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Alaska Department of Fish and Game
Commercial Fisheries Management
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Salmon Catch and Escapement Statistics for Copper River, Bering River, and Prince William Sound, 1991

by

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The Technical Fishery Report Series was established in 1987, replacing the Technical Data Report Series. The scope of this new series has been broadened to include reports that may contain data analysis, although data oriented reports lacking substantial analysis will continue to be included. The new series maintains an emphasis on timely reporting of recently gathered information, and this may sometimes require use of data subject to minor future adjustments. Reports published in this series are generally interim, annual, or iterative rather than final reports summarizing a completed study or project. They are technically oriented and intended for use primarily by fishery professionals and technically oriented fishing industry representatives. Publications in this series have received several editorial reviews and at least one *blind* peer review refereed by the division's editor and have been determined to be consistent with the division's publication policies and standards.

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TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES	v
LIST OF FIGURES	vii
LIST OF APPENDICES	ix
ABSTRACT	xv
INTRODUCTION	1
Copper/Bering River Area	1
Prince William Sound Area	2
METHODS	3
Enumeration of Catch	3
Enumeration of Hatchery Runs	4
Enumeration of Escapements	4
Sampling Procedures	5
Commercial Fishery Sampling	5
Subsistence and Personal-Use Fishery Sampling	6
Copper/Bering River Escapement Sampling	7
Prince William Sound Escapement Sampling	7
RESULTS AND DISCUSSION	8
Copper/Bering Rivers	9
Chinook Salmon	9
Catch	9
Escapement	10
Sockeye Salmon	10
Catch	10
Escapement	11
Coho Salmon	11
Catch	11
Escapement	11
Prince William Sound	12
Chinook Salmon	12
Sockeye Salmon	12
Catch	12
Escapement	13
Coho Salmon	14
Pink Salmon	14
Chum Salmon	15

TABLE OF CONTENTS (continued)

	<u>Page</u>
LITERATURE CITED	16
TABLES	19
FIGURES	46
APPENDIX	73

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1. Salmon harvest and indexed escapement by species and fishery element from the Copper/Bering River and Prince William Sound areas, 1991	19
2. Commercial salmon harvest by species, gear type, and district for the Copper/Bering River and Prince William Sound areas, 1991	20
3. Subsistence and personal-use harvest by species, fishery, and gear type for the Copper/Bering River and Prince William Sound areas, 1991	21
4. Sport fishery harvest and effort by location and species in the upper Copper River and in the combined Copper River delta, Bering River, and Prince William Sound areas, 1991	22
5. Salmon escapement and escapement indices by species and district in the Copper/Bering River and Prince William Sound areas, 1991	23
6. Copper/Bering River chinook salmon catch and effort by the commercial common property fishery, by district and fishing period, from fish ticket summaries, 1991	24
7. Estimated age composition of Copper River area chinook salmon in commercial common property drift gillnet catches, rod and reel sport catches, and indexed escapements, 1991	25
8. Copper/Bering River area sockeye salmon catch and effort by the commercial common property fishery, by district and fishing period, from fish ticket summaries, 1991	26
9. Estimated age composition of Copper/Bering River sockeye salmon in commercial common property drift gillnet catches and upper Copper River subsistence and personal-use fish wheel and dip net catches, 1991	27
10. Estimated age composition of sockeye salmon in escapements to the Copper and Bering River systems, 1991	28
11. Copper/Bering River area coho salmon catch and effort by the commercial common property fishery, by district and fishing period, from fish ticket summaries, 1991	29
12. Estimated age composition of Copper/Bering River area coho salmon in commercial common property drift gillnet catches, 1991	30

LIST OF TABLES (Continued)

<u>Table</u>	<u>Page</u>
13. Prince William Sound chinook salmon weekly catch and effort by the commercial common property fishery, by district and gear type, from fish ticket summaries, 1991	31
14. Prince William Sound sockeye salmon weekly catch and effort by the commercial common property fishery, by district and gear type, from fish ticket summaries, 1991	33
15. Estimated age composition of sockeye salmon in Prince William Sound commercial common property gillnet and purse seine catches, 1991	35
16. Estimated age composition of sockeye salmon in sampled escapements to Prince William Sound, 1991	35
17. Prince William Sound coho salmon weekly catch and effort by the commercial common property fishery, by district and gear type, from fish ticket summaries, 1991	36
18. Estimated age composition of coho salmon in Prince William Sound commercial common property drift gillnet and purse seine catches, 1991	38
19. Prince William Sound pink salmon weekly catch and effort by the commercial common property fishery, by district and gear type, from fish ticket summaries, 1991	39
20. Estimated hatchery contributions to pink salmon in the commercial common property harvests, hatchery cost recovery harvests, hatchery brood stock escapements, and total return of pink salmon in Prince William Sound, 1991	41
21. Prince William Sound chum salmon weekly catch and effort by the commercial common property fishery, by district and gear type, from fish ticket summaries, 1991	42
22. Estimated age composition of chum salmon in Prince William Sound commercial common property gillnet and purse seine catches, 1991	44
23. Estimated hatchery contributions to chum salmon in the commercial common property harvests, hatchery cost recovery harvests, hatchery brood stock escapements, and total chum salmon hatchery run to Prince William Sound, 1991	44

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1. Prince William Sound area showing commercial fishing districts, hatcheries, and weir locations	45
2. The Copper Bering/River area and the major coastal spawning areas that contribute to the commercial salmon fisheries	46
3. The location of the personal-use fishery near Chitna and the subsistence fishery that extends from Chitna to Slana along the upper Copper River	47
4. Chinook salmon catches by period and the temporally stratified age composition of those catches from the commercial common property drift gillnet fishery in the Copper River District, 1991	48
5. Sockeye salmon catches by period and the temporally stratified age composition of those catches from the commercial common property drift gillnet fishery in the Copper River District, 1991	49
6. Daily catches of sockeye salmon in the combined personal-use and subsistence fisheries from the upper Copper River and the temporally stratified age composition of those catches, 1991	50
7. Aerial escapement counts for sockeye salmon runs to the Copper River delta and the Bering River area by survey date and the daily escapement estimates from the Miles Lake sonar, 1991	51
8. Coho salmon catches by period from the commercial common property drift gillnet fisheries of the Copper and Bering River Districts and the temporally stratified age composition of the Copper River District commercial common property catch, 1991	52
9. Weekly sockeye salmon catches from the major commercial common property purse seine, drift gillnet, and set gillnet fisheries in Prince William Sound, 1991	53
10. Temporally stratified age composition of sockeye salmon from the Eshamy District commercial common property drift gillnet fishery, 1991	56
11. Daily sockeye salmon escapement through the weirs at Coghill Lake, Eshamy Lagoon, and Jackpot Lake, Prince William Sound, 1991	57
12. Temporally stratified age composition of sockeye salmon escapement through the weirs at Coghill Lake, Eshamy Lagoon, and Jackpot Lake, Prince William Sound, 1991	58

LIST OF FIGURES (Continued)

<u>Figure</u>		<u>Page</u>
13.	Weekly coho salmon catches from the major commercial common property purse seine, drift gillnet, and set gillnet fisheries in Prince William Sound, 1991	59
14.	Purse seine and gillnet commercial common property harvest, discarded harvest, donated harvest, and hatchery cost recovery harvest of pink salmon in Prince William Sound, by district, 1991	61
15.	Weekly pink salmon catches from the major commercial common property purse seine, drift gillnet, and set gillnet fisheries in Prince William Sound, by district, 1991	62
16.	Weekly aerial escapement estimates of wild pink salmon to Prince William Sound, by district, 1991	65
17.	Weekly chum salmon catches from the major commercial common property purse seine, drift gillnet, and set gillnet fisheries in Prince William Sound, by district, 1991	68
18.	Temporally stratified age composition of the commercial common property harvests of chum salmon from the Coghill and Eshamy Districts, 1991	71

LIST OF APPENDICES

	<u>Page</u>
APPENDIX A: AGE AND SEX DATA FOR COMMERCIAL COMMON PROPERTY SALMON CATCHES FROM THE COPPER AND BERING RIVERS (DISTRICTS 200 AND 212)	
A.1 Temporally stratified age and sex composition of chinook salmon harvested in the Copper River District commercial common property drift gillnet fishery, 1991.....	75
A.2 Temporally stratified age and sex composition of sockeye salmon harvested in the Copper River District commercial common property drift gillnet fishery, 1991.....	77
A.3 Estimated age and sex composition of sockeye salmon harvested in the Bering River District commercial common property drift gillnet fishery, 1991.....	81
A.4 Temporally stratified age and sex composition of coho salmon harvested in the Copper River District commercial common property drift gillnet fishery, 1991.....	82
A.5 Temporally stratified age and sex composition of coho salmon harvested in the Bering River District commercial common property drift gillnet fishery, 1991.....	83
APPENDIX B: SUBSISTENCE, PERSONAL-USE, AND SPORT FISH SALMON CATCHES FROM THE UPPER COPPER RIVER	
B.1 Daily catches of sockeye, chinook, and coho salmon in the subsistence and personal-use fisheries on the upper Copper River, 1991.....	84
B.2 Estimated age and sex composition of chinook salmon sport fishing harvests from two upper Copper River drainages, 1991.....	88
B.3 Temporally stratified age and sex composition of sockeye salmon harvested in upper Copper River personal-use and subsistence fisheries, 1991.....	89
APPENDIX C: SALMON ESCAPEMENTS TO COASTAL STREAMS OF THE COPPER RIVER DELTA AND BERING RIVER	
C.1 Aerial escapement indices for sockeye salmon returning to the Copper River delta and the Bering River, by date and location, 1991.....	92

LIST OF APPENDICES (Continued)

<u>Appendix</u>	<u>Page</u>
C.2 Aerial escapement indices for coho salmon returning to the Copper River delta and the Bering River, by date and location, 1991.....	97
C.3 Estimated age and sex composition of sockeye salmon in the total indexed escapements to the Copper River delta and Bering River drainages, 1991	101
C.4 Estimated age and sex composition of sockeye salmon escapements to the Copper River delta, by location, 1991.....	102
C.5 Estimated age and sex composition of sockeye salmon escapements to the Bering River drainage, by location, 1991	108
APPENDIX D: SALMON ESCAPEMENTS TO THE UPPER COPPER RIVER	
D.1 Daily Copper River salmon escapement estimates at the Miles Lake sonar site, 1991	109
D.2 Daily escapement counts of sockeye salmon through the Long Lake weir, 1991	111
D.3 Aerial escapement estimates of chinook salmon runs to selected upper Copper River drainages, by date and location, 1991	112
D.4 Aerial escapement estimates of sockeye salmon runs to selected upper Copper River drainages, by date and location, 1991	114
D.5 Estimated age and sex composition of chinook salmon carcasses sampled at six upper Copper River locations, 1991	117
D.6 Temporally stratified age and sex composition of sockeye salmon in the upper Copper River escapement past the Miles Lake sonar project, estimated from fish sampled in the personal-use and subsistence fisheries near Chitina, 1991.....	119
APPENDIX E: AGE AND SEX DATA FOR COMMERCIAL COMMON PROPERTY SALMON CATCHES FROM PRINCE WILLIAM SOUND (DISTRICTS 221-229)	
E.1 Estimated age and sex composition of sockeye salmon harvested in the Unakwik District commercial common property drift gillnet fisheries, 1991.....	120

LIST OF APPENDICES (Continued)

<u>Appendix</u>	<u>Page</u>
E.2 Temporally stratified age and sex composition of sockeye salmon harvested in the Eshamy District commercial common property gillnet harvests, 1991	121
E.3 Estimated age and sex composition of sockeye salmon harvested in the Southwestern District commercial common property purse seine fishery, 1991	123
E.4 Estimated age and sex composition of coho salmon harvested in the Coghill District commercial common property drift gillnet and purse seine fisheries, 1991	123
E.5 Estimated age and sex composition of coho salmon harvested in the Southwestern District commercial common property purse seine fishery, 1991	124
E.6 Estimated age and sex composition of chum salmon harvested in the Eastern District commercial common property purse seine fishery, 1991.....	124
E.7 Temporally stratified age and sex composition of chum salmon harvested in the Coghill District commercial common property purse seine and drift gillnet fisheries, 1991	125
E.8 Temporally stratified age and sex composition of chum salmon harvested in the Eshamy District commercial common property gillnet fisheries, 1991.....	126
E.9 Estimated age and sex composition of chum salmon harvested in the Southwestern District commercial common property purse seine fishery, 1991	128

APPENDIX F: SALMON ESCAPEMENTS TO COASTAL STREAMS IN PRINCE WILLIAM SOUND

F.1 Daily escapement counts of sockeye salmon through Coghill, Eshamy, and Jackpot River weirs, 1991.....	129
F.2 Aerial survey escapement counts of sockeye salmon from selected systems, Prince William Sound, 1991	131
F.3 Weekly aerial survey estimates of the escapement of live pink salmon to selected streams in Prince William Sound, 1991	132

LIST OF APPENDICES (Continued)

<u>Appendix</u>	<u>Page</u>
F.4 Weekly aerial survey estimates of the escapement of live chum salmon to selected streams in Prince William Sound, 1991	138
F.5 Temporally stratified age and sex composition of the sockeye salmon escapement through the weir on the outlet stream of Coghill Lake, 1991.....	144
F.6 Temporally stratified age and sex composition of the sockeye salmon escapement through the weir at the head of Eshamy Lagoon, 1991.....	145
F.7 Temporally stratified age composition of the sockeye salmon escapement through the Jackpot River weir, 1991	146
F.8 Estimated age and sex composition of sockeye salmon in the escapement to Miners Lake, Prince William Sound, 1991	146
APPENDIX G: DAILY COUNTS AND AGE AND SEX DATA FOR BROOD STOCK ESCAPEMENTS TO PRINCE WILLIAM SOUND HATCHERIES	
G.1 Daily brood stock counts of chinook salmon at Wally Noerenberg Hatchery, 1991.....	147
G.2 Daily brood stock counts of sockeye salmon at Main Bay Hatchery, 1991.....	148
G.3 Daily brood stock counts of coho salmon at Solomon Gulch and Wally Noerenberg Hatcheries, 1991	150
G.4 Daily brood stock counts of pink salmon at Solomon Gulch, Cannery Creek, Wally Noerenberg, and Armin F. Koernig Hatcheries, 1991	152
G.5 Daily brood stock counts of chum salmon at Wally Noerenberg and Solomon Gulch Hatcheries, 1991	154
G.6 Estimated age and sex composition of chinook salmon in the Wally Noerenberg Hatchery brood stock, 1991	156
G.7 Estimated age and sex composition of coho salmon in the Solomon Gulch Hatchery brood stock, 1991	156
G.8 Temporally stratified age and sex composition of chum salmon in the Wally Noerenberg Hatchery brood stock, 1991	157

LIST OF APPENDICES (Continued)

APPENDIX H: MEAN LENGTH BY SEX AND AGE OF SALMON IN THE COMMERCIAL COMMON PROPERTY CATCHES AND ESCAPEMENTS OF THE COPPER/BERING RIVERS AND PRINCE WILLIAM SOUND	<u>Page</u>
H.1 Mean length by sex and age of chinook salmon from the commercial common property drift gillnet catches in the Copper River District, 1991.....	158
H.2 Mean length by sex and age of sockeye salmon from the commercial common property drift gillnet catches in the Copper River District, 1991.....	159
H.3 Mean length by sex and age of sockeye salmon from the commercial common property drift gillnet catches in the Bering River District, 1991.....	161
H.4 Mean length by sex and age of coho salmon from the commercial common property drift gillnet catches in the Bering River District, 1991.....	161
H.5 Mean length by sex and age of coho salmon from the commercial common property drift gillnet catches in the Bering River District, 1991.....	162
H.6 Mean length by sex and age of chinook salmon from sport catches at two upper Copper River drainages, 1991.....	162
H.7 Mean length by sex and age of sockeye salmon in personal-use and subsistence, dip net, and fish wheel catches from the upper Copper River near Chitina, 1991	163
H.8 Mean length by sex and age of chinook salmon carcass samples from six upper Copper River drainages, 1991	164
H.9 Mean length by sex and age of sockeye salmon escapements to the Copper River delta, 1991	166
H.10 Mean length by sex and age of sockeye salmon escapements to the Bering River drainage, 1991.....	169
H.11 Mean length by sex and age of sockeye salmon from commercial common property catches in the Eshamy District of Prince William Sound, 1991.....	170

LIST OF APPENDICES (Continued)

<u>Appendix</u>	<u>Page</u>
H.12 Mean length by sex and age of chum salmon from commercial common property catches in the Eshamy District of Prince William Sound, 1991.....	170
H.13 Mean length of pink salmon from sampled commercial common property and hatchery cost recovery catches in Prince William Sound, by district, 1991	171
H.14 Mean length by sex and age of sockeye salmon from escapements to Prince William Sound, 1991	172
H.15 Mean length by sex and age of chinook salmon brood stock escapements at Wally Noerenberg Hatchery, 1991	173
H.16 Mean length by sex and age of chum salmon brood stock escapements at Wally Noerenberg Hatchery, 1991.....	173
H.17 Mean length by sex and age of coho salmon from commercial common property catches in the Coghill District of Prince William Sound, 1991.....	174
H.18 Mean length by sex and age of coho salmon brood stock escapements at Solomon Gulch Hatchery, 1991	174
APPENDIX I: AVERAGE WEIGHTS OF SALMON IN THE COPPER/ BERING RIVERS AND PRINCE WILLIAM SOUND COMMERCIAL CATCHES	
I.1 Average salmon weights from the commercial fisheries in the Copper/ Bering and Prince William Sound areas, 1991	175

ABSTRACT

The 1991 catch and escapement statistics for Pacific salmon *Oncorhynchus* species in the Copper River, Bering River, and Prince William Sound areas are summarized as a reference for management of the salmon resource. Catch information was compiled from commercial fish tickets, subsistence and personal-use fish permits, and a postal survey of sport fishermen. Escapement data were taken from aerial and ground surveys, side-scan sonar counts, weir counts, and brood stock counts. Stratified, systematic samples of age, sex, and size were collected from salmon catches and escapements using standard sampling techniques for each select species, gear type, and fishing district.

Commercial, subsistence, personal-use, and sport fishermen harvested 40,110,899 salmon in the Copper River, Bering River, and Prince William Sound areas in 1991. Pink salmon *Oncorhynchus gorbuscha* were predominate in the combined total commercial catch from Prince William Sound, and >79% of the pink salmon total commercial catch were hatchery fish. The escapement index for all species and areas was 2,943,774 salmon. Temporal variations in age composition of the catch were observed for chinook salmon *O. tshawytscha* and sockeye salmon *O. nerka* in the Copper River District and for chum salmon *O. keta* in the Eshamy District.

KEY WORDS: Salmon, *Oncorhynchus*, Copper River, Bering River, Prince William Sound, catch, escapement, age, length, sex, weight

INTRODUCTION

Estimated 1991 Pacific salmon *Oncorhynchus* catches and escapements from the Prince William Sound management area were summarized and integrated with age, sex, and size composition data to provide the basic biological information necessary for effective management of the resource. This information can be used to predict run strength based on parent and brood year returns, evaluate hatchery contributions, and assess harvest policies designed to effect maximum sustained yield.

Harvest and escapement abundance data as well as age, sex, and size information are collected annually in monitoring programs maintained by the Alaska Department of Fish and Game (ADF&G). Detailed harvest and escapement information for the Prince William Sound management area are presented by Gilman et al. (1991) and Donaldson et al. (1992). These estimates are combined with age, sex, and size data obtained in 1991 and summarized in this report by species for each sampled fishery. This report adds to the database established by Sharr and Peckham (1988), Sharr et al. (1988), Crawford and Simpson (1989), Crawford and Simpson (1990), Wilcock (1993), and Moffitt et al. (1994). Detailed information for each fishery is presented in the Appendix.

The Prince William Sound management area is divided into 11 fishing districts that encompass coastal waters and associated inland watersheds of the Gulf of Alaska between Cape Suckling and Cape Fairfield (Figure 1). The Copper River District (212) and Bering River District (200) to the east of Hook Point, Hinchinbrook Island, have historically been treated as a discrete unit termed the Copper/Bering River area (Figure 2). Prince William Sound (PWS) proper lies to the west of Hook Point and includes the Eastern (221), Northern (222), Coghill (223), Northwestern (224), Eshamy (225), Southwestern (226), Montague (227), and Southeastern (228) Districts. The Unakwik District, previously designated as District 222-50, was redesignated as District 229 beginning in 1989.

Copper/Bering River Area

Drift gillnets are the only legal commercial gear type in the Copper and Bering River Districts. Sockeye *Oncorhynchus nerka*, coho *O. kisutch*, and chinook salmon *O. tshawytscha* are the predominate species in the Copper River District harvest. In the Bering River District, sockeye and coho salmon predominate the catch. Pink salmon *O. gorbuscha* and chum salmon *O. keta* catches are generally considered incidental in both districts.

A subsistence fish wheel fishery on the upper Copper River extends from Chitina to Slana (Figure 3). In addition, a personal-use dip net and fish wheel fishery is restricted to a few miles of the river near Chitina. These fisheries harvest a large portion of the sockeye and chinook salmon migrating through the area. Subsistence fishing is also permitted in the coastal commercial fishing areas simultaneously with commercial openings, but harvests of all species are generally low.

Sport fishermen in the Copper/Bering River area target primarily chinook and sockeye salmon in the upper Copper River drainage and coho and sockeye salmon in a few coastal streams.

Hatchery runs of sockeye salmon to the Copper River originate from the Gulkana I and II streamside incubation facilities located on the Gulkana River in the upper Copper River drainage.

Wild sockeye salmon in the Copper and Bering River Districts spawn in tributaries and lakes of the upper Copper River, small coastal streams and lakes in the Copper River delta, and tributaries of the Bering River (ADF&G 1962). Coho salmon spawn primarily in coastal streams, whereas chinook salmon spawn almost exclusively in tributaries of the upper Copper River (ADF&G 1964; Thompson 1964).

Prince William Sound Area

Wild and hatchery salmon are harvested in several commercial fisheries throughout PWS; terms used to distinguish these aspects of the commercial harvest are as follows:

Commercial Common Property Catch — all salmon harvested by the traditional competitive commercial fisheries (gillnet and purse seine) as opposed to *other commercial harvests* resulting from hatchery cost recovery, confiscated fish, or educational permits.

Hatchery Cost Recovery Catch or *Hatchery Sales Harvest* — all salmon caught and sold by private nonprofit hatcheries to pay their operating expenses. This catch is taken in *special harvest areas* (SHA) adjacent to the hatchery by fishermen under contract to the facility operators.

Total Commercial Catch — all salmon that are caught and sold commercially.

Two types of pink salmon harvest in 1991 did not fit under the commercial harvest terms because they were not caught with the intention to sell. *Discarded* and *donated fish* were caught by fishermen under contract to private nonprofit hatcheries in an attempt to remove low-quality fish from the SHAs. These fish were caught in the SHAs and discarded in deep water or processed and donated to the United Soviet Socialist Republic (USSR). The *total commercial harvest* for pink salmon in 1991 includes discarded and donated fish, unless otherwise noted.

Purse seines are generally permitted in commercial common property fisheries in all districts of PWS, except the Eshamy District (225), where only set and drift gillnet gear are permitted. Drift gillnets are also permitted in the Coghill (223) and Unakwik (229) Districts.

Purse seine fisheries have historically harvested most of the pink and chum salmon total commercial catch as well as significant incidental catches of sockeye salmon. Gillnet fisheries, having much smaller total harvests than purse seine fisheries, traditionally target sockeye salmon. In recent years large catches

of pink and chum salmon have coincided with increased hatchery production of these species. Historically, harvests of chinook and coho salmon in PWS have been incidental, but fishermen have recently begun to target coho salmon returns to the Wally Noerenberg Hatchery on Esther Island. Initial returns of coho salmon to this facility began in 1987 from releases the previous year. Southwestern District purse seine fishermen also intercept many coho salmon returning to the Wally Noerenberg Hatchery. Substantial coho catches also occur in Valdez Arm and Port Valdez from Solomon Gulch Hatchery releases.

Subsistence harvests of salmon in PWS, mostly sockeye salmon, are extremely small. Pink and coho salmon are the predominate species harvested in PWS sport fisheries. Although the harvest occurs primarily in marine waters, considerable sport fishing is also directed toward sockeye salmon in Coghill River and Eshamy Lagoon.

Five hatcheries are currently operating in PWS: Solomon Gulch, Cannery Creek, Wally Noerenberg, Main Bay, and Armin F. Koernig Hatcheries (Figure 1). The Solomon Gulch, Wally Noerenberg, and Armin F. Koernig facilities are owned and operated by private nonprofit organizations and primarily produce pink and chum salmon. The Cannery Creek facility, which primarily produces pink salmon, is owned by the State of Alaska and has been operated under contract by the Prince William Sound Aquaculture Corporation (PWSAC) since July 1988. In 1990 PWSAC also assumed operation of the state-owned Main Bay Hatchery. The Main Bay Hatchery is raising full-term, age-1 (reared in the hatchery over winter) sockeye salmon smolts. This facility originally produced chum salmon. The last chum salmon smolts were released in 1987, and some adults from this release will continue to return through 1992.

Wild pink and chum salmon spawn in hundreds of small coastal streams on the mainland and islands throughout PWS. The largest sockeye salmon escapements occur in Coghill Lake and Eshamy Lake. Other sockeye spawning areas include Cowpen, Miners, and Jackpot Lakes.

METHODS

Enumeration of Catch

Commercial salmon catches and fishing effort by fishing period and district or subdistrict were tabulated (Gilman et al. 1991) from fish tickets; i.e., sales receipts supplied by fishermen and processors. Processors often estimated the number of fish caught in landings by dividing landing weight by an estimated mean weight of that species. Because there is variation associated with estimates of mean weight, estimates of numbers caught may not be precise. The estimated mean weight and corresponding variance were not reported on fish tickets; therefore, the estimated numbers caught were assumed to represent the actual catch.

Subsistence and personal-use catches recorded on returned fishery permits as of April 1992 were summed to provide total estimates. The catch figures are preliminary and may differ slightly from final published figures, and are also low because all permits were not returned.

All sport fishery catches were estimated from postal surveys. Estimates were checked and validated with creel census data from selected fisheries (Mills 1992).

Enumeration of Hatchery Runs

Hatchery fish were caught in commercial fisheries concurrently with wild fish. Estimated hatchery contributions of pink salmon to commercial common property, hatchery cost recovery, discarded, and donated harvests in 1991 were derived from coded wire tag recapture data (Geiger 1990). Brood stock fish were enumerated in annual summary reports for each facility and summarized by Donaldson et al. (1992).

Enumeration of Escapements

Salmon stocks of the Copper/Bering River and PWS areas for which escapement data were available were grouped into runs according to major spawning areas. In the Copper/Bering River area, stocks were grouped into two runs: (1) the delta/Bering run, which includes all stocks of sockeye and coho salmon that spawn in coastal lakes and streams of the Copper River delta and Bering River watersheds; and (2) the upriver run, which includes all stocks of sockeye and chinook salmon that spawn in the Copper River watershed upstream of Miles Lake.

Estimates of sockeye and coho salmon escapements to coastal Copper River delta and Bering River tributaries were based on peak aerial survey counts of selected spawning areas. Aerial survey results represent indices of the relative abundance of escapements between stocks and years; however, they were used as estimates of total escapement in the absence of more precise data.

The upriver escapement of sockeye salmon in the Copper River was estimated using side-scanning sonar located at the outlet of Miles Lake (Figure 2). The escapement to Long Lake in the Chitina River drainage was counted through a weir on the lake outlet and was also included in the Miles Lake sonar count. The relative contributions of selected stocks to the total upper Copper River escapement were indexed by periodic aerial surveys.

For PWS, pink and chum salmon in 215 index streams were enumerated from weekly aerial surveys using methods similar to those described by Pirtle (1977). Survey counts were adjusted by dividing the area under the survey counts versus time curve by an estimated stream residence time (Johnson and Barrett 1986). Dividing by stream residence time reduces bias from counting the same fish on successive surveys. Recent studies (S. Sharr, ADF&G, Cordova, personal communication) indicate that the

estimated stream residence time of 17.5 days (Helle et al. 1964) is probably too high for most PWS streams. Salmon escapements to Coghill, Eshamy, and Jackpot Lakes were enumerated with weirs.

Sampling Procedures

Catches and escapements were sampled to determine their age, sex, length, and weight. One scale was collected from each sampled sockeye and chum salmon, and three scales were collected from each sampled chinook and coho salmon. Pink salmon were not sampled for age data. Scales were taken from the left side two rows above the lateral line in an area transected by a diagonal line from the posterior base of the dorsal fin to the anterior base of the anal fin (INPFC 1963). Scales were mounted on gum cards and impressions were made in cellulose acetate (Clutter and Whitesel 1956). Scale growth patterns were examined to determine the age of each fish sampled. Whenever marine growth zones on scales were resorbed, marine age was determined using length frequency analysis (Tesch 1970). Length in millimeters was measured from the middle of the eye to the fork of the tail. Sex was determined by morphological characteristics, or when possible, by gonadal inspection.

Commercial Fishery Sampling

Age and sex composition of the season catch for each combination of species, gear, and fishing district were estimated using stratified systematic sampling (Cochran 1977). Based on temporal distribution of past catches, contiguous fishing periods were combined to form sampling strata that would provide anticipated catches of similar magnitudes for all strata. The number of strata were based on temporal changes in age composition in previous years. Catches for which there were no valid historical estimates of age and sex composition were divided into three or four strata to expose moderate temporal changes. Whenever possible, sampling occurred on a single day near the temporal midpoint of each stratum. For the Copper River District, fish in each sample were selected systematically from processors without regard to tender vessel or subdistrict of capture because Sharr (1983) found no differences in age composition among 1982 tender loads from subdistricts within District 212.

Sample-size goals for each commercial catch stratum were (1) 600 sockeye salmon from the Copper/Bering River area; (2) 610 sockeye salmon from PWS; and (3) 600 chinook salmon, 450 coho salmon, and 400 chum salmon from both the Copper/Bering River and PWS areas. These goals were originally selected so that sufficient numbers of ageable scales would be collected to simultaneously estimate the proportion of each major age class in the catch within $\pm 5\%$ of the true proportion 90% of the time based on the normal approximation of a binomial proportion (Goodman 1965; Cochran 1977). However, Thompson's (1987) work on the "worst case" parameter value for the multinomial distribution suggests that these goals may actually result in simultaneously estimating the true percentage of each age group within $\pm 5\%$ over 95% of the time.

Age composition and the associated variance were estimated by procedures outlined in Cochran (1977) for stratified sampling as follows:

$$C_{ij} = C_t P_{ij} ; \quad (1)$$

$$V[C_{ij}] = (C_t)^2 \frac{P_{ij}(1-P_{ij})}{N_t-1} ; \quad (2)$$

$$C_j = \sum_{t=1}^T C_{ij} ; \quad (3)$$

$$V[C_j] = \sum_{t=1}^T V[C_{ij}] ; \quad (4)$$

where: C_t = the number of fish caught during stratum t ,
 P_{ij} = the fraction of the sample taken during stratum t that is age j ,
 N_t = the sample size during stratum t ,
 C_{ij} = the estimated number of fish of age j caught during stratum t ,
 T = the number of strata, and
 C_j = the estimate of the number of fish of age j caught during the season.

A correction factor for finite populations was not included in the calculations for variability because sample sizes were generally small relative to catches.

Subsistence and Personal-Use Fishery Sampling

A stratified systematic sampling program was established for collecting sockeye salmon age, sex, and length samples from the upper Copper River subsistence and personal-use fisheries. Sample stratification was based on commercial catch projections by fishing period and migratory timing data for upriver stocks (Merritt and Roberson 1983), but some inseason modifications occurred because of logistical constraints. Fish wheel and dip net catches were sampled disproportionately during the season, but because gear differences and temporal differences could not be distinguished, catch samples from these gear types were pooled.

The same formulae used for estimating numbers of fish by age in commercial catches were used to estimate subsistence and personal-use catches by age. Age, sex, and size composition of chinook and coho salmon from upriver fisheries were not estimated because of the small harvests.

Copper/Bering River Escapement Sampling

Neither comprehensive enumeration studies nor detailed stratified sampling have been feasible for all coastal salmon streams of the Copper River delta and Bering River watersheds. Consequently, aerial surveys were used to estimate escapement to these areas. Simple systematic sampling described sex and age and the associated variance as follows:

$$E_j = A_m Q_j ; \quad (5)$$

$$V[E_j] = (A_m)^2 \frac{Q_j(1-Q_j)}{N-1} ; \quad (6)$$

where: E_j = the season escapement of fish of age j ,
 A_m = the peak number counted on the spawning grounds during aerial surveys,
 Q_j = the estimate of the portion of the escapement of age j pooled over one or two sampling trips to the spawning grounds, and
 N = the number of fish sampled in all sampling trips to the spawning grounds.

Because total escapement abundance to these areas was not available, peak aerial spawning ground counts were multiplied by age proportions to approximate numbers of fish in each age class.

Sockeye salmon scale samples from the Copper River subsistence and personal-use fisheries were believed to also represent the age, sex, and size composition of upriver escapements because (1) these fisheries occur downstream of most major spawning tributaries of the system, and (2) the gear types used are believed to be relatively free from size selectivity. Age and sex composition estimates from the catch strata were applied directly to the sonar counts from Miles Lake. Temporal stratification of the sonar-estimated escapement was simplified to two strata, and the passage dates were lagged to account for fish travel time between Miles Lake and Chitina. Mean travel times in days were approximated from a linear regression of travel rate versus date calculated from mark-recapture data (Merritt and Roberson 1983).

Prince William Sound Escapement Sampling

Stratified systematic sampling and weir counts were used to estimate the age, sex, and size composition of sockeye salmon escapements to Coghill, Eshamy, and Jackpot Lakes. Simple systematic sampling and the aerial survey peak count were used to estimate the age, sex, and size composition of Miners Lake sockeye salmon escapements. With the exception of the drift gillnet fishery in the Esther Subdistrict of the Coghill District and the drift and set gillnet fisheries in the Eshamy District, chum salmon harvested in PWS are taken primarily with purse seines. Because purse seines are believed to be relatively nonselective for size and age, commercial catch samples were assumed to represent age, sex, and size

composition of escapements. Scale samples from chinook and chum salmon in the Wally Noerenberg Hatchery brood stock were collected by PWSAC and evaluated by ADF&G personnel. These samples provided an estimate of the age, sex, and size composition of chinook and chum salmon escapements in the Coghill District.

RESULTS AND DISCUSSION

The total run of all species of salmon to the Copper/Bering River area and PWS in 1991 was estimated to be 43,054,673 fish (Table 1). Commercial fisheries harvest of pink salmon in PWS composed 86.2% (37,134,311 fish) of the total run. The next largest commercial harvest components were sockeye salmon in the Copper/Bering River area (2.8% or 1,225,992 fish) and in PWS (1.2% or 508,552 fish). Commercial catches exceeded all other harvest types for all species and areas (Table 1). The subsistence/personal-use harvest of sockeye salmon from the upper Copper River, 111,709 fish, exceeded harvests in other areas by this user group, yet composed only 8.3% of the total catch of sockeye salmon in the Copper/Bering River area and only 0.3% of the total run of all species to all areas. The sport harvest of pink salmon in PWS totaled 52,200 fish. This harvest was 59.0% of the sport harvest of all species from the PWS and Copper/Bering River areas but only 0.1% of the total PWS pink salmon return.

Purse seine catches of 26,585,034 pink salmon in PWS commercial common property fisheries predominated the harvests of this species (Table 2). The largest catches of chum salmon, 236,524 fish, were harvested by PWS drift gillnet fishermen. Drift gillnet fishermen in the Copper/Bering River area had the largest commercial harvests of sockeye (1,225,992 fish), chinook (34,815 fish), and coho salmon (496,037 fish).

The personal-use dip net catch of 75,475 sockeye salmon combined with the subsistence fish wheel and dip net catch of 36,234 sockeye salmon from the upper Copper River accounted for 98.9% of the subsistence/personal-use harvest of this species and 90.4% of the subsistence/personal-use harvest of all species from all areas (Table 3). Pink salmon caught in marine waters near Valdez by sport fishermen totaled 48,609 fish and composed 93.0% of the pink salmon sport harvest from all areas (Table 4). Coho salmon sport catches totaled 19,852 fish, of which 10,379 were taken in the vicinity of Valdez.

Adjusted aerial survey counts of PWS pink salmon escapements totaled 1,837,165 fish in 1991, and the largest portions were observed in the Southeastern (533,170 fish) and Eastern (474,380 fish) Districts (Table 5). Adjusted chum salmon counts of 98,580 fish in the Coghill District and 86,360 fish in the Eastern District accounted for 81.9% of the total escapement of chum salmon in PWS. Sonar counts obtained from the Miles Lake facility totaled 579,435 fish; although species composition is not estimated for the sonar counts, the counts are assumed to be entirely sockeye salmon because they are highly dominant numerically. Peak aerial survey counts of chinook salmon from the upper Copper River area

totaled 5,636 fish. Although aerial survey counts of upper Copper River coho, pink, and chum salmon were not reported, aerial observations indicated escapements for these species were small.

Appendices A and B present age and sex composition by species for all sampled strata of the Copper/Bering River area commercial, subsistence, personal-use, and sport catches, as well as daily catches for upriver subsistence and personal-use catches. Aerial survey counts, daily Miles Lake sonar and Long Lake weir counts, as well as age and sex composition of escapements by location are presented in Appendices C and D. Appendix E contains age and sex composition of PWS commercial harvests for each sampled district and time stratum. Aerial escapement estimates, daily weir counts, and age and sex composition of PWS escapements are presented in Appendix F. Daily counts of hatchery brood stock runs and their age and sex composition are in Appendix G. Mean length by age and sex for all fish sampled can be found in Appendix H, and the average weights of commercially caught fish are in Appendix I.

Copper/Bering Rivers

The commercial, subsistence, personal-use, and sport fisheries in the Copper River District (212) and the Bering River District (200) share geographic proximity, occur simultaneously, and are all directed at stocks of sockeye, coho, and chinook salmon returning to the Copper/Bering River area.

Chinook Salmon

Catch. Most of the 34,787 chinook salmon caught in the Copper River District in 1991 were harvested between 16 May and 11 June (Table 6; Figure 4; Appendix B.1). Percent age composition of the commercial common property catch was 56.5% age 1.3, 34.3% age 1.4, 3.3% age 1.2, and 5.9% other age groups (Table 7). Fish aged 1.3 and 1.4 were the most numerous in the catch until late June, when the proportion of age-1.2 fish was greater than the proportion of age-1.4 fish (Appendix A.1). The proportion of age-1.3 fish increased from 53.4% to 62.6% between the first and third samples but dropped to 40.2% for the last sample. The proportion of age-1.4 fish decreased over the season from 42.9% to 16.9% (Figure 4).

A total of 5,163 chinook salmon were caught in the upper Copper River subsistence and personal-use fisheries (Table 3). Most chinook salmon, 79.7%, were captured with dip nets and the remainder were taken with fish wheels. No age or sex composition data were collected for the chinook subsistence or personal-use fisheries.

Mills (1992) estimated a sport harvest of 4,884 chinook salmon from the upper Copper River drainage (Table 4). Virtually all of these fish were harvested in the Gulkana and Klutina River drainages. Samples of the sport catch were predominately age 1.3 for both the Gulkana River at 55.6% and the Klutina River at 53.9% (Table 7; Appendix B.2). Age-1.4 fish composed most of the remaining Gulkana River, 44.4%, and Klutina River, 45.8%, sport catch samples.

Escapement. Peak aerial survey counts of the upper Copper River chinook salmon escapement totaled 5,636 fish (Appendix D.3) The escapement estimate for selected index streams was 3,432 fish compared to the 1981–1990 average index of 3,058 (Donaldson et al. 1992). Carcasses sampled from the Kaina Creek were 33.8% age-1.3 and 64.5% age-1.4 fish, whereas carcasses were mostly age 1.3 from the Gulkana River (74.1%), Little Tonsina River (78.5%), East Fork Chistochina River (82.0%), Mendeltna Creek (68.9%), and Klutina River (52.4%; Appendix D.5).

Sockeye Salmon

Catch. In the Copper River District, 1,206,811 sockeye salmon were commercially harvested in 1991 (Table 8). Sockeye catches peaked during the second fishery opening on 20 and 21 May at 114,765 fish and again during the sixth opening on 3 and 4 June at 150,811 fish. Catches dropped sharply after the 10 and 11 June opening and then averaged about 40,000 fish until after 20 July (Figure 5).

Age composition of the commercial common property catch for all strata sampled was 72.3% age 1.3, 10.3% age 0.3, 10.2% age 1.2, and 7.2% other ages (Table 9). The percentage of age-1.3 fish decreased from 80.3% in mid-May to 55.8% in the first week of August (Figure 5; Appendix A.2). Age-0.3 fish declined from a high of 18.2% in late May to 0.9% in the first week of August. Conversely, fish aged 1.2 composed only 1.5% of the catch in late May but increased steadily to a high of 26.4% in late July.

The Bering River District sockeye fishery was opened on 17 June, 1 month later than the Copper River District (Table 8). As in most recent years, fishing effort was concentrated over a relatively short period, and substantial catches were reported for only five fishery openings. Total sockeye salmon harvest for the district was 19,181 fish. The sampled catch was composed of 67.9% age-1.3, 19.6% age-1.2, and 8.5% age-0.3 fish (Table 9; Appendix A.3).

The subsistence and personal-use fisheries on the upper Copper River began on 1 June. A total of 111,709 sockeye salmon were harvested (Appendix B.1); peak daily catches occurred on weekends in June, mid-July, and early August (Figure 6). Of the total catch, 27.3% were taken with fish wheels and 72.7% with dip nets. Fish aged 0.3 (2.9%) and 2.3 (1.5%) were lower in relative abundance than in the Copper River commercial catch (Table 9), whereas age-1.3 fish (82.5%) composed a larger portion than in the commercial catch. Age-1.2 fish (11.2%) occurred at about the same proportion as in the Copper River District commercial catch. The contribution of age-1.3 fish stayed at about 80% over the season (Appendix B.3; Figure 6). The percentage of age-1.2 fish increased from a low of 6.3% in early June to a peak of 23.6% in late July.

Of the 5,511 sockeye salmon harvested by sport fishermen in the upper Copper River, 81.3% were caught in the Gulkana and Klutina River drainages (Table 4). The three coastal Copper River area streams listed by Mills (1992) (Eyak River, Alaganik Slough, and Clear Creek) had a combined sport harvest of 740 sockeye salmon (Table 4). The sport harvest from other coastal Copper River area streams was included in catches reported for PWS (Mills 1992). Observations of area biologists indicate the harvest from the other streams was several hundred fish.

Escapement. Aerial surveys indicated 90,500 sockeye salmon escaped into spawning areas of the Copper River delta and 32,220 sockeye salmon escaped into the Bering River drainage (Table 5; Appendix C.1). These data are not estimates of actual escapements but indices of the relative spawning escapements to those areas. Peak aerial survey counts were observed in early July and late August for the Copper River delta (Figure 7). The Bering River drainage aerial survey counts from 25 June to 6 August were between 25,000 and 28,500 sockeye salmon (Figure 7). The most abundant age groups in escapements to the upper Copper River were fish aged 1.3 at 82.5% and 1.2 at 11.5% (Table 9). Age 1.3 at 42.7% was the most abundant age group overall in Copper River delta escapements, and age 1.2 at 42.6% was the next most abundant (Appendix C.3). The Copper River delta sockeye salmon escapements had large temporal and spatial differences in age composition (Appendix C.4). Fish aged 1.3 at 79.1% and 1.2 at 11.5% composed most of the Bering River escapements (Table 10; Appendix C.5). Age-0.3 fish composed 2.8% of the upper Copper River, 8.7% of the Bering River, and 10.9% of the Copper River delta escapements. An estimated 579,435 salmon passed the Miles Lake sonar site in 1991 (Table 5). Included in this count were 5,636 chinook salmon observed in upper Copper River aerial surveys (Appendix D.3) and 11,513 sockeye salmon counted through a weir at Long Lake (Appendix D.2). Aerial surveys of upper Copper River tributaries accounted for the spawning grounds distribution of 74,144 sockeye salmon (Appendix D.4). Escapement at the sonar site was monitored from late May to early August (Figure 7). Daily counts of 8,000–14,000 fish occurred from 31 May through 21 June, and a peak count of 21,151 occurred on 2 June (Appendix D.1). Estimated age composition of the escapement passed Miles Lake (Appendix D.6) was based on samples collected from upriver subsistence and personal-use fisheries.

Coho Salmon

Catch. Substantial catches of coho salmon in the Copper River District began in late August and continued through late September (Table 11; Figure 8). Of the 385,086 coho salmon caught in the Copper River District, 45.0% were age 1.1 and 53.3% were age 2.1 (Table 12). A shift in the age composition occurred between early August and early September (Appendix A.4). Age-1.1 and -2.1 fish each composed approximately 50% of the first catch sample in early August and the third catch sample in mid-September, but age-2.1 fish were more abundant in early September at 57.9% (Figure 8).

The 1991 commercial catch of coho salmon in the Bering River District was 110,951 (Table 11). At 61.2%, age-2.1 fish composed a slightly greater portion of the Bering River catch than of the Copper River commercial catch (Appendix A.5).

ADF&G estimated a subsistence and personal-use catch of 3,515 coho salmon in the Copper/Bering River area (Table 3). Sport fishermen harvested 1,355 coho salmon from Eyak River, 211 from Clear Creek, 306 from Alaganik Slough, and an unknown number from a few other easily accessible coastal streams on the Copper River delta (Table 4). No age or sex composition data were collected for these fisheries.

Escapement. No aerial escapement estimates were made for coho salmon in the upper Copper River drainage in 1991, but aerial survey counts of coho salmon escapements to the upper Copper River are

normally quite low. Aerial surveys indicated 64,356 coho salmon escaped to spawning areas in the Copper River delta and 31,300 to the Bering River drainage (Appendix C.2; Table 5); these data are not estimates of the actual escapements but indices of the relative spawning escapements to those areas. No age or sex composition data were collected for these fish.

Prince William Sound

Fisheries in the nine fishing districts in PWS (Districts 221-229) share geographic proximity, occur simultaneously, and are directed at salmon stocks of PWS origin.

Chinook Salmon

Commercial harvests of chinook salmon in PWS are incidental to fisheries directed toward other species (Table 13).

A total of 1,358 chinook salmon were taken for brood stock at Wally Noerenberg Hatchery in 1991 (Appendix G.1). The age composition of the brood stock samples was 55.0% age 1.2 and 45.0% age 1.3 (Appendix G.6).

Sockeye Salmon

Catch. A total of 508,552 sockeye salmon were commercially harvested in PWS in 1991 (Table 2). The majority of the catch came from the Eshamy District drift gillnet (296,234 fish) and set gillnet (184,028 fish) fisheries targeting the Main Bay Hatchery run. Catches in the Coghill District (3,888 fish) and the Unakwik District (4,482 fish) made up the remainder of the drift gillnet harvest. Most of the PWS purse seine catch of 18,704 sockeye salmon were caught in the Southwestern District (14,419 fish).

Sockeye catches in the Eshamy District were largest from mid-June through early August, and the largest weekly catch occurred in mid-July (Table 14; Figure 9). Age-1.2 fish composed 86.2% of the Eshamy District catch (Table 15; Appendix E.2). Age-1.2 fish composed >80% of the catch until the first week of September when they composed only 20.5%, whereas age-1.1 fish composed <5% of the catch until the first week of September when they composed 62.8% (Figure 10). The fish sampled in early September were probably part of the large return of jacks to Main Bay Hatchery.

The largest sockeye catches in the Coghill District occurred during late July and mid-August (Figure 9). The combined gear catch of 5,450 fish was the lowest harvest in the available harvest records, which started in 1975 (Donaldson et al. 1992). No age and sex composition data are available for the catch.

Unakwik District sockeye salmon catches peaked in mid-July (Table 14; Figure 9). The age composition of the drift gillnet catch was 88.8% age 1.3, 5.2% age 2.3, and 4.3% age 1.2 (Appendix E.1).

The largest weekly purse seine catch of sockeye salmon in PWS, 7,438 fish, occurred in mid-August (Table 14) and accounted for 39.8% of the purse seine harvest of 18,704 fish. Most of the sockeye salmon purse seine harvest (77.1%) occurred in the Southwestern District. The most abundant Southwestern District age classes were age 1.2 at 90.4%, age 1.3 at 4.8%, and age 2.2 at 2.6% (Appendix E.3; Table 15).

The reported subsistence harvest of sockeye salmon in PWS was 454 fish (Table 3). Age and sex composition data were not collected. A sport fishery harvest of 3,052 sockeye salmon was estimated for the PWS area (Table 4). Because the Sport Fish Division summarizes and reports sport harvests by area differently than the Commercial Fisheries Management and Development Division, this estimate may include fish harvested from drainages included in the Copper River delta/Bering River area.

Escapement. A total of 9,752 sockeye salmon were counted through the Coghill River weir in 1991 (Appendix F.1). Approximately 71.4% of the escapement passed the weir from 8 July through 17 July, and the peak daily count of 1,152 fish occurred on 11 July (Figure 11). The age composition was estimated at 83.6% age 1.3, 10.5% age 1.2, and 3.7% age 2.3 (Table 16). The contribution of age-1.3 fish was >82% for all samples (Figure 12; Appendix F.5). Age 1.2 in the escapement decreased from a high of 14.1% in early July to 2.5% in late July, whereas age 2.3 increased from 1.4% to 11.0% over the same time period.

Escapement through the Eshamy weir of 46,226 sockeye salmon (Appendix F.1) occurred later and was more prolonged than the Coghill weir escapement (Figure 11). Age composition of the escapement was 86.0% age 1.2, 9.2% age 2.2, and 2.7% age 1.3 (Table 16). The percentage of age-1.2 fish increased from 73.9% in mid-July to 87.3% in late August (Figure 12; Appendix F.6). The percentage of age 2.2 decreased from 15.1% in mid-July to 8.5% in late August, and the percentage of age 1.3 decreased from 9.8% to 1.8% over the same time period.

A total of 5,495 fish were counted past a weir installed on the outlet of Jackpot Lake. The peak daily count was 2,091 fish on 24 July, and 58.8% of the escapement occurred between 23 July and 25 July (Appendix F.1; Figure 11). The escapement was mostly age 1.3 (84.5%) and age 1.2 (11.4%; Table 16). The percentage of age 1.3 declined from 90.3% in early July to 85.9% in late July, and the percentage of age 1.2 increased from 7.4% to 13.1% over the same period (Appendix F.7; Figure 12).

The Miners Lake sockeye salmon run is generally smaller than those of the weired streams, and the escapement estimate (2,040 fish) is the peak aerial survey count (Appendix F.2). Age 1.3 composed most (85.6%) of the Miners Lake escapement (Appendix F.8).

A total of 37,648 sockeye salmon entered the Main Bay Hatchery brood pond, but only 1,870 fish were used for brood stock (Appendix G.2). No age or sex composition data are available for these fish.

Coho Salmon

In 1991, 13,339 coho salmon were harvested by commercial common property purse seine and 79,346 coho salmon by commercial common property gillnet fisheries in PWS (Table 2). The largest purse seine catches occurred in the Southwestern (59.3%) and Eastern (34.5%) Districts. Nearly all (98.8%) of the coho salmon taken with gillnets in PWS were caught in the Coghill District. Most of these fish probably originated from the Wally Noerenberg Hatchery (C. Peckham, ADF&G, Cordova, personal communication). Coho catches peaked in the first week of September (Table 17; Figure 13). The Coghill District combined-gear coho salmon catch was 95.5% age 1.1 (Table 18; Appendix E.4). The Southwestern District purse seine catch was 73.6% age 2.1 and 20.7% age 1.1 (Appendix E.5).

The subsistence catch of coho salmon in PWS was 1,026 fish (Table 3). In recent years the sport fishery in PWS has been increasingly directed to coho salmon. Mills (1992) estimated that 19,783 coho salmon were caught by sport fishermen in PWS and the drainages of the Copper River delta and Bering River in 1991 (Table 4). A large portion of this catch came from runs of hatchery-reared coho salmon released at Cordova, Valdez, and Whittier in 1990 (Holland and McKean 1992).

In addition to enhancement of commercial common property and sport harvests, hatchery coho salmon also contributed 52,625 fish to the hatchery cost recovery harvest (Table 2): Solomon Gulch Hatchery at 39,395 fish and Wally Noerenberg Hatchery at 13,230 fish .

A total of 1,459 coho salmon were used for brood stock at the Solomon Gulch Hatchery and 1,319 coho salmon were used for brood stock at the Wally Noerenberg Hatchery (Appendix G.3). A sample of the Solomon Gulch Hatchery brood stock was 100% age 1.1 (Appendix G.7). No age or sex data were collected from the Wally Noerenberg Hatchery brood stock.

Pink Salmon

The total harvest of pink salmon in PWS for 1991, including discarded and donated fish, was 37,134,311 fish (Table 2). The commercial common property purse seine harvest of 26,585,034 fish was 71.6% of the PWS total harvest of pink salmon. Commercial common property purse seine fishermen harvested 67.1% of their catch in the Southwestern District, 15.1% in the Northern District, and 9.8% in the Eastern District (Figure 14; Table 19). Peak purse seine catches occurred in mid-July in the Eastern District and mid-August in the Northern, Coghill, Southwestern, and Unakwik Districts (Figure 15).

The commercial common property purse seine and gillnet fisheries harvested 72.4% of the PWS total catch of pink salmon, and 16.0% were taken in hatchery cost recovery fisheries. Preliminary estimates from coded wire tag recoveries indicate that approximately 20,900,355 hatchery pink salmon were harvested in the commercial common property and 5,201,806 in hatchery cost recovery fisheries (Table 20). The total harvest of hatchery-produced pink salmon in PWS, including discarded and donated fish, was estimated at 31,000,275 fish, or 85.0% of the total pink salmon harvest in PWS.

Of the total PWS pink salmon catch, fishermen discarded 2,773,170 fish (7.5%) and donated 1,322,432 fish (3.6%; Table 2). The Coghill District accounted for 71.9% of the combined discarded and donated catch, and the Northern (17.5%) and Southwestern (10.6%) Districts supplied the remainder (Figure 14). Preliminary coded wire tag results indicate that 86.9% of the combined discarded and donated catch was hatchery produced (Table 20).

The subsistence harvest of pink salmon was <300 fish (Table 3). An estimated 52,290 pink salmon were caught by PWS sport fishermen and 93.0% were taken in the marine waters near Valdez (Table 4).

Estimated escapements of wild pink salmon in PWS during 1991 (Appendix F.3) were above historical mean levels for odd years in seven of eight districts (Donaldson et al. 1992). Escapement peaked for most districts in late August; however, the Eastern District showed peaks in early August and early September (Figure 16).

A total of 1,295,818 pink salmon were killed at the brood ponds of the Solomon Gulch, Cannery Creek, Wally Noerenberg, and Armin F. Koernig Hatcheries in 1991 (Appendix G.4). Out of the total killed, 687,808 or 53.1% were used for brood stock.

Chum Salmon

Of the 331,906 chum salmon in the PWS total commercial harvest, 236,524 fish or 71.3% were harvested in commercial common property drift gillnet fisheries, 49,394 fish or 14.9% in the commercial common property set gillnet fishery, and 32,071 fish or 9.7% in commercial common property purse seine fisheries (Table 2). Most of the gillnet catch occurred in the Eshamy (88.0%) and Coghill (12.0%) Districts where fishermen were targeting fish runs to the Wally Noerenberg and Main Bay Hatcheries. Most of the commercial common property purse seine catch occurred in the Eastern (32.9%) and Coghill (35.9%) Districts; the Northern (16.7%) and Southwestern (14.3%) Districts contributed most of the remainder (Table 21). Peak catches in the Eastern District occurred in early and mid-July and late August (Figure 17). Drift gillnet catches in the Coghill District peaked in mid-June and late July, whereas purse seine harvests peaked in early August. Gillnet catches in the Eshamy District peaked in late June (Figure 17).

The commercial common property purse seine catch of PWS chum salmon was composed of 49.3% age 0.3 and 42.3% age 0.4 (Table 22). The Eastern District purse seine harvest was composed of 52.5% age 0.3 and 38.4% age 0.4, whereas the Southwestern District purse seine harvest was 42.0% age 0.3 and 51.3% age 0.4 (Appendices E.6 and E.9). For PWS gillnet catch samples, 76.7% were age 0.4 and age 0.3 composed most, 21.1%, of the remainder. The high proportion of age-0.4 fish in the gillnet harvest was due to the large return of chum salmon from the last Main Bay Hatchery chum fry release in 1987. The Coghill District had little change in age composition between samples, whereas the percentage of age-0.3 fish in the Eshamy District increased from 2.6% in mid-June to 35.4% in late July (Figure 18; Appendices E.7, E.8).

Hatchery cost recovery sales in 1991 accounted for 13,471 chum salmon or 4.1% of the PWS total commercial harvest of this species (Table 2). Wally Noerenberg Hatchery accounted for 85.4% of the PWS chum salmon hatchery cost recovery harvest.

Preliminary estimates from coded wire tag recapture data and fish tickets indicate that approximately 148,514 fish or 44.7% of the total commercial harvest originated from hatcheries (Table 23). The commercial common property harvest estimate of hatchery-produced chum salmon was 135,043 fish or 40.7% of the total commercial harvest of chum salmon in PWS.

The subsistence harvest of chum salmon in PWS was <300 fish (Table 3). The estimated total PWS sport fishery harvest of chum salmon was 1,622 fish, 51.7% of which were caught in the marine waters near Valdez (Table 4).

A total of 109,319 chum salmon were taken for brood stock at Wally Noerenberg Hatchery in 1991 (Appendix G.5). The percentage of age-0.4 fish in the Wally Noerenberg Hatchery brood stock declined from 56.3% on 20 July to 31.4% on 3–4 August, whereas age-0.3 fish increased from 39.4% on 20 July to 63.3% on 3–4 August (Appendix G.8).

Wild chum salmon escapements to surveyed PWS streams were estimated at 133,398 fish in 1991 (Appendix F.4). The escapements were below the 1965–1990 mean index in seven of eight districts (Donaldson et al. 1992).

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Table 1. Salmon harvest and indexed escapement by species and fishery element from the Copper/Bering River and Prince William Sound areas, 1991.

Area and Fishery Element	Catch by Species (Number of Fish)				
	Chinook	Sockeye	Coho	Pink	Chum
Upper Copper River and Copper/Bering River Areas					
Total Commercial Catch	34,815	1,225,992	496,037	1,250	20,415
Subsistence/Personal-Use Catch	5,299	112,539	3,515	^b	^b
Sport Harvest ^a	4,884	6,251	1,941	108	0
Indexed Escapement	5,636	702,155	95,656	^c	^c
Upper Copper River and Copper/Bering River Total	50,634	2,046,937	597,149	1,358	20,415
Prince William Sound Area					
Total Commercial Catch	540	508,552	145,817	37,134,311 ^d	331,906
Subsistence Catch	3	454	1,026	^e	^e
Sport Harvest ^a	477	3,052	17,911	52,182	1,622
Indexed Escapement	^f	77,254	^f	1,837,165	225,908
Prince William Sound Total	1,020	589,312	164,754	39,023,658	559,436
Total All Areas	51,654	2,636,249	761,903	39,025,016	579,851

^a Some minor sport harvests of anadromous salmon are not reported by specific locations. Consequently, upper Copper River estimates may include a small number of fish from Susitna River tributaries, and the Prince William Sound estimates may include a small number of fish from Copper River delta/Bering River coastal streams.

^b A total of 104 fish of other species, including steelhead and others, were reported caught, but species composition was not estimated.

^c Pink and chum salmon escapements to the upper Copper River and Copper/Bering River are not indexed.

^d Includes discarded and donated fish.

^e A total of 596 fish of other species were reported caught and were estimated to be composed of approximately half pink and half chum salmon.

^f Chinook and coho salmon escapements to Prince William Sound are not indexed.

Table 2. Commercial salmon harvest by species, gear type, and district for the Copper/Bering River and Prince William Sound areas, 1991.

Area/Gear	District or Hatchery Name	Statistical Area	Catch by Species (Number of Fish)				
			Chinook	Sockeye	Coho	Pink	Chum
Copper/Bering River Area							
Drift Gillnet	Copper River	212	34,787	1,206,811	385,086	1,246	20,220
	Bering River	200	28	19,181	110,951	4	195
Copper/Bering River Total			34,815	1,225,992	496,037	1,250	20,415
Prince William Sound Area							
Drift Gillnet	Coghill	223	92	3,888	78,363	231,501	34,223
	Eshamy	225	107	296,234	468	44,516	202,183
	Unakwik	229	13	4,482	11	12,299	118
	Total		212	304,604	78,842	288,316	236,524
Set Gillnet	Eshamy	225	76	184,028	504	20,075	49,394
	Total		76	184,028	504	20,075	49,394
Purse Seine	Eastern	221	129	926	4,603	2,617,222	10,557
	Northern	222	7	978	207	4,017,245	5,344
	Coghill	223	11	1,562	621	1,980,074	11,519
	Northwestern	224	0	0	0	0	0
	Southwestern	226	9	14,419	7,905	17,849,425	4,572
	Montague	227	0	0	0	0	0
	Southeastern	228	0	0	0	0	0
	Unakwik	229	0	819	3	121,068	79
	Total		156	18,704	13,339	26,585,034	32,071
Hatchery Cost Recovery Harvest ^a	Solomon Gulch	221-61	0	14	39,395	3,220,450	1,973
	Cannery Creek	222-21	0	0	0	765,430	0
	Wally Noerenberg	223-41	0	0	13,230	880,513	11,498
	Armin F. Koernig	226-62	0	0	0	1,089,168	0
	Main Bay	225-21	0	0	0	0	0
	Total		0	14	52,625	5,955,561	13,471
Educational Permit ^b	All Districts Combined		95	981	506	26,139	155
Confiscated	All Districts Combined		1	200	1	4	289
Discarded	All Districts Combined		0	0	0	2,773,170	0
Donated	All Districts Combined		0	0	0	1,322,432	0
Test Fish ^c	Coghill	223	0	21	0	163,580	2
	Total		96	1,202	507	4,285,325	446
Prince William Sound Total			540	508,552	145,817	37,134,311	331,906
Total All Areas and Gear Types			35,355	1,734,544	641,854	37,135,561	352,321

^a Harvest is from purse seines.

^b Cordova High School educational special permit.

^c Includes Prince William Sound Aquaculture Corporation surimi study and ADF&G test fish catch.

Table 3. Subsistence and personal-use harvest by species, fishery, and gear type for the Copper/Bering River and Prince William Sound areas, 1991.

Area/Fishery	Gear	Location	Catch by Species (Number of Fish)			
			Chinook	Sockeye	Coho	Other ^a
Copper/Bering River Area						
Personal Use	Dip Net	Upper Copper River	3,947	75,475	3,264	57
	Fish Wheel	Upper Copper River	0	0	0	0
	Total		3,947	75,475	3,264	57
Subsistence	Dip Net	Upper Copper River	167	5,745	159	0
	Fish Wheel	Upper Copper River	1,049	30,489	54	42
	Drift Gillnet	Copper/Bering River	136	830	38	5
	Total		1,352	37,064	251	47
Copper/Bering River Total			5,299	112,539	3,515	104
Prince William Sound						
Subsistence	Drift Gillnet	Prince William Sound General	0	2	0	0
	Mixed Gear ^b	Tatitlek	0	107	984	348 ^c
		Southwestern (Chenega)	3	345	42	248 ^c
Prince William Sound Total			3	454	1,026	596
Total All Areas			5,302	112,993	4,541	700

^a Includes steelhead, char, whitefish, other salmon, and miscellaneous species.

^b Special subsistence harvest initiated in 1989.

^c This catch was approximately half pink and half chum salmon.

Table 4. Sport fishery harvest and effort by location and species in the upper Copper River and in the combined Copper River delta, Bering River, and Prince William Sound areas, 1991.

Area	Location/Fishery	Anglers	Trips	Days Fished	Sport Fish Harvest by Species				
					Chinook	Sockeye	Coho	Pink	Chum
Upper Copper River ^a	Gulkana River								
	Float – Paxson to Sourdough	2,720	2,074	5,496	483	459	0	0	0
	Float – Sourdough to Highway	3,502	3,689	5,922	1,321	599	0	0	0
	Other	6,749	7,038	9,526	1,187	988	0	0	0
	Klutina River	5,899	6,341	12,111	1,709	2,435	6	0	0
	Mendeltna Creek	391	306	391	0	0	0	0	0
	Tonsina River	986	1,394	1,690	89	200	38	0	0
	Other Streams	2,890	3,434	5,074	64	360	25	0	0
	Tolsona Lake	561	357	561	0	0	0	0	0
	Lake Louise	3,400	3,366	5,910	0	0	0	0	0
	Susitna Lake	663	748	1,544	0	0	0	0	0
	Van (Silver) Lake	1,513	1,428	2,140	0	0	0	0	0
	Paxson Lake	3,638	3,145	4,572	0	20	0	0	0
	Summit Lake (near Paxson)	510	2,227	3,016	0	190	0	0	0
	Crosswind Lake	3,400	646	1,228	0	0	0	0	0
Other Lakes	4,623	3,366	5,026	31	260	0	0	0	
Area Total		28,373 ^{b,c}	39,559	64,207	4,884	5,511	69	0	0
Copper River Delta, Bering River, and Prince William Sound	Freshwater								
	Eyak River	1,052	3,545	3,118	0	370	1,355	27	0
	Eshamy Creek and Lagoon	390	543	869	0	152	7	63	0
	Alaganik Slough	492	882	785	0	85	306	18	0
	Clear Creek	695	797	857	0	285	211	63	0
	Other Streams	1,410	2,359	3,499	12	142	504	324	103
	Other Lakes	747	1,003	1,060	0	38	0	0	0
	Subtotal	3,680 ^c	9,129	10,188	12	1,072	2,383	495	103
	Saltwater								
	Valdez Bay —								
	Boat	16,061	20,301	35,701	278	1,177	6,252	16,128	577
	Shoreline/Road System	2,426	3,477	5,320	0	0	811	5,589	16
	Shoreline/Remainder	12,601	14,416	26,870	75	294	3,316	26,892	245
	Passage Canal (Whittier) —								
	Boat	2,442	4,749	8,425	41	104	1,246	387	142
Esther Island Area – Boat	1,543	2,205	3,403	6	256	661	1,053	63	
Hinchinbrook Island–Boat	424	373	488	0	0	14	27	0	
Orca Inlet —									
Boat	1,713	3,664	5,379	6	28	640	72	111	
Shoreline	1,509	4,528	5,420	41	0	2,349	567	32	
Other —									
Boat	3,804	5,431	8,690	18	823	647	747	167	
Shoreline	984	2,036	3,231	0	38	1,464	333	166	
Subtotal	36,294 ^c	61,180	102,927	465	2,720	17,400	51,795	1,519	
Area Total		37,380 ^c	70,309	113,115	477	3,792	19,783	52,290	1,622
Total All Areas		65,753 ^c	109,868	177,322	5,361	9,303	19,852	52,290	1,622

^a Includes drainages of the Copper River upstream from a line between the south bank of Haley Creek and the south bank of Canyon Creek in Wood Canyon, and the upper Susitna River drainage below its confluence with the Oshetna River. Does not include the Oshetna River.

^b Maximum estimate. Includes some fishermen who may have fished in more than one location.

^c Angler totals may not equal sum of sites due to some anglers fishing at more than one site.

Table 5. Salmon escapement and escapement indices by species and district in the Copper/Bering River and Prince William Sound areas, 1991.

Area and District	Statistical Area	Escapement by Species				
		Chinook	Sockeye	Coho	Pink	Chum
Copper/Bering River Area ^a						
Copper River —	212					
Copper River Delta			90,500	64,356		
Upper Copper River		5,636	579,435 ^b			
Bering River	200		32,220	31,300		
Area Total		5,636	702,155	95,656		
Prince William Sound Area ^c						
Eastern	221		440 ^d		474,380	86,360
Northern	222		1,251 ^d		165,570	19,080
Coghill	223		15,672 ^e		98,580	98,580
Northwestern	224		2,280 ^d		101,320	8,960
Eshamy	225		46,226 ^f		18,800	0
Southwestern	226		7,495 ^e		197,095	2,800
Montague	227		50 ^d		247,890	925
Southeastern	228				533,170	9,203
Unakwik	229		3,840 ^d		360	0
Area Total			77,254		1,837,165	225,908

^a Based on periodic aerial surveys of salmon streams and includes counts from all systems surveyed, not just the historical index streams (Appendices C.1–2, D.3). Does not account for escapement into unsurveyed systems. Escapements of salmon species not noted are small and not indexed.

^b Miles Lake sonar count (Appendix D.1). Species composition was not estimated; however, sockeye salmon are by far the most abundant species. Aerial surveys indicated coho, pink, and chum salmon escapements to the upper Copper River were small.

^c Escapement indices for pink and chum salmon in Prince William Sound are based on aerial counts of regularly surveyed streams adjusted for stream life and do not account for escapement into unsurveyed streams. Escapements of other salmon species are generally insignificant and not recorded except as noted.

^d Based on peak observed aerial count of selected systems during regularly scheduled surveys.

^e Based on weir counts plus peak observed aerial counts of other district streams in scheduled surveys.

^f Weir count.

Table 6. Copper/Bering River chinook salmon catch and effort by the commercial common property fishery, by district and fishing period, from fish ticket summaries, 1991.

Statistical Week	Dates	Copper River			Bering River		
		Hours	Effort ^a	Catch	Hours	Effort ^a	Catch
20	05/16–05/17	24	446	8,429		Closed	
21	05/20–05/21	24	479	6,652		Closed	
21	05/23–05/24	24	476	4,580		Closed	
22	05/27–05/27	12	341	2,037		Closed	
22	05/31–05/31	12	479	4,306		Closed	
23	06/03–06/04	24	495	2,757		Closed	
23	06/06–06/07	24	490	2,148		Closed	
24	06/10–06/11	24	427	1,594		Closed	
24	06/14–06/14	12	366	538		Closed	
25	06/17–06/18	24	299	650	24	26	19
25	06/20–06/21	24	309	469	24	22	6
26	06/24–06/25	24	256	216	24	13	0
26	06/27–06/28	24	230	135	24	6	0
27	07/01–07/02	36	233	111	36	6	1
27	07/04–07/05	24	235	44	24	3	1
28	07/08–07/09	36	228	56	36	2	0
28	07/11–07/13	36	204	16	36	2	0
29	07/15–07/16	36	230	15		Closed	
29	07/18–07/20	48	234	17		Closed	
30	07/22–07/23	36	148	1		Closed	
30	07/25–07/27	48	168	0		Closed	
31	07/29–07/30	36	109	3		Closed	
31	08/01–08/03	48	42	0		Closed	
32	08/05–08/06	36	102	4		Closed	
32	08/08–08/10	48	71	2		Closed	
34	08/19–08/21	48	270	4	48	26	0
36	09/02–09/03	24	235	2	24	42	0
36	09/05–09/06	24	259	0	24	40	0
37	09/09–09/11	48	220	1	48	69	1
37	09/12–09/14	48	227	0	48	45	0
38	09/16–09/18	48	126	0	48	43	0
38	09/19–09/21	48	192	0	48	31	0
39	09/23–09/28	120	138	0	120	16	0
40	09/30–10/05	120	83	0	120	13	0
41	10/07–10/12	120	16	0		Closed	
Total		1,392	513	34,787	756	96	28

^a Number of permits reporting catches.

Table 7. Estimated age composition of Copper River area chinook salmon in commercial common property drift gillnet catches, rod and reel sport catches, and indexed escapements, 1991.

Fishery Element	Area	Location	Sample Size	Estimated Catch or Escapement	Percentage of Catch or Escapement by Brood Year and Age Group																
					1989		1988			1987			1986			1985			1984		1982
					0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	1.5	2.4	2.5		
Commercial common property catch	Copper River District	Statistical Area 212	1,596	34,787	0.0	0.2	0.2	0.5	3.3	0.1	0.6	56.5	0.5	34.3	1.5	0.0	1.0	1.2	0.1		
Sport catch ^a	Upper Copper River	Gulkana River	9	2,991	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.6	44.4	0.0	0.0	0.0	0.0	0.0	0.0		
		Klutina River	842	1,709	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.9	45.8	0.0	0.0	0.0	0.2	0.0	0.0		
Indexed escapement ^b	Upper Copper River	Gulkana River	567	2,537	0.0	0.0	0.0	0.0	0.7	0.0	0.0	74.1	0.0	25.3	0.0	0.0	0.0	0.0	0.0		
		Little Tonsina River	56	54	0.0	0.0	0.0	0.0	1.8	0.0	0.0	78.5	0.0	19.6	0.0	0.0	0.0	0.0	0.0		
		E. Fork Christochina River	100	865	0.0	0.0	0.0	0.0	0.0	0.0	0.0	82.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0		
		Kaina Creek	124	990	0.0	0.0	0.0	0.0	0.8	0.0	0.0	33.8	0.0	64.5	0.8	0.0	0.0	0.0	0.0		
		Mendeltna Creek	77	610	0.0	0.0	0.0	0.0	0.0	0.0	0.0	68.9	0.0	31.2	0.0	0.0	0.0	0.0	0.0		
		Klutina River	130	218	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.4	0.0	47.7	0.0	0.0	0.0	0.0	0.0		

25

^a Estimated catches from Upper Copper River sport catch summaries.

^b Indexed escapement from aerial surveys.

Table 8. Copper/Bering River area sockeye salmon catch and effort by the commercial common property fishery, by district and fishing period, from fish ticket summaries, 1991.

Statistical Week	Period Dates	Copper River			Bering River		
		Hours	Effort ^a	Catch	Hours	Effort ^a	Catch
20	05/16-05/17	24	446	45,081		Closed	
21	05/20-05/21	24	479	114,765		Closed	
21	05/23-05/24	24	476	77,030		Closed	
22	05/27-05/27	12	341	52,805		Closed	
22	05/31-05/31	12	479	134,356		Closed	
23	06/03-06/04	24	495	150,811		Closed	
23	06/06-06/07	24	490	93,557		Closed	
24	06/10-06/11	24	427	60,458		Closed	
24	06/14-06/14	12	366	35,865		Closed	
25	06/17-06/18	24	299	43,540	24	26	8,034
25	06/20-06/21	24	309	43,483	24	22	5,285
26	06/24-06/25	24	256	32,778	24	13	2,236
26	06/27-06/28	24	230	42,676	24	6	1,313
27	07/01-07/02	36	233	39,673	36	6	1,408
27	07/04-07/05	24	235	27,336	24	3	370
28	07/08-07/09	36	228	57,577	36	2	360
28	07/11-07/13	36	204	46,155	36	2	175
29	07/15-07/16	36	230	30,963		Closed	
29	07/18-07/20	48	234	37,381		Closed	
30	07/22-07/23	36	148	7,340		Closed	
30	07/25-07/27	48	168	16,148		Closed	
31	07/29-07/30	36	109	7,057		Closed	
31	08/01-08/03	48	42	4,370		Closed	
32	08/05-08/06	36	102	3,734		Closed	
32	08/08-08/10	48	71	1,170		Closed	
34	08/19-08/21	48	270	658	48	26	0
36	09/02-09/03	24	235	22	24	42	0
36	09/05-09/06	24	259	8	24	40	0
37	09/09-09/11	48	220	4	48	69	0
37	09/12-09/14	48	227	3	48	45	0
38	09/16-09/18	48	126	6	48	43	0
38	09/19-09/21	48	192	1	48	31	0
39	09/23-09/28	120	138	0	120	16	0
40	09/30-10/05	120	83	0	120	13	0
41	10/07-10/12	120	16	0		Closed	
Total		1,392	513	1,206,811	756	96	19,181

^a Number of permits reporting catches.

Table 9. Estimated age composition of Copper/Bering River sockeye salmon in commercial common property drift gillnet catches and upper Copper River subsistence and personal-use fish wheel and dip net catches, 1991.

Fishery	Districts	Sample Size	Total Catch	Percentage of Catch by Brood Year and Age Group												
				1989		1988			1987			1986			1985	
				0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3		
Commercial common property catch	Copper River	4,695	1,206,811	0.1	0.4	0.2	10.3	10.2	0.1	0.1	72.3	0.5	0.7	5.1		
	Bering River	520	19,181	0.0	2.3	0.0	8.5	19.6	0.0	0.2	67.9	0.2	0.6	0.8		
Subsistence/ personal use	Upper Copper River	3,669	111,709	0.0	0.1	0.0	2.9	11.2	0.0	0.1	82.5	0.0	1.7	1.5		

Table 10. Estimated age composition of sockeye salmon in escapements to the Copper and Bering River systems, 1991.

Drainage System	Location	Sample Size	Escapement Index	Percentage of Escapement by Brood Year and Age Group												
				1989		1988		1987			1986			1985		1984
				0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.3	
Copper River																
Upper Copper River	Miles Lake sonar	3,669	579,435	0.0	0.1	0.0	2.8	11.5	0.0	0.1	82.5	0.0	1.7	1.3	0.0	
Copper River Delta	Eyak Lake – South Beaches	554	4,600	0.0	1.2	0.0	5.1	41.1	0.0	0.0	52.3	0.0	0.0	0.3	0.0	
	Eyak Lake – Middle Arm	1,146	12,420	0.0	0.9	1.1	10.4	28.8	0.0	0.0	58.6	0.0	0.0	0.2	0.0	
	Eyak Lake – Hatchery Creek	44	3,700	0.0	13.6	0.0	13.6	27.3	0.0	0.0	45.5	0.0	0.0	0.0	0.0	
	Eyak Lake – North Beaches	381	3,620	0.0	1.3	1.3	0.5	33.1	0.3	0.0	60.6	0.5	0.0	2.4	0.0	
	McKinley Lake	537	5,330	0.0	1.5	1.3	10.2	46.6	0.0	0.0	39.3	0.6	0.0	0.6	0.0	
	27 Mile Creek	508	3,900	0.0	0.4	0.0	15.6	25.2	0.0	0.2	58.1	0.0	0.4	0.2	0.0	
	39 Mile Creek	545	5,340	0.0	0.2	4.8	4.4	15.8	0.0	0.0	73.6	0.4	0.0	0.9	0.0	
	Ragged Point River	498	5,900	0.2	1.8	1.2	33.9	8.0	0.0	0.0	53.6	0.2	0.0	0.0	0.0	
	Martin Lake	652	15,900	0.2	4.4	6.4	1.9	59.5	0.0	0.0	27.5	0.0	0.0	0.0	0.0	
	Little Martin Lake	500	11,700	0.0	0.0	2.2	0.0	77.2	0.0	0.0	20.6	0.0	0.0	0.0	0.0	
	Tokun Lake	450	5,960	0.0	0.0	0.0	0.0	57.3	0.0	0.0	42.7	0.0	0.0	0.0	0.0	
	Martin River Slough	508	5,180	0.0	10.2	1.2	40.0	22.8	0.0	0.0	25.6	0.0	0.0	0.2	0.0	
	Copper River Delta	Total	6,323	83,550	0.1	2.6	2.3	9.3	42.6	0.0	0.0	42.7	0.1	0.0	0.3	0.0
Bering River																
Bering River	Bering Lake	567	26,480	0.0	0.0	0.2	8.1	11.8	0.0	0.0	79.9	0.0	0.0	0.0	0.0	
	Shepherd Creek	449	3,400	0.0	0.2	0.9	14.9	6.0	0.0	0.0	77.3	0.0	0.0	0.7	0.0	
	Kushtaka Lake	483	880	0.0	0.8	1.7	2.1	24.2	0.0	0.0	61.1	7.5	0.0	2.5	0.2	
Bering River	Total	1,499	30,760	0.0	0.0	0.3	8.7	11.5	0.0	0.0	79.1	0.2	0.0	0.1	0.0	

Table 11. Copper/Bering River area coho salmon catch and effort by the commercial common property fishery, by district and fishing period, from fish ticket summaries, 1991.

Statistical Week	Period Dates	Copper River			Bering River		
		Hours	Effort ^a	Catch	Hours	Effort ^a	Catch
20	05/16-05/17	24	446	0		Closed	
21	05/20-05/21	24	479	4		Closed	
21	05/23-05/24	24	476	0		Closed	
22	05/27-05/27	12	341	0		Closed	
22	05/31-05/31	12	479	0		Closed	
23	06/03-06/04	24	495	9		Closed	
23	06/06-06/07	24	490	13		Closed	
24	06/10-06/11	24	427	15		Closed	
24	06/14-06/14	12	366	2		Closed	
25	06/17-06/18	24	299	213	24	26	0
25	06/20-06/21	24	309	207	24	22	7
26	06/24-06/25	24	256	1,688	24	13	45
26	06/27-06/28	24	230	793	24	6	21
27	07/01-07/02	36	233	515	36	6	14
27	07/04-07/05	24	235	400	24	3	0
28	07/08-07/09	36	228	1,890	36	2	0
28	07/11-07/13	36	204	829	36	2	0
29	07/15-07/16	36	230	1,896		Closed	
29	07/18-07/20	48	234	2,602		Closed	
30	07/22-07/23	36	148	190		Closed	
30	07/25-07/27	48	168	1,652		Closed	
31	07/29-07/30	36	109	473		Closed	
31	08/01-08/03	48	42	259		Closed	
32	08/05-08/06	36	102	624		Closed	
32	08/08-08/10	48	71	1,509		Closed	
34	08/19-08/21	48	270	30,374	48	26	0
36	09/02-09/03	24	235	62,903	24	42	8,038
36	09/05-09/06	24	259	58,321	24	40	17,276
37	09/09-09/11	48	220	56,771	48	69	25,754
37	09/12-09/14	48	227	36,381	48	45	17,732
38	09/16-09/18	48	126	41,821	48	43	17,168
38	09/19-09/21	48	192	36,888	48	31	12,804
39	09/23-09/28	120	138	39,409	120	16	11,605
40	09/30-10/05	120	83	5,268	120	13	487
41	10/07-10/12	120	16	1,167		Closed	
Total		1,392	513	385,086	756	96	110,951

^a Number of permits reporting catches.

Table 12. Estimated age composition of Copper/Bering River area coho salmon in commercial common property drift gillnet catches, 1991.

Location	Sample Size	Commercial Catch	Percentage of Catch by Brood Year and Age Group		
			<u>1988</u> 1.1	<u>1987</u> 2.1	<u>1986</u> 3.1
Copper River	1,298	385,086	45.0	53.3	1.6
Bering River	374	110,951	38.0	61.2	0.8

Table 13. Prince William Sound chinook salmon weekly catch and effort by the commercial common property fishery, by district and gear type, from fish ticket summaries, 1991.

Statistical Week	Dates	Purse Seine Fisheries														
		Eastern District			Northern District			Coghill District			Southwestern District			Unakwik District		
		Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch
24	06/09-06/15		Closed			Closed			Closed			Closed			Closed	
25	06/16-06/22		Closed			Closed			Closed			Closed	48	0	0	
26	06/23-06/29		Closed			Closed			Closed			Closed	48	0	0	
27	06/30-07/06	12	187	82		Closed			Closed			Closed	48	0	0	
28	07/07-07/13	36	26	5		Closed			Closed			Closed	48	0	0	
29	07/14-07/20	36	179	33		Closed			Closed			Closed	48	1	0	
30	07/21-07/27	36	151	6		Closed		24		7		Closed	48	0	0	
31	07/28-08/03		Closed			Closed			Closed			Closed	48	0	0	
32	08/04-08/10		Closed		36	123	6	36	27	2	36	127	0	48	0	0
33	08/11-08/17		Closed		88	67	0	88	0	1	88	200	6	48	14	0
34	08/18-08/24		Closed		168	35	1	168	75	1	168	210	2	48	1	0
35	08/25-08/31	16	5	2	168	1	0	168	41	0	168	41	1	48	0	0
36	09/01-09/07	168	6	1	168	0	0	168	14	0	168	0	0	48	0	0
37	09/08-09/14	168	0	0	168	0	0	168	1	0	168	0	0	48	0	0
38	09/15-09/21	168	0	0	168	0	0	168	0	0	168	0	0	48	0	0
39	09/22-09/28	168	0	0	168	0	0		Closed		168	0	0	48	0	0
40	09/29-10/05	164	0	0	164	0	0		Closed		164	0	0	48	0	0
Totals		972	222	129	1,296	140	7	988	108	11	1,296	225	9	768	16	0

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Table 13. (Page 2 of 2).

Statistical Week	Dates	Gillnet Fisheries									Gillnet Total	Purse Seine Total	Prince William Sound Total Catch
		Unakwik Drift Gillnet			Coghill Drift Gillnet			Eshamy Drift and Set Gillnet					
		Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch			
24	06/09–06/15		Closed		24	82	68	160	112	61	129	0	129
25	06/16–06/22	48	8	1		Closed		168	177	68	69	0	69
26	06/23–06/29	48	11	0		Closed		168	264	20	20	0	20
27	06/30–07/06	48	4	6		Closed		168	249	12	18	82	100
28	07/07–07/13	48	8	2		Closed		168	232	13	15	5	20
29	07/14–07/20	48	4	3		Closed		168	189	3	6	33	39
30	07/21–07/27	48	1	1	24	97	8	168	91	4	13	13	26
31	07/28–08/03	48	1	0		Closed		168	35	0	0	0	0
32	08/04–08/10	48	2	0	36	79	8	168	34	0	8	8	16
33	08/11–08/17	24	2	0	88	66	5	168	45	2	7	7	14
34	08/18–08/24		Closed		144	53	3	168	0	0	3	4	7
35	08/25–08/31		Closed		144	83	0	168	0	0	0	3	3
36	09/01–09/07		Closed		144	71	0	168	8	0	0	1	1
37	09/08–09/14		Closed		144	80	0	168	2	0	0	0	0
38	09/15–09/21		Closed		144	67	0	168	1	0	0	0	0
39	09/22–09/28		Closed		168	50	0	168	0	0	0	0	0
40	09/29–10/05		Closed		168	8	0	164	0	0	0	0	0
Totals		408	27	13	1,228	210	92	2,844	302	183	288	156	444

^a Number of permits reporting catches.

Table 14. Prince William Sound sockeye salmon weekly catch and effort by the commercial common property fishery, by district and gear type, from fish ticket summaries, 1991.

Statistical Week	Dates	Purse Seine Fisheries														
		Eastern District			Northern District			Coghill District			Southwestern District			Unakwik District		
		Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch
24	06/09–06/15		Closed			Closed			Closed			Closed			Closed	
25	06/16–06/22		Closed			Closed			Closed			Closed	48	0	0	
26	06/23–06/29		Closed			Closed			Closed			Closed	48	0	0	
27	06/30–07/06	12	187	306		Closed			Closed			Closed	48	0	0	
28	07/07–07/13	36	26	99		Closed			Closed			Closed	48	0	0	
29	07/14–07/20	36	179	388		Closed			Closed			Closed	48	1	332	
30	07/21–07/27	36	151	128		Closed		24		1,119		Closed	48	0	0	
31	07/28–08/03		Closed			Closed				Closed		Closed	48	0	0	
32	08/04–08/10		Closed		36	123	794	36	27	235	36	127	1,655	48	0	0
33	08/11–08/17		Closed		88	67	140	88	0	203	88	200	6,611	48	14	484
34	08/18–08/24		Closed		168	35	43	168	75	5	168	210	4,977	48	1	3
35	08/25–08/31	16	5	0	168	1	1	168	41	0	168	41	1,176	48	0	0
36	09/01–09/07	168	6	5	168	0	0	168	14	0	168	0	0	48	0	0
37	09/08–09/14	168	0	0	168	0	0	168	1	0	168	0	0	48	0	0
38	09/15–09/21	168	0	0	168	0	0	168	0	0	168	0	0	48	0	0
39	09/22–09/28	168	0	0	168	0	0			Closed	168	0	0	48	0	0
40	09/29–10/05	164	0	0	164	0	0			Closed	164	0	0	48	0	0
Totals		972	222	926	1,296	140	978	988	108	1,562	1,296	225	14,419	768	16	819

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Table 14. (Page 2 of 2).

Statistical Week	Dates	Gillnet Fisheries									Gillnet Total	Purse Seine Total	Prince William Sound Total Catch
		Unakwik Drift Gillnet			Coghill Drift Gillnet			Eshamy Drift and Set Gillnet					
		Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch			
24	06/09-06/15		Closed		24	82	375	160	112	997	1,372	0	1,372
25	06/16-06/22	48	8	666		Closed		168	177	17,179	17,845	0	17,845
26	06/23-06/29	48	11	758		Closed		168	264	74,152	74,910	0	74,910
27	06/30-07/06	48	4	531		Closed		168	249	93,889	94,420	306	94,726
28	07/07-07/13	48	8	1,977		Closed		168	232	144,428	146,405	99	146,504
29	07/14-07/20	48	4	357		Closed		168	189	58,788	59,145	720	59,865
30	07/21-07/27	48	1	97	24	97	1,948	168	91	59,839	61,884	1,247	63,131
31	07/28-08/03	48	1	21		Closed		168	35	22,866	22,887	0	22,887
32	08/04-08/10	48	2	54	36	79	477	168	34	5,067	5,598	2,684	8,282
33	08/11-08/17	24	2	21	88	66	406	168	45	2,506	2,933	7,438	10,371
34	08/18-08/24	48	0	0	144	53	182	168	0	0	182	5,028	5,210
35	08/25-08/31	48	0	0	144	83	192	168	0	0	192	1,177	1,369
36	09/01-09/07	48	0	0	144	71	284	168	8	381	665	5	670
37	09/08-09/14	48	0	0	144	80	20	168	2	107	127	0	127
38	09/15-09/21	48	0	0	144	67	3	168	1	63	66	0	66
39	09/22-09/28	48	0	0	168	50	1	168	0	0	1	0	1
40	09/29-10/05	48	0	0	168	8	0	164	0	0	0	0	0
Totals		744	27	4,482	1,228	210	3,888	2,844	302	480,262	488,632	18,704	507,336

^a Number of permits reporting catches.

Table 15. Estimated age composition of sockeye salmon in Prince William Sound commercial common property gillnet and purse seine catches, 1991.

Gear Type	District	Sample Size	Total Catch	Percentage of Catch by Brood Year and Age Group											
				1989		1988		1987			1986		1985		
				0.1	1.0	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	
Drift gillnet	Unakwik	329	5,301	0.0	0.0	0.0	0.0	0.6	4.3	0.0	88.8	0.6	0.6	5.2	
Drift and set gillnet	Eshamy	3,134	480,262	0.9	0.1	3.2	5.7	0.1	86.2	0.0	3.0	0.4	0.0	0.4	
Purse seine	Southwestern	313	14,419	0.0	0.0	0.0	1.9	0.0	90.4	0.3	4.8	2.6	0.0	0.0	

Table 16. Estimated age composition of sockeye salmon in sampled escapements to Prince William Sound, 1991.

Location	Sample Size	Escapement	Percentage of Escapement by Brood Year and Age Group										
			1989		1988		1987			1986		1985	
			0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	
Coghill Lake	1,413	9,701 ^a	0.0	0.3	0.1	1.3	10.5	0.0	83.6	0.4	0.0	3.7	
Eshamy Lake	1,554	46,226 ^a	0.1	0.2	1.0	0.0	86.0	0.4	2.7	9.2	0.0	0.4	
Jackpot Lake	1,333	5,495 ^a	0.0	0.0	0.0	0.0	11.4	0.0	85.9	1.3	0.6	0.8	
Miners Lake	340	2,040 ^b	0.0	0.0	1.5	0.0	8.2	0.3	85.6	0.3	0.0	4.1	

^a Weir counts.

^b Peak aerial survey count.

Table 17. Prince William Sound coho salmon weekly catch and effort by the commercial common property fishery, by district and gear type, from fish ticket summaries, 1991.

Statistical Week	Dates	Purse Seine Fisheries														
		Eastern District			Northern District			Coghill District			Southwestern District			Unakwik District		
		Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch
24	06/09-06/15		Closed			Closed			Closed			Closed			Closed	
25	06/16-06/22		Closed			Closed			Closed			Closed	48	0	0	
26	06/23-06/29		Closed			Closed			Closed			Closed	48	0	0	
27	06/30-07/06	12	187	57		Closed			Closed			Closed	48	0	0	
28	07/07-07/13	36	26	5		Closed			Closed			Closed	48	0	0	
29	07/14-07/20	36	179	39		Closed			Closed			Closed	48	1	0	
30	07/21-07/27	36	151	26		Closed		24		65		Closed	48	0	0	
31	07/28-08/03		Closed			Closed			Closed			Closed	48	0	0	
32	08/04-08/10		Closed		36	123	116	36	27	202	36	127	258	48	0	0
33	08/11-08/17		Closed		88	67	63	88	0	283	88	200	1,731	48	14	3
34	08/18-08/24		Closed		168	35	28	168	75	71	168	210	4,253	48	1	0
35	08/25-08/31	16	5	1,472	168	1	0	168	41	0	168	41	1,663	48	0	0
36	09/01-09/07	168	6	3,004	168	0	0	168	14	0	168	0	0	48	0	0
37	09/08-09/14	168	0	0	168	0	0	168	1	0	168	0	0	48	0	0
38	09/15-09/21	168	0	0	168	0	0	168	0	0	168	0	0	48	0	0
39	09/22-09/28	168	0	0	168	0	0		Closed		168	0	0	48	0	0
40	09/29-10/05	164	0	0	164	0	0		Closed		164	0	0	48	0	0
Totals		972	222	4,603	1,296	140	207	988	108	621	1,296	225	7,905	768	16	3

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Table 17. (Page 2 of 2).

Statistical Week	Dates	Gillnet Fisheries									Prince William Sound		
		Unakwik Drift Gillnet			Coghill Drift Gillnet			Eshamy Drift and Set Gillnet			Gillnet Total	Purse Seine Total	Total Catch
		Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch			
24	06/09-06/15		Closed		24	82	0	160	112	1	1	0	1
25	06/16-06/22	48	8	0		Closed		168	177	3	3	0	3
26	06/23-06/29	48	11	0		Closed		168	264	12	12	0	12
27	06/30-07/06	48	4	0		Closed		168	249	24	24	57	81
28	07/07-07/13	48	8	0		Closed		168	232	125	125	5	130
29	07/14-07/20	48	4	0		Closed		168	189	353	353	39	392
30	07/21-07/27	48	1	0	24	97	290	168	91	10	300	91	391
31	07/28-08/03	48	1	0		Closed		168	35	4	4	0	4
32	08/04-08/10	48	2	2	36	79	402	168	34	12	416	576	992
33	08/11-08/17	24	2	9	88	66	289	168	45	174	472	2,080	2,552
34	08/18-08/24		Closed		144	53	1,031	168	0	0	1,031	4,352	5,383
35	08/25-08/31		Closed		144	83	9,072	168	0	0	9,072	3,135	12,207
36	09/01-09/07		Closed		144	71	17,170	168	8	190	17,360	3,004	20,364
37	09/08-09/14		Closed		144	80	17,650	168	2	60	17,710	0	17,710
38	09/15-09/21		Closed		144	67	15,843	168	1	4	15,847	0	15,847
39	09/22-09/28		Closed		168	50	16,223	168	0	0	16,223	0	16,223
40	09/29-10/05		Closed		168	8	393	164	0	0	393	0	393
Totals		408	27	11	1,228	210	78,363	2,844	302	972	79,346	13,339	92,685

^a Number of permits reporting catches.

Table 18. Estimated age composition of coho salmon in Prince William Sound commercial common property drift gillnet and purse seine catches, 1991.

Gear Type	District	Sample Size	Total Catch	Percentage of Catch by Brood Year and Age Group		
				1988	1987	1986
Purse seine and drift gillnet	Coghill	446	78,984	95.5	4.5	0.0
Purse seine	Southwestern	87	7,905	20.7	73.6	5.7

Table 19. Prince William Sound pink salmon weekly catch and effort by the commercial common property fishery, by district and gear type, from fish ticket summaries, 1991.

Statistical Week	Dates	Purse Seine Fisheries														
		Eastern District			Northern District			Coghill District			Southwestern District			Unakwik District		
		Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch
24	06/09-06/15		Closed			Closed			Closed			Closed			Closed	
25	06/16-06/22		Closed			Closed			Closed			Closed	48	0	0	
26	06/23-06/29		Closed			Closed			Closed			Closed	48	0	0	
27	06/30-07/06	12	187	498,440		Closed			Closed			Closed	48	0	0	
28	07/07-07/13	36	26	401,429		Closed			Closed			Closed	48	1	0	
29	07/14-07/20	36	179	1,146,502		Closed			Closed			Closed	48	0	0	
30	07/21-07/27	36	151	570,617		Closed		24	27	15,330		Closed	48	0	0	
31	07/28-08/03		Closed			Closed			Closed			Closed	48	0	0	
32	08/04-08/10		Closed		36	123	1,038,688	36	75	583,112	36	127	1,797,886	48	14	118,044
33	08/11-08/17		Closed		88	67	1,477,518	88	41	1,131,315	88	200	8,267,236	48	1	3,024
34	08/18-08/24		Closed		168	35	1,496,504	168	14	233,517	168	210	6,552,524	48	0	0
35	08/25-08/31	16	5	190	168	1	4,535	168	1	16,800	168	41	1,231,779	48	0	0
36	09/01-09/07	168	6	44	168	0	0	168	0	0	168	0	0	48	0	0
37	09/08-09/14	168	0	0	168	0	0	168	0	0	168	0	0	48	0	0
38	09/15-09/21	168	0	0	168	0	0	168	0	0	168	0	0	48	0	0
39	09/22-09/28	168	0	0	168	0	0		Closed		168	0	0	48	0	0
40	09/29-10/05	164	0	0	164	0	0		Closed		164	0	0	48	0	0
Totals		972	222	2,617,222	1,296	140	4,017,245	988	108	1,980,074	1,296	225	17,849,425	768	16	121,068

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Table 19. (Page 2 of 2).

Statistical Week	Dates	Gillnet Fisheries									Gillnet Total	Purse Seine Total	Prince William Sound Total Catch
		Unakwik Drift Gillnet			Coghill Drift Gillnet			Eshamy Drift and Set Gillnet					
		Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch			
24	06/09-06/15		Closed		24	82	6	160	112	4	10	0	10
25	06/16-06/22	48	8	0		Closed		168	177	164	164	0	164
26	06/23-06/29	48	11	1		Closed		168	264	307	308	0	308
27	06/30-07/06	48	4	2		Closed		168	249	311	313	498,440	498,753
28	07/07-07/13	48	8	1		Closed		168	232	3,484	3,485	401,429	404,914
29	07/14-07/20	48	4	6		Closed		168	189	4,007	4,013	1,146,502	1,150,515
30	07/21-07/27	48	1	0	24	97	3,080	168	91	6,773	9,853	585,947	595,800
31	07/28-08/03	48	1	4		Closed		168	35	4,585	4,589	0	4,589
32	08/04-08/10	48	2	431	36	79	39,183	168	34	7,832	47,446	3,537,730	3,585,176
33	08/11-08/17	24	2	11,854	88	66	63,051	168	45	37,124	112,029	10,879,093	10,991,122
34	08/18-08/24		Closed		144	53	78,456	168	0	0	78,456	8,282,545	8,361,001
35	08/25-08/31		Closed		144	83	45,420	168	0	0	45,420	1,253,304	1,298,724
36	09/01-09/07		Closed		144	71	1,744	168	8	0	1,744	44	1,788
37	09/08-09/14		Closed		144	80	561	168	2	0	561	0	561
38	09/15-09/21		Closed		144	67	0	168	1	0	0	0	0
39	09/22-09/28		Closed		168	50	0	168	0	0	0	0	0
40	09/29-10/05		Closed		168	8	0	164	0	0	0	0	0
Totals		408	27	12,299	1,228	210	231,501	2,844	302	64,591	308,391	26,585,034	26,893,425

^a Number of permits reporting catches.

Table 20. Estimated hatchery contributions to pink salmon in the commercial common property harvests, hatchery cost recovery harvests, hatchery brood stock escapements, and total return of pink salmon in Prince William Sound, 1991.

Hatchery	1990 Release	Commercial Catch ^a	Cost Recovery Sales Harvest ^a	Brood Stock Escapement ^{a, b}	Discarded and Donated ^a	Total Return
Solomon Gulch ^c	122,200,000	2,515,597	2,900,513	275,066	0	5,691,176
Cannery Creek	143,700,000	6,711,637	686,043	348,539	755,077	8,501,296
Wally Noerenberg	233,600,000	7,790,063	964,618	456,061	2,479,492	11,690,234
Armin F. Koernig	113,800,000	3,883,058	650,686	244,589	339,236	5,117,569
Main Bay	0	0	0	0	0	0
Total	613,300,000	20,900,355	5,201,860	1,324,255	3,573,805	31,000,275

^a Preliminary estimates based on recoveries of coded wire tags from hatchery-released fish.

^b Includes holding mortalities, excess fish, and carcasses from fish used for brood stock that are also sold for cost recovery.

^c Includes Boulder Bay releases.

Table 21. Prince William Sound chum salmon weekly catch and effort by the commercial common property fishery, by district and gear type, from fish ticket summaries, 1991.

Statistical Week	Dates	Purse Seine Fisheries														
		Eastern District			Northern District			Coghill District			Southwestern District			Unakwik District		
		Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch
24	06/09-06/15		Closed			Closed			Closed			Closed			Closed	
25	06/16-06/22		Closed			Closed			Closed			Closed	48	0	0	
26	06/23-06/29		Closed			Closed			Closed			Closed	48	0	0	
27	06/30-07/06	12	187	4,078		Closed			Closed			Closed	48	0	0	
28	07/07-07/13	36	26	758		Closed			Closed			Closed	48	0	0	
29	07/14-07/20	36	179	3,022		Closed			Closed			Closed	48	1	0	
30	07/21-07/27	36	151	1,151		Closed		24		2,289		Closed	48	0	0	
31	07/28-08/03		Closed			Closed			Closed			Closed	48	0	0	
32	08/04-08/10		Closed		36	123	3,514	36	27	4,967	36	127	545	48	0	0
33	08/11-08/17		Closed		88	67	1,750	88	0	3,509	88	200	2,010	48	14	36
34	08/18-08/24		Closed		168	35	79	168	75	740	168	210	1,811	48	1	43
35	08/25-08/31	16	5	1,314	168	1	1	168	41	14	168	41	206	48	0	0
36	09/01-09/07	168	6	234	168	0	0	168	14	0	168	0	0	48	0	0
37	09/08-09/14	168	0	0	168	0	0	168	1	0	168	0	0	48	0	0
38	09/15-09/21	168	0	0	168	0	0	168	0	0	168	0	0	48	0	0
39	09/22-09/28	168	0	0	168	0	0		Closed		168	0	0	48	0	0
40	09/29-10/05	164	0	0	164	0	0		Closed		164	0	0	48	0	0
Totals		972	222	10,557	1,296	140	5,344	988	108	11,519	1,296	225	4,572	768	16	79

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Table 21. (Page 2 of 2).

Statistical Week	Dates	Gillnet Fisheries									Gillnet Total	Purse Seine Total	Prince William Sound Total Catch
		Unakwik Drift Gillnet			Coghill Drift Gillnet			Eshamy Drift and Set Gillnet					
		Hours	Effort ^a	Catch	Hours	Effort ^a	Catch	Hours	Effort ^a	Catch			
24	06/09-06/15		Closed		24	82	8,435	160	112	18,050	26,485	0	26,485
25	06/16-06/22	48	8	0		Closed		168	177	55,153	55,153	0	55,153
26	06/23-06/29	48	11	0		Closed		168	264	78,299	78,299	0	78,299
27	06/30-07/06	48	4	23		Closed		168	249	37,052	37,075	4,078	41,153
28	07/07-07/13	48	8	9		Closed		168	232	45,023	45,032	758	45,790
29	07/14-07/20	48	4	26		Closed		168	189	10,552	10,578	3,022	13,600
30	07/21-07/27	48	1	44	24	97	11,587	168	91	4,324	15,955	3,440	19,395
31	07/28-08/03	48	1	0		Closed		168	35	1,272	1,272	0	1,272
32	08/04-08/10	48	2	11	36	79	6,582	168	34	1,085	7,678	9,026	16,704
33	08/11-08/17	24	2	5	88	66	3,150	168	45	760	3,915	7,305	11,220
34	08/18-08/24		Closed		144	53	2,690	168	0	0	2,690	2,673	5,363
35	08/25-08/31		Closed		144	83	1,364	168	0	0	1,364	1,535	2,899
36	09/01-09/07		Closed		144	71	281	168	8	7	288	234	522
37	09/08-09/14		Closed		144	80	125	168	2	0	125	0	125
38	09/15-09/21		Closed		144	67	8	168	1	0	8	0	8
39	09/22-09/28		Closed		168	50	1	168	0	0	1	0	1
40	09/29-10/05		Closed		168	8	0	164	0	0	0	0	0
Totals		408	27	118	1,228	210	34,223	2,844	302	251,577	285,918	32,071	317,989

^a Number of permits reporting catches.

Table 22. Estimated age composition of chum salmon in Prince William Sound commercial common property gillnet and purse seine catches, 1991.

Gear Type or Fishery	District	Statistical Area	Sample Size	Total Catch	Percentage of Catch by Brood Year and Age Group			
					1988	1987	1986	1985
					0.2	0.3	0.4	0.5
Purse seine	Eastern	221	99	10,557	1.0	52.5	38.4	8.1
	Southwestern	226	119	4,572	5.0	42.0	51.3	1.7
	Purse seine total		218	15,129	2.2	49.3	42.3	6.1
Drift gillnet	Coghill ^a	223	586	45,742	1.2	47.3	50.6	0.9
Drift and set gillnet	Eshamy	225	1,941	251,577	0.2	16.3	81.4	2.1
	Gillnet total		2,527	297,319	0.3	21.1	76.7	1.9
Fisheries Total			2,745	312,448	0.4	22.4	75.0	2.1

^a Includes some catches from commercial common property purse seines.

Table 23. Estimated hatchery contributions to chum salmon in the commercial common property harvests, hatchery cost recovery harvests, hatchery brood stock escapements, and total chum salmon hatchery run to Prince William Sound, 1991.

Hatchery	Commercial Common Property Catch ^a	Cost Recovery Sales Harvest ^b	Brood Stock Escapement ^c	Total Hatchery Run
Solomon Gulch	0	1,973	148	2,121
Cannery Creek	N/A	N/A	0	0
Wally Noerenberg	N/A	11,498	0	11,498
Armin F. Koernig	N/A	N/A	0	0
Main Bay	134,533	N/A	0	134,533
Total	134,533	13,471	148	148,152

^a Preliminary estimates based on recoveries of coded wire tags from hatchery-released fish.

^b Does not include brood stock carcass sales. Data are from fish ticket information.

^c Includes holding mortalities, excess fish, and carcasses from fish used for brood stock that are also sold for cost recovery.

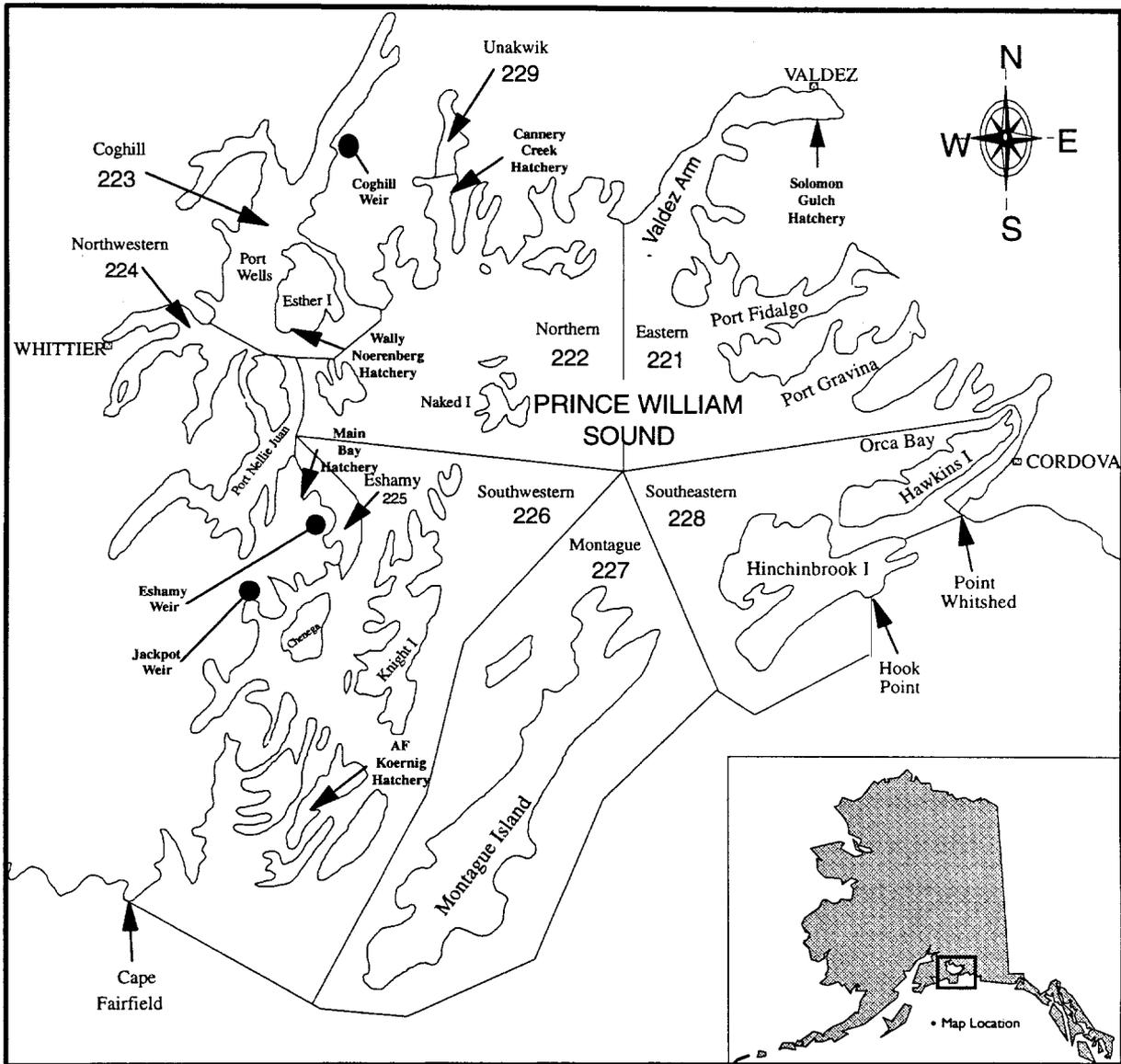


Figure 1. Prince William Sound area showing commercial fishing districts, hatcheries, and weir locations.

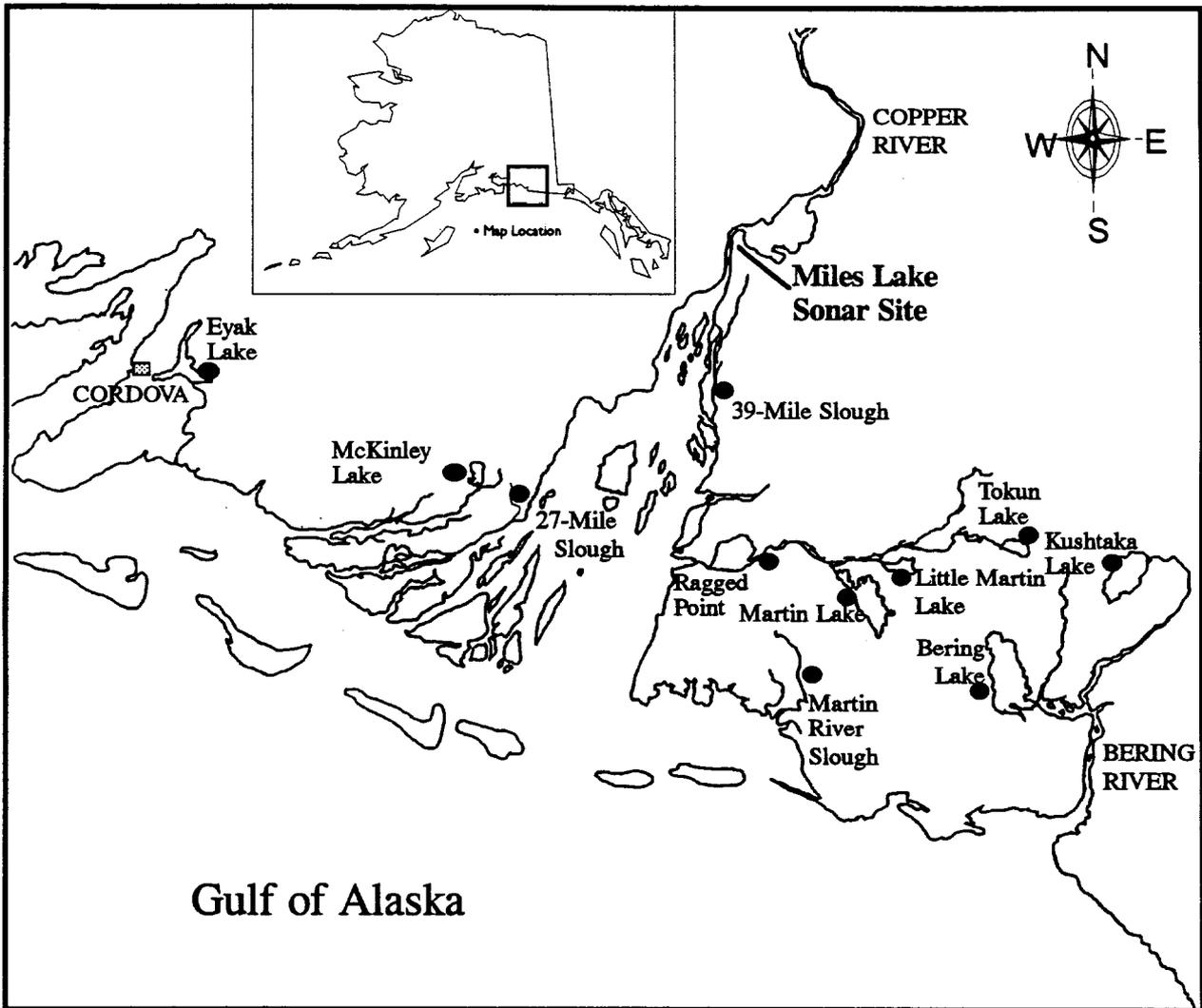


Figure 2. The Copper/Bering River area and the major coastal spawning areas that contribute to the commercial salmon fisheries.

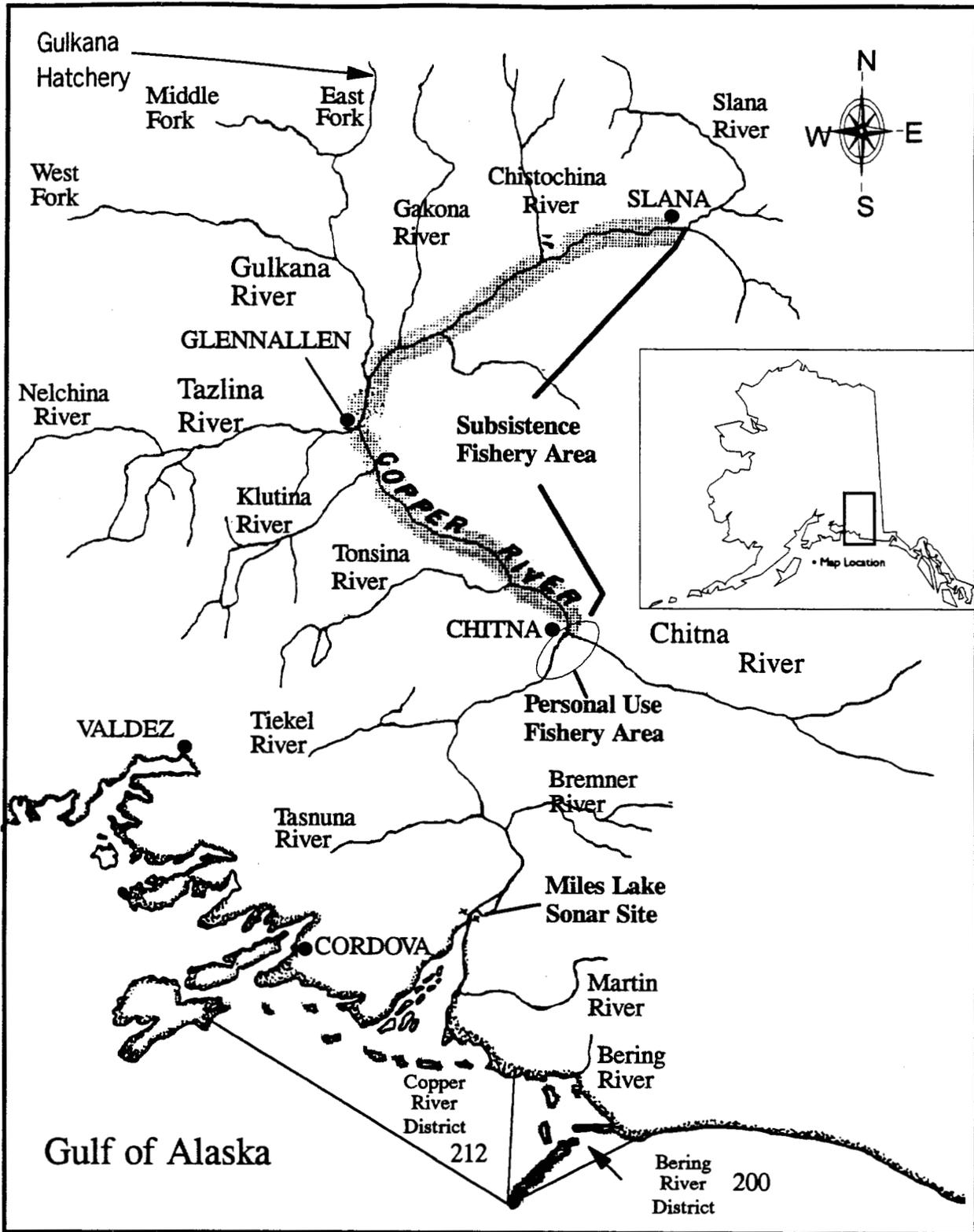


Figure 3. The location of the personal-use fishery near Chitna and the subsistence fishery that extends from Chitna to Slana along the upper Copper River.

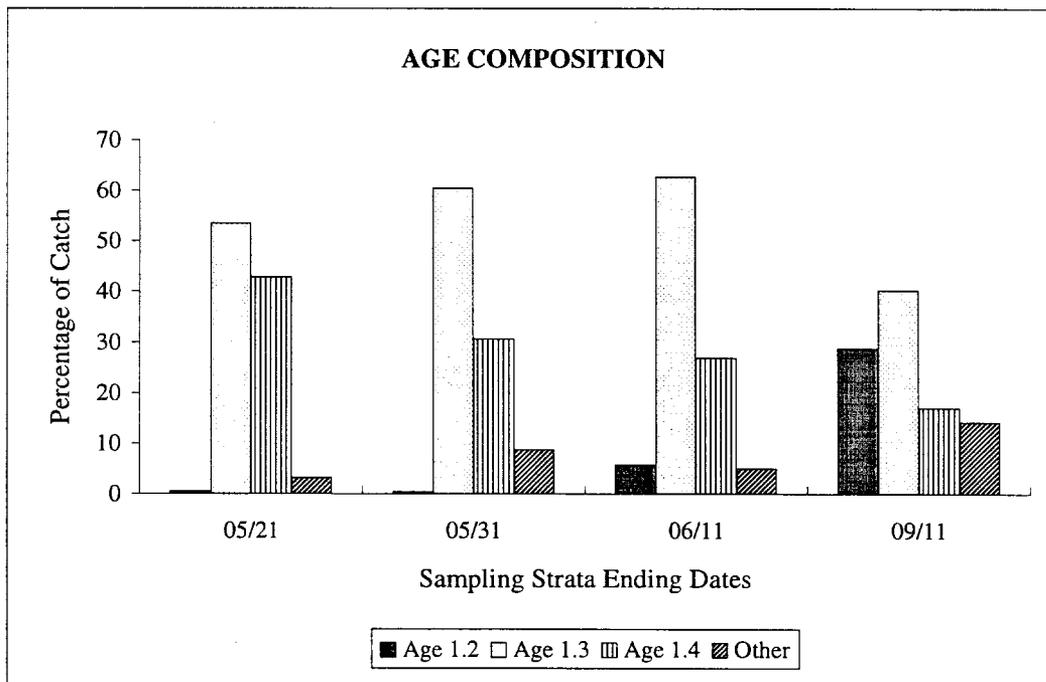
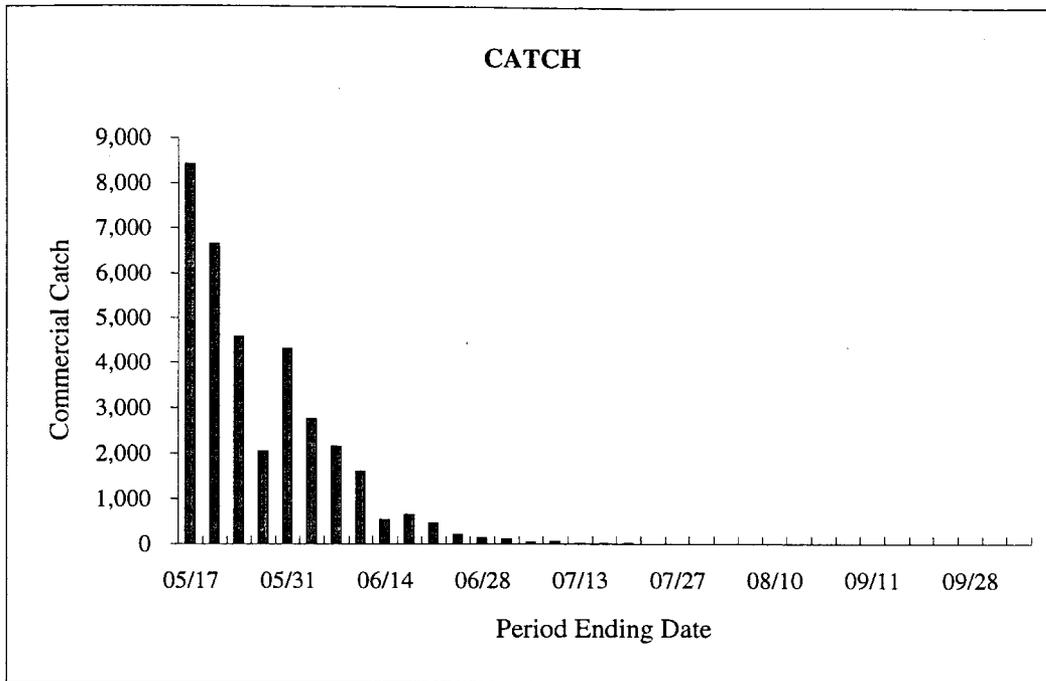


Figure 4. Chinook salmon catches by period and the temporally stratified age composition of those catches from the commercial common property drift gillnet fishery in the Copper River District, 1991.

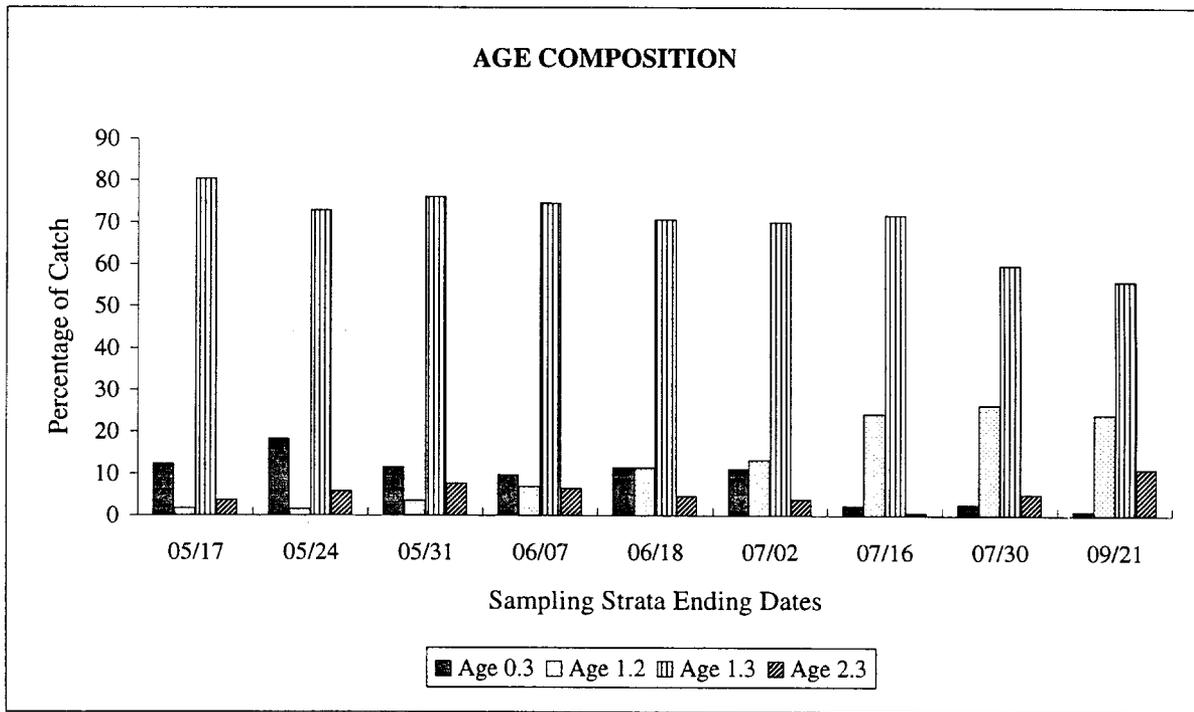
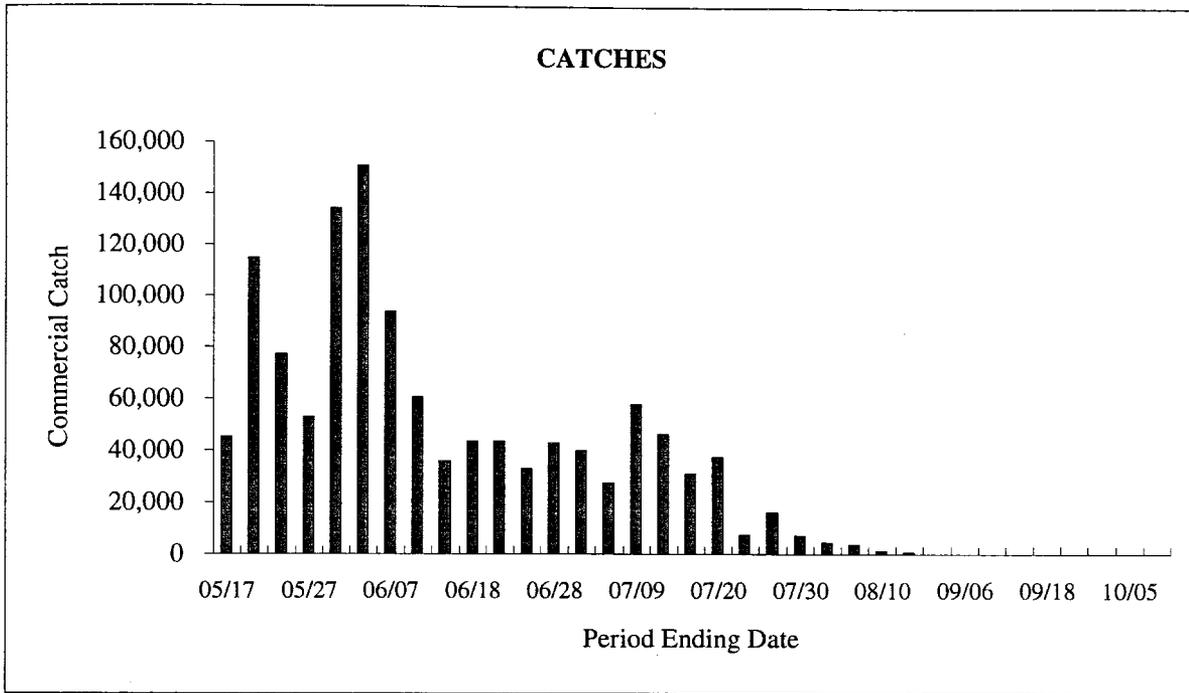


Figure 5. Sockeye salmon catches by period and the temporally stratified age composition of those catches from the commercial common property drift gillnet fishery in the Copper River District, 1991.

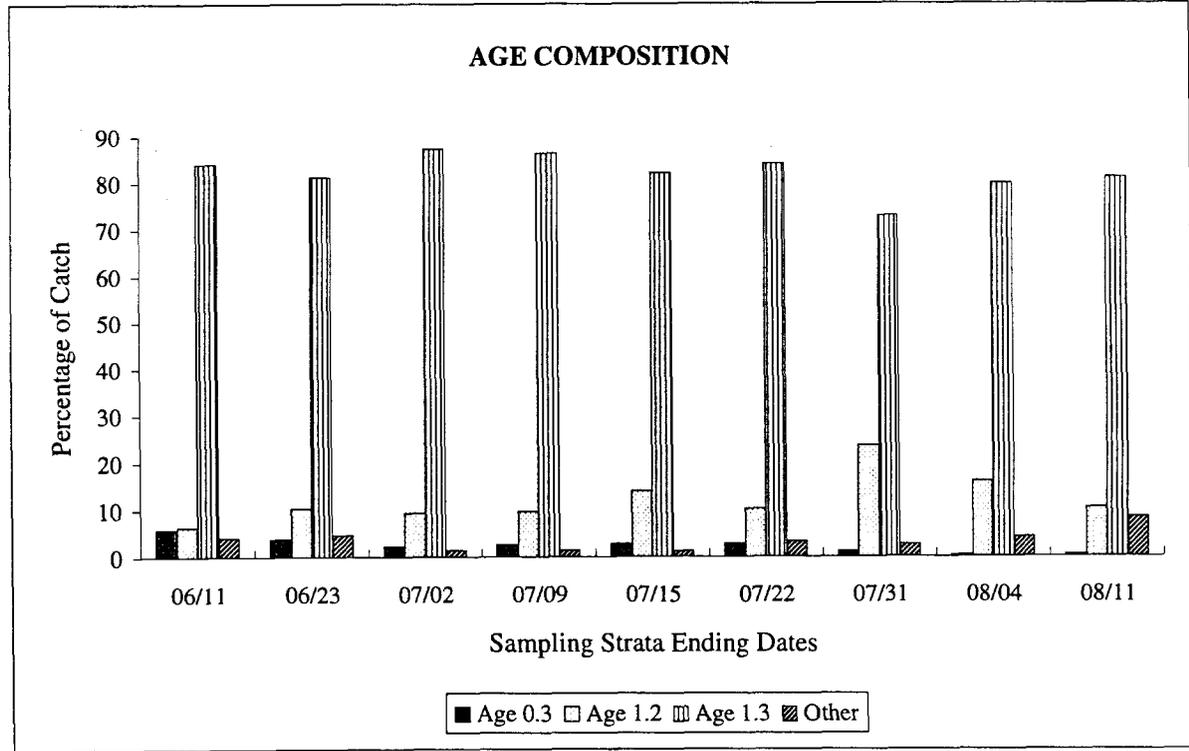
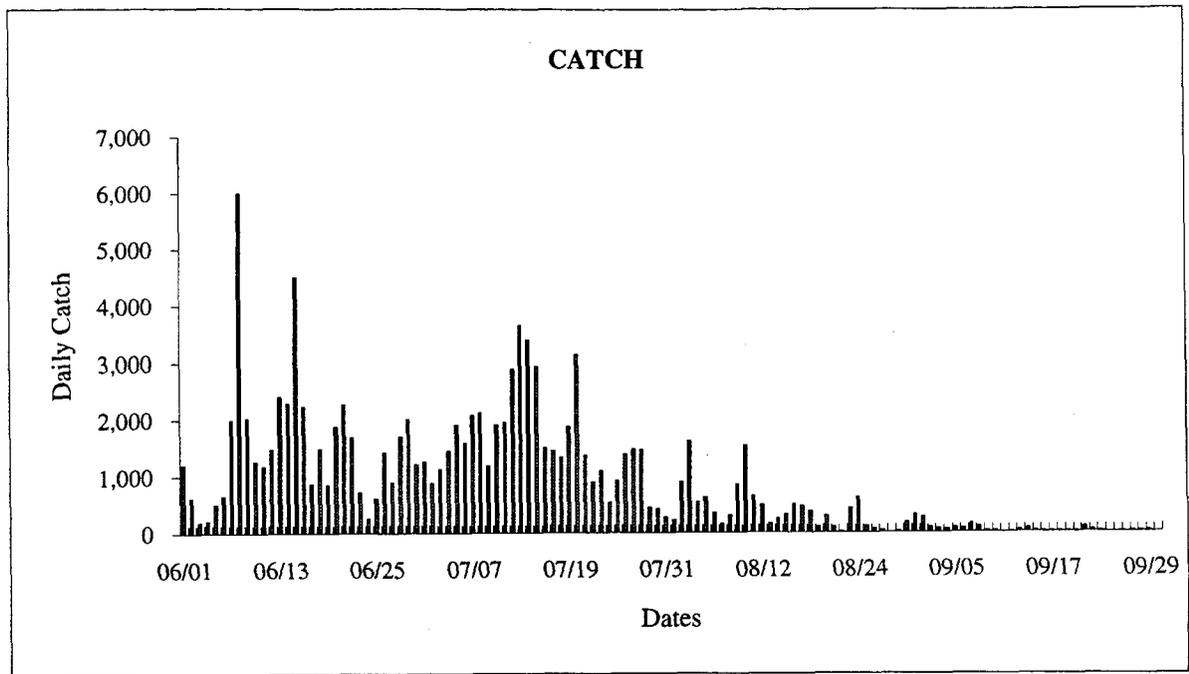


Figure 6. Daily catches of sockeye salmon in the combined personal-use and subsistence fisheries from the upper Copper River and the temporally stratified age composition of those catches, 1991.

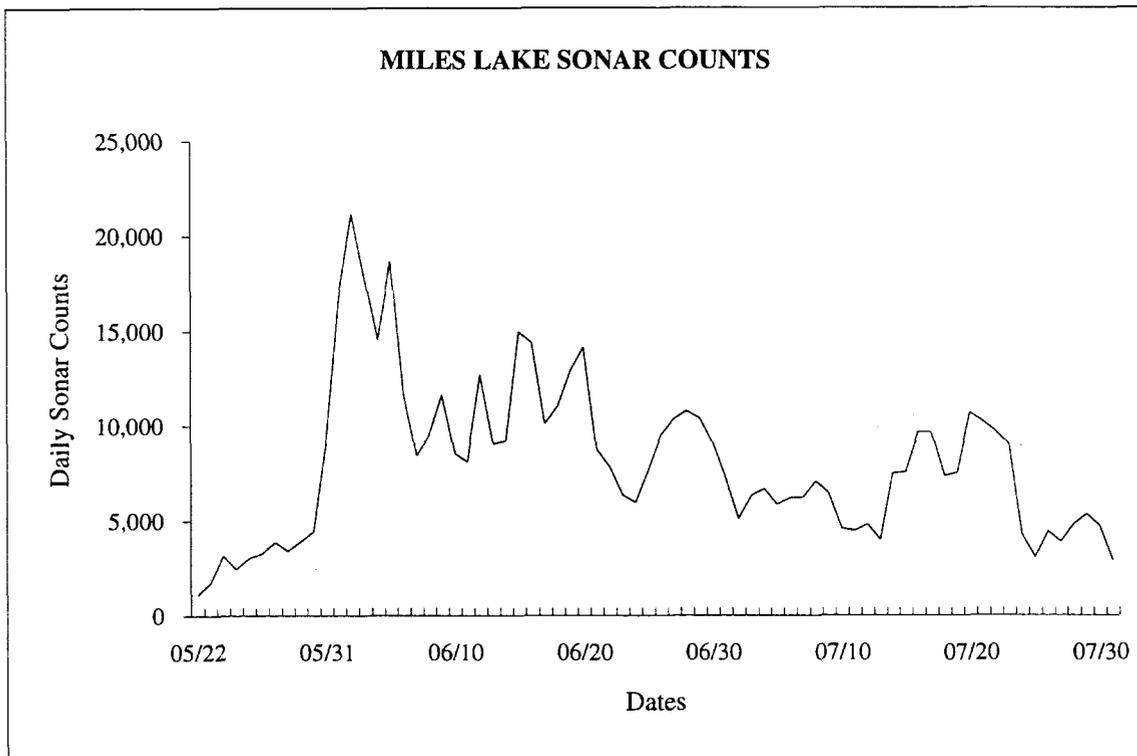
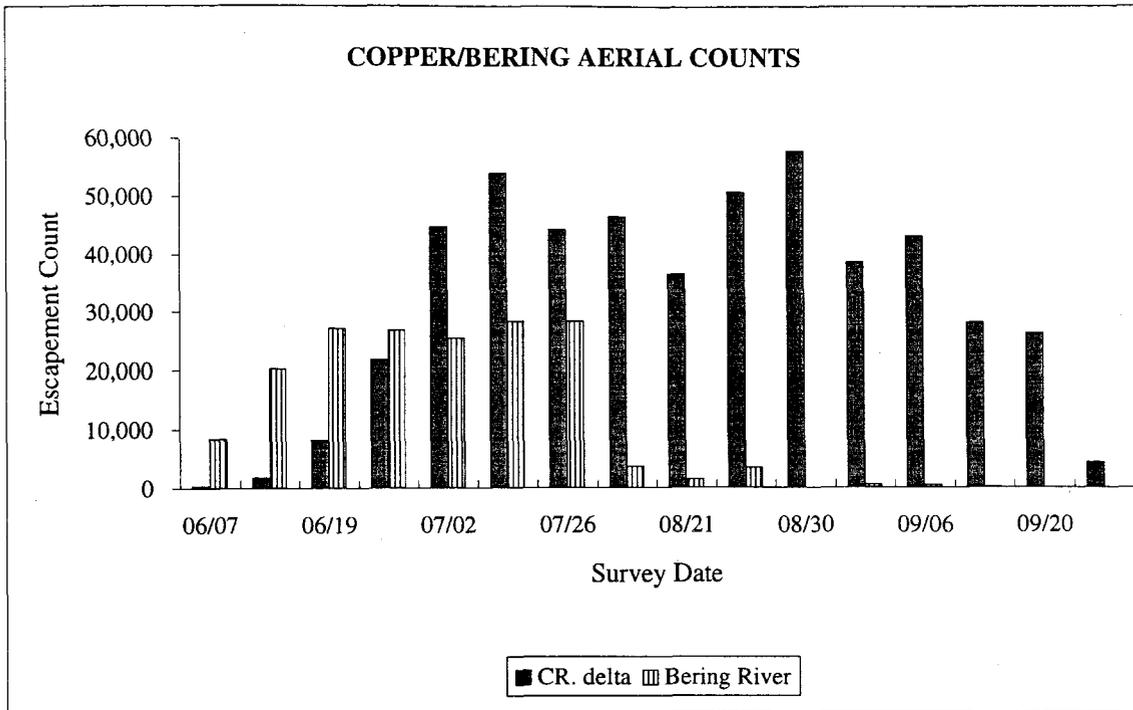


Figure 7. Aerial escapement counts for sockeye salmon runs to the Copper River delta and the Bering River area by survey date and the daily escapement estimates from the Miles Lake sonar, 1991.

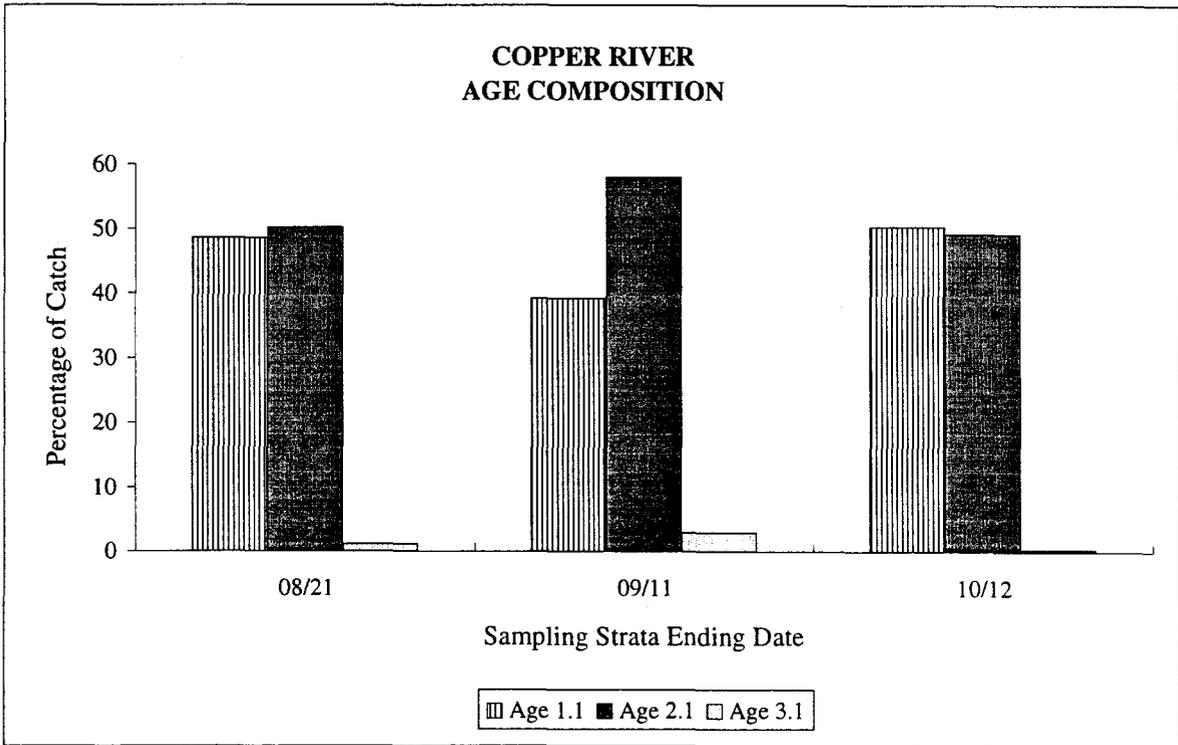
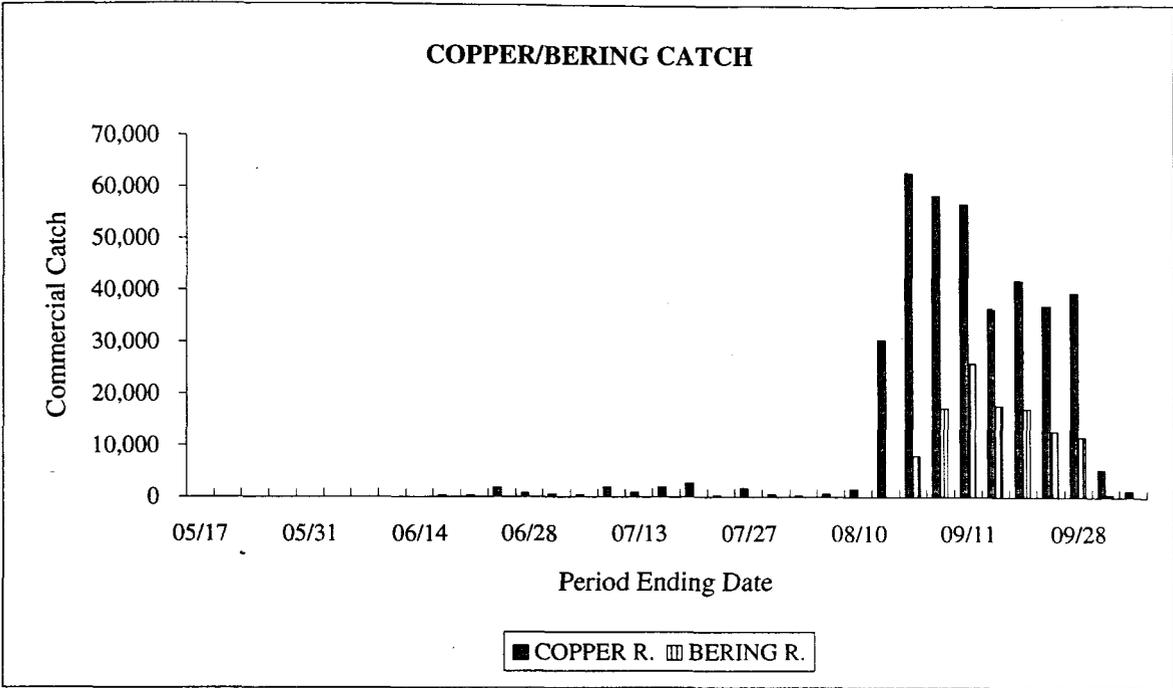


Figure 8. Coho salmon catches by period from the commercial common property drift gillnet fisheries of the Copper and Bering River Districts and the temporally stratified age composition of the Copper River District commercial common property catch, 1991.

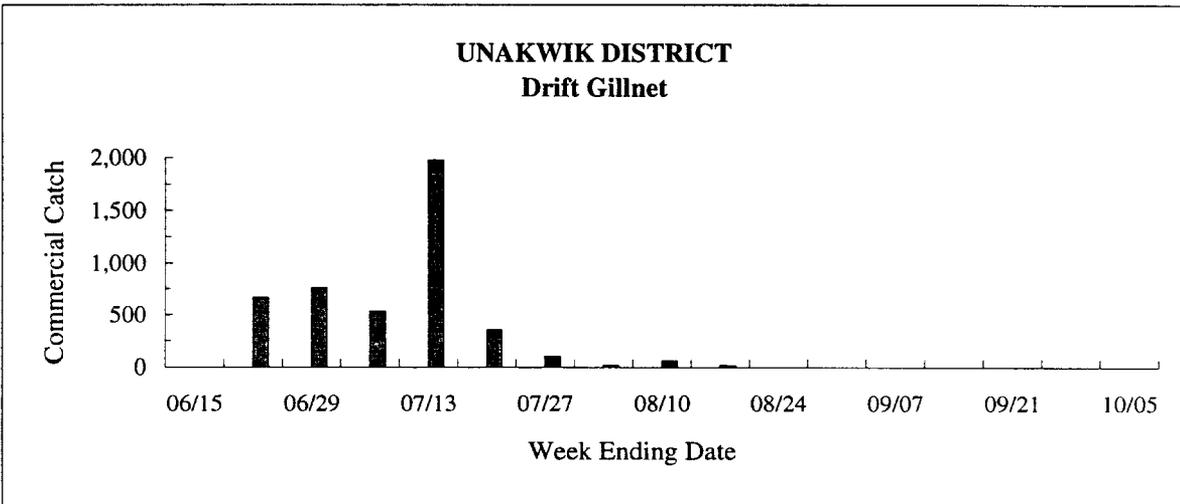
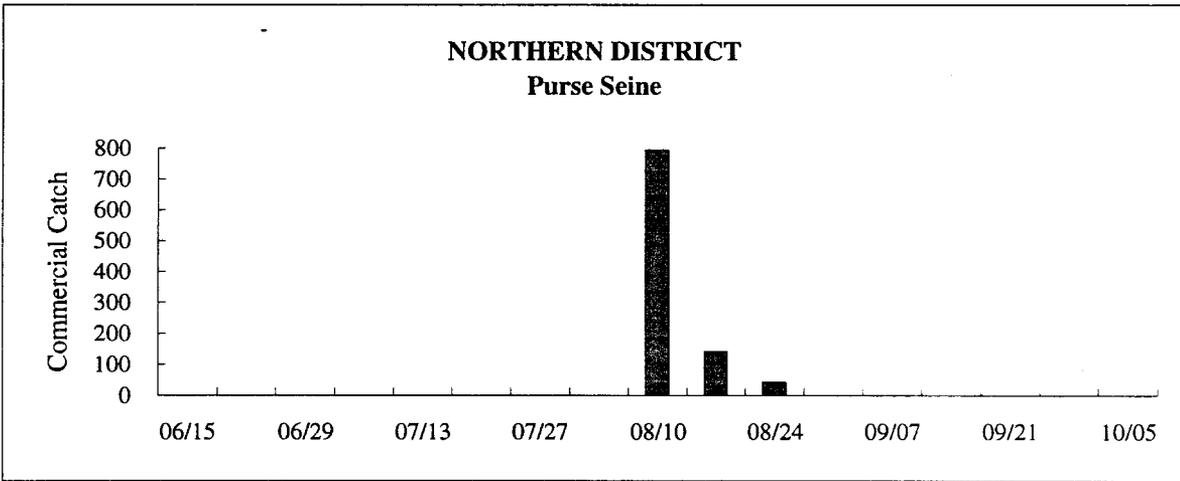
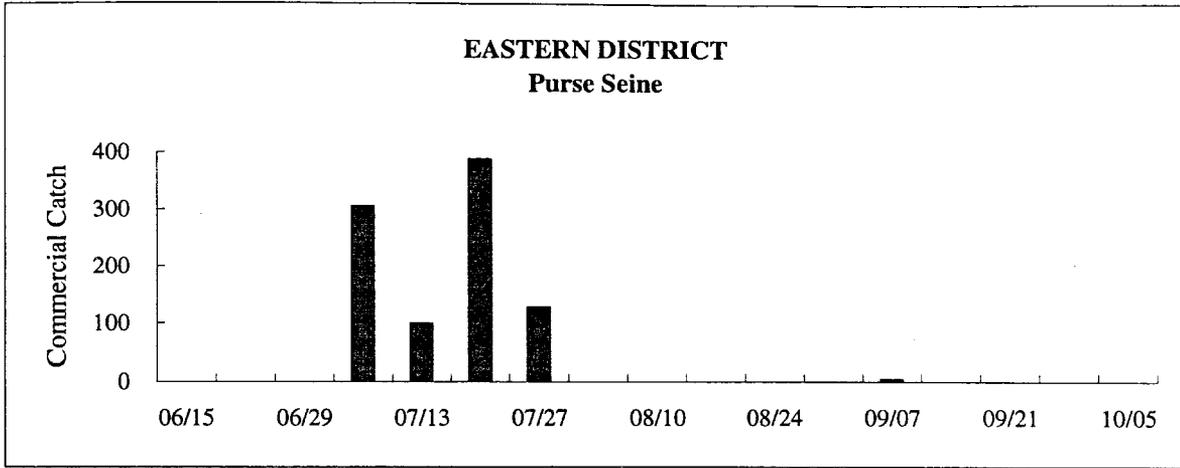


Figure 9. Weekly sockeye salmon catches from the major commercial common property purse seine, drift gillnet, and set gillnet fisheries in Prince William Sound, 1991.

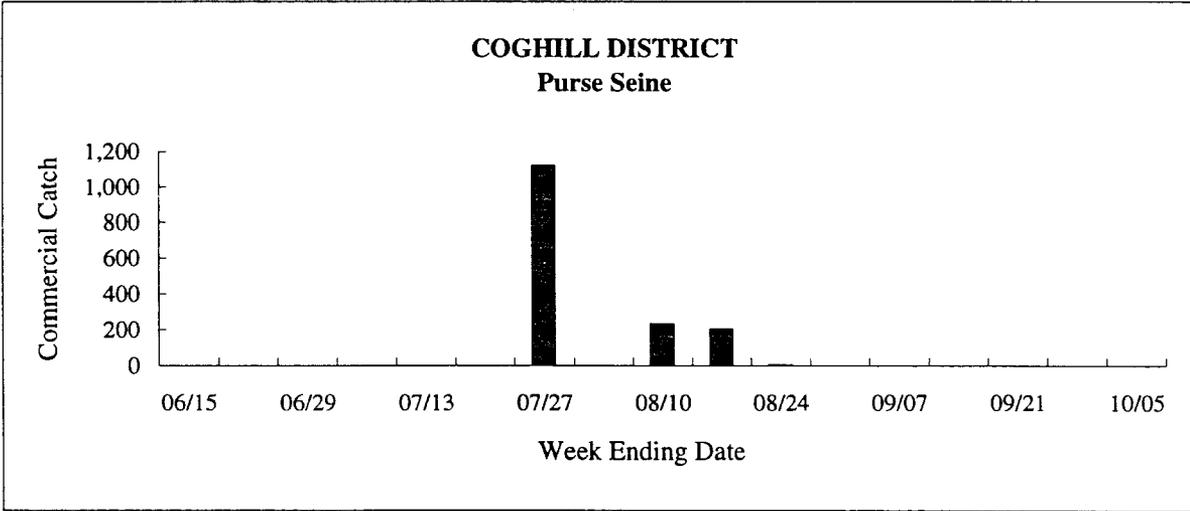
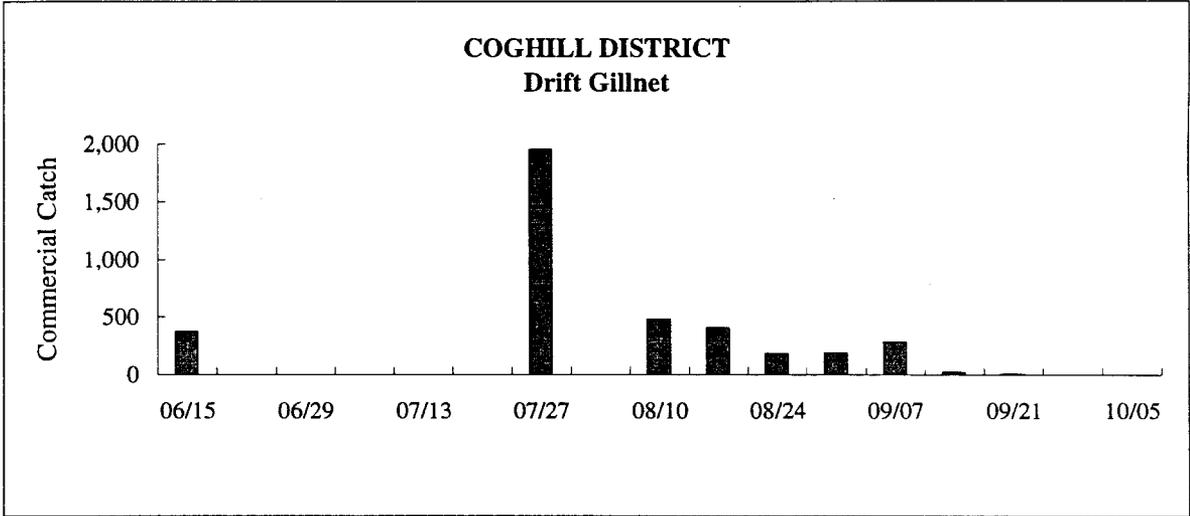
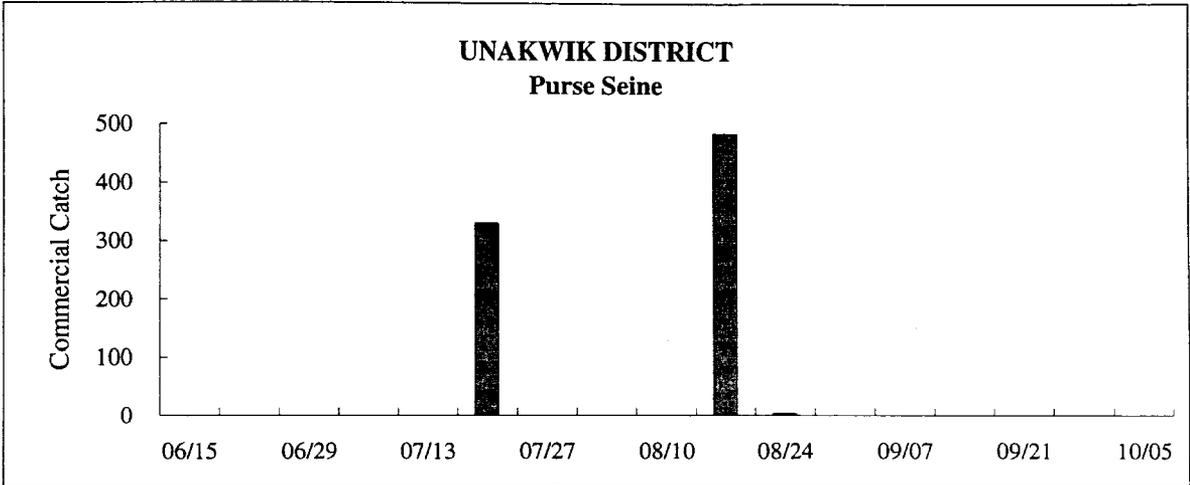


Figure 9. (Page 2 of 3).

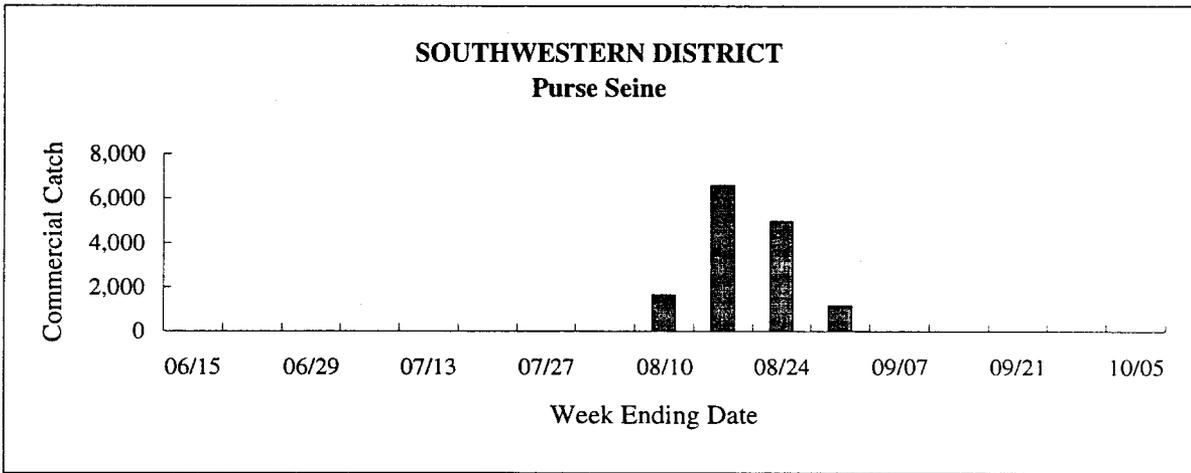
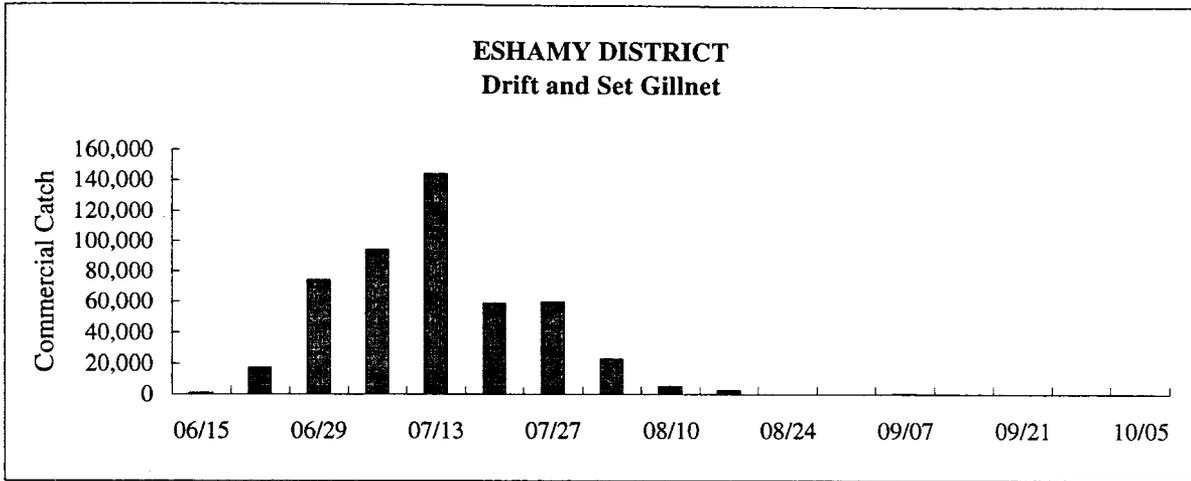


Figure 9. (Page 3 of 3).

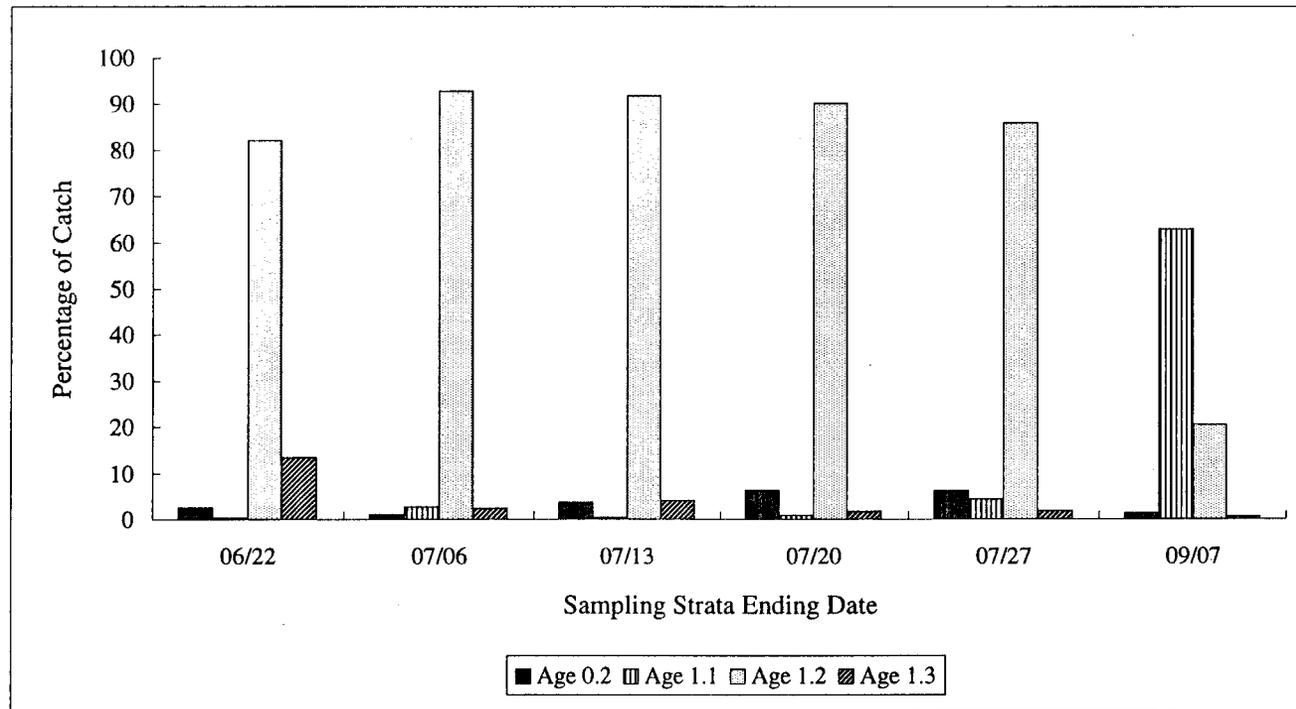


Figure 10. Temporally stratified age composition of sockeye salmon from the Eshamy District commercial common property drift gillnet fishery, 1991.

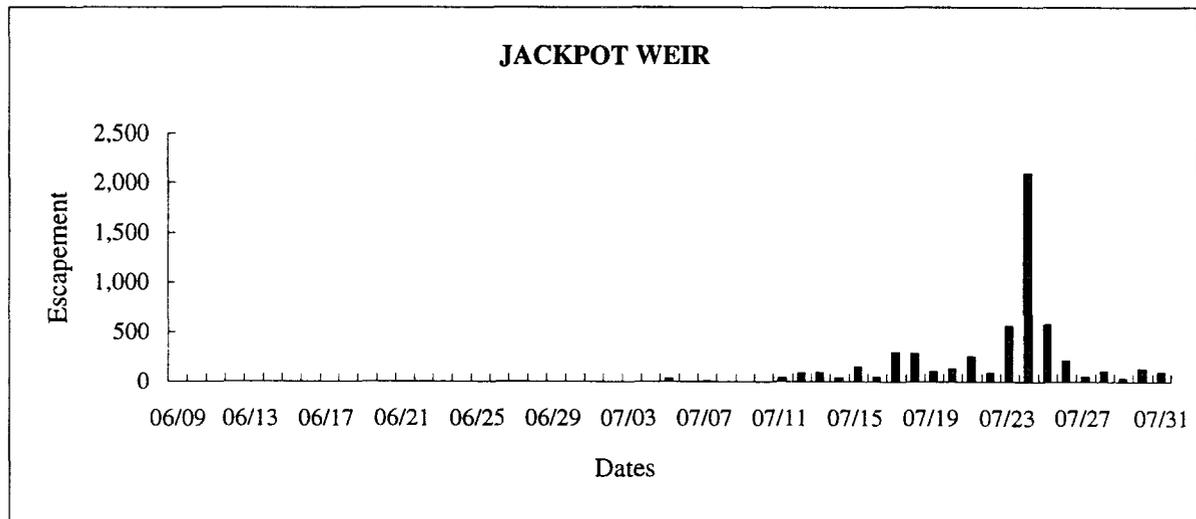
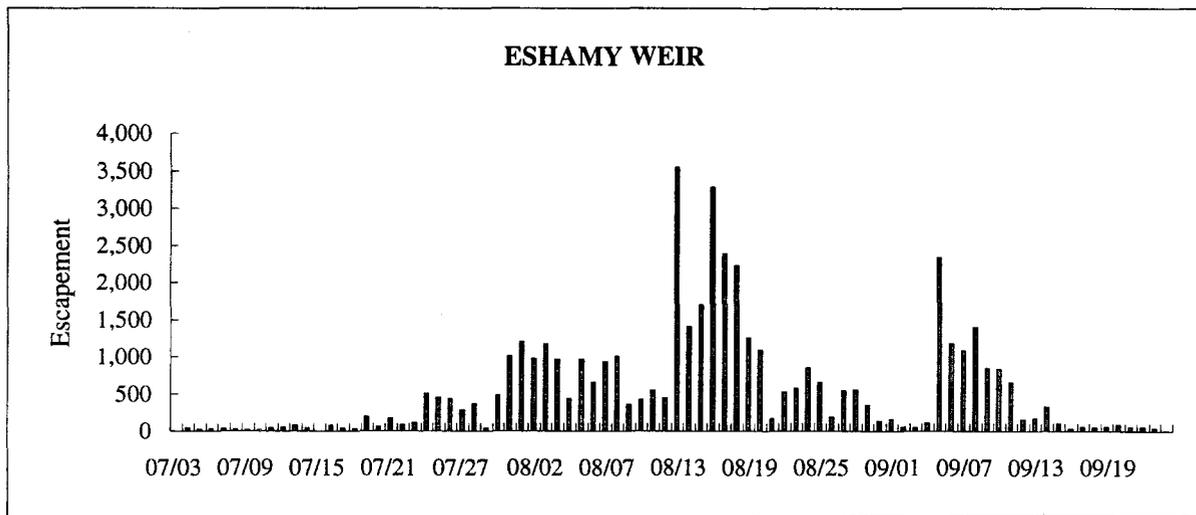
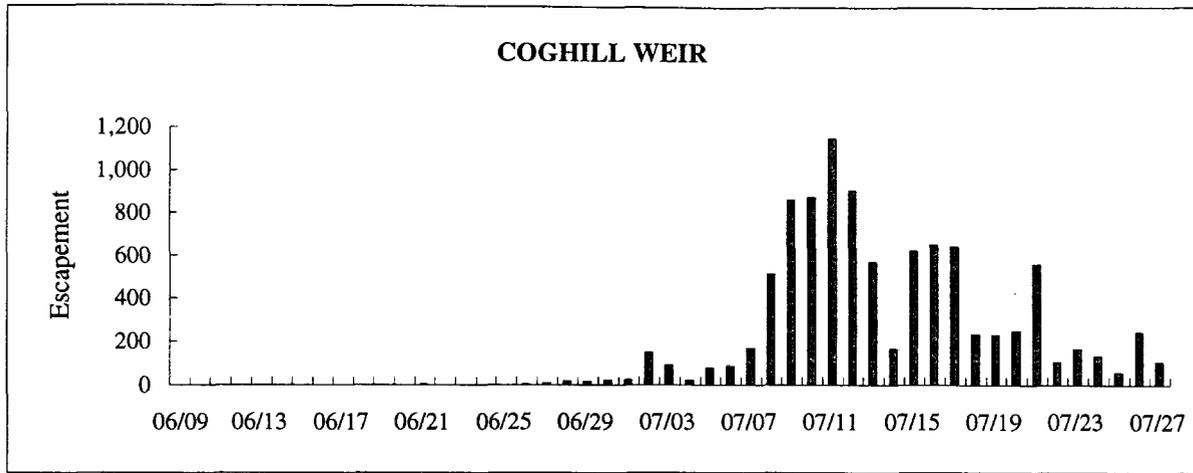


Figure 11. Daily sockeye salmon escapement through the weirs at Coghill Lake, Eshamy Lagoon, and Jackpot Lake, Prince William Sound, 1991.

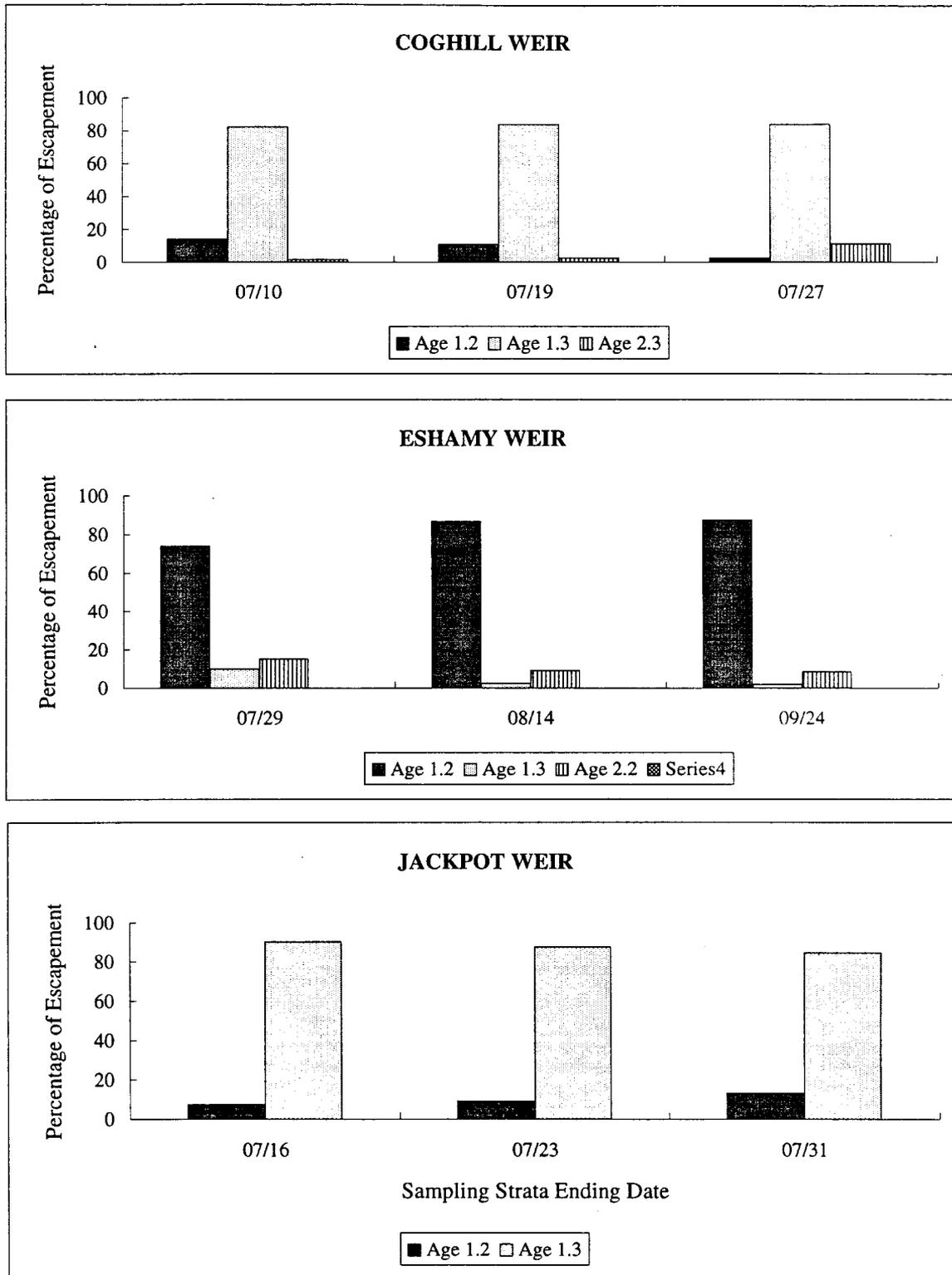


Figure 12. Temporally stratified age composition of sockeye salmon escapement through the weirs at Coghill Lake, Eshamy Lagoon, and Jackpot Lake, Prince William Sound, 1991.

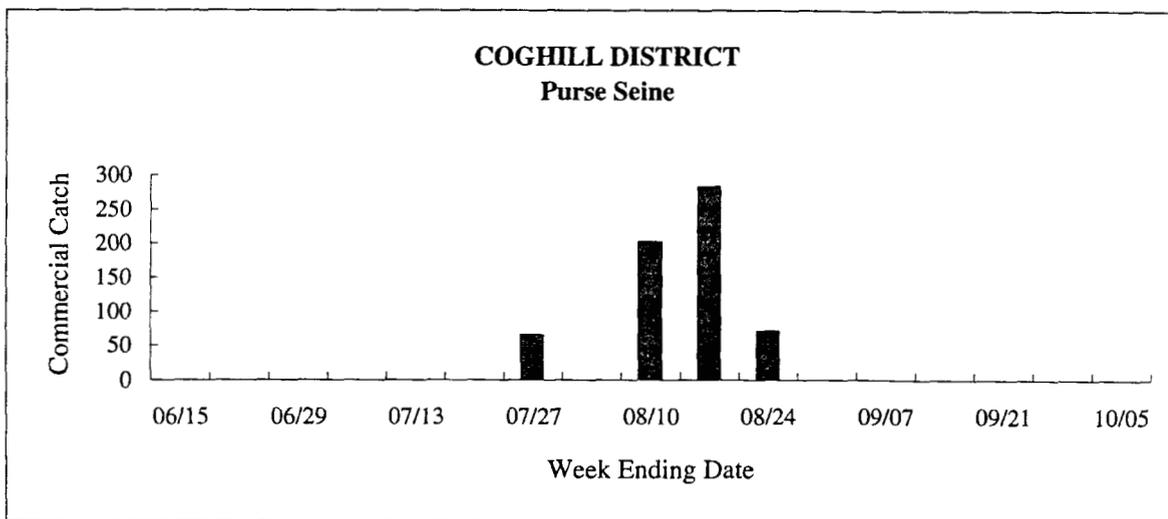
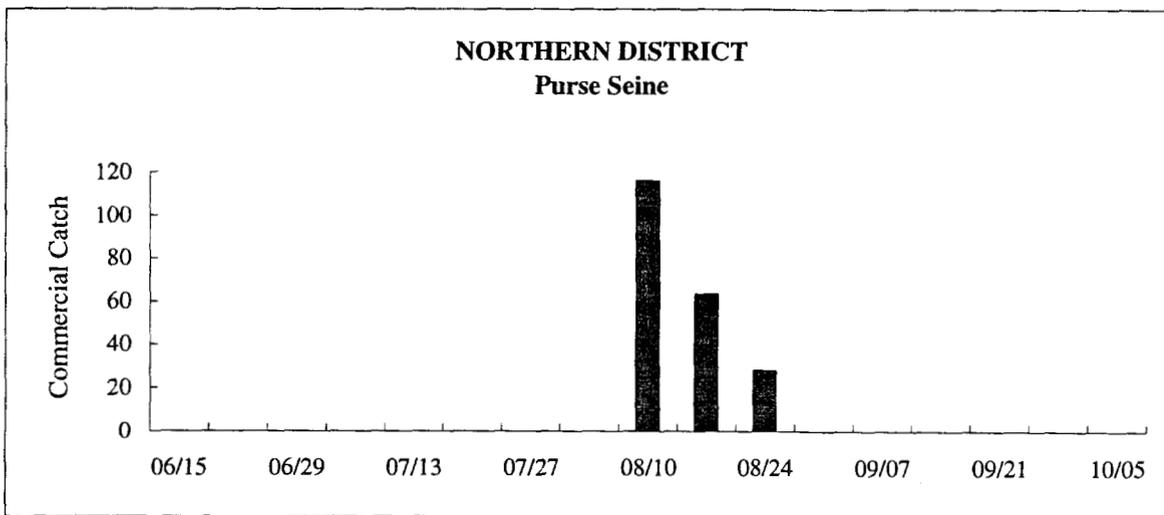
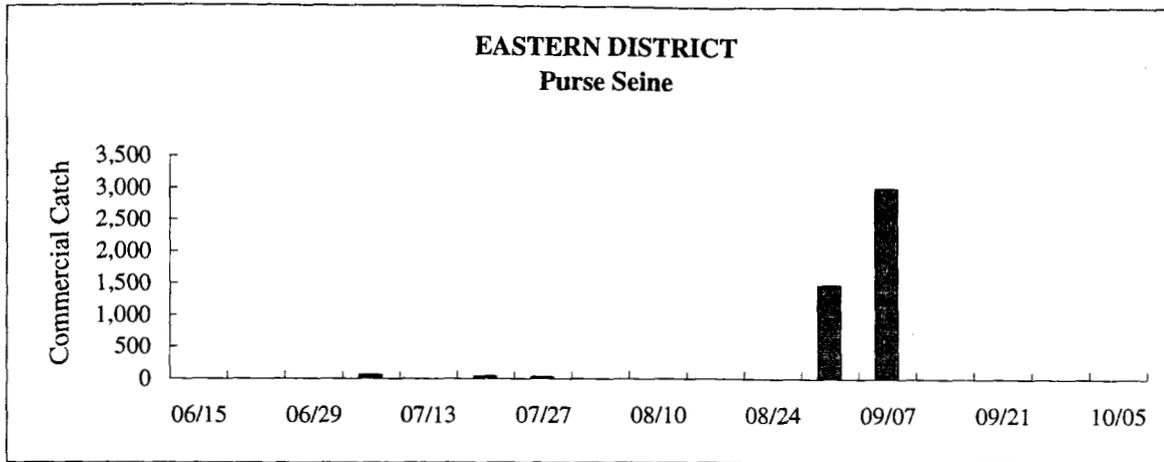


Figure 13. Weekly coho salmon catches from the major commercial common property purse seine, drift gillnet, and set gillnet fisheries in Prince William Sound, 1991.

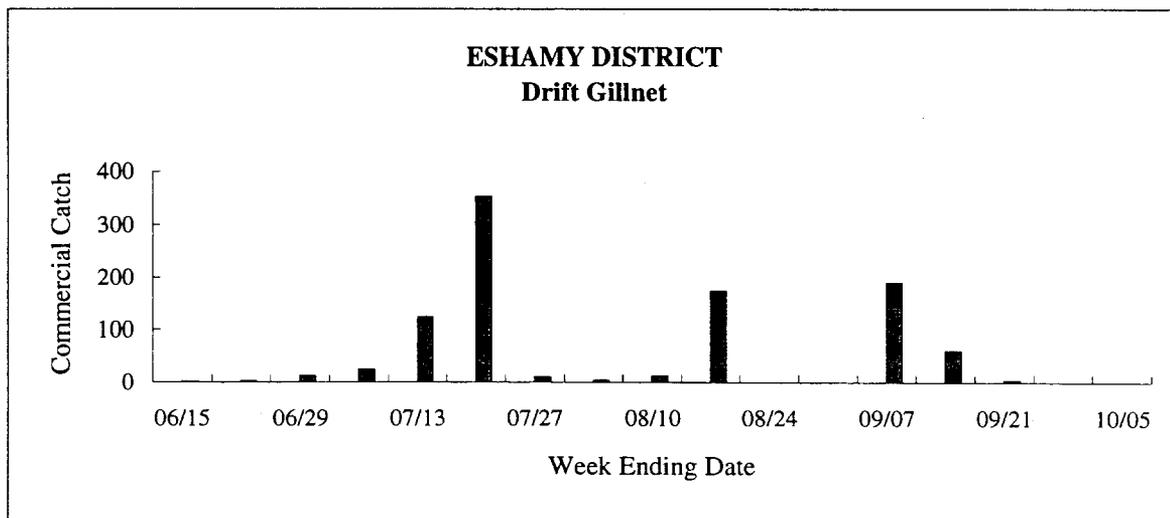
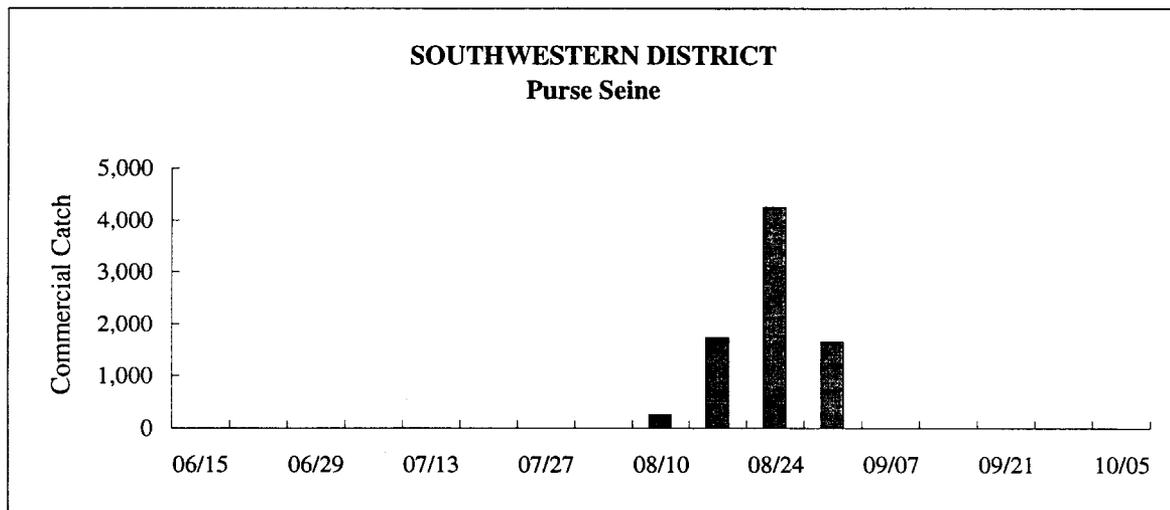
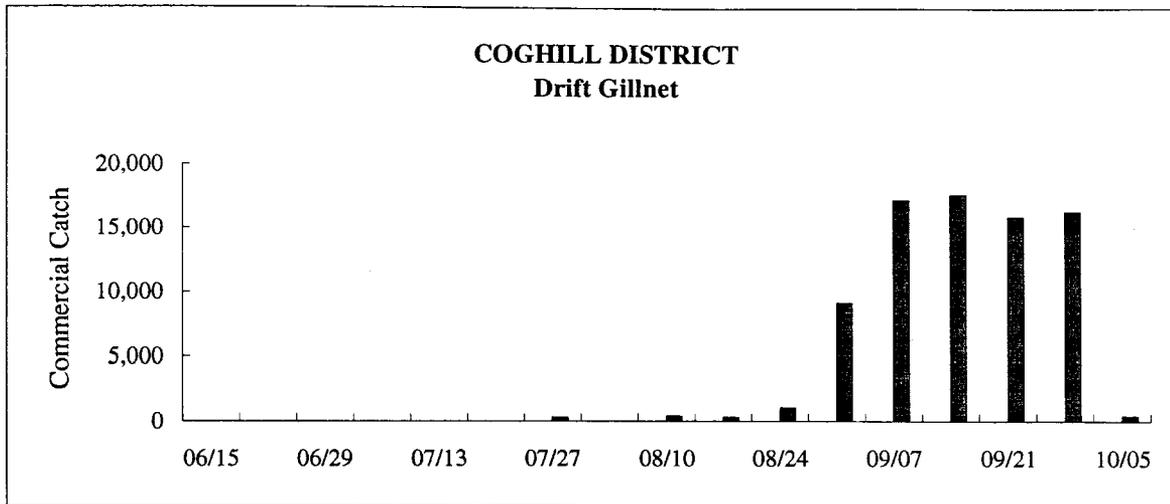


Figure 13. (Page 2 of 2).

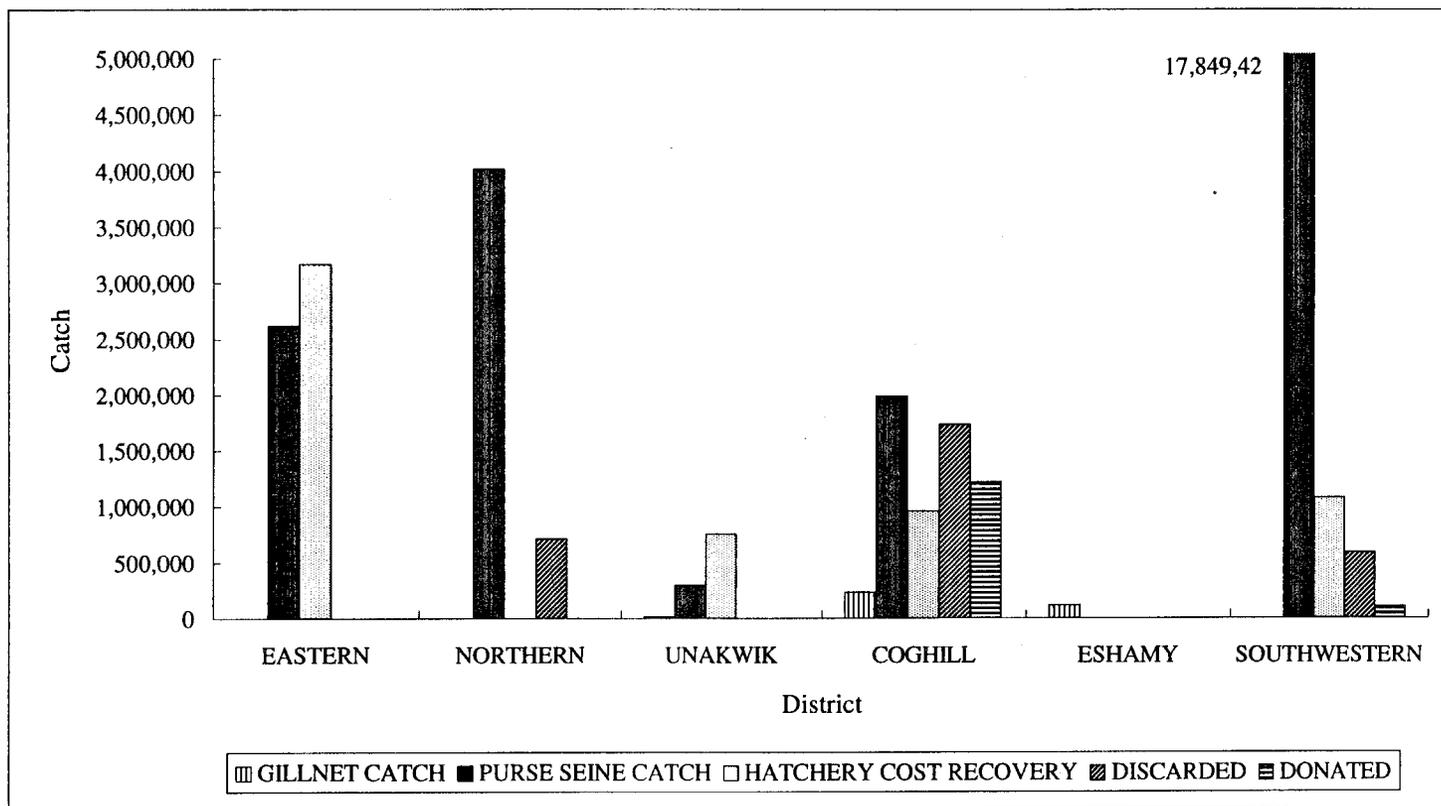


Figure 14. Purse seine and gillnet commercial common property harvest, discarded harvest, donated harvest, and hatchery cost recovery harvest of pink salmon in Prince William Sound, by district, 1991.

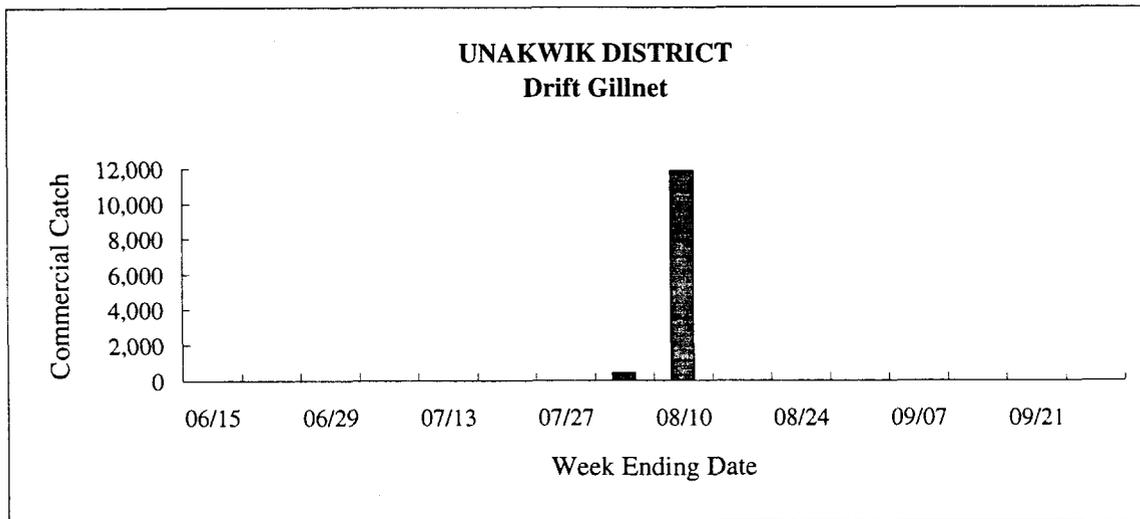
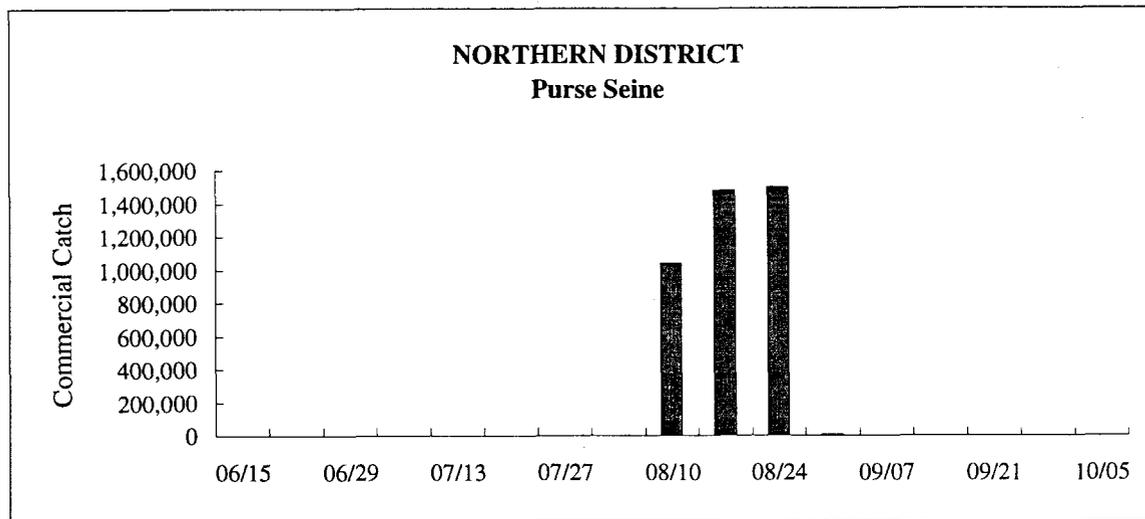
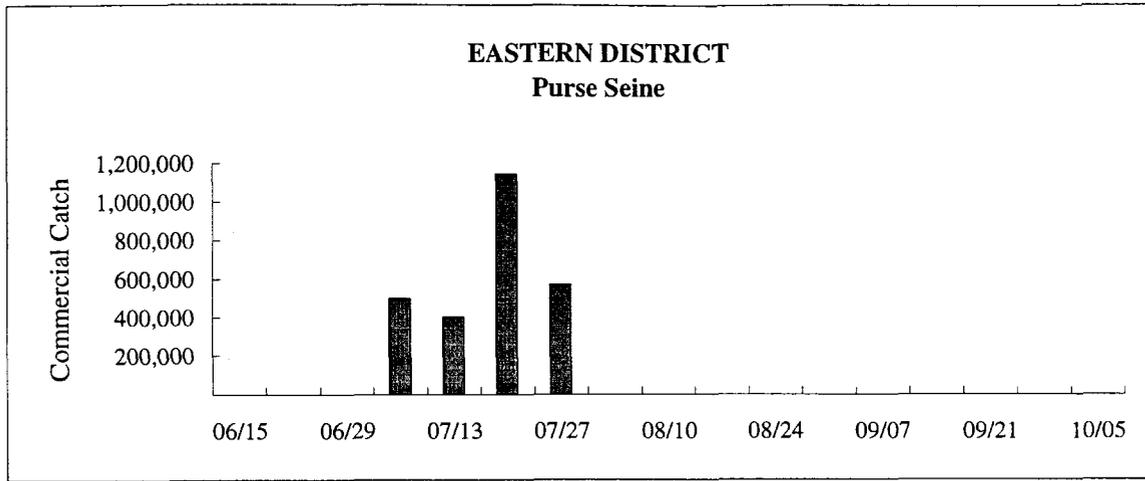


Figure 15. Weekly pink salmon catches from the major commercial common property purse seine, drift gillnet, and set gillnet fisheries in Prince William Sound, by district, 1991.

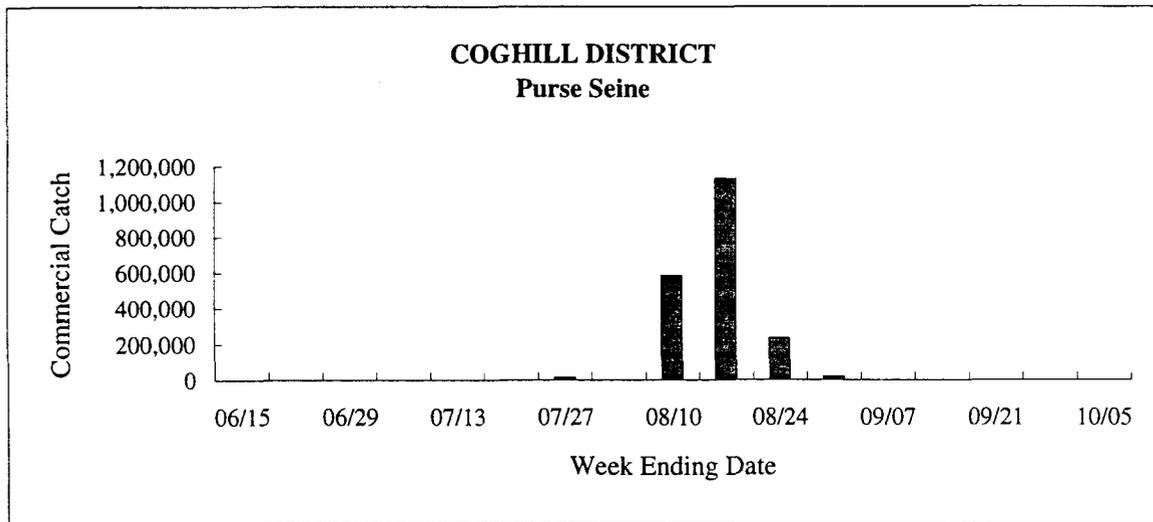
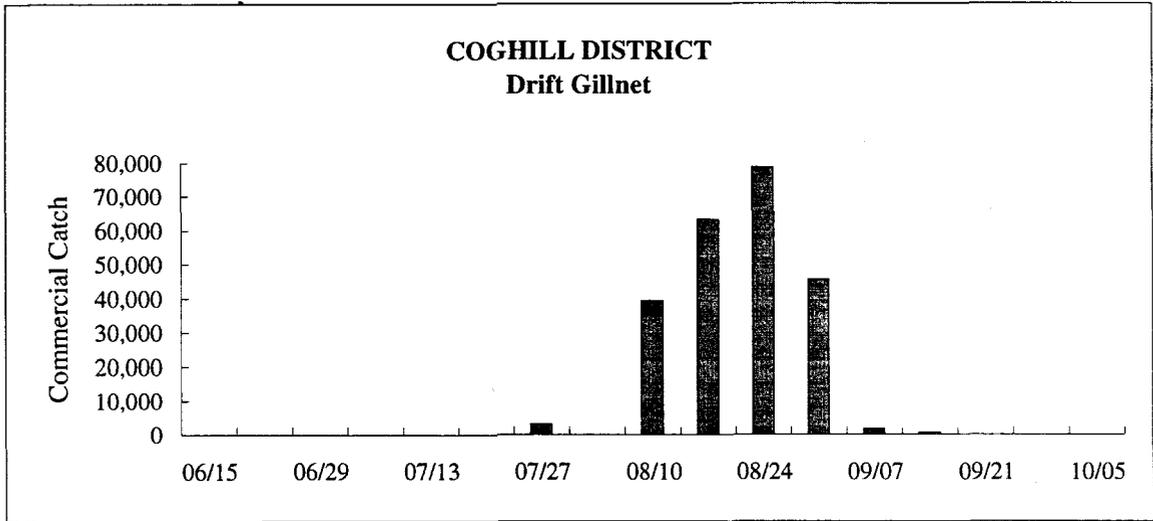
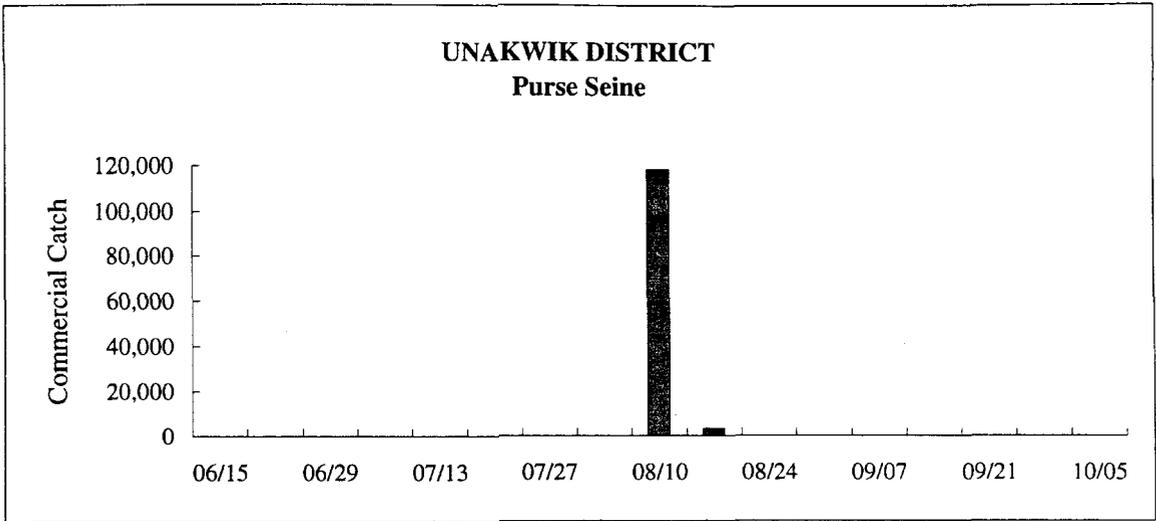


Figure 15. (Page 2 of 3).

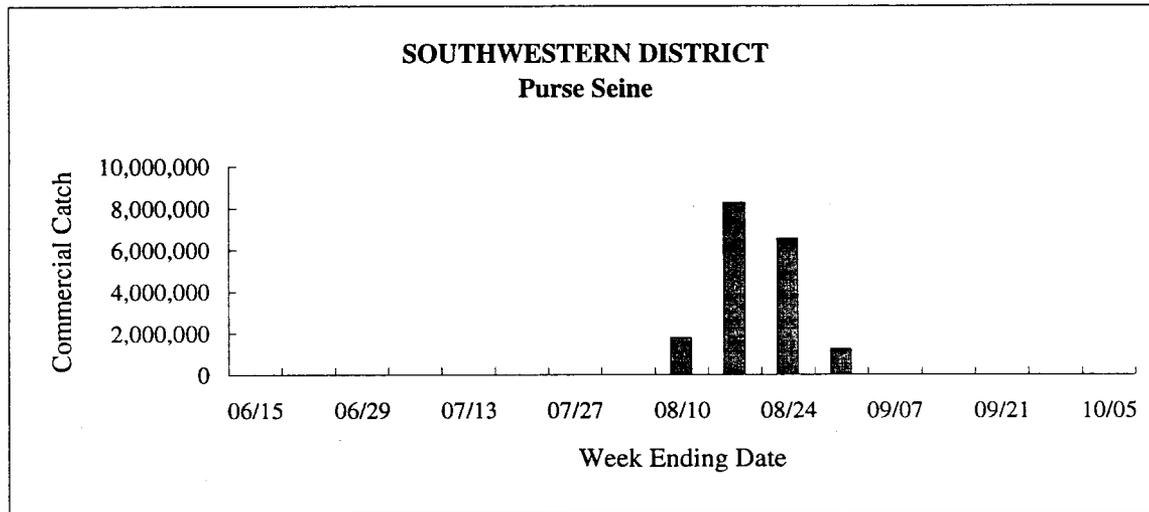
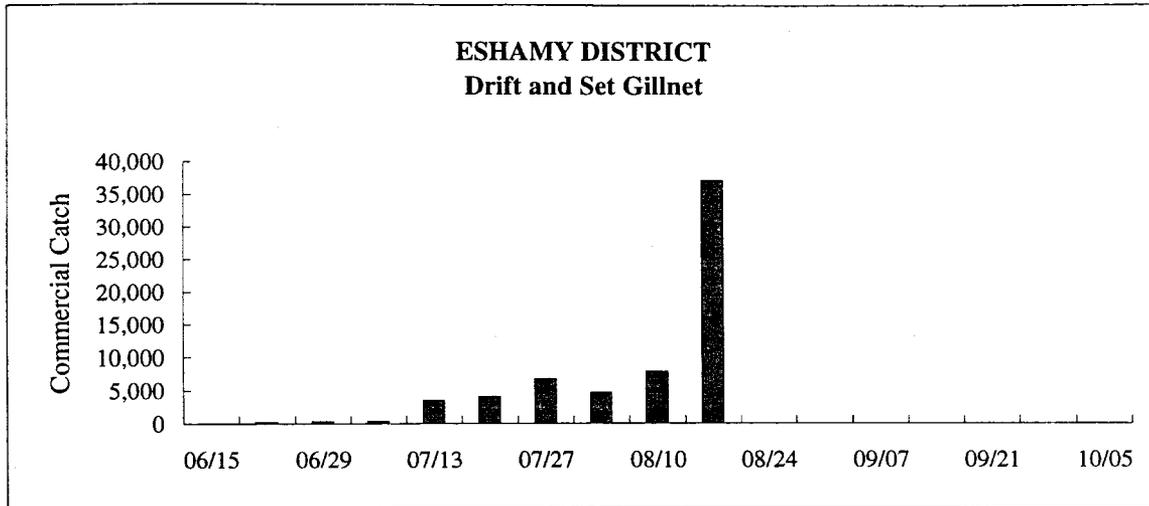


Figure 15. (Page 3 of 3).

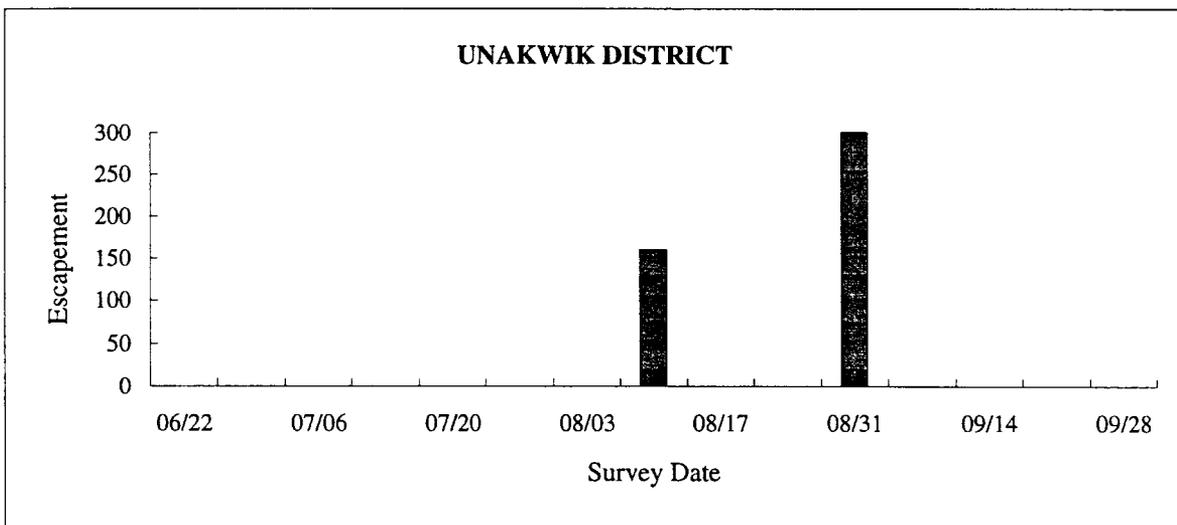
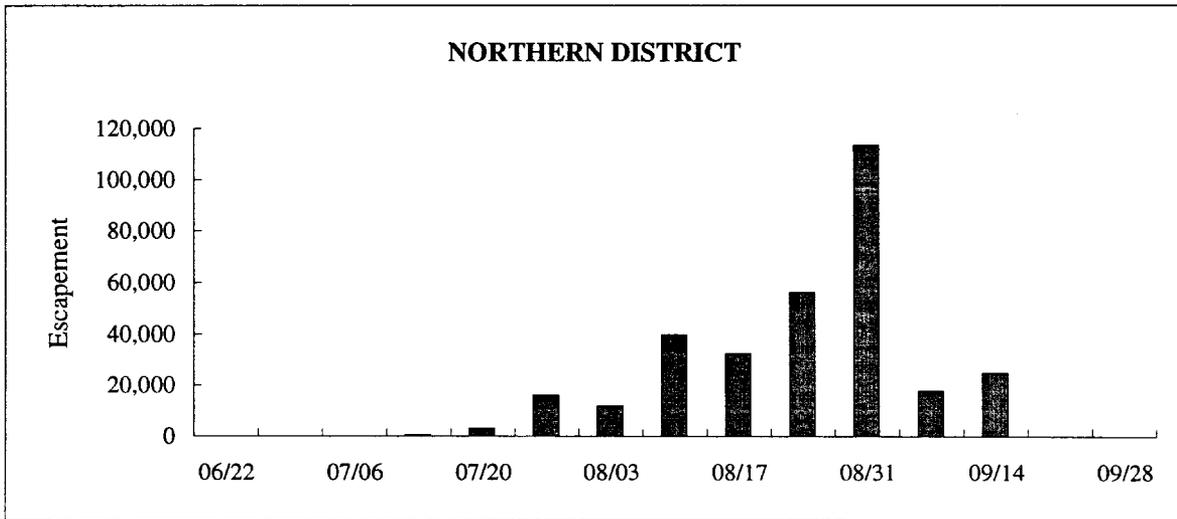
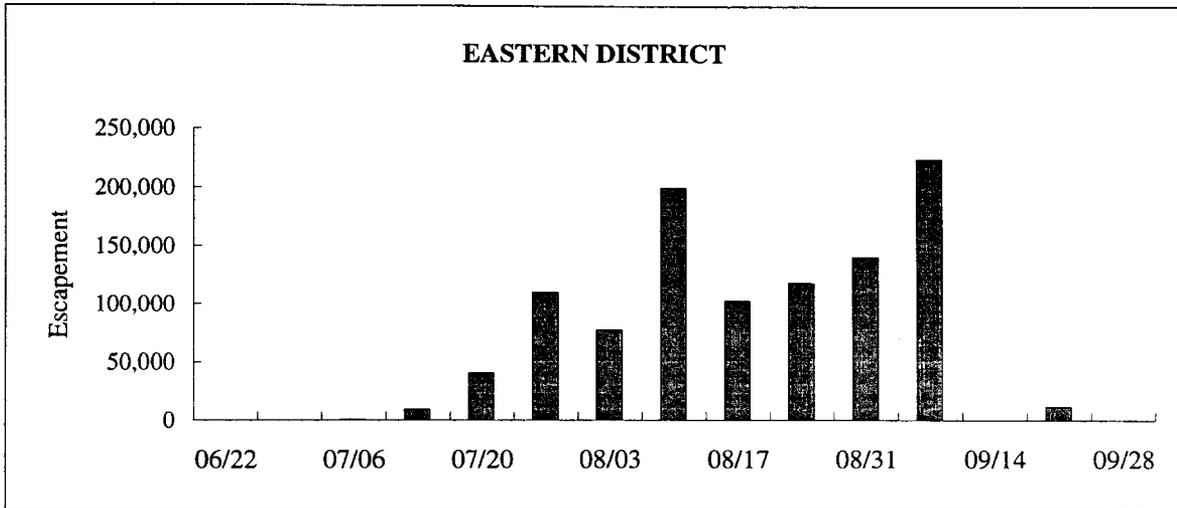


Figure 16. Weekly aerial escapement estimates of wild pink salmon to Prince William Sound, by district, 1991.

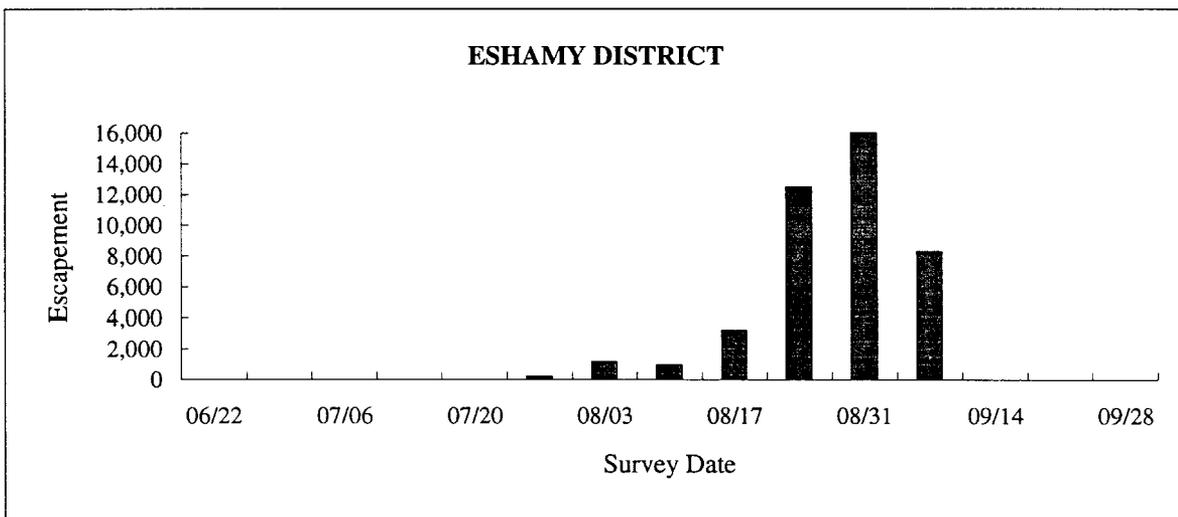
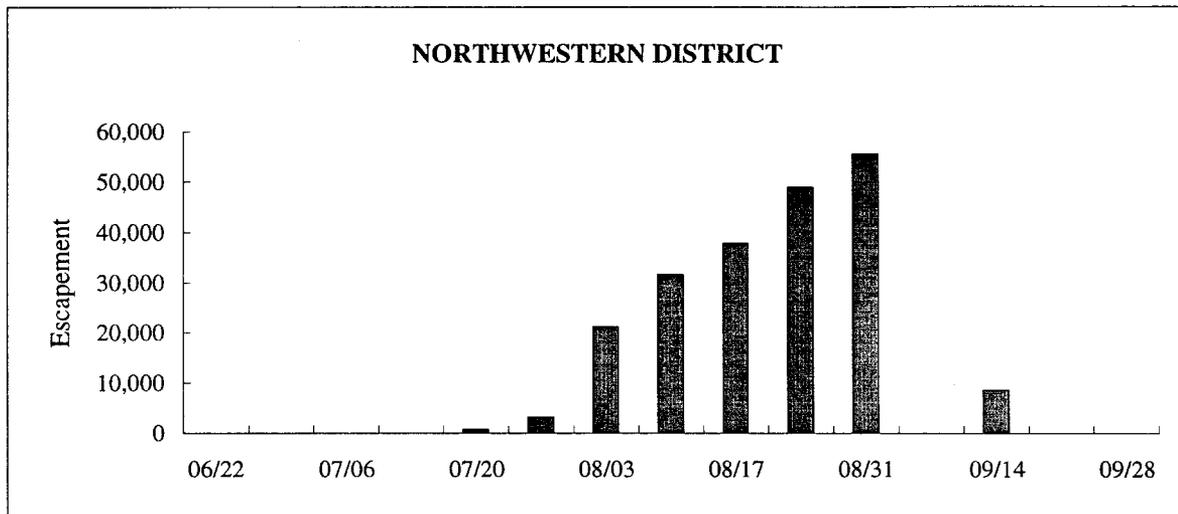
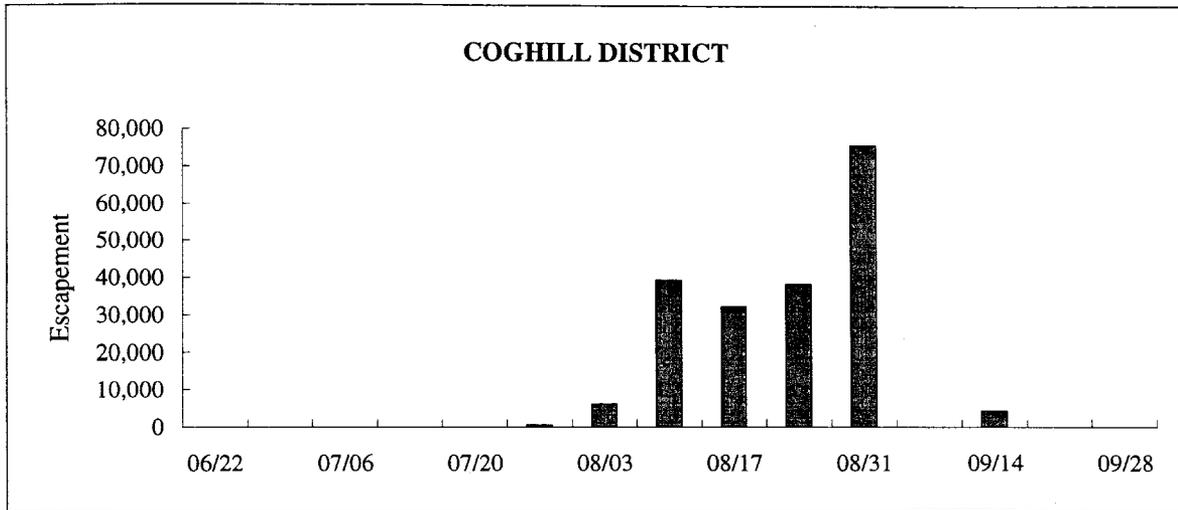


Figure 16. (Page 2 of 3).

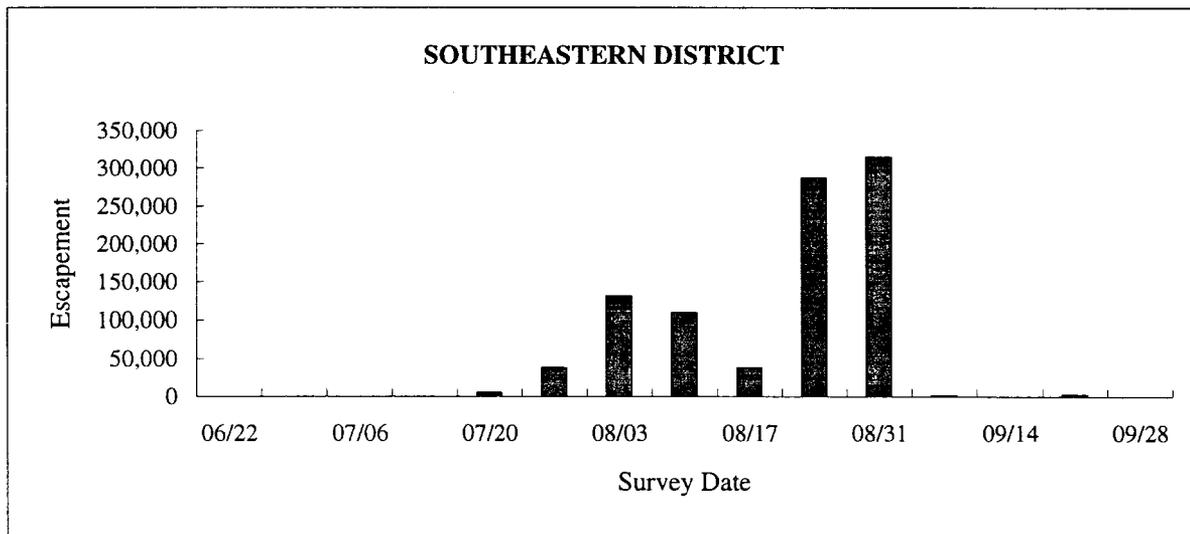
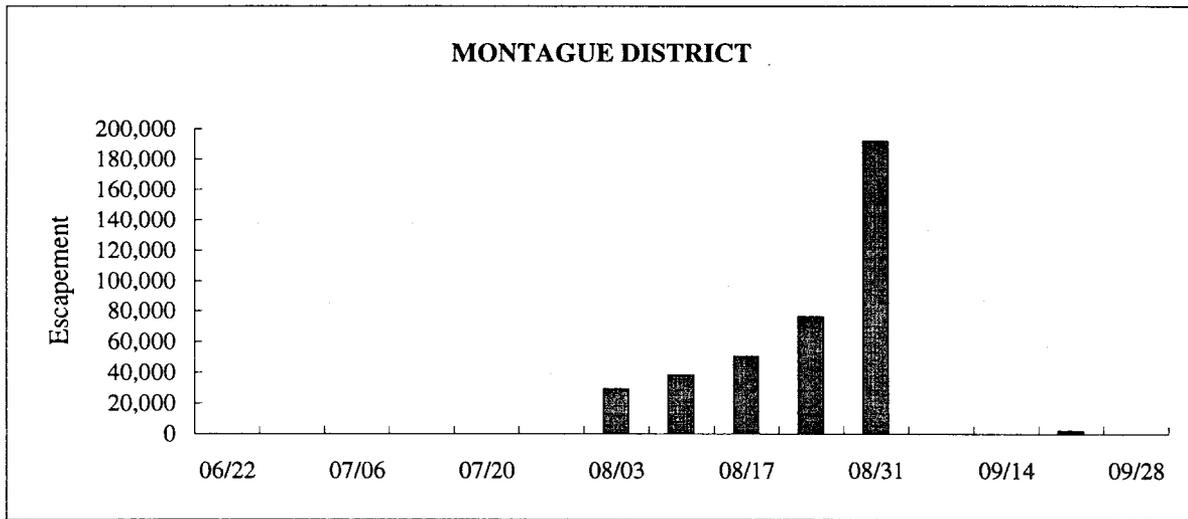
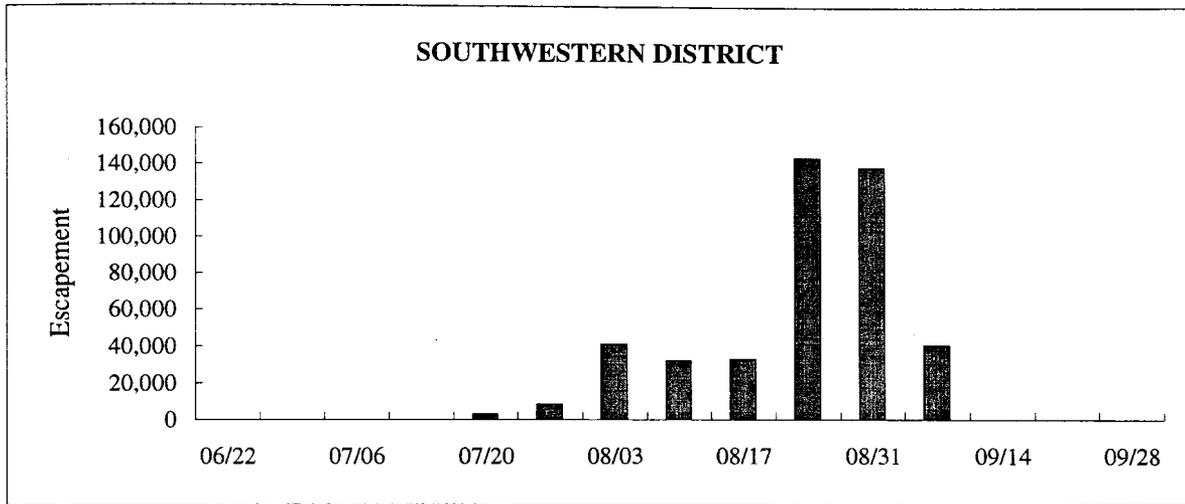


Figure 16. (Page 3 of 3).

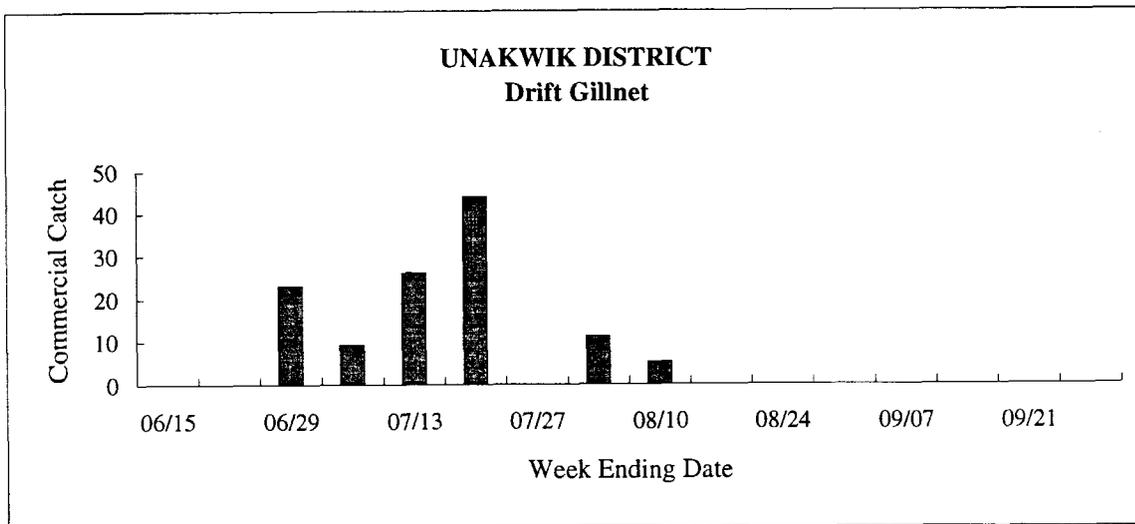
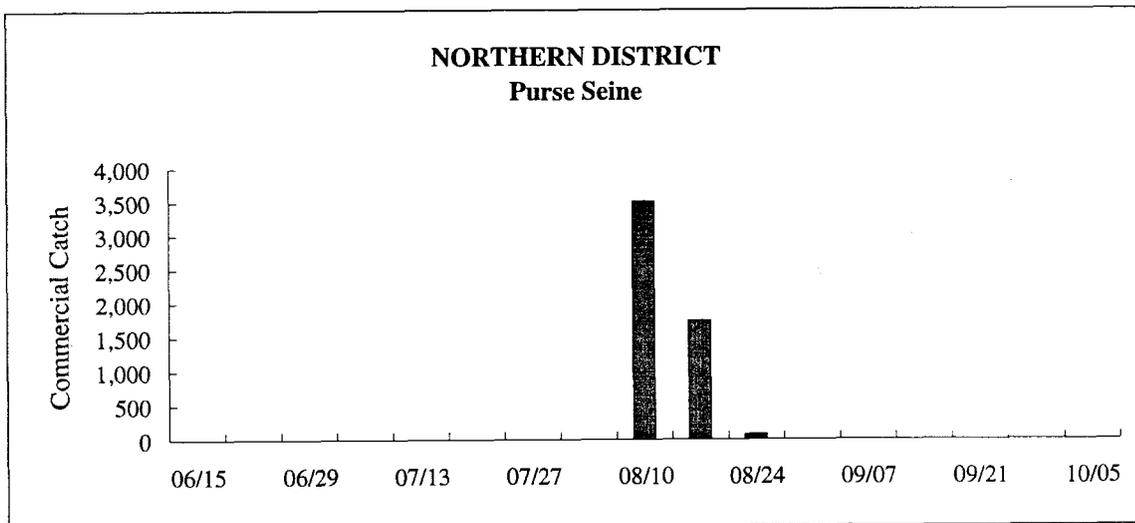
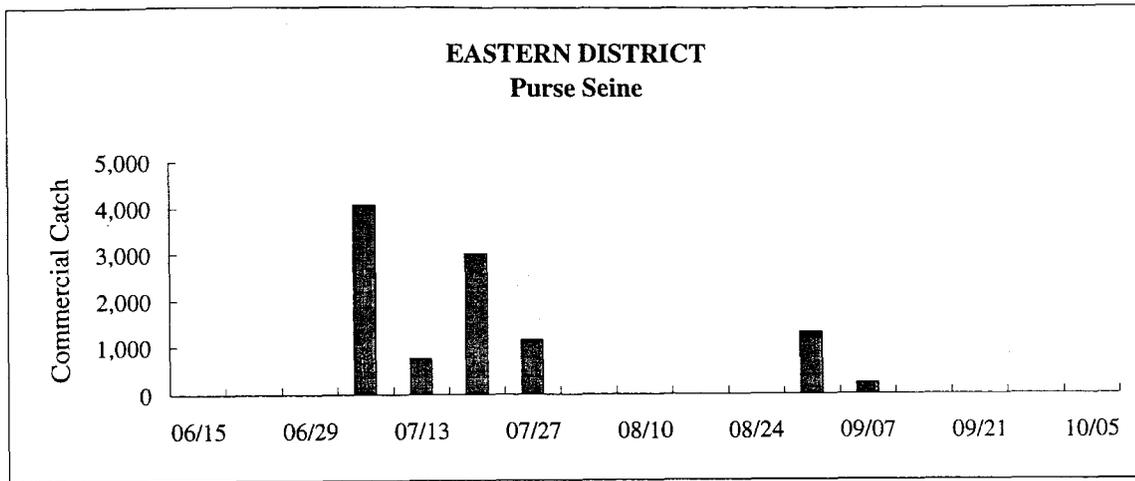


Figure 17. Weekly chum salmon catches from the major commercial common property purse seine, drift gillnet, and set gillnet fisheries in Prince William Sound, by district, 1991.

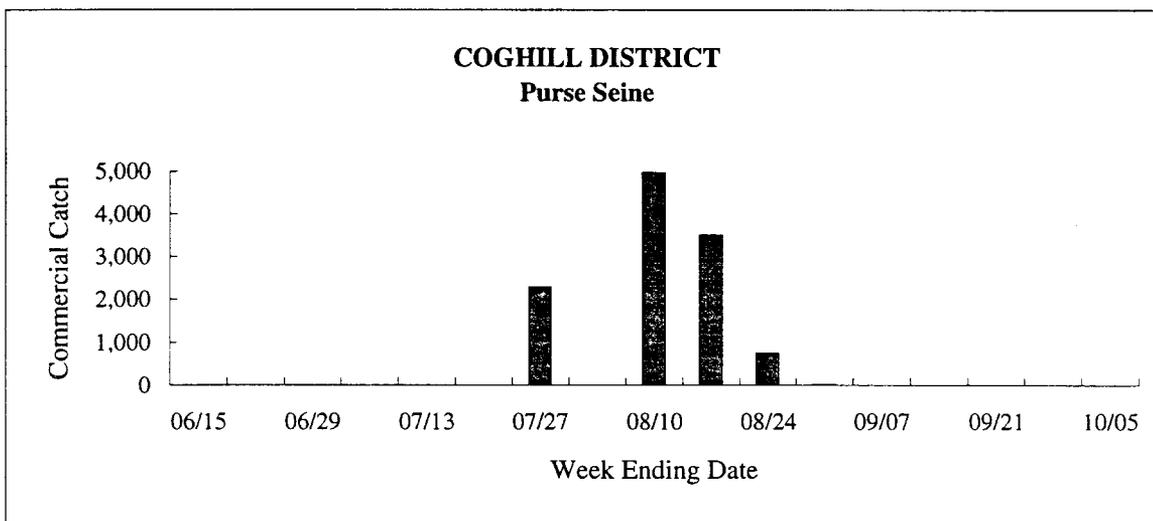
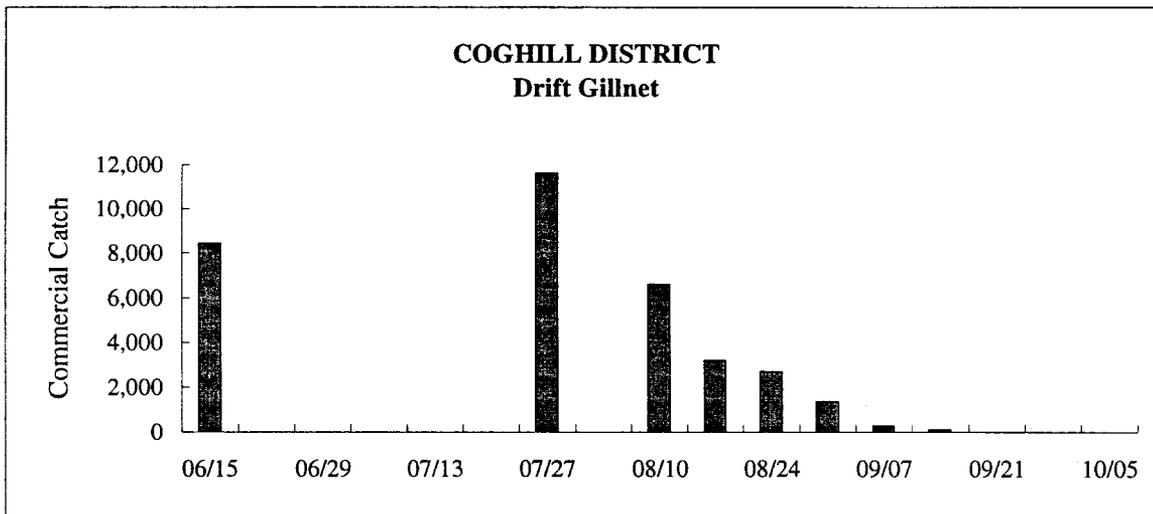
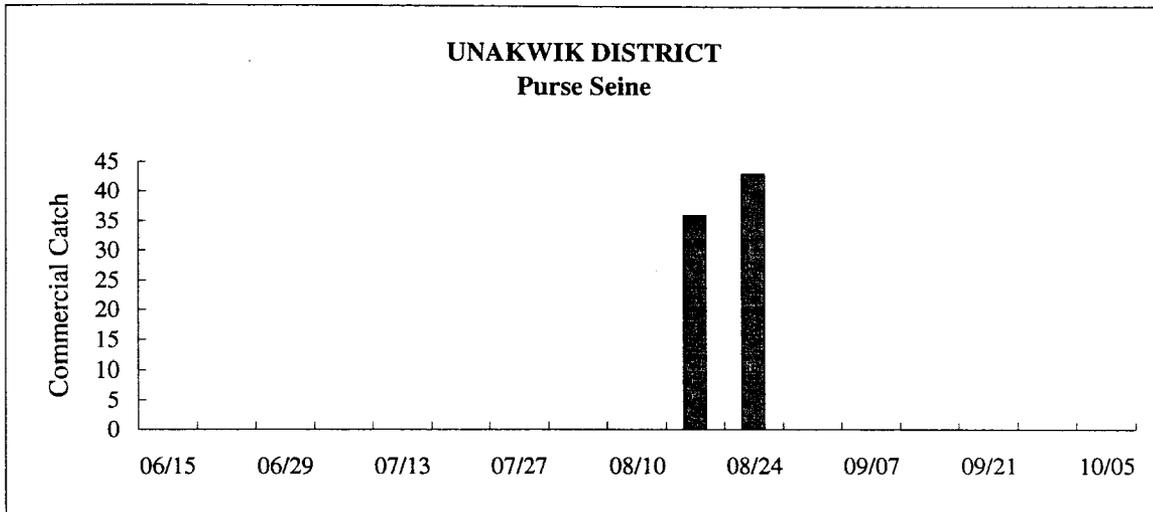


Figure 17. (Page 2 of 3).

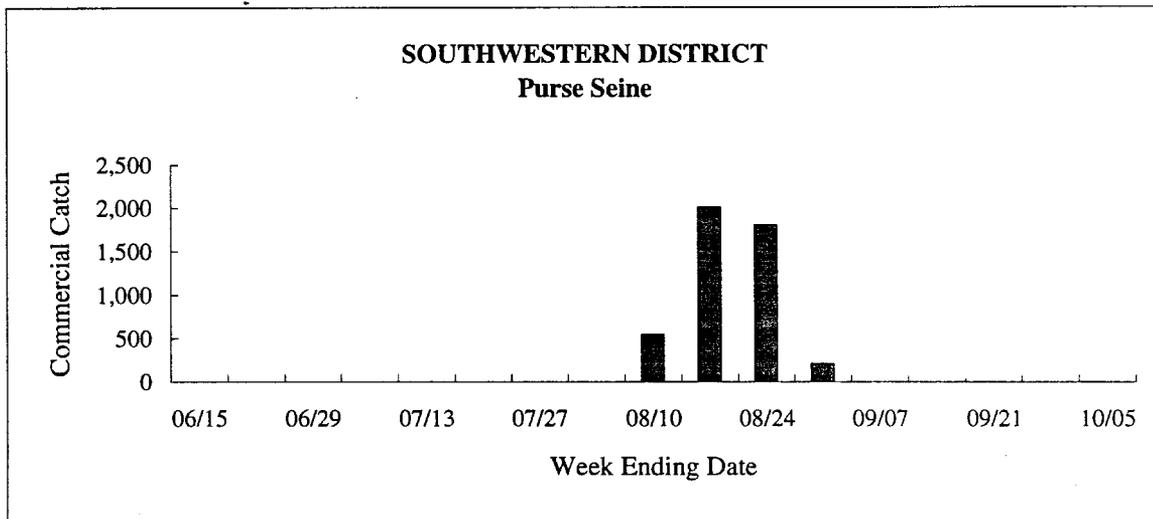
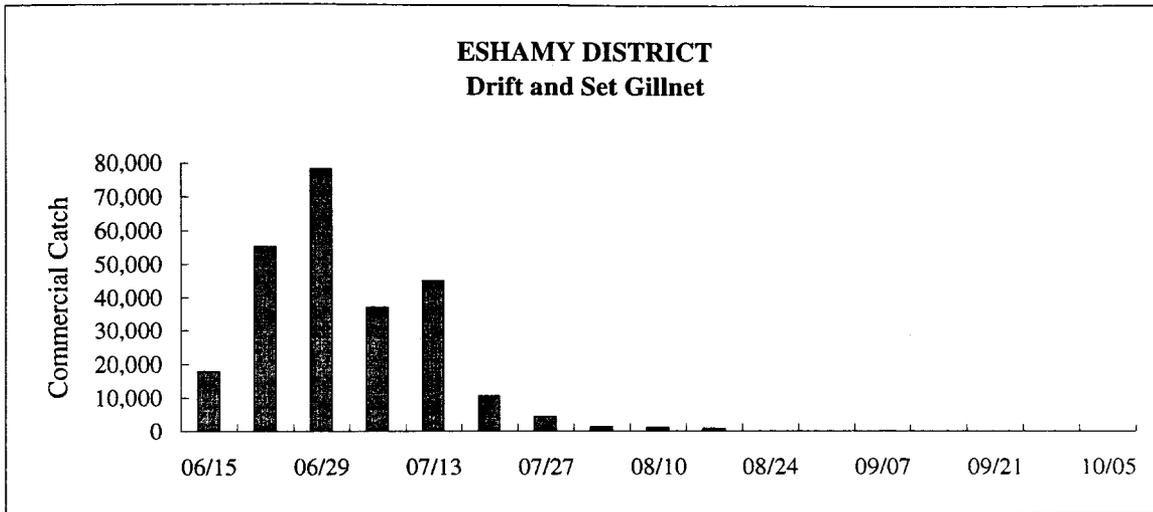


Figure 17. (Page 3 of 3).

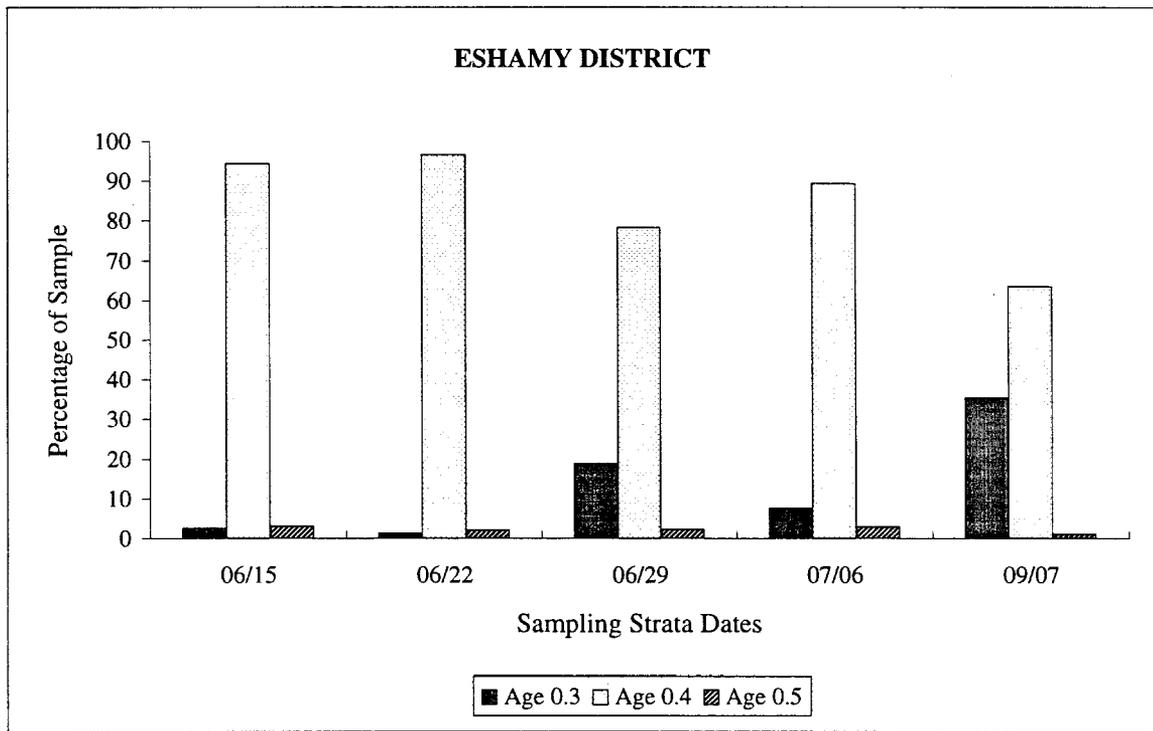
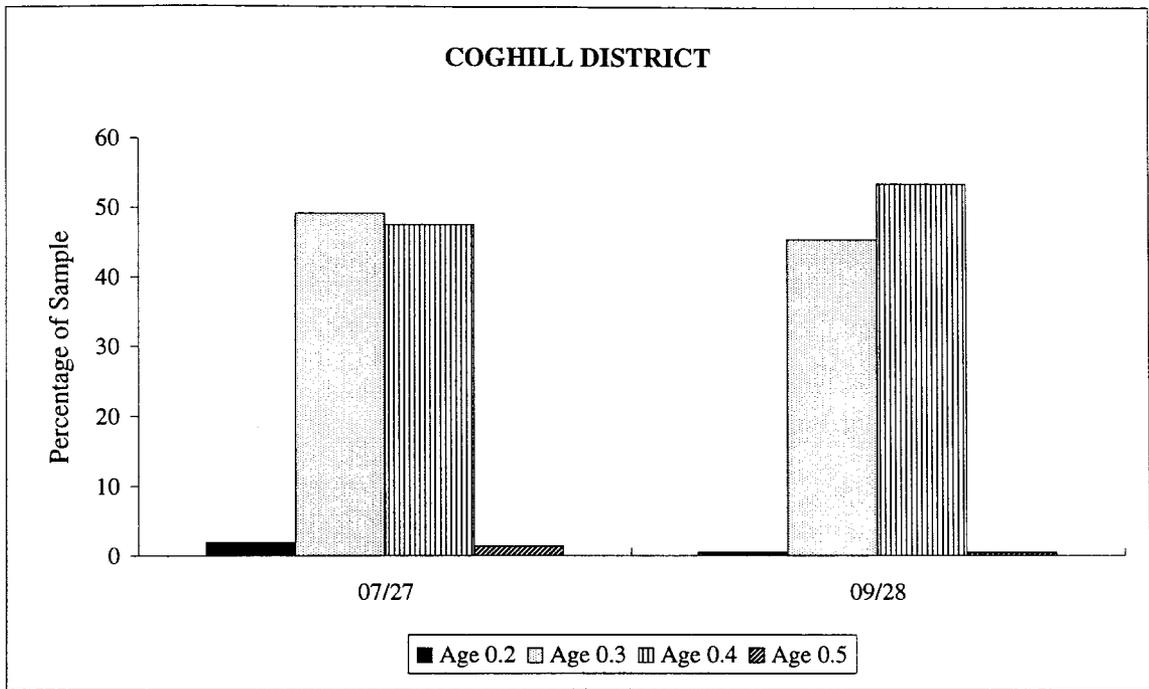


Figure 18. Temporally stratified age composition of the commercial common property harvests of chum salmon from the Coghill and Eshamy Districts, 1991.

APPENDIX

Appendix A
Age and Sex Data for Commercial Common Property Salmon Catches
From the Copper and Bering Rivers (Districts 200 and 212)

Appendix A.1. Temporally stratified age and sex composition of chinook salmon harvested in the Copper River District commercial common property drift gillnet fishery, 1991.

		Brood Year and Age Group															Total
		1989	1988			1987			1986			1985			1984		
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	1.5	2.4	2.5	
Stratum dates:	5/16-5/21																
Sampling dates:	5/17-5/18																
Sample size:	436																
Female	Percent of Sample	0.0	0.0	0.0	0.2	0.0	0.0	0.7	34.4	0.0	20.9	0.0	0.0	0.2	0.5	0.0	56.9
	Number in Catch	0	0	0	35	0	0	104	5,188	0	3,148	0	0	35	69	0	8,578
Male	Percent of Sample	0.0	0.0	0.0	0.0	0.5	0.0	0.5	18.1	0.0	21.3	0.2	0.0	0.7	0.2	0.0	41.5
	Number in Catch	0	0	0	0	69	0	69	2,733	0	3,217	35	0	104	35	0	6,261
Total	Percent of Sample	0.0	0.0	0.0	0.2	0.5	0.0	1.1	53.4	0.0	42.9	0.2	0.0	0.9	0.7	0.0	100.0
	Number in Catch	0	0	0	35	69	0	173	8,059	0	6,468	35	0	138	104	0	15,081
	Standard Error	0	0	0	35	49	0	77	361	0	358	35	0	69	60	0	
<hr/>																	
Stratum dates:	5/23-5/31																
Sampling dates:	5/24-5/26																
Sample size:	462																
Female	Percent of Sample	0.0	0.2	0.0	0.2	0.2	0.0	0.2	34.4	0.0	15.2	2.2	0.0	0.6	0.9	0.0	54.1
	Number in Catch	0	24	0	24	24	0	24	3,759	0	1,655	236	0	71	95	0	5,911
Male	Percent of Sample	0.0	0.0	0.2	0.4	0.2	0.0	0.0	25.5	0.0	15.4	1.3	0.0	0.6	1.5	0.2	45.5
	Number in Catch	0	0	24	47	24	0	0	2,790	0	1,679	142	0	71	166	24	4,965
Total	Percent of Sample	0.0	0.2	0.2	0.6	0.4	0.0	0.2	60.4	0.0	30.5	3.5	0.0	1.3	2.4	0.2	100.0
	Number in Catch	0	24	24	71	47	0	24	6,596	0	3,334	378	0	142	260	24	10,923
	Standard Error	0	24	24	41	33	0	24	249	0	234	93	0	58	78	24	
<hr/>																	
Stratum dates:	6/3-6/11																
Sampling dates:	6/7-6/9																
Sample size:	444																
Female	Percent of Sample	0.0	0.0	0.0	0.5	1.4	0.0	0.0	40.1	0.2	14.4	0.5	0.0	0.5	0.5	0.0	57.9
	Number in Catch	0	0	0	29	88	0	0	2,605	15	937	29	0	29	29	0	3,762
Male	Percent of Sample	0.0	0.5	0.0	0.5	4.3	0.2	0.0	22.5	0.2	12.4	0.7	0.0	0.5	0.2	0.0	41.9
	Number in Catch	0	29	0	29	278	15	0	1,464	15	805	44	0	29	15	0	2,723
Total	Percent of Sample	0.0	0.5	0.0	0.9	5.6	0.2	0.0	62.6	0.5	26.8	1.1	0.0	1.1	0.7	0.0	100.0
	Number in Catch	0	29	0	59	366	15	0	4,069	29	1,742	73	0	73	44	0	6,499
	Standard Error	0	21	0	29	71	15	0	149	21	137	33	0	33	25	0	

- continued -

		Brood Year and Age Group															Total
		1989	1988		1987			1986			1985			1984		1983	
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	1.5	2.4	2.5	
Stratum dates:	6/14-9/11																
Sampling dates:	6/18-6/22																
Sample size:	254																
Female	Percent of Sample	0.0	0.8	0.4	0.0	6.7	0.0	0.0	23.6	1.6	9.8	0.8	0.4	0.0	0.4	0.0	44.5
	Number in Catch	0	18	9	0	153	0	0	540	36	225	18	9	0	9	0	1,016
Male	Percent of Sample	0.4	0.4	2.4	0.4	21.7	0.8	0.0	15.7	4.3	7.1	0.8	0.0	0.0	0.0	0.0	53.9
	Number in Catch	9	9	54	9	495	18	0	360	99	162	18	0	0	0	0	1,232
Total	Percent of Sample	0.4	1.2	2.8	0.4	28.7	1.2	0.0	40.2	5.9	16.9	1.6	0.4	0.0	0.4	0.0	100.0
	Number in Catch	9	27	63	9	656	27	0	917	135	387	36	9	0	9	0	2,284
	Standard Error	9	16	24	9	65	16	0	70	34	54	18	9	0	9	0	
Strata combined:		5/16-9/11															
Sampling dates:		5/17-6/22															
Sample size:		1,596															
Female	Percent of Sample	0.0	0.1	0.0	0.3	0.8	0.0	0.4	34.8	0.1	17.1	0.8	0.0	0.4	0.6	0.0	55.4
	Number in Catch	0	42	9	88	264	0	127	12,093	51	5,964	284	9	135	202	0	19,267
Male	Percent of Sample	0.0	0.1	0.2	0.2	2.5	0.1	0.2	21.1	0.3	16.9	0.7	0.0	0.6	0.6	0.1	43.6
	Number in Catch	9	38	78	86	865	33	69	7,346	114	5,862	238	0	204	215	24	15,180
Total	Percent of Sample	0.0	0.2	0.2	0.5	3.3	0.1	0.6	56.5	0.5	34.3	1.5	0.0	1.0	1.2	0.1	100.0
	Number in Catch	9	80	87	173	1,139	42	197	19,642	164	11,930	522	9	353	417	24	34,787
	Standard Error	9	35	33	62	113	21	81	468	40	452	106	9	96	102	24	

Appendix A.2. Temporally stratified age and sex composition of sockeye salmon harvested in the Copper River District commercial common property drift gillnet fishery, 1991.

		Brood Year and Age Group												Total	
		1989	1988			1987			1986			1985			1984
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	0.6		
Stratum dates:	5/16-5/17														
Sampling dates:	5/17-5/18														
Sample size:	463														
Female	Percent of Sample	0.0	0.0	0.0	4.5	1.3	0.0	0.4	37.6	0.0	0.2	2.2	0.0	46.2	
	Number in Catch	0	0	0	2,045	584	0	195	16,942	0	97	974	0	20,837	
Male	Percent of Sample	0.0	0.0	0.0	7.8	0.4	0.0	0.2	42.8	0.2	0.9	1.5	0.0	53.8	
	Number in Catch	0	0	0	3,505	195	0	97	19,279	97	389	682	0	24,244	
Total	Percent of Sample	0.0	0.0	0.0	12.3	1.7	0.0	0.6	80.3	0.2	1.1	3.7	0.0	100.0	
	Number in Catch	0	0	0	5,550	779	0	292	36,221	97	487	1,655	0	45,081	
	Standard Error	0	0	0	689	273	0	168	833	97	217	394	0		
<hr/>															
Stratum dates:	5/20-5/24														
Sampling dates:	5/21														
Sample size:	550														
Female	Percent of Sample	0.0	0.2	0.0	7.8	0.4	0.0	0.0	34.7	0.2	0.0	2.5	0.0	45.8	
	Number in Catch	0	349	0	14,995	697	0	0	66,605	349	0	4,882	0	87,877	
Male	Percent of Sample	0.0	0.5	0.0	10.4	1.1	0.0	0.2	38.0	0.4	0.2	3.3	0.0	54.0	
	Number in Catch	0	1,046	0	19,877	2,092	0	349	72,882	697	349	6,277	0	103,569	
Total	Percent of Sample	0.0	0.7	0.0	18.2	1.5	0.0	0.2	72.9	0.5	0.2	5.8	0.0	100.0	
	Number in Catch	0	1,395	0	34,872	2,790	0	349	139,836	1,046	349	11,159	0	191,795	
	Standard Error	0	696	0	3,157	980	0	349	3,638	603	349	1,916	0		
<hr/>															
Stratum dates:	5/27-5/31														
Sampling dates:	5/27-5/28														
Sample size:	506														
Female	Percent of Sample	0.0	0.0	0.0	4.3	1.4	0.0	0.0	37.7	0.0	0.0	3.8	0.0	47.2	
	Number in Catch	0	0	0	8,137	2,589	0	0	70,648	0	0	7,028	0	88,402	
Male	Percent of Sample	0.0	0.0	0.0	7.1	2.2	0.0	0.0	38.3	0.0	1.2	4.0	0.0	52.8	
	Number in Catch	0	0	0	13,316	4,069	0	0	71,757	0	2,219	7,398	0	98,759	
Total	Percent of Sample	0.0	0.0	0.0	11.5	3.6	0.0	0.0	76.1	0.0	1.2	7.7	0.0	100.0	
	Number in Catch	0	0	0	21,453	6,658	0	0	142,405	0	2,219	14,425	0	187,161	
	Standard Error	0	0	0	2,653	1,543	0	0	3,553	0	902	2,221	0		

- continued -

		Brood Year and Age Group												Total	
		1989	1988			1987			1986			1985			1984
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	0.6		
Stratum dates:	6/3-6/7														
Sampling dates:	6/4														
Sample size:	508														
Female	Percent of Sample	0.0	0.0	0.0	2.8	3.1	0.2	0.0	28.7	0.0	0.2	2.2	0.2	37.4	
	Number in Catch	0	0	0	6,735	7,697	481	0	70,232	0	481	5,291	481	91,397	
Male	Percent of Sample	0.0	0.0	0.2	6.9	3.7	0.0	0.0	45.9	0.2	1.4	4.3	0.0	62.6	
	Number in Catch	0	0	481	16,836	9,140	0	0	112,082	481	3,367	10,583	0	152,971	
Total	Percent of Sample	0.0	0.0	0.2	9.6	6.9	0.2	0.0	74.6	0.2	1.6	6.5	0.2	100.0	
	Number in Catch	0	0	481	23,571	16,836	481	0	182,314	481	3,848	15,874	481	244,368	
	Standard Error	0	0	481	3,204	2,749	481	0	4,724	481	1,351	2,675	481		
<hr/>															
Stratum dates:	6/10-6/18														
Sampling dates:	6/11														
Sample size:	540														
Female	Percent of Sample	0.0	0.4	0.0	5.7	3.9	0.0	0.4	35.4	0.2	0.0	2.6	0.0	48.5	
	Number in Catch	0	518	0	8,029	5,439	0	518	49,470	259	0	3,626	0	67,859	
Male	Percent of Sample	0.0	0.6	0.0	5.4	7.4	0.0	0.2	34.8	0.6	0.0	2.0	0.0	50.9	
	Number in Catch	0	777	0	7,511	10,360	0	259	48,693	777	0	2,849	0	71,227	
Total	Percent of Sample	0.0	0.9	0.0	11.3	11.3	0.0	0.6	70.6	0.7	0.0	4.6	0.0	100.0	
	Number in Catch	0	1,295	0	15,799	15,799	0	777	98,681	1,036	0	6,475	0	139,863	
	Standard Error	0	577	0	1,907	1,907	0	448	2,746	517	0	1,266	0		
<hr/>															
Stratum dates:	6/20-7/2														
Sampling dates:	6/25														
Sample size:	542														
Female	Percent of Sample	0.0	0.2	0.0	5.5	4.1	0.0	0.0	39.9	0.0	0.6	1.8	0.0	52.0	
	Number in Catch	0	293	0	8,779	6,438	0	0	63,210	0	878	2,926	0	82,524	
Male	Percent of Sample	0.0	0.6	0.0	5.5	8.9	0.0	0.0	29.9	0.6	0.2	2.0	0.0	47.6	
	Number in Catch	0	878	0	8,779	14,047	0	0	47,407	878	293	3,219	0	75,501	
Total	Percent of Sample	0.0	0.7	0.0	11.1	13.1	0.0	0.0	69.9	0.6	0.7	3.9	0.0	100.0	
	Number in Catch	0	1,171	0	17,558	20,777	0	0	110,910	878	1,171	6,145	0	158,610	
	Standard Error	0	584	0	2,140	2,301	0	0	3,127	506	584	1,316	0		

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Appendix A.2. (Page 3 of 4).

		Brood Year and Age Group												Total	
		1989	1988			1987			1986			1985			1984
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	0.6		
Stratum dates:	7/4-7/16														
Sampling dates:	7/13														
Sample size:	517														
Female	Percent of Sample	0.0	0.0	0.0	1.4	12.2	0.0	0.0	36.9	0.4	0.0	0.4	0.0	51.3	
	Number in Catch	0	0	0	2,194	19,745	0	0	59,861	627	0	627	0	83,053	
Male	Percent of Sample	0.0	0.2	0.0	1.0	12.0	0.0	0.0	34.4	0.8	0.0	0.2	0.0	48.5	
	Number in Catch	0	313	0	1,567	19,431	0	0	55,786	1,254	0	313	0	78,665	
Total	Percent of Sample	0.0	0.2	0.0	2.3	24.2	0.0	0.0	71.6	1.2	0.0	0.6	0.0	100.0	
	Number in Catch	0	313	0	3,761	39,176	0	0	115,960	1,880	0	940	0	162,031	
	Standard Error	0	313	0	1,074	3,054	0	0	3,218	764	0	542	0		
<hr/>															
Stratum dates:	7/18-7/30														
Sampling dates:	7/23														
Sample size:	512														
Female	Percent of Sample	0.0	0.2	0.2	1.4	14.1	0.0	0.2	29.9	0.4	0.0	2.1	0	48.4	
	Number in Catch	0	133	133	929	9,552	0	133	20,298	265	0	1,459	0	32,902	
Male	Percent of Sample	1.2	0.4	3.1	1.2	12.3	0.4	0.0	29.9	0.2	0.0	2.9	0	51.6	
	Number in Catch	796	265	2,123	796	8,358	265	0	20,298	133	0	1,990	0	35,024	
Total	Percent of Sample	1.2	0.6	3.3	2.5	26.4	0.4	0.2	59.8	0.6	0.0	5.1	0	100.0	
	Number in Catch	796	398	2,255	1,725	17,910	265	133	40,596	398	0	3,449	0	67,926	
	Standard Error	323	229	538	473	1,324	187	133	1,473	229	0	660	0		
<hr/>															
Stratum dates:	8/1-9/21														
Sampling dates:	8/6														
Sample size:	557														
Female	Percent of Sample	0.0	0.2	0.5	0.2	8.1	0.4	0.0	29.4	1.6	0.2	6.1	0	46.7	
	Number in Catch	0	18	54	18	806	36	0	2,937	161	18	609	0	4,657	
Male	Percent of Sample	0.0	0.9	1.3	0.7	16.0	1.1	0.0	26.2	2.2	0.0	4.8	0	53.1	
	Number in Catch	0	90	125	72	1,594	107	0	2,615	215	0	484	0	5,301	
Total	Percent of Sample	0.0	1.1	1.8	0.9	24.1	1.4	0.0	55.8	3.8	0.2	11.0	0	100.0	
	Number in Catch	0	107	179	90	2,400	143	0	5,570	376	18	1,093	0	9,976	
	Standard Error	0	44	56	40	181	50	0	210	81	18	132	0		

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Appendix A.2. (Page 4 of 4).

		Brood Year and Age Group												
		1989	1988		1987			1986			1985		1984	
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	0.6	Total
Strata combined:	5/16-9/21													
Sampling dates:	5/17-8/6													
Sample size:	4,695													
Female	Percent of Sample	0.0	0.1	0.0	4.3	4.4	0.0	0.1	34.8	0.1	0.1	2.3	0.0	46.4
	Number in Catch	0	1,310	186	51,860	53,547	517	845	420,203	1,661	1,474	27,423	481	559,508
Male	Percent of Sample	0.1	0.3	0.2	6.0	5.7	0.0	0.1	37.4	0.4	0.5	2.8	0.0	53.5
	Number in Catch	796	3,369	2,729	72,259	69,286	373	705	450,800	4,532	6,617	33,794	0	645,261
Total	Percent of Sample	0.1	0.4	0.2	10.3	10.2	0.1	0.1	72.3	0.5	0.7	5.1	0.0	100.0
	Number in Catch	796	4,679	2,915	124,379	123,126	890	1,551	872,493	6,193	8,092	61,217	481	1,206,811
	Standard Error	323	1,145	724	6,111	5,569	519	607	8,874	1,330	1,774	4,472	481	

Appendix A.3. Estimated age and sex composition of sockeye salmon harvested in the Bering River District commercial common property drift gillnet fishery, 1991.

		Brood Year and Age Group								Total
		1988	1987		1986			1985		
		0.2	0.3	1.2	0.4	1.3	2.2	1.4	2.3	
Stratum dates:	6/17-7/13									
Sampling dates:	6/18									
Sample size:	520									
Female	Percent of Sample	1.0	4.2	8.1	0.0	43.1	0.0	0.2	0.6	57.1
	Number in Catch	184	812	1,549	0	8,263	0	37	111	10,955
Male	Percent of Sample	1.3	4.2	11.5	0.2	24.6	0.2	0.4	0.2	42.7
	Number in Catch	258	812	2,213	37	4,721	37	74	37	8,189
Total	Percent of Sample	2.3	8.5	19.6	0.2	67.9	0.2	0.6	0.8	100.0
	Number in Catch	443	1,623	3,762	37	13,021	37	111	148	19,181
	Standard Error	126	234	334	37	393	37	64	74	

Appendix A.4. Temporally stratified age and sex composition of coho salmon harvested in the Copper River District commercial common property drift gillnet fishery, 1991.

		Brood Year and Age Group				Total
		1989	1988	1987	1986	
		0.1	1.1	2.1	3.1	
Stratum dates:	5/20–8/21					
Sampling dates:	8/6–8/9					
Sample size:	552					
Female	Percent of Sample	0.0	19.6	18.5	0.9	38.9
	Number in Catch	0	9,031	8,529	418	17,978
Male	Percent of Sample	0.2	29.0	31.5	0.2	60.9
	Number in Catch	84	13,379	14,549	84	28,096
Total	Percent of Sample	0.2	48.6	50.2	1.1	100.0
	Number in Catch	84	22,410	23,162	502	46,157
	Standard Error	84	983	983	204	
Stratum dates:	9/2–9/11					
Sampling dates:	9/6					
Sample size:	378					
Female	Percent of Sample	0.0	14.6	27.0	1.6	43.1
	Number in Catch	0	25,899	48,030	2,825	76,754
Male	Percent of Sample	0.0	24.6	31.0	1.3	56.9
	Number in Catch	0	43,792	55,094	2,354	101,241
Total	Percent of Sample	0.0	39.2	57.9	2.9	100.0
	Number in Catch	0	69,691	103,124	5,180	177,995
	Standard Error	0	4,474	4,525	1,541	
Stratum dates:	9/12–10/12					
Sampling dates:	9/18					
Sample size:	368					
Female	Percent of Sample	0.0	29.9	24.5	0.0	54.3
	Number in Catch	0	48,105	39,359	0	87,464
Male	Percent of Sample	0.0	20.7	24.7	0.3	45.7
	Number in Catch	0	33,236	39,796	437	73,470
Total	Percent of Sample	0.0	50.5	49.2	0.3	100.0
	Number in Catch	0	81,342	79,155	437	160,934
	Standard Error	0	4,200	4,200	437	
Strata combined:	5/20–10/12					
Sampling dates:	8/6–9/18					
Sample size:	1,298					
Female	Percent of Sample	0.0	21.6	24.9	0.8	47.3
	Number in Catch	0	83,035	95,918	3,243	182,196
Male	Percent of Sample	0.0	23.5	28.4	0.7	52.7
	Number in Catch	84	90,408	109,439	2,875	202,806
Total	Percent of Sample	0.0	45.0	53.3	1.6	100.0
	Number in Catch	84	173,442	205,441	6,119	385,086
	Standard Error	84	6,215	6,252	1,615	

Appendix A.5. Temporally stratified age and sex composition of coho salmon harvested in the Bering River District commercial common property drift gillnet fishery, 1991.

		Brood Year and Age Group			Total
		1988	1987	1986	
		1.1	2.1	3.1	
Stratum dates:	6/17-10/5				
Sampling dates:	9/20				
Sample size:	374				
Female	Percent of Sample	20.1	34.5	0.3	54.8
	Number in Catch	22,250	38,269	297	60,815
Male	Percent of Sample	17.9	25.9	0.5	44.4
	Number in Catch	19,876	28,776	593	49,246
Total	Percent of Sample	38.0	61.2	0.8	100.0
	Number in Catch	42,126	67,935	890	110,951
	Standard Error	2,788	2,799	512	

Appendix B
Subsistence, Personal-Use, and Sport Fish Salmon Catches
From the Upper Copper River

Appendix B.1. Daily catches of sockeye, chinook, and coho salmon in the subsistence and personal-use fisheries on the upper Copper River, 1991.

Date	Personal-Use Catch						Subsistence Catch						Combined Catches					
	Chinook		Sockeye		Coho		Chinook		Sockeye		Coho		Chinook		Sockeye		Coho	
	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
6/01	124	124	1,062	1,062	0	0	12	12	147	147	0	0	136	136	1,209	1,209	0	0
6/02	92	216	559	1,621	0	0	8	20	62	209	0	0	100	236	621	1,830	0	0
6/03	0	216	14	1,635	0	0	14	34	182	391	0	0	14	250	196	2,026	0	0
6/04	0	216	0	1,635	0	0	31	65	208	599	0	0	31	281	208	2,234	0	0
6/05	2	218	27	1,662	0	0	23	88	483	1,082	0	0	25	306	510	2,744	0	0
6/06	48	266	404	2,066	0	0	17	105	250	1,332	0	0	65	371	654	3,398	0	0
6/07	143	409	1,735	3,801	0	0	27	132	259	1,591	0	0	170	541	1,994	5,392	0	0
6/08	483	892	5,189	8,990	0	0	72	204	838	2,429	0	0	555	1,096	6,027	11,419	0	0
6/09	153	1,045	1,278	10,268	0	0	25	229	738	3,167	0	0	178	1,274	2,016	13,435	0	0
6/10	0	1,045	62	10,330	0	0	22	251	1,198	4,365	0	0	22	1,296	1,260	14,695	0	0
6/11	16	1,061	552	10,882	0	0	53	304	641	5,006	0	0	69	1,365	1,193	15,888	0	0
6/12	55	1,116	904	11,786	0	0	22	326	563	5,569	0	0	77	1,442	1,467	17,355	0	0
6/13	99	1,215	1,720	13,506	0	0	23	349	626	6,195	0	0	122	1,564	2,346	19,701	0	0
6/14	181	1,396	1,750	15,256	0	0	22	371	539	6,734	0	0	203	1,767	2,289	21,990	0	0
6/15	380	1,776	3,020	18,276	0	0	53	424	1,493	8,227	0	0	433	2,200	4,513	26,503	0	0
6/16	117	1,893	1,196	19,472	0	0	52	476	1,034	9,261	0	0	169	2,369	2,230	28,733	0	0
6/17	27	1,920	321	19,793	0	0	22	498	564	9,825	0	0	49	2,418	885	29,618	0	0
6/18	42	1,962	516	20,309	0	0	39	537	1,010	10,835	0	0	81	2,499	1,526	31,144	0	0
6/19	26	1,988	435	20,744	0	0	21	558	445	11,280	0	0	47	2,546	880	32,024	0	0
6/20	88	2,076	945	21,689	0	0	41	599	933	12,213	0	0	129	2,675	1,878	33,902	0	0
6/21	141	2,217	1,252	22,941	0	0	37	636	1,018	13,231	0	0	178	2,853	2,270	36,172	0	0
6/22	152	2,369	1,097	24,038	0	0	45	681	604	13,835	0	0	197	3,050	1,701	37,873	0	0
6/23	21	2,390	354	24,392	0	0	34	715	365	14,200	0	0	55	3,105	719	38,592	0	0
6/24	7	2,397	50	24,442	0	0	21	736	211	14,411	0	0	28	3,133	261	38,853	0	0
6/25	19	2,416	246	24,688	0	0	36	772	364	14,775	0	0	55	3,188	610	39,463	0	0
6/26	77	2,493	845	25,533	0	0	43	815	570	15,345	0	0	120	3,308	1,415	40,878	0	0
6/27	39	2,532	811	26,344	0	0	31	846	275	15,620	0	0	70	3,378	1,086	41,964	0	0
6/28	64	2,596	1,433	27,777	0	0	9	855	264	15,884	0	0	73	3,451	1,697	43,661	0	0
6/29	149	2,745	1,592	29,369	0	0	31	886	406	16,290	0	0	180	3,631	1,998	45,659	0	0
6/30	91	2,836	1,064	30,433	0	0	7	893	133	16,423	0	0	98	3,729	1,197	46,856	0	0

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Appendix B.1. (Page 2 of 4).

Date	Personal-Use Catch						Subsistence Catch						Combined Catches					
	Chinook		Sockeye		Coho		Chinook		Sockeye		Coho		Chinook		Sockeye		Coho	
	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
7/01	33	2,869	699	31,132	0	0	12	905	548	16,971	0	0	45	3,774	1,247	48,103	0	0
7/02	40	2,909	603	31,735	0	0	7	912	271	17,242	0	0	47	3,821	874	48,977	0	0
7/03	38	2,947	737	32,472	0	0	15	927	385	17,627	0	0	53	3,874	1,122	50,099	0	0
7/04	80	3,027	1,235	33,707	0	0	3	930	198	17,825	0	0	83	3,957	1,433	51,532	0	0
7/05	71	3,098	1,276	34,983	0	0	12	942	615	18,440	0	0	83	4,040	1,891	53,423	0	0
7/06	139	3,237	2,463	37,446	0	0	13	955	317	18,757	0	0	152	4,192	2,780	56,203	0	0
7/07	62	3,299	1,614	39,060	0	0	7	962	445	19,202	0	0	69	4,261	2,059	58,262	0	0
7/08	54	3,353	1,526	40,586	0	0	28	990	584	19,786	0	0	82	4,343	2,110	60,372	0	0
7/09	41	3,394	774	41,360	0	0	9	999	401	20,187	0	0	50	4,393	1,175	61,547	0	0
7/10	58	3,452	1,442	42,802	0	0	16	1,015	452	20,639	0	0	74	4,467	1,894	63,441	0	0
7/11	39	3,491	1,509	44,311	0	0	10	1,025	431	21,070	0	0	49	4,516	1,940	65,381	0	0
7/12	83	3,574	2,469	46,780	0	0	12	1,037	418	21,488	0	0	95	4,611	2,887	68,268	0	0
7/13	75	3,649	3,252	50,032	0	0	11	1,048	392	21,880	0	0	86	4,697	3,644	71,912	0	0
7/14	51	3,700	2,807	52,839	0	0	13	1,061	584	22,464	0	0	64	4,761	3,391	75,303	0	0
7/15	38	3,738	1,932	54,771	0	0	27	1,088	1,111	23,575	0	0	65	4,826	3,043	78,346	0	0
7/16	12	3,750	1,052	55,823	0	0	28	1,116	444	24,019	0	0	40	4,866	1,496	79,842	0	0
7/17	21	3,771	868	56,691	0	0	8	1,124	564	24,583	0	0	29	4,895	1,432	81,274	0	0
7/18	13	3,784	990	57,681	0	0	5	1,129	359	24,942	0	0	18	4,913	1,349	82,623	0	0
7/19	16	3,800	1,366	59,047	0	0	5	1,134	511	25,453	0	0	21	4,934	1,877	84,500	0	0
7/20	43	3,843	2,338	61,385	0	0	7	1,141	806	26,259	0	0	50	4,984	3,144	87,644	0	0
7/21	15	3,858	1,076	62,461	0	0	1	1,142	278	26,537	0	0	16	5,000	1,354	88,998	0	0
7/22	6	3,864	749	63,210	0	0	9	1,151	169	26,706	0	0	15	5,015	918	89,916	0	0
7/23	13	3,877	569	63,779	0	0	5	1,156	544	27,250	0	0	18	5,033	1,113	91,029	0	0
7/24	12	3,889	300	64,079	0	0	1	1,157	248	27,498	0	0	13	5,046	548	91,577	0	0
7/25	4	3,893	632	64,711	0	0	5	1,162	274	27,772	0	0	9	5,055	906	92,483	0	0
7/26	4	3,897	837	65,548	0	0	9	1,171	531	28,303	0	0	13	5,068	1,368	93,851	0	0
7/27	15	3,912	1,210	66,758	0	0	19	1,190	244	28,547	0	0	34	5,102	1,454	95,305	0	0
7/28	11	3,923	1,156	67,914	0	0	6	1,196	296	28,843	0	0	17	5,119	1,452	96,757	0	0
7/29	0	3,923	11	67,925	0	0	0	1,196	423	29,266	0	0	0	5,119	434	97,191	0	0
7/30	0	3,923	0	67,925	0	0	2	1,198	410	29,676	0	0	2	5,121	410	97,601	0	0
7/31	0	3,923	0	67,925	0	0	1	1,199	264	29,940	0	0	1	5,122	264	97,865	0	0

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Appendix B.1. (Page 3 of 4).

Date	Personal-Use Catch						Subsistence Catch						Combined Catches					
	Chinook		Sockeye		Coho		Chinook		Sockeye		Coho		Chinook		Sockeye		Coho	
	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
8/01	0	3,923	38	67,963	0	0	0	1,199	188	30,128	0	0	0	5,122	226	98,091	0	0
8/02	1	3,924	603	68,566	0	0	2	1,201	284	30,412	0	0	3	5,125	887	98,978	0	0
8/03	6	3,930	1,413	69,979	0	0	2	1,203	189	30,601	0	0	8	5,133	1,602	100,580	0	0
8/04	0	3,930	193	70,172	0	0	0	1,203	345	30,946	0	0	0	5,133	538	101,118	0	0
8/05	1	3,931	29	70,201	0	0	2	1,205	589	31,535	0	0	3	5,136	618	101,736	0	0
8/06	0	3,931	30	70,231	0	0	0	1,205	315	31,850	0	0	0	5,136	345	102,081	0	0
8/07	0	3,931	0	70,231	0	0	0	1,205	154	32,004	0	0	0	5,136	154	102,235	0	0
8/08	1	3,932	3	70,234	0	0	3	1,208	301	32,305	0	0	4	5,140	304	102,539	0	0
8/09	1	3,933	620	70,854	0	0	3	1,211	219	32,524	0	0	4	5,144	839	103,378	0	0
8/10	3	3,936	992	71,846	0	0	3	1,214	566	33,090	0	0	6	5,150	1,558	104,936	0	0
8/11	1	3,937	389	72,235	0	0	0	1,214	260	33,350	0	0	1	5,151	649	105,585	0	0
8/12	0	3,937	20	72,255	0	0	0	1,214	466	33,816	0	0	0	5,151	486	106,071	0	0
8/13	0	3,937	15	72,270	0	0	0	1,214	139	33,955	1	1	0	5,151	154	106,225	1	1
8/14	0	3,937	12	72,282	2	2	0	1,214	232	34,187	0	1	0	5,151	244	106,469	2	3
8/15	0	3,937	62	72,344	0	2	0	1,214	254	34,441	0	1	0	5,151	316	106,785	0	3
8/16	2	3,939	411	72,755	1	3	0	1,214	88	34,529	0	1	2	5,153	499	107,284	1	4
8/17	0	3,939	254	73,009	1	4	0	1,214	222	34,751	0	1	0	5,153	476	107,760	1	5
8/18	0	3,939	111	73,120	3	7	2	1,216	276	35,027	0	1	2	5,155	387	108,147	3	8
8/19	0	3,939	0	73,120	0	7	0	1,216	97	35,124	0	1	0	5,155	97	108,244	0	8
8/20	0	3,939	6	73,126	0	7	0	1,216	285	35,409	0	1	0	5,155	291	108,535	0	8
8/21	0	3,939	19	73,145	0	7	0	1,216	79	35,488	32	33	0	5,155	98	108,633	32	40
8/22	0	3,939	10	73,155	13	20	0	1,216	0	35,488	97	130	0	5,155	10	108,643	110	150
8/23	2	3,941	363	73,518	37	57	0	1,216	62	35,550	0	130	2	5,157	425	109,068	37	187
8/24	0	3,941	409	73,927	82	139	0	1,216	205	35,755	0	130	0	5,157	614	109,682	82	269
8/25	0	3,941	103	74,030	25	164	0	1,216	12	35,767	0	130	0	5,157	115	109,797	25	294
8/26	0	3,941	0	74,030	0	164	0	1,216	68	35,835	0	130	0	5,157	68	109,865	0	294
8/27	0	3,941	0	74,030	0	164	0	1,216	36	35,871	0	130	0	5,157	36	109,901	0	294
8/28	0	3,941	0	74,030	0	164	0	1,216	4	35,875	1	131	0	5,157	4	109,905	1	295
8/29	0	3,941	7	74,037	8	172	0	1,216	21	35,896	0	131	0	5,157	28	109,933	8	303
8/30	0	3,941	111	74,148	73	245	0	1,216	65	35,961	0	131	0	5,157	176	110,109	73	376
8/31	1	3,942	305	74,453	177	422	0	1,216	12	35,973	0	131	1	5,158	317	110,426	177	553

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Appendix B.1. (Page 4 of 4).

Date	Personal-Use Catch						Subsistence Catch						Combined Catches					
	Chinook		Sockeye		Coho		Chinook		Sockeye		Coho		Chinook		Sockeye		Coho	
	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
9/01	0	3,942	174	74,627	278	700	0	1,216	97	36,070	0	131	0	5,158	271	110,697	278	831
9/02	0	3,942	86	74,713	47	747	0	1,216	0	36,070	0	131	0	5,158	86	110,783	47	878
9/03	0	3,942	68	74,781	72	819	0	1,216	0	36,070	0	131	0	5,158	68	110,851	72	950
9/04	0	3,942	52	74,833	66	885	0	1,216	0	36,070	0	131	0	5,158	52	110,903	66	1,016
9/05	0	3,942	25	74,858	111	996	0	1,216	55	36,125	2	133	0	5,158	80	110,983	113	1,129
9/06	0	3,942	63	74,921	56	1,052	0	1,216	0	36,125	6	139	0	5,158	63	111,046	62	1,191
9/07	2	3,944	98	75,019	171	1,223	0	1,216	57	36,182	31	170	2	5,160	155	111,201	202	1,393
9/08	0	3,944	61	75,080	61	1,284	0	1,216	35	36,217	2	172	0	5,160	96	111,297	63	1,456
9/09	0	3,944	17	75,097	15	1,299	0	1,216	0	36,217	0	172	0	5,160	17	111,314	15	1,471
9/10	0	3,944	17	75,114	99	1,398	0	1,216	0	36,217	0	172	0	5,160	17	111,331	99	1,570
9/11	0	3,944	2	75,116	16	1,414	0	1,216	0	36,217	0	172	0	5,160	2	111,333	16	1,586
9/12	0	3,944	6	75,122	18	1,432	0	1,216	0	36,217	0	172	0	5,160	6	111,339	18	1,604
9/13	0	3,944	37	75,159	193	1,625	0	1,216	0	36,217	0	172	0	5,160	37	111,376	193	1,797
9/14	1	3,945	68	75,227	417	2,042	0	1,216	0	36,217	3	175	1	5,161	68	111,444	420	2,217
9/15	0	3,945	22	75,249	66	2,108	0	1,216	0	36,217	0	175	0	5,161	22	111,466	66	2,283
9/16	0	3,945	6	75,255	18	2,126	0	1,216	0	36,217	0	175	0	5,161	6	111,472	18	2,301
9/17	0	3,945	16	75,271	77	2,203	0	1,216	0	36,217	0	175	0	5,161	16	111,488	77	2,378
9/18	0	3,945	9	75,280	69	2,272	0	1,216	0	36,217	0	175	0	5,161	9	111,497	69	2,447
9/19	0	3,945	8	75,288	180	2,452	0	1,216	0	36,217	0	175	0	5,161	8	111,505	180	2,627
9/20	0	3,945	12	75,300	123	2,575	0	1,216	0	36,217	0	175	0	5,161	12	111,517	123	2,750
9/21	0	3,945	89	75,389	366	2,941	0	1,216	0	36,217	0	175	0	5,161	89	111,606	366	3,116
9/22	1	3,946	35	75,424	161	3,102	0	1,216	0	36,217	0	175	1	5,162	35	111,641	161	3,277
9/23	0	3,946	0	75,424	0	3,102	0	1,216	15	36,232	16	191	0	5,162	15	111,656	16	3,293
9/24	0	3,946	4	75,428	38	3,140	0	1,216	0	36,232	4	195	0	5,162	4	111,660	42	3,335
9/25	0	3,946	0	75,428	2	3,142	0	1,216	2	36,234	12	207	0	5,162	2	111,662	14	3,349
9/26	0	3,946	4	75,432	3	3,145	0	1,216	0	36,234	0	207	0	5,162	4	111,666	3	3,352
9/27	1	3,947	10	75,442	43	3,188	0	1,216	0	36,234	3	210	1	5,163	10	111,676	46	3,398
9/28	0	3,947	9	75,451	36	3,224	0	1,216	0	36,234	3	213	0	5,163	9	111,685	39	3,437
9/29	0	3,947	24	75,475	23	3,247	0	1,216	0	36,234	0	213	0	5,163	24	111,709	23	3,460
9/30	0	3,947	0	75,475	17	3,264	0	1,216	0	36,234	0	213	0	5,163	0	111,709	17	3,477
Total		3,947		75,475		3,264		1,216		36,234		213		5,163		111,709		3,477

Appendix B.2. Estimated age and sex composition of chinook salmon sport fishing harvests from two upper Copper River drainages, 1991.

		Brood Year and Age Group			Total
		1986	1985	1984	
		1.3	1.4	1.5	
<u>Gulkana River</u>					
Sampling Dates:	7/4-7/13				
Female	Number of Samples	3	1	0	4
	Percent of Sample	33.3	11.1	0.0	44.4
Male	Number of Samples	2	3	0	5
	Percent of Sample	22.2	33.3	0.0	55.6
Total	Number of Samples	5	4	0	9
	Percent of Sample	55.6	44.4	0.0	100.0
	Standard Error	22.2	20.0	0.0	
<u>Klutina River</u>					
Sampling Dates:	6/30-8/7				
Female	Sample Size	267	224	0	491
	Percent of Sample	31.7	26.6	0.0	58.3
Male	Sample Size	187	162	2	351
	Percent of Sample	22.2	19.2	0.2	41.7
Total	Sample Size	454	386	2	842
	Percent of Sample	53.9	45.8	0.2	100.0
	Standard Error	1.7	1.7	0.2	

Appendix B.3. Temporally stratified age and sex composition of sockeye salmon harvested in upper Copper River personal-use and subsistence fisheries, 1991.

		Brood Year and Age Group									Total
		1988		1987		1986		1985			
		0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	
Stratum dates:	6/1-6/11										
Sampling dates:	6/2-6/10										
Sample size:	686										
Female	Percent of Sample	0.1	0.0	3.1	3.5	0.1	38.9	0.0	0.0	1.5	47.2
	Number in Catch	23	0	486	556	23	6,184	0	0	232	7,504
Male	Percent of Sample	0.0	0.0	2.6	2.8	0.0	45.0	0.1	0.4	1.7	52.8
	Number in Catch	0	0	417	440	0	7,157	23	69	278	8,384
Total	Percent of Sample	0.1	0.0	5.7	6.3	0.1	84.0	0.1	0.4	3.2	100.0
	Number in Catch	23	0	903	996	23	13,340	23	69	510	15,888
	Standard Error	23	0	141	147	23	223	23	40	107	
Stratum dates:	6/12-6/23										
Sampling dates:	6/13-6/23										
Sample size:	497										
Female	Percent of Sample	0.2	0.0	1.0	7.4	0.0	42.7	0.0	0.4	1.0	52.7
	Number in Catch	46	0	228	1,690	0	9,685	0	91	228	11,969
Male	Percent of Sample	0.0	0.2	2.8	2.8	0.2	38.4	0.0	0.6	2.0	47.1
	Number in Catch	0	46	640	640	46	8,725	0	137	457	10,690
Total	Percent of Sample	0.2	0.2	3.8	10.3	0.2	81.3	0.0	1.0	3.0	100.0
	Number in Catch	46	46	868	2,330	46	18,456	0	228	685	22,704
	Standard Error	46	46	195	309	46	398	0	102	174	
Stratum dates:	6/24-7/2										
Sampling dates:	6/27-7/2										
Sample size:	509										
Female	Percent of Sample	0.0	0.0	0.4	5.5	0.0	42.0	0.0	0.0	0.2	48.1
	Number in Catch	0	0	41	571	0	4,366	0	0	20	4,999
Male	Percent of Sample	0.4	0.0	1.8	3.7	0.0	45.2	0.0	0.2	0.6	51.9
	Number in Catch	41	0	184	388	0	4,693	0	20	61	5,386
Total	Percent of Sample	0.4	0.0	2.2	9.2	0.0	87.2	0.0	0.2	0.8	100.0
	Number in Catch	41	0	224	959	0	9,059	0	20	82	10,385
	Standard Error	29	0	67	133	0	154	0	20	41	
Stratum dates:	7/3-7/9										
Sampling dates:	7/4-7/7										
Sample size:	491										
Female	Percent of Sample	0.0	0.0	1.0	6.9	0.0	47.3	0.0	0.0	0.4	55.6
	Number in Catch	0	0	128	870	0	5,939	0	0	51	6,989
Male	Percent of Sample	0.0	0.0	1.6	2.6	0.0	39.1	0.0	0.6	0.4	44.4
	Number in Catch	0	0	205	333	0	4,915	0	77	51	5,581
Total	Percent of Sample	0.0	0.0	2.6	9.6	0.0	86.4	0.0	0.6	0.8	100.0
	Number in Catch	0	0	333	1,203	0	10,855	0	77	102	12,570
	Standard Error	0	0	91	167	0	195	0	44	51	

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		Brood Year and Age Group									Total
		1988		1987		1986		1985			
		0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	
Stratum dates:	7/10-7/15										
Sampling dates:	7/11-7/14										
Sample size:	480										
Female	Percent of Sample	0.0	0.0	2.7	9.6	0.0	59.8	0.0	0.2	0.4	72.7
	Number in Catch	0	0	455	1,610	0	10,044	0	35	70	12,214
Male	Percent of Sample	0.2	0.0	0.0	4.0	0.0	19.8	0.0	0.4	0.0	24.4
	Number in Catch	35	0	0	665	0	3,325	0	70	0	4,095
Total	Percent of Sample	0.2	0.0	2.7	14.0	0.0	82.1	0.0	0.6	0.4	100.0
	Number in Catch	35	0	455	2,345	0	13,789	0	105	70	16,799
	Standard Error	35	0	125	266	0	294	0	60	49	
Stratum dates:	7/16-7/22										
Sampling dates:	7/19-7/21										
Sample size:	218										
Female	Percent of Sample	0.0	0.0	1.4	5.5	0.0	54.1	0.0	0.9	0.5	62.4
	Number in Catch	0	0	159	637	0	6,263	0	106	53	7,218
Male	Percent of Sample	0.0	0.0	1.4	4.6	0.0	29.8	0.0	1.8	0.0	37.6
	Number in Catch	0	0	159	531	0	3,450	0	212	0	4,352
Total	Percent of Sample	0.0	0.0	2.8	10.1	0.0	83.9	0.0	2.8	0.5	100.0
	Number in Catch	0	0	318	1,168	0	9,712	0	318	53	11,570
	Standard Error	0	0	128	237	0	288	0	128	53	
Stratum dates:	7/23-7/31										
Sampling dates:	7/26-7/28										
Sample size:	276										
Female	Percent of Sample	0.0	0.0	0.7	16.3	0.0	44.6	0.0	2.2	0.0	63.8
	Number in Catch	0	0	58	1,296	0	3,542	0	173	0	5,069
Male	Percent of Sample	0.0	0.0	0.4	7.2	0.0	27.5	0.0	0.4	0.0	35.5
	Number in Catch	0	0	29	576	0	2,189	0	29	0	2,822
Total	Percent of Sample	0.0	0.0	1.1	23.6	0.0	72.8	0.0	2.5	0.0	100.0
	Number in Catch	0	0	86	1,872	0	5,789	0	202	0	7,949
	Standard Error	0	0	50	203	0	213	0	75	0	
Stratum dates:	8/1-8/7										
Sampling dates:	8/3-8/4										
Sample size:	296										
Female	Percent of Sample	0.0	0.0	0.0	11.1	0.0	43.2	0.0	3.4	0.0	57.8
	Number in Catch	0	0	0	487	0	1,890	0	148	0	2,525
Male	Percent of Sample	0.0	0.0	0.3	4.7	0.0	36.1	0.0	0.7	0.0	41.9
	Number in Catch	0	0	15	207	0	1,580	0	30	0	1,831
Total	Percent of Sample	0.0	0.0	0.3	15.9	0.0	79.7	0.0	4.1	0.0	100.0
	Number in Catch	0	0	15	694	0	3,484	0	177	0	4,370
	Standard Error	0	0	15	93	0	102	0	50	0	

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		Brood Year and Age Group									
		1988		1987		1986			1985		
		0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	Total
Stratum dates:	8/8-9/30										
Sampling dates:	8/9-8/11										
Sample size:	216										
Female	Percent of Sample	0.0	0.0	0.5	6.0	0.0	54.2	0.0	4.6	0.0	65.3
	Number in Catch	0	0	44	570	0	5,132	0	439	0	6,184
Male	Percent of Sample	0.0	0.0	0.0	4.2	0.0	26.9	0.0	2.3	1.4	34.7
	Number in Catch	0	0	0	395	0	2,544	0	219	132	3,290
Total	Percent of Sample	0.0	0.0	0.5	10.2	0.0	81.0	0.0	6.9	1.4	100.0
	Number in Catch	0	0	44	965	0	7,676	0	658	132	9,474
	Standard Error	0	0	44	195	0	253	0	164	76	
Strata combined:	6/1-9/30										
Sampling dates:	6/2-8/11										
Sample size:	3,669										
Female	Percent of Sample	0.1	0.0	1.4	7.4	0.0	47.5	0.0	0.9	0.6	57.9
	Number in Catch	69	0	1,599	8,288	23	53,045	0	992	655	64,671
Male	Percent of Sample	0.1	0.0	1.5	3.7	0.0	34.5	0.0	0.8	0.9	41.6
	Number in Catch	76	46	1,648	4,173	46	38,577	23	864	979	46,430
Total	Percent of Sample	0.1	0.0	2.9	11.2	0.1	82.5	0.0	1.7	1.5	100.0
	Number in Catch	145	46	3,247	12,531	69	92,160	23	1,855	1,633	111,709
	Standard Error	68	46	328	615	51	748	23	264	239	

Appendix C
Salmon Escapements to Coastal Streams
of the Copper River Delta and the Bering River

Appendix C.1. Aerial escapement indices for sockeye salmon returning to the Copper River delta and the Bering River, by date and location, 1991.

Copper River Delta System ^a	Survey Site	Aerial Escapement Indices by Survey Date						
		7 June	14 June	19 June	25 June	2 July	10 July	26 July
Eyak Lake	Eyak River	0	15	NS	NS	NS	NS	NS
	West shore beaches	NS	150	100	340	940	7,400	4,900
	Middle Arm beaches ^b	320 *	280	665	2,900 *	2,500	4,200	4,000
	North shore beaches	0	60	780	NC	NC	2,500	5,000
	Hatchery Creek delta	0	6	25	100	100	300	1,000
	Hatchery Creek	0	0	35	30	400	900	400
	Power Creek delta	NS	NS	20	NS	NS	350	1,000
	Power Creek	NS	NS	NS	NS	NS	10	50
Ibek Creek	Ibek Creek	NS	NS	NS	NS	NS	NS	NS
Alaganik Slough	Alaganik Slough	0	NS	NS	NS	NS	NS	NS
	McKinley Lake	NS	NS	NS	1,200	4,950	4,700	1,500
	Salmon Creek west fork	0	0	0	0	0	0	1,000
	Salmon Creek east fork	0	0	0	0	0	0	275
26/27 Mile Creek	26/27 Mile Creek	0	0	55	780	2,800	3,900 *	3,050
39 Mile Creek	39 Mile Creek	0	0	0	0	7	520	4,100
Goat Mountain Cr	Goat Mountain Creek	0	0	0	0	0	0	NC
Pleasant Creek	Pleasant Creek ^b	0	0	165	825 *	1,145 *	0	25
Martin River	Martin River - Lower	12	32	325	1,250	1,780	1,560	1,900 SP
	Ragged Point River	NS	0	0	0	0	0	3,100
	Ragged Point Lake outlet	NS	NS	NS	NS	0	0	0
	Ragged Point Lake	NS	NS	NS	NS	0	0	0
	Martin River - upper ^b	6	0	250	375	3,100	845 *	2,700 SP
	Martin Lake outlet	NS	0	980	380	100	1,800 *	100
	Martin Lake	NS	NS	3,635	7,500	15,300	12,100 *	400
	Martin Lake feeders	NS	NS	NS	NS	160	2,000 *	1,400
	Pothole River	NS	NS	0	NS	145	435 *	300
	Pothole Lake outlet	NS	NS	0	NS	0	20 *	100
	Pothole Lake	NS	NS	0	NS	0	15 *	0
	Little Martin Lake outlet	0	0	0	100	140	120	0
	Little Martin Lake	NS	NS	0	NC	1,050	2,060	1,800
	Tokun Springs	NS	NC	NC	460 *	450	400	200
	Tokun River	NS	1,200	420	420	915	1,025	500
Tokun Lake outlet	NS	0	600	0	1,950	0	200	
Tokun Lake	NS	NS	100	800	1,600	2,400	700	
Martin River Sl	Martin River Slough	0	55	14	4,360	5,180	4,400	4,400
Copper River Aerial Survey Daily Total		338	1,798	8,169	21,820	44,712	53,960	44,100

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Copper River Delta System ^a		Aerial Escapement Indices by Survey Date						
Survey Site	6 Aug	21 Aug	27 Aug	30 Aug	3 Sep	6 Sep	13 Sep	
Eyak Lake	Eyak River	NS	NS	NS	NS	NS	0	0
	West shore beaches	11,220	2,200 +	1,600 +	4,600 +*	4,200	5,200	1,400
	Middle Arm beaches ^b	6,400	6,300	7,300	9,200 *	8,800	9,600	4,000
	North Shore beaches	1,170	700	2,200	3,620 *	3,920	1,830	840
	Hatchery Creek delta	3,100	2,400	3,200	3,700 *	3,100	2,900	2,000
	Hatchery Creek	440	1,300	1,300	1,400 +*	1,900	1,470	1,700
	Power Creek delta	800	1,300	1,820	1,800 *	1,900	1,500	1,200
	Power Creek	60	120	90	70 *	115	90	200
Ibek Creek	Ibek Creek	NS	30	80	95	120	45	100
Alganik Slough	Alganik Slough	NS	NS	NS	NS	NS	NS	NS
	McKinley Lake	2,000 *	950	1,100	NS	NS	1,500	430
	Salmon Creek west fork	3,000 *	2,030	2,160	NS	NS	1,200	360
	Salmon Creek east fork	330 *	320	458	NS	NS	120	220
26/27 Mile Creek	26/27 Mile Creek	720	65	25	45	20	40	20
39 Mile Creek	39 Mile Creek	4,360	4,370	4,900	4,300	5,340 *	3,850	2,230
Goat Mountain Cr	Goat Mountain Creek	2	15	0	NS	0	NC	5
Pleasant Creek	Pleasant Creek ^b	0	0	0	NS	NS	NS	0
Martin River	Martin River - lower	1,100	120	0	0	0	0	0
	Ragged Point River	3,400	1,500	1,900 *	800	NS	300	400
	Ragged Point Lake outlet	450	300	400 *	300	NS	800	600
	Ragged Point Lake	1,100	3,800	3,600 *	4,800	NS	2,600	4,100
	Martin River - upper ^b	80	40	255	1,200 *	650	600	150 +
	Martin Lake outlet	170	0	55	780	210	500	NC
	Martin Lake	220	0	0	650	300	NC	NC
	Martin Lake feeders	1,050	0	0	0	0	0	0
	Pothole River	180	30	0	100 *	0	10	200
	Pothole Lake outlet	0	0	10 +	200 *	200	NC	0
	Pothole Lake	40	0	1,300 +	4,430 *	1,100	2,200	1,400
	Little Martin Lake outlet	0	0	0	0	120	200	400
	Little Martin Lake	1,100	5,100	11,700 *	9,950	6,500 +	4,260	4,500
	Tokun Springs	380	0	20	130	0	NC	0
	Tokun River	560	840	600	1,500 *	NS	600	340
	Tokun Lake outlet	600	300	300	100 *	NS	0	0
Tokun Lake	1,000	2,200	4,200	3,900 *	NS	1,520	1,260	
Martin River Sl	Martin River Slough	1,300	145	52	105	NS	83	10
Copper River Aerial Survey Daily Total		46,332	36,475	50,625	57,775	38,495	43,018	28,065

- continued -

Copper River Delta System ^a	Survey Site	Aerial Escapement Indices by Survey Date		Estimated Escapement	
		20 Sep	23 Oct	Site ^c	System ^d
Eyak Lake	Eyak River	0	0	0	27,610
	West Shore beaches	3,100	0	4,600	
	Middle Arm beaches ^b	3,300	400	12,420	
	North Shore beaches	1,300	0	3,620	
	Hatchery Creek delta	1,400	0	3,700	
	Hatchery Creek	1,700	380	1,400	
	Power Creek delta	300	0	1,800	
	Power Creek	210	150	70	
Ibek Creek	Ibek Creek	0	30	120	120
Alganik Slough	Alganik Slough	NS	NS	0	5,330
	McKinley Lake	800	0	2,000	
	Salmon Creek west fork	225	0	3,000	
	Salmon Creek east fork	80	0	330	
26/27 Mile Creek	26/27 Mile Creek	15	NS	3,900	3,900
39 Mile Creek	39 Mile Creek	1,735	0	5,340	5,340
Goat Mountain Cr	Goat Mountain Creek	20 *	0	20	20
Pleasant Creek	Pleasant Creek ^b	NS	0	1,495 ^e	1,495
Martin River	Martin River - lower	0	0	0	10,700 ^f
	Ragged Point River	100	0	1,900	
	Ragged Point Lake outlet	0	0	400	
	Ragged Point Lake	2,300	100	3,600	
	Martin River - upper ^b	300 +	500	2,045	
	Martin Lake outlet	60 +	NC	1,800	
	Martin Lake	2	800	12,100	
	Martin Lake feeders	1,030 +	0	2,000	
	Pothole River	90	60	535	
	Pothole Lake outlet	300	0	220	
	Pothole Lake	1,600	1,100	4,445	
	Little Martin Lake outlet	0	0	11,700	
	Little Martin Lake	4,700	10		
	Tokun Springs	0	0	1,500	
	Tokun River	110	0	100	
	Tokun Lake outlet	0	0	3,900	
Tokun Lake	1,390	800			
Martin River Sl	Martin River Slough	10	0		
Copper River Aerial Survey Daily Total		26,177	4,330		90,500

- continued -

Bering River System *	Survey Site	Aerial Escapement Indices by Survey Date						
		14 June	19 June	25 June	2 July	10 July	26 July	6 Aug
Bering River	Bering River	5,210	11,400	3,500	1,770 *	3,700	400 +	250
	Bering Lake	3,120	8,830	23,680	24,710 *	15,330	12,700	1,295
	Dick Creek	NS	0	0	0	3,010	11,100	21,940
	Shepherd Creek - lagoon	NC	0	NC	350 +	3,400 +*	600	0
	Shepherd Creek	NS	NS	0	NS	NS	0	1,460
	Carbon Creek	NS	NS	0	NS	NS	300	1,000
	Maxwell Creek	NS	NS	NS	NS	NS	0	0
	Trout Creek	NS	NS	NS	NS	NS	0	0
	Clear Creek	NS	NS	NS	NS	NS	300	1,200 *
	Kushtaka Lake	NS	NS	NS	NS	NS	0	480 *
Shockum Creek	NS	NS	NS	NS	NS	50	400 *	
Katalla River	Katalla River	0	0	50	80	NC	2,800 SP	220
Bering River Aerial Survey Daily Index		8,330	20,230	27,230	26,910	25,440	28,250	28,245

Bering River System *	Survey Site	Aerial Escapement Indices by Survey Date					
		21 Aug	27 Aug	30 Aug	6 Sep	13 Sep	20 Sep
Bering River	Bering River	NC	NS	0	NC	NC	NC
	Bering Lake	100	30	800	72	0	0
	Dick Creek	2,500	1,100	2,300	490	440	95
	Shepherd Creek - lagoon	NC	NS	NS	NS	NS	NS
	Shepherd Creek	250	NS	NS	NS	NS	NS
	Carbon Creek	330	NS	NS	NS	NS	NS
	Maxwell Creek	NS	NS	NS	NS	NS	NS
	Trout Creek	0	NS	NS	NS	NS	NS
	Clear Creek	30	NS	NS	NS	NS	NS
	Kushtaka Lake	220	175	NS	NS	NS	NS
Shockum Creek	200	0	NS	NS	NS	NS	
Katalla River	Katalla River	15	110	260 *	NC	0	0
Bering River Aerial Survey Daily Index		3,645	1,415	3,360	562	440	95

- continued -

Bering River System ^a	Survey Site	Estimated Escapement	
		Site ^c	System ^d
Bering River	Bering River	1,770	26,480
	Bering Lake	24,710	
	Dick Creek	0	
	Shepherd Creek - lagoon	3,400	3,400
	Shepherd Creek	0	
	Carbon Creek	0	
	Maxwell Creek	0	
	Trout Creek	0	0
	Clear Creek	1,200	1,200
	Kushtaka Lake	480	880
	Shockum Creek	400	
Katalla River	Katalla River	260	260
Bering River Aerial Survey Total			32,220
Copper River Aerial Survey Total			90,500
Copper and Bering River Aerial Survey Combined Total			122,720

^a The survey sites represent most of the known sockeye salmon spawning locations in the Copper River delta drainage. Weather permitting, the sites are surveyed weekly. The surveys provide information about the relative strength of escapement among years and within a year, timing for spawning sites, and relative escapement strength among sites. The indices are not intended to provide an actual estimate of escapement for coastal stocks, but they have been used for that purpose in the absence of any other escapement estimating method. The abbreviations used in the following table have the following meaning: NS = no survey, NC = surveyed but no count due to poor conditions, SP= possible species confusion. The + sign after some counts indicates that the count is the minimum estimate of fish seen in less than ideal conditions. The symbol * indicates that this survey count was used as the peak survey for the site without duplication of counts for survey sites along migratory corridors (see footnote b).

^b The sites typically have very protracted run timing or two temporally segregated spawning populations at the same sites. Aerial counts from more than one day may be astricted and used in the escapement estimate if the surveyor indicates that these counts represented different fish.

^c The escapement estimates for each site are in the astricted survey estimate. Where the survey site is a terminal spawning area the peak count is used; however, if the site is a schooling area for migratory fish bound for sites further upstream, the count, which minimizes possible duplication of counts across dates, is selected.

^d The sum of the estimates by site within a system.

^e The aerial survey on 25 June had 475 sockeye in Pleasant Creek 3, which was counted the following week. Those fish were included on the survey conducted 2 July.

^f The Pothole Lake system escapement was subtracted from sockeye observed in Martin Lake.

Appendix C.2. Aerial escapement indices for coho salmon returning to the Copper River delta and the Bering River, by date and location, 1991.

Copper River Delta ^a		Aerial Escapement Indices by Survey Date							
System and Drainage	Survey System	21 Aug	27 Aug	30 Aug	3 Sep	6 Sep	13 Sep	20 Sep	23 Oct
Eyak Lake	Eyak River	NS	NS	NS	NS	6,200 *	600 +	1,350	195
	West shore beaches	12	465	200	1,000	970 *	200 +	2,300	940
	Middle Arm beaches	200	0	0	0	0	0	300	0
	North Shore beaches	0	0	0	0	0	0	550	100
	Hatchery Creek delta	0	0	0	0	0	0	800	900
	Hatchery Creek	0	0	0	0	0	0	75	800
	Power Creek delta	0	0	0	0	0	0	1,200	900
	Power Creek	0	0	0	0	0	0	300	2,700
Ibek Creek	Ibek Creek	180	1,460	1,630	3,420	6,500	6,100	13,540 *	11,800
Scott River	Scott River	NC	NC	15	NS	150	NC	NC	500 *
	Elsner River	NC	0	0	0	0	0	0	0
	Scott Lake	0	0	0	0	20	0	0	200 *
Alganik Slough	Alganik Slough	NS	NS	NS	NS	NS	NS	NS	NS
	18/20 Mile Creek	12	23	90	220	2,570	4,200 *	3,300	780
	McKinley Lake	0	0	60	NS	200	400	800	100 *
	Salmon Creek west fork	0	0	NS	NS	0	100	90	200 *
	Salmon Creek east fork	0	0	NS	NS	0	0	0	1,570 *
26/27 Mile Creek	26/27 Mile Creek	0	15	8	30	46	15	300 *	NS
39 Mile Creek	39 Mile Creek	60	170	200	300	450	1,500	960 +	2,100 +*
Goat Mountain Cr	Goat Mountain Creek	120	90	50 +	20	20	430	760	1,900 +*
Pleasant Creek	Pleasant Creek	2	0	NS	NS	NS	0	NS	6 *
Martin River	Martin River - lower	20	894	2,120	3,425	920	1,300 +	1,900 +	100 *
	Ragged Point River	0	6	10	15	61	85	140	450 *
	Ragged Point Lake outlet	0	0	0	NS	0	0	0	0
	Ragged Point Lake	0	0	0	NS	0	0	0	0
	Martin River - upper	65	180	1,600	820	7,300	5,600 +	6,200 +	1,500 *
	Martin Lake outlet	0	220	310	1,200	600	NC	200 +	NC
	Martin Lake	0	0	640	0	0	NC	NC	1,100 *
	Martin Lake feeders	0	0	30	0	300	200	15	400 *
	Pothole River	0	0	110	70	40	60	160	1,700 *
	Pothole Lake outlet	0	0	0	0	NC	0	0	1,500 *
	Pothole Lake	0	0	0	0	0	0	0	2,800 *
	Little Martin Lake outlet	0	0	0	0	7,020	11,360 *	9,600	7,900
	Little Martin Lake	0	0	0	0	0	0	1,100	2
	Tokun Springs	15	74	320	300	NC	220	1,220	800 *
	Tokun River	0	0	40	40	0	126	240	1,900 *
Tokun Lake outlet	0	0	0	NS	0	0	0	0 *	
Tokun Lake	0	0	0	NS	0	0	0	100 *	
Martin River Slough	Martin River Slough	0	175	1,270	NS	4,323	8,860 *	7,780	6,580
Copper River Aerial Survey Daily Total		686	3,772	8,703	10,860	37,690	41,356	55,180	52,523

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Copper River Delta ^a		Estimated Escapement	
System and Drainage	Survey System	Site ^c	System ^d
Eyak Lake	Eyak River	6,200	7,170
	West shore beaches	970	
	Middle Arm beaches		
	North Shore beaches		
	Hatchery Creek delta		
	Hatchery Creek		
	Power Creek delta		
	Power Creek		
Ibek Creek	Ibek Creek	13,540	13,540
Scott River	Scott River	500	700
	Elsner River	0	
	Scott Lake	200	
Alganik Slough	Alganik Slough	NS	6,070
	18/20 Mile Creek	4,200	
	McKinley Lake	100	
	Salmon Creek west fork	200	
	Salmon Creek east fork	1,570	
26/27 Mile Creek	26/27 Mile Creek	300	300
39 Mile Creek	39 Mile Creek	2,100	2,100
Goat Mountain Cr	Goat Mountain Creek	1,900	1,900
Pleasant Creek	Pleasant Creek	6	6
Martin River	Martin River - lower	100	1,600
	Ragged Point River	450	450
	Ragged Point Lake outlet	0	
	Ragged Point Lake	0	
	Martin River - upper	1,500	
	Martin Lake outlet	NC	1,500
	Martin Lake	1,100	
	Martin Lake Feeders	400	
	Pothole River	1,700	6,000
	Pothole Lake outlet	1,500	
	Pothole Lake	2,800	
	Little Martin Lake outlet	11,360	11,360
	Little Martin Lake		
	Tokun Springs	800	2,800
Tokun River	1,900		
Tokun Lake outlet	0		
Tokun Lake	100		
Martin River Slough	Martin River Slough	8,860	8,860
Copper River Aerial Survey Total			64,356

- continued -

Bering River System ^a and Drainage	Survey System	Aerial Escapement Indices by Survey Date						
		21 Aug	27 Aug	30 Aug	6 Sep	13 Sep	20 Sep	23 Oct
Bering River	Bering River ^c	0	87	400	375	400	2,300 *	381
	Bering Lake	0	0	400	3,300	2,900 +	10,000 *	3,340
	Dick Creek	0	0	150	0	500	1,220 *	1,970
	Shepherd Creek - lagoon	NC	NS	NS	NS	NS	NS	NS
	Shepherd Creek	0	NS	NS	NS	NS	NS	NS
	Carbon Creek	0	NS	NS	NS	NS	NS	NS
	Maxwell Creek	NS	NS	NS	NS	NS	NS	NS
Katalla River	Katalla River	10	680	1,280	NC	3,545 +	4,000 *	400
Lower Bering River	Gandil River	0	0	0	143	660 +	830	1,460 *
	Nichawak River	12	10	175	570 +	2,020 +	2,560 *	1,200
Controller Bay	Campbell River	0	0	0	0	0	0	NS
	Edwards River	0	60	32	706	3,300	5,720 *	NS
	Okalee River	0	0 +	5 +	1,100 +	2,600 +	3,345 +*	NS
	Other clear streams	0	0	0	5	680	695 *	NS
Bering River Aerial Survey Daily Index		22	837	2,442	6,199	16,605	30,670	8,751

Bering River System ^a and Drainage	Survey System	Estimated Escapement	
		Site ^c	System ^d
Bering River	Bering River ^c	2,300	13,520
	Bering Lake	10,000	
	Dick Creek	1,220	
	Shepherd Creek - lagoon	NS	
	Shepherd Creek	NS	
	Carbon Creek	NS	
	Maxwell Creek	NS	
Katalla River	Katalla River	4,000	4,000
Lower Bering River	Gandil River	1,460	4,020
	Nichawak River	2,560	
Controller Bay	Campbell River	0	9,760
	Edwards River	5,720	
	Okalee River	3,345	
	Other clear streams	695	
Bering River Aerial Survey Total			31,300
Copper River Aerial Survey Total			64,356
Total			95,656

- continued -

^a The survey sites represent most of the known coho salmon spawning locations in the Copper and Bering River Delta drainage. Weather permitting, the sites are surveyed weekly. The surveys provide information about the relative strength of escapements among years and within a year, time for spawning sites, and relative escapement strength among sites. The indices are not intended to provide an actual estimate of escapement for coastal stocks, but they have been used for that purpose in the absence of any other escapement estimating method. The abbreviations used in the following table have the following meaning: NS = no survey and NC = surveyed but no count due to poor conditions. The + sign after some counts indicates that the count is the minimum estimate of fish seen in less than ideal conditions. The symbol * indicates that this survey count was used as the peak survey for the site without duplication of counts for survey sites along migratory corridors (see footnote b).

^b For systems not flown on any given survey, the expected escapement for that system was subtracted from the total anticipated for that survey.

^c The escapement estimates for each site are in the astricted survey estimate. Where the survey site is a terminal spawning area, the peak count is used; however, if the site is a schooling area for migratory fish bound for sites further upstream, the count, which minimizes possible duplication of counts across dates, is selected.

^d The sum of the estimates by site within a system.

^e Bering River counts include coho observed in the Don Miller Hill tributaries.

Appendix C.3. Estimated age and sex composition of sockeye salmon in the total indexed escapements to the Copper River delta and Bering River drainages, 1991.

		Brood Year and Age Group												Total	
		1989	1988			1987			1986			1985			1984
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.3		
Copper River Delta Escapements															
Stratum dates:		6/14–10/23													
Sampling dates:		6/12–8/29													
Sample size:		6,322													
Female	Percent of Sample	0.0	0.4	0.0	5.6	8.2	0.0	0.0	28.2	0.0	0.0	0.2	0.0	42.7	
	Number in Escapement	0	362	0	4,691	6,833	0	8	23,574	10	8	193	0	35,678	
Male	Percent of Sample	0.1	2.2	2.3	3.7	34.3	0.0	0.0	14.5	0.1	0.0	0.1	0.0	57.3	
	Number in Escapement	50	1,798	1,915	3,120	28,684	10	0	12,096	71	8	84	0	47,835	
Total	Percent of Sample	0.1	2.6	2.3	9.3	42.6	0.0	0.0	42.7	0.1	0.0	0.3	0.0	100.0	
	Number in Escapement	50	2,160	1,915	7,811	35,554	10	8	35,670	80	15	277	0	83,550	
	Standard Error	40	268	217	316	572	10	8	578	28	11	52	0		
Bering River Escapements															
Stratum dates:		6/14–8/21													
Sampling dates:		7/10–8/7													
Sample size:		1,499													
Female	Percent of Sample	0.0	0.0	0.0	4.4	1.1	0.0	0.0	41.9	0.1	0.0	0.1	0.0	47.6	
	Number in Escapement	0	0	0	1,342	341	0	0	12,878	38	0	37	2	14,639	
Male	Percent of Sample	0.0	0.0	0.3	4.3	10.4	0.0	0.0	37.2	0.1	0.0	0.0	0.0	52.4	
	Number in Escapement	0	15	92	1,324	3,205	0	0	11,443	27	0	8	0	16,113	
Total	Percent of Sample	0.0	0.0	0.3	8.7	11.5	0.0	0.0	79.1	0.2	0.0	0.1	0.0	100.0	
	Number in Escapement	0	15	92	2,674	3,547	0	0	24,321	66	0	45	2	30,760	
	Standard Error	0	8	49	309	362	0	0	452	11	0	14	2		
Combined Copper River Delta and Bering River Escapements															
Strata combined:		6/14–10/23													
Sampling dates:		6/12–8/29													
Sample size:		7,821													
Female	Percent of Sample	0.0	0.3	0.0	5.3	6.3	0.0	0.0	31.9	0.0	0.0	0.2	0.0	44.0	
	Number in Escapement	0	362	0	6,033	7,175	0	8	36,452	48	8	230	2	50,317	
Male	Percent of Sample	0.0	1.6	1.8	3.9	27.9	0.0	0.0	20.6	0.1	0.0	0.1	0.0	55.9	
	Number in Escapement	50	1,813	2,006	4,443	31,889	10	0	23,539	98	8	92	0	63,948	
Total	Percent of Sample	0.0	1.9	1.8	9.2	34.2	0.0	0.0	52.5	0.1	0.0	0.3	0.0	100.0	
	Number in Escapement	50	2,175	2,006	10,484	39,101	10	8	59,991	146	15	322	2	114,310	
	Standard Error	40	268	223	442	677	10	8	734	30	11	54	2		

Appendix C.4. Estimated age and sex composition of sockeye salmon escapements to the Copper River delta, by location, 1991.

		Brood Year and Age Group											Total	
		1989		1988			1987			1986		1985		
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3		
<u>Evak Lake — south beaches</u>														
Stratum dates:		6/14–7/9												
Sampling dates:		7/1												
Sample size:		87												
Female	Percent of Sample	0.0	0.0	0.0	0.0	2.3	0.0	0.0	48.3	0.0	0.0	0.0	50.6	
	Number in Escapement	0	0	0	0	22	0	0	454	0	0	0	475	
Male	Percent of Sample	0.0	0.0	0.0	0.0	25.3	0.0	0.0	24.1	0.0	0.0	0.0	49.4	
	Number in Escapement	0	0	0	0	238	0	0	227	0	0	0	465	
Total	Percent of Sample	0.0	0.0	0.0	0.0	27.6	0.0	0.0	72.4	0.0	0.0	0.0	100.0	
	Number in Escapement	0	0	0	0	259	0	0	681	0	0	0	940	
	Standard Error	0	0	0	0	45	0	0	45	0	0	0		
<hr/>														
Stratum dates:		7/9–9/20												
Sampling dates:		7/15, 7/25												
Sample size:		467												
Female	Percent of Sample	0.0	0.2	0.0	4.5	4.7	0.0	0.0	35.1	0.0	0.0	0.4	45.0	
	Number in Escapement	0	8	0	165	172	0	0	1,285	0	0	16	1,646	
Male	Percent of Sample	0.0	1.3	0.0	1.9	39.8	0.0	0.0	12.0	0.0	0.0	0.0	55.0	
	Number in Escapement	0	47	0	71	1,458	0	0	439	0	0	0	2,014	
Total	Percent of Sample	0.0	1.5	0.0	6.4	44.5	0.0	0.0	47.1	0.0	0.0	0.4	100.0	
	Number in Escapement	0	55	0	235	1,630	0	0	1,724	0	0	16	3,660	
	Standard Error	0	21	0	42	84	0	0	85	0	0	11		
<hr/>														
Strata combined:		6/14–9/20												
Sampling dates:		7/1–7/25												
Sample size:		554												
Female	Percent of Sample	0.0	0.2	0.0	3.6	4.2	0.0	0.0	37.8	0.0	0.0	0.3	46.1	
	Number in Escapement	0	8	0	165	194	0	0	1,739	0	0	16	2,121	
Male	Percent of Sample	0.0	1.0	0.0	1.5	36.9	0.0	0.0	14.5	0.0	0.0	0.0	53.9	
	Number in Escapement	0	47	0	71	1,695	0	0	666	0	0	0	2,479	
Total	Percent of Sample	0.0	1.2	0.0	5.1	41.1	0.0	0.0	52.3	0.0	0.0	0.3	100.0	
	Number in Escapement	0	55	0	235	1,889	0	0	2,405	0	0	16	4,600	
	Standard Error	0	21	0	42	96	0	0	96	0	0	11		

- continued -

		Brood Year and Age Group											Total	
		1989		1988			1987			1986		1985		
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3		
<u>Eyak Lake — Middle Arm</u>														
Stratum dates:		6/7–6/14												
Sampling dates:		6/12												
Sample size:		37												
Female	Percent of Sample	0.0	0.0	0.0	32.4	0.0	0.0	0.0	13.5	0.0	0.0	0.0	45.9	
	Number in Escapement	0	0	0	104	0	0	0	43	0	0	0	147	
Male	Percent of Sample	0.0	0.0	0.0	29.7	0.0	0.0	0.0	24.3	0.0	0.0	0.0	54.1	
	Number in Escapement	0	0	0	95	0	0	0	78	0	0	0	173	
Total	Percent of Sample	0.0	0.0	0.0	62.2	0.0	0.0	0.0	37.8	0.0	0.0	0.0	100.0	
	Number in Escapement	0	0	0	199	0	0	0	121	0	0	0	320	
	Standard Error	0	0	0	26	0	0	0	26	0	0	0		
Stratum dates:		6/15–7/2												
Sampling dates:		6/26												
Sample size:		223												
Female	Percent of Sample	0.0	0.0	0.0	16.1	0.9	0.0	0.0	33.2	0.0	0.0	0.0	50.2	
	Number in Escapement	0	0	0	468	26	0	0	962	0	0	0	1,457	
Male	Percent of Sample	0.0	0.0	0.0	9.0	4.9	0.0	0.0	35.9	0.0	0.0	0.0	49.8	
	Number in Escapement	0	0	0	260	143	0	0	1,040	0	0	0	1,443	
Total	Percent of Sample	0.0	0.0	0.0	25.1	5.8	0.0	0.0	69.1	0.0	0.0	0.0	100.0	
	Number in Escapement	0	0	0	728	169	0	0	2,003	0	0	0	2,900	
	Standard Error	0	0	0	84	46	0	0	90	0	0	0		
Stratum dates:		7/3–8/21												
Sampling dates:		7/9, 7/19												
Sample size:		391												
Female	Percent of Sample	0.0	0.0	0.0	4.6	3.6	0.0	0.0	35.8	0.0	0.0	0.0	44.0	
	Number in Escapement	0	0	0	193	150	0	0	1,504	0	0	0	1,848	
Male	Percent of Sample	0.0	2.6	0.3	4.1	26.3	0.0	0.0	22.8	0.0	0.0	0.0	56.0	
	Number in Escapement	0	107	11	172	1,106	0	0	956	0	0	0	2,352	
Total	Percent of Sample	0.0	2.6	0.3	8.7	29.9	0.0	0.0	58.6	0.0	0.0	0.0	100.0	
	Number in Escapement	0	107	11	365	1,257	0	0	2,460	0	0	0	4,200	
	Standard Error	0	34	11	60	97	0	0	105	0	0	0		
Stratum dates:		8/22–10/23												
Sampling dates:		8/29												
Sample size:		495												
Female	Percent of Sample	0.0	0.0	0.0	0.0	11.3	0.0	0.0	29.3	0.0	0.0	0.2	40.8	
	Number in Escapement	0	0	0	0	566	0	0	1,465	0	0	10	2,040	
Male	Percent of Sample	0.0	0.0	2.6	0.0	31.7	0.0	0.0	24.6	0.0	0.0	0.2	59.2	
	Number in Escapement	0	0	131	0	1,586	0	0	1,232	0	0	10	2,960	
Total	Percent of Sample	0.0	0.0	2.6	0.0	43.0	0.0	0.0	53.9	0.0	0.0	0.4	100.0	
	Number in Escapement	0	0	131	0	2,152	0	0	2,697	0	0	20	5,000	
	Standard Error	0	0	36	0	111	0	0	112	0	0	14		
<u>Strata combined:</u>		6/7–10/23												
Sampling dates:		6/12–8/29												
Sample size:		1,146												
Female	Percent of Sample	0.0	0.0	0.0	6.2	6.0	0.0	0.0	32.0	0.0	0.0	0.1	44.2	
	Number in Escapement	0	0	0	765	742	0	0	3,974	0	0	10	5,492	
Male	Percent of Sample	0.0	0.9	1.1	4.2	22.8	0.0	0.0	26.6	0.0	0.0	0.1	55.8	
	Number in Escapement	0	107	142	527	2,835	0	0	3,307	0	0	10	6,928	
Total	Percent of Sample	0.0	0.9	1.1	10.4	28.8	0.0	0.0	58.6	0.0	0.0	0.2	100.0	
	Number in Escapement	0	107	142	1,292	3,577	0	0	7,281	0	0	20	12,420	
	Standard Error	0	34	38	107	155	0	0	180	0	0	14		

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		Brood Year and Age Group													
		1989		1988			1987			1986			1985		
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total		
Eyak Lake — north beaches															
Stratum dates:	6/14–9/20														
Sampling dates:	8/2														
Sample size:	381														
Female	Percent of Sample	0.0	0.0	0.0	0.3	6.8	0.0	0.0	35.7	0.3	0.0	1.6	44.6		
	Number in Escapement	0	0	0	10	247	0	0	1,292	10	0	57	1,615		
Male	Percent of Sample	0.0	1.3	1.3	0.3	26.2	0.3	0.0	24.9	0.3	0.0	0.8	55.4		
	Number in Escapement	0	48	48	10	950	10	0	903	10	0	29	2,005		
Total	Percent of Sample	0.0	1.3	1.3	0.5	33.1	0.3	0.0	60.6	0.5	0.0	2.4	100.0		
	Number in Escapement	0	48	48	19	1,197	10	0	2,195	19	0	86	3,620		
	Standard Error	0	21	21	13	87	10	0	91	13	0	28			
Eyak Lake — Hatchery Creek															
Stratum dates:	6/14–10/23														
Sampling dates:	7/23, 7/26														
Sample size:	44														
Female	Percent of Sample	0.0	0.0	0.0	9.1	2.3	0.0	0.0	29.5	0.0	0.0	0.0	40.9		
	Number in Escapement	0	0	0	336	84	0	0	1,093	0	0	0	1,514		
Male	Percent of Sample	0.0	13.6	0.0	4.5	25.0	0.0	0.0	15.9	0.0	0.0	0.0	59.1		
	Number in Escapement	0	505	0	168	925	0	0	589	0	0	0	2,186		
Total	Percent of Sample	0.0	13.6	0.0	13.6	27.3	0.0	0.0	45.5	0.0	0.0	0.0	100.0		
	Number in Escapement	0	505	0	505	1,009	0	0	1,682	0	0	0	3,700		
	Standard Error	0	194	0	194	251	0	0	281	0	0	0			
Eyak Lake Total															
Strata combined:	6/7–10/23														
Sampling dates:	6/12–8/29														
Sample size:	2,125														
Female	Percent of Sample	0.0	0.0	0.0	5.2	5.2	0.0	0.0	33.3	0.0	0.0	0.3	44.1		
	Number in Escapement	0	8	0	1,276	1,267	0	0	8,099	10	0	83	10,742		
Male	Percent of Sample	0.0	2.9	0.8	3.2	26.3	0.0	0.0	22.4	0.0	0.0	0.2	55.9		
	Number in Escapement	0	706	190	775	6,406	10	0	5,464	10	0	39	13,598		
Total	Percent of Sample	0.0	2.9	0.8	8.4	31.5	0.0	0.0	55.7	0.1	0.0	0.5	100.0		
	Number in Escapement	0	714	190	2,051	7,673	10	0	13,562	19	0	121	24,340		
	Standard Error	0	199	43	225	322	10	0	359	13	0	33			

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		Brood Year and Age Group											Total	
		1989	1988			1987			1986			1985		
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3		
McKinley Lake — Salmon Creek Delta														
Stratum dates:		6/25–9/20												
Sampling dates:		7/2, 7/22												
Sample size:		537												
Female	Percent of Sample	0.0	0.2	0.0	5.8	2.0	0.0	0.0	27.2	0.0	0.0	0.6	35.8	
	Number in Escapement	0	10	0	308	109	0	0	1,449	0	0	30	1,906	
Male	Percent of Sample	0.0	1.3	1.3	4.5	44.5	0.0	0.0	12.1	0.6	0.0	0.0	64.2	
	Number in Escapement	0	69	69	238	2,372	0	0	645	30	0	0	3,424	
Total	Percent of Sample	0.0	1.5	1.3	10.2	46.6	0.0	0.0	39.3	0.6	0.0	0.6	100.0	
	Number in Escapement	0	79	69	546	2,481	0	0	2,094	30	0	30	5,330	
	Standard Error	0	28	26	70	115	0	0	112	17	0	17		
27-Mile Slough — confluence with Copper River														
Stratum dates:		6/19–9/2												
Sampling dates:		6/20, 6/27												
Sample size:		508												
Female	Percent of Sample	0.0	0.4	0.0	12.2	4.3	0.0	0.2	46.7	0.0	0.2	0.2	64.2	
	Number in Escapement	0	15	0	476	169	0	8	1,819	0	8	8	2,503	
Male	Percent of Sample	0.0	0.0	0.0	3.3	20.9	0.0	0.0	11.4	0.0	0.2	0.0	35.8	
	Number in Escapement	0	0	0	131	814	0	0	445	0	8	0	1,397	
Total	Percent of Sample	0.0	0.4	0.0	15.6	25.2	0.0	0.2	58.1	0.0	0.4	0.2	100.0	
	Number in Escapement	0	15	0	606	983	0	8	2,265	0	15	8	3,900	
	Standard Error	0	11	0	63	75	0	8	85	0	11	8		
39-Mile Creek														
Stratum dates:		7/2–9/20												
Sampling dates:		8/5												
Sample size:		545												
Female	Percent of Sample	0.0	0.0	0.0	2.0	1.8	0.0	0.0	41.5	0.0	0.0	0.7	46.1	
	Number in Escapement	0	0	0	108	98	0	0	2,214	0	0	39	2,459	
Male	Percent of Sample	0.0	0.2	4.8	2.4	13.9	0.0	0.0	32.1	0.4	0.0	0.2	53.9	
	Number in Escapement	0	10	255	127	745	0	0	1,715	20	0	10	2,881	
Total	Percent of Sample	0.0	0.2	4.8	4.4	15.8	0.0	0.0	73.6	0.4	0.0	0.9	100.0	
	Number in Escapement	0	10	255	235	843	0	0	3,929	20	0	49	5,340	
	Standard Error	0	10	49	47	83	0	0	101	14	0	22		
Ragged Point River — confluence with Martin River														
Stratum dates:		7/26–10/23												
Sampling dates:		7/29												
Sample size:		498												
Female	Percent of Sample	0.0	0.8	0.0	18.3	3.4	0.0	0.0	32.3	0.0	0.0	0.4	55.2	
	Number in Escapement	0	47	0	1,078	201	0	0	1,907	0	0	24	3,258	
Male	Percent of Sample	0.2	1.0	1.2	15.7	4.6	0.0	0.0	21.3	0.2	0.0	0.6	44.8	
	Number in Escapement	12	59	71	924	272	0	0	1,256	12	0	36	2,642	
Total	Percent of Sample	0.2	1.8	1.2	33.9	8.0	0.0	0.0	53.6	0.2	0.0	1.0	100.0	
	Number in Escapement	12	107	71	2,002	474	0	0	3,163	12	0	59	5,900	
	Standard Error	12	35	29	125	72	0	0	132	12	0	26		

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		Brood Year and Age Group												
		1989	1988			1987			1986			1985		
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	Total	
Martin Lake														
Stratum dates:	6/19-10/23													
Sampling dates:	6/28													
Sample size:	373													
Female	Percent of Sample	0.0	0.0	0.0	0.5	4.0	0.0	0.0	25.7	0.0	0.0	0.0	30.3	
	Number in Escapement	0	0	0	28	209	0	0	1,338	0	0	0	1,575	
Male	Percent of Sample	0.0	0.3	0.3	0.8	50.9	0.0	0.0	17.2	0.0	0.0	0.0	69.4	
	Number in Escapement	0	14	14	42	2,649	0	0	892	0	0	0	3,611	
Total	Percent of Sample	0.0	0.3	0.3	1.3	55.2	0.0	0.0	42.9	0.0	0.0	0.0	100.0	
	Number in Escapement	0	14	14	70	2,872	0	0	2,231	0	0	0	5,200	
	Standard Error	0	14	14	31	134	0	0	133	0	0	0		
<hr/>														
Stratum dates:	6/19-10/23													
Sampling dates:	7/28													
Sample size:	279													
Female	Percent of Sample	0.0	2.2	0.0	1.4	17.6	0.0	0.0	18.6	0.0	0.0	0.0	39.8	
	Number in Escapement	0	230	0	153	1,879	0	0	1,994	0	0	0	4,257	
Male	Percent of Sample	0.4	4.3	9.3	0.7	44.1	0.0	0.0	1.4	0.0	0.0	0.0	60.2	
	Number in Escapement	38	460	997	77	4,717	0	0	153	0	0	0	6,443	
Total	Percent of Sample	0.4	6.5	9.3	2.2	61.6	0.0	0.0	20.1	0.0	0.0	0.0	100.0	
	Number in Escapement	38	690	997	230	6,596	0	0	2,148	0	0	0	10,700	
	Standard Error	38	158	187	93	312	0	0	257	0	0	0		
<hr/>														
Strata combined:	6/19-10/23													
Sampling dates:	6/28-7/28													
Sample size:	652													
Female	Percent of Sample	0.0	1.4	0.0	1.1	13.1	0.0	0.0	21.0	0.0	0.0	0.0	36.7	
	Number in Escapement	0	230	0	181	2,088	0	0	3,333	0	0	0	5,832	
Male	Percent of Sample	0.2	3.0	6.4	0.7	46.3	0.0	0.0	6.6	0.0	0.0	0.0	63.2	
	Number in Escapement	38	474	1,011	119	7,366	0	0	1,046	0	0	0	10,054	
Total	Percent of Sample	0.2	4.4	6.4	1.9	59.5	0.0	0.0	27.5	0.0	0.0	0.0	100.0	
	Number in Escapement	38	704	1,011	300	9,468	0	0	4,378	0	0	0	15,900	
	Standard Error	38	158	187	98	340	0	0	290	0	0	0		

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		Brood Year and Age Group											Total	
		1989		1988			1987			1986		1985		
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3		
Little Martin Lake														
Stratum dates:		6/25–10/23												
Sampling dates:		8/21												
Sample size:		500												
Female	Percent of Sample	0.0	0.0	0.0	0.0	21.6	0.0	0.0	19.0	0.0	0.0	0.0	40.6	
	Number in Escapement	0	0	0	0	2,527	0	0	2,223	0	0	0	4,750	
Male	Percent of Sample	0.0	0.0	2.2	0.0	55.4	0.0	0.0	1.6	0.0	0.0	0.0	59.2	
	Number in Escapement	0	0	257	0	6,482	0	0	187	0	0	0	6,926	
Total	Percent of Sample	0.0	0.0	2.2	0.0	77.2	0.0	0.0	20.6	0.0	0.0	0.0	100.0	
	Number in Escapement	0	0	257	0	9,032	0	0	2,410	0	0	0	11,700	
	Standard Error	0	0	77	0	220	0	0	212	0	0	0		
Tokun Lake														
Stratum dates:		7/26–8/27												
Sampling dates:		8/26–8/27												
Sample size:		450												
Female	Percent of Sample	0.0	0.0	0.0	0.0	2.7	0.0	0.0	27.6	0.0	0.0	0.0	30.2	
	Number in Escapement	0	0	0	0	159	0	0	1,642	0	0	0	1,801	
Male	Percent of Sample	0.0	0.0	0.0	0.0	54.7	0.0	0.0	15.1	0.0	0.0	0.0	69.8	
	Number in Escapement	0	0	0	0	3,258	0	0	901	0	0	0	4,159	
Total	Percent of Sample	0.0	0.0	0.0	0.0	57.3	0.0	0.0	42.7	0.0	0.0	0.0	100.0	
	Number in Escapement	0	0	0	0	3,417	0	0	2,543	0	0	0	5,960	
	Standard Error	0	0	0	0	139	0	0	139	0	0	0		
Martin River Slough														
Stratum dates:		6/14–9/20												
Sampling dates:		7/5												
Sample size:		508												
Female	Percent of Sample	0.0	1.0	0.0	24.4	4.1	0.0	0.0	17.1	0.0	0.0	0.2	46.9	
	Number in Escapement	0	51	0	1,264	214	0	0	887	0	0	10	2,427	
Male	Percent of Sample	0.0	9.3	1.2	15.6	18.7	0.0	0.0	8.5	0.0	0.0	0.0	53.1	
	Number in Escapement	0	479	61	806	969	0	0	438	0	0	0	2,753	
Total	Percent of Sample	0.0	10.2	1.2	40.0	22.8	0.0	0.0	25.6	0.0	0.0	0.2	100.0	
	Number in Escapement	0	530	61	2,070	1,183	0	0	1,326	0	0	10	5,180	
	Standard Error	0	70	25	113	97	0	0	100	0	0	10		
Copper River Delta Escapements														
Strata combined:		6/14–10/23												
Sampling dates:		6/12–8/29												
Sample size:		6,323												
Female	Percent of Sample	0.0	0.4	0.0	5.6	8.2	0.0	0.0	28.2	0.0	0.0	0.2	42.7	
	Number in Escapement	0	362	0	4,691	6,833	0	8	23,574	10	8	193	35,678	
Male	Percent of Sample	0.1	2.2	2.3	3.7	34.3	0.0	0.0	14.5	0.1	0.0	0.1	57.3	
	Number in Escapement	50	1,798	1,915	3,120	28,684	10	0	12,096	71	8	84	47,835	
Total	Percent of Sample	0.1	2.6	2.3	9.3	42.6	0.0	0.0	42.7	0.1	0.0	0.3	100.0	
	Number in Escapement	50	2,160	1,915	7,811	35,554	10	8	35,670	80	15	277	83,550	
	Standard Error	40	268	217	316	572	10	8	578	28	11	52		

Appendix C.5. Estimated age and sex composition of sockeye salmon escapements to the Bering River drainage, by location, 1991.

		Brood Year and Age Group								Total
		1988		1987		1986		1985	1984	
		0.2	1.1	0.3	1.2	1.3	2.2	2.3	3.3	
Bering Lake Escapement										
Stratum dates:		6/14-9/20								
Sampling dates:		7/10-7/12								
Sample size:		567								
Female	Percent of Sample	0.0	0.0	3.5	0.9	40.6	0.0	0.0	0.0	45.0
	Number in Escapement	0	0	934	234	10,741	0	0	0	11,909
Male	Percent of Sample	0.0	0.2	4.6	10.9	39.3	0.0	0.0	0.0	55.0
	Number in Escapement	0	47	1,214	2,896	10,415	0	0	0	14,571
Total	Percent of Sample	0.0	0.2	8.1	11.8	79.9	0.0	0.0	0.0	100.0
	Number in Escapement	0	47	2,148	3,129	21,156	0	0	0	26,480
	Standard Error	0	47	304	359	446	0	0	0	
Kushtaka Lake Escapement										
Stratum dates:		7/26-8/27								
Sampling dates:		8/7								
Sample size:		483								
Female	Percent of Sample	0.0	0.0	1.7	5.4	39.8	4.3	2.5	0.2	53.8
	Number in Escapement	0	0	15	47	350	38	22	2	474
Male	Percent of Sample	0.8	1.7	0.4	18.8	21.3	3.1	0.0	0.0	46.2
	Number in Escapement	7	15	4	166	188	27	0	0	406
Total	Percent of Sample	0.8	1.7	2.1	24.2	61.1	7.5	2.5	0.2	100.0
	Number in Escapement	7	15	18	213	537	66	22	2	880
	Standard Error	4	5	6	17	20	11	6	2	
Shepherd Creek Escapement										
Stratum dates:		7/2-8/21								
Sampling dates:		7/11								
Sample size:		449								
Female	Percent of Sample	0.0	0.0	11.6	1.8	52.6	0.0	0.4	0.0	66.4
	Number in Escapement	0	0	394	61	1,787	0	15	0	2,257
Male	Percent of Sample	0.2	0.9	3.1	4.2	24.7	0.0	0.2	0.0	33.4
	Number in Escapement	8	30	106	144	841	0	8	0	1,136
Total	Percent of Sample	0.2	0.9	14.9	6.0	77.3	0.0	0.7	0.0	100.0
	Number in Escapement	8	30	507	204	2,628	0	23	0	3,400
	Standard Error	8	15	57	38	67	0	13	0	
Combined Bering River Escapements										
Strata combined:		6/14-8/21								
Sampling dates:		7/10-7/11								
Sample size:		1,499								
Female	Percent of Sample	0.0	0.0	4.4	1.1	41.9	0.1	0.1	0.0	47.6
	Number in Escapement	0	0	1,342	341	12,878	38	37	2	14,639
Male	Percent of Sample	0.0	0.3	4.3	10.4	37.2	0.1	0.0	0.0	52.4
	Number in Escapement	15	92	1,324	3,205	11,443	27	8	0	16,113
Total	Percent of Sample	0.0	0.3	8.7	11.5	79.1	0.2	0.1	0.0	100.0
	Number in Escapement	15	92	2,674	3,547	24,321	66	45	2	30,760
	Standard Error	8	49	309	362	452	11	14	2	

Appendix D
Salmon Escapements to the Upper Copper River

Appendix D.1. Daily Copper River salmon escapement estimates at the Miles Lake sonar site, 1991.

Date	North Bank	South Bank	Daily	Cumulative
05/22		1,087	1,087	1,087
05/22		1,717	1,717	2,804
05/23	310	2,851	3,161	5,965
05/24	184	2,281	2,465	8,430
05/25	230	2,816	3,046	11,476
05/26	236	3,038	3,274	14,750
05/27	223	3,670	3,893	18,643
05/28	109	3,280	3,389	22,032
05/29	372	3,561	3,933	25,965
05/30	481	3,936	4,417	30,382
05/31	541	8,821	9,362	39,744
06/01	950	15,883	16,833	56,577
06/02	757	20,394	21,151	77,728
06/03	586	17,222	17,808	95,536
06/04	961	13,596	14,557	110,093
06/05	527	18,146	18,673	128,766
06/06	786	10,902	11,688	140,454
06/07	122	8,318	8,440	148,894
06/08	162	9,309	9,471	158,365
06/09	219	11,446	11,665	170,030
06/10	227	8,338	8,565	178,595
06/11	120	7,984 ^a	8,104	186,699
06/12	77	12,611	12,688	199,387
06/13	195	8,871	9,066	208,453
06/14	158	9,078	9,236	217,689
06/15	132	14,835	14,967	232,656
06/16	126	14,241	14,367	247,023
06/17	34	10,095	10,129	257,152
06/18	24	11,027	11,051	268,203
06/19	192	12,729	12,921	281,124
06/20	338	13,808	14,146	295,270
06/21	144	8,606	8,750	304,020
06/22	142	7,688	7,830	311,850
06/23	193	6,165	6,358	318,208
06/24	301	5,662	5,963	324,171
06/25	366	7,294	7,660	331,831
06/26	187	9,313	9,500	341,331
06/27	61	10,294	10,355	351,686
06/28	163	10,647	10,810	362,496
06/29	90	10,349	10,439	372,935
06/30	95	9,018	9,113	382,048
07/01	120	7,183	7,303	389,351
07/02	139	4,970	5,109	394,460
07/03	129	6,206	6,335	400,795
07/04	156	6,524	6,680	407,475
07/05	135	5,710	5,845	413,320

- continued -

Appendix D.1. (Page 2 of 2).

Date	North Bank	South Bank	Daily	Cumulative
07/06	78 ^b	6,135	6,213	419,533
07/07	178	6,044	6,222	425,755
07/08	203	6,866	7,069	432,824
07/09	185	6,268	6,453	439,277
07/10	132	4,478	4,610	443,887
07/11	128	4,349	4,477	448,364
07/12	138	4,680	4,818	453,182
07/13	114	3,855	3,969	457,151
07/14	215	7,283	7,498	464,649
07/15	216	7,334	7,550	472,199
07/16	277	9,394	9,671	481,870
07/17	277	9,391	9,668	491,538
07/18	210	7,130	7,340	498,878
07/19	215	7,298	7,513	506,391
07/20	306	10,375	10,681	517,072
07/21	294	9,974	10,268	527,340
07/22	278	9,424	9,702	537,042
07/23	258	8,759	9,017	546,059
07/24	122	4,123	4,245	550,304
07/25	88	2,978	3,066	553,370
07/26	127	4,295	4,422	557,792
07/27	111	3,773	3,884	561,676
07/28	137	4,656	4,793	566,469
07/29	153	5,201	5,354	571,823
07/30	135	4,576	4,711	576,534
07/31	83	2,818 ^c	2,901	579,435
Total	16,458	562,977	579,435	

^a Went to permanent substrate.

^b North bank pulled 12:00 noon. All counts after 12:00 noon July 6 are interpolated. North Bank counts are derived from the average percent of North versus South Bank counts of 2.93%.

^c South Bank pulled 12:00 noon. Numbers were expanded for a daily total.

Appendix D.2. Daily escapement counts of sockeye salmon through the Long Lake weir, 1991.

Date	Escapement ^a		Date	Escapement	
	Daily	Cumulative		Daily	Cumulative
07/26	0	0	08/28	252	6,340
07/27	10	10	08/29	92	6,432
07/28	60	70	08/30	263	6,695
07/29	0	70	08/31	64	6,759
07/30	0	70	09/01	261	7,020
07/31	66	136	09/02	0	7,020
08/01	0	136	09/03	1,132	8,152
08/02	0	136	09/04	666	8,818
08/03	0	136	09/05	157	8,975
08/04	142	278	09/06	2,066	11,041
08/05	337	615	09/07	8	11,049
08/06	116	731	09/08	0	11,049
08/07	23	754	09/09	6	11,055
08/08	75	829	09/10	116	11,171
08/09	1	830	09/11	67	11,238
08/10	80	910	09/12	0	11,238
08/11	641	1,551	09/13	0	11,238
08/12	617	2,168	09/14	38	11,276
08/13	1,149	3,317	09/15	161	11,437
08/14	224	3,541	09/16	0	11,437
08/15	131	3,672	09/17	0	11,437
08/16	1	3,673	09/18	0	11,437
08/17	0	3,673	09/19	17	11,454
08/18	21	3,694	09/20	4	11,458
08/19	0	3,694	09/21	5	11,463
08/20	14	3,708	09/22	7	11,470
08/21	0	3,708	09/23	1	11,471
08/22	1,226	4,934	09/24	13	11,484
08/23	93	5,027	09/25	23	11,507
08/24	289	5,316	09/26	6	11,513
08/25	20	5,336	09/27	0	11,513
08/26	225	5,561	09/28	0	11,513
08/27	527	6,088			
				Total	11,513

^a Data collection by Cliff Collins and family of Long Lake, Alaska.

Appendix D.3. Aerial escapement estimates of chinook salmon runs to selected upper Copper River drainages, by date and location, 1991.

Location	Survey Date							Peak Count		
	5 Jul	15 Jul	22 Jul	23 Jul	26 Jul	2 Aug	6 Aug	12 Aug	Site	System
Tonsina River										240
Lower Tonsina Creek										
Little Tonsina River					54				54	
Fourth of July Creek										
Quartz Creek										
Tonsina Lake										
Bernard Creek					26				26	
Greyling Creek					151				151	
Dust Creek					9				9	
Unnamed Creek										
Klutina River										218
Manker Creek					101				101	
Mahlo Creek					2				2	
Island Lake										
1884 Lake										
Klutina Lake										
Curtis Creek										
St. Anne Creek					115				115	
Klutina Inlet										
Tazlina River										1,600
Moose Creek										
Eight Mile Creek										
Nickel Creek										
Durham Creek										
Upper Mendeltna Creek										
Mendeltna Creek	125				305	180			610	
Kiana Creek	22				520	448			990	
Upper Kiana Lake										
Tazlina Lake										
Gulkana River										2,537
Mouth to West Fork							390	202	592	
West Fork										
Moose Creek – Monsoon Lake		30	39						69	
Monsoon Lake										
Moose Creek		5	10						15	
Moose Creek – Keg Creek		24	28						52	
Keg Creek Mouth		1							1	
Keg Creek										
Victor Creek										
West Fork to Middle Fork		505					870		1,375	
Middle Fork										
Dickey Lake										
Dickey Lake – Swede Creek		76	128						204	
Swede Lake										
Swede Creek – East Fork		105	80						185	
Hungry Hollow Creek			44						44	
Ten Mile Lake										
East Fork										133
East Fork to Paxson Lake			29				104		133	
Paxson Lake										
Paxson Lake Inlet										
Inlet to Mud Creek										
Mud Creek and Lake										
Mud Creek to Summit Lake										
Fish Creek										
Fish Lake										

- continued -

Appendix D.3. (Page 2 of 2).

Location	Survey Date							Peak Count		
	5 Jul	15 Jul	22 Jul	23 Jul	26 Jul	2 Aug	6 Aug	12 Aug	Site	System
East Fork (continued)										
Summit Lake										
Gunn Creek										
Gunn Lake Creek										
Gakona River										0
Unnamed Creek										
Spring Creek										
Alder Creek										
Headwater Spring										
Drop Creek										0
Tributary near Boulder Creek										0
Sinona Creek										
Bear Creek										0
Chistochina River										885
Chistochina River – East Fork										
East Fork					865				865	
Eagle Creek					20				20	
Unnamed Fork Eagle Creek										
Mankonen Lake										
Slana River										0
Mentasta Lake										
Fish Creek										
Bad Crossing #1										
Bad Crossing #2										
Granite Creek										
Bone Creek										
Slana Sloughs										
Suslositna Creek										
Suslositna Lake										
Suslota Lake										
Smith Creek										
Smith Lake										
Natat Creek										
Indian River					18				18	18
Ahtell Creek					5				5	5
Tanada Creek										0
Tanada Lake										
Tanada Lake outlet										
Copper Creek										0
Copper Lake										
Upper Copper River Systems Total										5,636

Appendix D.4. Aerial escapement estimates of sockeye salmon runs to selected upper Copper River drainages, by date and location, 1991.

Location	Survey Date										Peak Count	
	5 Jul	15 Jul	22 Jul	23 Jul	26 Jul	6 Aug	12 Aug	28 Aug	29 Aug	25 Sep	Site	System
Bremner River									300		300	1,033
Peninsula Lake												
Little Bremner River												
Steamboat Lake									375		375	
Eagle Creek												
Salmon Creek									350		350	
Price Creek									0		0	
Unnamed Creek #1									8		8	
Unnamed Creek #2												
Tasnuna River												0
Whiting Falls Creek												0
Unnamed Tributary									25		25	25
Tiekel Lake									0		0	0
Swan Lakes												0
Lake #1												
Lake #2												
Lake #3												
Lake #4												
Uranatina River									65		65	65
Tonsina River												0
Lower Tonsina Creek					0						0	
Little Tonsina River												
Fourth of July Creek												
Quartz Creek												
Tonsina Lake												
Bernard Creek												
Greyling Creek												
Dust Creek												
Unnamed Creek												
Klutina River												10,150
Manker Creek												
Mahlo Creek					3,750						3,750	
Island Lake					950						950	
1884 Lake					185						185	
Klutina Lake					350						350	
Curtis Creek					0						0	
St. Anne Creek					4,700						4,700	
Klutina Inlet					215						215	
Tazlina River												5,085
Moose Creek												
Eight Mile Creek												
Nickel Creek												
Durham Creek												
Upper Mendeltna Creek	325										325	
Mendeltna Creek					800			3,050			3,850	
Kiana Creek	250				590						840	
Upper Kiana Lake					70						70	
Tazlina Lake												
Gulkana River												2,971
Mouth to West Fork												
West Fork												

- continued -

Location	Survey Date										Peak Count	
	5 Jul	15 Jul	22 Jul	23 Jul	26 Jul	6 Aug	12 Aug	28 Aug	29 Aug	25 Sep	Site	System
Gulkana River (continued)												
West Fork (continued)												
Dog Creek								0				0
Crosswind Lake								0				0
Moose Creek – Monsoon Lake		350	250									600
Monsoon Lake												
Moose Creek												
Moose Creek – Keg Creek												
Keg Creek Mouth		75	300									375
Keg Creek		95	75									170
Victor Creek		425	585									1,010
West Fork to Middle Fork		200										200
Middle Fork												
Dickey Lake		0	0					56				56
Dickey Lake – Swede Creek												
Swede Lake								100				210
Swede Creek – East Fork		100	250									350
Hungry Hollow Creek												
Ten Mile Lake												
East Fork												43,119
East Fork to Paxson Lake								2,300				2,300
Paxson Lake												
Paxson Lake Inlet			1,200			1,500		800		2,200		5,700
Inlet to Mud Creek			2,500			4,800		850		3,100		11,250
Mud Creek and Lake			0			100		15		44		159
Mud Creek to Summit Lake			170			2,375		1,400		9,625		13,570
Fish Creek			200									200
Fish Lake			3,150					1,650				4,800
Summit Lake								0		175		175
Gunn Creek			100					75		4,760		4,935
Gunn Lake Creek			25					0		5		30
Gakona River												0
Unnamed Creek												
Spring Creek												
Alder Creek												
Headwater Spring												
Drop Creek												0
Tributary near Boulder Creek												0
Sinona Creek				0							0	
Bear Creek												0
Chistochina River												430
Chistochina River – East Fork												
East Fork				40								40
Eagle Creek				260								260
Unnamed fork Eagle Creek				130								130
Mankonen Lake												
Slana River												7,005
Mentasta Lake				1,550					650			2,200
Fish Creek				1,050					50			1,100
Bad Crossing #1				475								475
Bad Crossing #2				2,150								2,150
Granite Creek												
Bone Creek				475								475

- continued -

Location	Survey Date										Peak Count	
	5 Jul	15 Jul	22 Jul	23 Jul	26 Jul	6 Aug	12 Aug	28 Aug	29 Aug	25 Sep	Site	System
Slana River (continued)												
Slana Sloughs				100							100	
Suslositna Creek												
Suslositna Lake				280							280	
Suslota Lake				210					15		225	
Smith Creek												
Smith Lake												
Natat Creek												
Indian River												0
Ahtell Creek												0
Tanada Creek												3,050
Tanada Lake									1,725		1,725	
Tanada Lake outlet									1,325		1,325	
Copper Creek									7		7	11
Copper Lake									4		4	
Lakina River												450
Long Lake									450		450	
Tana River												750
Tana River clear channels									580		580	
Tana Lake Inlet									160		160	
West Fork channels									10		10	
Upper Copper River Systems Total												74,144

Appendix D.5. Estimated age and sex composition of chinook salmon carcasses sampled at six upper Copper River locations, 1991.

		Brood Year and Age Group					Total
		1987	1986	1985	1984		
		1.2	1.3	1.4	1.5	2.3	
Gulkana River							
Sampling dates:	7/30–8/14						
Sample size:	567						
Female	Number of Samples	0	233	65	0	0	298
	Percent of Sample	0.0	41.1	11.5	0.0	0.0	52.6
Male	Number of Samples	4	187	78	0	0	269
	Percent of Sample	0.7	33.0	13.8	0.0	0.0	47.5
Total	Number of Samples	4	420	143	0	0	567
	Percent of Sample	0.7	74.1	25.3	0.0	0.0	100.1
	Standard Error	0.4	2.9	2.0	0.0	0.0	
Little Tonsina River							
Sampling dates:	8/15–8/21						
Sample size:	56						
Female	Number of Samples	1	18	6	0	0	25
	Percent of Sample	1.8	32.1	10.7	0.0	0.0	44.6
Male	Number of Samples	0	26	5	0	0	31
	Percent of Sample	0.0	46.4	8.9	0.0	0.0	55.3
Total	Number of Samples	1	44	11	0	0	56
	Percent of Sample	1.8	78.5	19.6	0.0	0.0	99.9
	Standard Error	1.8	9.2	5.7	0.0	0.0	
East Fork Chistochina River							
Sampling dates:	7/24–7/25						
Sample size:	100						
Female	Number of Samples	0	41	9	0	0	50
	Percent of Sample	0.0	41.0	9.0	0.0	0.0	50.0
Male	Number of Samples	0	41	9	0	0	50
	Percent of Sample	0.0	41.0	9.0	0.0	0.0	50.0
Total	Number of Samples	0	82	18	0	0	100
	Percent of Sample	0.0	82.0	18.0	0.0	0.0	100.0
	Standard Error	0.0	7.0	4.1	0.0	0.0	
Kaina Creek							
Sampling dates:	8/6–8/7						
Sample size:	124						
Female	Number of Samples	0	19	44	0	0	63
	Percent of Sample	0.0	15.3	35.5	0.0	0.0	50.8
Male	Number of Samples	1	23	36	0	1	61
	Percent of Sample	0.8	18.5	29.0	0.0	0.8	49.1
Total	Number of Samples	1	42	80	0	1	124
	Percent of Sample	0.8	33.8	64.5	0.0	0.8	99.9
	Standard Error	0.0	4.8	5.9	0.0	0.8	

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		Brood Year and Age Group					
		1987	1986	1985	1984		
		1.2	1.3	1.4	1.5	2.3	Total
<u>Mendeltna Creek</u>							
Sampling dates:	7/16-7/18, 8/20-8/21						
Sample size:	77						
Female	Number of Samples	0	38	16	0	0	54
	Percent of Sample	0.0	49.4	20.8	0.0	0.0	70.2
Male	Number of Samples	0	15	8	0	0	23
	Percent of Sample	0.0	19.5	10.4	0.0	0.0	29.9
Total	Number of Samples	0	53	24	0	0	77
	Percent of Sample	0.0	68.9	31.2	0.0	0.0	100.1
	Standard Error	0.0	7.3	5.8	0.0	0.0	
<u>Klutina River</u>							
Sampling dates:	8/27-8/29						
Sample size:	130						
Female	Number of Samples	0	47	36	0	0	83
	Percent of Sample	0.0	36.2	27.7	0.0	0.0	63.9
Male	Number of Samples	0	21	26	0	0	47
	Percent of Sample	0.0	16.2	20.0	0.0	0.0	36.2
Total	Number of Samples	0	68	62	0	0	130
	Percent of Sample	0.0	52.4	47.7	0.0	0.0	100.1
	Standard Error	0.0	5.3	5.3	0.0	0.0	

Appendix D.6. Temporally stratified age and sex composition of sockeye salmon in the upper Copper River escapement past the Miles Lake sonar project, estimated from fish sampled in the personal-use and subsistence fisheries near Chitina, 1991.

		Brood Year and Age Group									Total
		1988		1987		1986		1985			
		0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	
Stratum dates: 5/21-7/2 ^a											
Sampling dates: 6/2-7/14 ^b											
Sample size: 2,663											
Female	Percent of Sample	0.1	0.0	1.7	6.3	0.0	45.5	0.0	0.1	0.8	54.6
	Number in Escapement	296	0	6,814	25,033	148	179,529	0	444	2,963	215,227
Male	Percent of Sample	0.1	0.0	1.8	3.2	0.0	38.2	0.0	0.5	1.0	44.9
	Number in Escapement	444	148	7,258	12,443	148	150,644	148	1,778	3,999	177,011
Total	Percent of Sample	0.2	0.0	3.6	9.6	0.1	84.2	0.0	0.6	1.8	100.0
	Number in Escapement	741	148	14,072	37,772	296	332,099	148	2,222	6,962	394,460
	Standard Error	331	148	1,418	2,250	209	2,789	148	572	1,007	
Stratum dates: 7/3-7/31 ^a											
Sampling dates: 7/19-8/11 ^b											
Sample size: 1,006											
Female	Percent of Sample	0.0	0.0	0.6	10.2	0.0	48.3	0.0	2.8	0.1	62.0
	Number in Escapement	0	0	1,103	18,939	0	89,362	0	5,148	184	114,736
Male	Percent of Sample	0.0	0.0	0.5	5.3	0.0	30.4	0.0	1.2	0.3	37.7
	Number in Escapement	0	0	919	9,745	0	56,265	0	2,206	552	69,687
Total	Percent of Sample	0.0	0.0	1.1	15.5	0.0	79.0	0.0	4.0	0.4	100.0
	Number in Escapement	0	0	2,023	28,684	0	146,178	0	7,355	735	184,975
	Standard Error	0	0	607	2,112	0	2,376	0	1,140	367	
Strata combined: 5/21-7/31^a											
Sampling dates: 6/2-8/11 ^b											
Sample size: 3,669											
Female	Percent of Sample	0.1	0.0	1.4	7.6	0.0	46.4	0.0	1.0	0.5	56.9
	Number in Escapement	296	0	7,917	43,972	148	268,891	0	5,593	3,146	329,963
Male	Percent of Sample	0.1	0.0	1.4	3.8	0.0	35.7	0.0	0.7	0.8	42.6
	Number in Escapement	444	148	8,178	22,188	148	206,909	148	3,984	4,551	246,698
Total	Percent of Sample	0.1	0.0	2.8	11.5	0.1	82.5	0.0	1.7	1.3	100.0
	Number in Escapement	741	148	16,095	66,456	296	478,277	148	9,577	7,697	579,435
	Standard Error	331	148	1,542	3,086	209	3,664	148	1,276	1,072	

^a Dates of passage at Miles Lake estimated from mean travel rates obtained in mark/recapture studies conducted in 1970 and 1972.

^b Dates fish were sampled in subsistence and personal-use fisheries near Chitina.

Appendix E
Age and Sex Data for Commercial Common Property Salmon Catches
from Prince William Sound (Districts 221-229)

Appendix E.1. Estimated age and sex composition of sockeye salmon harvested in the Unakwik District commercial common property drift gillnet fisheries, 1991.

		Brood Year and Age Group						
		1987		1986		1985		
		0.3	1.2	1.3	2.2	1.4	2.3	Total
Stratum dates:	6/16-8/24							
Sampling dates:	6/22							
Sample size:	329							
Female	Percent of Sample	0.3	0.9	29.2	0.0	0.3	0.6	31.3
	Number in Catch	16	48	1,547	0	16	32	1,660
Male	Percent of Sample	0.3	3.3	59.6	0.6	0.3	4.6	68.7
	Number in Catch	16	177	3,158	32	16	242	3,641
Total	Percent of Sample	0.6	4.3	88.8	0.6	0.6	5.2	100.0
	Number in Catch	32	226	4,705	32	32	274	5,301
	Standard Error	23	59	92	23	23	65	

Appendix E.2. Temporally stratified age and sex composition of sockeye salmon harvested in the Eshamy District commercial common property gillnet harvests, 1991.

		Brood Year and Age Group ^a										Total
		1989		1988		1987		1986		1985		
		0.1	1.0	0.2	1.1	0.3	1.2	1.3	2.2	1.4	2.3	
Stratum dates: 6/9-6/22												
Sampling dates: 6/15-6/22												
Sample size: 670												
Female	Percent of Sample	0.0	0.0	1.3	0.0	0.3	20.1	6.3	0.4	0.1	0.3	29.0
	Number in Catch	0	0	244	0	54	3,662	1,139	81	27	54	5,263
Male	Percent of Sample	0.0	0.0	0.9	0.3	0.0	53.0	6.4	0.0	0.0	0.4	61.0
	Number in Catch	0	0	163	54	0	9,631	1,167	0	0	81	11,095
Total	Percent of Sample	0.0	0.0	2.5	0.3	0.3	82.1	13.4	0.4	0.1	0.7	100.0
	Number in Catch	0	0	461	54	54	14,921	2,442	81	27	136	18,176
	Standard Error	0	0	111	38	38	269	240	47	27	60	
Stratum dates: 6/23-7/6												
Sampling dates: 7/2												
Sample size: 578												
Female	Percent of Sample	0.0	0.0	0.9	0.0	0.2	24.6	1.4	0.2	0.0	0.0	27.2
	Number in Catch	0	0	1,454	0	291	41,283	2,326	291	0	0	45,644
Male	Percent of Sample	0.0	0.0	0.2	2.1	0.0	37.9	0.7	0.3	0.0	0.3	41.5
	Number in Catch	0	0	291	3,489	0	63,670	1,163	581	0	581	69,775
Total	Percent of Sample	0.0	0.0	1.0	2.6	0.2	92.7	2.4	0.5	0.0	0.5	100.0
	Number in Catch	0	0	1,744	4,361	291	155,830	4,070	872	0	872	168,041
	Standard Error	0	0	709	1,112	291	1,816	1,075	503	0	503	
Stratum dates: 7/7-7/13												
Sampling dates: 7/13												
Sample size: 519												
Female	Percent of Sample	0.0	0.0	2.3	0.0	0.0	43.0	2.3	0.2	0.0	0.0	47.8
	Number in Catch	0	0	3,339	0	0	62,057	3,339	278	0	0	69,014
Male	Percent of Sample	0.0	0.0	0.8	0.4	0.0	37.2	1.0	0.0	0.0	0.0	39.3
	Number in Catch	0	0	1,113	557	0	53,708	1,391	0	0	0	56,769
Total	Percent of Sample	0.0	0.0	3.7	0.4	0.0	91.7	4.0	0.2	0.0	0.0	100.0
	Number in Catch	0	0	5,287	557	0	132,462	5,844	278	0	0	144,428
	Standard Error	0	0	1,192	393	0	1,749	1,250	278	0	0	
Stratum dates: 7/14-7/20												
Sampling dates: 7/19												
Sample size: 599												
Female	Percent of Sample	0.0	0.0	4.7	0.2	0.0	60.6	1.3	0.2	0.0	0.2	67.1
	Number in Catch	0	0	2,748	98	0	35,626	785	98	0	98	39,454
Male	Percent of Sample	0.0	0.0	1.7	0.7	0.2	29.5	0.3	0.2	0.0	0.3	32.9
	Number in Catch	0	0	981	393	98	17,371	196	98	0	196	19,334
Total	Percent of Sample	0.0	0.0	6.3	0.8	0.2	90.2	1.7	0.3	0.0	0.5	100.0
	Number in Catch	0	0	3,729	491	98	52,998	981	196	0	294	58,788
	Standard Error	0	0	586	219	98	716	308	139	0	170	

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		Brood Year and Age Group ^a										Total
		1989		1988		1987		1986		1985		
		0.1	1.0	0.2	1.1	0.3	1.2	1.3	2.2	1.4	2.3	
Stratum dates:		7/21-7/27										
Sampling dates:		7/25										
Sample size:		114										
Female	Percent of Sample	0.0	0.0	6.1	0.0	0.0	52.6	0.0	0.0	0.0	0.9	59.6
	Number in Catch	0	0	3,674	0	0	31,494	0	0	0	525	35,693
Male	Percent of Sample	0.0	0.0	0.0	4.4	0.0	33.3	1.8	0.9	0.0	0.0	40.4
	Number in Catch	0	0	0	2,625	0	19,946	1,050	525	0	0	24,146
Total	Percent of Sample	0.0	0.0	6.1	4.4	0.0	86.0	1.8	0.9	0.0	0.9	100.0
	Number in Catch	0	0	3,674	2,625	0	51,441	1,050	525	0	525	59,839
	Standard Error	0	0	1,351	1,153	0	1,955	739	525	0	525	
Stratum dates:		7/28-9/7										
Sampling dates:		7/31										
Sample size:		654 ^b										
Female	Percent of Sample	2.3	0.2	0.8	12.5	0.0	15.1	0.2	0.0	0.0	0.0	31.0
	Number in Catch	711	47	237	3,886	0	4,691	47	0	0	0	9,619
Male	Percent of Sample	11.5	0.9	0.5	50.3	0.0	5.4	0.5	0.0	0.0	0.0	69.0
	Number in Catch	3,554	284	142	15,590	0	1,658	142	0	0	0	21,371
Total	Percent of Sample	13.8	1.1	1.2	62.8	0.0	20.5	0.6	0.0	0.0	0.0	100.0
	Number in Catch	4,265	332	379	19,475	0	6,350	190	0	0	0	30,990
	Standard Error	418	125	133	586	0	489	95	0	0	0	
Strata combined:		6/9-9/7										
Sampling dates:		6/15-7/31										
Sample size:		3,134										
Female	Percent of Sample	0.1	0.0	2.4	0.8	0.1	37.2	1.6	0.2	0.0	0.1	42.6
	Number in Catch	711	47	11,696	3,984	345	178,814	7,637	749	27	677	204,687
Male	Percent of Sample	0.7	0.1	0.6	4.7	0.0	34.6	1.1	0.3	0.0	0.2	42.2
	Number in Catch	3,554	284	2,690	22,706	98	165,985	5,109	1,205	0	859	202,490
Total	Percent of Sample	0.9	0.1	3.2	5.7	0.1	86.2	3.0	0.4	0.0	0.4	100.0
	Number in Catch	4,265	332	15,276	27,562	443	414,001	14,576	1,953	27	1,827	480,262
	Standard Error	418	125	2,030	1,764	309	3,318	1,851	792	27	749	

^a Age-0.1 and -0.2 fish may be misaged Main Bay Hatchery fish (1 year freshwater).

^b This sample was mostly jacks returning to Main Bay Hatchery.

Appendix E.3. Estimated age and sex composition of sockeye salmon harvested in the Southwestern District commercial common property purse seine fishery, 1991.

		Brood Year and Age Group					Total
		1988	1987		1986		
		1.1	1.2	2.1	1.3	2.2	
Stratum dates:	8/4-8/31						
Sampling dates:	8/13-8/14						
Sample size:	313						
Female	Percent of Sample	0.6	56.9	0.0	2.9	1.9	62.3
	Number in Catch	92	8,200	0	415	276	8,983
Male	Percent of Sample	1.3	33.5	0.3	1.9	0.6	37.7
	Number in Catch	184	4,837	46	276	92	5,436
Total	Percent of Sample	1.9	90.4	0.3	4.8	2.6	100.0
	Number in Catch	276	13,037	46	691	369	14,419
	Standard Error	112	240	46	174	129	

Appendix E.4. Estimated age and sex composition of coho salmon harvested in the Coghill District commercial common property drift gillnet and purse seine fisheries, 1991.

		Brood Year and Age Group		Total
		1988	1987	
		1.1	2.1	
Stratum dates:	6/13-9/29			
Sampling dates:	8/14-9/19			
Sample size:	446			
Female	Percent of Sample	61.2	2.7	63.9
	Number in Catch	48,347	2,125	50,472
Male	Percent of Sample	29.8	1.8	31.6
	Number in Catch	23,554	1,417	24,970
Total	Percent of Sample	95.5	4.5	100.0
	Number in Catch	75,442	3,542	78,984
	Standard Error	775	775	

Appendix E.5. Estimated age and sex composition of coho salmon harvested in the Southwestern District commercial common property purse seine fishery, 1991.

		Brood Year and Age Group			Total
		1988	1987	1986	
		1.1	2.1	3.1	
Stratum dates:	7/23-8/28				
Sampling dates:	8/13-8/14				
Sample size:	87				
Female	Percent of Sample	13.8	49.4	4.6	67.8
	Number in Catch	1,090	3,907	363	5,361
Male	Percent of Sample	6.9	24.1	1.1	32.2
	Number in Catch	545	1,908	91	2,544
Total	Percent of Sample	20.7	73.6	5.7	100.0
	Number in Catch	1,636	5,815	454	7,905
	Standard Error	345	376	198	

Appendix E.6. Estimated age and sex composition of chum salmon harvested in the Eastern District commercial common property purse seine fishery, 1991.

		Brood Year and Age Group				Total
		1988	1987	1986	1985	
		0.2	0.3	0.4	0.5	
Stratum dates:	6/3-9/7					
Sampling dates:	7/18					
Sample size:	99					
Female	Percent of Sample	0.0	30.3	25.3	5.1	60.6
	Number in Catch	0	3,199	2,666	533	6,398
Male	Percent of Sample	1.0	22.2	13.1	3.0	39.4
	Number in Catch	107	2,346	1,386	320	4,159
Total	Percent of Sample	1.0	52.5	38.4	8.1	100.0
	Number in Catch	107	5,545	4,052	853	10,557
	Standard Error	107	533	519	291	

Appendix E.7. Temporally stratified age and sex composition of chum salmon harvested in the Coghill District commercial common property purse seine and drift gillnet fisheries, 1991.

		Brood Year and Age Group				Total
		1988	1987	1986	1985	
		0.2	0.3	0.4	0.5	
Stratum dates:	6/9-7/27					
Sampling dates:	7/23-7/24					
Sample size:	364					
Female	Percent of Sample	1.9	35.2	26.4	0.8	64.3
	Number in Catch	429	7,846	5,884	184	14,343
Male	Percent of Sample	0.0	13.7	20.9	0.5	35.2
	Number in Catch	0	3,065	4,658	123	7,846
Total	Percent of Sample	1.9	49.2	47.5	1.4	100.0
	Number in Catch	429	10,972	10,604	306	22,311
	Standard Error	161	585	585	136	
<hr/>						
Stratum dates:	8/4-9/28					
Sampling dates:	8/14					
Sample size:	222					
Female	Percent of Sample	0.0	29.7	29.7	0.0	59.5
	Number in Catch	0	6,966	6,966	0	13,932
Male	Percent of Sample	0.5	15.8	23.9	0.5	40.5
	Number in Catch	106	3,694	5,594	106	9,499
Total	Percent of Sample	0.5	45.5	53.6	0.5	100.0
	Number in Catch	106	10,660	12,560	106	23,431
	Standard Error	106	785	786	106	
<hr/>						
Strata dates:	6/9-9/28					
Sampling dates:	7/23-8/14					
Sample size:	586					
Female	Percent of Sample	0.9	32.4	28.1	0.4	61.8
	Number in Catch	429	14,812	12,850	184	28,275
Male	Percent of Sample	0.2	14.8	22.4	0.5	37.9
	Number in Catch	106	6,759	10,252	228	17,345
Total	Percent of Sample	1.2	47.3	50.6	0.9	100.0
	Number in Catch	535	21,632	23,164	412	45,742
	Standard Error	192	979	980	172	

Appendix E.8. Temporally stratified age and sex composition of chum salmon harvested in the Eshamy District commercial common property gillnet fisheries, 1991.

		Brood Year and Age Group				Total
		1988	1987	1986	1985	
		0.2	0.3	0.4	0.5	
Stratum dates:	6/9-6/15					
Sampling dates:	6/11					
Sample size:	428					
Female	Percent of Sample	0.0	0.5	52.6	2.1	55.1
	Number in Catch	0	84	9,489	380	9,953
Male	Percent of Sample	0.0	2.1	41.8	0.9	44.9
	Number in Catch	0	380	7,549	169	8,097
Total	Percent of Sample	0.0	2.6	94.4	3.0	100.0
	Number in Catch	0	464	17,038	548	18,050
	Standard Error	0	138	201	150	
Stratum dates:	6/16-6/22					
Sampling dates:	6/19					
Sample size:	474					
Female	Percent of Sample	0.0	1.1	47.9	0.8	49.8
	Number in Catch	0	582	26,413	465	27,460
Male	Percent of Sample	0.0	0.2	48.1	1.3	49.6
	Number in Catch	0	116	26,529	698	27,344
Total	Percent of Sample	0.0	1.3	96.6	2.1	100.0
	Number in Catch	0	698	53,291	1,164	55,153
	Standard Error	0	284	458	364	
Stratum dates:	6/23-6/29					
Sampling dates:	6/25					
Sample size:	356					
Female	Percent of Sample	0.6	12.4	43.8	0.8	57.6
	Number in Catch	440	9,677	34,311	660	45,088
Male	Percent of Sample	0.0	6.5	34.6	1.4	42.4
	Number in Catch	0	5,059	27,053	1,100	33,211
Total	Percent of Sample	0.6	18.8	78.4	2.2	100.0
	Number in Catch	440	14,736	61,364	1,760	78,299
	Standard Error	311	1,624	1,711	616	
Stratum dates:	6/30-7/6					
Sampling dates:	7/2-7/3					
Sample size:	406					
Female	Percent of Sample	0.0	6.7	61.6	2.2	70.4
	Number in Catch	0	2,464	22,815	821	26,101
Male	Percent of Sample	0.0	1.0	27.6	0.7	29.3
	Number in Catch	0	365	10,221	274	10,860
Total	Percent of Sample	0.0	7.6	89.4	3.0	100.0
	Number in Catch	0	2,829	33,128	1,095	37,052
	Standard Error	0	489	567	312	

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		Brood Year and Age Group				
		1988	1987	1986	1985	
		0.2	0.3	0.4	0.5	Total
Stratum dates:	7/7-9/7					
Sampling dates:	7/10-7/31					
Sample size:	277					
Female	Percent of Sample	0.0	28.2	43.3	0.4	71.8
	Number in Catch	0	17,747	27,302	228	45,276
Male	Percent of Sample	0.0	7.2	20.2	0.7	28.2
	Number in Catch	0	4,550	12,741	455	17,747
Total	Percent of Sample	0.0	35.4	63.5	1.1	100.0
	Number in Catch	0	22,297	40,043	683	63,023
	Standard Error	0	1,814	1,826	393	
Strata combined:	6/9-9/7					
Sampling dates:	6/11-7/31					
Sample size:	1,941					
Female	Percent of Sample	0.2	12.1	47.8	1.0	61.2
	Number in Catch	440	30,554	120,330	2,554	153,878
Male	Percent of Sample	0.0	4.2	33.4	1.1	38.7
	Number in Catch	0	10,470	84,093	2,695	97,259
Total	Percent of Sample	0.2	16.3	81.4	2.1	100.0
	Number in Catch	440	41,024	204,864	5,249	251,577
	Standard Error	311	2,503	2,614	887	

Appendix E.9. Estimated age and sex composition of chum salmon harvested in the Southwestern District commercial common property purse seine fishery, 1991.

		Brood Year and Age Group				
		1988	1987	1986	1985	
		0.2	0.3	0.4	0.5	Total
Stratum dates:	8/4-8/31					
Sampling dates:	8/13-8/14					
Sample size:	119					
Female	Percent of Sample	5.0	30.3	34.5	0.8	70.6
	Number in Catch	231	1,383	1,575	38	3,227
Male	Percent of Sample	0.0	11.8	16.8	0.8	29.4
	Number in Catch	0	538	768	38	1,345
Total	Percent of Sample	5.0	42.0	51.3	1.7	100.0
	Number in Catch	231	1,921	2,344	77	4,572
	Standard Error	92	208	210	54	

Appendix F
Salmon Escapements to Coastal Streams
in Prince William Sound

Appendix F.1. Daily escapement counts of sockeye salmon through Coghill, Eshamy, and Jackpot River weirs, 1991.

Date	Coghill		Eshamy		Jackpot ^a	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
06/09	0	0				
06/10	0	0				
06/11	0	0				
06/12	0	0				
06/13	0	0				
06/14	0	0				
06/15	0	0				
06/16	0	0				
06/17	0	0				
06/18	0	0				
06/19	0	0				
06/20	1	1				
06/21	2	3				
06/22	0	3				
06/23	0	3			0	0
06/24	1	4			0	0
06/25	0	4			0	0
06/26	2	6			0	0
06/27	9	15			0	0
06/28	17	32			0	0
06/29	16	48			0	0
06/30	20	68			0	0
07/01	24	92			0	0
07/02	145	237			0	0
07/03	90	327	1	1	0	0
07/04	22	349	43	44	0	0
07/05	78	427	29	73	34	34
07/06	86	513	30	103	0	34
07/07	167	680	31	134	6	40
07/08	513	1,193	22	156	0	40
07/09	862	2,055	21	177	0	40
07/10	874	2,929	20	197	0	40
07/11	1,152	4,081	42	239	41	81
07/12	908	4,989	49	288	87	168
07/13	570	5,559	78	366	92	260
07/14	163	5,722	45	411	37	297
07/15	621	6,343	0	411	143	440
07/16	653	6,996	75	486	44	484
07/17	643	7,639	40	526	296	780
07/18	231	7,870	36	562	281	1,061
07/19	228	8,098	191	753	105	1,166
07/20	246	8,344	57	810	131	1,297
07/21	559	8,903	168	978	249	1,546
07/22	105	9,008	82	1,060	91	1,637
07/23	163	9,171	112	1,172	561	2,198
07/24	131	9,302	502	1,674	2,091	4,289
07/25	55	9,357	451	2,125	579	4,868
07/26	241	9,598	439	2,564	208	5,076
07/27	103	9,701	285	2,849	55	5,131
07/28	28	9,729	371	3,220	107	5,238
07/29	16	9,745	40	3,260	31	5,269
07/30	7	9,752	477	3,737	128	5,397
07/31	0	9,752	1,012	4,749	98	5,495

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Date	Coghill		Eshamy		Jackpot	
	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
08/01			1,203	5,952		
08/02			976	6,928		
08/03			1,167	8,095		
08/04			968	9,063		
08/05			437	9,500		
08/06			967	10,467		
08/07			654	11,121		
08/08			932	12,053		
08/09			1,011	13,064		
08/10			355	13,419		
08/11			422	13,841		
08/12			550	14,391		
08/13			448	14,839		
08/14			3,544	18,383		
08/15			1,410	19,793		
08/16			1,704	21,497		
08/17			3,278	24,775		
08/18			2,396	27,171		
08/19			2,230	29,401		
08/20			1,253	30,654		
08/21			1,091	31,745		
08/22			164	31,909		
08/23			524	32,433		
08/24			569	33,002		
08/25			844	33,846		
08/26			655	34,501		
08/27			191	34,692		
08/28			544	35,236		
08/29			559	35,795		
08/30			348	36,143		
08/31			136	36,279		
09/01			161	36,440		
09/02			57	36,497		
09/03			54	36,551		
09/04			109	36,660		
09/05			2,343	39,003		
09/06			1,182	40,185		
09/07			1,085	41,270		
09/08			1,405	42,675		
09/09			850	43,525		
09/10			840	44,365		
09/11			658	45,023		
09/12			151	45,174		
09/13			169	45,343		
09/14			322	45,665		
09/15			104	45,769		
09/16			37	45,806		
09/17			59	45,865		
09/18			48	45,913		
09/19			61	45,974		
09/20			88	46,062		
09/21			58	46,120		
09/22			60	46,180		
09/23			40	46,220		
09/24			6	46,226		
Total		9,752		46,226		5,495

^a Weir removed on 8/1 due to high water. No attempt was made to estimate the remainder of the run.

Appendix F.2. Aerial survey escapement counts of sockeye salmon from selected systems, Prince William Sound, 1991.

Stream Name	Stream Number	Week Ending Date ^a									
		13 Jul	20 Jul	27 Jul	3 Aug	10 Aug	17 Aug	24 Aug	31 Aug	7 Sep	14 Sep
Robe River	137	0	350	350	0	NS	110	NS	NS	NS	NS
Crooked Creek	145	0	0	0	0	0	90	0	0	0	NS
Billy's Hole	218	0	450	900	600	25	1,250	400	5	0	NS
Wells River	234	0	1	0	0	0	0	0	0	0	NS
Cowpen Lake	242	40	0	0	200	1,800	NS	0	0	NS	NC
Miners Lake	244	450	150	500	2,000	2,040	NS	450	1,200	NS	115
Red Lake	300	325	0	0	420	350	50	400	0	NS	0
Golden Lagoon ^b	310	0	0	0	5,000	2,200	3,000	0	50	NS	0
Hobo Creek	417	0	0	0	0	0	0	0	0	NS	0
Mill Creek	421	0	0	0	0	500	0	0	0	NS	0
Halferty Creek	454	0	0	0	0	280	0	0	0	NS	120
Cochrane Creek	461	0	0	0	0	0	0	0	0	NS	0
Shrode Lake	476	0	0	0	380	1,700	1,075	250	2,000	NS	1,320
Jackpot Lakes	608	NS	0	0	25	0	0	250	2,850	5	NS
Jackson Creek	613	NS	0	0	0	400	0	0	0	0	NS
Bainbridge	630	NS	0	0	0	0	1,600	200	30	0	NS
Point Creek	702	NS	50	NS	0	0	0	0	0	NS	NS
Cabin Creek	747	NS	NS	0	0	0	0	0	0	NS	NS
Udall Creek	770	NS	NS	0	0	0	0	0	0	NS	NS
Pautzke Creek	775	NS	NS	0	0	0	0	0	0	NS	NS
Total		815	1,001	1,750	8,625	9,295	7,175	1,950	6,135	5	1,555

^a Counts contained in this table are obtained in conjunction with the regular pink and chum aerial survey program. Many of these sockeye systems are difficult to survey and the counts do not necessarily represent total live abundance at a particular time.

^b Believed to be returns from Main Bay Hatchery sockeye (Coghill Lake stock) released into Davis Lake.

Appendix F.3. Weekly aerial survey estimates of the escapement of live pink salmon to selected streams in Prince William Sound, 1991.

District	Stream		Week ending date														Total	Adjusted Total	
	Number	Name	6/22	6/29	7/06	7/13	7/20	7/27	8/03	8/10	8/17	8/24	8/31	9/07	9/14	9/21			9/28
Eastern	2	Hartney Creek	NS ^a	NS	NS	^b	240	325	NS	803	700	NS	5,200	560	NS	0	NS	7,828	5,200 peak
	5	Eccles Creek	NS	NS	NS	0	0	0	NS	30	70	NS	75	50	NS	0	NS	225	140
	8	Fleming Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0
	11	Humpy Creek	NS	0	0	0	250	780	590	3,400	630	900	1,100	975	NS	0	NS	8,625	3,600
		Orca Inlet 221-10	0	0	0	0	490	1,105	590	4,233	1,400	900	6,375	1,585	0	0	0	16,678	8,940
	19	Twin Lakes Creek	NS	0	0	0	0	0	0	650	240	200	600	2,000	NS	0	NS	3,690	2,000 peak
	20	Spring Creek	NS	0	0	600	100	150	400	1,100	520	1,500	1,500	750	NS	0	NS	6,620	3,010
	21	Rogue Creek	NS	0	0	0	200	1,300	160	1,500	240	500	400	50	NS	0	NS	4,350	1,860
	23	Chase Creek	0	0	0	0	0	2,400	340	3,500	900	1,200	500	2,000	NS	0	NS	10,840	5,780
	35	Koppen Creek	0	0	0	200	70	1,200	1,310	7,000	7,900	5,900	11,000	16,000	NS	600	NS	51,180	23,910
	36	Sheep River	0	0	0	10	150	400	6,410	5,000	3,250	11,300	6,700	18,900	NS	600	NS	52,320	24,750
	37	Allen Creek	NS	0	0	0	100	80	20	600	730	700	1,000	400	NS	0	NS	3,630	1,510
		Simpson/Sheep 221-20	0	0	0	810	620	5,530	8,640	19,350	13,780	21,300	21,700	39,700	0	1,200	0	132,630	62,820
	41	Pass Creek	NS	0	0	0	15	0	0	600	120	1,900	1,000	600	NS	0	NS	4,235	1,900 peak
	45	Plateau Creek	NS	0	0	0	200	320	460	4,000	530	3,600	2,000	3,500	NS	0	NS	14,610	5,960
46	Comfort Creek	NS	0	0	40	250	1,500	1,200	1,800	1,900	4,000	4,200	4,200	NS	0	NS	19,090	7,660	
48	Beartrap River	0	0	0	0	0	3,000	1,500	9,375	5,800	7,500	9,000	8,500	NS	75	NS	44,750	21,410	
49	Cataract Creek	NS	0	0	0	0	0	150	200	250	200	50	500	NS	0	NS	1,350	630	
51	Olsen Creek	0	0	100	1,000	4,300	6,800	2,900	19,500	10,900	6,800	1,900	21,000	NS	200	NS	75,400	34,460	
52	Control Creek	NS	0	500	0	3,500	6,300	8,300	12,000	10,800	3,500	14,000	9,000	NS	25	NS	67,925	29,270	
54	Carlsen Creek	NS	0	0	0	250	600	2,700	4,500	2,200	3,000	2,500	2,500	NS	10	NS	18,260	7,960	
56	St. Matthews Creek	NS	0	0	0	100	1,700	600	3,000	1,600	1,100	2,000	7,000	NS	1,600	NS	18,700	9,260	
	Oravina 221-30	0	0	600	1,040	8,615	20,220	17,810	54,975	34,100	31,600	36,650	56,800	0	1,910	0	264,320	118,510	
71	Two Moon Creek	NS	0	0	0	0	0	0	25	120	0	400	500	NS	0	NS	1,045	500 peak	
73	Tundra Creek	NS	0	0	0	0	100	0	0	0	200	400	300	NS	0	NS	1,000	460	
76	Irish Creek	NS	0	0	572	510	6,400	13,400	14,000	5,500	9,400	6,100	20,500	NS	100	NS	76,482	35,060	
80	Whalen Creek	NS	0	0	700	5,500	9,600	2,600	15,000	4,300	2,300	8,000	11,000	NS	25	NS	59,025	26,230	
83	Keta Creek	NS	0	0	0	400	1,800	400	0	2,500	800	NS	500	NS	100	NS	6,500	3,220	
87	Sunny River	NS	0	0	2,100	2,000	10,000	200	0	1,100	300	4,000	7,500	NS	50	NS	27,250	13,670	
88	Short Creek	NS	0	0	0	400	1,100	400	400	300	700	600	275	NS	10	NS	4,185	1,970	
89	Fish Creek	0	0	0	0	300	7,300	6,000	15,500	7,000	3,900	4,300	13,000	NS	250	NS	57,550	25,850	
92	Shale Creek	NS	0	0	0	150	270	550	200	600	700	600	450	NS	10	NS	3,530	1,590	
93	Kirkwood Creek	NS	0	0	100	0	1,100	380	600	450	800	700	375	NS	0	NS	4,505	1,860	
94	Rock Creek	NS	0	0	0	220	400	0	0	970	2,000	600	2,500	NS	0	NS	6,690	2,810	
99	Lagoon Creek	NS	0	0	2,500	5,500	8,900	3,400	4,100	2,500	2,300	3,900	7,600	NS	50	NS	40,750	19,330	
	Fidalgo 221-40	0	0	0	5,972	14,960	46,970	27,330	49,825	25,340	23,400	29,600	64,500	0	595	0	288,512	132,550	
106	Gladhough Creek	NS	0	0	30	150	500	1,100	2,300	1,100	1,100	1,000	2,900	NS	10	NS	10,190	4,680	
107	Black Creek	NS	0	0	0	200	300	450	750	250	700	100	125	NS	0	NS	2,875	1,270	
114	Turner Creek	NS	0	0	0	0	20	130	100	350	1,200	1,400	2,200	NS	10	NS	5,410	2,620	
115	Millard Creek	NS	0	0	110	2,200	2,700	1,800	4,500	950	2,000	9,000	6,500	NS	400	NS	30,160	13,510	
116	Duck River	NS	0	0	0	700	1,500	4,700	3,500	1,900	1,000	3,000	6,000	NS	5,000	NS	27,350	13,560	
117	Indian Creek	0	0	0	150	1,900	3,200	3,500	10,000	3,900	5,700	4,500	8,300	NS	0	NS	41,150	16,550	
120	Donaldson Creek	NS	0	0	50	0	950	500	600	360	600	NS	1,400	NS	0	NS	4,460	2,210	
121	Levshakoff Creek	0	0	0	0	1,700	2,700	2,000	2,000	3,400	4,500	3,300	3,000	NS	0	NS	22,600	10,060	
122	No Name Creek	NS	0	0	0	0	0	0	600	150	0	300	0	NS	0	NS	1,050	780	
123	Gregorieff Creek	0	0	0	70	2,400	2,700	900	2,500	3,900	5,300	NS	3,300	NS	100	NS	21,170	10,910	
127	Naomoff River	NS	0	0	400	1,400	7,500	3,900	23,100	2,900	3,900	3,600	6,200	NS	0	NS	52,900	23,100 peak	
129	Vlasoff Creek	NS	0	0	0	600	3,800	500	3,700	820	900	1,900	1,700	NS	50	NS	13,970	6,300	
152	Twin Falls Creek	NS	0	0	20	1,200	2,000	NS	6,500	1,600	1,700	4,900	8,300	NS	900	NS	27,120	14,400	
153	Stellar Creek	0	0	140	300	1,200	3,700	2,100	6,000	4,600	11,000	12,000	11,000	NS	1,100	NS	53,140	23,760	
	Valdez Arm 221-50	0	0	140	1,130	13,650	31,570	21,580	66,200	26,180	39,600	45,000	60,925	0	7,570	0	313,545	143,710	
131	Gorge Creek - Port Valdez	NS	0	0	100	150	400	50	500	350	400	0	500	NS	0	NS	2,450	1,040	
133	Sawmill Creek	NS	0	0	0	1,200	2,100	900	2,050	440	200	200	450	NS	0	NS	7,540	3,740	
137	Lowe River	NS	0	0	0	0	80	0	0	0	NS	NS	NS	NS	NS	NS	80	80	
143	Siwash Creek	NS	0	0	50	800	1,020	200	1,800	270	300	200	25	NS	0	NS	4,665	1,900	
145	Crooked Creek	NS	0	0	20	300	520	120	700	0	200	300	25	NS	0	NS	2,185	890	
148	Mineral Flats	NS	0	0	0	0	15	0	25	50	200	40	0	NS	0	NS	330	200 peak	
	Port Valdez 221-60	0	0	0	170	2,450	4,135	1,270	5,075	1,110	1,300	740	1,000	0	0	0	17,250	7,850	
Eastern District total			0	0	740	9,122	40,805	109,530	77,220	199,658	101,910	118,100	140,065	224,510	0	11,275	0	1,032,935	474,380

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Appendix F.3. (Pg 2 of 6)

District	Stream Number Name	Week ending date														Total	Adjusted Total	
		6/24	7/01	7/08	7/15	7/22	7/29	8/05	8/12	8/19	8/26	9/02	9/09	9/16	9/23			9/30
Northern	204 Heather Bay	NS	NS	0	0	NS	0	0	175	150	1,300	300	1,150	NS	0	NS	3,075	1,330
	208 Granite Cove	NS	NS	0	0	0	320	1,800	800	540	700	400	3,000	NS	0	NS	7,560	3,220
	209 Useless Creek	NS	0	0	0	0	0	0	0	250	0	100	50	NS	0	NS	400	310
	210 Elf Creek	NS	0	0	0	0	NS	NS	0	0	0	200	0	NS	0	NS	200	200
	213 Bench Mark Creek	NS	0	0	0	1,200	0	800	400	0	250	200	75	NS	0	NS	2,925	1,890
	214 Long Creek	0	0	0	0	0	1,300	930	5,300	2,100	1,600	4,100	4,900	NS	0	NS	20,230	8,870
	216 Vanishing Creek	0	0	0	0	400	800	1,000	1,100	1,450	6,000	5,000	2,100	NS	10	NS	17,860	7,810
	217 Spring Creek	NS	0	0	0	50	400	700	500	1,700	1,200	3,900	800	NS	5	NS	9,255	3,900 peak
	218 Billy's Creek	NS	0	0	0	0	0	0	150	0	0	100	80	NS	0	NS	330	220
	221 Eickelberg Creek	0	0	0	0	0	140	0	0	30	300	300	200	NS	0	NS	970	470
	Columbia/Long 222-10	0	0	0	0	1,650	2,960	5,230	8,425	6,220	11,350	14,600	12,355	0	15	0	62,805	28,220
	224 Backyard Creek	NS	0	0	0	0	0	1,500	0	2,200	1,400	300	NS	0	NS	5,400	3,060	
	227 Granite Creek	NS	0	0	0	0	30	500	200	300	900	600	70	NS	0	NS	2,600	1,060
	229 Cedar Creek	NS	0	0	0	0	750	700	3,500	6,700	2,000	800	100	NS	NS	NS	14,550	6,700 peak
	232 Delta Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	NS	NS	0	0
	233 Surplus Creek	NS	0	0	0	0	0	300	0	670	500	300	0	NS	NS	NS	1,770	890
	234 Wells River	0	0	0	0	900	7,000	3,020	14,500	5,200	6,000	5,300	5,000	NS	0	NS	46,920	19,310
	257 Complex Creek	NS	NS	0	0	0	0	50	70	25	45	1,200	NS	2,535	NS	NS	3,925	2,535 peak
	258 Williams Creek	NS	NS	0	0	0	0	0	0	0	0	0	NS	45	NS	NS	45	45 peak
	259 Jonah Creek	NS	NS	0	0	0	1,400	2,000	3,500	6,100	5,800	29,000	NS	9,800	NS	NS	57,600	31,640
	263 Waterfall Creek	NS	NS	0	0	0	0	0	400	0	1,200	25	NS	2,100	NS	NS	3,725	2,150
	264 Siwash River	NS	NS	0	0	0	0	0	6	400	1,010	25,000	NS	4,650	NS	NS	31,066	25,000 peak
	265 Unakwik Creek	NS	NS	0	0	0	0	0	0	0	70	1,300	NS	1,250	NS	NS	2,620	1,600
	Wells/Unakwik 222-20	0	0	0	0	900	9,180	6,570	23,676	19,395	19,725	64,925	5,470	20,380	0	0	170,221	93,990
	273 Schoppe Creek	NS	NS	0	0	100	0	25	700	25	600	3,050	NS	380	NS	NS	4,880	3,050 peak
	276 Black Bear Creek	NS	NS	0	400	200	0	0	1,100	2,500	9,700	5,900	NS	930	NS	NS	20,730	9,900
	277 Dead Creek	NS	NS	0	0	0	0	0	0	200	0	100	NS	250	NS	NS	550	410
	278 Comeback Creek	NS	NS	0	0	0	0	0	60	0	600	150	NS	300	NS	NS	1,110	600 peak
	279 Canyon Creek	NS	NS	0	0	200	4,000	0	3,900	2,000	6,500	9,700	NS	1,135	NS	NS	27,435	13,260
	282 Good Creek	NS	NS	0	0	0	0	0	200	0	0	1,500	NS	840	NS	NS	2,540	1,600
283 Bad Creek	NS	NS	0	0	0	0	0	400	1,500	0	500	NS	400	NS	NS	2,800	1,540	
289 Derickson Creek	NS	NS	0	0	0	0	0	1,200	500	7,800	13,000	NS	230	NS	NS	22,730	13,000 peak	
Eaglek 222-30	0	0	0	400	500	4,000	25	7,560	6,725	25,200	33,900	0	4,465	0	0	82,775	43,360	
Northern District total	0	0	0	400	3,050	16,140	11,825	39,661	32,340	56,275	113,425	17,825	24,845	15	0	315,801	165,570	
Unakwik	242 Cowpen Creek	NS	0	0	0	0	0	0	160	NS	0	300	NS	NS	NS	NS	460	360
Unakwik District total	0	0	0	0	0	0	0	160	0	0	300	0	0	0	0	460	360	
Coghill	414 Harrison Creek	NS	NS	0	0	0	0	0	0	2	0	8,000	NS	0	NS	NS	8,002	8,000 peak
	417 Hobo Creek	NS	NS	0	0	0	0	0	0	0	800	1,700	NS	130	NS	NS	2,630	1,900
	421 Mill Creek	NS	NS	0	0	0	0	75	900	500	2,400	5,000	NS	500	NS	NS	9,375	5,000 peak
	424 Old Creek	NS	NS	0	0	0	0	0	145	0	7,500	500	NS	25	NS	NS	8,170	7,500 peak
	425 Hummer Creek	NS	NS	0	0	0	0	0	820	50	1,800	1,000	NS	230	NS	NS	3,900	2,300
	428 Pirate Creek	NS	NS	0	0	0	0	50	210	100	370	50	NS	40	NS	NS	820	380
	430 Meacham Creek	NS	NS	0	0	0	150	4,200	3,000	4,000	3,300	4,500	NS	640	NS	NS	19,990	9,030
	432 Swanson Creek	NS	NS	0	0	0	0	1,700	4,300	12,000	12,080	13,000	NS	1,510	NS	NS	44,590	21,760
	W. Port Wells 223-10	0	0	0	0	0	150	6,025	9,375	16,652	28,250	33,750	0	3,075	0	0	97,277	55,870
	303 Triple Creek	NS	NS	0	0	0	10	60	160	0	600	3,000	NS	740	NS	NS	4,570	3,000 peak
	307 Village Creek	NS	NS	0	0	0	0	0	230	0	400	1,500	NS	250	NS	NS	2,380	1,500 peak
	Esther Passage 223-20	0	0	0	0	0	10	60	390	0	1,000	4,500	0	990	0	0	6,950	4,500
	310 Golden Lagoon	NS	NS	0	0	0	0	0	320	600	1,200	1,000	NS	120	NS	NS	3,240	1,710
	314 Avery River	NS	NS	0	0	0	0	NS	0	0	0	500	NS	0	NS	NS	500	500
	322 Coghill River - below weir	NS	NS	0	0	0	300	0	29,200	15,000	7,700	36,000	NS	NS	NS	NS	88,200	36,000 peak
	3221 Coghill River - lake count	NS	NS	0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0
	E. Port Wells 223-30	0	0	0	0	0	300	0	29,520	15,600	8,900	37,500	0	120	0	0	91,940	38,210
	Coghill District total	0	0	0	0	0	460	6,085	39,285	32,252	38,150	75,750	0	4,185	0	0	196,167	98,580

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Appendix F.3. (Pg 3 of 6)

District	Stream		Week ending date														Total	Adjusted Total	
	Number	Name	6/24	7/01	7/08	7/15	7/22	7/29	8/05	8/12	8/19	8/26	9/02	9/09	9/16	9/23			9/30
Northwestern	435	Logging Camp Creek	NS	NS	0	0	0	0	450	60	0	0	50	NS	40	NS	NS	600	530
	450	Tebenkoff Creek	NS	NS	NS	0	0	0	1,300	1,100	2,000	1,400	2,000	NS	520	NS	NS	8,320	4,610
	451	Blackstone Creek	NS	NS	NS	0	0	0	2,300	2,200	2,160	2,500	500	NS	415	NS	NS	10,075	5,590
	454	Halferty Creek	NS	NS	NS	12	0	0	3,100	3,500	3,000	2,400	5,500	NS	650	NS	NS	18,162	8,500 peak
	455	Paulson Creek	NS	NS	NS	0	250	600	2,300	5,000	4,000	1,800	1,500	NS	480	NS	NS	15,930	6,920
	458	Parks Creek	NS	NS	NS	0	30	0	700	1,600	500	2,100	3,525	NS	730	NS	NS	9,185	4,540
	461	Cochrane Creek	NS	NS	NS	0	0	0	500	1,140	2,300	4,000	2,500	NS	230	NS	NS	10,670	5,110
	469	Wickett Creek	NS	NS	NS	0	0	100	1,100	3,200	2,000	1,400	7,000	NS	780	NS	NS	15,580	7,850 peak
		Passage/Cochrane 224-10	0	0	0	12	280	700	11,750	17,800	15,960	15,600	22,575	0	3,845	0	0	88,522	43,650
	471	Narrows Creek	NS	NS	0	0	0	0	50	200	10	400	100	NS	60	NS	NS	820	400 peak
	476	Shrode Creek	NS	NS	NS	0	420	400	2,700	5,200	3,500	19,000	11,000	NS	1,610	NS	NS	43,830	20,310
	479	Culross Creek	NS	NS	0	0	0	0	800	500	3,000	1,300	6,300	NS	1,120	NS	NS	13,020	7,170
		Culross Pass 224-30	0	0	0	0	420	400	3,550	5,900	6,510	20,700	17,400	0	2,790	0	0	57,670	27,880
	480	Mirk Creek	NS	NS	0	0	0	240	1,300	2,300	4,000	2,100	7,500	NS	1,100	NS	NS	18,540	9,280
	484	E. Finger Creek	NS	NS	NS	0	0	0	500	1,600	400	850	1,300	NS	420	NS	NS	5,070	2,670
485	W. Finger Creek	NS	NS	NS	0	0	1,800	3,300	3,300	9,000	8,100	4,000	NS	80	NS	NS	29,580	13,730	
493	Most Creek	NS	NS	0	0	0	0	220	20	100	230	0	NS	5	NS	NS	575	360	
495	Chimevisky Lagoon	NS	NS	0	0	0	0	300	300	1,500	400	1,200	NS	420	NS	NS	4,120	2,150	
498	McClure Creek	NS	NS	0	0	0	0	300	410	300	1,000	1,550	NS	0	NS	NS	3,560	1,600	
	Nellie Juan 224-40	0	0	0	0	0	2,040	5,920	7,930	15,300	12,680	15,550	0	2,025	0	0	61,445	29,790	
Northwestern District total			0	0	0	12	700	3,140	21,220	31,630	37,770	48,980	55,525	0	8,660	0	0	207,637	101,320
Eshamy	506	Loomis Creek	NS	NS	NS	NS	0	0	70	0	0	5,000	3,000	3,500	NS	NS	NS	11,570	5,000 peak
	507	Gunboat Creek	NS	NS	NS	NS	0	0	0	0	0	0	1,000	500	NS	NS	NS	1,500	1,200
	508	North Shore - Eshamy Lagoon	NS	NS	NS	NS	0	0	NS	50	2,500	5,000	7,000	2,500	NS	NS	NS	17,050	7,000 peak
	510	Elishansky Creek	NS	NS	NS	NS	0	200	1,100	900	700	2,500	5,000	1,200	NS	NS	NS	11,600	5,000 peak
	511	Eshamy - Below Weir	NS	NS	NS	NS	0	0	0	NS	NS	0	0	600	NS	NS	NS	600	600
	5111	Eshamy River - Weir	NS	NS	NS	NS	NS	0	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0
		Crafton Island total 225-30	0	0	0	0	0	200	1,170	950	3,200	12,500	16,000	8,300	0	0	0	42,320	18,800
Eshamy District total			0	0	0	0	200	1,170	950	3,200	12,500	16,000	8,300	0	0	0	42,320	18,800	

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Appendix F.3. (Pg 4 of 6)

District	Stream		Week ending date														Total	Adjusted Total		
	Number	Name	6/24	7/01	7/08	7/15	7/22	7/29	8/05	8/12	8/19	8/26	9/02	9/09	9/16	9/23			9/30	
Southwestern	601	Paddy Creek	NS	NS	NS	NS	0	0	25	40	820	3,200	1,500	1,500	NS	NS	NS	7,085	3,200 peak	
	602	Nacktan Creek	NS	NS	NS	NS	0	0	0	0	300	5,000	5,000	2,300	NS	NS	NS	12,600	5,220	
	603	Ewan Creek	NS	NS	NS	NS	0	0	0	600	2,800	8,000	13,000	200	NS	NS	NS	24,600	13,000 peak	
	604	Erb Creek	NS	NS	NS	NS	0	125	800	1,200	1,300	4,000	3,700	700	NS	NS	NS	11,825	4,800	
	608	Jackpot River	NS	NS	NS	NS	500	600	125	900	3,000	17,600	21,600	1,100	NS	NS	NS	45,425	21,600 peak	
	610	Kompkoff River	NS	NS	NS	NS	0	0	600	700	600	3,100	4,025	100	NS	NS	NS	9,125	4,025 peak	
	611	Jackpot Bay - West Arm	NS	NS	NS	NS	0	0	20	100	410	150	125	100	NS	NS	NS	905	410 peak	
	612	Jackpot Bay - West Arm	NS	NS	NS	NS	0	0	75	100	200	300	130	250	NS	NS	NS	1,055	470	
	613	Jackson Creek	NS	NS	NS	NS	600	3,000	10,500	7,300	2,600	11,500	17,000	2,000	NS	NS	NS	54,500	22,160	
	621	Totemoff Creek	NS	NS	NS	NS	50	100	225	2,000	2,100	9,500	5,400	300	NS	NS	NS	19,675	9,500 peak	
	623	Brizgaloff Creek	NS	NS	NS	NS	200	0	10	800	1,300	4,000	4,100	1,000	NS	NS	NS	11,410	4,680	
	630	Bainbridge Creek	NS	NS	NS	NS	1,000	3,300	9,200	7,600	5,010	17,200	11,500	1,900	NS	NS	NS	56,710	23,280	
	632	Claw Creek	NS	NS	NS	NS	0	0	2,750	2,000	2,200	2,100	2,000	600	NS	NS	NS	11,650	6,310	
	633	Pablo Creek	NS	NS	NS	NS	600	200	4,900	1,650	1,900	5,500	1,500	1,500	NS	NS	NS	17,750	7,460	
	634	Whale Bay - B. Head - S. Arm	NS	NS	NS	NS	0	0	0	0	0	800	0	100	NS	NS	NS	900	840	
	636	Whale Creek	NS	NS	NS	NS	0	0	1,500	850	1,370	5,500	2,000	1,700	NS	NS	NS	12,920	6,070	
		Chenega 226-20		0	0	0	0	2,950	7,325	30,730	25,840	25,910	97,450	92,580	15,350	0	0	0	298,135	133,025
		682 Snug Harbor		NS	NS	NS	NS	0	0	1,500	1,800	1,300	5,000	6,000	1,200	NS	NS	NS	16,800	7,620
		Knight Island 226-30		0	0	0	0	0	0	1,500	1,800	1,300	5,000	6,000	1,200	0	0	0	16,800	7,620
		655 Johnson Creek		NS	NS	NS	NS	0	0	200	0	1,300	4,000	8,000	4,000	NS	NS	NS	17,500	8,000 peak
		656 Halverson Creek		NS	NS	NS	NS	0	200	1,100	970	1,550	1,200	1,000	3,000	NS	NS	NS	9,020	3,730
		665 Bjorne Creek		NS	NS	NS	NS	0	0	0	90	600	800	2,300	NS	NS	NS	3,790	2,300 peak	
		666 O'Brien Creek		NS	NS	NS	NS	0	0	110	10	155	2,300	4,400	5,100	NS	NS	NS	12,075	5,100 peak
		670 Montgomery Creek		NS	NS	NS	NS	0	0	50	110	1,000	10,000	6,000	1,600	NS	NS	NS	18,760	10,000 peak
		672 Latouche Island - S. Side		NS	NS	NS	NS	0	0	50	0	20	800	500	700	NS	NS	NS	2,070	860
		673 Falls Creek		NS	NS	NS	NS	0	0	1,550	360	900	8,000	7,000	2,600	NS	NS	NS	20,410	9,090
		676 Horseshoe Creek		NS	NS	NS	NS	0	0	0	590	400	1,000	1,300	NS	NS	NS	3,290	1,670	
		677 Hayden Creek		NS	NS	NS	NS	0	0	75	0	180	5,000	5,000	1,000	NS	NS	NS	11,255	5,000 peak
		Bainbridge/Latouche 226-40		0	0	0	0	0	200	3,135	1,450	5,785	32,300	33,700	21,600	0	0	0	98,170	45,750
		653 Hogg Creek		NS	NS	NS	NS	100	900	5,500	3,100	0	9,000	6,000	2,000	NS	NS	NS	26,600	10,700
		Port Bainbridge 226-50		0	0	0	0	100	900	5,500	3,100	0	9,000	6,000	2,000	0	0	0	26,600	10,700
		Southwestern District total		0	0	0	0	3,050	8,425	40,865	32,190	32,995	143,750	138,280	40,150	0	0	0	439,705	197,095

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Appendix F.3. (Pg 5 of 6)

District	Stream		Week ending date														Total	Adjusted Total	
	Number	Name	6/24	7/01	7/08	7/15	7/22	7/29	8/05	8/12	8/19	8/26	9/02	9/09	9/16	9/23			9/30
Montague	702	Point Creek	NS	NS	NS	NS	0	NS	350	350	610	1,200	5,400	NS	NS	170	NS	8,080	5,670
	703	Clam Beach Creek	NS	NS	NS	NS	0	NS	75	440	2,400	1,300	9,000	NS	NS	140	NS	13,355	9,040
	707	MacLeod Creek	NS	NS	NS	NS	0	NS	1,500	1,500	3,500	6,800	16,200	NS	NS	470	NS	29,970	19,560
	710	Hanning Creek	NS	NS	NS	NS	0	NS	3,525	3,500	2,300	4,200	8,600	NS	NS	20	NS	22,145	14,420
	711	Quadra Creek	NS	NS	NS	NS	0	NS	10,000	10,700	4,900	7,200	16,500	NS	NS	80	NS	49,380	32,380
	717	Montague Island - west shore	NS	NS	NS	NS	0	NS	500	1,500	30	3,550	10,500	NS	NS	0	NS	16,080	10,500 peak
	718	Montague Island - west shore	NS	NS	NS	NS	0	NS	2,000	1,000	2,400	1,200	5,500	NS	NS	200	NS	12,300	8,400
	719	Montague Island - west shore	NS	NS	NS	NS	0	NS	600	1,000	3,700	3,800	4,500	NS	NS	8	NS	13,608	7,610
	722	Montague Is. - Glacier Str.	NS	NS	NS	NS	0	NS	NS	30	0	20	10	NS	NS	0	NS	60	40
	724	Montague Is. - Glacier Str.	NS	NS	NS	NS	0	NS	NS	30	720	200	800	NS	NS	2	NS	1,752	1,040
	725	Montague Island - west shore	NS	NS	NS	NS	0	NS	25	NS	1,300	130	3,000	NS	NS	0	NS	4,455	3,000 peak
	726	Montague Creek	NS	NS	NS	NS	0	NS	0	0	0	600	200	NS	NS	0	NS	800	680
	S. Montague 227-10		0	0	0	0	0	0	18,575	20,050	21,860	30,200	80,210	0	0	1,090	0	171,985	112,340
	738	Russell Creek	NS	NS	NS	NS	0	NS	100	20	980	1,400	2,500	NS	NS	30	NS	5,030	3,080
	739	Swamp Creek	NS	NS	NS	NS	0	NS	4,375	4,330	3,800	4,300	15,000	NS	NS	420	NS	32,225	21,680
	740	Kelez Creek	NS	NS	NS	NS	0	NS	2,600	2,000	3,700	3,300	13,000	NS	NS	80	NS	24,680	16,660
	741	Chalmers River	NS	NS	NS	NS	NS	125	2,100	5,700	3,200	3,100	8,010	NS	NS	110	NS	22,345	12,260
	744	Wilby Creek	NS	NS	NS	NS	NS	0	200	0	900	1,300	5,500	NS	NS	0	NS	7,900	5,500 peak
	745	Wild Creek	NS	NS	NS	NS	NS	0	150	300	1,100	4,600	5,100	NS	NS	0	NS	11,250	5,100
	746	Schuman Creek	NS	NS	NS	NS	NS	0	10	300	1,300	1,600	5,600	NS	NS	0	NS	8,810	5,600
747	Cabin Creek	NS	NS	NS	NS	NS	0	400	1,700	6,400	3,800	16,000	NS	NS	150	NS	28,450	18,080	
748	Gilmour Creek	NS	NS	NS	NS	NS	0	0	0	170	600	4,500	NS	NS	0	NS	5,270	4,500	
749	Shad Creek	NS	NS	NS	NS	NS	0	150	80	2,700	6,000	7,000	NS	NS	36	NS	15,966	9,290	
752	Stockdale Creek	NS	NS	NS	NS	NS	0	200	15	1,600	9,000	10,000	NS	NS	1	NS	20,816	12,450	
753	Stockdale Bay	NS	NS	NS	NS	NS	0	75	150	260	300	1,600	NS	NS	0	NS	2,385	1,600	
754	Dry Creek	NS	NS	NS	NS	NS	0	0	30	0	0	1,700	NS	NS	0	NS	1,730	1,700	
758	Rocky Bay - Head	NS	NS	NS	NS	NS	0	250	390	800	1,500	2,500	NS	NS	80	NS	5,520	3,390	
759	Rocky Creek	NS	NS	NS	NS	NS	0	0	1,100	0	0	2,000	NS	NS	0	NS	3,100	2,300	
766	Carr Creek	NS	NS	NS	NS	NS	0	0	0	110	0	1	NS	NS	0	NS	111	110	
770	Udall Creek	NS	NS	NS	NS	NS	0	100	850	0	1,700	3,000	NS	NS	0	NS	5,650	3,000 peak	
771	McKernan Creek	NS	NS	NS	NS	NS	0	25	450	0	300	700	NS	NS	0	NS	1,475	700	
774	Rosswog Creek	NS	NS	NS	NS	NS	0	0	700	800	2,900	5,500	NS	NS	0	NS	9,900	5,500	
775	Pautze Creek	NS	NS	NS	NS	NS	0	0	250	700	600	2,700	NS	NS	40	NS	4,290	2,960	
788	Green Creek	NS	NS	NS	NS	NS	NS	NS	0	0	90	NS	NS	NS	NS	NS	90	90	
N. Montague 227-20		0	0	0	0	0	125	10,735	18,365	28,520	46,390	111,911	0	0	947	0	216,993	135,550	
Montague District total			0	0	0	0	0	125	29,310	38,415	50,380	76,590	192,121	0	0	2,037	0	388,978	247,890

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Appendix F.3. (Pg 6 of 6)

District	Stream Number Name	Week ending date														Total	Adjusted Total	
		6/24	7/01	7/08	7/15	7/22	7/29	8/05	8/12	8/19	8/26	9/02	9/09	9/16	9/23			9/30
Southeastern	863 Orca Creek	NS	NS	NS	0	150	1,050	700	0	NS	NS	11,000	NS	NS	0	NS	12,900	11,000 peak
	S. Hawkins 228-10	NS	NS	NS	0	150	1,050	700	0	0	0	11,000	0	0	0	0	12,900	11,000
	833 Bates Creek	NS	NS	NS	NS	0	0	0	50	NS	700	700	NS	NS	0	NS	1,450	770
	834 Hardy Creek	NS	NS	NS	NS	25	7,000	8,300	14,500	9,600	16,000	12,000	NS	NS	0	NS	67,425	26,980
	835 Scott Creek	NS	NS	NS	NS	150	3,450	11,500	7,800	NS	14,000	15,000	NS	NS	11	NS	51,911	31,220
	836 Dan's Creek	NS	NS	NS	NS	NS	50	2,900	3,500	NS	6,500	4,100	NS	NS	0	NS	17,050	8,850
	837 Widgeon Creek	NS	NS	NS	NS	0	NS	NS	NS	NS	500	1,500	NS	NS	0	NS	2,050	1,550 peak
	839 Goose Creek	NS	NS	NS	NS	0	0	500	1,600	NS	1,500	2,800	NS	NS	0	NS	6,400	3,480
	Cutoff 228-20	0	0	0	0	175	10,500	23,200	27,450	9,600	39,200	36,150	0	0	11	0	146,286	72,850
	844 Makaka Creek	NS	NS	NS	0	0	160	400	4,600	NS	12,000	17,000	NS	NS	80	NS	34,240	23,940
	847 Hawkins Creek	NS	NS	NS	0	0	0	1,200	4,800	NS	11,200	13,000	1,200	NS	160	NS	31,560	16,820
	849 Rollins Creek	NS	NS	NS	0	0	200	300	200	NS	4,000	1,000	NS	NS	0	NS	5,700	4,000 peak
	850 Canoe Creek	NS	NS	NS	0	0	800	2,300	2,000	NS	18,000	17,000	600	NS	0	NS	40,700	20,760
	851 Zillesenoff Creek	NS	NS	NS	0	0	0	200	450	NS	4,000	12,000	NS	NS	0	NS	16,650	12,000 peak
	856 W. Lagoon Creek	NS	NS	NS	0	0	0	200	0	NS	1,000	500	NS	NS	5	NS	1,705	1,200
	857 E. Lagoon Creek	NS	NS	NS	0	200	0	200	200	NS	1,000	2,500	NS	NS	0	NS	4,100	2,500 peak
	858 N. Lagoon Creek	NS	NS	NS	0	0	0	1,750	600	NS	100	500	NS	NS	0	NS	2,950	2,370
	861 Bernard Creek	NS	NS	NS	0	0	50	3,000	2,300	NS	11,000	19,500	NS	NS	0	NS	35,850	19,500 peak
	862 Clamdiggers Creek	NS	NS	NS	0	0	0	50	0	NS	1,600	3,000	NS	NS	0	NS	4,650	3,000 peak
N. Hawkins 228-30	0	0	0	0	200	1,210	9,600	15,150	0	63,900	86,000	1,800	0	245	0	178,105	106,090	
827 Captain Creek	NS	NS	NS	NS	0	400	1,550	1,600	NS	7,000	7,500	NS	NS	0	NS	18,050	9,180	
828 Cook Creek	NS	NS	NS	50	220	4,000	14,200	8,500	NS	16,000	12,500	NS	NS	0	NS	55,470	27,120	
829 King Creek	NS	NS	NS	0	0	2	50	300	NS	1,000	3,000	NS	NS	0	NS	4,352	3,000 peak	
831 Double Creek	NS	NS	NS	0	10	230	3,800	3,400	NS	4,100	8,000	NS	NS	20	NS	19,560	12,540	
Double Bay 228-40	0	0	0	50	230	4,632	19,600	13,800	0	28,100	31,000	0	0	20	0	97,432	51,840	
817 Deer Creek	NS	NS	NS	NS	175	2,400	4,200	5,500	NS	9,000	6,000	NS	NS	55	NS	27,330	16,360	
818 Juania Creek	NS	NS	NS	NS	25	2,000	6,500	7,600	NS	21,000	19,500	NS	NS	80	NS	56,705	36,250	
821 Brown Bear Creek	NS	NS	NS	NS	3,500	1,600	6,900	6,400	NS	4,000	6,000	NS	NS	0	NS	27,500	15,180	
Johnstone 228-50	0	0	0	0	3,700	6,000	16,700	19,500	0	34,000	31,500	0	0	135	0	111,535	67,790	
805 Port Etches - south shore	NS	NS	NS	NS	0	0	0	0	NS	410	650	NS	NS	0	NS	1,060	670	
806 Dog Salmon Creek	NS	NS	NS	NS	0	0	300	400	NS	5,600	9,000	NS	NS	320	NS	15,620	11,360	
807 Beaver Creek	NS	NS	NS	NS	0	0	150	150	NS	300	500	NS	NS	0	NS	1,100	620	
810 Garden Creek	NS	NS	NS	NS	0	25	500	4,000	NS	14,000	12,000	NS	NS	180	NS	30,705	20,770	
811 Etches Creek	NS	NS	NS	NS	0	0	100	250	NS	2,000	2,500	NS	NS	0	NS	4,850	2,500 peak	
812 Nuchek Creek	NS	NS	NS	NS	200	7,000	41,000	16,100	NS	65,000	33,000	NS	NS	500	NS	162,800	94,860	
815 Constantine Creek	NS	NS	NS	NS	500	7,500	20,000	13,200	28,500	35,000	62,500	NS	NS	800	NS	168,000	92,820	
Etches 228-60	0	0	0	0	700	14,525	62,050	34,100	28,500	122,310	120,150	0	0	1,800	0	384,135	223,600	
Southeastern District total		0	0	0	50	5,155	37,917	131,850	110,000	38,100	287,510	315,800	1,800	0	2,211	0	930,393	533,170
Total of 9 districts		0	0	740	9,584	52,760	175,937	319,545	491,949	328,947	781,855	1,047,266	292,585	37,690	15,538	0	3,554,396	1,837,165

* NS = no survey.
 † Blank areas indicate that there was a survey but no count due to poor survey conditions.

Appendix F.4. Weekly aerial survey estimates of the escapement of live chum salmon to selected streams in Prince William Sound, 1991.

District	Stream		Week ending date														Total	Adjusted Total	
	Number	Name	6/22	6/29	7/06	7/13	7/20	7/27	8/03	8/10	8/17	8/24	8/31	9/07	9/14	9/21			9/28
Eastern	2	Hartney Creek	NS*	NS	NS	0	30	75	NS	30	40	NS	100	50	NS	0	NS	325	200
	5	Eccles Creek	NS	NS	NS	0	0	0	NS	0	0	NS	0	0	NS	0	NS	0	0
	8	Fleming Creek	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0
	11	Humpy Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0
		Orca Inlet 221-10	0	0	0	0	30	75	0	30	40	0	100	50	0	0	0	325	200
	19	Twin Lakes Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0
	20	Spring Creek	NS	0	0	0	0	0	0	0	100	0	0	0	NS	0	NS	100	100
	21	Rogue Creek	NS	0	0	0	0	0	30	0	0	0	0	0	NS	0	NS	30	30
	23	Chase Creek	0	0	0	0	0	400	150	0	300	0	0	25	NS	2	NS	877	600
	35	Koppen Creek	0	0	0	0	30	300	0	0	0	0	0	0	NS	0	NS	330	300 peak
	36	Sheep River	0	0	0	0	600	800	760	2,500	1,000	150	0	0	NS	25	NS	5,835	2,700
	37	Allen Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0
		Simpson/Sheep 221-20	0	0	0	0	630	1,500	940	2,500	1,400	150	0	25	0	27	0	7,172	3,730
	41	Pass Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0
	45	Plateau Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0
46	Comfort Creek	NS	0	10	0	150	0	610	0	900	0	0	0	NS	0	NS	1,670	900 peak	
48	Beartrap River	10	400	2,000	3,000	4,200	1,800	2,600	3,125	2,100	0	0	300	NS	0	NS	19,535	7,820	
49	Cataract Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0	
51	Olsen Creek	50	200	2,000	6,000	4,000	2,400	1,400	1,000	2,400	2,100	0	0	NS	0	NS	21,550	8,650	
52	Control Creek	NS	0	0	300	2,300	0	0	0	0	0	0	0	NS	25	NS	2,625	2,300 peak	
54	Carlsen Creek	NS	0	0	0	100	0	0	0	0	0	0	0	NS	0	NS	100	100	
56	St. Matthews Creek	NS	0	0	600	500	400	410	0	200	0	0	0	NS	0	NS	2,110	1,200	
	Gravina 221-30	60	600	4,010	9,900	11,250	4,600	5,020	4,125	5,600	2,100	0	300	0	25	0	47,590	20,970	
71	Two Moon Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0	
73	Tundra Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0	
76	Irish Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0	
80	Whalen Creek	NS	0	0	420	300	700	1,200	0	0	0	0	0	NS	25	NS	2,645	1,310 peak	
83	Keta Creek	NS	0	0	0	300	600	0	3,500	200	0	NS	1,000	NS	500	NS	6,100	3,500 peak	
87	Sunny River	NS	0	0	0	500	2,300	550	25,000	400	800	1,000	13,000	NS	400	NS	43,950	25,000 peak	
88	Short Creek	NS	0	0	0	0	0	900	0	300	0	0	0	NS	0	NS	1,200	1,020	
89	Fish Creek	0	0	0	830	1,300	2,500	3,100	1,000	800	0	0	0	NS	50	NS	9,580	4,340	
92	Shale Creek	NS	0	0	250	0	350	0	0	0	0	0	0	NS	0	NS	600	390	
93	Kirkwood Creek	NS	0	0	0	800	0	240	0	0	0	0	0	NS	0	NS	1,040	900	
94	Rock Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0	
99	Lagoon Creek	NS	0	0	0	1,500	0	1,240	1,500	400	1,000	0	5,300	NS	350	NS	11,290	6,550	
	Fidalgo 221-40	0	0	0	1,500	4,700	6,100	7,580	31,000	2,100	1,800	1,000	19,300	0	1,325	0	76,405	43,010	
106	Gladhough Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0	
107	Black Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0	
114	Turner Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0	
115	Millard Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0	
116	Duck River	NS	0	0	0	0	0	0	0	300	0	0	0	NS	0	NS	300	300	
117	Indian Creek	50	600	900	2,900	2,200	1,200	2,000	3,300	400	0	0	0	NS	200	NS	13,750	5,570	
120	Donaldson Creek	NS	0	0	0	0	0	0	0	0	0	NS	0	NS	0	NS	0	0	
121	Levshakoff Creek	0	0	0	10	0	0	900	0	0	0	0	0	NS	0	NS	910	900 peak	
122	No Name Creek	NS	0	30	0	0	0	0	0	0	0	0	0	NS	0	NS	30	30	
123	Gregorieff Creek	0	0	0	0	0	0	300	0	0	0	NS	0	NS	0	NS	300	300	
127	Naomoff River	NS	0	0	700	800	1,500	1,800	1,000	200	0	300	1,200	NS	20	NS	7,520	3,670	
129	Vlasoff Creek	NS	0	0	0	0	0	0	0	0	0	0	850	NS	150	NS	1,000	1,360	
152	Twin Falls Creek	NS	0	0	0	2,200	400	NS	300	400	0	0	0	NS	0	NS	3,300	2,780	
153	Stellar Creek	0	0	60	800	2,200	800	1,100	0	0	0	0	0	NS	0	NS	4,960	2,200 peak	
	Valdez Arm 221-50	50	600	990	4,410	7,400	3,900	6,100	4,600	1,300	0	300	2,050	0	370	0	32,070	17,110	
131	Gorge Creek - Port Valdez	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0	
133	Sawmill Creek	NS	0	0	70	0	0	300	0	0	0	0	50	NS	0	NS	420	300 peak	
137	Lowe River	NS	0	0	0	0	0	0	0	0	NS	NS	NS	NS	NS	NS	0	0	
143	Siwash Creek	NS	0	0	0	0	0	200	0	200	0	0	0	NS	1	NS	401	280	
145	Crooked Creek	NS	0	0	0	0	30	40	0	100	0	0	50	NS	300	NS	520	300	
148	Mineral Flats	NS	0	0	0	0	70	40	0	0	0	0	375	NS	250	NS	735	460	
	Port Valdez 221-60	0	0	0	70	0	30	610	40	300	0	0	475	0	551	0	2,076	1,340	
Eastern District total			110	1,200	5,000	15,880	24,010	16,205	20,250	42,295	10,740	4,050	1,400	22,200	0	2,298	0	165,638	86,360

Appendix F.4. (Pg 2 of 6).

District	Stream		Week ending date														Total	Adjusted Total		
	Number	Name	6/24	7/01	7/08	7/15	7/22	7/29	8/05	8/12	8/19	8/26	9/02	9/09	9/16	9/23			9/30	
Northern	204	Heather Bay	NS	NS	0	0	NS	0	0	0	0	0	0	0	NS	0	NS	0	0	
	208	Granite Cove	NS	NS	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0	
	213	Bench Mark Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0	
	214	Long Creek	NS	0	0	0	0	NS	NS	0	0	0	0	0	NS	0	NS	0	0	
	216	Vanishing Creek	NS	0	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0	
	217	Spring Creek	0	0	0	350	600	600	400	700	400	0	0	0	NS	0	NS	3,050	1,430	
	218	Billy's Creek	0	0	0	500	1,000	200	2,000	700	200	0	700	400	NS	0	NS	5,700	2,580	
	221	Eickelberg Creek	NS	0	0	0	450	100	0	350	0	0	0	50	NS	0	NS	950	650	
		Columbia/Long	222-10	0	0	0	850	2,050	900	2,400	1,750	600	0	700	450	0	0	9,700	4,660	
		224	Backyard Creek	NS	0	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0	
		227	Granite Creek	NS	0	0	0	0	0	200	0	200	0	0	NS	0	NS	400	280	
		229	Cedar Creek	NS	0	0	0	0	0	0	0	1,200	0	0	NS	NS	NS	1,200	1,200	
		232	Delta Creek	NS	0	0	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
		233	Surplus Creek	NS	0	0	0	0	0	200	0	0	0	0	NS	NS	NS	200	200	
		234	Wells River	0	50	2,000	3,450	5,300	2,400	1,100	1,000	1,500	700	0	0	NS	0	NS	17,500	7,030
		257	Complex Creek	NS	NS	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0	
		258	Williams Creek	NS	NS	0	0	0	0	0	0	0	0	0	NS	0	NS	0	0	
		259	Jonah Creek	NS	NS	0	0	0	0	0	600	0	0	0	NS	400	NS	NS	1,000	840
		263	Waterfall Creek	NS	NS	0	0	0	0	25	20	0	0	0	NS	0	NS	NS	45	30
		264	Siwash River	NS	NS	1	0	0	0	10	0	0	0	0	NS	0	NS	NS	11	10 peak
		265	Unakwik Creek	NS	NS	0	0	0	0	0	0	0	0	0	NS	0	NS	NS	0	0
			Wells/Unakwik	222-20	0	50	2,001	3,450	5,300	2,400	1,535	1,620	2,900	700	0	0	400	0	20,356	9,590
	273	Schoppe Creek	NS	NS	0	0	0	0	0	0	0	0	0	NS	0	NS	NS	0	0	
	276	Black Bear Creek	NS	NS	0	0	0	500	400	0	0	0	0	NS	0	NS	NS	900	660 peak	
	277	Dead Creek	NS	NS	0	0	0	0	0	0	0	0	0	NS	0	NS	NS	0	0	
	278	Comeback Creek	NS	NS	0	0	0	0	0	0	0	0	0	NS	0	NS	NS	0	0	
	279	Canyon Creek	NS	NS	0	400	400	0	0	1,100	0	400	0	NS	0	NS	NS	2,300	1,160 peak	
	282	Good Creek	NS	NS	0	0	0	0	1,000	100	100	1,200	1,000	NS	0	NS	NS	3,400	1,960	
	283	Bad Creek	NS	NS	0	0	0	0	1,000	0	0	130	0	NS	0	NS	NS	1,130	1,050 peak	
		Eaglek	222-30	0	0	0	400	400	500	2,400	1,200	100	1,730	1,000	0	0	0	7,730	4,830	
Northern District total			0	50	2,001	4,700	7,750	3,800	6,335	4,570	3,600	2,430	1,700	450	400	0	0	37,786	19,080	
Unakwik	242	Cowpen Creek	NS	0	0	0	0	0	0	NS	0	0	NS	NS	NS	NS	0	0		
Unakwik District total			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

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Appendix F.4. (Pg 3 of 6).

District	Stream Number Name	Week ending date													Total	Adjusted Total		
		6/24	7/01	7/08	7/15	7/22	7/29	8/05	8/12	8/19	8/26	9/02	9/09	9/16			9/23	9/30
Coghill	414 Harrison Creek	NS	NS	0	0	0	0	0	0	0	0	300	NS	0	NS	NS	300	300
	417 Hobo Creek	NS	NS	0	0	0	0	0	0	0	0	0	NS	0	NS	NS	0	0
	421 Mill Creek	NS	NS	0	0	0	0	175	200	50	200	0	NS	0	NS	NS	625	350 peak
	424 Old Creek	NS	NS	0	0	0	0	0	0	25	50	200	NS	0	NS	NS	275	200
	425 Hummer Creek	NS	NS	0	0	0	0	0	0	150	400	0	NS	0	NS	NS	550	400 peak
	428 Pirate Creek	NS	NS	0	0	0	0	0	0	0	0	0	NS	0	NS	NS	0	0
	430 Meacham Creek	NS	NS	0	0	0	0	0	100	0	0	0	NS	0	NS	NS	100	100 peak
	432 Swanson Creek	NS	NS	0	0	0	0	40	260	50	0	0	NS	360	NS	NS	710	380 peak
	W. Port Wells 223-10	0	0	0	0	0	150	6,025	9,375	16,652	28,250	33,750	0	3,075	0	0	97,277	55,870
	303 Triple Creek	NS	NS	0	0	0	10	60	160	0	600	3,000	NS	740	NS	NS	4,570	3,000 peak
	307 Village Creek	NS	NS	0	0	0	0	0	230	0	400	1,500	NS	250	NS	NS	2,380	1,500 peak
	Esther Passage 223-20	0	0	0	0	0	10	60	390	0	1,000	4,500	0	990	0	0	6,950	4,500
	310 Golden Lagoon	NS	NS	0	0	0	0	0	320	600	1,200	1,000	NS	120	NS	NS	3,240	1,710
	314 Avery River	NS	NS	0	0	0	0	NS	0	0	0	500	NS	0	NS	NS	500	500
322 Coghill River - below weir	NS	NS	0	0	0	300	0	29,200	15,000	7,700	36,000	NS	NS	NS	NS	88,200	36,000 peak	
322 Coghill River - lake court	NS	NS	0	0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0	0	
E. Port Wells 223-30	0	0	0	0	0	300	0	29,520	15,600	8,900	37,500	0	120	0	0	91,940	38,210	
Coghill District total		0	0	0	0	0	460	6,085	39,285	32,252	38,150	75,750	0	4,185	0	0	196,167	98,580
Northwestern	435 Logging Camp Creek	NS	NS	0	0	0	0	0	0	0	0	0	NS	0	NS	NS	0	0
	450 Tebenkoff Creek	NS	NS	NS	0	0	0	500	400	400	0	0	NS	0	NS	NS	1,300	820
	451 Blackstone Creek	NS	NS	NS	0	0	0	0	100	0	0	0	NS	0	NS	NS	100	100
	454 Halferty Creek	NS	NS	NS	4	32	200	1,000	320	500	200	500	NS	150	NS	NS	2,906	1,290
	455 Paulson Creek	NS	NS	NS	0	45	400	300	3,000	0	0	0	NS	0	NS	NS	3,745	3,000 peak
	458 Parks Creek	NS	NS	NS	0	0	50	400	250	0	200	0	NS	0	NS	NS	900	400 peak
	461 Cochrane Creek	NS	NS	NS	0	0	0	0	0	0	0	0	NS	0	NS	NS	0	0
	469 Wickett Creek	NS	NS	NS	0	0	0	0	0	0	0	0	NS	0	NS	NS	0	0
	Passage/Cochrane 224-10	0	0	0	4	77	650	2,200	4,070	900	400	500	0	150	0	0	8,951	5,610
	471 Narrows Creek	NS	0	0	0	0	0	NS	0	0	NS	NS	NS	NS	NS	NS	0	0
	476 Shrode Creek	NS	0	0	10	1,300	800	NS	0	0	NS	NS	NS	NS	NS	NS	2,110	1,300 peak
	479 Culross Creek	NS	0	0	0	0	0	NS	0	0	NS	NS	NS	NS	NS	NS	0	0
	Culross Pass 224-30	0	0	0	0	40	0	700	750	0	0	0	0	0	0	0	1,490	1,050
	480 Mink Creek	NS	NS	0	0	50	360	200	400	0	0	0	NS	0	NS	NS	1,010	430
484 E. Finger Creek	NS	NS	NS	0	0	0	150	500	0	150	0	NS	0	NS	NS	800	500 peak	
485 W. Finger Creek	NS	NS	NS	0	170	0	500	800	0	400	0	NS	0	NS	NS	1,870	850	
493 Most Creek	NS	NS	0	0	0	0	0	0	0	0	0	NS	0	NS	NS	0	0	
495 Chimevisky Lagoon	NS	NS	0	0	20	0	200	520	0	0	0	NS	0	NS	NS	740	520 peak	
498 McClure Creek	NS	NS	0	0	0	0	0	0	0	0	0	NS	0	NS	NS	0	0	
Nellie Juan 224-40	0	0	0	0	240	360	1,050	2,220	0	550	0	0	0	0	0	4,420	2,300	
Northwestern District total		0	0	0	4	347	1,610	3,950	7,040	900	950	500	0	150	0	0	14,861	8,960

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Appendix F.4. (Pg 4 of 6).

District	Stream Number Name	Week ending date														Total	Adjusted Total		
		6/24	7/01	7/08	7/15	7/22	7/29	8/05	8/12	8/19	8/26	9/02	9/09	9/16	9/23			9/30	
Eshamy	506 Loomis Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	507 Gunboat Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	508 North Shore - Eshamy Lagoon	NS	NS	NS	NS	0	0	NS	0	0	0	0	0	NS	NS	NS	0	0	
	510 Elishansky Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	511 Eshamy - below weir	NS	NS	NS	NS	0	0	0	NS	0	0	0	0	NS	NS	NS	0	0	
	511 Eshamy River - weir	NS	NS	NS	NS	NS	0	NS	NS	NS	0	0	0	NS	NS	NS	NS	0	0
	Crafton Island 225-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Eshamy District total		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Southwestern	601 Paddy Creek	NS	NS	NS	NS	0	0	0	20	0	0	0	0	NS	NS	NS	20	20	
	602 Nacktan Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	603 Ewan Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	604 Erb Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0 peak	
	608 Jackpot River	NS	NS	NS	NS	0	0	0	0	0	400	0	0	NS	NS	NS	400	400	
	610 Kompkoff River	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	611 Jackpot Bay - West Arm	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	612 Jackpot Bay - West Arm	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0 peak	
	613 Jackson Creek	NS	NS	NS	NS	0	0	0	400	500	0	0	0	NS	NS	NS	900	600	
	621 Totemoff Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	623 Brizgaloff Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	630 Bainbridge Creek	NS	NS	NS	NS	0	0	0	1,100	0	1,700	0	0	NS	NS	NS	2,800	1,780	
	632 Claw Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	633 Pablo Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	634 Whale Bay-B. Head-S. Arm	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	636 Whale Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
		Chenega 226-20	0	0	0	0	0	0	0	1,520	500	2,100	0	0	0	0	0	4,120	2,800
		682 Snug Harbor	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0
		Knight Island 226-30	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0
		655 Johnson Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0
	656 Halverson Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	665 Bjorne Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	666 O'Brien Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	670 Montgomery Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	672 Latouche Island	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	673 Falls Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	676 Horseshoe Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	677 Hayden Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	Bainbridge/Latouche 226-40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	653 Hogg Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
	Port Bainbridge 226-50	NS	NS	NS	NS	0	0	0	0	0	0	0	0	NS	NS	NS	0	0	
Southwestern District total		0	0	0	0	0	0	0	1,520	500	2,100	0	0	0	0	0	4,120	2,800	

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Appendix F.4. (Pg 5 of 6).

District	Stream		Week ending date														Total	Adjusted Total		
	Number	Name	6/24	7/01	7/08	7/15	7/22	7/29	8/05	8/12	8/19	8/26	9/02	9/09	9/16	9/23			9/30	
Montague	702	Point Creek	NS	NS	NS	NS	0	NS	0	50	0	0	100	NS	NS	0	NS	150	100 peak	
	703	Clam Beach Creek	NS	NS	NS	NS	0	NS	0	0	0	0	0	NS	NS	0	NS	0	0	
	707	MacLeod Creek	NS	NS	NS	NS	0	NS	50	300	0	0	0	NS	NS	0	NS	350	300 peak	
	710	Hanning Creek	NS	NS	NS	NS	0	NS	0	500	0	0	0	NS	NS	0	NS	500	500	
	711	Quadra Creek	NS	NS	NS	NS	0	NS	0	0	0	0	0	NS	NS	0	NS	0	0	
	717	Montague Island - west shore	NS	NS	NS	NS	0	NS	0	0	0	0	0	NS	NS	0	NS	0	0	
	718	Montague Island - west shore	NS	NS	NS	NS	0	NS	0	0	0	0	0	NS	NS	0	NS	0	0	
	719	Montague Island - west shore	NS	NS	NS	NS	0	NS	0	0	0	0	0	NS	NS	0	NS	0	0	
	722	Montague Is. - Glacier Str.	NS	NS	NS	NS	0	NS	NS	0	0	0	0	NS	NS	0	NS	0	0	
	724	Montague Is. - Glacier Str.	NS	NS	NS	NS	0	NS	NS	0	0	0	0	NS	NS	0	NS	0	0	
	725	Montague Island - west shore	NS	NS	NS	NS	0	NS	0	NS	0	0	0	NS	NS	0	NS	0	0	
	726	Montague Creek	NS	NS	NS	NS	0	NS	0	0	0	0	0	NS	NS	0	NS	0	0	
		S. Montague 227-10		0	0	0	0	0	0	50	850	0	0	100	0	0	0	0	1,000	900
		738	Russell Creek	NS	NS	NS	NS	0	NS	0	0	0	0	0	NS	NS	0	NS	0	0
		739	Swamp Creek	NS	NS	NS	NS	0	NS	0	0	0	0	0	NS	NS	0	NS	0	0
		740	Kelez Creek	NS	NS	NS	NS	0	NS	0	0	0	0	0	NS	NS	0	NS	0	0
		741	Chalmers River	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	0
		744	Wilby Creek	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	0
		745	Wild Creek	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	0
		746	Schuman Creek	NS	NS	NS	NS	NS	0	25	0	0	0	0	NS	NS	0	NS	25	25 peak
		747	Cabin Creek	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	0
		748	Gilmour Creek	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	0
		749	Shad Creek	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	0
		752	Stockdale Creek	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	0
		753	Stockdale Bay	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	0
		754	Dry Creek	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	0
		758	Rocky Bay - Head	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	0
	759	Rocky Creek	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	0	
	766	Carr Creek	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	0	
	770	Udall Creek	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	0	
	771	McKernan Creek	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	0	
	774	Rosswog Creek	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	0	
	775	Pautze Creek	NS	NS	NS	NS	NS	0	0	0	0	0	0	NS	NS	0	NS	0	0	
	788	Green Creek	NS	NS	NS	NS	NS	NS	0	0	0	0	NS	NS	NS	NS	NS	0	0	
	N. Montague 227-20		0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	25	25	
Montague District total			0	0	0	0	0	0	75	850	0	0	100	0	0	0	0	1,025	925	

-Continued-

Appendix F.4. (Pg 6 of 6).

District	Stream		Week ending date														Total	Adjusted Total	
	Number	Name	6/24	7/01	7/08	7/15	7/22	7/29	8/05	8/12	8/19	8/26	9/02	9/09	9/16	9/23			9/30
Southeastern	863	Orca Creek	NS	NS	NS	0	0	0	0	0	NS	NS	0	NS	NS	0	NS	0	0
		S. Hawkins 228-10	NS	NS	NS	0	0	0	0	0	NS	NS	0	NS	NS	0	NS	0	0
	833	Bates Creek	NS	NS	NS	NS	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
	834	Hardy Creek	NS	NS	NS	NS	0	0	0	0	0	0	0	NS	NS	0	NS	0	0
	835	Scott Creek	NS	NS	NS	NS	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
	836	Dan's Creek	NS	NS	NS	NS	NS	0	0	0	NS	0	0	NS	NS	0	NS	0	0
	837	Widgeon Creek	NS	NS	NS	NS	0	NS	NS	NS	NS	0	0	NS	NS	0	NS	0	0
	839	Goose Creek	NS	NS	NS	NS	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
		Cutoff 228-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	844	Makaka Creek	NS	NS	NS	0	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
	847	Hawkins Creek	NS	NS	NS	0	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
	849	Rollins Creek	NS	NS	NS	0	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
	850	Canoe Creek	NS	NS	NS	0	0	0	0	0	NS	0	0	0	NS	0	NS	0	0
	851	Zillesenoff Creek	NS	NS	NS	0	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
	856	W. Lagoon Creek	NS	NS	NS	0	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
	857	E. Lagoon Creek	NS	NS	NS	0	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
	858	N. Lagoon Creek	NS	NS	NS	0	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
	861	Bernard Creek	NS	NS	NS	0	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
	862	Clamdiggers Creek	NS	NS	NS	0	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
		N. Hawkins 228-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	827	Captain Creek	NS	NS	NS	NS	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
	828	Cook Creek	NS	NS	NS	0	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
	829	King Creek	NS	NS	NS	0	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0 peak
	831	Double Creek	NS	NS	NS	0	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
		Double Bay 228-40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	817	Deer Creek	NS	NS	NS	NS	3	0	0	0	NS	0	0	NS	NS	0	NS	3	3 peak
	818	Juania Creek	NS	NS	NS	NS	0	0	0	800	NS	0	0	NS	NS	0	NS	800	800
	821	Brown Bear Creek	NS	NS	NS	NS	100	0	0	400	NS	0	0	NS	NS	0	NS	500	400 peak
		Johnstone 228-50	0	0	0	0	103	0	0	1,200	0	0	0	0	0	0	0	1,303	1,203
	805	Port Etches - south shore	NS	NS	NS	NS	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
	806	Dog Salmon Creek	NS	NS	NS	NS	0	0	0	0	NS	0	500	NS	NS	0	NS	500	500
	807	Beaver Creek	NS	NS	NS	NS	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
	810	Garden Creek	NS	NS	NS	NS	0	0	0	500	NS	0	0	NS	NS	0	NS	500	500
	811	Etches Creek	NS	NS	NS	NS	0	0	0	0	NS	0	0	NS	NS	0	NS	0	0
	812	Nuchek Creek	NS	NS	NS	NS	112	0	0	2,000	NS	1,000	0	NS	NS	0	NS	3,112	2,000 peak
	815	Constantine Creek	NS	NS	NS	NS	50	1,000	750	5,000	0	200	0	NS	NS	70	NS	7,070	5,000 peak
		Etches 228-60	0	0	0	0	162	1,000	750	7,500	0	1,200	500	0	0	70	0	11,182	8,000
Southeastern District total			0	0	0	0	265	1,000	750	8,700	0	1,200	500	0	0	70	0	12,485	9,203
Total of 9 districts			110	1,250	7,001	20,584	32,382	22,015	34,875	67,735	16,015	11,780	4,700	22,650	910	2,368	0	244,375	133,398

^a NS = No survey.

^b Blank areas indicated that there was a survey but no count due to poor survey conditions.

Appendix F.5. Temporally stratified age and sex composition of the sockeye salmon escapement through the weir on the outlet stream of Coghill Lake, 1991.

		Brood Year and Age Group								Total
		1988		1987		1986		1985	1984	
		0.2	1.1	0.3	1.2	1.3	2.2	2.3	3.3	
Stratum dates: 6/20-7/10										
Sampling dates: 7/1-7/7										
Sample size: 489										
Female	Percent of Sample	0.4	0.0	0.0	7.2	25.4	0.4	0.4	0.0	33.7
	Number in Escapement	12	0	0	210	743	12	12	0	988
Male	Percent of Sample	0.2	0.0	1.0	7.0	56.9	0.2	1.0	0.0	66.3
	Number in Escapement	6	0	30	204	1,665	6	30	0	1,941
Total	Percent of Sample	0.6	0.0	1.0	14.1	82.2	0.6	1.4	0.0	100.0
	Number in Escapement	18	0	30	413	2,408	18	42	0	2,929
	Standard Error	10	0	13	46	51	10	16	0	
Stratum dates: 7/11-7/19										
Sampling dates: 7/15										
Sample size: 488										
Female	Percent of Sample	0.0	0.0	0.6	4.3	43.2	0.0	1.2	0.0	49.4
	Number in Escapement	0	0	32	222	2,235	0	64	0	2,553
Male	Percent of Sample	0.2	0.2	1.0	6.6	41.0	0.2	1.4	0.0	50.6
	Number in Escapement	11	11	53	339	2,118	11	74	0	2,616
Total	Percent of Sample	0.2	0.2	1.6	10.9	84.2	0.2	2.7	0.0	100.0
	Number in Escapement	11	11	85	561	4,353	11	138	0	5,169
	Standard Error	11	11	30	73	85	11	38	0	
Stratum dates: 7/20-7/27										
Sampling dates: 7/24-7/26										
Sample size: 436										
Female	Percent of Sample	0.2	0.0	0.2	0.7	36.7	0.5	8.0	0.2	46.6
	Number in Escapement	4	0	4	11	588	7	129	4	746
Male	Percent of Sample	0.0	0.0	0.7	1.8	47.7	0.2	3.0	0.0	53.4
	Number in Escapement	0	0	11	29	765	4	48	0	857
Total	Percent of Sample	0.2	0.0	0.9	2.5	84.4	0.7	11.0	0.2	100.0
	Number in Escapement	4	0	15	40	1,353	11	176	4	1,603
	Standard Error	4	0	7	12	28	6	24	4	
Strata combined: 6/20-7/27										
Sampling dates: 7/1-7/26										
Sample size: 1,413										
Female	Percent of Sample	0.2	0.0	0.4	4.6	36.8	0.2	2.1	0.0	44.2
	Number in Escapement	16	0	35	443	3,566	19	204	4	4,287
Male	Percent of Sample	0.2	0.1	1.0	5.9	46.9	0.2	1.6	0.0	55.8
	Number in Escapement	17	11	94	572	4,548	20	152	0	5,414
Total	Percent of Sample	0.3	0.1	1.3	10.5	83.6	0.4	3.7	0.0	100.0
	Number in Escapement	32	11	129	1,015	8,114	40	356	4	9,701
	Standard Error	15	11	33	87	103	16	47	4	

Appendix F.6. Temporally stratified age and sex composition of the sockeye salmon escapement through the weir at the head of Eshamy Lagoon, 1991.

		Brood Year and Age Group								
		1989	1988		1987		1986		1985	
		0.1	0.2	1.1	1.2	2.1	1.3	2.2	2.3	Total
Stratum dates:		7/3-7/29								
Sampling dates:		7/16-7/22								
Sample size:		529								
Female	Percent of Sample	0.0	0.0	0.0	32.9	0.0	4.3	7.6	0.9	45.7
	Number in Catch	0	0	0	1,072	0	142	247	31	1,491
Male	Percent of Sample	0.0	0.0	0.0	41.0	0.0	5.5	7.6	0.2	54.3
	Number in Catch	0	0	0	1,337	0	179	247	6	1,769
Total	Percent of Sample	0.0	0.0	0.0	73.9	0.0	9.8	15.1	1.1	100.0
	Number in Catch	0	0	0	2,410	0	320	493	37	3,260
	Standard Error	0	0	0	62	0	42	51	15	
Stratum dates:		7/30-8/14								
Sampling dates:		8/9-8/10								
Sample size:		530								
Female	Percent of Sample	0.0	0.2	0.0	44.9	0.0	1.7	5.5	0.6	52.8
	Number in Catch	0	31	0	7,424	0	281	905	94	8,734
Male	Percent of Sample	0.0	0.0	0.9	41.5	0.2	0.9	3.6	0.0	47.2
	Number in Catch	0	0	156	6,863	31	156	593	0	7,799
Total	Percent of Sample	0.0	0.2	0.9	86.4	0.2	2.6	9.1	0.6	100.0
	Number in Catch	0	31	156	14,287	31	437	1,497	94	16,533
	Standard Error	0	31	69	246	31	115	206	54	
Stratum dates:		8/15-9/24								
Sampling dates:		8/26-8/28								
Sample size:		495								
Female	Percent of Sample	0.0	0.0	0.0	46.9	0.0	1.2	3.8	0.2	52.1
	Number in Catch	0	0	0	12,389	0	320	1,015	53	13,777
Male	Percent of Sample	0.2	0.2	1.2	40.4	0.6	0.6	4.6	0.0	47.9
	Number in Catch	53	53	320	10,680	160	160	1,228	0	12,656
Total	Percent of Sample	0.2	0.2	1.2	87.3	0.6	1.8	8.5	0.2	100.0
	Number in Catch	53	53	320	23,069	160	481	2,243	53	26,433
	Standard Error	53	53	130	396	92	159	331	53	
Strata combined:		7/3-9/24								
Sampling dates:		7/16-8/28								
Sample size:		1,554								
Female	Percent of Sample	0.0	0.1	0.0	45.2	0.0	1.6	4.7	0.4	51.9
	Number in Catch	0	31	0	20,885	0	743	2,166	178	24,003
Male	Percent of Sample	0.1	0.1	1.0	40.8	0.4	1.1	4.5	0.0	48.1
	Number in Catch	53	53	476	18,880	191	495	2,067	6	22,223
Total	Percent of Sample	0.1	0.2	1.0	86.0	0.4	2.7	9.2	0.4	100.0
	Number in Catch	53	85	476	39,765	191	1,238	4,233	184	46,226
	Standard Error	53	62	148	471	97	201	394	77	

Appendix F.7. Temporally stratified age composition of the sockeye salmon escapement through the Jackpot River weir, 1991.

		Brood Year and Age Group						Total
		1988	1987	1986		1985		
		0.2	1.2	1.3	2.2	1.4	2.3	
Stratum dates:	7/5-7/16							
Sampling dates:	7/5-7/16							
Sample size:	390							
Total	Percent of Sample	0.3	7.4	90.3	0.8	0.5	0.8	100.0
	Number in Escapement	1	36	437	4	2	4	484
	Standard Error	1	6	7	2	2	2	
Stratum dates:	7/17-7/23							
Sampling dates:	7/17-7/20							
Sample size:	562							
Total	Percent of Sample	0.0	9.1	87.4	1.4	0.7	1.4	100.0
	Number in Escapement	0	156	1,497	24	12	24	1,714
	Standard Error	0	21	24	9	6	9	
Stratum dates:	7/24-7/31							
Sampling dates:	7/26-7/31							
Sample size:	381							
Total	Percent of Sample	0.0	13.1	84.5	1.3	0.5	0.5	100.0
	Number in Escapement	0	433	2,786	43	17	17	3,297
	Standard Error	0	57	61	19	12	12	
Strata combined:	7/5-7/31							
Sampling dates:	7/5-7/31							
Sample size:	1,333							
Total	Percent of Sample	0.0	11.4	85.9	1.3	0.6	0.8	100.0
	Number in Escapement	1	624	4,721	71	32	45	5,495
	Standard Error	1	61	66	21	14	15	

Appendix F.8. Estimated age and sex composition of sockeye salmon in the escapement to Miners Lake, Prince William Sound, 1991.

		Brood Year and Age Group						Total
		1988	1987		1986		1985	
		1.1	1.2	2.1	1.3	2.2	2.3	
Stratum dates:	7/13-9/14							
Sampling dates:	8/9-8/11							
Sample size:	340							
Female	Percent of Sample	0.0	2.6	0.0	47.1	0.0	2.9	52.6
	Number in Escapement	0	54	0	960	0	60	1,074
Male	Percent of Sample	1.5	5.6	0.3	38.5	0.3	1.2	47.4
	Number in Escapement	30	114	6	786	6	24	966
Total	Percent of Sample	1.5	8.2	0.3	85.6	0.3	4.1	100.0
	Number in Escapement	30	168	6	1,746	6	84	2,040
	Standard Error	13	30	6	39	6	22	

Appendix G
Daily Counts and Age and Sex Data
for Brood Stock Escapements to Prince William Sound Hatcheries

Appendix G.1. Daily brood stock counts of chinook salmon at Wally Noerenberg Hatchery, 1991.

Date	Male			Female			Cumulative Killed
	Used	Unused	Total Killed	Used	Unused	Total Killed	
6 Jul	0	10	10	0	0	0	10
7 Jul	0	11	11	0	0	0	21
8 Jul	0	12	12	0	0	0	33
9 Jul	0	9	9	0	0	0	42
10 Jul	0	3	3	0	0	0	45
11 Jul	0	3	3	0	0	0	48
12 Jul	0	1	1	0	0	0	49
13 Jul	0	2	2	0	0	0	51
14 Jul	0	9	9	0	0	0	60
15 Jul	0	8	8	0	0	0	68
16 Jul	0	5	5	0	0	0	73
17 Jul	0	0	0	0	0	0	73
18 Jul	0	5	5	0	0	0	78
19 Jul	0	2	2	0	0	0	80
20 Jul	0	5	5	0	0	0	85
21 Jul	0	0	0	0	0	0	85
22 Jul	0	3	3	0	0	0	88
23 Jul	0	0	0	0	0	0	88
24 Jul	0	0	0	0	0	0	88
25 Jul	0	1	1	0	0	0	89
26 Jul	0	10	10	0	10	10	109
27 Jul	0	28	28	0	27	27	164
28 Jul	0	15	15	0	14	14	193
29 Jul	0	23	23	0	23	23	239
30 Jul	0	19	19	0	18	18	276
31 Jul	0	26	26	0	26	26	328
1 Aug	0	18	18	0	28	28	374
2 Aug	0	14	14	0	13	13	401
3 Aug	0	6	6	0	5	5	412
4 Aug	0	15	15	0	14	14	441
5 Aug	0	0	0	0	0	0	441
6 Aug	121	9	130	131	17	148	719
7 Aug	0	0	0	0	0	0	719
8 Aug	0	0	0	0	0	0	719
9 Aug	0	0	0	0	0	0	719
10 Aug	0	4	4	0	3	3	726
11 Aug	0	2	2	0	3	3	731
12 Aug	0	1	1	0	4	4	736
13 Aug	0	0	0	0	2	2	738
14 Aug	30	272	302	50	268	318	1,358
15 Aug	0	0	0	0	0	0	1,358
16 Aug	0	0	0	0	0	0	1,358
Totals	151	551	702	181	475	656	1,358

Appendix G.2. Daily brood stock counts of sockeye salmon at Main Bay Hatchery, 1991.

Date	Fish Entering Brood Pond			Used for Brood Stock			Not Used for Brood Stock ^a				Total Mortalities Scanned for CWT
	Adults	Jacks	Total	Male	Female	Total	Male	Female	Jacks	Total	
26 Jun	5	28	33	0	0	0	0	0	0	0	
27 Jun	11	20	31	0	0	0	0	0	0	0	
28 Jun	43	130	173	0	0	0	0	0	0	0	
29 Jun	0	19	19	0	0	0	0	0	0	0	
30 Jun	0	87	87	0	0	0	0	0	0	0	
1 Jul	1	14	15	0	0	0	0	0	0	0	
2 Jul	10	108	118	0	0	0	0	0	0	0	
3 Jul	2	0	2	0	0	0	0	0	0	0	
4 Jul	2	23	25	0	0	0	0	0	0	0	
5 Jul	2	40	42	0	0	0	0	0	0	0	
6 Jul	9	119	128	0	0	0	0	0	0	0	
7 Jul	3	170	173	0	0	0	0	0	0	0	
8 Jul	3	192	195	0	0	0	0	0	0	0	
9 Jul	384	2,405	2,789	0	0	0	0	0	0	0	
10 Jul	285	1,898	2,183	0	0	0	0	0	0	0	
11 Jul	243	1,562	1,805	0	0	0	0	0	0	0	
12 Jul	55	381	436	0	0	0	0	0	0	0	
13 Jul	87	883	970	0	0	0	0	0	137	137	137
14 Jul	237	2,102	2,339	0	0	0	0	0	0	0	
15 Jul	831	4,710	5,541	0	0	0	0	0	0	0	
16 Jul	1,097	3,988	5,085	0	0	0	0	0	0	0	
17 Jul	628	1,016	1,644	0	0	0	0	0	0	0	
18 Jul	1,278	2,835	4,113	0	0	0	0	0	0	0	
19 Jul	1,620	3,473	5,093	0	0	0	0	0	0	0	
20 Jul	744	3,126	3,870	0	0	0	0	0	0	0	
21 Jul	18	721	739	0	0	0	0	0	0	0	
22 Jul	0	0	0	0	0	0	0	0	0	0	
23 Jul	0	0	0	0	0	0	0	0	0	0	
24 Jul	0	0	0	0	0	0	0	0	0	0	
25 Jul	0	0	0	0	0	0	0	0	0	0	
26 Jul	0	0	0	0	0	0	0	0	0	0	
27 Jul	0	0	0	0	0	0	0	0	0	0	
28 Jul	0	0	0	0	0	0	0	0	596	596	596
29 Jul	0	0	0	0	0	0	0	0	106	106	106
30 Jul	0	0	0	0	0	0	0	0	761	761	761
31 Jul	0	0	0	0	0	0	0	0	1,504	1,504	1,504
1 Aug	0	0	0	0	0	0	0	0	559	559	559
2 Aug	0	0	0	0	0	0	0	0	1,079	1,079	1,079
3 Aug	0	0	0	0	0	0	0	0	1,078	1,078	1,078
4 Aug	0	0	0	0	0	0	0	0	694	694	694
5 Aug	0	0	0	0	0	0	0	2	939	941	941
6 Aug	0	0	0	0	0	0	1	4	1,331	1,336	1,336
7 Aug	0	0	0	0	0	0	2	2	1,021	1,025	1,025
8 Aug	0	0	0	0	0	0	1	4	1,300	1,305	1,305
9 Aug	0	0	0	0	0	0	0	2	1,181	1,183	1,183
10 Aug	0	0	0	0	0	0	0	1	1,538	1,539	1,539
11 Aug	0	0	0	59	88	147	10	15	819	844	991
12 Aug	0	0	0	0	0	0	0	8	990	998	998
13 Aug	0	0	0	33	88	121	6	23	1,351	1,380	1,501
14 Aug	0	0	0	0	0	0	3	7	771	781	781
15 Aug	0	0	0	0	0	0	1	6	1,456	1,463	1,463
16 Aug	0	0	0	111	176	287	13	22	617	652	939
17 Aug	0	0	0	0	0	0	5	14	610	629	629
18 Aug	0	0	0	0	0	0	0	0	872	872	872
19 Aug	0	0	0	62	178	240	9	32	717	758	998
20 Aug	0	0	0	0	0	0	1	8	0	9	
21 Aug	0	0	0	0	0	0	1	14	298	313	313
22 Aug	0	0	0	0	0	0	0	6	311	317	317
23 Aug	0	0	0	64	176	240	5	14	67	86	326

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Appendix G.2. (Page 2 of 2).

Date	Fish Entering Brood Pond			Used for Brood Stock			Not Used for Brood Stock ^a				Total Mortalities Scanned for CWT
	Adults	Jacks	Total	Male	Female	Total	Male	Female	Jacks	Total	
24 Aug	0	0	0	0	0	0	2	143	531	676	676
25 Aug	0	0	0	0	0	0	1	112	523	636	636
26 Aug	0	0	0	67	176	243	3	37	184	224	467
27 Aug	0	0	0	0	0	0	0	20	539	559	559
28 Aug	0	0	0	91	264	355	6	41	28	75	430
29 Aug	0	0	0	0	0	0	1	712	359	1,072	1,072
30 Aug	0	0	0	61	176	237	3	51	568	622	859
31 Aug	0	0	0	0	0	0	0	328	0	328	
1 Sep	0	0	0	0	0	0	2	128	35	165	165
2 Sep	0	0	0	0	0	0	52	716	666	1,434	1,434
3 Sep	0	0	0	0	0	0	12	264	179	455	455
4 Sep	0	0	0	0	0	0	5	66	87	158	158
5 Sep	0	0	0	0	0	0	0	0	0	0	
6 Sep	0	0	0	0	0	0	0	0	0	0	
7 Sep	0	0	0	0	0	0	0	0	0	0	
8 Sep	0	0	0	0	0	0	0	0	0	0	
9 Sep	0	0	0	0	0	0	43	616	420	1,079	1,079
Totals	7,598	30,050	37,648	548	1,322	1,870	188	3,418	26,822	30,428	31,961

^a Includes green females, fish otherwise not suitable for egg-take use, pond mortalities, and excess fish (jacks).

Appendix G.3. Daily brood stock counts of coho salmon at Solomon Gulch and Wally Noerenberg Hatcheries, 1991.

Date	Male			Female			Cumulative Killed
	Used	Unused	Total Killed	Used	Unused	Total Killed	
Solomon Gulch Hatchery							
1 Sep	0	1	1	0	0	0	1
2 Sep	0	1	1	0	1	1	3
3 Sep	0	0	0	0	5	5	8
4 Sep	0	5	5	0	0	0	13
5 Sep	0	7	7	0	4	4	24
6 Sep	0	1	1	0	1	1	26
7 Sep	0	1	1	0	0	0	27
8 Sep	0	7	7	0	11	11	45
9 Sep	0	1	1	0	1	1	47
10 Sep	0	1	1	0	0	0	48
11 Sep	0	1	1	0	6	6	55
12 Sep	0	7	7	0	3	3	65
13 Sep	0	6	6	0	4	4	75
14 Sep	0	2	2	0	6	6	83
15 Sep	0	4	4	0	2	2	89
16 Sep	0	11	11	0	4	4	104
17 Sep	0	3	3	0	8	8	115
18 Sep	0	0	0	0	12	12	127
19 Sep	0	2	2	0	0	0	129
20 Sep	0	0	0	0	1	1	130
21 Sep	0	5	5	0	0	0	135
22 Sep	0	4	4	0	15	15	154
23 Sep	0	1	1	0	2	2	157
24 Sep	0	2	2	0	1	1	160
25 Sep	0	3	3	0	2	2	165
26 Sep	0	8	8	0	8	8	181
27 Sep	0	3	3	0	20	20	204
28 Sep	0	5	5	0	5	5	214
29 Sep	0	2	2	0	1	1	217
30 Sep	0	8	8	0	2	2	227
1 Oct	0	0	0	0	10	10	237
2 Oct	0	0	0	0	2	2	239
3 Oct	0	31	31	0	34	34	304
4 Oct	0	0	0	0	0	0	304
5 Oct	0	8	8	0	9	9	321
6 Oct	0	22	22	0	9	9	352
7 Oct	0	0	0	0	0	0	352
8 Oct	0	0	0	0	0	0	352
9 Oct	0	0	0	0	0	0	352
10 Oct	0	0	0	0	0	0	352
11 Oct	0	49	49	0	14	14	415
12 Oct	0	0	0	0	9	9	424
13 Oct	0	21	21	0	0	0	445
14 Oct	0	23	23	0	14	14	482
15 Oct	0	0	0	0	0	0	482
16 Oct	0	0	0	0	0	0	482
17 Oct	0	0	0	0	0	0	482
18 Oct	65	85	150	235	60	295	927
19 Oct	0	0	0	0	0	0	927
20 Oct	0	0	0	0	0	0	927
21 Oct	62	0	62	186	21	207	1,196
22 Oct	0	132	132	0	131	131	1,459
Totals	127	473	600	421	438	859	1,459

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Appendix G.3. (Page 2 of 2).

Date	Male			Female			Cumulative Killed
	Used	Unused	Total Killed	Used	Unused	Total Killed	
Wally Noerenberg Hatchery							
24 Oct	0	0	0	0	0	0	0
25 Oct	0	0	0	0	0	0	0
26 Oct	0	0	0	0	0	0	0
27 Oct	0	0	0	0	0	0	0
28 Oct	80	34	114	122	21	143	257
29 Oct	0	0	0	0	0	0	257
30 Oct	0	0	0	0	0	0	257
31 Oct	0	0	0	0	0	0	257
1 Nov	355	72	427	558	77	635	1,319
Totals	435	106	541	680	98	778	1,319

Appendix G.4. Daily brood stock counts of pink salmon at Solomon Gulch, Cannery Creek, Wally Noerenberg, and Armin F. Koernig Hatcheries, 1991.

Date	Male			Female			Cumulative Killed
	Used	Unused	Total Killed	Used	Unused	Total Killed	
Solomon Gulch Hatchery							
23 Jul	648	6,130	6,778	2,104	266	2,370	9,148
24 Jul	1,072	8,989	10,061	3,216	224	3,440	22,649
25 Jul	848	8,922	9,770	2,544	361	2,905	35,324
26 Jul	1,632	8,070	9,702	4,896	398	5,294	50,320
27 Jul	0	0	0	0	0	0	50,320
28 Jul	0	0	0	0	0	0	50,320
29 Jul	1,688	7,702	9,390	5,064	482	5,546	65,256
30 Jul	1,632	5,818	7,450	4,896	926	5,822	78,528
31 Jul	560	5,354	5,914	1,680	172	1,852	86,294
1 Aug	2,888	6,686	9,574	8,664	683	9,347	105,215
2 Aug	1,764	3,685	5,449	5,282	453	5,735	116,399
3 Aug	1,808	3,175	4,983	5,424	607	6,031	127,413
4 Aug	0	0	0	0	0	0	127,413
5 Aug	2,704	2,011	4,715	8,112	783	8,895	141,023
6 Aug	2,768	1,929	4,697	8,304	723	9,027	154,747
7 Aug	2,672	2,443	5,115	8,016	1,100	9,116	168,978
8 Aug	2,736	1,078	3,814	8,208	906	9,114	181,906
9 Aug	2,892	554	3,446	8,676	803	9,479	194,831
10 Aug	1,920	133	2,053	5,760	433	6,193	203,077
11 Aug	0	0	0	0	53	53	203,130
12 Aug	3,800	440	4,240	11,400	924	12,324	219,694
13 Aug	2,976	533	3,509	8,928	869	9,797	233,000
14 Aug	1,936	782	2,718	5,808	875	6,683	242,401
15 Aug	2,384	1,634	4,018	7,152	1,076	8,228	254,647
16 Aug	1,096	939	2,035	3,288	644	3,932	260,614
17 Aug	0	0	0	0	0	0	260,614
18 Aug	0	0	0	0	0	0	260,614
19 Aug	1,664	323	1,987	4,992	952	5,944	268,545
20 Aug	0	103	103	0	303	303	268,951
21 Aug	664	74	738	1,992	498	2,490	272,179
22 Aug	0	659	659	0	1,063	1,063	273,901
23 Aug	0	0	0	0	0	0	273,901
24 Aug	0	0	0	0	0	0	273,901
25 Aug	0	0	0	0	0	0	273,901
26 Aug	0	0	0	0	0	0	273,901
27 Aug	282	0	282	847	80	927	275,110
Totals	45,034	78,166	123,200	135,253	16,657	151,910	275,110
Cannery Creek Hatchery							
22 Aug	0	100	100	0	0	0	100
23 Aug	0	4,321	4,321	0	0	0	4,421
24 Aug	453	3,788	4,241	704	103	807	9,469
25 Aug	1,208	2,968	4,176	1,759	297	2,056	15,701
26 Aug	1,319	2,241	3,560	2,138	559	2,697	21,958
27 Aug	1,490	4,978	6,468	3,510	1,035	4,545	32,971
28 Aug	1,736	11,523	13,259	3,991	938	4,929	51,159
29 Aug	1,972	8,854	10,826	4,671	1,003	5,674	67,659
30 Aug	1,904	8,141	10,045	6,047	1,355	7,402	85,106
31 Aug	2,150	5,057	7,207	5,916	1,426	7,342	99,655
1 Sep	3,001	6,023	9,024	6,874	1,586	8,460	117,139
2 Sep	2,427	4,008	6,435	6,547	2,119	8,666	132,240
3 Sep	2,278	4,375	6,653	6,551	2,650	9,201	148,094
4 Sep	2,300	3,660	5,960	6,901	1,819	8,720	162,774
5 Sep	2,390	9,158	11,548	6,695	3,418	10,113	184,435
6 Sep	2,197	4,504	6,701	6,423	2,786	9,209	200,345
7 Sep	2,299	2,403	4,702	6,278	2,989	9,267	214,314
8 Sep	2,227	5,573	7,800	6,220	3,052	9,272	231,386
9 Sep	2,639	7,862	10,501	7,429	3,995	11,424	253,311
10 Sep	2,417	8,078	10,495	7,335	5,160	12,495	276,301
11 Sep	2,029	7,331	9,360	5,909	3,601	9,510	295,171
12 Sep	1,849	12,420	14,269	5,447	4,275	9,722	319,162
13 Sep	1,725	5,763	7,488	5,162	3,692	8,854	335,504
14 Sep	1,266	2,880	4,146	3,637	1,643	5,280	344,930
Totals	43,276	136,009	179,285	116,144	49,501	165,645	344,930

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Date	Male			Female			Cumulative Killed
	Used	Unused	Total Killed	Used	Unused	Total Killed	
Wally Noerenberg Hatchery							
25 Aug	770	4,426	5,196	1,642	260	1,902	7,098
26 Aug	0	0	0	0	0	0	7,098
27 Aug	1,058	6,894	7,952	2,072	266	2,338	17,388
28 Aug	2,472	9,379	11,851	3,955	563	4,518	33,757
29 Aug	1,563	1,300	2,863	3,297	738	4,035	40,655
30 Aug	2,686	12,705	15,391	5,675	779	6,454	62,500
31 Aug	2,605	9,545	12,150	5,269	820	6,089	80,739
1 Sep	3,798	14,814	18,612	7,711	1,249	8,960	108,311
2 Sep	3,139	12,633	15,772	6,251	1,314	7,565	131,648
3 Sep	3,308	13,707	17,015	6,401	1,637	8,038	156,701
4 Sep	3,690	11,114	14,804	6,822	1,416	8,238	179,743
5 Sep	3,904	11,551	15,455	7,691	1,621	9,312	204,510
6 Sep	4,947	14,383	19,330	9,406	1,433	10,839	234,679
7 Sep	3,888	8,684	12,572	7,602	1,511	9,113	256,364
8 Sep	5,967	12,138	18,105	10,915	2,190	13,105	287,574
9 Sep	3,755	12,849	16,604	7,208	1,201	8,409	312,587
10 Sep	5,356	12,286	17,642	10,047	1,822	11,869	342,098
11 Sep	5,904	8,677	14,581	11,234	2,510	13,744	370,423
12 Sep	5,968	9,332	15,300	11,485	2,630	14,115	399,838
13 Sep	5,222	6,464	11,686	10,342	3,214	13,556	425,080
14 Sep	2,692	5,308	8,000	5,668	2,675	8,343	441,423
Totals	72,692	198,189	270,881	140,693	29,849	170,542	441,423
AFK Hatchery							
24 Aug	0	0	0	0	0	0	0
25 Aug	1,464	37	1,501	2,367	791	3,158	4,659
26 Aug	2,046	43	2,089	3,743	1,188	4,931	11,679
27 Aug	1,447	45	1,492	2,858	584	3,442	16,613
28 Aug	1,841	54	1,895	3,609	703	4,312	22,820
29 Aug	2,039	15	2,054	4,168	850	5,018	29,892
30 Aug	2,153	32	2,185	4,634	996	5,630	37,707
31 Aug	2,721	70	2,791	5,498	1,434	6,932	47,430
1 Sep	1,634	171	1,805	3,447	1,248	4,695	53,930
2 Sep	2,663	129	2,792	5,154	2,750	7,904	64,626
3 Sep	3,693	18	3,711	7,407	4,264	11,671	80,008
4 Sep	2,737	2,330	5,067	5,603	3,896	9,499	94,574
5 Sep	2,282	8,633	10,915	4,426	3,876	8,302	113,791
6 Sep	2,755	3,891	6,646	5,082	3,651	8,733	129,170
7 Sep	2,833	6,917	9,750	5,474	3,808	9,282	148,202
8 Sep	2,716	0	2,716	5,618	2,745	8,363	159,281
9 Sep	2,068	6,429	8,497	4,319	2,956	7,275	175,053
10 Sep	2,480	9,558	12,038	5,140	2,872	8,012	195,103
11 Sep	2,234	5,873	8,107	4,576	2,862	7,438	210,648
12 Sep	2,221	2,495	4,716	4,243	1,992	6,235	221,599
13 Sep	1,152	6,966	8,118	2,171	2,467	4,638	234,355
Totals	45,179	53,706	98,885	89,537	45,933	135,470	234,355

Appendix G.5. Daily brood stock counts of chum salmon at Wally Noerenberg and Solomon Gulch Hatcheries, 1991.

Date	Male			Female			Cumulative Killed
	Used	Unused	Total Killed	Used	Unused	Total Killed	
Wally Noerenberg Hatchery — Early Run							
6 Jul	82	567	649	106	10	116	765
7 Jul	207	1,250	1,457	279	11	290	2,512
8 Jul	309	284	593	384	30	414	3,519
9 Jul	233	466	699	336	21	357	4,575
10 Jul	254	838	1,092	333	23	356	6,023
11 Jul	190	713	903	265	30	295	7,221
12 Jul	118	390	508	158	12	170	7,899
13 Jul	197	213	410	286	9	295	8,604
14 Jul	265	525	790	343	9	352	9,746
15 Jul	360	764	1,124	502	11	513	11,383
16 Jul	483	1,291	1,774	663	41	704	13,861
17 Jul	1,234	636	1,870	2,142	116	2,258	17,989
18 Jul	533	1,708	2,241	768	46	814	21,044
19 Jul	490	578	1,068	687	42	729	22,841
20 Jul	1,203	1,414	2,617	2,198	112	2,310	27,768
21 Jul	0	0	0	0	0	0	27,768
22 Jul	1,043	1,569	2,612	1,859	94	1,953	32,333
23 Jul	1,884	1,624	3,508	3,344	177	3,521	39,362
24 Jul	1,167	1,175	2,342	1,967	102	2,069	43,773
25 Jul	1,771	1,624	3,395	2,355	167	2,522	49,690
26 Jul	1,281	458	1,739	2,325	198	2,523	53,952
27 Jul	1,796	832	2,628	3,322	209	3,531	60,111
28 Jul	1,366	659	2,025	2,635	203	2,838	64,974
29 Jul	1,576	655	2,231	2,843	252	3,095	70,300
30 Jul	2,127	701	2,828	3,950	558	4,508	77,636
31 Jul	1,588	379	1,967	2,759	260	3,019	82,622
1 Aug	1,452	1,107	2,559	2,463	278	2,741	87,922
2 Aug	1,161	368	1,529	2,963	299	3,262	92,713
3 Aug	1,156	438	1,594	2,900	502	3,402	97,709
4 Aug	1,660	382	2,042	3,040	366	3,406	103,157
5 Aug	1,291	352	1,643	3,433	672	4,105	108,905
Totals	28,477	23,960	52,437	51,608	4,860	56,468	108,905
Wally Noerenberg Hatchery — Late Run							
26 Aug	0	0	0	0	1	1	108,906
27 Aug	0	6	6	0	6	6	108,918
28 Aug	0	5	5	0	7	7	108,930
29 Aug	0	2	2	0	2	2	108,934
30 Aug	0	5	5	0	1	1	108,940
31 Aug	0	2	2	0	5	5	108,947
1 Sep	0	4	4	0	2	2	108,953
2 Sep	0	7	7	0	3	3	108,963
3 Sep	0	1	1	0	4	4	108,968
4 Sep	0	4	4	0	1	1	108,973
5 Sep	0	0	0	0	6	6	108,979
6 Sep	12	4	16	19	5	24	109,019
7 Sep	0	4	4	0	8	8	109,031
8 Sep	0	2	2	0	8	8	109,041
9 Sep	0	0	0	0	0	0	109,041
10 Sep	32	17	49	63	17	80	109,170
11 Sep	0	0	0	0	0	0	109,170
12 Sep	27	1	28	36	2	38	109,236
13 Sep	0	0	0	0	0	0	109,236
14 Sep	18	36	54	27	2	29	109,319
15 Sep	0	0	0	0	0	0	109,319
16 Sep	0	0	0	0	0	0	109,319
Totals	89	100	189	145	80	225	109,319

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Date	Male			Female			Cumulative Killed
	Used	Unused	Total Killed	Used	Unused	Total Killed	
Solomon Gulch Hatchery							
31 Aug	0	0	0	0	0	0	0
1 Sep	0	3	3	0	2	2	5
2 Sep	0	11	11	0	21	21	37
3 Sep	0	17	17	0	13	13	67
4 Sep	207	240	447	566	69	635	1,149
5 Sep	0	68	68	0	51	51	1,268
6 Sep	0	0	0	0	0	0	1,268
7 Sep	0	62	62	0	28	28	1,358
8 Sep	0	36	36	0	34	34	1,428
9 Sep	0	15	15	0	16	16	1,459
10 Sep	186	916	1,102	496	221	717	3,278
11 Sep	84	280	364	192	92	284	3,926
12 Sep	0	34	34	0	34	34	3,994
13 Sep	0	67	67	0	55	55	4,116
14 Sep	0	34	34	0	47	47	4,197
15 Sep	0	69	69	0	37	37	4,303
16 Sep	77	309	386	176	75	251	4,940
17 Sep	0	66	66	0	43	43	5,049
18 Sep	0	0	0	0	0	0	5,049
19 Sep	0	84	84	0	19	19	5,152
20 Sep	0	0	0	0	0	0	5,152
21 Sep	0	72	72	0	43	43	5,267
22 Sep	0	28	28	0	12	12	5,307
23 Sep	7	27	34	7	40	47	5,388
24 Sep	0	19	19	0	13	13	5,420
25 Sep	0	18	18	0	20	20	5,458
26 Sep	0	13	13	0	14	14	5,485
27 Sep	0	6	6	0	15	15	5,506
28 Sep	0	6	6	0	2	2	5,514
29 Sep	0	2	2	0	2	2	5,518
30 Sep	0	0	0	0	3	3	5,521
Totals	561	2,502	3,063	1,437	1,021	2,458	5,521

Appendix G.6. Estimated age and sex composition of chinook salmon in the Wally Noerenberg Hatchery brood stock, 1991.

		Brood Year and Age Group		Total
		1987	1986	
		1.2	1.3	
Sampling Dates:	8/6-8/14			
Female	Sample Size	59	135	194
	Percent of Sample	16.5	37.7	54.2
Male	Sample Size	138	26	164
	Percent of Sample	38.5	7.3	45.8
Total	Sample Size	197	161	358
	Percent of Sample	55.0	45.0	100.0
	Standard Error	2.6	2.6	

Appendix G.7. Estimated age and sex composition of coho salmon in the Solomon Gulch Hatchery brood stock, 1991.

		Brood Year and Age Group		Total
		1988		
		1.1		
Sampling Dates:	8/20 and 8/26			
Female	Sample Size	19		19
	Percent of Sample	11.9		11.9
Male	Sample Size	140		140
	Percent of Sample	88.1		88.1
Total	Sample Size	159		159
	Percent of Sample	100.0		100.0
	Standard Error	0.0		

Appendix G.8. Temporally stratified age and sex composition of chum salmon in the Wally Noerenberg Hatchery brood stock, 1991.

		Brood Year and Age Group				Total
		1988	1987	1986	1985	
		0.2	0.3	0.4	0.5	
Stratum dates:	7/6-7/23					
Sampling dates:	7/20					
Sample size:	343					
Female	Percent of Sample	0.0	10.2	30.0	2.3	42.6
	Number in Escapement	0	4,017	11,820	918	16,755
Male	Percent of Sample	0.0	29.2	26.2	2.0	57.4
	Number in Escapement	0	11,476	10,328	803	22,607
Total	Percent of Sample	0.0	39.4	56.3	4.4	100.0
	Number in Escapement	0	15,492	22,148	1,721	39,362
	Standard Error	0	1,040	1,056	435	
Stratum dates:	7/24-7/31					
Sampling dates:	7/28					
Sample size:	368					
Female	Percent of Sample	0.0	28.0	17.7	2.2	47.8
	Number in Escapement	0	12,108	7,641	940	20,690
Male	Percent of Sample	0.8	26.9	20.9	3.5	52.2
	Number in Escapement	353	11,638	9,052	1,528	22,570
Total	Percent of Sample	0.8	54.9	38.6	5.7	100.0
	Number in Escapement	353	23,746	16,693	2,469	43,260
	Standard Error	203	1,124	1,099	524	
Stratum dates:	8/1-9/14					
Sampling dates:	8/3-8/4					
Sample size:	373					
Female	Percent of Sample	0.3	39.4	18.2	2.7	60.6
	Number in Escapement	72	10,521	4,867	716	16,176
Male	Percent of Sample	0.3	23.9	13.1	2.1	39.4
	Number in Escapement	72	6,370	3,507	573	10,521
Total	Percent of Sample	0.5	63.3	31.4	4.8	100.0
	Number in Escapement	143	16,891	8,374	1,288	26,697
	Standard Error	101	667	642	297	
Strata combined:	7/6-9/14					
Sampling dates:	7/20-8/4					
Sample size:	1,084					
Female	Percent of Sample	0.1	24.4	22.3	2.4	49.0
	Number in Escapement	72	26,646	24,328	2,574	53,620
Male	Percent of Sample	0.4	27.0	20.9	2.7	51.0
	Number in Escapement	424	29,484	22,887	2,904	55,699
Total	Percent of Sample	0.5	51.3	43.2	5.0	100.0
	Number in Escapement	496	56,130	47,215	5,478	109,319
	Standard Error	227	1,670	1,654	743	

Appendix H
Mean Length by Sex and Age of Salmon in the Commercial Common Property Catches and Escapements
of the Copper/Bering Rivers and Prince William Sound

Appendix H.1. Mean length by sex and age of chinook salmon from the commercial common property drift gillnet catches in the Copper River District, 1991.

		Brood Year and Age Group															
		1989		1988			1987			1986			1985			1984	
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	1.5	2.4		
Sample dates:	5/17-6/22																
Females	Mean Length (mm)		594	573	771	644		931	836	618	903	817	610	926	925		
	Standard Error		15.6	0.0	78.9	13.5		0.0	3.1	34.8	5.4	27.0	0.0	2.5	57.0		
	Sample Size		3	1	3	18		1	259	5	117	6	1	2	4		
Males	Mean Length (mm)	611	557	553	675	586	516	933	848	606	943	899		931	939		
	Standard Error	0.0	36.0	15.9	20.4	6.5	6.0	57.5	5.5	23.1	5.8	37.8		50.5	25.3		
	Sample Size	1	2	7	3	66	2	2	170	11	120	5		2	5		

Appendix H.2. Mean length by sex and age of sockeye salmon from the commercial common property drift gillnet catches in the Copper River District, 1991.

		Brood Year and Age Group										
		1988		1987			1986			1985		1984
		0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	0.6
Sample date:		5/17										
Females	Mean Length (mm)			569	511		608	568		577	521	
	Standard Error			7.5	18.0		0.0	2.9		0.0	11.0	
	Sample Size			13	2		1	86		1	7	
Males	Mean Length (mm)			592	642		597	599	627	597		
	Standard Error			5.0	0.0		3.6	0.0	23.7	11.9		
	Sample Size			24	1		103	1	3	4		
Sample date:		5/21										
Females	Mean Length (mm)			564	544		571			559		
	Standard Error			4.9	0.0		3.3			17.3		
	Sample Size			19	1		72			5		
Males	Mean Length (mm)	596		582	502		600			587		
	Standard Error	0.0		5.2	0.0		3.9			12.8		
	Sample Size	1		23	1		52			3		
Sample date:		5/28										
Females	Mean Length (mm)			573	494		555			538		
	Standard Error			9.8	27.0		4.6			14.7		
	Sample Size			10	2		62			3		
Males	Mean Length (mm)			560	511		589		607	616		
	Standard Error			7.6	8.4		5.4		23.0	5.5		
	Sample Size			12	3		39		2	2		
Sample date:		6/4										
Females	Mean Length (mm)			576	529	557		566		560	576	
	Standard Error			5.0	17.3	0.0		3.0		7.8	0.0	
	Sample Size			5	3	1		54		5	1	
Males	Mean Length (mm)			570	512		587		601	577		
	Standard Error			11.0	15.9		3.2		17.8	9.0		
	Sample Size			13	5		78		4	9		
Sample date:		6/11										
Females	Mean Length (mm)	565		573	502		545	576		569		
	Standard Error	0.0		6.8	12.0		0.0	3.1		11.4		
	Sample Size	1		15	8		1	81		4		
Males	Mean Length (mm)	530		604	525		595	560		585		
	Standard Error	0.0		16.3	17.0		3.4	14.5		13.8		
	Sample Size	1		6	8		64	2		5		
Sample date:		6/25										
Females	Mean Length (mm)	577		607	530		587		609	568		
	Standard Error	0.0		6.4	5.3		3.5		0.0	5.5		
	Sample Size	1		8	5		67		1	2		
Males	Mean Length (mm)	606		589	559		608	633		604		
	Standard Error	13.5		14.8	12.7		3.6	0.0		20.2		
	Sample Size	2		9	13		62	1		3		

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		Brood Year and Age Group										
		1988		1987		1986		1985		1984		
		0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	0.6
Sample date:	7/13											
Females	Mean Length (mm)			580	500			569	543			534
	Standard Error			15.1	5.9			2.8	0.0			0.0
	Sample Size			4	32			70	1			1
Males	Mean Length (mm)				499			589	534			597
	Standard Error				9.2			4.6	0.0			0.0
	Sample Size				25			34	1			1
Sample date:	7/23											
Females	Mean Length (mm)			596	532		554	585	528			584
	Standard Error			0.0	7.2		0.0	4.0	51.5			13.1
	Sample Size			1	20		1	59	2			8
Males	Mean Length (mm)			578	550			618				649
	Standard Error			20.0	12.4			4.4				9.3
	Sample Size			4	23			56				6
Sample date:	8/6											
Females	Mean Length (mm)		576		518	404		588	582	611		583
	Standard Error		0.0		10.5	0.0		3.6	0.0	0.0		3.3
	Sample Size		1		13	1		79	1	1		12
Males	Mean Length (mm)	513			552	494		594	598			583
	Standard Error	73.5			15.0	94.0		8.5	44.0			16.7
	Sample Size	2			20	2		34	2			6

Appendix H.3. Mean length by sex and age of sockeye salmon from the commercial common property drift gillnet catches in the Bering River District, 1991.

		Brood Year and Age Group					
		1988	1987		1986		1985
		0.2	0.3	1.2	1.3	2.2	2.3
Sample date:	6/18						
Females	Mean Length (mm)	602	565	565	578		545
	Standard Error	11.9	7.6	7.9	3.8		0.0
	Sample Size	5	4	22	60		1
Males	Mean Length (mm)	592	601	552	585	473	609
	Standard Error	16.1	12.8	15.4	7.6	0.0	0.0
	Sample Size	6	8	17	43	1	1

Appendix H.4. Mean length by sex and age of coho salmon from the commercial common property drift gillnet catches in the Bering River District, 1991.

		Brood Year and Age Group		
		1986	1987	1988
		1.1	2.1	3.1
Sample date:	8/6, 8/8			
Females	Mean Length (mm)	569	610	637
	Standard Error	9.7	7.5	28.2
	Sample Size	49	39	3
Males	Mean Length (mm)	587	601	
	Standard Error	9.6	9.1	
	Sample Size	46	40	
Sample date:	9/6			
Females	Mean Length (mm)	636	639	639
	Standard Error	6.8	4.4	13.9
	Sample Size	18	51	6
Males	Mean Length (mm)	616	624	607
	Standard Error	7.2	6.1	21.9
	Sample Size	38	56	4
Sample date:	9/18			
Females	Mean Length (mm)	651	656	
	Standard Error	4.8	3.9	
	Sample Size	50	41	
Males	Mean Length (mm)	651	656	
	Standard Error	6.7	6.0	
	Sample Size	34	36	

Appendix H.5. Mean length by sex and age of coho salmon from the commercial common property drift gillnet catches in the Bering River District, 1991.

		Brood Year and Age Group	
		1988	1987
		1.1	2.1
Sample date:	9/20		
Females	Mean Length (mm)	648	654
	Standard Error	5.5	4.2
	Sample Size	38	51
Males	Mean Length (mm)	670	655
	Standard Error	7.8	7.8
	Sample Size	17	24

Appendix H.6. Mean length by sex and age of chinook salmon from sport catches at two upper Copper River drainages, 1991.

		Brood Year and Age Group		
		1986	1985	1984
		1.3	1.4	1.5
<u>Gulkana River</u>				
Sampling dates:	6/4-7/13			
Sample size:	9			
Female	Mean Length (mm)	853	860	
	Standard Error	8.8	0.0	
	Sample Size	3	1	
Male	Mean Length (mm)	915	943	
	Standard Error	5.0	23.3	
	Sample Size	2	3	
<u>Klutina River</u>				
Sampling dates:	6/30-8/7			
Sample size:	356			
Female	Mean Length (mm)	858	927	
	Standard Error	4.2	5.9	
	Sample Size	110	94	
Male	Mean Length (mm)	871	978	1,080
	Standard Error	6.8	6.0	0.0
	Sample Size	83	68	1

Appendix H.7. Mean length by sex and age of sockeye salmon in personal-use and subsistence, dip net, and fish wheel catches from the upper Copper River near Chitina, 1991.

		Brood Year and Age Group									
		1988		1987		1986			1985		
		0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	
Females	Mean Length (mm)	532		541	494		541		562	530	
	Standard Error	32.0		3.3	2.3		0.9		6.5	6.7	
	Sample Size	2		51	270		1687		31	20	
Males	Mean Length (mm)	457	410	559	509	620	571	475	589	554	
	Standard Error	14.8	0.0	3.8	4.1	0.0	1.1	0.0	4.9	7.9	
	Sample Size	3	1	54	136	1	1308	1	24	30	

Appendix H.8. Mean length by sex and age of chinook salmon carcass samples from six upper Copper River drainages, 1991.

		Brood Year and Age Group			
		1987	1986	1985	
		1.2	1.3	1.4	2.3
<u>Gulkana River</u>					
Sampling dates:	7/30-8/14				
Sample size:	567				
Female	Mean Length (mm)		809	881	
	Standard Error		2.9	5.8	
	Sample Size		233	65	
Male	Mean Length (mm)	794	841	923	
	Standard Error	46.6	4.5	6.8	
	Sample Size	4	187	78	
<u>Little Tonsina River</u>					
Sampling dates:	8/15-8/21				
Sample size:	56				
Female	Mean Length (mm)	670	807	878	
	Standard Error	0.0	8.5	17.2	
	Sample Size	1	18	6	
Male	Mean Length (mm)		852	915	
	Standard Error		10.0	20.5	
	Sample Size		26	5	
<u>East Fork Chistochina River</u>					
Sampling dates:	7/24-7/25				
Sample size:	100				
Female	Mean Length (mm)		780	804	
	Standard Error		5.7	14.2	
	Sample Size		41	9	
Male	Mean Length (mm)		845	902	
	Standard Error		7.0	17.2	
	Sample Size		41	9	
<u>Kiana Creek</u>					
Sampling dates:	8/6-8/7				
Sample size:	123				
Female	Mean Length (mm)		840	909	
	Standard Error		11.4	5.3	
	Sample Size		19	44	
Male	Mean Length (mm)		880	970	920
	Standard Error		12.3	9.5	0.0
	Sample Size		23	36	1
<u>Mendeltna Creek</u>					
Sampling dates:	7/30-8/14				
Sample size:	77				
Female	Mean Length (mm)		824	854	
	Standard Error		8.8	10.5	
	Sample Size		38	16	
Male	Mean Length (mm)		845	930	
	Standard Error		19.9	24.0	
	Sample Size		15	8	

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		Brood Year and Age Group			
		1987	1986	1985	
		1.2	1.3	1.4	2.3
<u>Klutina River</u>					
Sampling dates:	8/27-8/29				
Sample size:	130				
Female	Mean Length (mm)	848	914		
	Standard Error	5.9	7.4		
	Sample Size	47	36		
Male	Mean Length (mm)	901	982		
	Standard Error	11.4	10.4		
	Sample Size	21	26		

Appendix H.9. Mean length by sex and age of sockeye salmon escapements to the Copper River delta, 1991.

		Brood Year and Age Group										
		1989	1988		1987			1986		1985		
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3
<u>Evak/South Beaches</u>												
Samples dates:		7/1-7/25										
Females	Mean Length (mm)		454		539	462			540			553
	Standard Error		0.0		4.1	5.7			1.8			9.0
	Sample Size		1		21	24			206			2
Males	Mean Length (mm)		490		559	449			554			
	Standard Error		5.6		9.0	2.2			3.7			
	Sample Size		6		9	208			77			
<u>Evak/Middle Arm</u>												
Sample dates:		6/12-8/29										
Females	Mean Length (mm)				556	480			555			522
	Standard Error				3.3	2.5			1.3			0.0
	Sample Size				66	72			364			1
Males	Mean Length (mm)		432	325	592	454			589			588
	Standard Error		14.2	3.6	3.6	2.4			1.4			0.0
	Sample Size		10	14	47	271			300			1
<u>Evak/North Shore</u>												
Sample date:		8/2										
Females	Mean Length (mm)				580	466			548	462		545
	Standard Error				0.0	3.7			2.3	0.0		14.0
	Sample Size				1	25			136	1		6
Males	Mean Length (mm)		470	319	600	432	331		578	450		595.0
	Standard Error		21.0	8.5	0.0	2.6	0.0		3.1	0.0		16.4
	Sample Size		4	5	1	99	1		95	1		3.0
<u>Evak/Hatchery Creek</u>												
Sample dates:		7/23-7/26										
Females	Mean Length (mm)				532	475			529			
	Standard Error				14.0	0.0			8.7			
	Sample Size				4	1			13			
Males	Mean Length (mm)		421		595	432			581			
	Standard Error		7.5		5.0	4.4			12.1			
	Sample Size		6		2	11			7			
<u>McKinley Lake</u>												
Sample dates:		7/2-7/22										
Females	Mean Length (mm)		483		562	478			557			527
	Standard Error		0.0		3.3	13.3			2.2			16.5
	Sample Size		1		31	11			146			3
Males	Mean Length (mm)		445	412	591	445			585	444		
	Standard Error		12.9	15.4	6.1	1.6			4.1	9.6		
	Sample Size		7	7	24	239			65	3		

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		Brood Year and Age Group										
		1989	1988		1987			1986		1985		
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3
Twenty-Seven Mile Slough												
Sample dates:		6/20-6/27										
Females	Mean Length (mm)		534		556	529		525	560			
	Standard Error		1.5		2.9	11.2		0.0	1.8			
	Sample Size		2		62	22		1	237			
Males	Mean Length (mm)				561	441			570			
	Standard Error				11.1	2.7			5.5			
	Sample Size				17	106			58			
Thirty-Nine Mile Creek												
Sample date:		8/5										
Females	Mean Length (mm)				554	446			561			547
	Standard Error				6.4	16.7			1.6			10.7
	Sample Size				11	10			226			4
Males	Mean Length (mm)		383	327	582	440			588	437		574
	Standard Error		0.0	3.0	6.8	2.8			2.4	15.0		0.0
	Sample Size		1	26	13	76			175	2		1
Ragged Point Creek												
Sample date:		7/28										
Females	Mean Length (mm)		456		553	457			546			586
	Standard Error		9.2		2.5	4.8			2.2			16.5
	Sample Size		4		91	17			161			2
Males	Mean Length (mm)	294	454	323	587	459			582	386		568
	Standard Error	0.0	16.2	11.1	2.4	7.5			2.3	0.0		15.6
	Sample Size	1	5	6	78	23			106	1		3
Martin Lake												
Sample dates:		6/28-7/29										
Females	Mean Length (mm)		459		533	461			539			
	Standard Error		6.7		9.9	1.9			2.6			
	Sample Size		6		6	64			148			
Males	Mean Length (mm)	301	414	305	577	433			570			
	Standard Error	0.0	8.2	4.3	4.2	1.4			4.2			
	Sample Size	1	13	27	5	313			68			
Little Martin Lake												
Sample date:		8/21										
Females	Mean Length (mm)					461			522			
	Standard Error					1.7			2.9			
	Sample Size					108			95			
Males	Mean Length (mm)			325		435			541			
	Standard Error			2.1		1.2			9.1			
	Sample Size			11		277			8			

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		Brood Year and Age Group										
		1989		1988		1987		1986		1985		
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3
<u>Tokun Lake</u>												
Sample dates:	8/26-8/27											
Females	Mean Length (mm)						467			542		
	Standard Error						4.3			2.9		
	Sample Size						12			124		
Males	Mean Length (mm)						432			575		
	Standard Error						1.3			3.4		
	Sample Size						246			68		
<u>Martin River Slough</u>												
Sample date:	7/5											
Females	Mean Length (mm)	449		548		461		550		600		630
	Standard Error	17.2		2.0		4.1		2.4		0.0		0.0
	Sample Size	5		124		21		87		1		1
Males	Mean Length (mm)	448		315	572		436		569		609	
	Standard Error	5.8		6.5	3.0		2.7		4.2		0.0	
	Sample Size	47		6	79		95		43		1	

Appendix H.10. Mean length by sex and age of sockeye salmon escapements to the Bering River drainage, 1991.

		Brood Year and Age Group							
		1988		1987		1986		1985	1984
		0.2	1.1	0.3	1.2	1.3	2.2	2.3	3.3
Bering Lake									
Sample dates:		7/10-7/12							
Females	Mean Length (mm)			548	469	559			
	Standard Error			4.4	4.3	1.6			
	Sample Size			20	5	230			
Males	Mean Length (mm)		340	575	446	585			
	Standard Error		0.0	4.7	3.9	1.9			
	Sample Size		1	26	62	223			
Kushtaka Lake									
Sample date:		8/7							
Females	Mean Length (mm)			519	465	524	461	530	503
	Standard Error			6.5	3.9	1.7	3.8	9.4	0.0
	Sample Size			8	26	192	21	12	1
Males	Mean Length (mm)	472	337	525	474	535	456		
	Standard Error	13.9	2.6	7.5	3.4	2.2	12.6		
	Sample Size	4	8	2	91	103	15		
Shepherd Creek									
Sample date:		7/11							
Females	Mean Length (mm)			546	472	554		529	
	Standard Error			3.2	3.7	1.7		4.0	
	Sample Size			51	8	236		2	
Males	Mean Length (mm)	483	321	583	457	586		598	
	Standard Error	0.0	7.3	5.1	5.9	2.8		0.0	
	Sample Size	1	4	14	19	111		1	

Appendix H.11. Mean length by sex and age of sockeye salmon from commercial common property catches in the Eshamy District of Prince William Sound, 1991.

		Brood Year and Age Group				
		1989	1988		1987	1986
		0.1	0.2	1.1	1.2	1.3
Sample dates:	7/2-7/31					
Females	Mean Length (mm)		496		509	602
	Standard Error		8.5		5.2	0.0
	Sample Size		5		34	1
Males	Mean Length (mm)	356	340	356	546	565
	Standard Error	2.7	0.0	1.7	9.3	0.0
	Sample Size	28	1	118	24	1

Appendix H.12. Mean length by sex and age of chum salmon from commercial common property catches in the Eshamy District of Prince William Sound, 1991.

		Brood Year and Age Group			
		1988	1987	1986	1985
		0.2	0.3	0.4	0.5
Sample date:	6/11				
Females	Mean Length (mm)			652	631
	Standard Error			3.6	17.6
	Sample Size			77	3
Males	Mean Length (mm)		641	674	658
	Standard Error		0.0	4.7	29.9
	Sample Size		1	50	3
Sample date:	6/19				
Females	Mean Length (mm)			654	640
	Standard Error			2.9	10.5
	Sample Size			103	2
Males	Mean Length (mm)		588	679	692
	Standard Error		0.0	3.7	20.7
	Sample Size		1	76	5
Sample date:	6/25				
Females	Mean Length (mm)	529	617	625	627
	Standard Error	0.0	6.9	5.4	7.0
	Sample Size	1	12	39	2
Males	Mean Length (mm)		719	663	698
	Standard Error		0.0	6.0	0.0
	Sample Size		1	25	1
Sample date:	7/2				
Females	Mean Length (mm)		665	664	638
	Standard Error		20.4	5.4	0.0
	Sample Size		4	35	1
Males	Mean Length (mm)			718	639
	Standard Error			11.3	0.0
	Sample Size			14	1

Appendix H.13. Mean length of pink salmon from sampled commercial common property and hatchery cost recovery catches in Prince William Sound, by district, 1991.

Statistical Week	Dates	Mean Length (mm)								
		Eastern District		Northern District		Coghill District		Southwestern District		Unakwik District
		CPH ^a	HCR ^b	CPH	HCR	CPH	HCR	CPH	HCR	CPH
25	06/16-06/22		452							
26	06/23-06/29		439							
27	06/30-07/06	432	437							
28	07/07-07/13		448							
29	07/14-07/20	432								
30	07/21-07/27									
31	07/28-08/03			421	443		422		460	
32	08/04-08/10			442	421	428		449		
33	08/11-08/17			433		448		444		461
34	08/18-08/24									

^a Common property harvest.

^b Hatchery cost recovery.

Appendix H.14. Mean length by sex and age of sockeye salmon from escapements to Prince William Sound, 1991.

		Brood Year and Age Group									
		1989	1988		1987			1986		1985	1984
		0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	2.3	3.3
Coghill Weir											
Sample dates:		7/1-7/26									
Females	Mean Length (mm)		402		550	439		550	426	541	586
	Standard Error		49.1		12.5	4.2		1.3	18.4	4.7	0.0
	Sample Size		3		4	59		495	4	43	1
Males	Mean Length (mm)		446	219	582	433		581	466	565	
	Standard Error		6.5	0.0	11.3	2.4		1.2	7.3	6.9	
	Sample Size		2	1	13	74		686	3	25	
Eshamy Weir											
Sample dates:		7/16-8/28									
Females	Mean Length (mm)		518		539		545	553	538		
	Standard Error		0.0		1.2		2.0	3.4	4.9		
	Sample Size		1		474		207	48	49		
Males	Mean Length (mm)	337	588	399	548	415	556	557	554		
	Standard Error	0.0	0.0	14.9	2.0	8.1	2.4	7.8	6.1		
	Sample Size	1	1	11	450	4	223	49	34		
Miners Lake											
Sample date:		8/9									
Females	Mean Length (mm)				442		545		541		
	Standard Error				7.5		2.0		9.8		
	Sample Size				9		160		10		
Males	Mean Length (mm)			308	433	342	568	464	589		
	Standard Error			2.7	4.9	0.0	2.5	0.0	8.7		
	Sample Size			5	19	1	131	1	4		

Appendix H.15. Mean length by sex and age of chinook salmon brood stock escapements at Wally Noerenberg Hatchery, 1991.

		Brood Year and Age Group	
		1987	1986
		1.2	1.3
Sample dates:	8/6-8/14		
Females	Mean Length (mm)	738	851
	Standard Error	4.5	2.6
	Sample Size	59	135
Males	Mean Length (mm)	705	888
	Standard Error	3.4	5.8
	Sample Size	138	26

Appendix H.16. Mean length by sex and age of chum salmon brood stock escapements at Wally Noerenberg Hatchery, 1991.

		Brood Year and Age Group			
		1988	1987	1986	1985
		0.2	0.3	0.4	0.5
Sample date:	7/20				
Females	Mean Length (mm)		615	627	666
	Standard Error		5.2	3.0	6.9
	Sample Size		35	105	9
Males	Mean Length (mm)		607	645	679
	Standard Error		3.7	3.9	10.1
	Sample Size		105	89	10
Sample date:	7/28				
Females	Mean Length (mm)		604	634	689
	Standard Error		3.1	4.5	6.4
	Sample Size		95	65	8
Males	Mean Length (mm)	570	624	659	713
	Standard Error	15.8	3.6	5.0	14.0
	Sample Size	4	100	72	11
Sample dates:	8/3-8/4				
Females	Mean Length (mm)		604	634	689
	Standard Error		3.1	4.5	6.4
	Sample Size		95	65	8
Males	Mean Length (mm)	570	624	659	713
	Standard Error	15.8	3.6	5.0	14.0
	Sample Size	4	100	72	11

Appendix H.17. Mean length by sex and age of coho salmon from commercial common property catches in the Coghill District of Prince William Sound, 1991.

		Brood Year and Age Group	
		1988	1987
		1.1	2.1
Sample date:	9/19		
Females	Mean Length (mm)	624	588
	Standard Error	2.7	0.0
	Sample Size	125	1
Males	Mean Length (mm)	629	608
	Standard Error	4.5	14.3
	Sample Size	59	3

Appendix H.18. Mean length by sex and age of coho salmon brood stock escapements at Solomon Gulch Hatchery, 1991.

		Brood Year and Age Group	
		1988	
		1.1	
Sample dates:	8/20, 8/26		
Females	Mean Length (mm)	553	
	Standard Error	14.8	
	Sample Size	19	
Males	Mean Length (mm)	497	
	Standard Error	4.2	
	Sample Size	140	

Appendix I
Average Weights of Salmon in the Copper/Bering Rivers
and Prince William Sound Commercial Catches

Appendix I.1. Average salmon weights from the commercial fisheries in the Copper/Bering and Prince William Sound areas, 1991.

Area/Gear	District or Hatchery Name	Location Code	Average Weight (kg) ^a				
			Chinook	Sockeye	Coho	Pink	Chum
Copper/Bering River Area							
Commercial common property drift gillnet	Copper River	212	10.30	2.78	4.05	1.44	2.99
	Bering River	200	9.66	2.74	4.32	1.02	2.35
Prince William Sound Area							
Commercial common property drift gillnet	Coghill	223	7.27	2.75	3.62	1.34	3.92
	Eshamy	225	7.09	2.57	3.24	1.53	4.24
	Unakwik	229	5.20	2.93	3.30	1.16	3.06
Commercial common property set gillnet	Eshamy	225	6.90	2.50	3.25	1.43	4.39
Commercial common property purse seine	Eastern	221	5.12	2.72	3.93	1.22	3.73
	Northern	222	4.08	2.62	3.46	1.14	3.99
	Coghill	223	4.99	2.74	3.13	1.19	3.84
	Northwestern	224					
	Southwestern	226	4.54	2.77	3.64	1.15	3.56
	Montague	227					
	Southeastern	228					
Hatchery cost recovery harvest ^b	Unakwik	229		2.67	2.72	1.11	3.39
	Solomon Gulch	221-61		2.78	3.39	1.17	3.63
	Cannery Creek	222-21				1.08	
	Wally Noerenberg	223-41			2.54	1.04	3.66
	Armin F. Koernig Main Bay	226-62 225-21				1.09	
Educational Permit^c							
Drift gillnet	All districts combined		10.68	2.83	4.09	1.38	4.21
Purse seine	All districts combined			3.17		1.15	4.43
Confiscated sales	All districts combined		3.63	2.87	2.72	1.47	4.44
Discarded catch	All districts combined					1.13	
Donated catch	All districts combined					1.11	
Test fishery	Coghill District			3.07		1.09	

^a Typically during each fishing period a portion of each delivery to a tender boat is counted into a brail, weighed, and the average weight is computed by dividing the net weight of the brail load by the number of fish. This average weight is used to estimate the number of fish in the total delivery. The average weight in this table is based on the total weight of the catch by species, gear type, and fishery from fish ticket summaries divided by the total number of fish sold by species, gear type, and fishery, as reported on fish tickets.

^b Harvest is from purse seines.

^c Cordova High School educational special permit.

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