AN INVENTORY OF AGE, SEX AM) LENGTH DATA FOR NORTON SOUND, KOTZEBUE, AND KUSKOKWIM CHUM SALMON

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OEO/ADA STATEMENT

ABSTRACT

A large quantity of ASL data has been collected over the years in the Norton Sound, Kotzebue and Kuskokwim Areas. However, no formal archiving system was established and much of this electronic data were lost. The primary objective of creating an inventory of the ASL data collected in the Norton Sound, Kotzebue and Kuskokwim areas was completed. Progress was made on an ongoing second objective to continue aggregating and correcting thousands of ASL files and move toward the completion of an ASL database for the Arctic-Yukon-Kuskokwim (AYK) Region. A total of 281 files representing 183,842 chum salmon were loaded into databases using the parsing and Access-loading program. An additional 77 handwritten files representing 31,935 fish were keyed into a database using the data entry form.

KEY WORDS: Kuskokwim, Kotzebue, Norton Sound, chum salmon, *Oncorhynchus keta*, salmon age, sex and size, Bering Sea, fisheries management, fisheries database, Port Clarence, western Alaska, Arctic-Yukon-Kuskokwim Region, AYK Region

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INTRODUCTION

Salmon age, sex, and length data (ASL) are collected annually from harvest, escapement, run timing and abundance projects in the Norton Sound, Kotzebue, and Kuskokwim areas (Figure 1). Scales are collected from these projects primarily to determine the age of fish, but may also be examined for growth patterns. Since the distance between scale annuli represents the growth of a fish in one year, scales are a permanent record of annual growth over the lifetime of an individual salmon. With the recent decline of some western Alaska salmon stocks, interest in examining fish growth and survival as depicted by scale characteristics has increased.

ASL data have been collected annually from harvest and escapement projects since 1961 in the Kuskokwim Area and 1962 in the Norton Sound/Kotzebue Area. Scales collected from salmon are stored on gum cards and acetates in scale archives located in the Anchorage and Nome ADF&G offices. Paper copies of ASL data are filed in the same locations. In most years, ASL data were converted to electronic data files located on either mainframe or personal computers. However, no formal archiving system was established and much of this electronic data were lost. The primary objective of this project is to create an inventory of ASL data collected in the Norton Sound, Kotzebue and Kuskokwim areas so that investigators can more easily identify and request data sets. A second objective is to continue aggregating and correcting the thousands of individual ASL files and move toward completion of a database of ASL data for the Arctic-Yukon-Kuskokwim (AYK) Region.

Historical Age, Sex, and Length Data Storage

A large quantity of ASL data has been collected over the years in the Norton Sound, Kotzebue and Kuskokwim Areas. ASL paper forms and scales are stored by year, species, and project type in file cabinets located in the Anchorage and Nome scale archives. The corresponding electronic files have been stored in various formats and on a variety of media, including some that are now obsolete. Separate electronic files have been created for each year, species and project combination.

ASL data were recorded on handwritten forms from 1960 though 1983. In 1984, a machine (OPSCAN 90/20) that scans and records data from ASL forms (referred to as OPSCAN or mark-sense forms) was introduced to improve data processing. All ASL data collected between 1984 and 1998 were recorded on forms that can only be read by the OPSCAN 90120. Since this model is no longer in production, replacement parts and maintenance services cannot be obtained.

Two types of electronic ASL data exist: individual observations of the age, sex, and length of a fish (raw data) and summarized data expressed as percent age composition of

a fish population. Summarized age, sex, and length data are often allocated and weighted by a specific population, such as a district's commercial harvest. Both raw and summary data types, including file names, are listed in the inventory for FIS00-016 (Hamner et al. 2002); however this project only includes the recovery and standardization of raw data. These electronic files in ASCII format have one file for each year, species, project, and gear combination. Historically they were in any of seven identified formats. Currently, all files are located and organized on the Anchorage AYK file server and backed up on tape nightly.

Related Age, Sex, and Length Data Recovery and Inventory Projects

In 2001, the Federal Office of Subsistence Management (FOSM) and ADF&G provided financial support to create an inventory of all historical salmon data, including ASL data, in the AYK Region (Harnner et al. 2002). This inventory was intended as the first step in creating a database of historical salmon data. In the early stages of the project we realized a thorough inventory could not be completed within the allotted timeframe and funding, mostly because of large quantities of disorganized data. The ASL inventory was created by first organizing and cataloging all physical scale cards. Generally, electronic ASCII files are created for each species, year, gear, and project combination. Over 3,300 ASL files were identified during the project. After an initial examination of data files, it was obvious that the historical data needed careful error-checking.

A second project funded by FOSM to continue the data inventory and rescue focused on recovering electronic ASL data (Harnner et al In Press). Part of this FOSM project overlapped in time and objectives with the current project. Over one thousand disks were collected from the area ADF&G offices, transferred by a data recovery company or department staff to modem media, and searched for electronic ASL data. Since data not located electronically would have to be rescanned or entered from paper forms, warehouse archives were searched for OPSCAN and handwritten data forms. OPSCAN forms that corresponded to missing electronic ASL data files were located. These files were rescanned to create new electronic files. A computer program was written to recognize and parse each of the seven different historical ASL electronic file formats and automatically load these files into Access. An Access database was created to receive the parsed data. Data from different areas were loaded into separate databases to facilitate editing. These databases will be combined once editing is complete. The computer program flags errors in the data: unacceptable alpha-numeric characters, duplicate files, or duplicate scale card numbers within a file. A customized data entry form and database were created to record data from older handwritten forms.

The Norton Sound Disaster committee funded a five year project for the development of a Norton Sound Salmon Information database which will also include ASL data (Hamner et al. 2003). In the first year of the project, a data inventory was created and electronic files were aggregated and transferred to modem media. In this second year, ASL data not

found as electronic files were reentered from handwritten forms into the ASL database. Recently an additional 14 OPSCAN and six handwritten datasheets were found in the Nome ADF&G office.

The Sustainable Salmon Initiative (SSI) is funding a concurrent project. The goal of this project is to aggregate, standardize, correct and load individual electronic ASL data into a database. The SSI project focuses on species and areas not covered by the other funding sources.

OBJECTIVES

This project provides additional funding toward completing the task of locating, organizing and correcting ASL data, with the emphasis on chum salmon from the Kuskokwim, Norton Sound, and Kotzebue areas. Specific objectives include:

1. Complete transferring data from obsolete media to CD and the AYK file server located in Anchorage.
2. Search for missing files.
3. Update ASL inventory to account for located files.
4. Publish ASL inventory for Norton Sound, Kuskokwim, and Kotzebue.

Deliverables

1. **A** published inventory of ASL data for Kuskokwim, Norton Sound, and Kotzebue chum salmon, which will allow researchers to request scales or electronic ASL data for their research.
2. Electronic listing (inventory) of available ASL data on CD.

METHODS

Anchorage scale archives were searched for data forms containing Norton Sound, Kotzebue, and Kuskokwim chum salmon ASL data not recovered during previous projects. Handwritten forms were separated from OPSCAN forms and keyed into the

database. After the data were entered, a biologist, familiar with ASL data, examined the data for errors.

A research analyst loaded previously recovered ASCII files for the relevant areas into a database using the parsing and data loading program. Preliminary data validation protocols were developed for ASL data. Header records, which link sample data to location, project, gear type, mesh size, date, and species data, were carefully checked for valid or missing codes. Errors and corrections were documented.

Data from different areas were loaded into separate databases to facilitate editing and error-checking; hand-entered data and data found in electronic format were also kept in separate databases. Numerous error-checking protocols were developed to validate the data. These include queries that identify lengths and ages outside of realistic ranges, files with more than one location, project, or species code, and duplicate header or fish data.

A query to generate a dynamic inventory of loaded data was created. The query builds a table describing the number of individual fish samples by species, year, district, and subdistrict. Project workers drafted a database structure to optimize data storage efficiency and compatibility with hypothetical future data structures.

RESULTS AND DISCUSSION

A total of 77 handwritten files needing to be entered into the database were found in the Anchorage scale archive. Each of these files represents a different year, gear and project combination. These consisted of Kuskokwim and Kotzebue files; all identified Norton Sound handwritten files were entered during the Norton Sound Salmon Information Database project. A technician keyed the files into an Access database using the customized data entry form. Two files were duplicates; therefore 75 files were recovered through data entry.

During a preliminary error-check of the hand-entered data, missing dates and location codes and other entry mistakes were found and corrected. This process revealed the need for additional error-checking of the individual fish data. Plans for future error-checking procedures are detailed below.

A total of 19 OPSCAN files consisting of 4 Norton Sound, 5 Kotzebue, and 10 Kuskokwim files were found (Table 1). However, none of the three OPSCAN 90/20 scanners available were able to scan the OPSCAN forms. Numerous attempts were made to calibrate the scanners, locate other functional machines, and obtain technical service from the scanner's manufacturer, but proved unsuccessful because the model was long retired. Project staff are currently investigating alternate methods of recovering data on these forms; an updated inventory will be distributed when these files are recovered.

A total of 281 files representing 183,842 chum salmon were loaded into databases using the parsing and Access-loading program. These data consist of 112 Kotzebue files (95,423 chum salmon) and 169 Kuskokwim files (88,419 chum salmon). An additional 77 handwritten files representing 31,935 fish were keyed into a database using the data entry form; these data consist of 52 Kuskokwim files (20,656 chum salmon) and 25 Kotzebue files (11,249 chum salmon). When combined with the 127 Norton Sound chum salmon files (38,166 salmon) recovered during the Norton Sound Salmon Information Database project, 485 files representing 253,943 chum salmon were loaded into databases. See Table 2 for an overview of ASL recovery progress. Appendices A-D detail individual project file status for each area.

One original aim of the project was to distribute actual data with the deliverables to serve as the source for the query-generated inventory. However, because of the large amount of data corruption, most time spent on the project was devoted to error detection and repair. Although every file loaded or keyed into a database has been checked for missing and grossly invalid codes, much ambiguity still exists in the location, project, and gear codes. This is especially true of older data, since these codes may have changed or not have been standardized at the time its collection. Rather than risk the distribution of erroneous data, only inventories will be distributed until both project workers and biologists have thoroughly reviewed and validated all data. Data based inventories from this project can be found in Appendices E and F.

A variety of persistent problems were found in the ASL files (Table 3). Incomplete data recording, improper mark-sense form coding, scanner errors, and possible degradation of storage media caused many problems. Because of the high occurrence of data errors, rigorous error-checlung protocols are being developed.

Several error-checking methods will be utilized to ensure the validity of all ASL data in the finalized database. Data summaries will be generated directly from the data via queries, similar to the inventory included with this report. ADF&G biologists will be asked to review their respective area's data summaries and confirm project, location, mesh, and gear codes. Statistical analysis will also be performed on all data to manifest possibly erroneous outliers. These outliers will be checked against the archives paper forms to correct for human coding errors.

Some of the most recent data (2000 – present) has not been incorporated into the database for two reasons. The data exists on the Anchorage server, which is backed up nightly; therefore it has not been identified as data in need of rescue. Also, many project leaders are entering ASL data into Excel spreadsheets to calculate data in-season. However, these Excel files are in various formats and not readable by the database loading program written for this project. We expect to load these files into the database in the near future.

In the future, an interface system for intermediate data entry, editing, and reporting will be added to give managers meaningful access to the data. Although a computer program to load ASL tiles into the database was developed, this program needs to be broadened to include automated error checking.

When complete, a database containing 40 years of biological salmon data for western Alaska will be invaluable. Researchers will be able to easily manifest historical trends in body size, sex ratio, and spawning age as well as examine growth and survival characteristics as depicted by scale rings. These data will add perspective and substance to the enigma surrounding the recent decline of western Alaska salmon stocks.

LITERATURE CITED

Harnner, H. H., S. Karpovich, and S. St Clair. In ***Press.*** Develop Shared Fishery Database. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3A03-23, Anchorage.

Hamner, H. H., S. Karpovich, and S. St Clair. 2003. Norton Sound Salmon File Inventory and Problem Review. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3A03-01, Anchorage.

Hamner, H. H., R. Raymond, F. West, and K. Clark. 2002. Shared Information for Fishery Management in AYK. USFWS Office of Subsistence Management, Fisheries Resource Monitoring Program, Final Report No. 00-016, Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 3A02-43, Anchorage.

Table 1. OPSCAN data files (currently unrecoverable due to scanner problems).

Area	Year	Dates	Subdistrict	Location Code	Location	Project[a]	Gear[b]	Card #s	Mesh (in.)
orto Soun	1998	7128 - 815	60	648	Unalakleet	C	SG	1 - 5	
	1998	6/26 - 7122	30	345	Kwiniuk R. Tower	E	BS	1 - 12	
	1998	718 - 7124	30	343	Kwiniuk R (abv chnl)	E	BS	1 - 9	
	1998	6/10 - 814	60	649	Unalakleet Test	T	SG	1-27	
Ko z a[e]	2000	717 - 8/14	Kobuk	215	Kobuk River (Kiana)	T	SG	1-39	
	1998	9/12	Kobuk	270	Selby Slough	E	CR	1-17	
	1998	9/12	Kobuk	215	Kobuk River (Kiana)	T	SG	1-32	
	1990	7/10 - 8/10	10	002	Kokebue	C	SG	1-60	5.87
	1984	816 - 818	20	220	Monarch Sand Bar/Squirrel R	E	BS	1 - 5	
Kusk o4y'm	1997	7/1 - 717	10	112	Kwethluk	E	BS	1 - 5	1.75
	1995	613-7120	12	104	Bethel	T	DG	1 - 82	6.5
	1995	6111-815	12	104	Bethel	T	DG	1-102	5.4
	1995	7/5-7117	12	104	Bethel	T	SG	4,27	2.75
	1995	6/12 - 7/19	12	104	Bethel	T	DG	1-30	5.5
	1995	6130-718	12	104	Bethel	T	SG	8-11	4
	1995	6/17 - 7/20	12	104	Bethel	T	SG	1-27	4
	1995	6/16 - 7/10	12	104	Bethel	T	DG	1-30	6.5
	1992	6/24 - 8/17	13	112	Kwethluk	E	WR	1-12,24-36	
	1986	719 - 7123	50	118	Goodnews	E	BS	1 - 7	

[a] Project Codes (C = Commerical, S = Subsistence, E = Escapement, T = Test Fishing)

[b] Gear Codes (BS = Beach Seine, DG = Drift Gillnet, SG = Set Gillnet, CR = Carcass, WR = Weir)

Table 2. Kuskokwim, Norton Sound, and Kotzebue Chum ASL Inventory Summary,

Area	Species	Years	Approximate Total Number of Files	ASCII Files		Entered Handwritten Files	"Missing" Electronic Files	% Files Loaded in Database
				Inventoried	Loaded into Database			
Kuskokwim	Chum	1964-1999	243	163	163	52	28	88.5%
Norton Sound	Chum	1962-2000	174	81	76	46	47	70.1%
Kotzebue	Chum	1962-2000	175	110	109	25	40	76.6%
	Total		**592**	**354**	**348**	**123**	**115**	**79.6%**

Area	Tagged for Scanning	Tagged for Hand Entry	"Missing" Files After Completion	% Files Loaded in Database after Completion
Kuskokwim	10	4	14	94.2%
Norton Sound	4	2	41	76.4%
Kotzebue	5	8	27	84.6%
Total	**19**	**14**	82	**86.1%**

Table 3. Specific problems with ASL data.

Category	Problem	Problem Details	Solution
Missing/Incorrect Header Codes'	Location Coder	Location codes often missing, incorrect, inconsistent, or improperly entered (location in stream code, no subdistrict, etc.)	Match files to scale inventory uring other data, fix location codes
	Species	Species code missing or incorrect	Match files to scale inventory using other data, fix species code
	Project	Project code missing or incorrect	Match files to scale inventory using other data, fix project code
	Dates	File dates often do not match scale card, sometimes day data not entered	Match files using other data. interpolate missing dates
	Other Codes	Gear codes, mesh sizes, length types sometimes omitted	Match files to inventory using other data, fix data
Card number	Type C filer	4 Cards per page, so headers jump from 1 to 5 to 9, etc. Could make matching data to scales difficult.	Could write a parsing program to insert headers with the correct card numbers between the appropriate samples
Data redundancy	File combinations	Data combined from several locations/projects for summary purposes sometimes mistaken as unique data	Look for inconsistent location codes/dates, find original files and delete combination or extract and separate combined data
Pile type	Data in Excel spreadsheets	Loader programs can only extract data from text files faloading into database	Export data from spreadsheets into text filer, name appropriately
Mark Sense Forms	Miseoding	Coded data differs from values written in margins or data entered twice in same column	Establish better post-season data sheet review practices, interpolate missing data or delete miscoded samples
	Scanner Errors	OPSCAN "stutters" on last card, adds garbage characters and repeats some samples on last card	Manually review files and remove garbage characters and redundant data
		OPSCAN or DOS software breaks transmission of data; scan continues but no further data is recorded	Manually review files and ensure all cards are recorded, rescan as needed

'Indicates primary data used lo sort md inventory files and will indentify data in the database. Errors in these data categories could have major consequences if not corrected.

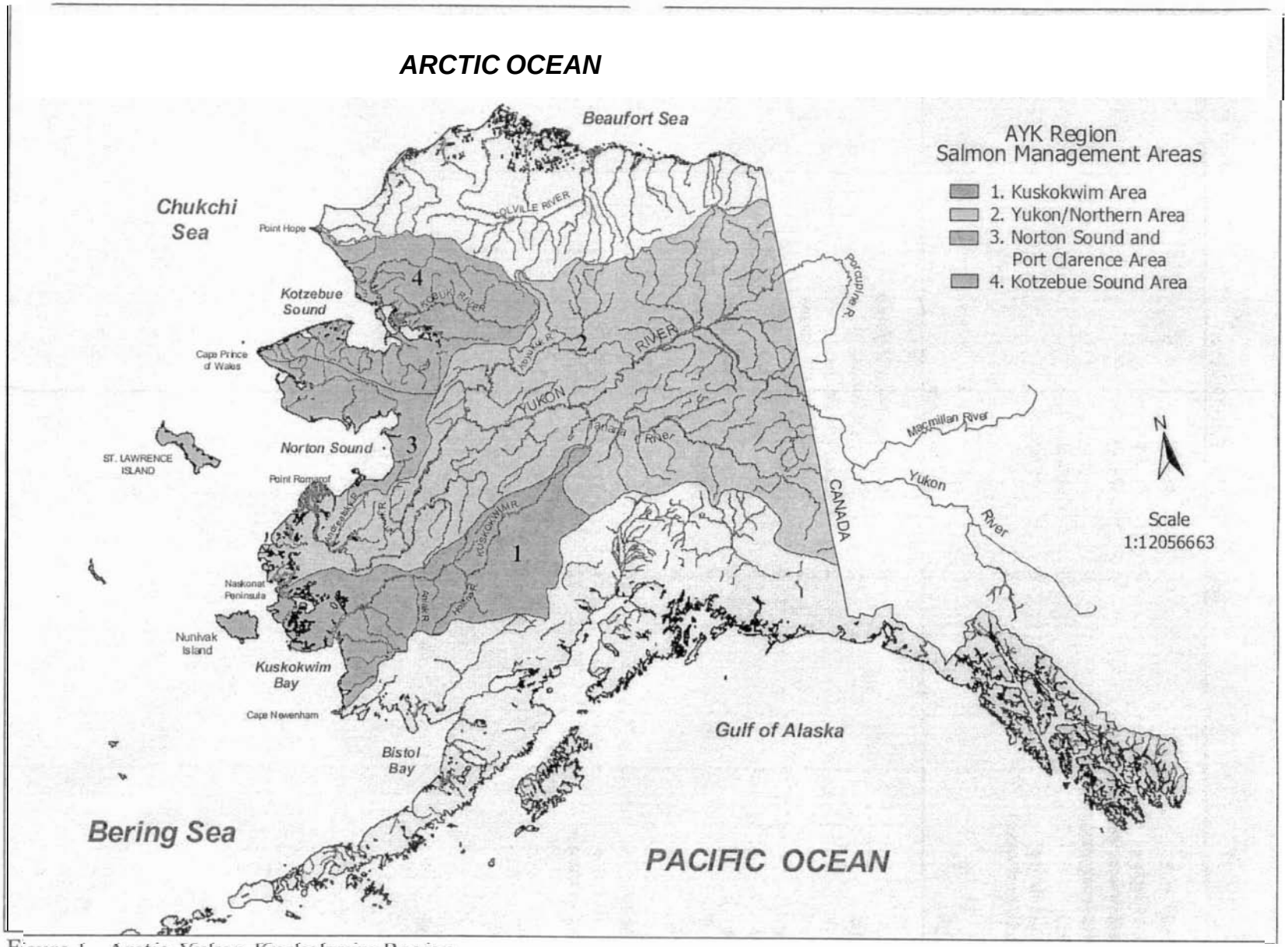

Figure 1. Arctic-Yukon-Kuskokwim Region.

Appendix A. Codes for the Kuskokwim, Norton Sound, and Kotzebue ASL data inventory tables.

Project Type	*Code*
Commercial Catch	1
Subsistence Catch	2
Escapement (tower, weir, sonar, etc.)	3
Escapement (spawning grounds)	4
Test Fishing	5
Sport Catch (marine)	6
Sport Catch (freshwater)	7

Gear Type	
Trap	0
Purse Seine	1
Beach Seine	2
Drift Gillnet	3
Set Gillnet	4
Troll	5
Long Line	6
Otter Trawl	7
Fishwheel	8
Pots	9
Sport Hook and Line	10
Herring Purse Seine	11
Handpicked or carcass	12
Dip Net	13
Unassigned	14-16
Beam Trawl	17
Shovels	18
Weir	19
Unassigned	20 - 99

Data Type Collected	*Code*
Sex	
Length	
Weight	
Age	
Otoliths	
Vertabrae	

ASL form type	
Missing - No ASL forms	O
OPSCAN Forms	S
Handtally Forms	H
Newer OPSCAN Forms	SN
Handwritten	HW
Print Out	PO
Copy of OPSCAN forms	POS
Unspecified Form in Inventory	X

Appendix B. Status of Norton Sound Chum ASL files. Page 1 of 3.

Year	Dates	Area	Subdistrict	Location Code	Location	Project	Gear	Card #s	Data	Status	AWLs	Gum Cards	Acetates	Mesh
2001	7/28 - 8/7	333	60	648	Unalakleet	1	4	6 - 10	ASL	RECENT	PO			
2001	6/16 - 7/12	333	60	649	Unalakleet Test	5	4	1 - 26	ASL	RECENT	SN			5 7/8
2000	7/25 - 8/9	333	60	648	Unalakleet	1	4	1 - 9	ASL	In Database	X	X	X	5 7/8
2000	7/9 - 7/25	333	20	258	Niukluk R.	3	2	1 - 4	ASL	In Database	X			
2000	8/15 - 8/28	333	20	258	Niukluk River	3	19	1 - 8	ASL	In Database	X			
2000	6/15 - 8/29	333	60	649	Unalakleet Test	5	4	1 - 58	ASL	In Database	X	X	X	5 7/8
2000	6/28 - 7/12	333	30	345	Kwiniuk R. Tower	3/5	2	1 - 10	ASL	In Database	X			
2000	7/23 - 7/27	333	30	345	Kwiniuk R. Tower	7	10	1 - 4	ASL	In Database	X			
2000	7/20 -7/22	333	30	343	Kwiniuk R (abv chnl)	5	2	1 - 3	ASL	In Database	X			
2000	7/8 - 7/11	333	30	343	Kwiniuk R (abv chnl)	7	10	1 - 2	ASL	In Database	X			
1999	7/9 - 7/16	333	60	648	Unalakleet	1	4	1-8	ASL	In Database	SN	X	X	
1999	7/19 - 8/24	333	20	258	Niukluk River	3	2/19	1-10,12-18	ASL	In Database	SN	X	X	
1999	7/7 - 7/23	333	30	343, 5	Kwiniuk River	3	2	1 - 9	ASL	In Database	SN	X	X	
1999	6/27 - 8/23	333	60	649	Unalakleet Test	5	4	1 - 19	ASL	In Database	SN	X	X	
1998	7/28 - 8/5	333	60	648	Unalakleet	1	4	1 - 5	ASL	OPSCAN	S	X	X	
1998	7/4 - 7/20	333	20	258	Niukluk River	3			ASL	MISSING				
1998	6/26 - 7/22	333	30	345	Kwiniuk R. Tower	3	2	1 - 12	ASL	OPSCAN	S	X	X	
1998	7/8 - 7/24	333	30	343	Kwiniuk R (abv chnl)	3	2	1 - 9	ASL	OPSCAN	S	X	X	
1998	6/10 - 8/4	333	60	649	Unalakleet Test	5	4	1 - 27	ASL	OPSCAN	S	X	X	
1997	7/1 - 8/1	333	60	648	Unalakleet	1	4	1 - 8	ASL	In Database	S	X	X	
1997	8/1	333	10	154	Snake River Tower	3	2	1 - 3	ASL	In Database	S	X	X	
1997	6/26 - 8/29	333	20	258	Niukluk River	2, 3, 4, 5	2, 10, 12, 19	1 - 71	ASL	In Database	S	X	X	
1997	7/4 - 7/24	333	30	343	Kwiniuk R (abv chnl)	3	2	1 - 15	ASL	In Database	S	X	X	
1997	7/25 -7/31	333	10	151	Nome River	4	2	1 - 7	ASL	In Database	S	X	X	
1997	6/15 -7/30	333	60	649	Unalakleet Test	5	4	1 - 32	ASL	In Database	S	X	X	5 7/8
1996	6/25	333	50	547	Shaktoolik	1	4	1 - 3	ASL	In Database	S	X	X	
1996	7/3 - 7/31	333	60	648	Unalakleet	1	4	1 - 5	ASL	In Database	S	X	X	
1996	7/2 - 9/10	333	20	258	Niukluk River	3	12, 2, 10	1 - 34	ASL	In Database	S	X	X	
1996	7/7	333	30	345	Kwiniuk R. Tower	3	2	1	ASL	In Database	S	X	X	
1996	7/3-7/13	333	30	343	Kwiniuk R (abv chnl)	3	2	1 - 4	ASL	In Database	S	X	X	
1996	7/13	333	30	343	Kwiniuk R (abv chnl)	3	12	1	ASL	In Database	S	X	X	
1996	6/5 - 7/29	333	60	649	Unalakleet Test	5	4	1 - 38	ASL	In Database	S	X	X	5 7/8
1995	7/4 - 8/2	333	60	648	Unalakleet	1	4	1 - 6	ASL	In Database	S	X	X	
1995	7/24	333	10	151	Nome River	3	2	1 - 5	ASL	In Database	S	X	X	
1995	7/25 - 7/28	333	10	153	Snake River	3	2	1 - 7	ASL	In Database	S	X	X	
1995	7/31	333	10	155	Solomon River	3	2	1 - 7	ASL	In Database	S	X	X	
1995	7/5 - 8/10	333	20	258	Niukluk River	2, 3	2, 12, 10, 4	1 - 33	ASL	In Database	S	X	X	
1995	6/30 - 7/25	333	30	343	Kwiniuk R (abv chnl)	3	2	1 - 15	ASL	In Database	S	X	X	
1995	6/5 - 8/30	333	60	649	Unalakleet Test	5	4	1 - 64	ASL	In Database	S	X	X	5 7/8
1994	7/26	333	30	346	Moses Pt	1	2	10	ASL	In Database	S	X	X	
1994	7/26 - 8/5	333	60	648	Unalakleet	1	4	1 - 12	ASL	In Database	S	X	X	
1994	7/26 - 8/5	333	10	151	Nome River	3	2	1 - 11	ASL	In Database	S	X	X	
1994	7/29 - 8/10	333	10	153	Snake River	3	2	1 - 8	ASL	In Database	S	X	X	
1994	7/9 - 7/14	333	30	343	Kwiniuk R (abv chnl)	3, 2	2	1-2, 4, 8-9	ASL	In Database	S	X	X	
1994	7/10 - 7/11	333	30	347	Tubutulik	3	2	5 - 7	ASL	In Database	S	X		
1994	6/16 - 9/1	333	60	649	Unalakleet Test	5	4	1 - 56	ASL	In Database	S	X	X	5 7/8
1993	6/30 - 8/9	333	60	648	Unalakleet	1	4	1 - 14	ASL	In Database	S	X	X	
1993	7/3 - 7/14	333	30	343	Kwiniuk R (abv chnl)	2	2	1 - 4	ASL	In Database	S	X	X	
1993	6/8 - 9/2	333	60	649	Unalakleet Test	5	4	1 - 70	ASL	In Database	S	X	X	5 7/8
1992	7/3 - 7/28	333	60	648	Unalakleet	1	4	1 - 15	ASL	In Database	S	X	X	6
1992	7/15 - 7/25	333	30	343	Kwiniuk R (abv chnl)	2	2	1 - 4	ASL	In Database	S	X	X	
1992	6/23 - 9/8	333	60	649	Unalakleet Test	5	4	1 - 54	ASL	In Database	S	X	X	5 7/8
1991	6/24 - 6/25	333	33	346	Moses Pt	1	4	1 - 2	ASL	In Database	S	X	X	
1991	6/28	333	50	547	Shaktoolik	1	4	1 - 2	ASL	In Database	S	X	X	
1991	6/28 - 8/2	333	60	648	Unalakleet	1	4	1 - 16	ASL	In Database	S	X	X	
1991	7/3	333	30	344	Kwiniuk R. (blw chnl)	2	2	1	ASL	In Database	S	X	X	

Appendix B. Status of Norton Sound Chum ASL files. Page 2 of 3.

Year	Dates	Area	Subdistrict	Location Code	Location	Project	Gear	Card #s	Data	Status	AWLs	Gum Cards	Acetates	Mesh
1991	6/11 - 9/6	333	60	649	Unalakleet Test	5	4	1 - 75	ASL	In Database	S	X	X	5 7/8
1990	6/27 - 7/27	333	60	648	Unalakleet	1	4	1 - 17	ASL	In Database	S	X	X	
1990	6/26 - 6/29	333	30	346	Moses Pt	1	4	1 - 5	ASL	In Database	S			
1990	6/14 - 9/12	333	60	649	Unalakleet Test	5	4	1 - 61	ASL	In Database	S	X	X	5 7/8
1989	6/29	333	33	346	Moses Pt	1	4	1	ASL	In Database		X		
1989	7/5	333	50	547	Shaktoolik	1	4	1 - 4	ASL	In Database		X	X	
1989	7/4 - 8/5	333	60	648	Unalakleet	1	4	1 -14	ASL	In Database		X		
1989	6/27 - 7/11	333	30	346	Moses Pt	2	4	1 - 2	ASL	In Database		X		
1989	6/12 - 9/1	333	60	649	Unalakleet Test	5	4	1 - 64	ASL	In Database		X		5 7/8
1988	6/22 - 7/8	333	33	346	Moses Pt	1	4	1 - 6	ASL	In Database		X		
1988	6/28 - 8/6	333	60	648	Unalakleet	1	4	1 - 39	ASL	In Database		X		
1988	7/4 - 7/22	333	30	344	Kwiniuk R. (blw chnl)	2	2	1 - 2	ASL	In Database		X		
1988	6/7 - 9/9	333	60	649	Unalakleet Test	5	4	1 - 82	ASL	In Database		X		5 7/8
1988	6/24 - 7/5	333	30	344	Kwiniuk R. (blw chnl)	7	10	1 - 2	ASL	In Database		X		
1987	6/27 - 7/15	333	33	346	Moses Pt	1	4	1 - 8	ASL	In Database	X	X		
1987	7/7 - 8/19	333	60	648	Unalakleet	1	4	1 - 17	ASL	In Database	X	X		
1987	7/14 - 8/3	333	30	344	Kwiniuk R. (blw chnl)	2	2	1 - 3	ASL	In Database	X	X		
1987	6/16 - 9/7	333	60	649	Unalakleet Test	5	4	1 - 96	ASL	In Database	X	X		5 7/8
1986	7/10 - 7/11	333	20	241	Golovin Bay	1	4	1 - 16	ASL	In Database	X	X		
1986	6/24 - 7/11	333	33	346	Moses Pt	1	4	1 - 11	ASL	In Database		X		
1986	7/4	333	50	547	Shaktoolik	1	4	1 - 4	ASL	In Database	X	X		
1986	7/5 - 8/1	333	60	648	Unalakleet	1	4	1-36	ASL	In Database	X	X		
1986	7/ 6 - 7/10	333	30	343	Kwiniuk R (abv chnl)	2	2	1 - 2	ASL	In Database	X	X		
1986	6/17 - 8/20	333	60	649	Unalakleet Test	5	4	1 - 86	ASL	In Database	X	X		5 7/8
1985	7/23 - 7/24	333	20	241	Golovin Bay	1	4	1 - 7	ASL	In Database	X	X	X	
1985	6/29 - 7/22	333	33	346	Moses Pt	1	4	1 - 19	ASL	In Database	X	X		
1985	6/28 - 7/31	333	60	648	Unalakleet	1	4	1 - 38	ASL	In Database	X	X		
1985	7/6 - 7/25	333	30	343	Kwiniuk R (abv chnl)	4	2, 10	1 - 11	ASL	In Database	X	X		
1985	7/25	333	30	347	Tubutulik	4	2	1	ASL	In Database	X	X	X	
1985	6/23 - 9/7	333	60	649	Unalakleet Test	5	4	1 - 89, 91 - 109	ASL	In Database	X	X		5 7/8
1984	37815	333	33	346	Moses Pt	1	4	1 - 2	ASL	MISSING	H			
1984	7/7 - 7/28	333	60	648	Unalakleet	1	4	1 - 50	ASLW	In Database	X	X		
1984	6/22 - 9/13	333	60	649	Unalakleet Test	4,5	2, 4	1 - 76; 100 - 128	ASLW	In Database	X	X		5 7/8, 8 1/4
1983	6/21 - 7/20	333	33	343	Kwiniuk R (abv chnl)	1	4	1 - 13; 15 - 18	ASL	In Database	X	X		*
1983	6/19 - 7/6	333	50	547	Shaktoolik	1	4	1 - 4	ASL	In Database	X	X	X	
1983	6/17 - 7/29	333	60	648	Unalakleet	1	4	1 - 12	ASL	In Database	X	X		
1983	6/27 - 7/29	333	30	344	Kwiniuk R. (blw chnl)	2	4*	1 - 5; 19 - 20	ASLW	In Database	X	X		
1983	6/10 - 9/21	333	60	649	Unalakleet Test	5	4	1 - 133	ASLW	In Database	X	X		5 7/8*
1982	6/22 - 7/24	333	33	346	Moses Pt	1	4	1 -16	ASLW	In Database	X	X		
1982	5/16 - 9/22	333	60	648	Unalakleet	1	4	* 6 - 135	ASLW	In Database	X	X		5 7/8*
1981	6/23 - 7/21	333	33	346	Moses Pt	1	4	1 - 16	AL	In Database	X	X		
1981	6/23	333	60	648	Unalakleet	1	4	1	AL	In Database	X	X		
1981	6/30 - 7/2	333	60	649	Unalakleet Test	5	4	* 6 - 149	AL	In Database	X	X		5 7/8*
1981	5/21 - 8/9	333	60	649	Unalakleet Test	5	4	* 1 - 55	AL	In Database	X	X		5 7/8
1981	6/22 - 8/31	333	60	649	Unalakleet Test	5	4	* 1 - 70	AL	In Database	X	X		5 7/8
1980	7/18	333	10	151	Nome	1	4	1 - 2	ASL	In Database	X	X	X	4 1/2 or less
1980	6/20 - 7/18	333	33	343	Kwiniuk R (abv chnl)	1	4	1 -18	ASL	In Database	X	X	X	
1980	6/27 - 7/22	333	60	648	Unalakleet	1	4	1 - 10	ASL	In Database	X	X	X	
1979	6/23 - 7/10	333	60	648	Unalakleet	1	4	1 - 9	ASL	MISSING		X		
1979	6/23 - 7/18	333	33	346	Moses Pt	2	4, 2*	1 -11	ASL	In Database		X		
1979	7/13; 7/29	333	20	258	Niukluk	4	12	1-2	ASL	In Database	X	X	X	
1978		333	10	151	Nome	1		1 - 3	A	In Database	X			
1978		333	20	241	Golovin Bay	1		1, 3, 5, 7	A	In Database	X		X	
1978	6/20 - 7/18	333	33	346	Moses Pt	1	4	2,5,7,10,12,15,17	A	In Database	X	X		
1978	6/20 - 7/19	333	60	648	Unalakleet	1	4	1 - 15	AL	In Database	X			
1978		333	30	343	Kwiniuk R (abv chnl)	2?		*2 - 17	A	In Database				
1978	-	333	10	170	Boston Creek	4	12	1 - 4	A	In Database	H		X	

Appendix B. Status of Norton Sound Chum ASL files. Page **3** of **3.**

Year	Dates	Area	Subdistrict	Location Code	Location	Project	Gear	Card #s	Data	Status	AWLs	Gm Cards	Acetates	Mesh
1978		333	10	157	Eldorado Creek	4	12	1 - 2	A	In Database	X			
1978		313	10	150	Nome	4	12	1 - 4	A	In Database	X		X	
1978		333	20	260	Fish River	4		1	A	In Database	X		X	
1978		333	20	251	Kachavik	4	*	1 -2	A	In Database	X		X	
1978		333	20	258	Niukluk	4	12	1 - 2	A	In Database	X			
1978		333	50	550	Shaktoolik	4		1 - 3	A	In Database	X		X	
1978	Aug	333	50	547	Shaktoolik	4	12	1 - 2	A	In Database	X		X	
1978		333	60	650	Unalakleet	4	12	1	A	In Database		X	X	
1978		333	60	649	Unalakleet Test	5	12	1-4,9,11,15	A	In Database	X			
1978		333	00	054	Sinuk	4	12	1 - 3	A	In Database	X		X	
1977		333	10	151	Nome	1			ASL	MISSING				
1977	6/25 - 7/27	333	30	344	Kwiniuk R. (blw chnl)	1	4	1 - 22	ASL	In Database		X		
1977	6/22 - 7/9	333	60	648	Unalakleet	1	4	1 - 20	AL	In Database		X		
1977		333	10	151	Nome	2			ASL	MISSING				
1977		333	30	343	Kwiniuk R (abv chnl)	2		101-104	A	In Database	X			
1977		333	60	650	Unalakleet	2			A	In Database	X			
1976	6/26 - 7/28	333	30	344	Kwiniuk R (blw chnl)	1	4	1 - 9	AL	In Database	X	X		
1976	6/30	333	40	440	Ungalik River	1	4		A	MISSING				
1976	6/28-7/18	333	50	547	Shaktoolik	1	4		A	MISSING				
1976	6/23 - 7/14	333	60	648	Unalakleet	1	4	1,4,7,11,15,17	AL	In Database	X	X		
1976	7/15-7/31	333			Chimsky R.	3	2		A	MISSING				
1976	7/7 - 7/16	333	30	345	Kwiniuk R. Tower	4	2	1 - 6	A	In Database	X	X		
1976	6/26-7/12	333	60	649	Unalakleet Test	5	4		A	MISSING				*
1975	7/3 - 7/16	333	30		Kwiniuk - Moses Pt.	1	4*	1 - 12	A	In Database		X		*
1975	6/1-8/3	333	50	547	Shaktoolik	1			A	MISSING				
1975	6/25 - 8/6	333	60	648	Unalakleet	1		1 - 38	A	In Database				
1975	7/5-7/25	333			Chirosky R.	1			A	MISSING				
1975	7/8-9	333			Golovin	1			A	MISSING				
1975	7/3-8/6	333			Norton Bay	1			A	MISSING				
1975	7/22-7/24	333	30		Kwiniuk River	3	2		A	MISSING				
1974	6/21-6-29	333	20		Golovin	1	4		ASL	MISSING				
1974	6/27-7/21	333	30		Kwiniuk - Moses Pt.	1	4		ASL	MISSING				
1974	6/17-7/17	333	60	648	Unalakleet	1	4		ASL	MISSING				
1974	6/27-7/11	333	30		Kwiniuk - Moses Pt.	2	2		ASL	MISSING				
1973	6/29-8/3	333	30		Kwiniuk - *Moses* Pt	1	4		ASL	MISSING				
1973	620-7/28	333	60	648	Unalakleet	1	4		ASL	MISSING				
1973	6/29-8/3	333	30		Kwiniuk River	3	2		ASL	MISSING				
1969	6/23 - 7/19	333	30	346	Mores Pt	1	4	1 - 44	ASL	In Database	X	X		
1969		333	60	648	Unalakleet	1	4	1 - 10		MISSING				
1968	6/22 - 7/14	333	33	346	Moses Pt	1	4	1 - 41		MISSING				
1968	7/6 - 7/17	333	60	648	Unalakleet	1	4*	1 - 33		MISSING				
1967		333	30	344	Kwiniuk R. (blw chnl)	1	4	1 - 30		MISSING				
1965	6/24 - 7/12	333	30		Kwiniuk River				A	MISSING				
1963	7/2	333	20	241	Golovin Bay	1	4	* 4	AL	In Database	X		X	
1963	7/2 - 7/14	333	40	410	Norton Bay	1	4	* 4	AL	MISSING	X			
1963	7/11 - 8/2	333	60	648	Unalakleet	1	2,4	* 9	AL	In Database	X			
1962	7/3 - 7/16	333	30		Kwiniuk	1	4	1 - 12	AL	MISSING	X			
1962	6/25 - 8/6	333	60	648	Unalakleet	1	4	1 - 34	AL	MISSING	X			
1962	7/7 - 7/14	333	40	410	Norton Bay	-	-	3	LAn	In Database	H			

Appendix C. Status of Kotzebue Chum ASL files. Page 1 of **3.**

Year	Dates	Area	Subdistrict	Location Code	Location	Project	Gear	Card #s	Data	Status	AWLs	Gum Cards	Acetates	Mesh
2001		331	10	002	Kotzebue	1	4	1-98	ASL	RECENT	HW			
2001	818 - 8115	331		115	Noatak	5	4	1 - 8	ASL	RECENT	HW			
2000	7/11-8/24	331	10	002	Kotzebue	1	4	1 - 91	ASL	In Database			X	
2000	717- 8114	331	Kobuk	215	Kobuk River (Kiana)	5	4	1-39	ASL	OPSCAN	SN	X	X	
1999	7113- 8/27	331	10	002	Kotzebue	1	4	I - 101	ASL	In Database		X	X	
1999	7117- 8113	331	Kobuk	215	Kobuk River (Kiana)	5	3	7-48	ASL	In Database	S	X	X	
1999	8/14 - 8/29	331	Noatak	120	Noatak (Test Fish)	5	3	70,71,86,87,102	ASL	In Database		X	X	
1998	7/9 - 8/30	331	10	002	Kotzebue	1	4	22 - 82	A	In Database		X	X	
1998	9112	331	Kobuk	270	Selby Slough	4	12	1 - 17	ASL	OPSCAN	S	X	X	
1998	7/10 - 8/14	331	Kobuk	215	Kobuk River (Kiana)	5	4	1-32		OPSCAN	S	X	X	
1998	7127-8/28	331	Noatak	115	Noatak (Test Fish)	5	3	1 - 9	ASL	MISSING	PO	X	X	
1997	7110- 8129	331	10	002	Kotzebue	1	4	1 - 125	ASL	In Database	POS		X	
1997	8/19 - 8/21	331	20	230	Salmon River	4	12	1 - 22	ASL	In Database	S	X	X	
1997	912 - 914	331	20	270	Selby River (Carcass)	4	12	1-23	ASL	In Database	S	X	X	
1997	8/24 - 8/26	131	20	220	Squirrel River	4	12	1-20	ASL	In Database	S	X	X	
1997	719-8114	331	20	215	Kobuk River (Kiana)	5	4	1-37	ASL	In Database	S	X	X	
1997	7/27 - 8/28	331	10	115	Noatak (Test Fish)	5	3	1 - 7	ASL	In Database	POS	X	X	
1996	718-8126	331	10	002	Kotzebue	I	4	1-80	ASL	In Database	POS	X	X	
1996	8119.8121	331	20	230	Salmon River	4	12	1-28	ASL	In Database	S	X	X	
1996	912 -913	331	20	270	Selby River (Carcass)	4	12	1-28	ASL	In Database	S	X	X	
1996	8/27 - 8/28	331	20	220	Squirrel River	4	12	1-28	ASL	In Database	S	X	X	
1996	7/9-8114	331	20	215	Kobuk River (Kiana)	5	3	1-61	ASL	In Database	S	X	X	
1996	7116-8/27	331	10	115	Noatak River (Test Fish)	5	3	1-12	ASL	MISSING	POS	X	X	
1995	7111 -8128	331	10	002	Kotzebue	1	4	1.123	ASL	In Database	POS	X	X	
1995	8123 - 8/24	331	20	230	Salmon River	4	12	1-25	ASL	In Database	S	X	X	
1995	917 - 918	311	20	270	Selby River	4	12	1-28	ASL	In Databarc	S	X	X	
1995	8127 - 8/28	331	20	220	Squirrel River	4	12	1-28	ASL	In Databasc	S	X	X	
1995	7/13 -8116	111	20	215	Kobuk River (Kiana)	5	3	1-48	ASL	In Databarc	S	X	X	
1995	7/20 - 8/29	331	10	115	Noatak River	5	3	1-53	ASL	In Database	S	X	X	
1995	7121 - 8/?	311	10	125	Sikusuilaq Hatchery	4	2	1-16	A	In Database	S			
1994	7112 - 8131	331	10	002	Kotzebue	I	4	1 - 101	ASL	In Database	PO	X	X	
1994	7/26 - 8/5	331	10	120	Noatak	4	2	1 - 11	ASL	In Databarc	O			
1994	918	131	20	230	Salmon River	4	12	1-28	ASL	In Database	S	X	X	
1994	9/20	331	20	270	Selby River (Carcass)	4	12	1-28	ASL	In Database	S	X	X	
1994	7/28 - 9/6	331	10	115	Noatak (Test Fish)	5	3	1-63	ASL	In Database	S	X	X	6
1994	7114- 8/28	331	20	215	Kobuk River (Kiana)	5	3	2-41	ASL	In Database	S	X	X	5 7/8
1993	719-8127	331	10	002	Kotzebue	1	4	1-98	ASL	In Database	PO	X	X	
1993	7/24 - 9/13	331	10	110	Noatak (Sonar)	3	3.4	1-58	ASL	In Database	S	X	X	
1993	9/3	331	20	230	Salmon River	4	12	1-22	ASL	In Database	S	X	X	
1993	8/29 - 911	331	20	220	Squirrel River	4	12	1 - 16	ASL	In Database	S	X	X	
1993	7112- 8112	331	20	215	Kobuk River (Kiana)	5	3	1-27	ASL	In Database	S	X	X	
1992	7110-8/28	331	10	002	Kotzebue	I	4	1-98	ASL	In Database	PO	X	X	
1992	915 - 917	331	20	230	Salmon River	4	12	1-28	ASL	In Database		X	X	
1992	9/21	331	20	270	Selby River (Carcass)	4	12	1-28	ASL	In Database		X	X	
1992	9/2	331	20	220	Squirrel River (Carcass)	4	12	1-16	ASL	In Database		X	X	
1992	9124	331	10	120	Noatak River	4	12	1-16	ASL	In Database		X	X	
1991	7/11 - 8/30	331	10	002	Kotzebue	1	4	1-90	ASL	In Database	S	X	X	
1991	913 -914	331	20	230	Salmon River	4	12	1-23	ASL	In Database	S	X	X	
1991	919 - 9/10	331	20	220	Squirrel River	4	12	1-23	ASL	In Database	S	X	X	
1991	9116	331	10	120	Noatak River	4	12	1-27	ASL	In Database	S	X	X	
1991	7/24 - 8/28	331	10	115	Noatak (Test Fish)	5	3	1-29	ASL	In Database	S	X	X	5 7/8
1990	7110-8110	331	10	002	Kotzebue	I	4	1 - 60	ASL	OPSCAN	S	X	X	5 7/8
1990	7119 - 8/26	331	10	110	Noatak (Sonar)	3	3	1-98	ASL	MISSMG		X		
1990	9111	331	20	220	Squirrel River	4	12	1 - 3	ASL	In Database	S	X	X	
1990	9/18 - 9/19	331	10	120	Noatak River	4	12	1-22	ASL	In Database	S	X	X	
1990	7117- 8/20	331	10	115	Noatak (Test Fish)	5	3	1 - 16	ASL	In Database	S	X	X	
1989	7111 -8130	331	10	002	Kotzebue	1	4	1-90	ASL	In Databarc	O	X		
1989	9/6 - 9/7	331	20	220	Squirrel R	4	12	1-27	ASL	In Database	O	X	X	
1989	9116	331	10	120	Noatak	*4	2	1-23	ASL	In Database	O	X	X	
1989	7/18-8124	331	10	115	Noatak	*5	3	1-60	A	In Database	O	X	X	
1988	7/12 - 8/30	331	10	002	Kotzebue	1	4	1-90	ASL	In Database	O	X		
1988	9121 - 9/23	331	10	120	Noatak	4	2	1-45	ASL	In Databarc	O	X	X	
1988	916	331	20	230	Salmon R	4	12	1-16	ASL	In Database	O	X	X	
1988	9/3 - 9/5	331	20	220	Squirrel R	4	12	1-36	ASL	In Database	O	X	X	

Year	Dates	Area	Subdistrict	Location Code	Location	Project	Gear	Card #s	Data	Status	AWLs	Gum Cards	Acetates	Mesh
1988	7119 - 8125	331	10	115	Noatak	5	3	1-54	A	In Database	O	X	X	5 718
1987	7114- 8/21	331	10	002	Kotzebue	1	4	1 - 54	ASL	In Database	S	X		
1987	7/7 - 8/1	331	10	001	Kotzebue	2	*4	1-20	A	In Database	S	X	X	
1987	914 - 915	331	20	230	Salmon R	4	*12	1-23	ASL	In Database	S	X		
1987	8131 - 9/2	331	20	220	Squirrel R	4	12	1-26	ASL	In Database	S	X	X	
1987	7/23 - 8/27	331	10	115	Noatak	5	3	1-50	A	In Database	S	X	X	5.875
1987	9117	331	10	120	Noatak	*4	2	1-45	ASL	In Database	S	X	X	
1986	7111 - 8/26	331	10	001	Kotzebue	1	4	1-84	ASL	In Database	O	X		
1986	9/1 - 913	331	20	230	Salmon R	4	12	1-22	ASL	In Database	O		X	
1986	8/30 - 8131	331	20	220	Squirrel R	4	12	1-20	ASL	In Database	O		X	
1986	9117-9119	331	10	120	Lower Noatak	*4	2	1-46	ASL	In Database	O	X	X	
1985	7/12 - 8131	331	10	002	Kotzebue	1	4	1-90	ASL	In Database	S	X		
1985	913	331	10	135	Kelly Lake	4	2	10 - 24	ASL	In Database	S	X	X	
1985	8/28	331	10	140	Kugururok	4	2	1-10	ASL	In Databarc	S	X	X	
1985	9117- 9/23	331	10	120	Lower Noatak	4, 3	4,2	1-58	ASL	In Database	S	X	X	
1985	916 - 9/7	331	10	120	Upper Noatak/below Kelly R	4	2	1-20	ASL	In Database	S	X	X	
1985	8/23 - 8/24	331	20	230	Salmon R	4	2	11 - 46	ASL	In Database	S		X	
1985	9/12 - 9/13	331	20	270	Selby Slough	4	2	1 - 6	ASL	In Databarc	S	X	X	
1985	8/21 - 8/24	331	20	220	Squirrel R	4	2	1-10	ASL	In Databarc	S		X	
1984	7110- 8/22	331	10	002	Kotzebue	I	4	1-68	ASL	In Database	X			6
1984	919	331	30	330	Kugruk Lagoon	1	4	1	ASL	In Database	S	X	X	5.00
1984	8/14 - 8116	331		300	Deering	1	4	1 - 3	ASL	In Database	X	X	X	5.5
1984	Sept	331	20	280	Beaver Creek	4	2	1A - 3B	A	In Database	S			8
1984	9116	331	20	280	Beaver Creek	4	2	1A - 2A	ASL	In Database	S			
1984	816 - 818	331	20	220	Monarch Sand Bar/Squirrel R	4	2	1 - 5	ASL	OPSCAN	X			
1984	Sept	331	20	230	Salmon R	4	2	1A - 3B	A	In Database	S			
1984	8/28	331	20	230	Salmon R	4	12	1 - 3	ASLO	In Databarc	S			
1984	Sept	331	20	270	Selby R	4	2	1A - 3B	ASO	In Database	S			
1984	8122	331	20	220	Squirrel R	4	2	1 - 3	ASLO	In Database				
1984	9/7 - 9/8	331	20	220	Squirrel R	4	2	1A - IOA	ASL	In Database	S	X	X	
1984	915 - 916	331	30	320	Inmachuk	4	*10	1A - 4D	ASL	In Database	S	X	X	
1984	9/26 - 10/2	331	30	320	Inmachuk	4	12	1A - 15B	ASL	In Database	S	X	X	
1984	1018	331	00	500	Ikalukrok C m k	4	*10	1A - 2D	ASL	In Database	S	X	X	
1984	717 - 911	331	10	110	Noatak Sonar	5	4	1-75	ASL	In Database	S	X		6, 4, 4 1/2, 5 7/8"
1984	7110 - 9/2	331	10	110	Noatak Sonar	5	4	1-46	ASL	In Database	X	X	X	5 718.6
1984	8117- 10/3	331	30	320	Inmachuk	5	4	1-25	ASL	In Database	S	X	X	■
1984	9/18	331	10	120	Noatak	*4	2, 4	1 - 13	ASL	In Database	S			6
1984	8/21 - 8/22	331	40	420	Wulik	5	4	1 - 4	ASL	In Database	S	X	X	5.5
1983	7112 - 814	331	10	002	Kotzebue	1	4	1-68		MISSING	O			
1983	7/12 - 8119	331	10	002	Kotzebue	1	4	1-54	ASL	In Database	O			5.875
1983	8/29	331	10	140	Kugururok	4			ASLO	MISSING	O			
1983	915	331	10	115	Noatak	4			ASLO	MISSING	O			
1983	9111	331	20	280	Beaver Creek	4			ASLO	MISSING	O			
1983	8/26	331	20	230	Salmon R	4			ASLO	MISSING	O			
1983	9113	331	20	270	Selby R	4			ASLO	MISSING	O			
1983	911	331	10	135	Kelly Lake	1 (?)			ASLO	MISSING	O			
1983	7110- 9/7	331	10	115	Noatak	4 or 5.3	4, 3	1-77	ASL	In Database	O			6, 4, 4 1/2
1982	719 - 8128	331	10	002	Kotzebue	I	4	1 - 29	AL	In Database	H			
1982	7120- 8/17	331	00	003	Sheshalik	1	4	1 - 10	AL	In Database	H			
1982	715 - 9/5	331	10	110	Noatak Sonar	4 or 5		1-2; 4-34	AL	In Database	H			
1981	7/10 - 8/18	331	10	002	Kotzebue	I	4	1-30	ASL	In Database	O			5.875
1981	817 - 8/28	331	00	003	Sheshalik	1, 5	4	1 - 12	ASL	In Database	H			5.5
1981	9/3	331	10	130	Kelly	3	4	1.6	ASL	In Database	H			
1981	911 -	331	10	110	Noatak	3	4	1 - 7	ASL	MISSING	O			
1981	711 - 8/28	331	10	115	Noatak	5	4	1-42	ASL	In Database	O			5.875
1980	7111 - 8127	331	1o	002	Kotzebue	I	4	1-24	ASL	In Database	O			5.875
1980	9/7 - 9111	331	20	220	Squirrel R	4	12	1-41	AL	In Database	H			
1980	714 - 915	331	10	115	Noatak	5, 3	4	1 - 59	ASL	In Database	O			5.875
1979	7114 - 8/28	331	10	002	Kotzebue	1	4	1-23	AL	In Database	O			5.875
1979	8/25	331	20	260	Ambler	1		1 - 7	A	MISSING	H			
1979	8/23	331	20	210	Kobuk	2		1	A	MISSING	H			
1979	912	331	00	008	Noorvik	2		1 - 11	A	MISSING	H			
1979	9/24	331		120	Noatak - Kobuk	2	*	1 - 5	A	MISSING	HW			
1979	9114	331	10	110	Noatak	4		1 - 2	A	MISSING	H			

Appendix C. Status of Kotzebue Chum ASL files. Page **3** of **3.**

Year	Dates	Area	Subdistrict	Location Code	Location	Project	Gear	Card #s	Data	Status	AVLs	Gm Cards	Actuates	Mesh
1979	7/17 - 8/30	331	10	115	Noatak	5	4	1 - 8	AL	In Database	H			
1978	7125 - 8129	331	10	002	Kotzebue	I	4	1 - 18	AL	In Database	H			
1978	8/8 - 8/21	331	10	115	Noatak	5	4	1 - 13	ASL	In Database	O			5.875
1977	7122 - 8/27	331	10	002	Kotzebue	I	4	21 - 38	ASL	In Database	O			5.875
1977		331	10	120	Noatak	2		I	A	In Database	H			
1977		331	20	210	Kobuk	2		1 - 4	A	In Database	H			
1977		331	W	010	Kiana	2		1		In Database	D			
1977	7/24 - 8/27	331	10	115	Noatak	5	4	1 - 58	ASL	In Database	O			5.875
1977		331	W	008	Noorvik			I		In Database	O			
1976	7/24 - 8/24	331	10	002	Kotzebue	I	4	1 - 20	ASL	In Database	O			5.875
1976	7/24-8131	331	10	115	Noatak	5	4	1 - 39	AL	In Database	H			
1975	7123-8/30	331	10	002	Kotzebue	1	4	1 - 7	ASL	In Database	O			5.875
1975	8/6 - 9/11	331	10	115	Noatak	5	4	1-20, 1A-4A	AL	In Database	H			
1975	818-8124	331		300	Deering		4		A	MISSING	O			
1974	7/28-8117	331	10	002	Kotzebue	I	4	16 - 28	ASL	In Database	O			5.875
1974	8/21 - 8/28	331	-	3W	Deering	1	4	29-32	ASL	In Database	H			
1974	8/1 - 8/29	331	10	120	Noatak	*1	4		S	In Database	H			
1973	7/23-8122	331	10	002	Kotzebue	1	4		A	MISSING	O			
1972		331	10	002	Kotzebue	I	4		A	MISSING	O			
1971		331	10	002	Kotzebue	I	4		A	MISSING	O			
1970	7/22 - 8/6	331	10	002	Kotzebue	1	4		AL	In Database	H			
1969	7/25 - 8/27	331	10	002	Kotzebue	I	4	1 - 40	ASL	In Database	O			5.5
1968	7114-8113	331	10	002	Kotzebue	1	4	1 - 82	A	MISSING	O			
1968	9/10	331	10	120	Noatak	2	2	1 - 4		MISSING	O			
1968	8127	331	20	210	Kobuk	2	4	I	ASLW	MISSING	H			
1968	7/30 - 8/20	331	00	010	Kiana	2	4	1 - 4	ALW	In Database	H			
1968	819 - 8/20	331	W	008	Noorvik	2	4	1 - 2	ALW	In Database	H			
1968	7/14 - 8/18	331	10	001	Kotzebue	5	4	1 - 64		MISSING	O			
1967		331	10	002	Kotzebue	1	4	1 - 70	A	MISSING	O			
1967		331	10	120	Noatak	2		1 - 4		MISSING	O			
1967		331	20	210	Kobuk	2		1		MISSING	O			
1967		331	20	210	Kobuk	2		1		MISSING	O			
1967		331	20	230	Salmon R	2		I		MISSING	O			
1967		331	20	223	Squirrel R	2		I		MISSING	O			
1967		331	00	010	Kiana	2		2 - 4		MISSING	O			
1967		331	00	008	Noorvik	2		I		MISSING	O			
1966	6/24 - 7/26	331	10	002	Kotzebue	I	4	1 - 18	AL	In Database	H			
1965	7/27-8118	331	10	002	Kotzebue	1	4	1 - 17	AL	In Database	H			
1965	8/19 - 8125	331	20	120	Kobuk	4	2	18 - 24	AL	In Database	H			
1964	8/4 - 8/20	331	10	002	Kotzebue	1	4	1 - 16	AL	In Database	H			
1963	7123 - 8117	331	10	002	Kotzebue	I	4	*1 - 11	AL	In Database	H			
1962	8/10 - 8/11	331	10	002	Kotzebue	I	4	1 - 6	AL	In Database	H			

Appendix D. Status of Kuskokwim Chum ASL files. Page 1 of 4.

Year	Dates	Area	Subdistrict	Location Code	Location	Project	Gear	Card #s	Data	Status	AWLs	Gum Cards	Acetates	Mesh
2000	715 - 811	335	12	104	Bethel	I	3	1 - 8	ASL	In Database	HS			6
2000	6/15 - 7/21	335	40	106	Quinhagak	1	3	1-32	ASL	In Database	HS		A	6
2000	6129 - 7111	335	50	108	Goodnews	1	3	I - 18	ASL	In Database	S			
2000	6129 - 7/27	335	20	109	Aniak	3	2	1-29	ASL	In Database	S			
2000	6126 - 8/29	335	10	112	Kwethluk	3	19	1-35	ASL	In Database	S			
2000	6/25 - 7/30	335	13	123	Tatlawiksuk	3	19	1-24	ASL	In Database	S			
2000	714 - 7130	335	30	122	George R	3	13	1A - 4C	ASL	In Database	S			
2000	8/13 - 8/30	335	30	122	George R	3	19	1A - 3L	ASL	MISSING	S			
2000	7/7 - 8111	335	30	114	Ignatti	3	19	1-18. 105 - 106	ASL	In Database	S			
20W	715 - 7/29	335	30	301	Takotna R	3	19	1 - 18	ASL	In Database	S			
2000	7112 - 7129	335	50	118	Goodnews	3	19	1-14	ASL	In Database	S			
2000	6/20 - 7131	335	16	104	Bethel	5	3	1-23	ASL	In Database	HS			5 318
2000	6/22-7/09	335	16	104	Bethel	5	3	1	ASL	In Database	O			8
1999	6130 - 8/7	335	12	104	Bethel	1	3	1 - 8	ASL	In Database	S	X	X	6
1999	6124 - 7119	335	40	106	Quinhagak	1	3.4	1-23	ASL	In Database	S	X	A	6
1999	717 - 7/21	335	50	108	Goodnews	1	4	1 - 12	ASL	In Database	S	X	X	
1999	7116 - 7129	335	20	109	Aniak	3	2	13-30	ASL	lo Database	S	X	X	
1999	718 - 8/2	335	30	114	Ignatti	3	19	1-21	ASL	In Database	S	X	X	
1999	718 - 7/29	335	50	118	Goodnews	3	19	1 - 19	ASL	In Database	S	X	X	
1999	7117 - 8/9	335	30	122	George R	3	19	1A - 16D	ASL	In Database	S	X	X	
1999	719 - 819	335	30	123	Tatlawiksuk	3	19	1A - 22D	ASL	In Database	S	X	X	
1998	6/24 - 8/11	335	12	104	Bethel	I	3	I - 39D	ASL	In Database	S	X	X	6
1998	6115 - 7/28	335	40	106	Quinhagak	I	4, 1	1-24	ASL	In Database	S	G	A	6
1998	6130 - 7120	335	50	108	Goodnews	I	4, 1	1 - 13	ASL	In Database	S	X	X	6
1998	711 - 7130	335	20	109	Aniak	3	2	1 - 32	ASL	In Database	S	X	X	
1998	7/23 - 7126	335	30	114	Ignatti	3	19	1-20	ASL	In Database	S	X	X	
1998	719 - 7/30	335	50	118	Goodnews	3	19	1-19	ASL	In Database	S	X	X	
1998	6130 - 716	335	30	122	George R	3	19	1 - 10D	ASL	In Database	S	X	X	
1998	6/29 - 717	335	30	123	Tatlawiksuk	3	19	1A - 9B	ASL	In Database	S	X	X	
1997	6123 - 816	335	12	104	Bethel	I	3	1-11	ASL	In Database	S	X	X	6
1997	6119 - 816	335	40	106	Quinhagak	I	3	1-33	ASL	In Database	S	X	A	6
1997	6/27 - 7125	335	50	108	Goodnews	1	3	1 - 23	ASL	In Database	S	X	X	
1997	6119-8119	335	40	105	Kanektok	3	2	1-46	ASL	In Database	S	X	X	
1997	6/30 - 7/28	335	20	109	Aniak	3	2	1-31	ASL	In Database	S	X	X	
1997	713 - 815	335	30	114	Ignatti	3	19	1-27	ASL	In Database	S	X	X	
1997	7 n - 7/28	335	50	118	Goodnews	3	19	1 - 16	ASL	In Database	S	X	X	
1997	7/4-8112	335	30	122	George R	3	19	1A - 24B	ASL	In Database	S	X	X	
1997	7/1 - 7 n	335	10	112	Kwethluk	3	2	1 - 5	ASL	OPSCAN	X	X	X	1.75
1997		335	12	104	Bethel	5	3	1	ASL	MISSING	X	X	X	8.4
1997	6/15 - 6/17	335	12	104	Bethel	5	3	1 - 10	ASL	MISSING	X	X	X	5.4
1996	617 - 8/3	335	12	104	Bethel	I	3	1-57	ASL	In Database	S	X	X	
1996	7/11 - 7/24	335	40	106	Quinhagak	I	3	1-19	ASL	In Database	S	X	A	
1996	7/15	335	50	108	Goodnews	I	3	1 - 5	ASL	In Database	S	X	X	
1996	7/18	335	40	105	Kanektok	3	2	1 - 2	ASL	MISSING	X	X	X	
1996	7/1 - 7/20	335	20	109	Aniak	3	2	1-20	ASL	In Database	S	X	X	
1996	7/2 - 8/7	335	30	114	Kogrukluk	3	19	1-24	ASL	In Database	S	X	X	
1996	7/7 - 7/23	335	50	118	Goodnews	3	19	1 - 8	ASL	In Database	S	X	X	
1996	6/22 - 7/26	335	30	122	George R	3	19	1-24	ASL	In Database	S	X	X	
1995	6/22 - 8/12	335	12	104	Bethel	I	3	1-50	ASL	In Database	S	X	X	8, 6
1995	6/24 - 7/21	335	40	106	Quinhagak	I	3	1 - 19	ASL	In Database	S	X	A	
1995	7/7 - 7/17	335	50	108	Goodnews	I	3	1 - 11	ASL	In Database	S	X	X	
1995	7/4 - 8/10	335	30	114	Ignatti	3	19	1-27	ASL	In Database	S	X	X	
1995	7/1 - 7/16	335	50	118	Goodnews	3	19	1.9	ASL	In Database	S	X	X	
1995	7/6 - 7/25	335	20	109	Aniak	4	2	1-14	ASL	In Database	S	X	X	
1995	6/3 - 7/20	335	12	104	Bethel	5	3	1-82	ASL	OPSCAN	X	X	X	6.5
1995	6/11 - 8/5	335	12	104	Bethel	5	3	1 - 102	ASL	OPSCAN	X	X	X	5.4
1995	7/5-7/17	335	12	104	Bethel	5	4	4.27	ASL	OPSCAN	X	X	X	2.75
1995	6/12 - 7/19	335	12	104	Bethel	5	3	1 - 30	ASL	OPSCAN	X	X	X	5.5
1995	6/30 - 7/8	335	12	104	Bethel	5	4	8 - 11	ASL	OPSCAN	X	X	X	4
1995	6/17 - 7/20	335	12	104	Bethel	5	4	1-27	ASL	OPSCAN	X*	X	X	4
1995	6/16 - 7/10	335	12	104	Bethel	5	3	1-30	ASL	OPSCAN		X	X	6.5
1994	6/24 - 8/9	335	12	104	Bethel	1	3	1-38	ASL	In Database	S	X	X	
1994	7/6 - 7/13	335	40	106	Quinhagak	1	3	1-15	ASL	In Database	O	G	A	

Appendix D. Status of Kuskokwim Chum ASL files. Page 2 of 4.

Year	Dates	Area	Subdistrict	Location Code	Location	Project	Gear	Card #s	Data	Status	AWLs	Gum Cards	Acetates	Mesh
1994	7/6 - 7/21	335	50	108	Goodnews	1	3	1 - 16	ASL	In Database	S	X	X	
1994	7/25 - 7/26	335	20	109	Aniak	3	2	1 - 4	A	In Database	S	X	X	
1994	7/8 - 7/9	335	30	114	Ignatti	3	19	1 - 4	ASL	In Database	S	X	X	
1994	7/1 - 7/10	335	50	118	Goodnews	3	19	1 - 8	ASL	In Database	S	X	X	
1994	6/29 - 9/7	335	14	080	Tuluksak	3	19	1 - 41	ASL	In Database	S	X	X	
1994	6/2 - 8/7	335	12	104	Bethel	5	3	1 - 93	ASL	In Database	S	X	X	6.5
1994	6/9 - 7/19	335	12	104	Bethel	5	4	1 - 23	ASL	In Database	S	X	X	6.5
1994	6/13 - 7/16	335	12	104	Bethel	5	4	1 - 7	ASL	In Database	S	X	X	4
1994	6/9 - 7/28	335	12	104	Bethel	5	4	1 - 24	ASL	In Database	S	X	X	5.5
1994	7/8 - 7/24	335	12	104	Bethel	5	4	1 - 3	ASL	In Database	S	X	X	2.75
1994	6/14 - 7/9	335	12	104	Bethel	5	3	1 - 22	ASL	In Database	S	X	X	8
1994	6/2 - 7/27	335	12	104	Bethel	5	3	1 - 37	ASL	In Database	S	X	X	4
1994	6/2 - 8/16	335	12	104	Bethel	5	3	1 - 129	ASL	In Database	SN	X	X	5.4
1994	37078	335	12	104	Bethel	5	3	1	ASL	In Database	S			2.75
1993	6/25 - 7/31	335	12	104	Bethel	1	3	1 - 9	ASL	In Database	S	X	X	
1993	6/28 - 7/16	335	40	106	Quinhagak	1	3	1 - 13	ASL	In Database	O	X	A	6
1993	7/9	335	50	108	Goodnews	1	4	1 - 6	ASL	In Database	S	X	X	
1993	7/8 - 7/24	335	30	114	Kogrukluk	3	19	1 - 11	ASL	In Database	S	X	X	
1993	7/13 - 7/14	335	50	118	Goodnews	3	19	1 - 2	ASL	In Database	S	X	X	
1993	7/27 - 7/29	335	50	118	Goodnews	3	19	1 - 6	ASL	In Database	S	X	X	
1993	6/18 - 9/9	335	14	080	Tuluksak	3	19	1 - 54	ASL	In Database	S	X	X	
1993	6/17 - 7/31	335	12	104	Bethel	5	3	1 - 52	ASL	In Database	O	X	X	6.5
1993	6/18-7/23	335	12	104	Bethel	5	3	3-42	ASL	In Database	O			4
1993	6/18-7/31	335	12	104	Bethel	5	3	2-52	ASL	In Database	O			5.4
1993	6/17 - 7/3	335	12	104	Bethel	5	3	1, 12-20	ASL	In Database	O	X	X	8
1992	6/18 - 7/15	335	40	106	Quinhagak	1	3	1 - 17	ASL	In Database	O*	G	A	6
1992	6/18 - 8/3	335	12	104	Bethel	1	3	1 - 30	ASL	In Database	S	X	X	
1992	6/22 - 7/30	335	50	108	Goodnews	1	3	1 - 14	ASL	In Database	S	X	X	
1992	7/6	335	20	109	Aniak	1	3	1 - 5	ASL	In Database	S	X	X	5.375
1992	7/30-7/31	335	30	300	McGrath	2	4	1 - 2	SL	In Database	S	X	X	
1992	7/2 - 7/17	335	30	114	Ignatti	3	19	1 - 12	ASL	In Database	S	X	X	
1992	7/22 - 7/31	335	50	118	Goodnews	3	19	1 - 15	ASL	In Database	S	X	X	
1992	6/25 - 8/31	335	14	080	Tuluksak	3	19	1 - 45	ASL	In Database	S	10,11	X	
1992	6/24 - 8/17	335	13	112	Kwethluk	3	19	1-12,24-36	ASL	OPSCAN	S	4	X	
1992	6/25 - 8/3	335	12	104	Bethel	5	3,4	1-21, 25 - 31	ASL	MISSING	O*	X	X	5.4, 8.0
1992	6/16 - 6/24	335	20	109	Aniak	5	3	1A - 3B	ASL	MISSING	O	X	X	5 3/8
1992	6/15,6/23	335			Chuathbaluk	5	3	1 - 2	ASL	MISSING	O	X	X	
1991	6/20 - 8/8	335	12	104	Bethel	1	3	1 - 47	ASL	In Database	S*	X	X	8
1991	7/1 - 8/2	335	40	106	Quinhagak	1	3	1 - 20	ASL	In Database	S	X	A	
1991	6/20 - 7/31	335	50	108	Goodnews	1	3	1 - 19	ASL	In Database	S	X	X	
1991	7/6 - 7/23	335	30	114	Ignatti	3	19	1 - 18	ASL	In Database	S	X	X	
1991	7/7 - 7/28	335	50	118	Goodnews	3	19	1 - 16	ASL	In Database	S	X	X	
1991	6/19 - 8/21	335	14	080	Tuluksak	3	19	1 - 42	ASL	In Database	S	X		
1991	7/24 - 8/11	335	13	112	Kwethluk	4	12	1 - 15	ASL	MISSING		X		
1990	6/20 - 8/6	335	10	104	Bethel	1	3	1 - 17	ASL	In Database	S	X	X	
1990	6/14 - 8/1	335	40	106	Quinhagak	1	3	1 - 21	ASL	In Database	S	X	A	
1990	6/20 - 7/23	335	50	108	Goodnews	1	3	1 - 12	ASL	In Database	S			
1990	6/30 - 7/22	335	30	110	Ignatti	3	12	1 - 22	ASL	In Database	S			
1990	6/28 - 7/21	335	50	118	Goodnews	3	2	1 - 8	ASL	In Database	S	X	X	
1989	6/19 - 7/18	335	10	104	Bethel	1	3	1 - 18	ASL	In Database	S	X	X	
1989	6/23 - 7/21	335	40	106	Quinhagak	1	3	1 - 21	ASL	In Database	S	X	A	
1989	6/19 - 7/31	335	50	108	Goodnews	1	3	1 - 20	ASL	In Database	S	[illegible]		
1989	7/7 - 7/14	335	30	110	Ignatti	3	19	1 - 8	ASL	In Database	S	X	X	
1989	7/8 - 7/19	335	50	118	Goodnews	3	2	1 - 6	ASL	In Database	S	X	X	
1989	7/25	335	40	105	Kanektok	4	3	1 - 3	ASL	In Database	S	X	X	
1989	7/30	335	20	109	Aniak	4	3	1 - 3	ASL	In Database	S	X	X	
1989	7/21 - 7/24	335	50	118	Goodnews	4	3	1 - 3	ASL	In Database	S	X	X	
1989	7/20	335	50	118	Goodnews	4	3	1 - 3	ASL	In Database	S	X	X	
1989	7/16	335	13	112	Kwethluk	4	3	1 - 3	ASL	In Database	S	X	X	
1988	6/16 - 7/28	335	10	104	Bethel	1	3	1 - 70	ASL	In Database	S	X	X	
1988	6/14 - 8/3	335	40	106	Quinhagak	1	3	1 - 23	ASL	In Database	S	X	A	
1988	6/16 - 7/11	335	50	108	Goodnews	1	3	1 - 15	ASL	In Database	S	X	X	6
1988	7/7	335	20	201	NYAC Weir	3	19	1	AL	In Database	S			
1988	7/6 - 7/31	335	30	110	Kogrukluk	3	19	1 - 25	ASL	In Database	S	X	X	

Appendix D. Status of Kuskokwim Chum ASL files. Page 3 of 4.

Year	Dates	Area	Subdistrict	Location Code	Location	Project	Gear	Card #s	Data	Status	AWLs	Gum Cards	Acetates	Mesh
1988	6/30 - 7/15	335	50	118	Goodnews	3	2	1 - 17	ASL	In Database	S	X	X	
1987	6/18 - 7/15	335	10	104	Bethel	1	4	1 - 42	ASL	In Database	S	X	X	
1987	6/30 - 7/4	335	40	106	Quinhagak	1	3	1 - 7	ASL	In Database	S	X	A	
1987	6/24 - 7/15	335	50	108	Goodnews	1	4	1 - 13	ASL	In Database	S	X	X	
1987	7/8 - 7/15	335	40	105	Kanektok	3	2	1 - 7	ASL	In Database	S	X	X	
1987	7/4 - 7/22	335	30	110	Holitna	3	4	1 - 11	ASL	In Database	S			6
1987	8/9 - 8/12	335	30	110	Kogrukluk	3	12	1 - 4	ASL	In Database	S			
1987	7/15-8/14	335	30	110	Kogrukluk	3	19	1 - 8	ASL	In Database	S			
1987	7/2 - 7/17	335	50	118	Goodnews	3	2	1 - 19	ASL	In Database	S	X	X	
1986	6/26 - 7/10	335	10	104	Bethel	1	3	1 - 30	ASL	In Database	S	X	X	
1986	6/19 - 7/21	335	40	106	Quinhagak	1	4	1 - 13	ASL	In Database	S	X	A	
1986	6/19 - 7/17	335	50	200	Goodnews	1	4	1 - 12	ASL	In Database	S	X	X	
1986	6/29 - 7/14	335	10	104	Bethel	2	3	1 - 8	ASL	In Database	S	X	X	
1986	6/29 - 7/19	335	30	110	Kogrukluk	3	19	1 - 21	ASL	In Database	S	X	X	
1986	6/17 - 7/15	335	40	105	Kanektok	3	2	1 - 19	ASL	In Database	S	X	X	
1986	37838	335	40	105	Kanektok	4	12	1 - 4	ASL	In Database	S	X	X	
1986	7/16 - 7/18	335	10	111	Kisaralik	4	10	1 - 4	ASL	In Database	S	X	X	
1986	7/9 - 7/23	335	50	118	Goodnews	4	2	1 - 7	ASL	OPSCAN	S	X	X	
1985	6/20 - 8/1	335	10	104	Bethel	1	3	1 - 30	ASL	In Database	S	X	X	6
1985	6/20 - 7/15	335	40	106	Quinhagak	1	4	1 - 15	ASL	In Database	S	X	A	
1985	7/2 - 8/1	335	50	200	Goodnews	1	3	1 - 9	ASL	In Database	S	X	X	
1985	6/26 - 7/30	335	20	109	Aniak	3	3	1 - 66	ASL	In Database	S	X	X	
1985	7/7 - 8/15	335	30	110	Kogrukluk	3	19	1 - 37	ASL	In Database	S	X	X	
1985	6/28 - 7/31	335	40	105	Kanektok	3	2	1 - 18	ASL	In Database	S	X	X	
1985	8/6 - 8/7	335	40	105	Kanektok	4	12	1 - 9	ASL	In Database	S	X	X	
1985	8/4 - 8/6	335	20	109	Aniak	4	12	1 - 12	ASL	In Database	S	X	X	
1985	7/12 - 7/17	335	50	118	Goodnews	4	2	1 - 2	ASL	In Database	S	X	X	
1985	37477	335	50	118	Goodnews	4	12	1 - 2	ASL	In Database	S	X	X	
1984	6/18 - 7/16	335	10	104	Bethel	1	4	1 - 54	ASL	In Database	S	X	X	
1984	6/18 - 7/27	335	40	106	Quinhagak	1	4	1 - 15	ASL	In Database	S	X	A	
1984	7/13 - 7/25	335	50	108	Goodnews	1	4	1 - 14	ASL	In Database	S	X	X	
1984	6/27 - 7/30	335	20	109	Aniak	3	4	1 - 54	ASL	In Database	S	X		
1984	6/19 - 8/15	335	30	110	Ignatti	3	19	1 - 54	ASL	In Database	S	X	X	
1984	6/18 - 7/19	335	40	105	Kanektok	4	2	1 - 28	ASL	In Database	S	X	X	
1984	8/8 - 8/11	335	40	105	Kanektok	4	12	1 - 10	ASL	In Database	S	X	X	
1984	8/8 - 8/11	335	50	118	Goodnews	4	12	1 - 6	ASL	In Database	S	X	X	
1984	6/18 - 6/21	335	40	106	Quinhagak	5	3	1 - 3	ASL	MISSING	O	X		
1983	6/26 - 7/28	335	20	109	Aniak	4	3		ASL	In Database	H			
1983	6/134 - 8/8	335	10	104	Bethel	1	3	1 - 63	ASL	In Database	H	X	X	
1983	6/16 - 7/22	335	40	106	Quinhagak	1	4	1 - 18	ASL	In Database	H	X	A	
1983	7/7 - 7/22	335	50	108	Goodnews	1	4	1 - 10	ASL	In Database	H	X	X	
1983	6/24 - 9/13	335	30	110	Ignatti	3	19	1 - 30	ASL	In Database	H	X	X	
1983	8/4	335	40	105	Kanektok	4	12	1 - 12	ASL	In Database	H		X	
1983	8/5 - 8/7	335	50	108	Goodnews	4	12	1 - 8	ASL	In Database	O	X	1 - 7	
1982	6/15 - 8/9	335	10	104	Bethel	1	3	1 - 34	ASL	In Database	H	X	X	
1982	6/18 - 7/29	335	40	106	Quinhagak	1	4	1 - 15	ASL	In Database	H	X	A	
1982	6/22 - 7/20	335	50	108	Goodnews	1	4	1 - 5	ASL	In Database	O	X	X	
1982	7/10 - 8/3	335	30	110	Ignatti	3	19	1 - 26	ASL	In Database	H	X	X	
1982	37451	335	30	119	Salmon	3	19	1 - 2	ASL	In Database	H	X	X	
1982	6/23 - 7/30	335	20	109	Aniak	4	3	1 - 105	ASL	MISSING	H	----	----	
1981	6/10 - 8/13	335	10	104	Bethel	1	3	101 - 132	ASL	In Database	H	X	X	8.5
1981	6/16 - 8/7	335	40	106	Quinhagak	1	4	1 - 19	ASL	In Database	H	X	A	
1981	6/19 - 7/21	335	50	108	Goodnews	1	4	1 - 6	ASL	In Database	H	X	X	
1981	6/24 - 8/3	335	20	109	Aniak	3	3	1 - 28	ASL	In Database	H	X	X	
1981	6/29-8/6	335	30	110	Ignatti	3	19	1-11	ASL	In Database	H			
1981	6/28 - 7/18	335	30	116	Salmon	3	19	1	ASL	In Database	H	X	X	
1981	6/29 - 8/6	335	30	110	Holitna	4	19	1 - 7	ASL	In Database	H	X	X	
1981	6/2 - 7/15	335	10	102	Kwegooyuk	5	4	1 - 42	ASL	In Database	H	X	X	5.5
1981	6/5 - 6/28	335	10	104	Bethel	5	4	1 - 20	ASL	In Database	H	X	X	
1980	6/12 - 8/25	335	10	104	Bethel	1	3	1 - 26	AL	In Database	H		X	
1980	6/13 - 8/6	335	40	106	Quinhagak	1	4	1 - 15	AL	In Database	H	X	A	
1980	6/30 - 7/30	335	50	108	Goodnews	1	3	1 - 5	AL	In Database	H	X	X	
1980	6/26 - 7/28	335	20	109	Aniak	3	4	1 - 3	ASL	In Database	H	X	X	4.25
1980	6/26 - 7/28	335	20	109	Aniak	3	4	1 - 23	ASL	In Database	H	X	X	5.5

Appendix D. Status of Kuskokwim Chum ASL files. Page 4 of 4.

Year	Dates	Area	Subdistrict	Location Code	Location	Project	Gear	Card #s	Data	Status	AWLs	Gum Cards	Acetates	Mesh
1980	6/26 - 7/28	335	20	109	Aniak	3	4	1 - 28	ASL	In Database	H	X	X	7.25
1980	6/26 - 7/28	335	20	109	Aniak	3	4	1 - 17	ASL	In Database	H	X	X	8.5
1980	6/26 - 7/28	335	20	109	Aniak	3	2	1 - 7	ASL	In Database	H	X		
1980	7/3 - 7/10	335	10	110	Ignatti	3	19	1 - 4	ASL	In Database	H,S		X	
1980	8/4-8/11	335			Kusko Sonar	3	3,4	1-6	A	MISSING	O	X		5.5
1980	6/7 - 7/15	335	10	102	Kwegooyuk	5	3	1 - 25	AL	In Database	H,S	X	X	
1979	6/15 - 8/13	335	10	104	Bethel	1	3	1 - 25	AL	In Database	H	X	X	
1979	6/22 - 7/10	335	40	106	Quinhagak	1	3	1 - 5	AL	In Database	H	X	A	5.5
1979	7/21,7/24	335	40	106	Quinhagak	1	3	6 - 7		MISSING	O	X		
1979		335	10	110	Ignatti	3	19			MISSING	O			
1979	June - July	335	30	114	Kashegelok	4	3, 4, 10, 12	1 - 4	ASL	MISSING	H	X		
1979	5/30 - 7/14	335	11	102	Kwegooyuk	5	4	1 - 18	AL	In Database	X	X	X	
1978	5/31 - 7/14	335	11	102	Kwegooyuk	1	4	1 - 35	ASL	In Database	H	X	X	
1978	6/16 - 7/13	335	10	104	Bethel	1	4	1 - 31	ASL	In Database	H	X	X	
1978	6/27 - 7/26	335	40	106	Quinhagak	1	3	1 - 8	ASL	In Database	H	X	A	
1978	6/30 - 7/4	335	50	108	Goodnews	1	3	1 - 3,2	ASL	In Database	H	X	X	
1978	6/23 - 6/26	335	20	112	Kwethluk	3	8	1 - 17		MISSING	O	X	X	
1978	6/24 - 7/31	335	00	114	Kashegelok	4		1 - 13	ASL	In Database	H		X	
1977	6/9 - 7/14	335	11	102	Kwegooyuk	1	4	1 - 19	ASL	In Database	H		X	
1977	6/15 - 8/15	335	10	104	Bethel	1	3	1 - 26	ASL	In Database	H	X	X	
1977	6/17 - 8/8	335	40	106	Quinhagak	1	3	1 - 15	ASL	In Database	H	X	A	
1976	6/9 - 6/26	335	11	102	Kwegooyuk	1	4	1 - 54	ASL	In Database	H	X	X	
1976	6/17 - 7/12	335	10	104	Bethel	1	4	5,10-25	ASL	In Database	H	[illegible]	X	
1976	6/22 - 7/27	335	40	106	Quinhagak	1	3	3 - 32	ASL	In Database	H	G	A	
1976	6/29 - 7/30	335	30	110	Ignatti	3	19	1 - 29	ASL	In Database	H,S			
1975	6/24	335	12	101	Kuskokwim R	1	0	2 - 3	ASL	In Database	H	X	X	
1975	6/30 - 8/5	335	10	104	Bethel	1		1-13,17-24	ASL	In Database	H	X	X	
1975	7/4 - 7/31	335	40	106	Quinhagak	1	3	1 - 17	ASL	In Database	H	G	A	
1975	6/8 - 7/16	335	11	102	Kwegooyuk	5	4	1 - 47	ASL	In Database	H	X	X	
1974	6/28 - 8/8	335	10	104	Bethel	1	3	2 - 15	ASLW	In Database	H	X	X	
1974	6/24 - 8/5	335	40	106	Quinhagak	1	3	1 - 16	AL	In Database	H	X	A	
1974	7/11 - 7/24	335	50	108	Goodnews	1	3	1 - 5	ASL	In Database	H	X	X	
1974	6/6 - 8/3	335	11	102	Kwegooyuk	5	4	1 - 78	ASL	In Database	H	[illegible]	[illegible]	
1973	6/26 - 7/10	335	10	104	Bethel	1	3	21 - 40	ASL	In Database	H	X	X	
1973		335	40	106	Quinhagak	1	3	7 - 12	ASL	In Database	H	[illegible]	7 - 8	
1973	6/29 - 8/3	335	30	110	Ignatti	3	19	1,2,4	ASL	In Database	O	X	X	
1973	6/16 - 7/15	335	11	102	Kwegooyuk	5	4	1 - 29	ASL	In Database	H	X	X	
1972	7/7 - 8/10	335	10	104	Bethel	1		3 - 58	ASL	In Database	H,S	X	X	
1972	6/12 - 7/14	335	11	102	Kwegooyuk	1	4	32 - 64	ASL	In Database	H,S	X		
1972	7/29 - 8/5	335	30	110	Ignatti	3	19	1 - 5	ASL	In Database	H,S	X	X	
1971	6/28-8/17	335	10	104	Bethel	1			ASL	MISSING	O			
1971	7/13 - 7/21	335	30	110	Ignatti	3	19	1 - 10	ASL	In Database	H, S			
1971	7/1 - 7/11	335	10	102	Kwegooyuk	5	4	10 - 39	ASL	MISSING	H			
1970	6/23 - 7/6	335	40	106	Quinhagak	1		3,8,13,18,23	ASL	In Database	H	X	A	
1969	6/24 - 7/15	335	40	106	Quinhagak	1	3	5 - 44	ASL	In Database	H		A	
1969		335	30	110	Holitna	3		69	L	In Database	H		X	
1968	6/21	335	10	104	Bethel	1	3	19	ASLW	MISSING	H		X	
1968	6/21 - 7/22	335	40	106	Quinhagak	1	3	2 - 27	AS	In Database	H	11,18	A	
1967	6/17 - 7/3	335	11	102	Kwegooyuk (Eek Island)	5	4	11,20-22,24	ASLW	In Database	H	11	X	
1967	7/13 - 7/20	335	40	106	Quinhagak	1	3	30 - 38	ASLW	In Database	H		A	
1964	7/5 - 7/21	335	12	104	Bethel	2		33 - 56	ASLW	In Database	H		X	

Appendix E. Number of Chum Salmon Sampled by District and Year. Page 1 of **3.**

District: Kotzebue

Year	Number Sampled	Number Sexed	Number Measured	Number Aged
2000	3,466	3,286	3,320	3,169
1999	162	161	162	140
1998	541	0	0	541
1997	191	191	190	189
1996	70	69	70	66
1995	154	0	0	137
1994	40	40	39	38
1993	160	160	155	157
1992	151	151	148	150
1991	224	224	198	214
1990	28	28	28	28
1989	120	120	120	120
1988	160	160	159	160
1987	222	222	133	215
1986	10	10	10	8
1985	55	55	55	51
1984	2	2	2	2
1983	470	470	470	455
1982	189	189	189	153
1981	60	60	60	54
1980	387	366	270	377
1979	26	0	0	25
1978	599	599	599	576
1977	30	0	0	28
1976	841	841	840	734
1975	595	594	595	512
1974	120	120	120	110
1970	286	286	286	267
1969	1,200	1,200	12W	1,133
1968	25	25	25	24
1966	498	498	498	463
1965	60	60	60	55
1964	479	479	479	462
1963	282	282	282	256
1962	69	69	69	61
Sum	104,137	95,582	95,241	98,563

Appendix E. Number of Churn Salmon Sampled by District and Year. Page 2 of 3.

District: Norton Sound

Year	Number Sampled	Number Sexed	Number Measured	Number Aged
2000	5	5	5	5
1999	91	91	91	80
1997	2	2	2	2
1996	13	13	13	11
1995	50	50	50	48
1994	4	4	4	4
1993	75	75	75	68
1992	21	21	21	19
1991	29	29	28	25
1990	150	146	150	134
1989	21	21	21	19
1988	2	2	2	2
1987	33	30	30	27
1986	47	47	47	43
1985	7	7	7	5
1984	671	671	671	669
1983	8	8	8	8
1982	5	5	5	5
1981	22	22	22	21
1980	44	44	44	43
1979	32	32	32	30
1978	17	0	0	14
1977	20	0	0	17
1976	128	128	128	116
1975	280	280	280	253
1969	1,190	1,190	1,190	1,060
1963	94	94	94	86
1962	53	0	53	36
Sum	38,144	36,981	37,062	35,895

Appendix E. Number of Chum Salmon Sampled by District and Year. Page 3 of 3.

District: Kuskokwim Bay

Year	Number Sampled	Number Sexed	Number Measured	Number Aged
2000	246	246	246	237
1999	80	80	80	74
1998	200	200	200	194
1997	379	376	378	363
1996	200	200	200	190
1995	39	39	39	24
1994	106	0	0	92
1993	7	7	7	7
1992	4	4	4	0
1991	320	320	320	291
1990	150	149	150	139
1989	75	75	75	54
1988	2	0	1	1
1987	7	7	7	7
1986	24	24	24	22
1985	25	25	25	23
1984	143	143	140	92
1983	452	452	452	389
1982	29	29	29	29
1981	5	5	5	5
1980	106	106	106	95
1979	142	142	142	128
1978	6	6	6	5
1977	385	385	385	349
1976	299	299	299	292
1975	39	39	39	28
1974	117	117	117	89
1973	60	60	60	53
1972	315	315	315	279
1971	300	300	300	264
1970	149	149	149	144
1969	256	255	256	233
1968	171	171	171	158
1967	25	25	25	23
1966	3	3	3	3
1965	1	1	1	1
1964	16	0	16	0
1961	30	30	30	0
Sum	108,831	108,528	108,513	99,709
Grand Total	**251,112**	**241,091**	**240,816**	**234,167**

Appendix F. Number of Chum Salmon Sampled by Year and Location. Page 1 of 18.

District ***Kotzebue***	Year	Number Sampled	Number Sexed	Number Measured	Number Aged
Location: Kotzebue					
Commercial Catch	1989	120	120	120	120
Subsistence Catch	1987	353	0	0	351
Commercial Catch	1986	3,225	3,215	3,215	3,095
	subtotal:	3,698	3,335	3,335	3,566
Location: Kotzebue Sound					
Commercial Catch	2000	3,466	3,286	3,320	3,169
Commercial Catch	1999	3,630	3,621	3,629	3,330
Commercial Catch	1998	1,408	0	0	1,408
Commercial Catch	1997	4,989	4,952	4,966	4,666
Commercial Catch	1996	3,186	3,168	3,166	3,015
Commercial Catch	1995	4,818	4,782	4,816	4,621
Commercial Catch	1994	3,972	3,946	3,972	3,744
Commercial Catch	1993	3,731	3,707	3,731	3,707
Commercial Catch	1992	3,920	3,887	3,920	3,687
Commercial Catch	1991	3,388	3,382	3,388	3,292
Commercial Catch	1990	2,377	2,355	2,377	2,284
Commercial Catch	1989	3,275	3,272	3,274	3,216
Commercial Catch	1988	3,385	3,385	3,383	3,324
Commercial Catch	1987	2,054	2,044	2,051	1,987
Commercial Catch	1986	10	10	10	8
Commercial Catch	1985	3,425	3,409	3,420	3,305
Commercial Catch	1984	1,980	1,980	1,979	1,865
Commercial Catch	1983	1,368	1,359	1,340	1,368
Commercial Catch	1982	867	867	867	828
Commercial Catch	1981	849	849	849	849
Commercial Catch	1980	720	720	720	711
Commercial Catch	1979	670	670	670	633
Commercial Catch	1978	599	599	599	576
Commercial Catch	1977	540	540	510	457
Commercial Catch	1976	567	567	567	567
Commercial Catch	1975	229	229	229	229
Commercial Catch	1974	360	360	360	359
Commercial Catch	1970	286	286	286	267
Commercial Catch	1969	1,200	1,200	1,200	1,133

Commercial Catch	1966	498	498	498	463
Commercial Catch	1965	453	453	453	423
Escapement (spawning grounds)	1965	60	60	60	55
Commercial Catch	1964	479	479	479	462
Commercial Catch	1963	282	282	282	256
Commercial Catch	1962	69	69	69	61
	subtotal:	63,110	61,273	61.440	60,325
Location: Sheshalik					
Commercial Catch	1982	189	189	189	153
Tcst Fishing	1981	340	340	340	319
	subtotal:	529	529	529	472
Location: Noorvik River					
Subsistence Catch	1979	325	0	0	314
Subsistence Catch	1977	30	0	0	28
Subsistence Catch	1968	25	25	25	24
	subtotal:	380	25	25	366
Location: Kiana (Kobuk River)					
Subsistence Catch	1977	30	0	0	29
Subsistence Catch	1968	100	100	100	89
	subtotal:	130	100	100	118
Location: Noatak River Sonar					
Escapement (spawning grounds)	1994	40	40	39	38
Escapement (tower, weir. sonar, etc.)	1993	1,059	1,057	1,052	959
Test Fishing	1984	964	951	953	930
Escapement (tower, weir, sonar, etc.)	1983	470	470	470	455
Escapement (tower, weir, sonar, etc.)	1982	444	444	440	412
Escapement (tower, weir, sonar, etc.)	1981	64	64	64	60
Escapement (spawning grounds)	1979	43	0	0	43
	subtotal:	3,084	3,026	3,018	2,897
Location: Noatak River Test Fish					
Test Fishing	1997	236	235	236	214
Tcst Fishing	1996	70	69	70	66
Test Fishing	1995	1,494	1,490	1,490	1,307
Test Fishing	1994	1,431	1,424	1,426	1,160
Test Fishing	1991	433	430	433	418
Tcst Fishing	1990	400	400	400	374

Test Fishing	1989	1,764	0	0	1,677
Test Fishing	1988	1,397	0	0	1,260
Test Fishing	1987	1,099	0	0	998
Escapement (tower, weir, sonar, etc.)	1983	466	465	466	466
Escapement (spawning gmunds)	1983	3	3	3	3
Test Fishing	1983	4	4	4	4
Test Fishing	1981	643	643	643	625
Escapement (tower, weir, sonar, ctc.)	1980	655	655	655	643
Test Fishing	1979	185	185	184	172
Test Fishing	1978	143	142	143	141
Test Fishing	1977	194	194	194	178
Test Fishing	1976	841	841	840	734
Test Fishing	1975	595	594	595	512
	subtotal:	12,053	7,774	7.782	10.952
Location: Noatak River (below Kelly River)					
Test Fishing	1999	162	161	162	140
Escapement (spawning grounds)	1994	101	101	101	99
Escapement (spawning grounds)	1992	151	151	148	150
Escapement (spawning grounds)	1991	255	253	255	249
Escapement (spawning grounds)	1990	440	440	440	421
Escapement (spawning grounds)	1989	230	230	230	229
Escapement (spawning grounds)	1988	450	450	450	443
Escapement (spawning grounds)	1987	444	444	436	440
Escapement (spawning grounds)	1986	459	444	454	449
Escapement (tower, weir, sonar, etc.)	1985	66	66	66	65
Escapement (spawning grounds)	1985	703	702	701	678
Escapement (tower, weir, sonar, etc.)	1984	112	112	112	106
Escapement (spawning grounds)	1984	269	269	269	252
Subsistence Catch	1979	133	0	0	125
Test Fishing	1979	40	0	0	37
Subsistence Catch	1977	400	370	370	340
Escapement (spawning grounds)	1965	201	201	201	179
	subtotal:	4.616	4,394	4.395	4,402
Location: Sikusuilaq Hatchery					
Escapement (spawning grounds)	1995	154	0	0	137
	subtotal:	154	0	0	137

Location: Kelly River					
Escapement (t o w , weir, sonar, etc.)	1981	60	60	60	54
	subtotal:	60	60	60	54
Location: Kelly Lake					
Escapement (spawning grounds)	1985	148	148	148	146
	subtotal:	148	148	148	146
Location: Kugururok River					
Escapement (spawning grounds)	1985	100	100	100	79
	subtotal:	100	100	100	79
Location: Kobuk River (below Squirrel River)					
Subsistence Catch	1979	26	0	0	25
Subsistence Catch	1977	30	30	30	28
	subtotal:	56	30	30	53
Location: Kobuk River Test Fish (Kiana)					
Test Fishing	1999	1,154	1,154	1,154	913
Test Fishing	1998	541	0	0	541
Test Fishing	1997	826	826	826	759
Test Fishing	1996	1,843	1,839	1,838	1,637
Test Fishing	1995	1,164	1,162	1,158	1,033
Test Fishing	1994	675	675	675	624
Test Fishing	1993	485	485	483	462
	subtotal:	6,688	6,141	6,134	5,969
Location: Squirrel River					
Escapement (spawning grounds)	1997	191	191	190	189
Escapement (spawning grounds)	1996	280	280	280	271
Escapement (spawning gmunds)	1995	280	280	280	264
Escapement (spawning grounds)	1993	160	160	155	157
Escapement (spawning grounds)	1992	160	158	152	157
Escapement (spawning grounds)	1991	224	224	198	214
Escapement (spawning grounds)	1990	28	28	28	28
Escapement (spawning grounds)	1989	269	269	235	268
Escapement (spawning grounds)	1988	360	325	320	356
Escapement (spawning grounds)	1987	244	235	191	242
Escapement (spawning grounds)	1986	200	197	128	195
Escapement (spawning gmunds)	1985	100	100	100	89
Escapement (spawning grounds)	1984	437	334	334	431
Escapement (spawning grounds)	1980	387	366	270	377

	subtotal:	3,320	3,147	2,861	3,238
Location: Salmon River					
Escapcment (spawning grounds)	1997	220	220	220	215
Escapement (spawning grounds)	1996	240	240	240	230
Escapement (spawning grounds)	1995	250	250	250	245
Escapement (spawning grounds)	1994	240	238	230	232
Escapement (spawning grounds)	1993	227	226	220	215
Escapcment (spawning gmunds)	1992	320	320	318	314
Escapement (spawning grounds)	1991	223	223	216	222
Escapement (spawning grounds)	1988	160	160	159	160
Escapcment (spawning grounds)	1987	222	222	133	215
Escapement (spawning grounds)	1986	224	215	97	220
Escapement (spawning grounds)	1985	355	355	354	300
Escapcment (spawning grounds)	1984	196	99	99	183
	subtotal:	2,877	2,768	2,536	2,751
Location: Ambler River					
Commercial Catch	**1979**	184	0	0	179
	subtotal:	184	0	0	179
Location: Selby River and Slough					
Escapement (spawning grounds)	**1997**	230	230	230	223
Escapement (spawning grounds)	**1996**	280	274	280	270
Escapement (spawning grounds)	**1995**	280	267	280	264
Escapement (spawning grounds)	**1994**	280	279	280	275
Escapement (spawning grounds)	**1992**	280	280	277	274
Escapement (spawning grounds)	**1985**	55	55	55	51
Escapement (spawning grounds)	**1984**	99	0	0	99
	subtotal:	1,504	1,385	1,402	1,456
Location: Beaver Creek					
Escapement (spawning grounds)	**1984**	139	42	42	135
	subtotal:	139	42	42	135
Location: Deering					
Subsistence Catch	1984	52	52	52	49
Commercial Catch	1974	120	120	120	110
	subtotal:	172	172	172	159

Location: Inmachuk River					
Escapement (spawninggrounds)	1984	643	641	640	631
Test Fishing	1984	374	374	374	362
	subtotal:	1,017	1,015	1,014	993
Location: Kugruk River					
Commercial Catch	1984	2	2	2	
	subtotal:	2	2	2	
Location: Wulik River					
Test Fishing	1984	64	64	64	
	subtotnl:	64	64	64	
Location: Ikalukrok					
Escapement (spawning grounds)	1984	52	52	52	52
	subtotal:	52	52	52	52
Total: *Kotzebue*		**104,137**	**95,582**	**95,241**	**98,563**

District Norton ***Sound***	Year	Number Sampled	Number Sexed	Number Measured	Number Aged
Location: Sinuk River					
Escapement (spawning grounds)	1978	90	0	0	
	subtotal:	90	0	0	
Location: Nome River Tower					
Escapement (spawning grounds)	1978	112	0	0	104
	subtotal:	112	0	0	104
Location: Nome River (other than the t o w)					
Escapement (spawning grounds)	1997	201	201	201	173
Escapement (tower, weir, sonar, etc.)	1995	50	50	50	48
Escapement (tower, weir, sonar, etc.)	1994	101	101	101	99
Commercial Catch	1980	44	44	44	43
Commercial Catch	1978	64	0	0	54
	subtotal:	460	396	396	417
Location: Snake River (other than the tower)					
Escapement (tower, weir, sonar, etc.)	1995	66	66	66	60
Escapement (tower, weir, sonar, etc.)	1994	80	79	79	75
	subtotal:	146	145	145	135

Location: Snake River Tower					
Escapement (tower, weir, sonar, etc.)	1997	114	113	113	92
	subtotal:	114	113	113	92
Location: Solomon River					
Escapement (tower, weir, sonar, ctc.)	1995	65	65	65	57
	subtotal:	65	65	65	57
Location: Eldorado River (other than the t o w)					
Escapement (spawning grounds)	1978	41	0	0	41
	subtotal:	41	0	0	41
Location: Boston Creek					
Escapement (spawning grounds)	1978	100	0	0	98
	subtotal:	100	0	0	98
Location: Golovin Bay					
Commercial Catch	1986	480	480	480	462
Commercial Catch	1985	193	193	191	188
Commercial Catch	1978	120	0	0	115
Commercial Catch	1963	94	94	94	86
	subtotal:	887	767	765	851
Location: Kachavik River					
Escapement (spawning grounds)	1978	47	0	0	45
	subtotal:	47	0	0	45
Location: Niukluk River					
Escapement (tower, weir, sonar, etc.)	2000	185	185	185	153
Escapement (tower, weir, sonar, etc.)	1999	443	437	443	356
Subsistence Catch	1997	99	99	99	78
Escapement (tower, weir, sonar, etc.)	1997	333	332	332	278
Escapement (spawning grounds)	1997	639	637	639	524
Test Fishing	1997	191	181	191	166
Sport Catch (freshwater)	1997	2	2	2	2
Escapcment (tower, weir, sonar, etc.)	1996	399	399	387	367
Subsistence Catch	1995	242	238	242	215
Escapement (tower, weir, sonar, ctc.)	1995	582	582	581	560
Escapement (spawning grounds)	1979	32	32	32	30
Escapement (spawning grounds)	1978	59	0	0	56

	subtotal:	3,206	3,124	3,133	2,785
Location: Fish River					
Escapement (tower, weir, sonar, etc.)	1996	68	68	68	56
Escapement (spawning grounds)	1978	25	0	0	23
	subtotal:	93	68	68	79
Location: Kwiniuk River (above channel)					
Test Fishing	2000	69	69	69	59
Sport Catch (freshwater)	2000	7	7	7	6
Escapement (tower, weir, sonar, etc.)	1999	91	91	91	80
Escapement (tower, weir, sonar, etc.)	1997	466	466	466	433
Subsistence Catch	1996	21	21	21	18
Escapement (tower, weir, sonar, etc.)	1996	32	32	32	28
Escapement (tower, weir, sonar, etc.)	1995	370	370	370	341
Subsistence Catch	1994	6	6	6	5
Escapement (tower, weir, sonar, etc.)	1994	99	85	99	91
Subsistence Catch	1993	75	75	75	68
Subsistence Catch	1992	21	21	21	19
Subsistence Catch	1986	47	47	47	43
Escapement (spawning grounds)	1985	146	146	146	137
Commercial Catch	1983	501	501	501	450
Commercial Catch	1980	540	540	540	526
Commercial Catch	1977	45	0	0	45
	subtotal:	2,536	2,477	2,491	2,349
Location: Kwiniuk River (below channel)					
Subsistence Catch	1991	29	29	28	25
Subsistence Catch	1988	4	4	4	4
Sport Catch (freshwater)	1988	2	2	2	2
Subsistence Catch	1987	33	30	30	27
Subsistence Catch	1983	136	136	136	116
Subsistence Catch	1977	600	600	600	577
Commercial Catch	1976	263	263	263	235
	subtotal:	1,067	1,064	1,063	986
Location: Kwiniuk River Tower					
Escapement (tower, weir, sonar, etc.)	2000	213	213	213	196
Test Fishing	2000	47	47	47	41
Sport Catch (freshwater)	2000	5	5	5	5

Escapement (tower, weir, sonar, etc.)	1999	182	182	181	168
Escapement (tower, weir, sonar, etc.)	1996	13	13	13	11
Escapement (tower, weir, sonar, etc.)	1976	128	128	128	116
	subtotal:	588	588	587	537
Location: Kwiniuk Inlet					
Commercial Catch	**1994**	4	4	4	4
Commercial Catch	**1991**	51	51	51	46
Commercial Catch	**1990**	150	146	150	134
Commercial Catch	**1989**	30	30	30	26
Subsistence Catch	**1989**	21	21	21	19
Commercial Catch	**1988**	105	102	105	85
Commercial Catch	**1987**	216	216	216	200
Commercial Catch	**1986**	279	279	279	224
Commercial Catch	**1985**	453	453	453	407
Commercial Catch	**1982**	450	450	450	402
Escapement (spawning grounds)	**1982**	30	30	30	29
Commercial Catch	**1981**	480	480	480	460
Subsistence Catch	**1979**	302	302	302	280
Commercial Catch	**1978**	400	399	400	356
Commercial Catch	**1975**	360	360	360	336
Commercial Catch	**1969**	1,190	1,190	1,190	1,060
	subtotal:	4,521	4,513	4,521	4,068
Location: Tubutulik River					
Escapement (tower, weir, sonar, etc.)	1994	107	101	101	98
Escapement (spawning grounds)	1985	7	7	7	5
	subtotal:	114	108	108	103
Location: Kwiniuk Marine West					
Test Fishing	1981	27	27	27	25
	subtotal:	27	27	27	25
Location: Norton Bay **(Marine)**					
Commercial Catch	**1962**	53	0	53	36
	subtotal:	53	0	53	36
Location: Shaktoolik Subdistrict Marine					
Commercial Catch	1996	120	120	120	115
Commercial Catch	1991	60	60	60	56
Commercial Catch	1989	160	160	160	159

Commercial Catch	1986	140	140	140	138
Commercial Catch	1983	104	104	104	93
Commercial Catch	1978	17	0	0	14
Escapement (spawning grounds)	1978	60	0	0	52
	subtotal:	661	584	584	627
Location: Unalakleet Subdistrict Marine					
Commercial Catch	2000	318	318	318	286
Commercial Catch	1999	315	315	315	288
Commercial Catch	1997	286	286	286	251
Commercial Catch	1996	175	175	175	152
Commercial Catch	1995	220	220	220	199
Commercial Catch	1994	450	450	450	437
Commercial Catch	1993	451	451	451	441
Commercial Catch	1992	450	450	450	429
Commercial Catch	1991	465	465	465	463
Commercial Catch	1990	471	470	470	455
Commercial Catch	1989	457	457	456	446
Commercial Catch	1988	1,515	1,515	1,515	1,506
Commercial Catch	1987	632	632	632	603
Commercial Catch	1986	1,374	1,374	1,374	1,352
Commercial Catch	1985	1,316	1,315	1,316	1,259
Commercial Catch	1984	1,322	1,322	1,322	1,321
Commercial Catch	1983	8	8	8	8
Test Fishing	1983	679	679	679	664
Test Fishing	1982	7	7	7	7
Test Fishing	1981	688	688	687	640
Escapement (spawning grounds)	1978	210	0	0	199
Subsistence Catch	1977	20	0	0	17
	subtotal:	11,829	11,597	11,596	11,423
Location: Unalakleet River Test Fish					
Test Fishing	2000	538	534	535	499
Test Fishing	1999	371	371	371	340
Test Fishing	1997	291	291	291	285
Test Fishing	1996	595	575	575	550
Test Fishing	1995	537	535	535	502
Test Fishing	1994	486	482	482	475
Test Fishing	1993	333	333	333	324

Test Fishing	**1992**	576	576	576	562
Tcst Fishing	**1991**	741	739	741	738
Test Fishing	**1990**	340	340	340	321
Test Fishing	**1989**	736	736	735	727
Test Fishing	**1988**	484	475	475	483
Tcst Fishing	**1987**	609	608	608	602
Test Fishing	**1986**	784	784	784	760
Test Fishing	**1985**	851	851	851	840
Test Fishing	**1984**	671	671	671	669
Commercial Catch	**1983**	354	354	354	331
Commercial Catch	**1982**	374	374	374	369
Escapement (spawning grounds)	**1982**	5	5	5	5
Commcrcial Catch	**1981**	22	22	22	21
Commercial Catch	**1980**	300	300	300	265
Commercial Catch	**1978**	450	450	450	414
Commercial Catch	**1977**	300	300	300	280
Commercial Catch	**1976**	162	162	162	156
Commercial Catch	**1975**	280	280	280	253
Commercial Catch	**1963**	197	197	197	180
	subtotal:	11,387	11,345	11,347	10,951
Total:	***Norton Sound***	**38,144**	**36,981**	**37,062**	**35,895**

District ***Kuskokwim***	**Year**	**Number Sampled**	**Number Sexed**	**Number Measured**	**Number Aged**
Location: Tuluksak Weir					
Escapement (tower, weir, sonar, ctc.)	1994	988	988	988	851
Escapement (tower, weir, sonar, ctc.)	1993	1,266	1,265	1,264	1,163
Escapement (tower, weir, sonar, etc.)	1992	1,317	1,298	1,298	1,206
Escapement (tower, weir, sonar, etc.)	1991	1,214	1,214	1,211	1,083
	subtotal:	4,785	4,765	4,761	4,303
Location: Kuskokwim River					
Commercial Catch	**1975**	39	39	39	28
	subtotal:	39	39	39	28
Location: Kwegooyuk					
Test Fishing	1981	960	933	958	865
Test Fishing	1980	700	700	700	645

Test Fishing	1979	142	142	142	128
Commercial Catch	1978	522	522	522	480
Test Fishing	1978	6	6	6	5
Commercial Catch	1977	385	385	385	349
Commercial Catch	1976	671	671	671	578
Test Fishing	1975	1,009	1,009	1,009	534
Test Fishing	1974	1,548	1,548	1,548	1,330
Test Fishing	1973	484	484	484	439
Commercial Catch	1972	315	315	315	279
Commercial Catch	1967	25	25	25	23
Test Fishing	1967	122	122	122	109
	subtotal:	6,889	6,862	6,887	5,764
Location: Bethel					
Commercial Catch	2000	268	268	268	249
Test Fishing	2000	839	839	839	754
Commercial Catch	1999	280	280	280	268
Commercial Catch	1998	1,461	1,461	1,460	1,433
Commercial Catch	1997	379	376	378	363
Commercial Catch	1996	2,251	2,250	2,251	2,169
Commercial Catch	1995	1,966	1,966	1,966	1,811
Commercial Catch	1994	1,482	1,482	1,482	1,390
Test Fishing	1994	2,854	2,845	2,845	2,649
Commercial Catch	1993	333	333	333	318
Subsistence Catch	1993	7	7	7	7
Test Fishing	1993	1,043	1,043	1,042	945
Commercial Catch	1992	1,172	1,172	1,172	1,089
Commercial Catch	1991	1,478	1,478	1,468	1,359
Commercial Catch	1990	604	604	604	558
Commercial Catch	1989	682	682	681	655
Commercial Catch	1988	2,628	2,628	2,628	2,404
Commercial Catch	1987	1,403	1,400	1,403	1,312
Commercial Catch	1986	1,114	1,114	1,114	1,064
Subsistence Catch	1986	233	233	233	228
Commercial Catch	1985	1,131	1,131	1,129	1,041
Subsistence Catch	1985	25	25	25	23
Commercial Catch	1984	1,670	1,666	1,668	1,534
Subsistence Catch	1984	120	120	120	104
Commercial Catch	1983	1,820	1,819	1,819	1,709

Commercial Catch	**1982**	888	888	888	888
Commercial Catch	**1981**	901	901	901	855
Test Fishing	**1981**	281	281	281	263
Commercial Catch	**1980**	538	538	538	507
Commercial Catch	**1979**	673	672	672	607
Commercial Catch	**1978**	962	962	962	877
Commercial Catch	**1977**	715	715	715	679
Commcrcial Catch	**1976**	514	514	514	489
Commercial Catch	**1975**	813	813	813	527
Commercial Catch	**1974**	186	186	186	163
Commercial Catch	**1973**	595	595	595	534
Commercial Catch	**1972**	609	589	608	561
Commercial Catch	**1966**	3	3	3	3
Subsistence Catch	**1964**	127	127	127	109
Commercial Catch	1961	30	30	30	0
	subtotal:	35,078	35,036	35,048	32,498
Location: Kanektok River					
Escapement (tower, weir, sonar, etc.)	**1997**	1,145	1,145	1,145	1,096
Escapement (spawning grounds)	**1989**	75	65	75	63
Escapemcnt (tower, weir, sonar, etc.)	**1987**	162	162	161	150
Escapement (tower, weir. sonar, etc.)	**1986**	324	324	324	287
Escapement (spawning grounds)	**1986**	150	150	149	144
Escapement (tower, weir, sonar, etc.)	**1985**	158	158	157	151
Escapement (spawning grounds)	**1985**	320	320	320	290
Commercial Catch	**1984**	225	225	224	200
Escapement (tower, weir, sonar, etc.)	**1984**	563	563	562	519
Escapement (spawning grounds)	**1984**	307	306	301	264
Escapement (spawning grounds)	**1983**	480	480	477	403
	subtotal:	3,909	3,898	3,895	3,567
Location: Quinhagak					
Commercial Catch	2000	1,108	1,107	1,107	1,043
Commercial Catch	1999	826	826	826	814
Commercial Catch	1998	884	884	884	857
Commercial Catch	1997	1,263	1,262	1,261	1,223
Commercial Catch	1996	645	645	645	615
Commercial Catch	1995	659	659	658	598
Commercial Catch	1994	600	600	600	547

Commercial Catch	1993	429	429	429	398
Commercial Catch	1992	627	627	625	546
Commercial Catch	1991	702	702	702	656
Commercial Catch	1990	686	686	686	633
Commercial Catch	1989	773	763	763	708
Comnurcial Catch	1988	647	646	646	593
Commercial Catch	1987	253	253	253	242
Commercial Catch	1986	414	414	414	398
Commercial Catch	1985	503	503	503	458
Commercial Catch	1984	477	477	477	464
Commercial Catch	1983	526	526	526	485
Commercial Catch	1982	416	416	416	415
Commercial Catch	1981	540	540	540	508
Commercial Catch	1980	405	405	405	382
Commercial Catch	1979	150	150	150	144
Commercial Catch	1978	170	170	170	152
Commercial Catch	1977	441	441	441	407
Commercial Catch	1976	299	299	299	292
Commercial Catch	1975	480	480	480	356
Commercial Catch	1974	417	417	417	306
Commercial Catch	1973	60	60	60	53
Commercial Catch	1970	149	149	149	144
Commercial Catch	1969	256	255	256	233
Commercial Catch	1968	171	171	171	158
Commercial Catch	1967	197	197	197	182
Commercial Catch	1965	1	1	1	1
	subtotal:	16,174	16,160	16,157	15,011
Location: Goodnews Bay					
Commercial Catch	2000	630	630	630	598
Commercial Catch	1999	80	80	80	74
Commercial Catch	1998	484	484	484	469
Commercial Catch	1997	840	840	840	807
Commercial Catch	1996	200	200	200	190
Commercial Catch	1995	410	410	410	355
Commercial Catch	1994	565	564	564	513
Commercial Catch	1993	210	210	210	191
Commercial Catch	1992	490	489	489	418
Commercial Catch	1991	608	607	608	565

Commercial Catch	1990	404	395	395	367
Commercial Catch	1989	575	575	574	504
Commercial Catch	1988	496	496	496	470
Commercial Catch	1987	465	465	465	431
Commercial Catch	1986	425	425	425	353
Commercial Catch	1985	302	302	302	270
Commercial Catch	1984	488	488	487	460
Commercial Catch	1983	235	235	235	217
Escapement (spawning grounds)	1983	452	452	452	389
Commercial Catch	1982	135	135	135	135
Commercial Catch	1981	180	180	180	164
Commercial Catch	1980	106	106	106	95
Commercial Catch	1978	120	120	120	119
Commercial Catch	1974	117	117	117	89
	subtotal:	9,017	9,005	9,004	8,243
Location: Aniak River					
Escapement (tower, weir, sonar, etc.)	2000	825	825	825	731
Escapement (tower, weir, sonar, etc.)	1999	588	587	587	554
Escapement (tower, weir, sonar, etc.)	1998	1,114	1,113	1,103	1,045
Escapement (tower, weir, sonar, etc.)	1997	960	960	955	860
Escapement (tower, weir, sonar, etc.)	1996	496	496	496	459
Escapement (spawning grounds)	1995	300	300	300	245
Escapement (tower, weir, sonar, etc.)	1994	106	0	0	92
Commercial Catch	1992	180	180	170	174
Escapement (spawning grounds)	1989	75	75	75	54
Escapement (tower, weir, sonar, etc.)	1985	192	192	192	169
Escapement (spawning grounds)	1985	450	450	450	426
Escapement (tower, weir, sonar, etc.)	1984	111	111	111	104
Escapement (tower, weir, sonar, etc.)	1983	189	189	189	178
Escapement (tower, weir, sonar, etc.)	1981	574	565	564	514
Escapement (tower, weir, sonar, etc.)	1980	661	657	654	621
	subtotal:	6,821	6,700	6,671	6,226
Location: Kogrukluk, Ignatti, Holitna Weir					
Escapement (tower, weir, sonar, etc.)	1990	401	401	401	371
Escapement (tower, weir, sonar, etc.)	1989	160	160	160	147
Escapement (tower, weir, sonar, etc.)	1988	665	665	665	621
Escapement (tower, weir, sonar, etc.)	1987	487	485	485	463

Escapemenl (tower, wcir, sonar, etc.)	1986	596	596	596	568
Escapement (tower, weir, sonar, etc.)	1985	925	925	925	874
Escapement (tower, weir, sonar, etc.)	1984	1,314	1,313	1,313	1,253
Escapement (tower, weir, sonar, etc.)	1983	518	518	518	484
Escapement (tower, weir, sonar, etc.)	1982	249	249	248	249
Escapement (tower, weir, sonar, etc.)	1981	210	210	210	191
Escapement (spawning grounds)	1981	180	180	180	163
Test Fishing	1981	30	30	30	28
Escapement (tower, weir, sonar, etc.)	1980	88	88	88	83
Escapement (tower, weir, sonar, etc.)	1976	219	219	219	213
Escapement (tower, wcir, sonar, etc.)	1973	67	51	51	58
Escapement (tower, wcir, sonar, etc.)	1972	150	150	150	150
Escapement (tower, weir, sonar, etc.)	1971	300	300	300	264
Escapemenl (tower, weir, sonar, etc.)	1964	16	0	16	0
	subtotal:	6,575	6,540	6,555	6,180
Location: Kisaralik River					
Escapement (spawning grounds)	1986	24	24	24	22
	subtotal:	24	24	24	22
Location: Kwethluk River					
Escapement (tower, weir, sonar, etc.)	2000	1,152	1,152	1,152	1,083
Escapement (tower, weir, sonar, etc.)	1992	1,267	1,267	1,267	1,198
Escapement (spawning grounds)	1989	77	77	77	70
	subtotal:	2,496	2,496	2,496	2,351
Location: Kogrukluk, Ignatti, Kashegelok Weir					
Escapement (tower, weir, sonar, etc.)	2000	674	674	674	583
Escapement (tower, weir, sonar, etc.)	1999	810	810	810	737
Escapement (tower, weir, sonar, etc.)	1998	200	200	200	194
Escapement (tower, weir, sonar, etc.)	1997	698	697	696	645
Escapement (tower, weir, sonar, etc.)	1996	930	930	930	827
Subsistcncc Catch	1995	520	520	519	428
Escapement (tower, weir, sonar, etc.)	1995	535	535	535	420
Escapement (tower, weir, sonar, etc.)	1994	140	140	140	125
Escapement (tower, weir, sonar, etc.)	1993	400	400	400	362
Escapement (tower, weir, sonar, etc.)	1992	390	390	390	362
Escapement (tower, weir, sonar, etc.)	1991	352	352	352	293
Escapement (spawning grounds)	1978	341	341	341	322
	subtotal:	5,990	5,989	5,987	5,298

Location: Kgun Lake					
Escapement (tower, weir, sonar, etc.)	1981	5	5	5	
	subtotal:	5	5	5	
Location: Goodnews River Weir (Middle Fork)					
Escapement (rower, weir, sonar, etc.)	2000	460	460	459	418
Escapement (tower, weir, sonar, etc.)	1999	691	691	691	672
Escapement (tower, weir, sonar, etc.)	1998	530	530	530	506
Escapement (tower, weir, sonar, etc.)	1997	553	553	553	534
Escapement (tower, weir, sonar, etc.)	1996	320	320	320	311
Escapement (tower, weir, sonar, etc.)	1995	320	319	319	281
Escapement (tower, weir, sonar, etc.)	1994	263	263	253	208
Escapement (tower, weir, sonar, etc.)	1993	259	259	259	236
Escapement (tower, weir, sonar, etc.)	1992	541	540	537	495
Escapement (tower, weir, sonar, etc.)	1991	320	320	320	291
Escapement (rower, weir, sonar, etc.)	1990	150	149	150	139
Escapement (tower, weir, sonar, etc.)	1989	110	106	107	103
Escapement (spawning grounds)	1989	100	99	99	92
Escapement (tower, weir, sonar, etc.)	1988	464	457	449	422
Commercial Catch	1987	7	7	7	7
Escapement (tower, weir, sonar, etc.)	1987	498	498	498	460
Escapement (spawning grounds)	1985	49	49	49	46
Escapement (spawning grounds)	1984	143	143	140	92
	subtotal:	5,778	5,763	5,740	5,313
Location: Salmon River (Pitka)					
Escapement (tower, weir, sonar, etc.)	1982	29	29	29	29
	subtotal:	29	29	29	29
Location: George River					
Escnpemmt (tower, weir, sonar, etc.)	2000	246	246	246	237
Escapement (tower, weir, sonar, es.)	1999	637	636	636	612
Escapement (tower, weir, sonar, etc.)	1998	346	345	344	323
Escapement (tower, weir, sonar, etc.)	1997	724	724	722	641
Escapement (tower, weir, sonar, etc.)	1996	821	820	820	741
Escapement (tower, weir, sonar, etc.)	1995	39	39	39	24
	subtotal:	2,813	2,810	2,807	2,578
Location: Tatlawiksuk					
Escapement (tower, weir, sonar, etc.)	2000	788	788	788	

Escapement (tower, weir, sonar, etc.)	1999	880	880	880	856
Escapement (tower, weir, sonar, etc.)	1998	336	336	336	335
	subtotal:	2,004	2,004	2,004	1,927
Location: McGrath					
Subsistence Catch	1992	4	4	4	0
	subtotal:	4	4	4	0
Location: Takotna River					
Escapement (tower, weir, sonar, ctc.)	2000	399	399	399	365
	subtotal:	399	399	399	365
Total: ***Kuskokwim Bay***		**108,829**	**108,528**	**108,512**	**99,708**
Grand Total		**251,110**	**241,091**	**240,815**	**234,166**