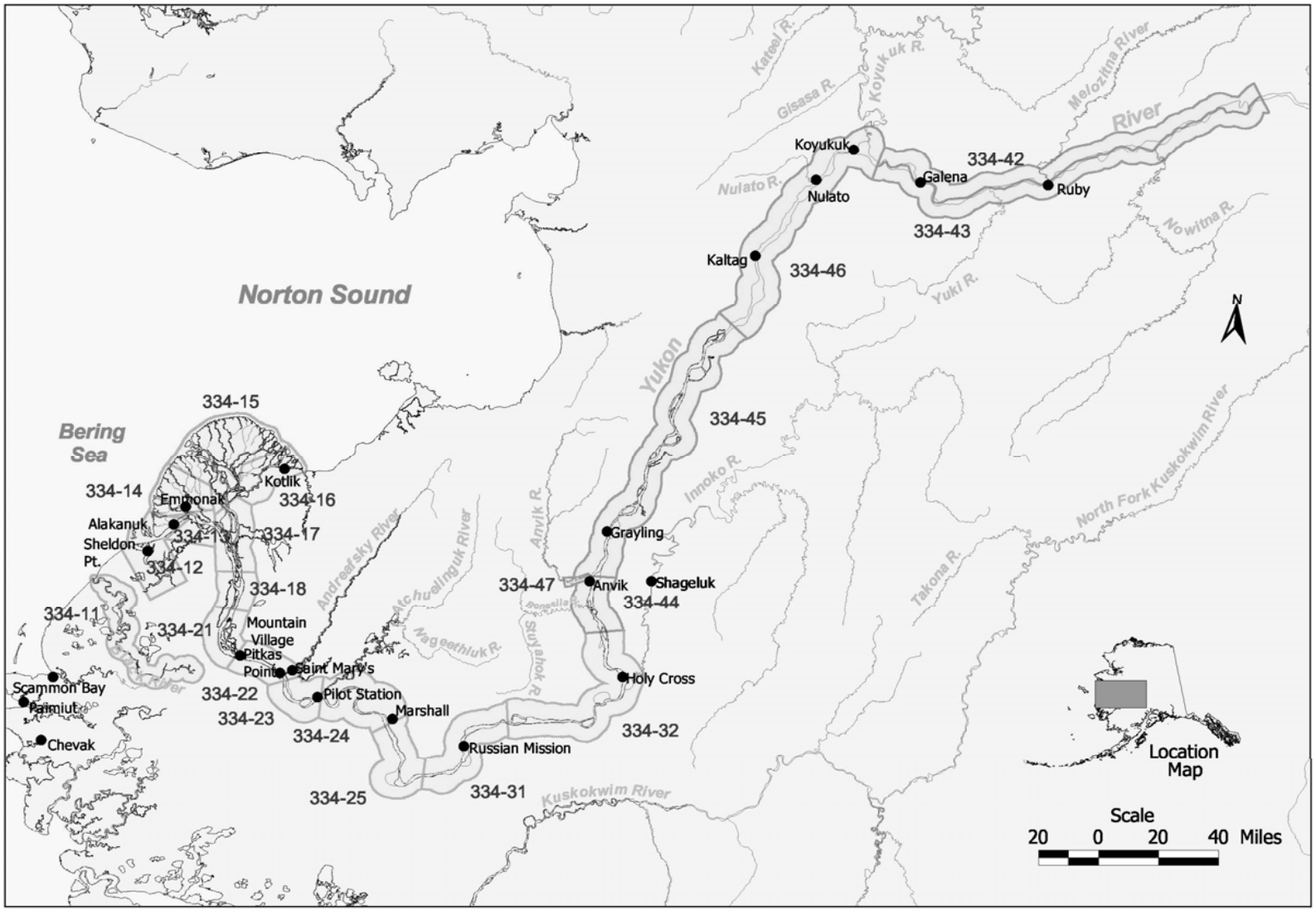
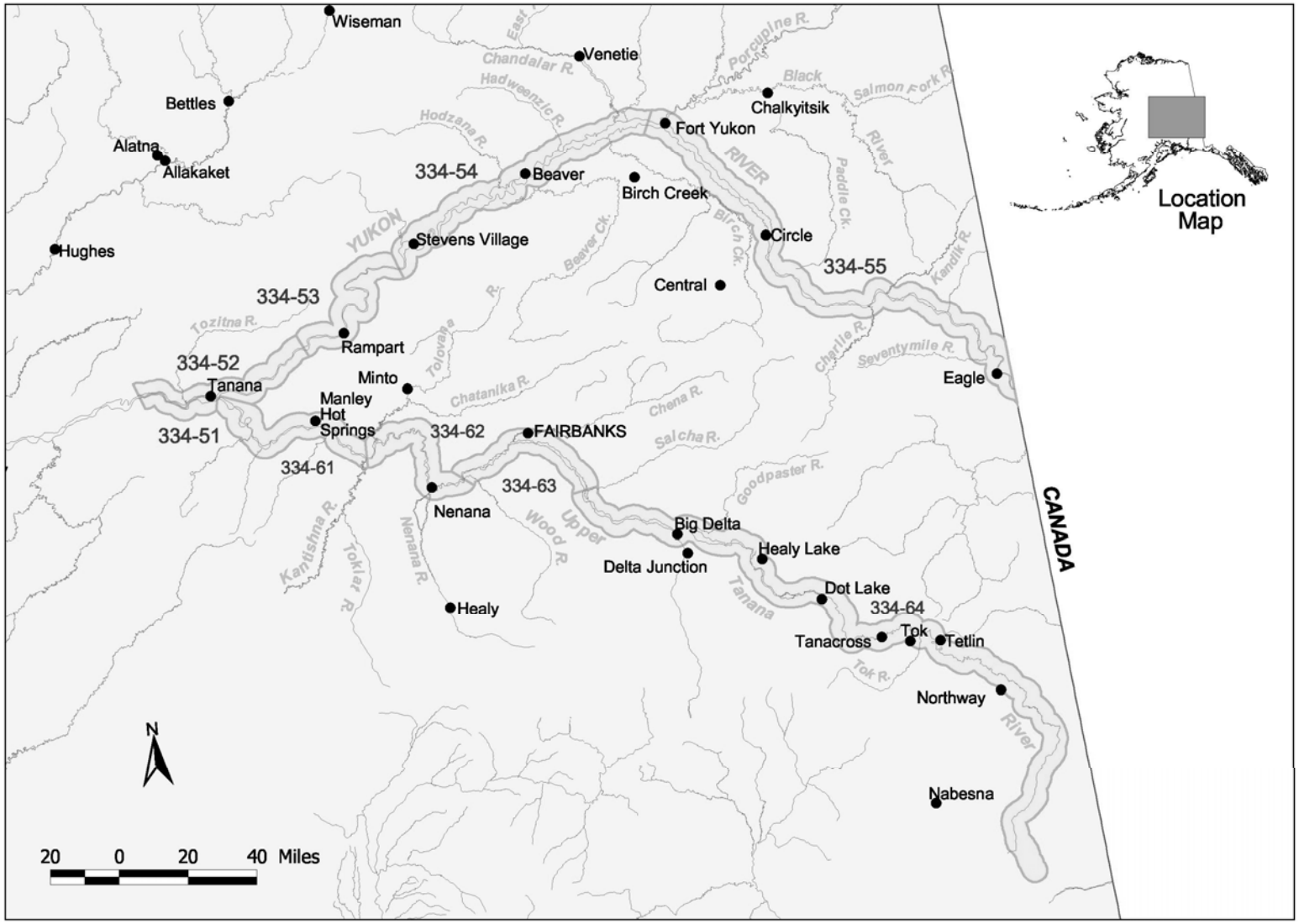


Figure 1.–Yukon River drainage in Alaska and Canada.



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 banks) 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), 2005.

			Brood Year (Age)																			
			2002		2001		2000				1999				1998				1997				
Sample	Sample		(1.1)		(1.2)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total	
Dates	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
6/24-25	386	Males	0	0.0	91	1.8	947	18.9	0	0.0	648	13.0	0	0.0	13	0.3	0	0.0	0	0.0	0	0.0	1,699	33.9
Period 1		Females	0	0.0	0	0.0	1,115	22.3	0	0.0	2,049	40.9	0	0.0	143	2.8	0	0.0	0	0.0	0	0.0	3,307	66.1
		Subtotal	0	0.0	91	1.8	2,062	41.2	0	0.0	2,698	53.9	0	0.0	156	3.1	0	0.0	0	0.0	0	0.0	5,006	100.0
6/27-28	375	Males	0	0.0	102	1.3	1,671	21.9	0	0.0	1,427	18.7	20	0.3	102	1.3	0	0.0	0	0.0	0	0.0	3,323	43.5
Period 2		Females	0	0.0	0	0.0	1,651	21.6	0	0.0	2,426	31.7	0	0.0	245	3.2	0	0.0	0	0.0	0	0.0	4,321	56.5
		Subtotal	0	0.0	102	1.3	3,323	43.5	0	0.0	3,853	50.4	20	0.3	347	4.5	0	0.0	0	0.0	0	0.0	7,644	100.0
6/30-7/1	396	Males	0	0.0	66	2.3	613	21.0	0	0.0	384	13.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,063	36.4
Period 3		Females	0	0.0	0	0.0	686	23.5	0	0.0	1,048	35.9	7	0.3	111	3.8	7	0.3	0	0.0	0	0.0	1,860	63.6
		Subtotal	0	0.0	66	2.3	1,299	44.4	0	0.0	1,432	49.0	7	0.3	111	3.8	7	0.3	0	0.0	0	0.0	2,923	100.0
7/5-6	253	Males	0	0.0	21	2.0	202	19.4	0	0.0	342	32.8	0	0.0	50	4.7	0	0.0	0	0.0	0	0.0	615	58.9
Period 4		Females	0	0.0	0	0.0	153	14.6	0	0.0	243	23.3	0	0.0	33	3.2	0	0.0	0	0.0	0	0.0	429	41.1
		Subtotal	0	0.0	21	2.0	355	34.0	0	0.0	586	56.1	0	0.0	83	7.9	0	0.0	0	0.0	0	0.0	1,044	100.0
Other [a]	0 [b]	Males	0	0.0	5	1.7	64	20.7	0	0.0	52	16.9	0	0.1	3	1.0	0	0.0	0	0.0	0	0.0	125	40.3
		Females	0	0.0	0	0.0	67	21.7	0	0.0	108	34.7	0	0.0	10	3.2	0	0.0	0	0.0	0	0.0	185	59.7
		Subtotal	0	0.0	5	1.7	131	42.4	0	0.0	160	51.6	1	0.2	13	4.2	0	0.0	0	0.0	0	0.0	310	100.0
Total	1,410	Males	0	0.0	285	1.7	3,497	20.7	0	0.0	2,854	16.9	21	0.1	167	1.0	0	0.0	0	0.0	0	0.0	6,824	40.3
All Periods		Females	0	0.0	0	0.0	3,673	21.7	0	0.0	5,874	34.7	8	0.0	541	3.2	8	0.0	0	0.0	0	0.0	10,103	59.7
		Total	0	0.0	285	1.7	7,170	42.4	0	0.0	8,728	51.6	28	0.2	708	4.2	8	0.0	0	0.0	0	0.0	16,927	100.0
Mean Length		Males	-		597		767		-		857		810		946		-		-		-			
Std. Error			-		9		4		-		4		-		23		-		-		-			
Mean Length		Females	-		-		796		-		859		725		917		870		-		-			
Std. Error			-		-		3		-		3		-		8		-		-		-			

Note: All District 1 Chinook commercial fishing periods permitted unrestricted mesh sizes, because it was a Chinook directed fishery, 8.0" mesh and larger was likely used.

[a] Other includes all ADF&G test fish sold; these fish were not recorded as part of the harvest for any period.

[b] Test fish sold during the commercial fishery were not sampled, therefore, the age composition was calculated using percentages from the season total.

Appendix A2.–Yukon River, District 2, Chinook salmon commercial gillnet harvest age and sex composition and mean length (mm), 2005.

			Brood Year (Age)																	
			2002		2001		2000			1999			1998			1997				
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.	%
6/23-24	395	Males	0	0.0	211	3.3	1,853	28.9	0 0.0	748	11.6	16 0.3	0	0.0	0 0.0	0	0.0	0 0.0		2,828	44.1
Period 1		Females	0	0.0	0	0.0	1,414	22.0	0 0.0	2,080	32.4	0 0.0	81	1.3	16 0.3	0	0.0	0 0.0		3,592	55.9
		Subtotal	0	0.0	211	3.3	3,267	50.9	0 0.0	2,828	44.1	16 0.3	81	1.3	16 0.3	0	0.0	0 0.0		6,420	100.0
6/26	394	Males	0	0.0	149	3.0	1,426	29.2	0 0.0	856	17.5	0 0.0	37	0.8	0 0.0	0	0.0	0 0.0		2,468	50.5
Period 2		Females	0	0.0	0	0.0	980	20.1	0 0.0	1,402	28.7	0 0.0	37	0.8	0 0.0	0	0.0	0 0.0		2,419	49.5
		Subtotal	0	0.0	149	3.0	2,406	49.2	0 0.0	2,257	46.2	0 0.0	74	1.5	0 0.0	0	0.0	0 0.0		4,887	100.0
7/02	395	Males	0	0.0	32	1.5	523	24.8	0 0.0	336	15.9	0 0.0	27	1.3	0 0.0	0	0.0	0 0.0		917	43.5
Period 3		Females	0	0.0	0	0.0	491	23.3	0 0.0	661	31.4	0 0.0	37	1.8	0 0.0	0	0.0	0 0.0		1,189	56.5
		Subtotal	0	0.0	32	1.5	1,013	48.1	0 0.0	997	47.3	0 0.0	64	3.0	0 0.0	0	0.0	0 0.0		2,106	100.0
Total	1,184	Males	0	0.0	392	2.9	3,802	28.3	0 0.0	1,939	14.5	16 0.1	64	0.5	0 0.0	0	0.0	0 0.0		6,213	46.3
All Periods		Females	0	0.0	0	0.0	2,884	21.5	0 0.0	4,143	30.9	0 0.0	156	1.2	16 0.1	0	0.0	0 0.0		7,200	53.7
		Total	0	0.0	392	2.9	6,686	49.8	0 0.0	6,083	45.3	16 0.1	220	1.6	16 0.1	0	0.0	0 0.0		13,413	100.0
Mean Length		Males	-		571		760		-	849		765	965		-	-		-			
Std. Error			-		7		3		-	5		-	18		-	-		-			
Mean Length		Females	-		-		797		-	861		-	920		810	-		-			
Std. Error			-		-		3		-	3		-	17		-	-		-			

Note: Mesh size was unrestricted, because it was a Chinook directed fishery, 8.0” mesh and larger was most likely used.

Appendix A3.–Yukon River, District 5 (Subdistricts 5-B and 5-C), Chinook salmon commercial harvest age and sex composition and mean length (mm), 2005.

			Brood Year (Age)																	
			2002		2001		2000				1999				1998				1997			
Sample	Sample		(1.1)		(1.2)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total	
Dates	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
7/5-6	143	Males	0	0.0	14	3.5	127	32.2	0	0.0	91	23.1	0	0.0	0	0.0	3	0.7	0	0.0	0	0.0	235	59.4
Period 1		Females	0	0.0	0	0.0	39	9.8	0	0.0	114	28.7	3	0.7	3	0.7	3	0.7	0	0.0	0	0.0	161	40.6
		Subtotal	0	0.0	14	3.5	166	42.0	0	0.0	205	51.7	3	0.7	3	0.7	6	1.4	0	0.0	0	0.0	396	100.0
7/6-7	147	Males	0	0.0	28	5.4	236	45.6	0	0.0	109	21.1	4	0.7	0	0.0	0	0.0	0	0.0	0	0.0	377	72.8
Period 2		Females	0	0.0	0	0.0	18	3.4	0	0.0	113	21.8	4	0.7	4	0.7	4	0.7	0	0.0	0	0.0	141	27.2
		Subtotal	0	0.0	28	5.4	254	49.0	0	0.0	222	42.9	7	1.4	4	0.7	4	0.7	0	0.0	0	0.0	518	100.0
7/9-10	151	Males	0	0.0	129	23.2	232	41.7	0	0.0	66	11.9	4	0.7	0	0.0	0	0.0	0	0.0	0	0.0	430	77.5
Period 3		Females	0	0.0	0	0.0	33	6.0	0	0.0	92	16.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	125	22.5
		Subtotal	0	0.0	129	23.2	265	47.7	0	0.0	158	28.5	4	0.7	0	0.0	0	0.0	0	0.0	0	0.0	555	100.0
Total	441	Males	0	0.0	171	11.6	595	40.5	0	0.0	267	18.2	7	0.5	0	0.0	3	0.2	0	0.0	0	0.0	1,042	71.0
All Periods		Females	0	0.0	0	0.0	89	6.1	0	0.0	318	21.7	6	0.4	6	0.4	6	0.4	0	0.0	0	0.0	427	29.0
		Total	0	0.0	171	11.6	685	46.6	0	0.0	585	39.8	13	0.9	6	0.4	9	0.6	0	0.0	0	0.0	1,469	100.0
Mean Length		Males	-		593		719		-		818		647		-		835		-		-			
Std. Error			-		6		6		-		11		-		-		-		-		-			
Mean Length		Females	-		-		787		-		846		860		917		751		-		-			
Std. Error			-		-		14		-		8		-		-		-		-		-			
7/7 [a]	30	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
Season Total		Females	0	0.0	0	0.0	7	23.3	0	0.0	21	70.0	0	0.0	1	3.3	1	3.3	0	0.0	0	0.0	30	100.0
		Total	0	0.0	0	0.0	7	23.3	0	0.0	21	70.0	0	0.0	1	3.3	1	3.3	0	0.0	0	0.0	30	100.0
Mean Length		Males	-		-		-		-		-		-		-		-		-		-			
Std. Error			-		-		-		-		-		-		-		-		-		-			
Mean Length		Females	-		-		831		-		840		-		875		970		-		-			
Std. Error			-		-		14		-		11		-		-		-		-		-			

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

[a] Females were sampled separately from the random commercial sample as part of an ADF&G fecundity study.

Appendix A4.–Yukon River, District 6 (Subdistricts 6-B and 6-C), Chinook salmon commercial harvest age and sex composition, and mean length (mm), 2005.

			Brood Year (Age)																	
			2002		2001		2000			1999			1998			1997				
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.	%
7/15-17	154	Males	0	0.0	11	3.2	112	31.8	0 0.0	30	8.4	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0		153	43.5
Period 1		Females	0	0.0	0	0.0	75	21.4	0 0.0	119	33.8	0 0.0	5	1.3	0 0.0	0	0.0	0 0.0		199	56.5
		Subtotal	0	0.0	11	3.2	187	53.2	0 0.0	149	42.2	0 0.0	5	1.3	0 0.0	0	0.0	0 0.0		352	100.0
7/18-20	42	Males	0	0.0	4	9.5	17	40.5	0 0.0	5	11.9	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0		26	61.9
Period 2		Females	0	0.0	0	0.0	7	16.7	0 0.0	7	16.7	1 2.4	1	2.4	0 0.0	0	0.0	0 0.0		16	38.1
		Subtotal	0	0.0	4	9.5	24	57.1	0 0.0	12	28.6	1 2.4	1	2.4	0 0.0	0	0.0	0 0.0		42	100.0
7/22-24	27	Males	0	0.0	4	11.1	13	33.3	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0		17	44.4
Period 3		Females	0	0.0	0	0.0	4	11.1	0 0.0	17	44.4	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0		21	55.6
		Subtotal	0	0.0	4	11.1	17	44.4	0 0.0	17	44.4	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0		38	100.0
7/25-27	3	Males	0	0.0	0	0.0	14	66.7	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0		14	66.7
Periods 4		Females	0	0.0	0	0.0	0	0.0	0 0.0	7	33.3	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0		7	33.3
		Subtotal	0	0.0	0	0.0	14	66.7	0 0.0	7	33.3	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0		21	100.0
Total	226	Males	0	0.0	20	4.3	156	34.4	0 0.0	35	7.7	0 0.0	0	0.0	0 0.0	0	0.0	0 0.0		210	46.4
All Periods		Females	0	0.0	0	0.0	87	19.1	0 0.0	150	33.1	1 0.2	6	1.2	0 0.0	0	0.0	0 0.0		243	53.6
		Total	0	0.0	20	4.3	242	53.5	0 0.0	184	40.7	1 0.2	6	1.2	0 0.0	0	0.0	0 0.0		453	100.0
Mean Length		Males	-		607		726		-	779		-	-		-	-		-			
Std. Error			-		20		8		-	17		-	-		-	-		-			
Mean Length		Females	-		-		790		-	834		800	865		-	-		-			
Std. Error			-		-		7		-	6		-	65		-	-		-			

Note: Samples were collected from fish wheels.

Appendix A5.–Yukon River, District 1, Chinook salmon subsistence 5.5" mesh gillnet harvest age composition and mean length (mm), 2005.

			Brood Year (Age)																			
			2002		2001		2000				1999				1998				1997				
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.	%
6/7, 10	24	Males	0	0.0	7	29.2	9	37.5	0	0.0	4	16.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	20	83.3
		Females	0	0.0	0	0.0	2	8.3	0	0.0	2	8.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	16.7
		Subtotal	0	0.0	7	29.2	11	45.8	0	0.0	6	25.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	24	100.0
6/14-15, 17	12	Males	0	0.0	3	25.0	6	50.0	0	0.0	2	16.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	11	91.7
		Females	0	0.0	0	0.0	1	8.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	8.3
		Subtotal	0	0.0	3	25.0	7	58.3	0	0.0	2	16.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	12	100.0
Season Total	36	Males	0	0.0	10	27.8	15	41.7	0	0.0	6	16.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	31	86.1
		Females	0	0.0	0	0.0	3	8.3	0	0.0	2	5.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	13.9
		Subtotal	0	0.0	10	27.8	18	50.0	0	0.0	8	22.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	36	100.0
Mean Length		Males	-		576		717		-		782		-		-		-		-		-			
Std. Error			-		14		9		-		34		-		-		-		-		-			
Mean Length		Females	-		-		713		-		840		-		-		-		-		-			
Std. Error			-		-		46		-		10		-		-		-		-		-			

[a] Sample dates are stratified by week.

Appendix A6.–Yukon River, District 1, Chinook salmon subsistence 5.5" mesh gillnet harvest age composition, 2005.

		Brood Year (Age)																					
		2002		2001		2000				1999				1998				1997					
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.	%
6/7, 10	44	0	0.0	15	34.1	19	43.2	0	0.0	10	22.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	44	100.0
6/14-15, 17	55	0	0.0	15	27.3	25	45.5	0	0.0	14	25.5	0	0.0	1	1.8	0	0.0	0	0.0	0	0.0	55	100.0
Season Total	99	0	0.0	30	30.3	44	44.4	0	0.0	24	24.2	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	99	100.0

[a] Combines all sexed (Appendix A5) and all unsexed Chinook salmon sampled from the 5.5" mesh gillnet subsistence harvest.

Appendix A7.–Yukon River, District 1, Chinook salmon subsistence 8.5" mesh gillnet harvest age and sex composition and mean length (mm), 2005.

Sample Dates [a]	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (1.2) No.	%	2000 (1.3) No.	%	2000 (2.2) No.	%	1999 (1.4) No.	%	1999 (2.3) No.	%	1998 (1.5) No.	%	1998 (2.4) No.	%	1997 (1.6) No.	%	1997 (2.5) No.	%	Total No.	%
6/1, 3	13	Males	0	0.0	0	0.0	3	23.1	0	0.0	5	38.5	1	7.7	0	0.0	0	0.0	0	0.0	0	0.0	9	69.2
		Females	0	0.0	0	0.0	2	15.4	0	0.0	2	15.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	30.8
		Subtotal	0	0.0	0	0.0	5	38.5	0	0.0	7	53.8	1	7.7	0	0.0	0	0.0	0	0.0	0	0.0	13	100.0
6/7, 10	28	Males	0	0.0	1	3.6	4	14.3	0	0.0	4	14.3	0	0.0	1	3.6	0	0.0	0	0.0	0	0.0	10	35.7
		Females	0	0.0	0	0.0	3	10.7	0	0.0	15	53.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	18	64.3
		Subtotal	0	0.0	1	3.6	7	25.0	0	0.0	19	67.9	0	0.0	1	3.6	0	0.0	0	0.0	0	0.0	28	100.0
6/15, 17-18	115	Males	0	0.0	1	0.9	31	27.0	0	0.0	38	33.0	0	0.0	1	0.9	0	0.0	0	0.0	0	0.0	71	61.7
		Females	0	0.0	0	0.0	17	14.8	0	0.0	26	22.6	0	0.0	1	0.9	0	0.0	0	0.0	0	0.0	44	38.3
		Subtotal	0	0.0	1	0.9	48	41.7	0	0.0	64	55.7	0	0.0	2	1.7	0	0.0	0	0.0	0	0.0	115	100.0
Season Total	156	Males	0	0.0	2	1.3	38	24.4	0	0.0	47	30.1	1	0.6	2	1.3	0	0.0	0	0.0	0	0.0	90	57.7
		Females	0	0.0	0	0.0	22	14.1	0	0.0	43	27.6	0	0.0	1	0.6	0	0.0	0	0.0	0	0.0	66	42.3
		Total	0	0.0	2	1.3	60	38.5	0	0.0	90	57.7	1	0.6	3	1.9	0	0.0	0	0.0	0	0.0	156	100.0
Mean Length		Males	-		633		777		-		852		805		993		-		-		-			
Std. Error			-		13		8		-		6		-		28		-		-		-			
Mean Length		Females	-		-		801		-		858		-		900		-		-		-			
Std. Error			-		-		8		-		6		-		-		-		-		-			

[a] Sample dates are stratified by week.

Appendix A8.–Yukon River, District 1, Chinook salmon subsistence 8.5" mesh gillnet harvest age composition, 2005.

		Brood Year (Age)																	
		2002		2001		2000				1999				1998				1997					
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.	%
6/1, 3	13	0	0.0	0	0.0	5	38.5	0	0.0	7	53.8	1	7.7	0	0.0	0	0.0	0	0.0	0	0.0	13	100.0
6/7, 10	51	0	0.0	1	2.0	14	27.5	0	0.0	34	66.7	0	0.0	2	3.9	0	0.0	0	0.0	0	0.0	51	100.0
6/15, 17-18	162	0	0.0	5	3.1	68	42.0	0	0.0	85	52.5	0	0.0	4	2.5	0	0.0	0	0.0	0	0.0	162	100.0
Season Total	226	0	0.0	6	2.7	87	38.5	0	0.0	126	55.8	1	0.4	6	2.7	0	0.0	0	0.0	0	0.0	226	100.0

[a] Combines unsexed (Appendix A7) Chinook salmon sampled from the 8.5” mesh gillnet subsistence harvest with the sexed samples.

Appendix A9.–Yukon River, Subdistrict 4-A (Kaltag), Chinook salmon subsistence 8.5" mesh gillnet harvest age and sex composition and mean length (mm), 2005.

Sample Dates [a]	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (1.2) No.	%	2000 (1.3) No.	%	2000 (2.2) No.	%	1999 (1.4) No.	%	1999 (2.3) No.	%	1998 (1.5) No.	%	1998 (2.4) No.	%	1997 (1.6) No.	%	1997 (2.5) No.	%	Total No.	%
6/21-23	61	Males	0	0.0	0	0.0	8	13.1	0	0.0	13	21.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	21	34.4
		Females	0	0.0	1	1.6	9	14.8	0	0.0	28	45.9	0	0.0	2	3.3	0	0.0	0	0.0	0	0.0	40	65.6
		Subtotal	0	0.0	1	1.6	17	27.9	0	0.0	41	67.2	0	0.0	2	3.3	0	0.0	0	0.0	0	0.0	61	100.0
6/27-30	73	Males	0	0.0	1	1.4	12	16.4	0	0.0	19	26.0	0	0.0	1	1.4	0	0.0	0	0.0	0	0.0	33	45.2
		Females	0	0.0	0	0.0	14	19.2	0	0.0	23	31.5	0	0.0	2	2.7	1	1.4	0	0.0	0	0.0	40	54.8
		Subtotal	0	0.0	1	1.4	26	35.6	0	0.0	42	57.5	0	0.0	3	4.1	1	1.4	0	0.0	0	0.0	73	100.0
7/3-6, 8	78	Males	0	0.0	2	2.6	11	14.1	0	0.0	15	19.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	28	35.9
		Females	0	0.0	0	0.0	13	16.7	0	0.0	36	46.1	0	0.0	1	1.3	0	0.0	0	0.0	0	0.0	50	64.1
		Subtotal	0	0.0	2	2.6	24	30.8	0	0.0	51	65.3	0	0.0	1	1.3	0	0.0	0	0.0	0	0.0	78	100.0
7/10-11	17	Males	0	0.0	0	0.0	2	11.8	0	0.0	5	29.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	7	41.2
		Females	0	0.0	0	0.0	4	23.5	0	0.0	6	35.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	10	58.8
		Subtotal	0	0.0	0	0.0	6	35.3	0	0.0	11	64.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	17	100.0
Season Total	229	Males	0	0.0	3	1.3	33	14.4	0	0.0	52	22.6	0	0.0	1	0.4	0	0.0	0	0.0	0	0.0	89	38.7
		Females	0	0.0	1	0.5	40	17.4	0	0.0	93	40.8	0	0.0	5	2.2	1	0.4	0	0.0	0	0.0	140	61.3
		Total	0	0.0	4	1.8	73	31.8	0	0.0	145	63.4	0	0.0	6	2.6	1	0.4	0	0.0	0	0.0	229	100.0
Mean Length		Males	-		598		749		-		879		-		915		-		-		-			
Std. Error			-		20		10		-		8		-		-		-		-		-			
Mean Length		Females	-		625		775		-		854		-		936		760		-		-			
Std. Error			-		-		8		-		5		-		6		-		-		-			

Note: Samples were collected by technicians employed 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), 2005.

Sample Dates [a]	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (1.2) No.	%	2000 (1.3) No.	%	2000 (2.2) No.	%	1999 (1.4) No.	%	1999 (2.3) No.	%	1998 (1.5) No.	%	1998 (2.4) No.	%	1997 (1.6) No.	%	1997 (2.5) No.	%	Total No.	%
6/23-24	33	Males	0	0.0	0	0.0	11	33.3	0	0.0	6	18.2	0	0.0	2	6.1	1	3.0	0	0.0	0	0.0	20	60.6
		Females	0	0.0	0	0.0	3	9.1	0	0.0	9	27.3	0	0.0	1	3.0	0	0.0	0	0.0	0	0.0	13	39.4
		Subtotal	0	0.0	0	0.0	14	42.4	0	0.0	15	45.5	0	0.0	3	9.1	1	3.0	0	0.0	0	0.0	33	100.0
6/26-28, 30 7/2	85	Males	0	0.0	3	3.5	29	34.1	0	0.0	19	22.4	0	0.0	1	1.2	0	0.0	0	0.0	0	0.0	52	61.2
		Females	0	0.0	6	7.1	10	11.8	0	0.0	16	18.8	0	0.0	1	1.2	0	0.0	0	0.0	0	0.0	33	38.8
		Subtotal	0	0.0	9	10.6	39	45.9	0	0.0	35	41.2	0	0.0	2	2.4	0	0.0	0	0.0	0	0.0	85	100.0
7/3-4	48	Males	0	0.0	2	4.2	17	35.4	0	0.0	12	25.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	31	64.6
		Females	0	0.0	0	0.0	8	16.7	0	0.0	9	18.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	17	35.4
		Subtotal	0	0.0	2	4.2	25	52.1	0	0.0	21	43.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	48	100.0
Season Total	166	Males	0	0.0	5	3.0	57	34.3	0	0.0	37	22.3	0	0.0	3	1.8	1	0.6	0	0.0	0	0.0	103	62.0
		Females	0	0.0	6	3.6	21	12.7	0	0.0	34	20.5	0	0.0	2	1.2	0	0.0	0	0.0	0	0.0	63	38.0
		Total	0	0.0	11	6.6	78	47.0	0	0.0	71	42.8	0	0.0	5	3.0	1	0.6	0	0.0	0	0.0	166	100.0
Mean Length		Males	-		586		756		-		826		-		873		800		-		-			
Std. Error			-		22		9		-		10		-		35		-		-		-			
Mean Length		Females	-		590		757		-		829		-		853		-		-		-			
Std. Error			-		14		16		-		14		-		13		-		-		-			

Note: Yukon River Drainage Fisheries Association (YRDFA) collected these samples from Nulato.

[a] Sample dates are stratified by week.

Appendix A11.–Yukon River, Subdistricts 4-B, 4-C (Galena), Chinook salmon subsistence gillnet harvest age composition, 2005**.**

Sample Dates [a]	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (1.2) No.	%	2000 (1.3) No.	%	(2.2) No.	%	1999 (1.4) No.	%	(2.3) No.	%	1998 (1.5) No.	%	(2.4) No.	%	1997 (1.6) No.	%	(2.5) No.	%	Total No.	%
7/1	36	Males	0	0.0	1	2.8	8	22.2	0	0.0	12	33.3	1	2.8	0	0.0	0	0.0	0	0.0	0	0.0	22	61.1
		Females	0	0.0	0	0.0	4	11.1	0	0.0	9	25.0	0	0.0	0	0.0	1	2.8	0	0.0	0	0.0	14	38.9
		Subtotal	0	0.0	1	2.8	12	33.3	0	0.0	21	58.3	1	2.8	0	0.0	1	2.8	0	0.0	0	0.0	36	100.0
7/3	28	Males	0	0.0	2	7.1	14	50.0	0	0.0	5	17.9	0	0.0	0	0.0	0	0.0	0	0.0	1	3.6	22	78.6
		Females	0	0.0	0	0.0	2	7.1	0	0.0	4	14.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6	21.4
		Subtotal	0	0.0	2	7.1	16	57.1	0	0.0	9	32.1	0	0.0	0	0.0	0	0.0	0	0.0	1	3.6	28	100.0
Season Total	64	Males	0	0.0	3	4.7	22	34.4	0	0.0	17	26.6	1	1.6	0	0.0	0	0.0	0	0.0	1	1.6	44	68.8
		Females	0	0.0	0	0.0	6	9.4	0	0.0	13	20.3	0	0.0	0	0.0	1	1.6	0	0.0	0	0.0	20	31.3
		Total	0	0.0	3	4.7	28	43.8	0	0.0	30	46.9	1	1.6	0	0.0	1	1.6	0	0.0	1	1.6	64	100.0
Mean Length		Males	-		605		754		-		839		765		-		-		-		900			
Std. Error			-		13		14		-		18		-		-		-		-		-			
Mean Length		Females	-		-		804		-		846		-		-		920		-		-			
Std. Error			-		-		26		-		16		-		-		-		-		-			

Note: Yukon River Drainage Fisheries Association (YRDFA) collected these samples from Galena.

[a] Sample dates are stratified by week.

Appendix A12.–Yukon River, Subdistricts 4-B, 4-C (Bishop Rock), Chinook salmon subsistence gillnet harvest age composition, 2005.

Sample Dates [a]	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (1.2) No.	%	2000 (1.3) No.	%	(2.2) No.	%	1999 (1.4) No.	%	(2.3) No.	%	1998 (1.5) No.	%	(2.4) No.	%	1997 (1.6) No.	%	(2.5) No.	%	Total No.	%
6/23-25	46	Males	0	0.0	0	0.0	7	15.2	0	0.0	14	30.4	0	0.0	1	2.2	0	0.0	0	0.0	0	0.0	22	47.8
		Females	0	0.0	0	0.0	1	2.2	0	0.0	20	43.5	0	0.0	3	6.5	0	0.0	0	0.0	0	0.0	24	52.2
		Subtotal	0	0.0	0	0.0	8	17.4	0	0.0	34	73.9	0	0.0	4	8.7	0	0.0	0	0.0	0	0.0	46	100.0
6/27-28, 30, 7/1	88	Males	0	0.0	1	1.1	20	22.7	0	0.0	20	22.7	0	0.0	2	2.3	0	0.0	0	0.0	0	0.0	43	48.9
		Females	0	0.0	0	0.0	11	12.5	0	0.0	29	33.0	0	0.0	5	5.7	0	0.0	0	0.0	0	0.0	45	51.1
		Subtotal	0	0.0	1	1.1	31	35.2	0	0.0	49	55.7	0	0.0	7	8.0	0	0.0	0	0.0	0	0.0	88	100.0
7/4-7	41	Males	0	0.0	0	0.0	13	31.7	0	0.0	9	22.0	0	0.0	2	4.9	0	0.0	0	0.0	0	0.0	24	58.5
		Females	0	0.0	0	0.0	4	9.8	0	0.0	10	24.4	0	0.0	3	7.3	0	0.0	0	0.0	0	0.0	17	41.5
		Subtotal	0	0.0	0	0.0	17	41.5	0	0.0	19	46.3	0	0.0	5	12.2	0	0.0	0	0.0	0	0.0	41	100.0
Season Total	175	Males	0	0.0	1	0.6	40	22.9	0	0.0	43	24.6	0	0.0	5	2.9	0	0.0	0	0.0	0	0.0	89	50.9
		Females	0	0.0	0	0.0	16	9.1	0	0.0	59	33.7	0	0.0	11	6.3	0	0.0	0	0.0	0	0.0	86	49.1
		Total	0	0.0	1	0.6	56	32.0	0	0.0	102	58.3	0	0.0	16	9.1	0	0.0	0	0.0	0	0.0	175	100.0
Mean Length		Males	-		620		795		-		870		-		897		-		-		-			
Std. Error			-		-		12		-		13		-		35		-		-		-			
Mean Length		Females	-		-		835		-		868		-		882		-		-		-			
Std. Error			-		-		9		-		6		-		17		-		-		-			

Note: Yukon River Drainage Fisheries Association (YRDFA) collected these samples from Bishop Rock.

[a] Sample dates are stratified by week.

Appendix A13.–Yukon River, Subdistricts 4-B, 4-C (Ruby), Chinook salmon subsistence gillnet harvest age composition, 2005.

			Brood Year (Age)																	
			2002		2001		2000				1999				1998				1997			
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.	%
6/20-21,	34	Males	0	0.0	2	5.9	15	44.1	0	0.0	9	26.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	26	76.5
23-24		Females	0	0.0	0	0.0	1	2.9	0	0.0	5	14.7	0	0.0	1	2.9	1	2.9	0	0.0	0	0.0	8	23.5
		Subtotal	0	0.0	2	5.9	16	47.1	0	0.0	14	41.2	0	0.0	1	2.9	1	2.9	0	0.0	0	0.0	34	100.0
6/27-28,	171	Males	0	0.0	14	8.2	74	43.3	0	0.0	24	14.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	112	65.5
30, 7/1		Females	0	0.0	3	1.8	29	17.0	0	0.0	26	15.2	0	0.0	1	0.6	0	0.0	0	0.0	0	0.0	59	34.5
		Subtotal	0	0.0	17	9.9	103	60.2	0	0.0	50	29.2	0	0.0	1	0.6	0	0.0	0	0.0	0	0.0	171	100.0
7/4-5	60	Males	0	0.0	3	5.0	21	35.0	0	0.0	9	15.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	33	55.0
		Females	0	0.0	1	1.7	9	15.0	0	0.0	17	28.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	27	45.0
		Subtotal	0	0.0	4	6.7	30	50.0	0	0.0	26	43.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	60	100.0
Season Total	265	Males	0	0.0	19	7.2	110	41.5	0	0.0	42	15.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	171	64.5
		Females	0	0.0	4	1.5	39	14.7	0	0.0	48	18.1	0	0.0	2	0.8	1	0.4	0	0.0	0	0.0	94	35.5
		Total	0	0.0	23	8.7	149	56.2	0	0.0	90	34.0	0	0.0	2	0.8	1	0.4	0	0.0	0	0.0	265	100.0
Mean Length		Males	-		592		735		-		795		-		-		-		-		-			
Std. Error			-		7		6		-		11		-		-		-		-		-			
Mean Length		Females	-		620		766		-		799		-		940		830		-		-			
Std. Error			-		7		9		-		9		-		0		-		-		-			

Note: Yukon River Drainage Fisheries Association (YRDFA) collected these samples from Ruby.

[a] Sample dates are stratified by week.

Appendix A14.–Yukon River, Big Eddy, Chinook salmon 8.5" mesh set gillnet test fish project age and sex composition and mean length (mm), 2005.

			Brood Year (Age)																	
			2002		2001		2000				1999				1998				1997			
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.	%
6/2-15	167	Males	0	0.0	1	0.6	52	31.1	0	0.0	40	24.0	0	0.0	2	1.2	0	0.0	0	0.0	0	0.0	95	56.9
Quartile 1		Females	0	0.0	0	0.0	20	12.0	0	0.0	50	29.9	0	0.0	2	1.2	0	0.0	0	0.0	0	0.0	72	43.1
		Subtotal	0	0.0	1	0.6	72	43.1	0	0.0	90	53.9	0	0.0	4	2.4	0	0.0	0	0.0	0	0.0	167	100.0
6/16-21	113	Males	0	0.0	1	0.9	15	13.3	0	0.0	28	24.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	44	38.9
Quartile 2		Females	0	0.0	0	0.0	18	15.9	0	0.0	48	42.5	0	0.0	3	2.7	0	0.0	0	0.0	0	0.0	69	61.1
		Subtotal	0	0.0	1	0.9	33	29.2	0	0.0	76	67.3	0	0.0	3	2.7	0	0.0	0	0.0	0	0.0	113	100.0
6/22-28	88	Males	0	0.0	1	1.1	12	13.6	0	0.0	15	17.0	0	0.0	1	1.1	0	0.0	0	0.0	0	0.0	29	33.0
Quartile 3		Females	0	0.0	0	0.0	16	18.2	0	0.0	42	47.7	0	0.0	1	1.1	0	0.0	0	0.0	0	0.0	59	67.0
		Subtotal	0	0.0	1	1.1	28	31.8	0	0.0	57	64.8	0	0.0	2	2.3	0	0.0	0	0.0	0	0.0	88	100.0
6/29-7/11,	129	Males	0	0.0	4	3.1	30	23.3	0	0.0	18	14.0	0	0.0	2	1.6	0	0.0	0	0.0	0	0.0	54	41.9
13-14		Females	0	0.0	0	0.0	25	19.4	0	0.0	48	37.2	0	0.0	2	1.6	0	0.0	0	0.0	0	0.0	75	58.1
Quartile 4		Subtotal	0	0.0	4	3.1	55	42.6	0	0.0	66	51.2	0	0.0	4	3.1	0	0.0	0	0.0	0	0.0	129	100.0
Season Total	497	Males	0	0.0	7	1.4	109	21.9	0	0.0	101	20.3	0	0.0	5	1.0	0	0.0	0	0.0	0	0.0	222	44.7
		Females	0	0.0	0	0.0	79	15.9	0	0.0	188	37.8	0	0.0	8	1.6	0	0.0	0	0.0	0	0.0	275	55.3
		Total	0	0.0	7	1.4	188	37.8	0	0.0	289	58.1	0	0.0	13	2.6	0	0.0	0	0.0	0	0.0	497	100.0
Mean Length		Males	-		585		784		-		860		-		910		-		-		-			
Std. Error			-		10		5		-		5		-		36		-		-		-			
Mean Length		Females	-		-		816		-		862		-		908		-		-		-			
Std. Error			-		-		4		-		3		-		13		-		-		-			

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

Appendix A15.–Yukon River, Middle Mouth, Chinook salmon 8.5" mesh set gillnet test fish project age and sex composition and mean length (mm), 2005.

			Brood Year (Age)																	
			2002		2001		2000				1999				1998				1997			
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.	%
6/4, 6, 8,	116	Males	0	0.0	0	0.0	33	28.4	0	0.0	39	33.6	0	0.0	1	0.9	0	0.0	0	0.0	0	0.0	73	62.9
10-15		Females	0	0.0	0	0.0	11	9.5	0	0.0	31	26.7	0	0.0	1	0.9	0	0.0	0	0.0	0	0.0	43	37.1
Quartile 1		Subtotal	0	0.0	0	0.0	44	37.9	0	0.0	70	60.3	0	0.0	2	1.7	0	0.0	0	0.0	0	0.0	116	100.0
6/16-21	133	Males	0	0.0	4	3.0	40	30.1	0	0.0	31	23.3	0	0.0	1	0.8	1	0.8	0	0.0	0	0.0	77	57.9
Quartile 2		Females	0	0.0	0	0.0	17	12.8	0	0.0	36	27.1	0	0.0	1	0.8	2	1.5	0	0.0	0	0.0	56	42.1
		Subtotal	0	0.0	4	3.0	57	42.9	0	0.0	67	50.4	0	0.0	2	1.5	3	2.3	0	0.0	0	0.0	133	100.0
6/22-23,	134	Males	0	0.0	3	2.2	30	22.4	0	0.0	18	13.4	1	0.7	1	0.7	0	0.0	0	0.0	0	0.0	53	39.6
25-26, 28		Females	0	0.0	0	0.0	30	22.4	0	0.0	50	37.3	0	0.0	1	0.7	0	0.0	0	0.0	0	0.0	81	60.4
Quartile 3		Subtotal	0	0.0	3	2.2	60	44.8	0	0.0	68	50.7	1	0.7	2	1.5	0	0.0	0	0.0	0	0.0	134	100.0
6/29,	137	Males	0	0.0	1	0.7	51	37.2	0	0.0	43	31.4	0	0.0	1	0.7	0	0.0	0	0.0	0	0.0	96	70.1
7/1-15		Females	0	0.0	0	0.0	18	13.1	0	0.0	21	15.3	0	0.0	2	1.5	0	0.0	0	0.0	0	0.0	41	29.9
Quartile 4		Subtotal	0	0.0	1	0.7	69	50.4	0	0.0	64	46.7	0	0.0	3	2.2	0	0.0	0	0.0	0	0.0	137	100.0
Season Total	520	Males	0	0.0	8	1.5	154	29.6	0	0.0	131	25.2	1	0.2	4	0.8	1	0.2	0	0.0	0	0.0	299	57.5
		Females	0	0.0	0	0.0	76	14.6	0	0.0	138	26.5	0	0.0	5	1.0	2	0.4	0	0.0	0	0.0	221	42.5
		Total	0	0.0	8	1.5	230	44.2	0	0.0	269	51.7	1	0.2	9	1.7	3	0.6	0	0.0	0	0.0	520	100.0
Mean Length		Males	-		625		772		-		848		770		914		900		-		-			
Std. Error			-		24		5		-		4		-		24		-		-		-			
Mean Length		Females	-		-		790		-		852		-		892		850		-		-			
Std. Error			-		-		5		-		4		-		25		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, Big Eddy and Middle Mouth combined, Chinook salmon 8.5" mesh set gillnet test fish project age and sex composition and mean length (mm), 2005.

			Brood Year (Age)																	
			2002		2001		2000			1999			1998			1997				
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.	%
6/2-15	283	Males	0	0.0	1	0.4	85	30.0	0	0.0	79	27.9	0	0.0	3	1.1	0	0.0	0	0.0	0	0.0	168	59.4
Quartile 1		Females	0	0.0	0	0.0	31	11.0	0	0.0	81	28.6	0	0.0	3	1.1	0	0.0	0	0.0	0	0.0	115	40.6
		Subtotal	0	0.0	1	0.4	116	41.0	0	0.0	160	56.5	0	0.0	6	2.1	0	0.0	0	0.0	0	0.0	283	100.0
6/16-21	246	Males	0	0.0	5	2.0	55	22.4	0	0.0	59	24.0	0	0.0	1	0.4	1	0.4	0	0.0	0	0.0	121	49.2
Quartile 2		Females	0	0.0	0	0.0	35	14.2	0	0.0	84	34.1	0	0.0	4	1.6	2	0.8	0	0.0	0	0.0	125	50.8
		Subtotal	0	0.0	5	2.0	90	36.6	0	0.0	143	58.1	0	0.0	5	2.0	3	1.2	0	0.0	0	0.0	246	100.0
6/22-28	222	Males	0	0.0	4	1.8	42	18.9	0	0.0	33	14.9	1	0.5	2	0.9	0	0.0	0	0.0	0	0.0	82	36.9
Quartile 3		Females	0	0.0	0	0.0	46	20.7	0	0.0	92	41.4	0	0.0	2	0.9	0	0.0	0	0.0	0	0.0	140	63.1
		Subtotal	0	0.0	4	1.8	88	39.6	0	0.0	125	56.3	1	0.5	4	1.8	0	0.0	0	0.0	0	0.0	222	100.0
6/29-30,	266	Males	0	0.0	5	1.9	81	30.5	0	0.0	61	22.9	0	0.0	3	1.1	0	0.0	0	0.0	0	0.0	150	56.4
7/1-15		Females	0	0.0	0	0.0	43	16.2	0	0.0	69	25.9	0	0.0	4	1.5	0	0.0	0	0.0	0	0.0	116	43.6
Quartile 4		Subtotal	0	0.0	5	1.9	124	46.6	0	0.0	130	48.9	0	0.0	7	2.6	0	0.0	0	0.0	0	0.0	266	100.0
Season Total	1,017	Males	0	0.0	15	1.5	263	25.9	0	0.0	232	22.8	1	0.1	9	0.9	1	0.1	0	0.0	0	0.0	521	51.2
		Females	0	0.0	0	0.0	155	15.2	0	0.0	326	32.1	0	0.0	13	1.3	2	0.2	0	0.0	0	0.0	496	48.8
		Total	0	0.0	15	1.5	418	41.1	0	0.0	558	54.9	1	0.1	22	2.2	3	0.3	0	0.0	0	0.0	1,017	100.0
Mean Length		Males	-		606		777		-		853		770		912		900		-		-			
Std. Error			-		14		3		-		3		-		21		-		-		-			
Mean Length		Females	-		-		803		-		858		-		902		850		-		-			
Std. Error			-		-		3		-		3		-		12		20		-		-			

[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, Chinook salmon 8.25" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

			Brood Year (Age)																	
			2002		2001		2000				1999				1998				1997			
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.	%
6/9, 11-13	10	Males	0	0.0	1	10.0	2	20.0	0	0.0	3	30.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6	60.0
Quartile 1		Females	0	0.0	0	0.0	0	0.0	0	0.0	4	40.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	40.0
		Subtotal	0	0.0	1	10.0	2	20.0	0	0.0	7	70.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	10	100.0
6/16-21	20	Males	0	0.0	1	5.0	6	30.0	0	0.0	4	20.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	11	55.0
Quartile 2		Females	0	0.0	0	0.0	1	5.0	0	0.0	7	35.0	0	0.0	1	5.0	0	0.0	0	0.0	0	0.0	9	45.0
		Subtotal	0	0.0	1	5.0	7	35.0	0	0.0	11	55.0	0	0.0	1	5.0	0	0.0	0	0.0	0	0.0	20	100.0
6/22-26	34	Males	0	0.0	1	2.9	10	29.4	0	0.0	4	11.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	15	44.1
Quartile 3		Females	0	0.0	0	0.0	8	23.5	0	0.0	8	23.5	1	2.9	2	5.9	0	0.0	0	0.0	0	0.0	19	55.9
		Subtotal	0	0.0	1	2.9	18	52.9	0	0.0	12	35.3	1	2.9	2	5.9	0	0.0	0	0.0	0	0.0	34	100.0
7/1-2, 5-7	13	Males	0	0.0	0	0.0	3	23.1	0	0.0	2	15.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	38.5
Quartile 4		Females	0	0.0	0	0.0	3	23.1	0	0.0	5	38.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	8	61.5
		Subtotal	0	0.0	0	0.0	6	46.2	0	0.0	7	53.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	13	100.0
Season Total	77	Males	0	0.0	3	3.9	21	27.3	0	0.0	13	16.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	37	48.1
		Females	0	0.0	0	0.0	12	15.6	0	0.0	24	31.2	1	1.3	3	3.9	0	0.0	0	0.0	0	0.0	40	51.9
		Total	0	0.0	3	3.9	33	42.9	0	0.0	37	48.1	1	1.3	3	3.9	0	0.0	0	0.0	0	0.0	77	100.0
Mean Length		Males	-		568		787		-		854		-		-		-		-		-			
Std. Error			-		39		12		-		21		-		-		-		-		-			
Mean Length		Females	-		-		824		-		851		790		935		-		-		-			
Std. Error			-		-		11		-		8		-		50		-		-		-			

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

Appendix A18.–Yukon River, Middle Mouth, Chinook salmon 8.25" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

			Brood Year (Age)																			
			2002		2001		2000				1999				1998				1997				
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.	%
6/10, 12-13	18	Males	0	0.0	0	0.0	6	33.3	0	0.0	4	22.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	10	55.6
Quartile 1		Females	0	0.0	0	0.0	2	11.1	0	0.0	6	33.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	8	44.4
		Subtotal	0	0.0	0	0.0	8	44.4	0	0.0	10	55.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	18	100.0
6/17-20	44	Males	0	0.0	1	2.3	15	34.1	0	0.0	9	20.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	25	56.8
Quartile 2		Females	0	0.0	0	0.0	8	18.2	0	0.0	11	25.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	19	43.2
		Subtotal	0	0.0	1	2.3	23	52.3	0	0.0	20	45.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	44	100.0
6/23, 26	3	Males	0	0.0	0	0.0	1	33.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	33.3
Quartile 3		Females	0	0.0	0	0.0	2	66.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	66.7
		Subtotal	0	0.0	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	3	100.0
7/10	1	Males	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0
Quartile 4		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	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0
Season Total	66	Males	0	0.0	1	1.5	22	33.3	0	0.0	14	21.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	37	56.1
		Females	0	0.0	0	0.0	12	18.2	0	0.0	17	25.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	29	43.9
		Total	0	0.0	1	1.5	34	51.5	0	0.0	31	47.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	66	100.0
Mean Length		Males	-		525		766		-		835		-		-		-		-		-			
Std. Error			-		-		9		-		12		-		-		-		-		-			
Mean Length		Females	-		-		813		-		836		-		-		-		-		-			
Std. Error			-		-		13		-		11		-		-		-		-		-			

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

Appendix A19.–Yukon River, Big Eddy and Middle Mouth combined, Chinook salmon 8.25" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

			Brood Year (Age)																			
			2002		2001		2000				1999				1998				1997			
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.	%
6/9-13	28	Males	0	0.0	1	3.6	8	28.6	0	0.0	7	25.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	16	57.1
Quartile 1		Females	0	0.0	0	0.0	2	7.1	0	0.0	10	35.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	12	42.9
		Subtotal	0	0.0	1	3.6	10	35.7	0	0.0	17	60.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	28	100.0
6/16-21	64	Males	0	0.0	2	3.1	21	32.8	0	0.0	13	20.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	36	56.3
Quartile 2		Females	0	0.0	0	0.0	9	14.1	0	0.0	18	28.1	0	0.0	1	1.6	0	0.0	0	0.0	0	0.0	28	43.8
		Subtotal	0	0.0	2	3.1	30	46.9	0	0.0	31	48.4	0	0.0	1	1.6	0	0.0	0	0.0	0	0.0	64	100.0
6/22-26	37	Males	0	0.0	1	2.7	11	29.7	0	0.0	4	10.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	16	43.2
Quartile 3		Females	0	0.0	0	0.0	10	27.0	0	0.0	8	21.6	1	2.7	2	5.4	0	0.0	0	0.0	0	0.0	21	56.8
		Subtotal	0	0.0	1	2.7	21	56.8	0	0.0	12	32.4	1	2.7	2	5.4	0	0.0	0	0.0	0	0.0	37	100.0
7/1-2,	14	Males	0	0.0	0	0.0	3	21.4	0	0.0	3	21.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6	42.9
5-7, 10		Females	0	0.0	0	0.0	3	21.4	0	0.0	5	35.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	8	57.1
Quartile 4		Subtotal	0	0.0	0	0.0	6	42.9	0	0.0	8	57.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	14	100.0
Season Total	143	Males	0	0.0	4	2.8	43	30.1	0	0.0	27	18.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	74	51.7
		Females	0	0.0	0	0.0	24	16.8	0	0.0	41	28.7	1	0.7	3	2.1	0	0.0	0	0.0	0	0.0	69	48.3
		Total	0	0.0	4	2.8	67	46.9	0	0.0	68	47.6	1	0.7	3	2.1	0	0.0	0	0.0	0	0.0	143	100.0
Mean Length		Males	-		558		776		-		844		-		-		-		-		-			
Std. Error			-		29		7		-		12		-		-		-		-		-			
Mean Length		Females	-		-		819		-		844		790		935		-		-		-			
Std. Error			-		-		8		-		6		-		50		-		-		-			

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

Appendix A20.–Yukon River, Marshall, Chinook salmon 8.25" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

			Brood Year (Age)																					
			2002		2001		2000				1999				1998				1997					
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.	%
6/15-18	120	Males	0	0.0	0	0.0	46	38.3	0	0.0	27	22.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	73	60.8
Quartile 1		Females	0	0.0	0	0.0	12	10.0	0	0.0	32	26.7	0	0.0	3	2.5	0	0.0	0	0.0	0	0.0	47	39.2
		Subtotal	0	0.0	0	0.0	58	48.3	0	0.0	59	49.2	0	0.0	3	2.5	0	0.0	0	0.0	0	0.0	120	100.0
6/19-22	106	Males	0	0.0	3	2.8	34	32.1	0	0.0	16	15.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	53	50.0
Quartile 2		Females	0	0.0	0	0.0	12	11.3	0	0.0	40	37.7	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	53	50.0
		Subtotal	0	0.0	3	2.8	46	43.4	0	0.0	56	52.8	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	106	100.0
6/23, 25-29	102	Males	0	0.0	5	4.9	29	28.4	0	0.0	19	18.6	0	0.0	1	1.0	0	0.0	0	0.0	0	0.0	54	52.9
Quartile 3		Females	0	0.0	0	0.0	18	17.7	0	0.0	27	26.5	0	0.0	3	2.9	0	0.0	0	0.0	0	0.0	48	47.1
		Subtotal	0	0.0	5	4.9	47	46.1	0	0.0	46	45.1	0	0.0	4	3.9	0	0.0	0	0.0	0	0.0	102	100.0
6/30-7/15	92	Males	0	0.0	2	2.2	21	22.8	0	0.0	19	20.6	0	0.0	2	2.2	0	0.0	0	0.0	0	0.0	44	47.8
Quartile 4		Females	0	0.0	0	0.0	19	20.7	0	0.0	26	28.3	0	0.0	3	3.2	0	0.0	0	0.0	0	0.0	48	52.2
		Subtotal	0	0.0	2	2.2	40	43.5	0	0.0	45	48.9	0	0.0	5	5.4	0	0.0	0	0.0	0	0.0	92	100.0
Season Total	420	Males	0	0.0	10	2.4	130	30.9	0	0.0	81	19.3	0	0.0	3	0.7	0	0.0	0	0.0	0	0.0	224	53.3
		Females	0	0.0	0	0.0	61	14.6	0	0.0	125	29.7	0	0.0	10	2.4	0	0.0	0	0.0	0	0.0	196	46.7
		Total	0	0.0	10	2.4	191	45.5	0	0.0	206	49.0	0	0.0	13	3.1	0	0.0	0	0.0	0	0.0	420	100.0
Mean Length		Males	-		611		779		-		850		-		913		-		-		-			
Std. Error			-		14		4		-		6		-		20		-		-		-			
Mean Length		Females	-		-		813		-		861		-		968		-		-		-			
Std. Error			-		-		6		-		4		-		12		-		-		-			

[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 fish project age and sex composition and mean length (mm), 2005.

			Brood Year (Age)																	
			2002		2001		2000		1999		1998		1997							
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.	%
6/10 - 7/10	4	Males	0	0.0	0	0.0	1	25.0	0	0.0	2	50.0	0	0.0	0	0.0	0	0.0	0	0.0	3	75.0
Mesh Size 2.75"		Females	0	0.0	0	0.0	0	0.0	0	0.0	1	25.0	0	0.0	0	0.0	0	0.0	0	0.0	1	25.0
		Subtotal	0	0.0	0	0.0	1	25.0	0	0.0	3	75.0	0	0.0	0	0.0	0	0.0	0	0.0	4	100.0
Mean Length		Males	-		-		793		-		895		-		-		-		-			
Std. Error			-		-		-		-		3		-		-		-		-			
Mean Length		Females	-		-		-		-		825		-		-		-		-			
Std. Error			-		-		-		-		-		-		-		-		-			
6/10 - 7/17	44	Males	0	0.0	5	11.4	25	56.8	0	0.0	5	11.4	0	0.0	0	0.0	0	0.0	0	0.0	35	79.5
Mesh Size 4.0"		Females	0	0.0	0	0.0	4	9.1	0	0.0	5	11.4	0	0.0	0	0.0	0	0.0	0	0.0	9	20.5
		Subtotal	0	0.0	5	11.4	29	65.9	0	0.0	10	22.7	0	0.0	0	0.0	0	0.0	0	0.0	44	100.0
Mean Length		Males	-		587		752		-		801		-		-		-		-			
Std. Error			-		18		11		-		17		-		-		-		-			
Mean Length		Females	-		-		829		-		856		-		-		-		-			
Std. Error			-		-		16		-		15		-		-		-		-			
7/29	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
Mesh Size 5.0"		Females	0	0.0	0	0.0	1	100.0	0	0.0	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	1	100.0	0	0.0	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	-		-		824		-		-		-		-		-		-			
Std. Error			-		-		-		-		-		-		-		-		-			
6/6 - 7/18	88	Males	0	0.0	26	29.5	33	37.5	0	0.0	4	4.5	0	0.0	0	0.0	0	0.0	0	0.0	63	71.6
Mesh Size 5.25"		Females	0	0.0	0	0.0	12	13.6	0	0.0	13	14.8	0	0.0	0	0.0	0	0.0	0	0.0	25	28.4
		Subtotal	0	0.0	26	29.5	45	51.1	0	0.0	17	19.3	0	0.0	0	0.0	0	0.0	0	0.0	88	100.0
Mean Length		Males	-		564		743		-		900		-		-		-		-			
Std. Error			-		9		10		-		30		-		-		-		-			
Mean Length		Females	-		-		812		-		865		-		-		-		-			
Std. Error			-		-		12		-		16		-		-		-		-			
7/29	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
Mesh Size 5.75"		Females	0	0.0	0	0.0	1	100.0	0	0.0	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	1	100.0	0	0.0	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	-		-		820		-		-		-		-		-		-			
Std. Error			-		-		-		-		-		-		-		-		-			

-continued-

Appendix A21.–Page 2 of 2.

Sample Dates / Mesh Size	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (1.2) No.	%	2000 (1.3) No.	%	2000 (2.2) No.	%	1999 (1.4) No.	%	1999 (2.3) No.	%	1998 (1.5) No.	%	1998 (2.4) No.	%	1997 (1.6) No.	%	1997 (2.5) No.	%	Total No.	%
6/6 - 7/26	165	Males	0	0.0	15	9.1	96	58.2	0	0.0	14	8.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	125	75.8
Mesh Size 6.50"		Females	0	0.0	0	0.0	16	9.7	0	0.0	20	12.1	0	0.0	4	2.4	0	0.0	0	0.0	0	0.0	40	24.2
		Subtotal	0	0.0	15	9.1	112	67.9	0	0.0	34	20.6	0	0.0	4	2.4	0	0.0	0	0.0	0	0.0	165	100.0
Mean Length		Males	-		606		727		-		843		-		-		-		-		-			
Std. Error			-		10		6		-		22		-		-		-		-		-			
Mean Length		Females	-		-		802		-		834		-		941		-		-		-			
Std. Error			-		-		8		-		13		-		30		-		-		-			
6/4 - 7/25	176	Males	0	0.0	9	5.1	78	44.3	0	0.0	19	10.8	0	0.0	1	0.6	0	0.0	0	0.0	0	0.0	107	60.8
Mesh Size 7.50"		Females	0	0.0	0	0.0	30	17.0	0	0.0	37	21.0	0	0.0	2	1.1	0	0.0	0	0.0	0	0.0	69	39.2
		Subtotal	0	0.0	9	5.1	108	61.4	0	0.0	56	31.8	0	0.0	3	1.7	0	0.0	0	0.0	0	0.0	176	100.0
Mean Length		Males	-		613		741		-		815		-		845		-		-		-			
Std. Error			-		12		5		-		15		-		-		-		-		-			
Mean Length		Females	-		-		795		-		854		-		897		-		-		-			
Std. Error			-		-		7		-		7		-		5		-		-		-			
6/6 - 7/18	162	Males	0	0.0	7	4.3	63	38.9	0	0.0	32	19.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	102	63.0
Mesh Size 8.50"		Females	0	0.0	0	0.0	18	11.1	0	0.0	41	25.3	0	0.0	1	0.6	0	0.0	0	0.0	0	0.0	60	37.0
		Subtotal	0	0.0	7	4.3	81	50.0	0	0.0	73	45.1	0	0.0	1	0.6	0	0.0	0	0.0	0	0.0	162	100.0
Mean Length		Males	-		598		766		-		830		-		-		-		-		-			
Std. Error			-		13		7		-		10		-		-		-		-		-			
Mean Length		Females	-		-		813		-		859		-		965		-		-		-			
Std. Error			-		-		9		-		8		-		-		-		-		-			
Season Total [a]	641	Males	0	0.0	62	9.7	296	46.2	0	0.0	76	11.9	0	0.0	1	0.2	0	0.0	0	0.0	0	0.0	435	67.9
Combined Mesh		Females	0	0.0	0	0.0	82	12.8	0	0.0	117	18.3	0	0.0	7	1.1	0	0.0	0	0.0	0	0.0	206	32.1
		Total	0	0.0	62	9.7	378	59.0	0	0.0	193	30.1	0	0.0	8	1.2	0	0.0	0	0.0	0	0.0	641	100.0
Mean Length		Males	-		587		743		-		832		-		845		-		-		-			
Std. Error			-		6		3		-		7		-		-		-		-		-			
Mean Length		Females	-		-		805		-		853		-		932		-		-		-			
Std. Error			-		-		4		-		5		-		19		-		-		-			

[a] The season total percentages by age group were based on sample size and does 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 fish project age and sex composition and mean length (mm), 2005.

			Brood Year (Age)																			
			2002		2001		2000				1999				1998				1997				
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.	%
7/18 - 8/2	6	Males	0	0.0	1	16.7	3	49.9	0	0.0	1	16.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	83.3
Mesh Size 2.75"		Females	0	0.0	0	0.0	1	16.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	16.7
		Subtotal	0	0.0	1	16.7	4	66.6	0	0.0	1	16.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6	100.0
Mean Length		Males	-		650		765		-		720		-		-		-		-		-			
Std. Error			-		-		14		-		-		-		-		-		-		-			
Mean Length		Females	-		-		830		-		-		-		-		-		-		-			
Std. Error			-		-		-		-		-		-		-		-		-		-			
7/12 - 31	26	Males	0	0.0	3	11.5	8	30.9	0	0.0	3	11.5	1	3.8	0	0.0	0	0.0	0	0.0	0	0.0	15	57.7
Mesh Size 4.0"		Females	0	0.0	0	0.0	5	19.2	0	0.0	6	23.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	11	42.3
		Subtotal	0	0.0	3	11.5	13	50.1	0	0.0	9	34.6	1	3.8	0	0.0	0	0.0	0	0.0	0	0.0	26	100.0
Mean Length		Males	-		613		716		-		905		684		-		-		-		-			
Std. Error			-		25		25		-		15		-		-		-		-		-			
Mean Length		Females	-		-		783		-		831		-		-		-		-		-			
Std. Error			-		-		13		-		24		-		-		-		-		-			
7/13 - 8/9	31	Males	0	0.0	7	22.6	12	38.7	0	0.0	2	6.4	0	0.0	0	0.0	1	3.2	0	0.0	0	0.0	22	70.9
Mesh Size 5.5"		Females	0	0.0	0	0.0	3	9.7	0	0.0	6	19.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	9	29.1
		Subtotal	0	0.0	7	22.6	15	48.4	0	0.0	8	25.8	0	0.0	0	0.0	1	3.2	0	0.0	0	0.0	31	100.0
Mean Length		Males	-		586		721		-		860		-		-		900		-		-			
Std. Error			-		14		22		-		50		-		-		-		-		-			
Mean Length		Females	-		-		790		-		837		-		-		-		-		-			
Std. Error			-		-		31		-		17		-		-		-		-		-			
7/12 - 8/8	48	Males	0	0.0	1	2.1	20	41.6	0	0.0	7	14.6	1	2.1	2	4.2	1	2.1	0	0.0	0	0.0	32	66.7
Mesh Size 6.50"		Females	0	0.0	0	0.0	2	4.2	0	0.0	13	27.0	0	0.0	1	2.1	0	0.0	0	0.0	0	0.0	16	33.3
		Subtotal	0	0.0	1	2.1	22	45.8	0	0.0	20	41.6	1	2.1	3	6.3	1	2.1	0	0.0	0	0.0	48	100.0
Mean Length		Males	-		610		738		-		860		655		963		850		-		-			
Std. Error			-		-		11		-		27		-		23		-		-		-			
Mean Length		Females	-		-		770		-		831		-		990		-		-		-			
Std. Error			-		-		10		-		9		-		-		-		-		-			
7/13 - 8/9	41	Males	0	0.0	1	2.4	20	48.9	0	0.0	9	21.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	30	73.2
Mesh Size 7.50"		Females	0	0.0	0	0.0	3	7.3	0	0.0	7	17.1	0	0.0	1	2.4	0	0.0	0	0.0	0	0.0	11	26.8
		Subtotal	0	0.0	1	2.4	23	56.2	0	0.0	16	39.0	0	0.0	1	2.4	0	0.0	0	0.0	0	0.0	41	100.0
Mean Length		Males	-		640		762		-		861		-		-		-		-		-			
Std. Error			-		-		11		-		23		-		-		-		-		-			
Mean Length		Females	-		-		797		-		846		-		990		-		-		-			
Std. Error			-		-		7		-		30		-		-		-		-		-			

-continued-

Appendix A22.–Page 2 of 2.

Sample Dates Mesh Size	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (1.2) No.	%	2000 (1.3) No.	%	2000 (2.2) No.	%	1999 (1.4) No.	%	1999 (2.3) No.	%	1998 (1.5) No.	%	1998 (2.4) No.	%	1997 (1.6) No.	%	1997 (2.5) No.	%	Total No.	%
7/12 - 8/4	19	Males	0	0.0	1	5.3	6	31.6	0	0.0	2	10.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	9	47.4
Mesh Size 8.50"		Females	0	0.0	0	0.0	3	15.8	0	0.0	7	36.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	10	52.6
		Subtotal	0	0.0	1	5.3	9	47.4	0	0.0	9	47.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	19	100.0
Mean Length		Males	-		610		719		-		858		-		-		-		-		-			
Std. Error			-		-		9		-		33		-		-		-		-		-			
Mean Length		Females	-		-		818		-		851		-		-		-		-		-			
Std. Error			-		-		40		-		13		-		-		-		-		-			
Season Total [a]	171	Males	0	0.0	14	8.2	69	40.4	0	0.0	24	14.0	2	1.2	2	1.2	2	1.2	0	0.0	0	0.0	113	66.2
Combined Mesh		Females	0	0.0	0	0.0	17	9.9	0	0.0	39	22.8	0	0.0	2	1.1	0	0.0	0	0.0	0	0.0	58	33.8
		Subtotal	0	0.0	14	8.2	86	50.3	0	0.0	63	36.8	2	1.2	4	2.3	2	1.2	0	0.0	0	0.0	171	100.0
Mean Length		Males	-		604		739		-		860		670		963		875		-		-			
Std. Error			-		10		7		-		14		14		23		25		-		-			
Mean Length		Females	-		-		794		-		838		-		990		-		-		-			
Std. Error			-		-		9		-		8		-		0		-		-		-			

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

Appendix A23.–Andreafsky River (East Fork) weir, Chinook salmon escapement project age and sex composition and mean length (mm), 2005.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (1.2) No.	%	2000 (1.3) No.	%	(2.2) No.	%	1999 (1.4) No.	%	(2.3) No.	%	1998 (1.5) No.	%	(2.4) No.	%	1997 (1.6) No.	%	(2.5) No.	%	Total No.	%
6/28-7/3	117	Males	0	0.0	52	8.5	177	29.1	0	0.0	52	8.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	281	46.1
(6/26-7/3)		Females	0	0.0	47	7.7	208	34.2	0	0.0	63	10.3	0	0.0	10	1.7	0	0.0	0	0.0	0	0.0	328	53.9
		Subtotal	0	0.0	99	16.2	385	63.3	0	0.0	115	18.8	0	0.0	10	1.7	0	0.0	0	0.0	0	0.0	609	100.0
7/4-7	121	Males	0	0.0	108	13.2	217	26.5	0	0.0	48	5.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	373	45.5
(7/4-8)		Females	0	0.0	0	0.0	365	44.6	0	0.0	81	9.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	446	54.5
		Subtotal	0	0.0	108	13.2	582	71.1	0	0.0	129	15.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	819	100.0
7/10-28, 31	151	Males	0	0.0	111	13.9	302	37.8	0	0.0	42	5.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	455	57.0
(7/9-9/11)		Females	0	0.0	16	2.0	164	20.5	0	0.0	164	20.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	344	43.0
		Subtotal	0	0.0	127	15.9	466	58.3	0	0.0	206	25.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	799	100.0
Season Total	389	Males	0	0.0	271	12.2	696	31.2	0	0.0	142	6.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,109	49.8
		Females	0	0.0	63	2.8	737	33.1	0	0.0	308	13.8	0	0.0	10	0.5	0	0.0	0	0.0	0	0.0	1,118	50.2
		Total	0	0.0	334	15.0	1,433	64.3	0	0.0	450	20.2	0	0.0	10	0.5	0	0.0	0	0.0	0	0.0	2,227	100.0
Mean Length		Males	-		585		728		-		809		-		-		-		-		-			
Std. Error			-		7		6		-		26		-		-		-		-		-			
Mean Length		Females	-		562		761		-		837		-		928		-		-		-			
Std. Error			-		19		5		-		8		-		88		-		-		-			

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

Appendix A24.–Anvik River carcass survey, Chinook salmon escapement project age and sex composition and mean length (mm), 2005.

			Brood Year (Age)																					
			2002		2001		2000				1999				1998				1997					
Sample	Sample		(1.1)		(1.2)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total	
Dates	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
7/23, 25,	227	Males	0	0.0	20	8.8	70	30.8	0	0.0	20	8.8	0	0.0	1	0.4	0	0.0	0	0.0	0	0.0	111	48.9
31, 8/2-4		Females	0	0.0	0	0.0	69	30.4	0	0.0	42	18.5	1	0.4	4	1.8	0	0.0	0	0.0	0	0.0	116	51.1
Season Total [a]		Total	0	0.0	20	8.8	139	61.2	0	0.0	62	27.3	1	0.4	5	2.2	0	0.0	0	0.0	0	0.0	227	100.0
Mean Length		Males	-		589		715		-		771		-		720		-		-		-			
Std. Error			-		15		8		-		14		-		-		-		-		-			
Mean Length		Females	-		-		744		-		796		705		723		-		-		-			
Std. Error			-		-		6		-		9		-		29		-		-		-			

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

Appendix A25.–Chena River carcass survey, Chinook salmon project age and sex composition and mean length (mm), 2005.

			Brood Year (Age)																	
			2002		2001		2000				1999				1998				1997			
Sample	Sample		(1.1)		(1.2)		(1.3)		(2.2)		(1.4)		(2.3)		(1.5)		(2.4)		(1.6)		(2.5)		Total	
Dates	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
7/13, 19,	193	Males	0	0.0	15	7.8	63	32.6	0	0.0	28	14.5	0	0.0	1	0.5	0	0.0	0	0.0	0	0.0	107	55.4
21-24, 27-8/2		Females	0	0.0	1	0.5	27	14.0	0	0.0	52	27.0	0	0.0	4	2.1	2	1.0	0	0.0	0	0.0	86	44.6
		Subtotal	0	0.0	16	8.3	90	46.6	0	0.0	80	41.5	0	0.0	5	2.6	2	1.0	0	0.0	0	0.0	193	100.0
8/3-5	207	Males	0	0.0	8	3.9	74	35.7	0	0.0	36	17.4	0	0.0	2	1.0	2	1.0	0	0.0	0	0.0	122	59.0
		Females	0	0.0	0	0.0	43	20.9	0	0.0	38	18.3	0	0.0	2	0.9	2	0.9	0	0.0	0	0.0	85	41.0
		Subtotal	0	0.0	8	3.9	117	56.6	0	0.0	74	35.7	0	0.0	4	1.9	4	1.9	0	0.0	0	0.0	207	100.0
8/6-12	153	Males	0	0.0	12	7.8	45	29.4	0	0.0	29	19.0	0	0.0	2	1.3	2	1.3	0	0.0	0	0.0	90	58.8
		Females	0	0.0	0	0.0	24	15.7	0	0.0	34	22.2	1	0.7	4	2.6	0	0.0	0	0.0	0	0.0	63	41.2
		Subtotal	0	0.0	12	7.8	69	45.1	0	0.0	63	41.2	1	0.7	6	3.9	2	1.3	0	0.0	0	0.0	153	100.0
Season Total [a]	553	Males	0	0.0	35	6.3	182	32.9	0	0.0	93	16.8	0	0.0	5	0.9	4	0.7	0	0.0	0	0.0	319	57.6
		Females	0	0.0	1	0.2	94	17.0	0	0.0	124	22.5	1	0.2	10	1.8	4	0.7	0	0.0	0	0.0	234	42.4
		Total	0	0.0	36	6.5	276	49.9	0	0.0	217	39.3	1	0.2	15	2.7	8	1.4	0	0.0	0	0.0	553	100.0
Mean Length		Males	-		541		732		-		819		-		911		805		-		-			
Std. Error			-		6		6		-		8		-		30		24		-		-			
Mean Length		Females	-		465		779		-		832		760		882		824		-		-			
Std. Error			-		-		4		-		5		-		17		13		-		-			

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

Appendix A26.–Gisasa River weir, Chinook salmon escapement project age and sex composition and mean length (mm), 2005.

Sample Dates [a] (Strata Dates)	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (1.2) No.	%	2000 (1.3) No.	%	(2.2) No.	%	1999 (1.4) No.	%	(2.3) No.	%	1998 (1.5) No.	%	(2.4) No.	%	1997 (1.6) No.	%	(2.5) No.	%	Total No.	%
7/3-7	157	Males	0	0.0	263	31.2	247	29.3	0	0.0	43	5.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	553	65.6
(6/29-7/8)		Females	0	0.0	38	4.5	204	24.2	0	0.0	48	5.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	290	34.4
		Subtotal	0	0.0	301	35.7	451	53.5	0	0.0	91	10.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	843	100.0
7/10-12	155	Males	0	0.0	283	25.1	480	42.6	0	0.0	43	3.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	806	71.6
(7/9-14)		Females	0	0.0	44	3.9	123	11.0	0	0.0	138	12.3	7	0.6	7	0.6	0	0.0	0	0.0	0	0.0	319	28.4
		Subtotal	0	0.0	327	29.0	603	53.6	0	0.0	181	16.2	7	0.6	7	0.6	0	0.0	0	0.0	0	0.0	1,125	100.0
7/17, 19-20	155	Males	0	0.0	194	21.3	341	37.4	0	0.0	30	3.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	565	61.9
(7/15-22)		Females	0	0.0	18	1.9	177	19.4	0	0.0	147	16.2	0	0.0	6	0.6	0	0.0	0	0.0	0	0.0	348	38.1
		Subtotal	0	0.0	212	23.2	518	56.8	0	0.0	177	19.4	0	0.0	6	0.6	0	0.0	0	0.0	0	0.0	913	100.0
7/24-31	124	Males	0	0.0	33	16.2	74	36.3	0	0.0	3	1.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	110	54.1
(7/23-31)		Females	0	0.0	7	3.2	60	29.0	0	0.0	28	13.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	95	45.9
		Subtotal	0	0.0	40	19.4	134	65.3	0	0.0	31	15.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	205	100.0
Season Total	591	Males	0	0.0	774	25.1	1,142	37.0	0	0.0	119	3.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2,035	66.0
		Females	0	0.0	105	3.4	564	18.3	0	0.0	362	11.7	7	0.2	13	0.4	0	0.0	0	0.0	0	0.0	1,051	34.0
		Subtotal	0	0.0	879	28.5	1,706	55.3	0	0.0	481	15.6	7	0.2	13	0.4	0	0.0	0	0.0	0	0.0	3,086	100.0
Mean Length		Males	-		551		724		-		776		-		-		-		-		-			
Std. Error			-		4		4		-		12		-		-		-		-		-			
Mean Length		Females	-		548		755		-		817		860		850		-		-		-			
Std. Error			-		11		6		-		6		-		-		-		-		-			

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

Appendix A27.–Henshaw Creek weir, Chinook salmon escapement project age and sex composition and mean length (mm), 2005.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (1.2) No.	%	2000 (1.3) No.	%	(2.2) No.	%	1999 (1.4) No.	%	(2.3) No.	%	1998 (1.5) No.	%	(2.4) No.	%	1997 (1.6) No.	%	(2.5) No.	%	Total No.	%
7/6-11	105	Males	0	0.0	54	15.3	121	34.2	0	0.0	31	8.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	206	58.2
(7/1-15)		Females	0	0.0	24	6.8	67	18.9	0	0.0	57	16.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	148	41.8
		Subtotal	0	0.0	78	22.0	188	53.1	0	0.0	88	24.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	354	100.0
7/17, 22, 24-25,	22 [a]	Males	0	0.0	59	36.2	30	18.4	0	0.0	8	4.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	97	59.5
28-29, 8/1-3, 5		Females	0	0.0	7	4.3	37	22.7	0	0.0	22	13.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	66	40.5
(7/16-8/5)		Subtotal	0	0.0	66	40.5	67	41.1	0	0.0	30	18.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	163	100.0
Season Total	127	Males	0	0.0	113	21.9	151	29.2	0	0.0	39	7.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	303	58.6
		Females	0	0.0	31	6.0	104	20.1	0	0.0	79	15.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	214	41.4
		Total	0	0.0	144	27.9	255	49.3	0	0.0	118	22.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	517	100.0
Mean Length		Males	-		535		710		-		765		-		-		-		-		-			
Std. Error			-		15		12		-		32		-		-		-		-		-			
Mean Length		Females	-		573		720		-		827		-		-		-		-		-			
Std. Error			-		16		20		-		14		-		-		-		-		-			

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

[a] Due to the small sample size for strata 2, the age and sex composition should be interpreted with caution.

Appendix A28.–Salcha River carcass survey, Chinook salmon escapement project age and sex composition and mean length (mm), 2005.

Sample Dates	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (1.2) No.	%	2000 (1.3) No.	%	(2.2) No.	%	1999 (1.4) No.	%	(2.3) No.	%	1998 (1.5) No.	%	(2.4) No.	%	1997 (1.6) No.	%	(2.5) No.	%	Total No.	%
7/11, 17-28	205	Males	0	0.0	18	8.8	61	29.8	0	0.0	26	12.8	0	0.0	2	1.0	1	0.5	0	0.0	0	0.0	108	52.9
		Females	0	0.0	0	0.0	34	16.7	0	0.0	59	28.9	0	0.0	3	1.5	0	0.0	0	0.0	0	0.0	97	47.1
		Subtotal	0	0.0	18	8.8	95	46.5	0	0.0	85	41.7	0	0.0	5	2.5	1	0.5	0	0.0	0	0.0	205	100.0
7/29-8/3	220	Males	0	0.0	23	10.4	44	19.9	0	0.0	30	13.6	0	0.0	1	0.5	0	0.0	0	0.0	0	0.0	98	44.4
		Females	0	0.0	0	0.0	34	15.4	0	0.0	81	36.6	0	0.0	8	3.6	0	0.0	0	0.0	0	0.0	122	55.6
		Subtotal	0	0.0	23	10.4	78	35.3	0	0.0	110	50.2	0	0.0	9	4.1	0	0.0	0	0.0	0	0.0	220	100.0
8/4-12	177	Males	0	0.0	15	8.5	37	20.9	0	0.0	17	9.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	69	39.0
		Females	0	0.0	0	0.0	40	22.6	0	0.0	65	36.7	0	0.0	3	1.7	0	0.0	0	0.0	0	0.0	108	61.0
		Subtotal	0	0.0	15	8.5	77	43.5	0	0.0	82	46.3	0	0.0	3	1.7	0	0.0	0	0.0	0	0.0	177	100.0
Season Total [a]	602	Males	0	0.0	56	9.3	142	23.6	0	0.0	73	12.1	0	0.0	3	0.5	1	0.2	0	0.0	0	0.0	275	45.7
		Females	0	0.0	0	0.0	108	17.9	0	0.0	205	34.1	0	0.0	14	2.3	0	0.0	0	0.0	0	0.0	327	54.3
		Total	0	0.0	56	9.3	250	41.5	0	0.0	278	46.2	0	0.0	17	2.8	1	0.2	0	0.0	0	0.0	602	100.0
Mean Length		Males	-		552		753		-		840		-		980		805		-		-			
Std. Error			-		5		6		-		10		-		60		-		-		-			
Mean Length		Females	-		-		798		-		846		-		899		-		-		-			
Std. Error			-		-		3		-		3		-		14		-		-		-			

[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 A29.–Tozitna River weir, Chinook salmon escapement project age and sex composition and mean length (mm), 2005.

Sample Dates [a] (Strata Dates)	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (1.2) No.	%	2000 (1.3) No.	%	(2.2) No.	%	1999 (1.4) No.	%	(2.3) No.	%	1998 (1.5) No.	%	(2.4) No.	%	1997 (1.6) No.	%	(2.5) No.	%	Total No.	%
7/2, 5, 8-10,	98	Males	0	0.0	350	33.7	329	31.6	0	0.0	127	12.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	806	77.5
13-16		Females	0	0.0	0	0.0	74	7.2	0	0.0	149	14.3	11	1.0	0	0.0	0	0.0	0	0.0	0	0.0	234	22.5
(7/2-16)		Subtotal	0	0.0	350	33.7	403	38.8	0	0.0	276	26.5	11	1.0	0	0.0	0	0.0	0	0.0	0	0.0	1,040	100.0
7/17-22	93	Males	0	0.0	88	22.6	146	37.6	0	0.0	25	6.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	259	66.6
(7/17-22)		Females	0	0.0	0	0.0	58	15.1	0	0.0	71	18.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	129	33.4
		Subtotal	0	0.0	88	22.6	204	52.7	0	0.0	96	24.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	388	100.0
7/23-8/4, 6, 9	105	Males	2	1.0	30	16.2	57	31.4	0	0.0	19	10.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	108	59.1
(7/23-8/12)		Females	0	0.0	0	0.0	30	16.2	0	0.0	45	24.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	75	40.9
		Subtotal	2	1.0	30	16.2	87	47.6	0	0.0	64	35.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	183	100.0
Season Total	296	Males	2	0.1	467	29.0	533	33.0	0	0.0	171	10.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,173	72.8
		Females	0	0.0	0	0.0	162	10.1	0	0.0	265	16.4	11	0.7	0	0.0	0	0.0	0	0.0	0	0.0	438	27.2
		Total	2	0.1	467	29.0	695	43.1	0	0.0	436	27.1	11	0.7	0	0.0	0	0.0	0	0.0	0	0.0	1,611	100.0
Mean Length		Males	325		550		693		-		744		-		-		-		-		-			
Std. Error			-		7		7		-		16		-		-		-		-		-			
Mean Length		Females	-		-		762		-		817		665		-		-		-		-			
Std. Error			-		-		7		-		8		-		-		-		-		-			

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

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 (mm), 2005.

			Brood Year (Age)											
			2002		2001		2000		1999		1998			
Sample	Sample		(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		Total	
Dates [a]	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
6/24-25	155	Males	0	0.0	1,429	33.5	302	7.1	82	1.9	0	0.0	1,814	42.6
Period 1		Females	0	0.0	2,061	48.4	385	9.0	0	0.0	0	0.0	2,445	57.4
		Subtotal	0	0.0	3,490	81.9	687	16.1	82	1.9	0	0.0	4,259	100.0
6/27-28	156	Males	65	0.6	3,917	38.5	522	5.1	131	1.3	0	0.0	4,635	45.5
Period 2		Females	0	0.0	4,830	47.4	587	5.8	131	1.3	0	0.0	5,548	54.5
		Subtotal	65	0.6	8,747	85.9	1,110	10.9	261	2.6	0	0.0	10,183	100.0
6/30-7/1	155	Males	45	0.6	4,182	59.4	455	6.5	136	1.9	0	0.0	4,819	68.4
Period 3		Females	0	0.0	2,046	29.0	182	2.6	0	0.0	0	0.0	2,227	31.6
		Subtotal	45	0.6	6,228	88.4	636	9.0	136	1.9	0	0.0	7,046	100.0
7/5-6	155	Males	0	0.0	1,249	51.6	125	5.2	16	0.6	0	0.0	1,389	57.4
Period 4		Females	0	0.0	952	39.4	78	3.2	0	0.0	0	0.0	1,030	42.6
		Subtotal	0	0.0	2,201	91.0	203	8.4	16	0.6	0	0.0	2,419	100.0
Other [b]	0 [c]	Males	1	0.5	60	45.1	8	5.9	2	1.5	0	0.0	71	52.9
		Females	0	0.0	55	41.4	7	5.2	1	0.5	0	0.0	63	47.1
		Subtotal	1	0.5	116	86.4	15	11.0	3	2.1	0	0.0	134	100.0
Total	621	Males	111	0.5	10,836	45.1	1,412	5.9	367	1.5	0	0.0	12,727	52.9
All Periods		Females	0	0.0	9,944	41.4	1,239	5.2	131	0.5	0	0.0	11,314	47.1
		Total	111	0.5	20,781	86.4	2,651	11.0	498	2.1	0	0.0	24,041	100.0
Mean Length		Males	539		589		604		602		-			
Std. Error			-		2		5		12		-			
Mean Length		Females	-		559		589		580		-			
Std. Error			-		2		6		10		-			

Note: All District 1 Chinook commercial fishing periods permitted unrestricted mesh sizes, because it was a Chinook directed fishery, 8.0" mesh and larger was likely used.

[a] Other includes all ADF&G test fish sold; these fish were not recorded as part of the harvest for any period.

[b] Test fish sold during the commercial fishery were not sampled, therefore, the age composition was calculated using percentages from the season total.

Appendix B2.–Yukon River, District 2, summer chum salmon commercial gillnet harvest age and sex composition and mean length (mm), 2005.

Sample Dates [a]	Sample Size		Brood Year (Age) 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
6/23-24	154	Males	0	0.0	1,107	37.0	136	4.5	0	0.0	0	0.0	1,243	41.6
Period 1		Females	19	0.6	1,457	48.7	233	7.8	39	1.3	0	0.0	1,749	58.4
		Subtotal	19	0.6	2,565	85.7	369	12.3	39	1.3	0	0.0	2,992	100.0
6/27	157	Males	0	0.0	1,112	41.4	171	6.4	34	1.3	0	0.0	1,317	49.0
Period 2		Females	0	0.0	1,180	43.9	188	7.0	0	0.0	0	0.0	1,369	51.0
		Subtotal	0	0.0	2,293	85.4	359	13.4	34	1.3	0	0.0	2,686	100.0
7/2	153	Males	0	0.0	1,361	51.6	155	5.9	34	1.3	0	0.0	1,550	58.8
Period 3		Females	0	0.0	947	35.9	138	5.2	0	0.0	0	0.0	1,085	41.2
		Subtotal	0	0.0	2,308	87.6	293	11.1	34	1.3	0	0.0	2,635	100.0
Total	464	Males	0	0.0	3,580	43.1	462	5.6	69	0.8	0	0.0	4,111	49.4
All Periods		Females	19	0.2	3,585	43.1	559	6.7	39	0.5	0	0.0	4,202	50.6
		Total	19	0.2	7,165	86.2	1,021	12.3	108	1.3	0	0.0	8,313	100.0
Mean Length		Males	-		599		604		609		-			
Std. Error			-		2		7		8		-			
Mean Length		Females	560		571		583		608		-			
Std. Error			-		2		4		8		-			

Note: Mesh size was unrestricted, because it was a Chinook directed fishery, 8.0" mesh and larger was most likely used.

Appendix B3.–Yukon River, District 6, summer chum salmon commercial fish wheel harvest age and sex composition and mean length (mm), 2005.

			Brood Year (Age)											
			2002		2001		2000		1999		1998			
Sample	Sample		(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		Total	
Dates	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
7/15-17	155	Males	0	0.0	928	54.2	11	0.6	0	0.0	0	0.0	939	54.8
Period 1		Females	0	0.0	729	42.6	44	2.6	0	0.0	0	0.0	773	45.2
		Subtotal	0	0.0	1,657	96.8	55	3.2	0	0.0	0	0.0	1,712	100.0
7/18-20	155	Males	0	0.0	901	44.5	91	4.5	0	0.0	0	0.0	992	49.0
Period 2		Females	0	0.0	953	47.1	78	3.9	0	0.0	0	0.0	1,032	51.0
		Subtotal	0	0.0	1,854	91.6	170	8.4	0	0.0	0	0.0	2,024	100.0
7/22-24	155	Males	0	0.0	1,613	52.3	80	2.6	0	0.0	0	0.0	1,693	54.8
Period 3		Females	0	0.0	1,374	44.5	20	0.6	0	0.0	0	0.0	1,394	45.2
		Subtotal	0	0.0	2,987	96.8	100	3.2	0	0.0	0	0.0	3,087	100.0
7/25-27	153	Males	0	0.0	1,004	46.4	14	0.7	0	0.0	0	0.0	1,018	47.1
Period 4		Females	0	0.0	1,103	51.0	42	2.0	0	0.0	0	0.0	1,145	52.9
		Subtotal	0	0.0	2,106	97.4	57	2.6	0	0.0	0	0.0	2,163	100.0
Total	618	Males	0	0.0	4,446	49.5	196	2.2	0	0.0	0	0.0	4,642	51.7
All Periods		Females	0	0.0	4,159	46.3	185	2.1	0	0.0	0	0.0	4,344	48.3
		Total	0	0.0	8,605	95.8	381	4.2	0	0.0	0	0.0	8,986	100.0
Mean Length		Males	-		600		631		-		-			
Std. Error			-		2		11		-		-			
Mean Length		Females	-		577		569		-		-			
Std. Error			-		1		5		-		-			

Appendix B4.–Yukon River, District 1, summer chum salmon subsistence 5.5" mesh gillnet harvest age and sex composition and mean length (mm), 2005.

			Brood Year (Age)											
			2002		2001		2000		1999		1998			
Sample	Sample		(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		Total	
Dates	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
6/7, 10	139	Males	0	0.0	60	43.2	28	20.1	3	2.2	0	0.0	91	65.5
		Females	0	0.0	34	24.5	14	10.1	0	0.0	0	0.0	48	34.5
		Subtotal	0	0.0	94	67.6	42	30.2	3	2.2	0	0.0	139	100.0
6/14	56	Males	0	0.0	31	55.4	6	10.7	1	1.8	0	0.0	38	67.9
		Females	0	0.0	15	26.8	3	5.4	0	0.0	0	0.0	18	32.1
		Subtotal	0	0.0	46	82.1	9	16.1	1	1.8	0	0.0	56	100.0
Season Total	195	Males	0	0.0	91	46.7	34	17.4	4	2.1	0	0.0	129	66.2
		Females	0	0.0	49	25.1	17	8.7	0	0.0	0	0.0	66	33.8
		Total	0	0.0	140	71.8	51	26.2	4	2.1	0	0.0	195	100.0
Mean Length		Males	-		591		602		636		-			
Std. Error			-		3		5		12		-			
Mean Length		Females	-		587		591		-		-			
Std. Error			-		3		5		-		-			

Appendix B5.–Yukon River, District 1, summer chum salmon subsistence 5.5" mesh gillnet harvest age composition, 2005.

		Brood Year (Age)											
		2002		2001		2000		1999		1998			
Sample	Sample	(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		Total	
Dates [a]	Size	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
6/7, 10	207	0	0.0	139	67.1	64	30.9	4	1.9	0	0.0	207	100.0
6/14	169	0	0.0	141	83.4	26	15.4	2	1.2	0	0.0	169	100.0
Season Total	376	0	0.0	280	74.5	90	23.9	6	1.6	0	0.0	376	100.0

[a] Combines all sexed (Appendix B4) and all unsexed summer chum salmon sampled from the 5.5" mesh gillnet subsistence harvest.

Appendix B6.–Yukon River, Big Eddy, summer chum salmon 5.5" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

Sample Dates [a]	Sample Size		Brood Year (Age) 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
6/6, 8-13,	143	Males	0	0.0	61	42.7	7	4.9	0	0.0	0	0.0	68	47.6
15-18		Females	0	0.0	67	46.9	8	5.6	0	0.0	0	0.0	75	52.4
Quartile 1		Subtotal	0	0.0	128	89.5	15	10.5	0	0.0	0	0.0	143	100.0
6/19-23	120	Males	0	0.0	42	35.0	7	5.8	0	0.0	0	0.0	49	40.8
Quartile 2		Females	0	0.0	65	54.2	6	5.0	0	0.0	0	0.0	71	59.2
		Subtotal	0	0.0	107	89.2	13	10.8	0	0.0	0	0.0	120	100.0
6/24-26,	140	Males	0	0.0	61	43.6	2	1.4	1	0.7	0	0.0	64	45.7
28-30		Females	0	0.0	70	50.0	6	4.3	0	0.0	0	0.0	76	54.3
Quartile 3		Subtotal	0	0.0	131	93.6	8	5.7	1	0.7	0	0.0	140	100.0
7/1-3, 6-8,	112	Males	0	0.0	43	38.4	5	4.5	0	0.0	0	0.0	48	42.9
12-13		Females	1	0.9	59	52.7	4	3.6	0	0.0	0	0.0	64	57.1
Quartile 4		Subtotal	1	0.9	102	91.1	9	8.0	0	0.0	0	0.0	112	100.0
Season Total	515	Males	0	0.0	207	40.2	21	4.1	1	0.2	0	0.0	229	44.5
		Females	1	0.2	261	50.7	24	4.7	0	0.0	0	0.0	286	55.5
		Total	1	0.2	468	90.9	45	8.7	1	0.2	0	0.0	515	100.0
Mean Length		Males	-		579		594		570		-			
Std. Error			-		2		8		-		-			
Mean Length		Females	535		562		580		-		-			
Std. Error			-		1		4		-		-			

[a] Sample dates were stratified by quartiles based on combined Big Eddy and Middle Mouth 5.5" mesh drift gillnet catch totals.

Appendix B7.–Yukon River, Middle Mouth, summer chum salmon 5.5" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

Sample Dates [a]	Sample Size		Brood Year (Age) 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
6/11-13,	28	Males	0	0.0	13	46.4	4	14.3	0	0.0	0	0.0	17	60.7
17, 19		Females	0	0.0	10	35.7	1	3.6	0	0.0	0	0.0	11	39.3
Quartile 1		Subtotal	0	0.0	23	82.1	5	17.9	0	0.0	0	0.0	28	100.0
6/20-23	87	Males	0	0.0	35	40.2	5	5.7	0	0.0	0	0.0	40	46.0
Quartile 2		Females	0	0.0	40	46.0	7	8.0	0	0.0	0	0.0	47	54.0
		Subtotal	0	0.0	75	86.2	12	13.8	0	0.0	0	0.0	87	100.0
6/25-26,	54	Males	0	0.0	26	48.1	3	5.6	0	0.0	0	0.0	29	53.7
28-29		Females	0	0.0	21	38.9	4	7.4	0	0.0	0	0.0	25	46.3
Quartile 3		Subtotal	0	0.0	47	87.0	7	13.0	0	0.0	0	0.0	54	100.0
7/1-3, 7-8,	70	Males	0	0.0	27	38.6	1	1.4	0	0.0	0	0.0	28	40.0
10, 14		Females	0	0.0	37	52.9	5	7.1	0	0.0	0	0.0	42	60.0
Quartile 4		Subtotal	0	0.0	64	91.4	6	8.6	0	0.0	0	0.0	70	100.0
Season Total	239	Males	0	0.0	101	42.3	13	5.4	0	0.0	0	0.0	114	47.7
		Females	0	0.0	108	45.2	17	7.1	0	0.0	0	0.0	125	52.3
		Total	0	0.0	209	87.4	30	12.6	0	0.0	0	0.0	239	100.0
Mean Length		Males	-		569		586		-		-			
Std. Error			-		3		6		-		-			
Mean Length		Females	-		553		583		-		-			
Std. Error			-		2		7		-		-			

[a] Sample dates were stratified by quartiles based on combined Big Eddy and Middle Mouth 5.5" mesh drift gillnet catch totals.

Appendix B8.–Yukon River, Big Eddy, and Middle Mouth combined, summer chum salmon 5.5" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

Sample Dates [a]	Sample Size		Brood Year (Age) 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
6/6, 8-13,	171	Males	0	0.0	74	43.3	11	6.4	0	0.0	0	0.0	85	49.7
15-20		Females	0	0.0	77	45.0	9	5.3	0	0.0	0	0.0	86	50.3
Quartile 1		Subtotal	0	0.0	151	88.3	20	11.7	0	0.0	0	0.0	171	100.0
6/20-23	207	Males	0	0.0	77	37.2	12	5.8	0	0.0	0	0.0	89	43.0
Quartile 2		Females	0	0.0	105	50.7	13	6.3	0	0.0	0	0.0	118	57.0
		Subtotal	0	0.0	182	87.9	25	12.1	0	0.0	0	0.0	207	100.0
6/24-26,	194	Males	0	0.0	87	44.8	5	2.6	1	0.5	0	0.0	93	47.9
28-30		Females	0	0.0	91	46.9	10	5.2	0	0.0	0	0.0	101	52.1
Quartile 3		Subtotal	0	0.0	178	91.8	15	7.7	1	0.5	0	0.0	194	100.0
7/1-3, 6-8,	182	Males	0	0.0	70	38.5	6	3.3	0	0.0	0	0.0	76	41.8
10, 12-14		Females	1	0.5	96	52.7	9	4.9	0	0.0	0	0.0	106	58.2
Quartile 4		Subtotal	1	0.5	166	91.2	15	8.2	0	0.0	0	0.0	182	100.0
Season Total	754	Males	0	0.0	308	40.8	34	4.5	1	0.1	0	0.0	343	45.5
		Females	1	0.1	369	48.9	41	5.4	0	0.0	0	0.0	411	54.5
		Total	1	0.1	677	89.8	75	9.9	1	0.1	0	0.0	754	100.0
Mean Length		Males	-		576		591		570		-			
Std. Error			-		2		5		-		-			
Mean Length		Females	535		560		581		-		-			
Std. Error			-		1		4		-		-			

[a] Sample dates were stratified by quartiles based on combined Big Eddy and Middle Mouth 5.5" mesh drift gillnet catch totals.

Appendix B9.–Andreafsky River (East Fork) weir, summer chum salmon escapement project age and sex composition and mean length (mm), 2005.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
6/28-29, 7/1	131	Males	0	0.0	1,559	57.2	187	6.9	0	0.0	0	0.0	1,746	64.1
(6/26-7/2)		Females	0	0.0	914	33.6	62	2.3	0	0.0	0	0.0	976	35.9
		Subtotal	0	0.0	2,473	90.8	249	9.2	0	0.0	0	0.0	2,722	100.0
7/3-6	134	Males	0	0.0	3,299	43.3	512	6.7	0	0.0	0	0.0	3,811	50.0
(7/3-8)		Females	0	0.0	3,583	47.0	227	3.0	0	0.0	0	0.0	3,810	50.0
		Subtotal	0	0.0	6,882	90.3	739	9.7	0	0.0	0	0.0	7,621	100.0
7/10-15	162	Males	0	0.0	3,574	54.3	162	2.5	41	0.6	0	0.0	3,777	57.4
(7/9-16)		Females	0	0.0	2,762	42.0	41	0.6	0	0.0	0	0.0	2,803	42.6
		Subtotal	0	0.0	6,336	96.3	203	3.1	41	0.6	0	0.0	6,580	100.0
7/17-20	131	Males	0	0.0	1,155	64.9	14	0.8	0	0.0	0	0.0	1,169	65.7
(7/17-22)		Females	0	0.0	612	34.3	0	0.0	0	0.0	0	0.0	612	34.3
		Subtotal	0	0.0	1,767	99.2	14	0.8	0	0.0	0	0.0	1,781	100.0
7/24-30	100	Males	0	0.0	579	47.0	74	6.0	0	0.0	0	0.0	653	53.0
(7/23-9/11)		Females	0	0.0	566	46.0	12	1.0	0	0.0	0	0.0	578	47.0
		Subtotal	0	0.0	1,145	93.0	86	7.0	0	0.0	0	0.0	1,231	100.0
Season Total	658	Males	0	0.0	10,166	51.0	949	4.8	41	0.2	0	0.0	11,156	56.0
		Females	0	0.0	8,437	42.3	342	1.7	0	0.0	0	0.0	8,779	44.0
		Total	0	0.0	18,603	93.3	1,291	6.5	41	0.2	0	0.0	19,935	100.0
Mean Length		Males	-		582		610		630		-			
Std. Error			-		3		10		-		-			
Mean Length		Females	-		537		555		-		-			
Std. Error			-		3		13		-		-			

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

Appendix B10.–Anvik River sonar, summer chum salmon escapement project age and sex composition and mean length (mm), 2005.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
6/28-30	147	Males	0	0.0	35,297	49.7	3,868	5.4	1,451	2.0	0	0.0	40,615	57.1
(6/26-7/2)		Females	0	0.0	27,077	38.1	2,901	4.1	484	0.7	0	0.0	30,462	42.9
		Subtotal	0	0.0	62,374	87.8	6,769	9.5	1,934	2.7	0	0.0	71,077	100.0
7/4, 6	150	Males	0	0.0	66,382	53.3	4,149	3.3	0	0.0	0	0.0	70,531	56.7
(7/3-7)		Females	0	0.0	53,935	43.3	0	0.0	0	0.0	0	0.0	53,935	43.3
		Subtotal	0	0.0	120,317	96.7	4,149	3.3	0	0.0	0	0.0	124,466	100.0
7/9-11	152	Males	0	0.0	46,586	42.8	717	0.7	717	0.7	0	0.0	48,019	44.1
(7/8-12)		Females	0	0.0	60,920	55.9	0	0.0	0	0.0	0	0.0	60,920	55.9
		Subtotal	0	0.0	107,506	98.7	717	0.7	717	0.7	0	0.0	108,939	100.0
7/14	151	Males	0	0.0	111,186	50.3	2,926	1.3	0	0.0	0	0.0	114,112	51.7
(7/13-26)		Females	0	0.0	105,334	47.7	1,463	0.7	0	0.0	0	0.0	106,797	48.3
		Subtotal	0	0.0	216,520	98.0	4,389	2.0	0	0.0	0	0.0	220,909	100.0
Season Total	600	Males	0	0.0	259,450	49.4	11,660	2.2	2,167	0.4	0	0.0	273,277	52.0
		Females	0	0.0	247,266	47.1	4,364	0.8	484	0.1	0	0.0	252,114	48.0
		Total	0	0.0	506,716	96.4	16,024	3.0	2,651	0.5	0	0.0	525,391	100.0
Mean Length		Males	-		579		601		613		-			
Std. Error			-		2		10		4		-			
Mean Length		Females	-		546		584		555		-			
Std. Error			-		2		5		-		-			

Note: Samples were collected with a beach seine.

Appendix B11.–Clear Creek weir, summer chum salmon escapement project age and sex composition and mean length (mm), 2005.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
6/30-7/4	104	Males	0	0.0	935	59.6	347	22.1	0	0.0	0	0.0	1,282	81.7
(6/25-7/4)		Females	0	0.0	166	10.6	121	7.7	0	0.0	0	0.0	287	18.3
		Subtotal	0	0.0	1,101	70.2	468	29.8	0	0.0	0	0.0	1,569	100.0
7/5-7	96	Males	0	0.0	1,872	47.9	651	16.7	0	0.0	0	0.0	2,523	64.6
(7/5-7)		Females	0	0.0	1,302	33.3	82	2.1	0	0.0	0	0.0	1,384	35.4
		Subtotal	0	0.0	3,174	81.2	733	18.8	0	0.0	0	0.0	3,907	100.0
7/8-11	94	Males	0	0.0	2,085	31.9	1,042	16.0	0	0.0	0	0.0	3,127	47.9
(7/8-12)		Females	0	0.0	2,710	41.5	695	10.6	0	0.0	0	0.0	3,405	52.1
		Subtotal	0	0.0	4,795	73.4	1,737	26.6	0	0.0	0	0.0	6,532	100.0
7/13-15	113	Males	0	0.0	1,687	38.1	274	6.2	39	0.9	0	0.0	2,000	45.1
(7/13-15)		Females	0	0.0	2,275	51.3	157	3.5	0	0.0	0	0.0	2,432	54.9
		Subtotal	0	0.0	3,962	89.4	431	9.7	39	0.9	0	0.0	4,432	100.0
7/16-20	138	Males	0	0.0	1,657	42.0	200	5.1	0	0.0	0	0.0	1,857	47.1
(7/16-20)		Females	0	0.0	1,885	47.8	200	5.1	0	0.0	0	0.0	2,085	52.9
		Subtotal	0	0.0	3,542	89.9	400	10.1	0	0.0	0	0.0	3,942	100.0
7/21-25	133	Males	0	0.0	1,292	60.9	48	2.3	0	0.0	0	0.0	1,340	63.2
(7/21-26)		Females	0	0.0	749	35.3	32	1.5	0	0.0	0	0.0	781	36.8
		Subtotal	0	0.0	2,041	96.2	80	3.8	0	0.0	0	0.0	2,121	100.0
7/27-8/1	127	Males	0	0.0	671	53.6	69	5.5	0	0.0	0	0.0	740	59.1
(7/27-8/1)		Females	0	0.0	473	37.7	30	2.4	10	0.8	0	0.0	513	40.9
		Subtotal	0	0.0	1,144	91.3	99	7.9	10	0.8	0	0.0	1,253	100.0
Season Total	805	Males	0	0.0	10,199	42.9	2,631	11.1	39	0.2	0	0.0	12,869	54.2
		Females	0	0.0	9,560	40.2	1,317	5.5	10	0.0	0	0.0	10,887	45.8
		Total	0	0.0	19,759	83.2	3,948	16.6	49	0.2	0	0.0	23,756	100.0
Mean Length		Males	-		566		569		595		-			
Std. Error			-		2		5		-		-			
Mean Length		Females	-		543		569		545		-			
Std. Error			-		2		5		-		-			

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

Appendix B12.–Gisasa River weir, summer chum salmon escapement project age and sex composition and mean length (mm), 2005.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
7/3-4, 6	111	Males	0	0.0	21,725	58.6	1,003	2.7	0	0.0	0	0.0	22,728	61.3
(6/29-7/7)		Females	0	0.0	14,037	37.8	334	0.9	0	0.0	0	0.0	14,371	38.7
		Subtotal	0	0.0	35,762	96.4	1,337	3.6	0	0.0	0	0.0	37,099	100.0
7/8, 10-11	104	Males	0	0.0	18,283	56.7	620	1.9	0	0.0	0	0.0	18,903	58.6
(7/8-7/12)		Females	0	0.0	13,325	41.4	0	0.0	0	0.0	0	0.0	13,325	41.4
		Subtotal	0	0.0	31,608	98.1	620	1.9	0	0.0	0	0.0	32,228	100.0
7/13, 15,	145	Males	0	0.0	34,374	50.3	0	0.0	0	0.0	0	0.0	34,374	50.3
17-18		Females	0	0.0	33,433	49.0	471	0.7	0	0.0	0	0.0	33,904	49.7
(7/13-7/19)		Subtotal	0	0.0	67,807	99.3	471	0.7	0	0.0	0	0.0	68,278	100.0
7/20, 22,	147	Males	0	0.0	13,079	46.2	192	0.7	0	0.0	0	0.0	13,271	46.9
24-25		Females	0	0.0	15,003	53.1	0	0.0	0	0.0	0	0.0	15,003	53.1
(7/20-7/26)		Subtotal	0	0.0	28,082	99.3	192	0.7	0	0.0	0	0.0	28,274	100.0
7/27, 29, 31	112	Males	0	0.0	2,115	49.1	38	0.9	0	0.0	0	0.0	2,153	50.0
(7/27-31)		Females	0	0.0	2,077	48.2	77	1.8	0	0.0	0	0.0	2,154	50.0
		Subtotal	0	0.0	4,192	97.3	115	2.7	0	0.0	0	0.0	4,307	100.0
Season Total	619	Males	0	0.0	89,577	52.6	1,853	1.1	0	0.0	0	0.0	91,430	53.7
		Females	0	0.0	77,874	45.8	882	0.5	0	0.0	0	0.0	78,756	46.3
		Total	0	0.0	167,451	98.4	2,735	1.6	0	0.0	0	0.0	170,186	100.0
Mean Length		Males	-		581		587		-		-			
Std. Error			-		2		8		-		-			
Mean Length		Females	-		550		539		-		-			
Std. Error			-		2		23		-		-			

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

Appendix B13.–Henshaw Creek weir, summer chum salmon escapement project age and sex composition and mean length (mm), 2005.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
7/6-8	125	Males	0	0.0	5,978	56.8	842	8.0	0	0.0	0	0.0	6,820	64.8
(6/30-7/8)		Females	0	0.0	3,452	32.8	253	2.4	0	0.0	0	0.0	3,705	35.2
		Subtotal	0	0.0	9,430	89.6	1,095	10.4	0	0.0	0	0.0	10,525	100.0
7/9-12	100	Males	0	0.0	18,054	69.0	262	1.0	0	0.0	0	0.0	18,316	70.0
(7/9-16)		Females	0	0.0	7,326	28.0	523	2.0	0	0.0	0	0.0	7,849	30.0
		Subtotal	0	0.0	25,380	97.0	785	3.0	0	0.0	0	0.0	26,165	100.0
7/17	75	Males	0	0.0	4,789	53.3	0	0.0	0	0.0	0	0.0	4,789	53.3
(7/17-21)		Females	0	0.0	4,190	46.7	0	0.0	0	0.0	0	0.0	4,190	46.7
		Subtotal	0	0.0	8,979	100.0	0	0.0	0	0.0	0	0.0	8,979	100.0
7/23-25	103	Males	0	0.0	31,568	56.3	544	1.0	0	0.0	0	0.0	32,112	57.3
(7/22-26)		Females	0	0.0	23,949	42.7	0	0.0	0	0.0	0	0.0	23,949	42.7
		Subtotal	0	0.0	55,517	99.0	544	1.0	0	0.0	0	0.0	56,061	100.0
7/27, 29, 31,	173	Males	0	0.0	18,625	49.7	0	0.0	0	0.0	0	0.0	18,625	49.7
8/1		Females	0	0.0	18,841	50.3	0	0.0	0	0.0	0	0.0	18,841	50.3
(7/27-8/2)		Subtotal	0	0.0	37,466	100.0	0	0.0	0	0.0	0	0.0	37,466	100.0
8/3, 5, 7	117	Males	0	0.0	4,745	48.7	83	0.9	0	0.0	0	0.0	4,828	49.6
(8/3-8)		Females	0	0.0	4,828	49.6	83	0.9	0	0.0	0	0.0	4,911	50.4
		Subtotal	0	0.0	9,573	98.3	166	1.7	0	0.0	0	0.0	9,739	100.0
Season Total	693	Males	0	0.0	83,759	56.2	1,731	1.2	0	0.0	0	0.0	85,490	57.4
		Females	0	0.0	62,586	42.0	859	0.6	0	0.0	0	0.0	63,445	42.6
		Total	0	0.0	146,345	98.3	2,590	1.7	0	0.0	0	0.0	148,935	100.0
Mean Length		Males	-		574		608		-		-			
Std. Error			-		2		10		-		-			
Mean Length		Females	-		543		586		-		-			
Std. Error			-		2		7		-		-			

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

Appendix B14.–Tozitna River weir, summer chum salmon escapement project age and sex composition and mean length (mm), 2005.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
6/30-7/2, 5-10	120	Males	0	0.0	272	52.4	139	26.8	0	0.0	0	0.0	411	79.2
(6/29-7/11)		Females	0	0.0	91	17.5	17	3.3	0	0.0	0	0.0	108	20.8
		Subtotal	0	0.0	363	69.9	156	30.1	0	0.0	0	0.0	519	100.0
7/13-18	155	Males	0	0.0	4,216	47.1	462	5.2	0	0.0	0	0.0	4,678	52.3
(7/12-18)		Females	0	0.0	4,043	45.2	231	2.6	0	0.0	0	0.0	4,274	47.7
		Subtotal	0	0.0	8,259	92.3	693	7.7	0	0.0	0	0.0	8,952	100.0
7/19-24	146	Males	0	0.0	4,921	49.3	205	2.1	0	0.0	0	0.0	5,126	51.4
(7/19-24)		Females	0	0.0	4,853	48.6	0	0.0	0	0.0	0	0.0	4,853	48.6
		Subtotal	0	0.0	9,774	97.9	205	2.1	0	0.0	0	0.0	9,979	100.0
7/25-30	130	Males	0	0.0	4,655	48.5	0	0.0	0	0.0	0	0.0	4,655	48.5
(7/25-30)		Females	0	0.0	4,876	50.8	74	0.8	0	0.0	0	0.0	4,950	51.5
		Subtotal	0	0.0	9,531	99.2	74	0.8	0	0.0	0	0.0	9,605	100.0
7/31-8/5	129	Males	0	0.0	2,200	31.8	0	0.0	0	0.0	0	0.0	2,200	31.8
(7/31-8/5)		Females	0	0.0	4,723	68.2	0	0.0	0	0.0	0	0.0	4,723	68.2
		Subtotal	0	0.0	6,923	100.0	0	0.0	0	0.0	0	0.0	6,923	100.0
8/6-12	147	Males	0	0.0	1,418	38.1	26	0.7	0	0.0	0	0.0	1,444	38.8
(8/6-12)		Females	0	0.0	2,253	60.5	25	0.7	0	0.0	0	0.0	2,278	61.2
		Subtotal	0	0.0	3,671	98.6	51	1.4	0	0.0	0	0.0	3,722	100.0
Season Total	827	Males	0	0.0	17,682	44.5	832	2.1	0	0.0	0	0.0	18,514	46.6
		Females	0	0.0	20,839	52.5	347	0.9	0	0.0	0	0.0	21,186	53.4
		Total	0	0.0	38,521	97.0	1,179	3.0	0	0.0	0	0.0	39,700	100.0
Mean Length		Males	-		569		603		-		-			
Std. Error			-		2		6		-		-			
Mean Length		Females	-		542		572		-		-			
Std. Error			-		1		16		-		-			

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), 2005.

			Brood Year (Age)											
			2002		2001		2000		1999		1998			
Sample	Sample		(0.2)		(0.3)		(0.4)		(0.5)		(0.6)			
Dates	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
7/27	54	Males	0	0.0	266	66.7	22	5.6	0	0.0	0	0.0	288	72.2
Period 1		Females	0	0.0	111	27.8	0	0.0	0	0.0	0	0.0	111	27.8
		Subtotal	0	0.0	377	94.4	22	5.6	0	0.0	0	0.0	399	100.0
7/29	154	Males	0	0.0	3,760	46.1	318	3.9	0	0.0	0	0.0	4,078	50.0
Period 2		Females	0	0.0	3,866	47.4	212	2.6	0	0.0	0	0.0	4,078	50.0
		Subtotal	0	0.0	7,626	93.5	530	6.5	0	0.0	0	0.0	8,156	100.0
7/31	157	Males	0	0.0	10,980	47.1	742	3.2	0	0.0	0	0.0	11,722	50.3
Period 3		Females	0	0.0	11,128	47.8	445	1.9	0	0.0	0	0.0	11,573	49.7
		Subtotal	0	0.0	22,108	94.9	1,187	5.1	0	0.0	0	0.0	23,295	100.0
8/3	65	Males	0	0.0	333	44.6	34	4.6	0	0.0	0	0.0	367	49.2
Period 4		Females	0	0.0	333	44.6	46	6.2	0	0.0	0	0.0	379	50.8
		Subtotal	0	0.0	666	89.2	80	10.8	0	0.0	0	0.0	746	100.0
8/5	154	Males	0	0.0	12,279	37.7	423	1.3	0	0.0	0	0.0	12,702	39.0
Period 5		Females	0	0.0	19,477	59.7	212	0.6	212	0.6	0	0.0	19,900	61.0
		Subtotal	0	0.0	31,755	97.4	635	1.9	212	0.6	0	0.0	32,602	100.0
8/9	153	Males	0	0.0	1,531	36.6	27	0.7	0	0.0	0	0.0	1,559	37.3
Period 6		Females	0	0.0	2,461	58.8	109	2.6	55	1.3	0	0.0	2,625	62.7
		Subtotal	0	0.0	3,993	95.4	137	3.3	55	1.3	0	0.0	4,184	100.0
8/11	157	Males	0	0.0	1,735	49.0	90	2.5	23	0.6	0	0.0	1,847	52.2
Period 7		Females	0	0.0	1,667	47.1	23	0.6	0	0.0	0	0.0	1,690	47.8
		Subtotal	0	0.0	3,402	96.2	113	3.2	23	0.6	0	0.0	3,537	100.0
8/14	158	Males	0	0.0	906	28.5	40	1.3	0	0.0	0	0.0	946	29.7
Period 8		Females	0	0.0	2,194	69.0	40	1.3	0	0.0	0	0.0	2,235	70.3
		Subtotal	0	0.0	3,100	97.5	81	2.5	0	0.0	0	0.0	3,181	100.0
8/16	51	Males	0	0.0	222	35.3	12	2.0	0	0.0	0	0.0	234	37.3
Period 9		Females	0	0.0	382	60.8	12	2.0	0	0.0	0	0.0	394	62.7
		Subtotal	0	0.0	603	96.1	25	3.9	0	0.0	0	0.0	628	100.0
8/18	157	Males	0	0.0	2,195	38.9	0	0.0	0	0.0	0	0.0	2,195	38.9
Period 10		Females	0	0.0	3,346	59.2	108	1.9	0	0.0	0	0.0	3,454	61.1
		Subtotal	0	0.0	5,541	98.1	108	1.9	0	0.0	0	0.0	5,649	100.0
8/21	149	Males	0	0.0	3,722	38.3	196	2.0	0	0.0	0	0.0	3,918	40.3
Period 11		Females	0	0.0	5,747	59.1	65	0.7	0	0.0	0	0.0	5,812	59.7
		Subtotal	0	0.0	9,469	97.3	261	2.7	0	0.0	0	0.0	9,730	100.0
8/22	0	Males	0	0.0	1,632	35.9	106	2.3	15	0.3	0	0.0	1,753	38.5
Period 12 [a]		Females	0	0.0	2,751	60.5	45	1.0	0	0.0	0	0.0	2,796	61.5
		Subtotal	0	0.0	4,383	96.3	151	3.3	15	0.3	0	0.0	4,549	100.0
8/24	152	Males	0	0.0	2,834	33.6	222	2.6	56	0.7	0	0.0	3,111	36.8
Period 14		Females	0	0.0	5,223	61.8	111	1.3	0	0.0	0	0.0	5,334	63.2
		Subtotal	0	0.0	8,056	95.4	333	3.9	56	0.7	0	0.0	8,445	100.0

-continued-

Appendix C1.–Page 2 of 2.

Sample Dates [a]	Sample Size		Brood Year (Age) 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	No.	%
8/25, 26	0	Males	0	0.0	3,798	37.4	164	1.6	33	0.3	0	0.0	3,994	39.4
Periods 15, 16 [b]		Females	0	0.0	6,024	59.4	98	1.0	33	0.3	0	0.0	6,155	60.6
		Subtotal	0	0.0	9,822	96.8	262	2.6	65	0.6	0	0.0	10,149	100.0
8/29	158	Males	0	0.0	1,824	41.1	28	0.6	0	0.0	0	0.0	1,852	41.8
Period 17		Females	0	0.0	2,525	57.0	28	0.6	28	0.6	0	0.0	2,581	58.2
		Subtotal	0	0.0	4,349	98.1	56	1.3	28	0.6	0	0.0	4,433	100.0
8/30, 31	0	Males	0	0.0	2,016	36.0	18	0.3	0	0.0	0	0.0	2,034	36.3
Periods 18, 19 [c]		Females	0	0.0	3,528	63.0	18	0.3	18	0.3	0	0.0	3,564	63.7
		Subtotal	0	0.0	5,544	99.0	36	0.6	18	0.3	0	0.0	5,598	100.0
9/1	153	Males	0	0.0	436	30.7	0	0.0	0	0.0	0	0.0	436	30.7
Period 20		Females	0	0.0	984	69.3	0	0.0	0	0.0	0	0.0	984	69.3
		Subtotal	0	0.0	1,420	100.0	0	0.0	0	0.0	0	0.0	1,420	100.0
9/2-4	0	Males	0	0.0	465	32.2	0	0.0	0	0.0	0	0.0	465	32.2
Periods 21-23 [d]		Females	5	0.3	971	67.2	5	0.3	0	0.0	0	0.0	980	67.8
		Subtotal	5	0.3	1,436	99.4	5	0.3	0	0.0	0	0.0	1,445	100.0
9/5	158	Males	0	0.0	92	33.5	0	0.0	0	0.0	0	0.0	92	33.5
Period 24		Females	2	0.6	179	65.2	2	0.6	0	0.0	0	0.0	183	66.5
		Subtotal	2	0.6	272	98.7	2	0.6	0	0.0	0	0.0	275	100.0
9/6, 7	0	Males	0	0.0	365	33.5	0	0.0	0	0.0	0	0.0	365	33.5
Periods 25, 26 [e]		Females	7	0.6	709	65.2	7	0.6	0	0.0	0	0.0	723	66.5
		Subtotal	7	0.6	1,074	98.7	7	0.6	0	0.0	0	0.0	1,088	100.0
Season	2,030	Males	0	0.0	51,389	39.7	2,443	1.9	126	0.1	0	0.0	53,959	41.7
All Periods		Females	13	0.0	73,605	56.8	1,586	1.2	345	0.3	0	0.0	75,550	58.3
		Total	13	0.0	124,995	96.5	4,030	3.1	471	0.4	0	0.0	129,509	100.0
Mean Length		Males	-		600		620		608		-			
Std. Error			-		2		8		-		-			
Mean Length		Females	555		583		611		645		-			
Std. Error			-		1		7		28		-			

Note: All District 1 fall chum commercial fishing periods were restricted to 6.0" or smaller mesh gillnets.

[a] Age and sex composition was estimated by averaging periods 11 and 14. Period 13 was cancelled.

[b] Age and sex composition was estimated by averaging periods 14 and 17.

[c] Age and sex composition was estimated by averaging periods 17 and 20.

[d] Age and sex composition was estimated by averaging periods 20 and 24.

[e] Age and sex composition was estimated from period 24.

Appendix C2.–Yukon River, District 6, fall chum salmon commercial fish wheel harvest age and sex composition and mean length (mm), 2005.

Sample Dates	Sample Size		Brood Year (Age) 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
8/26-28		Males	0	0.0	44	69.2	2	2.7	0	0.0	0	0.0	46	71.9
Period 1 [a]	0	Females	0	0.0	17	26.8	1	1.3	0	0.0	0	0.0	18	28.1
		Subtotal	0	0.0	61	96.0	3	4.0	0	0.0	0	0.0	64	100.0
8/30	149	Males	0	0.0	382	69.1	15	2.7	0	0.0	0	0.0	396	71.8
Period 2		Females	0	0.0	148	26.8	7	1.3	0	0.0	0	0.0	156	28.2
		Subtotal	0	0.0	530	96.0	22	4.0	0	0.0	0	0.0	552	100.0
9/2-4		Males	0	0.0	98	61.1	2	1.4	0	0.0	0	0.0	100	62.5
Period 3 [b]	0	Females	0	0.0	59	36.8	1	0.7	0	0.0	0	0.0	60	37.5
		Subtotal	0	0.0	157	98.0	3	2.0	0	0.0	0	0.0	160	100.0
9/6	147	Males	0	0.0	2,675	53.1	0	0.0	0	0.0	0	0.0	2,675	53.1
Period 4		Females	0	0.0	2,367	46.9	0	0.0	0	0.0	0	0.0	2,367	46.9
		Subtotal	0	0.0	5,042	100.0	0	0.0	0	0.0	0	0.0	5,042	100.0
9/10	156	Males	0	0.0	10,701	51.9	0	0.0	0	0.0	0	0.0	10,701	51.9
Period 5		Females	0	0.0	9,777	47.4	132	0.6	0	0.0	0	0.0	9,909	48.1
		Subtotal	0	0.0	20,478	99.4	132	0.6	0	0.0	0	0.0	20,610	100.0
9/17, 20	141	Males	0	0.0	10,605	56.0	0	0.0	0	0.0	0	0.0	10,605	56.0
Period 6		Females	0	0.0	8,323	44.0	0	0.0	0	0.0	0	0.0	8,323	44.0
		Subtotal	0	0.0	18,928	100.0	0	0.0	0	0.0	0	0.0	18,928	100.0
9/27, 30	153	Males	0	0.0	2,479	60.1	27	0.7	0	0.0	0	0.0	2,506	60.8
Period 7		Females	0	0.0	1,616	39.2	0	0.0	0	0.0	0	0.0	1,616	39.2
		Subtotal	0	0.0	4,095	99.3	27	0.7	0	0.0	0	0.0	4,122	100.0
Total	746	Males	0	0.0	26,984	54.5	46	0.1	0	0.0	0	0.0	27,030	54.6
All Periods		Females	0	0.0	22,307	45.1	141	0.3	0	0.0	0	0.0	22,448	45.4
		Total	0	0.0	49,291	99.6	187	0.4	0	0.0	0	0.0	49,478	100.0
Mean Length		Males	-		614		649		-		-			
Std. Error			-		2		13		-		-			
Mean Length		Females	-		588		660		-		-			
Std. Error			-		2		5		-		-			

Note: Samples were collected from fish wheels.

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

[b] Age and sex composition was estimated by averaging periods 2 and 4.

Appendix C3.–Yukon River, Subdistrict 5-B (Ruby), fall chum salmon subsistence fish wheel harvest age and sex composition and mean length (mm), 2005.

			Brood Year (Age)											
			2002		2001		2000		1999		1998			
Sample	Sample		(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		Total	
Dates	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
8/26	153	Males	0	0.0	98	64.1	2	1.3	1	0.7	0	0.0	101	66.0
		Females	0	0.0	51	33.3	1	0.7	0	0.0	0	0.0	52	34.0
		Subtotal	0	0.0	149	97.4	3	2.0	1	0.7	0	0.0	153	100.0
9/14	149	Males	0	0.0	65	43.6	0	0.0	0	0.0	0	0.0	65	43.6
		Females	0	0.0	84	56.4	0	0.0	0	0.0	0	0.0	84	56.4
		Subtotal	0	0.0	149	100.0	0	0.0	0	0.0	0	0.0	149	100.0
Season Total	302	Males	0	0.0	163	54.0	2	0.7	1	0.3	0	0.0	166	55.0
		Females	0	0.0	135	44.7	1	0.3	0	0.0	0	0.0	136	45.0
		Total	0	0.0	298	98.7	3	1.0	1	0.3	0	0.0	302	100.0
Mean Length		Males	-		611		605		610		-			
Std. Error			-		2		25		-		-			
Mean Length		Females	-		583		575		-		-			
Std. Error			-		2		-		-		-			

Appendix C4.–Yukon River, Big Eddy, fall chum salmon 6.0" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

Sample Dates [a]	Sample Size		Brood Year (Age) 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
7/16-/20,	180	Males	0	0.0	83	46.1	9	5.0	0	0.0	0	0.0	92	51.1
26-30		Females	0	0.0	81	45.0	6	3.3	1	0.6	0	0.0	88	48.9
Quartile 1		Subtotal	0	0.0	164	91.1	15	8.3	1	0.6	0	0.0	180	100.0
7/31-8/3	54	Males	0	0.0	15	27.8	0	0.0	0	0.0	0	0.0	15	27.8
Quartile 2		Females	0	0.0	36	66.7	3	5.6	0	0.0	0	0.0	39	72.2
		Subtotal	0	0.0	51	94.4	3	5.6	0	0.0	0	0.0	54	100.0
8/5-8, 10,	124	Males	0	0.0	48	38.7	1	0.8	0	0.0	0	0.0	49	39.5
11, 14		Females	0	0.0	71	57.3	4	3.2	0	0.0	0	0.0	75	60.5
Quartile 3		Subtotal	0	0.0	119	96.0	5	4.0	0	0.0	0	0.0	124	100.0
8/15-29	135	Males	0	0.0	34	25.2	1	0.7	1	0.7	0	0.0	36	26.7
Quartile 4		Females	0	0.0	97	71.9	2	1.5	0	0.0	0	0.0	99	73.3
		Subtotal	0	0.0	131	97.0	3	2.2	1	0.7	0	0.0	135	100.0
Season Total	493	Males	0	0.0	180	36.5	11	2.2	1	0.2	0	0.0	192	38.9
		Females	0	0.0	285	57.8	15	3.0	1	0.2	0	0.0	301	61.1
		Total	0	0.0	465	94.3	26	5.3	2	0.4	0	0.0	493	100.0
Mean Length		Males	-		599		622		565		-			
Std. Error			-		3		12		-		-			
Mean Length		Females	-		593		610		650		-			
Std. Error			-		1		7		-		-			

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

Appendix C5.–Yukon River, Middle Mouth, fall chum salmon 6.0" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

			Brood Year (Age)											
			2002		2001		2000		1999		1998			
Sample	Sample		(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		Total	
Dates [a]	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
7/21, 29	4	Males	0	0.0	2	50.0	0	0.0	0	0.0	0	0.0	2	50.0
Quartile 1		Females	0	0.0	2	50.0	0	0.0	0	0.0	0	0.0	2	50.0
		Subtotal	0	0.0	4	100.0	0	0.0	0	0.0	0	0.0	4	100.0
8/1, 3	1	Males	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Quartile 2		Females	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	1	100.0
		Subtotal	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	1	100.0
8/7-9, 11, 14	34	Males	0	0.0	10	29.4	1	2.9	0	0.0	0	0.0	11	32.4
Quartile 3		Females	0	0.0	23	67.6	0	0.0	0	0.0	0	0.0	23	67.6
		Subtotal	0	0.0	33	97.1	1	2.9	0	0.0	0	0.0	34	100.0
8/15, 16,	46	Males	0	0.0	23	50.0	0	0.0	0	0.0	0	0.0	23	50.0
20-25		Females	0	0.0	23	50.0	0	0.0	0	0.0	0	0.0	23	50.0
Quartile 4		Subtotal	0	0.0	46	100.0	0	0.0	0	0.0	0	0.0	46	100.0
Season Total	85	Males	0	0.0	35	41.2	1	1.2	0	0.0	0	0.0	36	42.4
		Females	0	0.0	49	57.6	0	0.0	0	0.0	0	0.0	49	57.6
		Total	0	0.0	84	98.8	1	1.2	0	0.0	0	0.0	85	100.0
Mean Length		Males	-		607		670		-		-			
Std. Error			-		5		-		-		-			
Mean Length		Females	-		586		-		-		-			
Std. Error			-		4		-		-		-			

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

Appendix C6.–Yukon River, Big Eddy and Middle Mouth combined, fall chum salmon 6.0" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

			Brood Year (Age)											
			2002		2001		2000		1999		1998			
Sample	Sample		(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		Total	
Dates [a]	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
7/16-/21,	184	Males	0	0.0	85	46.2	9	4.9	0	0.0	0	0.0	94	51.1
29-30		Females	0	0.0	83	45.1	6	3.3	1	0.5	0	0.0	90	48.9
Quartile 1		Subtotal	0	0.0	168	91.3	15	8.2	1	0.5	0	0.0	184	100.0
7/31-8/3	55	Males	0	0.0	15	27.3	0	0.0	0	0.0	0	0.0	15	27.3
Quartile 2		Females	0	0.0	37	67.3	3	5.5	0	0.0	0	0.0	40	72.7
		Subtotal	0	0.0	52	94.5	3	5.5	0	0.0	0	0.0	55	100.0
8/5-11, 14	158	Males	0	0.0	58	36.7	2	1.3	0	0.0	0	0.0	60	38.0
Quartile 3		Females	0	0.0	94	59.5	4	2.5	0	0.0	0	0.0	98	62.0
		Subtotal	0	0.0	152	96.2	6	3.8	0	0.0	0	0.0	158	100.0
8/15-29	181	Males	0	0.0	57	31.5	1	0.6	1	0.6	0	0.0	59	32.6
Quartile 4		Females	0	0.0	120	66.3	2	1.1	0	0.0	0	0.0	122	67.4
		Subtotal	0	0.0	177	97.8	3	1.7	1	0.6	0	0.0	181	100.0
Season Total	578	Males	0	0.0	215	37.2	12	2.1	1	0.2	0	0.0	228	39.4
		Females	0	0.0	334	57.8	15	2.6	1	0.2	0	0.0	350	60.6
		Total	0	0.0	549	95.0	27	4.7	2	0.3	0	0.0	578	100.0
Mean Length		Males	-		600		626		565		-			
Std. Error			-		2		12		-		-			
Mean Length		Females	-		592		610		650		-			
Std. Error			-		1		7		-		-			

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

Appendix C7.–Yukon River, Mountain Village, fall chum salmon 5 ⅞" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

Sample Dates [a]	Sample Size		Brood Year (Age) 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
7/17-23, 26-31	138	Males	0	0.0	53	38.4	5	3.6	0	0.0	0	0.0	58	42.0
Quartile 1		Females	0	0.0	77	55.8	1	0.8	2	1.4	0	0.0	80	58.0
		Subtotal	0	0.0	130	94.2	6	4.4	2	1.4	0	0.0	138	100.0
8/1-3, 6-8	138	Males	0	0.0	43	31.1	3	2.2	0	0.0	0	0.0	46	33.3
Quartile 2		Females	0	0.0	88	63.8	4	2.9	0	0.0	0	0.0	92	66.7
		Subtotal	0	0.0	131	94.9	7	5.1	0	0.0	0	0.0	138	100.0
8/9-12, 14-22	103	Males	0	0.0	44	42.7	1	1.0	0	0.0	0	0.0	45	43.7
Quartile 3		Females	0	0.0	58	56.3	0	0.0	0	0.0	0	0.0	58	56.3
		Subtotal	0	0.0	102	99.0	1	1.0	0	0.0	0	0.0	103	100.0
8/23-29, 8/31-	118	Males	0	0.0	44	37.3	2	1.7	0	0.0	0	0.0	46	39.0
9/1, 3, 9-10		Females	0	0.0	72	61.0	0	0.0	0	0.0	0	0.0	72	61.0
Quartile 4		Total	0	0.0	116	98.3	2	1.7	0	0.0	0	0.0	118	100.0
Season Total	497	Males	0	0.0	184	37.0	11	2.2	0	0.0	0	0.0	195	39.2
		Females	0	0.0	295	59.4	5	1.0	2	0.4	0	0.0	302	60.8
		Total	0	0.0	479	96.4	16	3.2	2	0.4	0	0.0	497	100.0
Mean Length		Males	-		603		614		-		-			
Std. Error			-		2		11		-		-			
Mean Length		Females	-		593		586		618		-			
Std. Error			-		2		13		23		-			

Note: Samples were collected by Ascarsarmiut Traditional Council technicians.

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

Appendix C8.–Yukon River, Kaltag, fall chum salmon 5 ⅞" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

Sample Dates [a]	Sample Size		Brood Year (Age) 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
7/25-27,	152	Males	0	0.0	60	39.5	3	2.0	0	0.0	0	0.0	63	41.5
29-8/6		Females	0	0.0	88	57.9	1	0.6	0	0.0	0	0.0	89	58.5
Quartile 1		Subtotal	0	0.0	148	97.4	4	2.6	0	0.0	0	0.0	152	100.0
8/7-17	152	Males	0	0.0	67	44.1	2	1.3	0	0.0	0	0.0	69	45.4
Quartile 2		Females	0	0.0	81	53.3	2	1.3	0	0.0	0	0.0	83	54.6
		Subtotal	0	0.0	148	97.4	4	2.6	0	0.0	0	0.0	152	100.0
8/18-30	165	Males	0	0.0	83	50.3	0	0.0	0	0.0	0	0.0	83	50.3
Quartile 3		Females	0	0.0	79	47.9	3	1.8	0	0.0	0	0.0	82	49.7
		Subtotal	0	0.0	162	98.2	3	1.8	0	0.0	0	0.0	165	100.0
8/31-9/9,	132	Males	0	0.0	58	43.9	1	0.8	0	0.0	0	0.0	59	44.7
11-16		Females	0	0.0	73	55.3	0	0.0	0	0.0	0	0.0	73	55.3
Quartile 4		Total	0	0.0	131	99.2	1	0.8	0	0.0	0	0.0	132	100.0
Season Total	601	Males	0	0.0	268	44.5	6	1.0	0	0.0	0	0.0	274	45.5
		Females	0	0.0	321	53.5	6	1.0	0	0.0	0	0.0	327	54.5
		Total	0	0.0	589	98.0	12	2.0	0	0.0	0	0.0	601	100.0
Mean Length		Males	-		618		620		-		-			
Std. Error			-		2		16		-		-			
Mean Length		Females	-		595		605		-		-			
Std. Error			-		1		12		-		-			

Note: Samples were collected by City of Kaltag technicians.

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

Appendix C9.–Delta River carcass survey, fall chum salmon escapement project age and sex composition and mean length (mm), 2005.

Sample Dates	Sample Size		Brood Year (Age) [a] 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
10/26, 11/16	173	Males	1	0.6	83	48.0	6	3.5	0	0.0	0	0.0	90	52.0
Total		Females	0	0.0	74	42.8	9	5.2	0	0.0	0	0.0	83	48.0
		Subtotal	1	0.6	157	90.8	15	8.7	0	0.0	0	0.0	173	100.0
Mean Length		Males	575		602		586		-		-			
Std. Error			-		3		11		-		-			
Mean Length		Females	-		573		598		-		-			
Std. Error			-		3		5		-		-			

[a] Ages were obtained using vertebrae.

Appendix C10.–Sheenjek River beach seine, fall chum salmon escapement project age and sex composition and mean length (mm), 2005.

Sample Dates	Sample Size		Brood Year (Age) [a] 2002 (0.2) No.	%	2001 (0.3) No.	%	2000 (0.4) No.	%	1999 (0.5) No.	%	1998 (0.6) No.	%	Total No.	%
8/21, 27, 29, 9/1, 3-5,	194	Males	0	0.0	95	49.0	9	4.6	2	1.0	0	0.0	106	54.6
7, 11, 15, 18-19, 21, 23		Females	0	0.0	84	43.3	4	2.1	0	0.0	0	0.0	88	45.4
Total		Subtotal	0	0.0	179	92.3	13	6.7	2	1.0	0	0.0	194	100.0
Mean Length		Males	-		623		633		635		-			
Std. Error			-		3		10		15		-			
Mean Length		Females	-		600		596		-		-			
Std. Error			-		3		16		-		-			

[a] Ages were obtained using vertebrae.

Appendix C11.–Toklat River carcass survey, fall chum salmon escapement project age and sex composition and mean length (mm), 2005.

			Brood Year (Age) [a]											
			2002		2001		2000		1999		1998			
Sample	Sample		(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		Total	
Dates	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
10/28	171	Males	2	1.2	116	67.8	13	7.6	0	0.0	0	0.0	131	76.6
Total		Females	0	0.0	39	22.8	1	0.6	0	0.0	0	0.0	40	23.4
		Subtotal	2	1.2	155	90.6	14	8.2	0	0.0	0	0.0	171	100.0
Mean Length		Males	540		593		597		-		-			
Std. Error			0		3		8		-		-			
Mean Length		Females	-		560		530		-		-			
Std. Error			-		5		-		-		-			

[a] Ages were obtained using vertebrae.

Appendix C12.–Chandalar River carcass survey, fall chum salmon escapement project age and sex composition and mean length (mm), 2005.

			Brood Year (Age) [a]											
			2002		2001		2000		1999		1998			
Sample	Sample		(0.2)		(0.3)		(0.4)		(0.5)		(0.6)		Total	
Dates	Size		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
9/25-26	172	Males	0	0.0	84	48.8	5	2.9	1	0.6	0	0.0	90	52.3
Total		Females	0	0.0	73	42.4	9	5.2	0	0.0	0	0.0	82	47.7
		Subtotal	0	0.0	157	91.3	14	8.1	1	0.6	0	0.0	172	100.0
Mean Length		Males	-		604		615		699		-			
Std. Error			-		4		9		-		-			
Mean Length		Females	-		575		566		-		-			
Std. Error			-		4		6		-		-			

[a] Ages were obtained using vertebrae.

APPENDIX D. COHO SALMON BROOD TABLES

Appendix D1.–Yukon River, District 1, coho salmon commercial gillnet harvest age and sex composition and mean length (mm), 2005.

			Brood Year (Age)							
			2002		2001		2000			
Sample	Sample		(1.1)		(2.1)		(3.1)		Total	
Dates	Size		No.	%	No.	%	No.	%	No.	%
7/27	6	Males	0	0.0	33	66.7	8	16.7	42	83.3
Period 1		Females	0	0.0	8	16.7	0	0.0	8	16.7
		Subtotal	0	0.0	42	83.3	8	16.7	50	100.0
7/29	32	Males	0	0.0	58	18.8	19	6.3	77	25.0
Period 2		Females	0	0.0	232	75.0	0	0.0	232	75.0
		Subtotal	0	0.0	290	93.8	19	6.3	309	100.0
7/31	17	Males	10	5.9	81	47.1	10	5.9	101	58.8
Period 3		Females	10	5.9	61	35.3	0	0.0	71	41.2
		Subtotal	20	11.8	142	82.4	10	5.9	172	100.0
8/3	22	Males	11	4.5	64	27.3	0	0.0	74	31.8
Period 4		Females	0	0.0	148	63.6	11	4.5	159	68.2
		Subtotal	11	4.5	212	90.9	11	4.5	233	100.0
8/5	116	Males	106	5.2	1,024	50.0	18	0.9	1,148	56.0
Period 5		Females	106	5.2	742	36.2	53	2.6	900	44.0
		Subtotal	212	10.3	1,766	86.2	71	3.4	2,048	100.0
8/9	90	Males	89	8.9	612	61.1	33	3.3	735	73.3
Period 6		Females	22	2.2	234	23.3	11	1.1	267	26.7
		Subtotal	111	11.1	846	84.4	45	4.4	1,002	100.0
8/11	103	Males	34	2.9	571	49.5	22	1.9	627	54.4
Period 7		Females	56	4.9	425	36.9	45	3.9	526	45.6
		Subtotal	90	7.8	996	86.4	67	5.8	1,153	100.0
8/14	111	Males	122	10.8	418	36.9	0	0.0	541	47.7
Period 8		Females	82	7.2	490	43.2	20	1.8	591	52.3
		Subtotal	204	18.0	908	80.2	20	1.8	1,132	100.0
8/16	108	Males	65	3.7	654	37.0	33	1.9	752	42.6
Period 9		Females	196	11.1	784	44.4	33	1.9	1,013	57.4
		Subtotal	261	14.8	1,438	81.5	65	3.7	1,765	100.0
8/18	111	Males	32	0.9	1,619	45.0	32	0.9	1,684	46.8
Period 10		Females	227	6.3	1,555	43.2	130	3.6	1,911	53.2
		Subtotal	259	7.2	3,174	88.3	162	4.5	3,595	100.0
8/21	105	Males	128	2.9	2,099	46.7	43	1.0	2,270	50.5
Period 11		Females	86	1.9	2,141	47.6	0	0.0	2,227	49.5
		Subtotal	214	4.8	4,240	94.3	43	1.0	4,497	100.0
8/22	0	Males	24	2.9	387	48.0	12	1.5	423	52.5
Period 12 [a]		Females	24	2.9	356	44.1	4	0.5	383	47.5
		Subtotal	47	5.9	743	92.2	16	2.0	806	100.0
8/24	99	Males	85	3.0	1,391	49.5	57	2.0	1,533	54.5
Period 14		Females	114	4.0	1,135	40.4	28	1.0	1,277	45.5
		Subtotal	199	7.1	2,526	89.9	85	3.0	2,810	100.0
8/25, 26	0	Males	208	3.3	2,797	44.8	208	3.3	3,213	51.4
Periods 15, 16 [b]		Females	238	3.8	2,707	43.3	89	1.4	3,035	48.6
		Subtotal	446	7.1	5,504	88.1	298	4.8	6,248	100.0

-continued-

Appendix D1.–Page 2 of 2.

Sample Dates	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (2.1) No.	%	2000 (3.1) No.	%	Total No.	%
8/29	111	Males	133	3.6	1,492	40.5	166	4.5	1,790	48.6
Period 17		Females	133	3.6	1,691	45.9	66	1.8	1,890	51.4
		Subtotal	265	7.2	3,183	86.5	232	6.3	3,680	100.0
8/30, 31	0	Males	103	2.7	1,557	41.0	86	2.3	1,745	45.9
Periods 18, 19 [c]		Females	86	2.3	1,900	50.0	68	1.8	2,054	54.1
		Subtotal	188	5.0	3457	91.0	154	4.1	3,799	100.0
9/1	111	Males	21	1.8	472	41.4	0	0.0	493	43.2
Period 20		Females	10	0.9	616	54.1	21	1.8	646	56.8
		Subtotal	31	2.7	1,088	95.5	21	1.8	1,139	100.0
9/2-4	0	Males	32	2.7	579	48.4	16	1.4	628	52.5
Periods 21-23 [d]		Females	16	1.4	530	44.3	22	1.8	568	47.5
		Subtotal	49	4.1	1,109	92.8	38	3.2	1,196	100.0
9/5	110	Males	6	3.6	88	55.5	4	2.7	98	61.8
Period 24		Females	3	1.8	55	34.5	3	1.8	61	38.2
		Subtotal	9	5.5	143	90.0	7	4.5	159	100.0
9/6, 7	0	Males	26	3.6	402	55.5	20	2.7	448	61.8
Periods 25, 26 [e]		Females	13	1.8	250	34.5	13	1.8	277	38.2
		Subtotal	40	5.5	653	90.0	33	4.5	725	100.0
Season	1,252	Males	1,235	3.4	16,398	44.9	788	2.2	18,421	50.4
All Periods		Females	1,420	3.9	16,060	44.0	617	1.7	18,097	49.6
		Subtotal	2,656	7.3	32,458	88.9	1,404	3.8	36,518	100.0
Mean Length		Males	568		569		587			
Std. Error			6		2		8			
Mean Length		Females	561		566		565			
Std. Error			4		1		7			

Note: All District 1 coho commercial fishing periods were restricted to 6.0" or smaller mesh gillnets.

[a] Age and sex composition was estimated by averaging periods 11 and 14. Period 13 was cancelled.

[b] Age and sex composition was estimated by averaging periods 14 and 17.

[c] Age and sex composition was estimated by averaging periods 17 and 20.

[d] Age and sex composition was estimated by averaging periods 20 and 24.

[e] Age and sex composition was estimated from period 24.

Appendix D2.–Yukon River, District 6, coho salmon commercial fish wheel harvest age and sex composition and mean length (mm), 2005.

Sample Dates	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (2.1) No.	%	2000 (3.1) No.	%	Total No.	%
8/26-31, 9/2-4	0	Males	2	5.1	17	42.0	3	6.5	22	53.6
Periods 1-3 [a]		Females	1	2.2	18	42.8	1	1.4	19	46.4
		Subtotal	3	7.2	35	84.8	3	8.0	41	100.0
9/6-7	138	Males	118	5.1	978	42.0	152	6.5	1,247	53.6
Period 4		Females	51	2.2	994	42.8	34	1.4	1,079	46.4
		Subtotal	169	7.2	1,972	84.8	185	8.0	2,326	100.0
9/10	144	Males	865	8.3	4,612	44.4	649	6.3	6,125	59.0
Period 5		Females	360	3.5	3,459	33.3	432	4.2	4,252	41.0
		Subtotal	1,225	11.8	8,071	77.8	1,081	10.4	10,377	100.0
9/17, 20	139	Males	312	5.0	3,209	51.8	89	1.4	3,611	58.3
Period 6		Females	223	3.6	2,050	33.1	312	5.0	2,585	41.7
		Subtotal	535	8.6	5,260	84.9	401	6.5	6,196	100.0
9/27, 30	43	Males	134	4.7	2,017	69.8	202	7.0	2,353	81.4
Period 7		Females	0	0.0	471	16.3	67	2.3	538	18.6
		Subtotal	134	4.7	2,488	86.0	269	9.3	2,891	100.0
Total	464	Males	1,431	6.6	10,833	49.6	1,094	5.0	13,358	61.2
All Periods		Females	635	2.9	6,992	32.0	846	3.9	8,473	38.8
		Total	2,066	9.5	17,825	81.7	1,940	8.9	21,831	100.0
Mean Length		Males	547		554		540			
Std. Error			8		3		7			
Mean Length		Females	575		574		570			
Std. Error			5		3		7			

Note: Samples were collected from fish wheels.

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

Appendix D3.–Yukon River, Big Eddy, coho salmon 6.0" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

Sample Dates	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (2.1) No.	%	2000 (3.1) No.	%	Total No.	%
7/29-31, 8/1-3, 5-8,	75	Males	5	6.7	30	40.0	2	2.7	37	49.3
10-11, 14-21, 25-29		Females	2	2.7	32	42.7	4	5.3	38	50.7
Season Total		Total	7	9.3	62	82.7	6	8.0	75	100.0
Mean Length		Males	572		583		588			
Std. Error			14		6		3			
Mean Length		Females	583		581		585			
Std. Error			3		5		11			

Appendix D4.–Yukon River, Middle Mouth, coho salmon 6.0" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

Sample Dates	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (2.1) No.	%	2000 (3.1) No.	%	Total No.	%
8/7-11, 13-14,	21	Males	5	23.8	15	71.4	1	4.8	21	100.0
18, 20-25		Females	0	0.0	0	0.0	0	0.0	0	0.0
Season Total		Total	5	23.8	15	71.4	1	4.8	21	100.0
Mean Length		Males	586		572		520			
Std. Error			10		9		-			
Mean Length		Females	-		-		-			
Std. Error			-		-		-			

Appendix D5.–Yukon River, Big Eddy and Middle Mouth combined, coho salmon 6.0" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

			Brood Year (Age)							
			2002		2001		2000			
Sample	Sample		(1.1)		(2.1)		(3.1)		Total	
Dates	Size		No.	%	No.	%	No.	%	No.	%
7/29-8/3,	96	Males	10	10.4	45	46.9	3	3.1	58	60.4
5-11, 13-29		Females	2	2.1	32	33.3	4	4.2	38	39.6
Season Total		Total	12	12.5	77	80.2	7	7.3	96	100.0
Mean Length		Males	579		579		565			
Std. Error			8		5		23			
Mean Length		Females	583		581		585			
Std. Error			3		5		11			

Appendix D6.–Yukon River, Mountain Village, coho salmon 5 ⅞" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

Sample Dates	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (2.1) No.	%	2000 (3.1) No.	%	Total No.	%
7/23, 28, 30, 8/3-4, 6-12, 14-19	52	Males	0	0.0	21	40.4	1	1.9	22	42.3
		Females	3	5.8	21	40.4	6	11.5	30	57.7
		Subtotal	3	5.8	42	80.8	7	13.4	52	100.0
8/21-30, 9/1, 3, 5-7, 9-10	45	Males	1	2.2	25	55.5	3	6.7	29	64.4
		Females	1	2.2	12	26.7	3	6.7	16	35.6
		Subtotal	2	4.4	37	82.2	6	13.4	45	100.0
Season Total	97	Males	1	1.0	46	47.6	4	4.2	51	52.8
		Females	4	4.1	33	33.9	9	9.2	46	47.2
		Total	5	5.1	79	81.5	13	13.4	97	100.0
Mean Length		Males	580		576		572			
Std. Error			-		6		16			
Mean Length		Females	588		579		557			
Std. Error			16		4		9			

Note: Samples were collected by Ascarsarmiut Traditional Council technicians.

Appendix D7.–Yukon River, Kaltag, coho salmon 5 ⅞" mesh drift gillnet test fish project age and sex composition and mean length (mm), 2005.

Sample Dates	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (2.1) No.	%	2000 (3.1) No.	%	Total No.	%
8/20-29	55	Males	4	7.3	28	50.9	5	9.1	37	67.3
		Females	1	1.8	13	23.6	4	7.3	18	32.7
		Subtotal	5	9.1	41	74.5	9	16.4	55	100.0
8/30-9/7, 9, 11-13, 15-16	53	Males	2	3.8	24	45.3	2	3.8	28	52.9
		Females	1	1.9	22	41.5	2	3.7	25	47.1
		Subtotal	3	5.7	46	86.8	4	7.5	53	100.0
Season Total	108	Males	6	5.5	52	48.1	7	6.5	65	60.1
		Females	2	1.9	35	32.5	6	5.5	43	39.9
		Total	8	7.4	87	80.6	13	12.0	108	100.0
Mean Length		Males	587		586		556			
Std. Error			17		5		11			
Mean Length		Females	565		573		584			
Std. Error			-		4		11			

Note: Samples were collected by City of Kaltag technicians.

Appendix D8.–Andreafsky River (East Fork) weir, coho salmon escapement project age and sex composition and mean length (mm), 2005.

Sample Dates (Strata Dates)	Sample Size		Brood Year (Age) 2002 (1.1) No.	%	2001 (2.1) No.	%	2000 (3.1) No.	%	Total No.	%
8/1, 4-5, 25-27	75	Males	34	5.3	360	56.0	26	4.0	420	65.3
(8/1-27)		Females	0	0.0	206	32.0	17	2.7	223	34.7
		Subtotal	34	5.3	566	88.0	43	6.7	643	100.0
8/28-29	62	Males	71	3.2	747	33.9	0	0.0	818	37.1
(8/28-30)		Females	142	6.5	1,139	51.6	107	4.8	1,388	62.9
		Subtotal	213	9.7	1,886	85.5	107	4.8	2,206	100.0
9/1-4	71	Males	52	4.2	465	38.1	34	2.8	551	45.1
(8/31-9/4)		Females	17	1.4	603	49.3	52	4.2	672	54.9
		Subtotal	69	5.6	1,068	87.4	86	7.0	1,223	100.0
9/5-7	68	Males	91	7.3	597	48.5	36	3.0	724	58.8
(9/5-11)		Females	18	1.5	380	30.9	109	8.8	507	41.2
		Subtotal	109	8.8	977	79.4	145	11.8	1,231	100.0
Season Total	276	Males	248	4.7	2,169	40.9	96	1.8	2,513	47.4
		Females	177	3.3	2,328	43.9	285	5.4	2,790	52.6
		Total	425	8.0	4,497	84.8	381	7.2	5,303	100.0
Mean Length		Males	527		541		530			
Std. Error			28		4		33			
Mean Length		Females	538		541		538			
Std. Error			16		3		14			

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