

REPORT TO THE BOARD OF FISHERIES,
SUMMARY OF THE 2003 SOUTHEAST ALASKA/YAKUTAT
SALMON TROLL FISHERIES



by

Brian Lynch
and
Pattie Skannes

REGIONAL INFORMATION REPORT¹ NO. 1J04-01

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

February 2004

¹ The Regional Information Report series was established in 1987 to provide an information access system for all unpublished divisional reports. These reports frequently serve diverse ad hoc informational purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series undergo only limited internal review and may contain preliminary data; this information may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without prior approval of the author or the Division of Commercial Fisheries.

SECTION 3

SUMMARY OF THE 2003 SOUTHEAST ALASKA/YAKUTAT

SALMON TROLL FISHERIES

AUTHORS

Brian Lynch is the regional salmon troll management biologist for the Alaska Department of Fish and Game, Division of Commercial Fisheries, 667 Sing Lee Alley, P.O. Box 667, Petersburg, Alaska 99833. Email: Brian_Lynch@fishgame.state.ak.us.

Pattie Skannes is the assistant regional salmon troll management biologist for the Alaska Department of Fish and Game, Division of Commercial Fisheries, 304 Lake Street, Room 103, Sitka, Alaska 99835. Email: Pattie_Skannes@fishgame.state.ak.us.

ACKNOWLEDGMENTS

Harold Geiger, Region I, Pacific Salmon Commission research supervisor, supervised the field collection of fishery performance data by department personnel throughout Southeast Alaska. Phyllis Kluting, administrative support, entered fish tickets into the computer database. Leon Shaul, coho salmon project leader, provided information on coho salmon escapement, harvest rates, and stock status. Keith Pahlke, sport fish chinook salmon biologist, provided information on chinook salmon escapements and stock status. John Carlile, Region I, troll biometrician, provided troll effort statistics. Area management biologists assisted with aerial surveys. Scott Kelley, regional management biologist, Gary Timothy, fisheries biologist, Martina Kallenberger, research analyst, and Annabelle Reedy, publications specialist edited this report.

TABLE OF CONTENTS

	<u>Page</u>
ACKNOWLEDGMENTS	3.2
LIST OF TABLES	3.4
LIST OF FIGURES.....	3.6
INTRODUCTION.....	3.8
CHINOOK SALMON AND COHO SALMON STOCK DESCRIPTION AND STATUS	3.8
Chinook Salmon Stocks	3.8
Coho Salmon Stocks	3.9
DESCRIPTION OF THE TROLL FISHERY.....	3.9
Chinook Salmon Fishery	3.10
Coho Salmon Fishery	3.11
Coho Salmon Assessments and Management Tools	3.12
Historical Effort in the Troll Fishery.....	3.12
SUMMARY OF THE 2003 SEASON	3.13
Chinook Salmon Fishery.....	3.13
Winter Season.....	3.14
Summer Season	3.14
Spring Fishery	3.14
General Summer Fishery.....	3.15
Coho Salmon Fishery	3.17
Other Species.....	3.18
Exclusive Economic Zone (EEZ) Harvests.....	3.19
Number of Troll Permits Fished and Boat Days of Effort	3.19
ALASKA HATCHERY PRODUCTION	3.19
Chinook Salmon.....	3.19
Coho Salmon.....	3.20
WILD STOCK ESCAPEMENT	3.20
Chinook Salmon Escapement.....	3.20
Coho Salmon Escapement.....	3.21
COHO SALMON EXPLOITATION RATES	3.22

LIST OF TABLES

<u>Table</u>	<u>Page</u>
Table 3.1. All-gear treaty chinook salmon harvest, hatchery add-on, total harvest, treaty quota, terminal exclusion harvest and the number of fish over or under the quota, 1985-2003.....	3.24
Table 3.2. Estimated survival rate (percent) of coho salmon smolts and pre-smolts from wild and hatchery stocks in Southeast Alaska.	3.25
Table 3.3. Southeast Alaska commercial troll permits renewed and fished by calendar year from 1975-1978, from January 1 to September 30 for 1979, and by troll season (October 1 to September 30) for 1980 to 2003.	3.26
Table 3.4. Number of permits fished, by gear type and fishery, 1980-2003.....	3.27
Table 3.5. Number of days, effort (boat days) and dates the Southeast Alaska troll fishery was open to chinook fishing (chinook retention (CR)), closed to chinook salmon retention (chinook non-retention (CNR)), and closed to all salmon species (all) during the general summer season. (April 15-September 30) from 1978-2003.....	3.28
Table 3.6. Southeast Alaska annual commercial troll salmon harvest in numbers of fish by species by calendar year from 1960 to 1978, from Jan. 1 to Sept. 30 for 1979, and by troll season (October 1- September 30) from 1980 to 2003. ^a	3.31
Table 3.7. Southeast Alaska commercial troll salmon harvest in numbers of fish by species by statistical week, for the 2003 troll season (Oct. 11, 2002 - Sept. 30, 2003). ^{ab}	3.32
Table 3.8. Southeast Alaska annual commercial hand troll salmon harvest in numbers of fish by species by calendar year from 1975 to 1978, from Jan. 1 to Sept. 30 for 1979, and by troll season (Oct. 1 - Sept. 30) from 1980 to 2003. ^{ab}	3.33
Table 3.9. Southeast Alaska annual commercial power troll salmon harvest in numbers of fish by species by calendar year from 1975 to 1978, from Jan. 1 to Sept. 30 for 1979, and by troll season (October 1 - September 30) from 1980 to 2003. ^{ab}	3.34
Table 3.10. 2003 Southeast Alaska Chinook Salmon Harvest.....	3.35
Table 3.11. Annual Southeast Alaska commercial and recreational chinook salmon harvests and Alaska hatchery contribution, in thousands of fish, 1965-2003.*	3.36
Table 3.12. Southeast Alaska winter troll fishery chinook salmon harvest, vessel landings, and catch per landing, by troll accounting year (October 1 - September 30), 1980-2003. ^a	3.37
Table 3.13. Spring troll fishery (Experimental and Terminal fisheries) chinook salmon harvests and Alaska hatchery contributions, 1986-2003.....	3.38
Table 3.14. The number of chinook salmon harvested and permits fished in the 2003 spring troll fisheries (experimental and terminal).	3.39
Table 3.15. Southeast Alaska troll chinook catch per fleet day during the general summer fishery, 1984-2003. ^{ab}	3.44
Table 3.16. Coho salmon mid-season closure dates and extensions, 1980-2003. During the years listed, coho season opened on June 15 and closed on September 20, unless noted.	3.46
Table 3.17. Escapement goal performance for indicator coho salmon streams in Southeast Alaska. E = exceeded goal, U = under goal, I = within goal, NA = no escapement estimate available.	3.47

LIST OF TABLES (Continued)

<u>Table</u>	<u>Page</u>
Table 3.18. Escapement estimates for four Southeast Alaska coho salmon indicator stocks, 1980-2003. Years when no escapement assessment occurred are indicated by "N/A".....	3.48
Table 3.19. Northern Inside area coho salmon escapements, 1981-2003.....	3.49
Table 3.20. Sitka area coho salmon escapement index, 1982-2003. ^a	3.50
Table 3.21. Southern inside (Ketchikan) area coho salmon escapement index, 1987-2003 ^a	3.51
Table 3.22. Harvest and percent of commercially harvested coho salmon by gear type in Southeast Alaska, 1989-2003. ^a	3.52
Table 3.23. Average troll coho salmon weight by week and weighted annual average, 1980-2003.....	3.53
Table 3.24. Contribution in numbers and percent of chinook salmon produced by Alaskan hatcheries in the winter, experimental, terminal, hatchery access and general summer troll fisheries, 1989-2003. ^a	3.54
Table 3.25. Total chinook salmon harvest (Total) and Alaska hatchery harvest (AK Hatchery) by gear, 1985-2003. ^a	3.56
Table 3.26. Total Southeast Alaska troll coho salmon harvest and estimated wild and hatchery contributions, 1960-2003. ^a	3.57
Table 3.27. Estimates of total escapements of chinook salmon to escapement indicator systems and to southeast Alaska and transboundary rivers, 1986-2003.....	3.58
Table 3.28. Overall coho salmon harvest rates by indicator stock for the Alaska troll fishery and all fisheries combined, 1982-2003.....	3.59

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
Figure 3.1. Map of Southeast Alaska Region 1 commercial troll fishing districts.....	3.60
Figure 3.2. All-gear harvests of chinook salmon in common property fisheries, 1890-2003.....	3.61
Figure 3.3. Average weekly coho harvest timing of the Southeast Alaska commercial troll and drift gillnet fisheries (1980-2003), and the average weekly coho salmon escapement timing of the Hugh Smith Lake, Ford Arm Lake and Auke Creek weirs (1980-2003).	3.61
Figure 3.4. Commercial all-gear harvests of coho salmon in common property fisheries, 1890-2003.	3.62
Figure 3.5. Southeast Alaska troll coho salmon harvest in the outside (Gulf of Alaska) districts (103, 104, 113, 116, 152, 154, 156, 157, 181, 183, 189, 191) and the inside districts (101, 102, 105, 106, 107, 108, 109, 110, 111, 112, 114), and the percentage of the harvest the outside districts, 1970-2003.	3.62
Figure 3.6. Number of troll permits fished by gear type, 1975-2003.	3.63
Figure 3.7. Number of troll permits fished in the general summer, winter, and spring experimental and terminal fisheries, 1980-2003.	3.63
Figure 3.8. General summer troll fishery boat days of effort during chinook retention and chinook non-retention fishing periods, 1981-2003.	3.64
Figure 3.9. Southeast Alaska winter troll fishery chinook salmon harvests and landings, 1980-2003.	3.64
Figure 3.10. Southeast Alaska winter troll harvest and catch per landing for troll gear, 1980-2003.	3.65
Figure 3.11. Map of Spring troll fisheries. Shaded areas were open in 2003.....	3.66
Figure 3.12. Map of closed areas of high chinook salmon abundance (shaded areas).....	3.67
Figure 3.13. Average power troll coho salmon harvest per boat day for Southeast Alaska by area for 2003 and the 1982-2002 average.	3.68
Figure 3.14. Cumulative coho salmon harvest per boat day for the four indicator drift gillnet fisheries and the Juneau marine sport fishery, 1971-80 Average and 2003 season.	3.70
Figure 3.15. Cumulative mark-recapture abundance estimate for Taku River coho salmon from Canyon Island fish wheels, 2003 vs 1987-2002.	3.71
Figure 3.16. Cumulative weekly catch of coho salmon in the Chilkat River fish wheels, average 1994-2002, and 2003.	3.71
Figure 3.17. Alaska hatchery chinook salmon contributions to the Southeast Alaska troll fishery, 1980-2003.....	3.72
Figure 3.18. Hatchery contributions of coho salmon from all sources to the Southeast Alaska troll fishery, 1980-2003.....	3.72
Figure 3.19. Total run size, harvest, escapement and biological escapement goal range for four wild Southeast Alaska coho salmon indicator stocks, 1982-2003.	3.73
Figure 3.20. Coho salmon escapement counts and estimates in index streams in five areas of Southeast Alaska, 1981-2003.	3.74
Figure 3.21. Estimated exploitation rates by the Alaskan troll fishery for four coded-wire tagged Southeast Alaska coho salmon stocks, 1982-2003.....	3.75
Figure 3.22. Estimated total exploitation rates by all fisheries for four coded-wire tagged Southeast Alaska coho salmon stocks, 1982-2003.....	3.76

ABSTRACT

Approximately 2 million salmon were harvested in the 2003 Southeast Alaska troll fishery. The harvest included 331,000 chinook, 4,600 sockeye, 1.22 million coho, 159,000 pink, and 286,000 chum salmon landed by 639 power troll and 257 hand troll permit holders. Of this, 99,600 salmon (5%) were taken by hand troll gear and 1.8 million salmon (95%) by power troll gear. The chinook salmon harvest ranked the fourth highest and the coho salmon harvest ranked the seventh highest since statehood. The preliminary estimated Alaska hatchery contribution of chinook salmon to the troll fishery was 24,800 fish (9.6%). A total of 333,000 coho salmon produced by Alaska hatcheries were harvested by the troll fleet, which accounted for 23% of the total troll coho salmon harvest. Chinook and coho salmon escapements for Southeast Alaska rivers were generally above escapement goals.

INTRODUCTION

This report describes the Southeast Alaska troll fishery, actions taken by the Alaska Department of Fish and Game (department) in management of the fishery from October 1, 2002, through September 30, 2003, and salmon harvest and effort statistics since statehood (1960 fishing season). Status of wild coho and chinook salmon stocks of Southeast Alaska rivers, as well as hatchery contributions to the troll fishery, are also presented.

CHINOOK SALMON AND COHO SALMON STOCK DESCRIPTION AND STATUS

Chinook Salmon Stocks

Native chinook salmon stocks occur throughout Southeast Alaska and Yakutat, primarily in the large mainland rivers and their tributaries. In total, 34 rivers in the region are known to produce runs of chinook salmon. The most important are the Alsek, Taku, Stikine, Chilkat, and the Behm Canal rivers (i.e., Unuk, Chickamin, Blossom, and Keta). The three major systems, the Alsek, Taku, and Stikine Rivers, as well as the Unuk, Chickamin, and Chilkat Rivers, are transboundary rivers, originating in Canada and flowing through Alaska to the Pacific Ocean. The Pacific Salmon Commission (PSC), under the terms of the Pacific Salmon Treaty (PST), addresses shared ownership and coordinated management of the transboundary stocks of the Taku, Stikine, and Alsek Rivers.

Southeast Alaska chinook salmon stocks are all “spring type,” entering spawning streams during spring and early summer months. Fry emerge the following spring and most remain in freshwater for at least one year before migrating seaward. Ocean residency ranges from two to four years for most chinook salmon originating in Southeast Alaska. Trollers harvest several age classes of mature spawners and immature chinook salmon during the fishing season.

Current information indicates that the majority of chinook salmon harvested in the Southeast Alaska troll fishery are produced from spawning streams and hatcheries in the Pacific Northwest and Canada. This information is based on age composition, coded wire tagging (CWT) studies, and general productivity considerations. Management of mixed chinook salmon stocks is coordinated through the PSC.

Coho Salmon Stocks

Coho salmon occur in more than 2,000 streams in Southeast Alaska. Most coho salmon streams are small, with the number of spawners typically ranging from several up to 1,000 fish. Because of the large number of these systems, they collectively contribute substantially to overall production. Lake systems are also important and typically produce returns between 1,000 and 10,000 fish. Large populations occur in the Taku, Chilkat, Berners, Stikine, Unuk, and Chickamin rivers and in most Yakutat area systems. Spawning takes place during the fall and early winter months. Most coho salmon rear in freshwater for one or two years, and spend no more than one winter in the ocean before returning to spawn as adults. The majority of coho salmon harvested by Southeast Alaska trollers are three- and four-year-old fish of Alaska origin and are harvested in the year of spawning.

DESCRIPTION OF THE TROLL FISHERY

The commercial troll fishery in Southeast Alaska and Yakutat (Region 1) occurs in State of Alaska waters and in the Federal Exclusive Economic Zone (EEZ) east of the longitude of Cape Suckling [5 AAC 29.010 and 5 AAC 29.020] (Figure 3.1). All other waters of Alaska are closed to commercial trolling.

The commercial troll fleet is comprised of hand and power troll gear types. Vessels using hand troll gear are limited to two lines on hand-operated gurdies or four sportfishing poles [5 AAC 29.120(b)(1)(C)]. Vessels using power troll gear are generally larger than those using hand troll gear. Power trollers are limited to four lines on power-operated gurdies, except within the EEZ north of the latitude of the southernmost tip of Cape Spencer, where six lines may be used [5 AAC 29.120 (b)(1)(A) and (B)].

The commercial troll fishery primarily harvests chinook and coho salmon. Historically, the troll fishery harvested about 85 to 90% of the chinook salmon taken in Southeast Alaska. Since 1980, the percentage of the chinook salmon harvest taken by the troll fishery has declined due to harvest ceilings imposed as part of the PST coastwide rebuilding program, as well as allocation guidelines established by the Alaska Board of Fisheries (BOF). For coho salmon, the troll fleet historically harvested 50 to 75% of the Southeast Alaska commercial harvest. Since 1989, the troll fleet has been managed to harvest an average of 61% of the commercial coho salmon harvest [5 AAC 29.065].

Other species are primarily harvested incidentally, although pink and chum salmon are targeted in Cross Sound, where a special fishery is open in June. In addition, hatchery chum salmon are targeted in Sitka Sound and Neets Bay. The troll fleet also incidentally harvests Pacific halibut under federal Individual Fishing Quota (IFQ) regulations, and lingcod and rockfish under state regulations.

Due to the time lag between when fish are harvested and when the harvest information is received through fish ticket receipts, the department conducts a fisheries performance data program (FPD) to estimate the catch per unit of effort (catch per boat day (CPBD)) inseason during the summer fishery. Confidential interviews are conducted with trollers to obtain detailed CPBD data. Aerial surveys are conducted to obtain an immediate estimate of effort. Total harvest to date is estimated by multiplying vessel counts observed during weekly over-flights with the CPBD data obtained from the interviews.

Chinook Salmon Fishery

Commercial trolling for chinook salmon occurs during both winter and summer seasons. In the past, the winter troll season was October 1 through April 14, followed by the summer season, from April 15-September 30. In 2003, the BOF passed a regulation that changed the troll season dates. The winter season is now defined as October 1-April 30, followed by the summer season from May 1-September 30. The summer season is divided into the spring and general summer fisheries. The spring fisheries are intended to increase the harvest of Alaska hatchery-produced chinook salmon and occur primarily in inside waters near hatchery release areas or along migration routes of returning hatchery fish. These fisheries begin after the winter fishery closes and may continue through June 30. New regulations allow the spring troll fisheries to begin prior to May 1 if the winter fishery closes early, due to the harvest cap of 45,000 chinook salmon being reached. The general summer fishery opens July 1 and harvests the majority of the annual chinook salmon quota. During the summer fishery, most waters of the Southeast Alaska –Yakutat area are open to commercial trolling, including outer coastal waters.

The recent all-gear chinook salmon harvests in Southeast Alaska have been generally lower than historical levels (Figure 3.2). The 2003 season was an exception to this trend and was the fourth largest troll and largest all-gear chinook salmon harvest since statehood. The recent reductions in harvests have occurred primarily because of harvest ceilings imposed by the BOF and the PST. A guideline harvest level for all stocks and a 15-year rebuilding program for Southeast Alaska chinook salmon stocks were established in 1981. In 1985, the PST was signed, and a coastwide rebuilding program for depressed non-Alaska chinook salmon stocks that contribute to the Southeast Alaska fisheries began. The decline in coastwide abundance was primarily the result of over-fishing of natural chinook salmon stocks and the loss of freshwater spawning and rearing habitat in the Pacific Northwest. Abundance of chinook salmon stocks harvested by the Southeast Alaska fisheries has generally increased since the rebuilding programs began, with peak abundance approximately twice the average 1979–1982 abundance (base period). Annual chinook salmon troll harvests since 1993 have averaged about 192,000 fish.

In 1996, after three years without a chinook salmon annex fishing agreement between the U.S. and Canada, the “Letter of Agreement Regarding an Abundance-Based Approach to Managing Chinook Fisheries in Southeast Alaska” (LOA) was signed among the U.S. members of the PST. This

agreement, which was in effect from 1996 through 1998, established an annual treaty quota based on preseason and inseason abundance estimates.

In 1999, a new set of Pacific Salmon Treaty Agreements (PSTA) was signed under the PST, including an agreement for chinook salmon. The new chinook salmon agreement was similar to the abundance-based management of the LOA, with quotas based on preseason and inseason abundance estimates. However, under the PSTA, Alaska agreed to lower chinook salmon harvests at lower abundance levels than had been implemented in either the PST or the LOA.

Since 1985, the harvest of treaty chinook salmon has exceeded the quota eleven times and has been less than the quota in six of the last 19 years (Table 3.1).

Coho Salmon Fishery

The regulatory period for coho retention in the troll fishery is June 15 through September 20, with an extension to September 30 in years of high coho salmon abundance [5 AAC 29.110(a)]. Troll harvests of coho salmon peak between late July and mid-August, while harvests in the inside gillnet fisheries peak during the first two weeks in September. Escapements into streams peak in late September through mid-October (Figure 3.3).

All-gear harvests of coho salmon averaged 2.0 million fish during the 1940s (Figure 3.4). A decline in average harvest occurred during the next three decades, with a low decade average of 1.0 million fish in the 1970s. In response to increasing effort and efficiency in the hand troll fleet, increased capitalization and efficiency in the power troll fleet, and increased troll harvest in outside waters (Figure 3.5), the BOF adopted a coho salmon fishery management plan. This plan, adopted in 1980, provides for conservation and allocation of coho salmon stocks in Southeast Alaska. The initial plan set the precedent for a mid-season troll closure to provide for adequate coho salmon escapement and for allocation to other gear groups.

The average all-gear commercial coho salmon harvest increased to 1.9 million fish in the 1980s and to 3.2 million fish in the 1990s, with a record 5.5 million fish harvested in 1994. Factors contributing to the increased harvests over the past two decades include better spawning escapement levels achieved under the conservative management regime implemented in 1980, and increased marine survivals due to favorable environmental conditions (Table 3.2). Increased harvests were also attributed to more intensive fishing in highly mixed stock areas, increased targeting of coho salmon during chinook salmon non-retention periods, and increasing contributions from Alaska hatchery production.

The coho salmon fisheries are managed to comply with the Southeastern Alaska-Yakutat Area coho salmon fishery management plan [5 AAC 29.110]. Inseason run strength is used to achieve department conservation objectives and BOF allocation objectives adopted in the management plan. The current coho management plan calls for a troll closure in late July if the total projected

commercial harvest of wild coho salmon is less than 1.1 million fish [5 AAC 29.110 (b)(1)]. A troll closure may occur in August if either the number of coho reaching inside areas may be inadequate to provide for spawning requirements given usual or restricted inside fisheries on coho and other species [5 AAC 29.110 (b)(2)(A)]; or the proportional share of coho salmon harvest by the troll fishery is larger than that of inside gillnet and recreational fisheries compared to average 1971–1980 levels [5 AAC 29.110 (b)(2)(B)].

There are no harvest ceilings for Southeast Alaska coho salmon fisheries. However, under the 1999 PSTA, the area near the U.S./Canada border will close if the harvest rates by Alaska trollers fishing in the border area fall below specified thresholds.

Coho Salmon Assessments and Management Tools

Long-term wild stock and hatchery stock CWT programs; dockside sampling programs to sample the harvest for CWTs; escapement monitoring; and the troll FPD collection program all began in the early 1980s and continue through the present day. As years of data were gathered from each program, more information and understanding of stock movement, stock timing, and stock harvest were accumulated. As a result, in 1989, a model was developed to accurately estimate the end of season all-gear coho salmon commercial harvest by late July using the salmon troll FPD. In the mid 1990s, escapement goals were established for several stocks in Southeast Alaska based on spawner-recruit relationships from long-term databases of harvest rate, harvest, age composition, and escapement information. These long-term monitoring programs have provided the backbone for successful conservation of coho salmon in Southeast Alaska.

Historical Effort in the Troll Fishery

The power troll fishery came under limited entry in 1975. In recent years, the number of power troll permits fished has shown a decreasing trend (Table 3.3; Figure 3.6). In the late 1970s, limited entry for the hand troll fleet was under consideration by the Commercial Fisheries Entry Commission (CFEC), and the number of hand troll permits fished doubled from 1,100 permits in 1975 to a high of 2,644 permits in 1978. Due to this increased effort, the CFEC initiated a selective limited entry regime for the hand troll fishery in 1980. Of the 2,163 permits issued that year, 963 hand troll permits had been revoked due to non-renewal. The number of hand troll permits fished has steadily declined since 1980. Fewer hand troll permits than power troll permits are now fished, and the proportion of the commercial troll harvest currently harvested by the hand troll fleet is at the second lowest point since the introduction of limited entry. Compared to last year, power troll participation increased in both the winter and spring fisheries but decreased significantly during the summer fishery while hand troll participation increased in only the winter season (Table 3.4; Figure 3.7).

The number of fishing days in the chinook salmon general summer fishery dropped from a high of 169 days in 1978 and 1979 to a low of 4.5 days in 1992. As a result, effort in number of boat days fished declined during chinook salmon retention (CR) periods from 76,700 boat days in 1981 to a low of 2,900 boat days in 1992. During chinook salmon non-retention (CNR) periods, effort has increased from 3,500 boat days in 1981 to a high of 38,400 boat days in 1989. (Table 3.5; Figure 3.8).

SUMMARY OF THE 2003 SEASON

The troll fleet harvested 2.0 million salmon of all species during the 2003 season (Table 3.6). The majority of the chinook salmon harvest occurred during the general summer opening of July 1–August 8 (Table 3.7). The coho salmon harvest remained at lower than average levels throughout the whole summer season due to the long chinook salmon season and low effort. Harvests and harvest rates increased through first part of September and remained at a relatively high level through the end of the season. The pink harvest peaked near mid-July and the chum salmon harvest peaked in late July.

Hand troll vessels harvested 101,200 fish and power troll vessels harvested 1.8 million fish (Tables 3.8 and 3.9). The number of renewed hand and power troll permits decreased slightly from 2002 and the total number of permits fished was the lowest number fished since 1975 (Table 3.3).

Chinook Salmon Fishery

For the 2003 season, the troll harvest of chinook salmon was managed to: 1) comply with the June 1999 PSTA, 2) continue the Southeast Alaska natural chinook conservation program, 3) provide maximum harvest of Alaska hatchery-produced chinook, 4) minimize incidental mortality during chinook non-retention periods by closing areas of high chinook salmon abundance, and 5) to comply with terms of the incidental take permit issued by the National Marine Fisheries Service (NMFS). Alaska's all-gear quota was set at a harvest rate initially based on a pre-season abundance estimate and was later adjusted based on an in-season estimate of abundance. The 2003 chinook fishery was managed to achieve an all-gear harvest of 366,100 treaty² chinook salmon (treaty fish).

² Under the terms of the PST, the number of PST (or quota) fish is the total harvest minus the add-on. The add-on is the number of Alaska hatchery produced chinook salmon minus: 1) 5,000 fish for pre-treaty harvests of Alaska hatchery chinook salmon and 2) a risk factor. The risk factor is the standard deviation of the estimate of the total number of Alaska hatchery chinook salmon.

The 2003 total all-gear (troll, purse seine, drift, and set gillnet, Annette Island, and recreational fisheries) chinook salmon harvest was 446,000 fish, of which 386,200 were treaty fish. The trollers harvested 330,700 chinook salmon of which 307,300 were treaty fish. The purse seiners harvested 24,100 chinook salmon of which 17,600 were treaty fish. The drift gillnet fleet harvested 10,600 chinook salmon of which 3,400 were treaty fish. The Yakutat set gillnet fleet harvested 3,800 chinook salmon of which 2,000 were treaty fish. The recreational fisheries (including charter fishers) harvested 75,900 chinook salmon, of which 55,700 were treaty fish. The Alaska hatchery chinook salmon contribution to all the fisheries was estimated at 68,100 fish, of which 8,310 counted towards the treaty quota (Tables 3.10 and 3.11).

Winter Season

The 2003 winter troll fishery began October 11, 2002, and continued through April 12, 2003. By regulation, the open area during the 2003 winter season was restricted to those areas of Southeast Alaska lying east of the surf line south of Cape Spencer, and the waters of Yakutat Bay [5 AAC 29.020 (b)]. All outer coastal areas, including the EEZ, are closed during the winter fishery.

Under the BOF troll fishery management plan, the winter fishery remains open until either a harvest of 45,000 chinook salmon is reached [5 AAC 29.080 (a)], or until April 30 [5 AAC 29.070 (a)(1)]. A total of 355 vessels participated in the 2003 winter fishery, with a harvest total of 50,900 chinook salmon (16% of the 2003 total troll chinook salmon harvest (Table 3.12, Figure 3.9)). The harvest increased by 73% and harvest per landing increased by 182% when compared to the 2002 season. (Tables 3.11 and 3.12; Figure 3.10). This was the first winter season that has ever been closed due to the harvest reaching the GHL.

Summer Season

Spring Fishery

The spring fishery (which includes terminal fisheries) targets Alaska-origin hatchery chinook salmon, except for the Cross Sound fishery, which targets chum and pink salmon. Spring fisheries occur near the Little Port Walter Hatchery (NMFS), Whitman Lake Hatchery, Crystal Lake Hatchery, and Earl West Cove/Anita Bay release sites (Southern Southeast Regional Aquaculture Association (SSRAA)), Medvejie and Hidden Falls Hatcheries (Northern Southeast Aquaculture Association, (NSRAA)) (Figure 3.11).

The general spring troll fisheries (formerly referred to as experimental fisheries) were opened in mid-April, and terminal areas were opened in accordance with the fishing schedules provided for in the Terminal Harvest Area (THA) management plans and private non-profit hatchery (PNP) board schedules. In general, spring fishing areas were initially opened by emergency order for two days per week (Monday–Tuesday). Some areas were initially opened for longer periods based on historic run timing and catch contributions of Alaska hatchery fish. Department personnel examined fish deliveries, and the heads of adipose fin-clipped fish were shipped to the state tag lab in Juneau.

Coded wire tag data, provided by the tag lab, was used inseason to estimate the Alaska hatchery contribution to the harvest in each area. Fishing time for the following week was determined using this information in combination with historic harvest timing information in each area. Fishing time was extended or curtailed during the week by emergency order as more tag data and harvest information became available.

A total of 380 vessels participated in the 2003 spring fisheries and hatchery terminal area fisheries, with a harvest of 39,300 chinook, 480 sockeye, 5,800 coho, 4,900 pink, and 102,200 chum salmon. The chinook salmon harvest was approximately 4,400 fish less than the 2002 harvest, and the Alaska hatchery contribution decreased from 52 to 40% (Table 3.13). The highest chinook salmon harvests were in the Tebenkof Bay area followed by the Eastern Channel, Hidden Falls, Middle Island, Western Channel, Gravina Island, and Kingsmill Point areas (Table 3.14). The majority of the pink salmon were harvested in the Cross Sound pink and chum experimental fishery and the majority of chum salmon were harvested in the Neets Bay, Deep Inlet and Hidden Falls terminal fisheries.

A total of 25 spring fisheries and five terminal fisheries were open during 2003. Two new areas were opened in 2003, one near Sitka (Shelikof Bay) and one area near Ketchikan (Western Clarence Strait).

Six areas that were open in 2002 were eliminated for 2003. These areas have had low Alaska hatchery contributions, very low effort, or both over the past few years. The six areas that were eliminated were West Rock, Felice Strait and Ship Island areas near Ketchikan, the Snow Passage and Craig Point areas near Wrangell and Petersburg and the Redoubt Bay area near Sitka. A portion of the Ship Island area was incorporated into the Western Clarence Strait area and the Redoubt Bay area was incorporated into the Biorka Island area. The Craig Point and the Ernest Sound (eliminated in 2002) areas will likely be re-opened in 2004 to harvest enhanced chinook salmon returning to the SSRAA facility in Anita Bay.

General Summer Fishery

The all-gear harvest quota for Southeast Alaska was set at 366,100 treaty chinook salmon for the 2003 season. Under the current BOF commercial fisheries plan, the troll and sport fisheries divide the treaty quota in an 80/20 split, after 8,600 plus 4.3% of the treaty chinook salmon quota are subtracted from the quota for the commercial net fisheries [5 AAC 29.060(b)].

In 2003, the department received the preseason abundance index of 1.79 in late March, which translated to an all-gear quota under the PSTA of 366,100 fish. The purse seine fleet was allocated 15,700 fish, the drift gillnet fleet 7,600 fish, and the set gillnet fleet 1,000 fish. The remainder of 341,800 fish was then initially divided between the troll and sport fisheries in an 80/20 split, which translated to 273,400 fish to the troll fishery, and 68,400 fish to the sport fishery.

Based on past fishery performance at similar abundance indices, the first summer troll chinook salmon fishery was estimated to last for at least ten days. The fishery was managed inseason using the FPD program because the projected fishery length was based on historical effort levels and the actual effort and harvest rates can be highly variable. Due to low effort, the summer fishery continued without interruption and lasted 39 days, from July 1 – August 8 and the harvest per fleet day averaged 6,170 fish per day (Table 3.15). The total summer harvest was 240,600 chinook salmon, of which 234,500 were counted as treaty fish.

Prior to the general summer season, the troll harvest target was estimated by subtracting the estimated winter treaty fish harvest (46,400 fish), spring fishery harvest (20,300 fish), the pre-treaty production of Alaska hatchery fish (3,700 fish), and an estimated 1,000 fish risk factor (the standard error of the projected Alaska hatchery chinook salmon harvest) from the yearly PST quota allocated to the troll fishery. This resulted in an initial estimate of 273,400 treaty fish for the general summer quota. New regulations passed by the BOF during the February meeting, removed the provisions in the Southeast Alaska King Salmon Management Plan, 5 AAC 47.055, that specified that the troll fishery harvest quota will be adjusted up or down to harvest any remainder of the annual PSTA harvest quota should the sport fishery not harvest its allocation. Because of this regulation change, the troll and sport fisheries were managed independently without any inseason allocation adjustments.

According to 5 AAC 29.100, MANAGEMENT OF THE SUMMER SALMON TROLL FISHERIES, 70% of the summer troll quota is to be taken in the first opening beginning July 1, and the remaining 30% harvested following any closure for coho salmon management in August. Low fishing effort led to a lower than expected fleet harvest rate, which resulted in the first summer opening lasting the entire month of July and a harvest per fleet day of 6,170 fish per day (Table 3.15). After the initial 70% had been harvested, the fishery continued without interruption and the summer fishery was closed for the season on August 8. No closure occurred after the initial 70% was harvested because no mid-August coho conservation closure, as described in 5 AAC 29.110, MANAGEMENT OF THE COHO SALMON TROLL FISHERY, was warranted and no provisions exist that require a break in only the chinook fishery harvest if a coho closure is unnecessary. The department projected that the first 70% of the summer troll quota would be harvested by July 31. A News Release was issued on that date announcing that the chinook season would continue with the areas of high chinook salmon abundance (5 AAC 29.025) being closed for the remainder of the season (Figure 3.12). At that time, the season was projected to continue through mid-August based on current harvest rates and known effort levels. However, new aerial observation and FPD information obtained the following week showed a near doubling of effort in outside waters north of Sitka and a 55% increase in power troll chinook salmon CPUE. Based on the new updated data, the harvest of the total troll quota was projected to occur by the end of the second week in August and the fishery was closed at midnight August 8. The chinook harvest per fleet day for the final week of the fishery was 8,000 fish per day, which was the highest weekly harvest rate of the season. The 2003 summer troll fishery was the first fishery since 1979 in which no mid-season closure occurred for either chinook or coho salmon (Table 3.16).

The total summer fishery chinook salmon harvest was 240,600 fish of which approximately 7,700 fish or 3.2% were of Alaska hatchery-produced origin. Approximately 6,340 of these or 2.6% were counted as hatchery add-on and not counted against the treaty quota.

Coho Salmon Fishery

Coho salmon retention began by regulation [5 AAC 29.110 (a)] on June 15, during the spring fisheries, but few were harvested until the general summer season opened on July 1. The late-July assessment indicated that the run was projected to be greater than the conservation threshold of 1.1 million wild coho salmon [5 AAC 29.110 (b) (1)]. A second assessment in early August (stat week 32) indicated that a closure of the troll fishery was not necessary to ensure adequate escapement to inside waters and for allocation.

The 2003 return of coho salmon to Southeast Alaska may be one of the more difficult returns to assess for actual abundance. Due to the extended chinook salmon opening and low overall effort, it was difficult to correlate this year's catch and effort to any past summer season except for, possibly, 2002.

This fishing pattern reduced the harvest per boat per day to artificially low levels during the second and third weeks of the fishery, which is normally used to project total seasonal coho salmon harvest and abundance (Figure 3.13). At the time of the second assessment, the troll harvest (246,000) was 36% above the 1971-80 average but 59% below the 1983-02 average and was nearly identical to 2002. Overall, the drift gillnet harvest was 4% above the base period (1971-1980) and 11% above the 83-02 averages, while the Taku/Snettisham and Lynn Canal fisheries both were below average harvest. Overall, the drift gillnet harvest was 180% above the base period (1971–1980). The harvest rate in the Tree Point drift gillnet fishery was 446% greater than the base period, the Prince of Wales drift gillnet fishery was 144% greater than the base period and the Taku/Snettisham drift gillnet fishery was 13% above the base period. The Lynn Canal drift gillnet fishery was below the base period harvest rate at –90% (Figure 3.14). The cumulative harvest rates in the Juneau marine sport fishery were below the base period but the weekly harvest rates for the two-weeks prior to the August assessment were near the average and the cumulative CPUE was above the average after the week of August 24 (Figure 3.14).

The coho salmon return was assessed in mid-September to evaluate an extension of the trolling period beyond September 20. Troll harvests alone would probably not have indicated a high abundance year due to low effort. However, the overall regional power troll coho salmon harvest rates after stat week 33 (August 10–16) were above the 1983-2002 average and after stat week 36 (August 31-September 6) they were higher than the 1994 harvest rate when the all-gear harvest was over 5 million fish (Figure 3.13). The regionwide drift gillnet harvests were also above the 1983–2002 average with the Tree Point and District 6 harvests and harvest rates at above average levels, even with reduced effort. Sport catches were above the five-year average throughout the season in all communities where creel sampling was conducted. Escapements were ahead of

schedule throughout the region and had already reached the escapement goals in some systems (Tables 3.17-3.21; Figures 3.15 and 3.16). Based on current commercial and sport fishery coho harvest rates and the escapement counts, 2003 appeared to be an above average abundance year and the coho salmon fishery was extended through September 30 as per [5 AAC 29.110 (a)].

The 2003 troll fishery coho salmon harvest of 1.22 million fish was 0.78 million fish less than the 2002 harvest (Table 3.6). The BOF management plan allocates 61% of the long-term commercial harvest to the troll fleet. In 2003, the troll portion was 58%, bringing the average since 1989 to 62% (Table 3.22). Average head-on, dressed weight of coho salmon was 6.5 pounds in 2003, which was 0.4 pounds less than 2002 but equal to the recent five-year average (Table 3.23).

Other Species

A total of 4,600 sockeye, 159,400 pink, and 286,000 chum salmon were harvested during the 2003 troll season (Table 3.6). This was the third smallest harvest of both sockeye and pink since 1975, and the third smallest harvest of chum salmon since 1993. However, the chum salmon harvest was the eighth largest harvest since statehood.

Historically, chum salmon were harvested incidentally in the general summer troll fishery and were not targeted until the Cross Sound pink and chum fishery was established in 1988 as an indicator of pink and chum salmon abundance in inside waters. The troll chum harvest increased significantly in 1992 when the first chum salmon returns of over one million returned to the NSRAA Hidden Falls hatchery, located on eastern Baranof Island. In 1993, the first returns of over 1 million chum returned to the NSRAA Medvejie/Deep Inlet facility near Sitka and the troll chum salmon harvest increased to over 500,000 fish. Since that time, trollers have targeted chum and, with the exception of 1999, the annual troll harvest of chum salmon outside of terminal harvest areas has been consistently greater than 100,000 fish (Table 3.6).

In 2003, trollers harvested 72,700 chum salmon in Sitka Sound in the Eastern Channel area, with peak harvests occurring from mid-July through the second week of August. The troll harvest of chum salmon returning to Neets Bay was the highest during the month of July, for a total of 98,700 fish outside of the Neets Bay THA and another 72,500 fish harvested in the Neets Bay THA also throughout July.

Exclusive Economic Zone (EEZ) Harvests

In 2003, approximately 18% (58,500 fish) of the chinook and 3% (38,900 fish) of the coho salmon harvest by the troll fishery was reported taken outside of State waters in the EEZ (Districts 150, 152, 154, 156, 157, and 189). In addition, 190 sockeye, 1,400 pink, and 640 chum salmon were taken in the EEZ.

Number of Troll Permits Fished and Boat Days of Effort

In 2003, the CFEC renewed 883 power troll permits and 909 hand troll permits, this was a 3% decrease in power troll permit renewals and an 11% decrease in hand troll permit renewals from 2002. Preliminary estimates indicate that 639 power troll permits and 257 hand troll permits were actually fished (Table 3.3). This represents a 5% decrease in power troll effort and a 2.4% increase in hand troll effort when compared to the 2002 season.

By season, both power and hand troll participation increased during both the winter fishery. However, during the spring fisheries power troll participation increased slightly and hand troll participation decreased slightly in 2003 (Table 3.4).

In 2003, the chinook salmon general summer fishery was open for 39 days, with 10,737 days of chinook salmon retention, which is the highest since 1998. The chinook salmon non-retention effort was estimated at 9,209 boat days which was the lowest since 1981 (Table 3.5; Figure 3.8).

Effort data was derived from dockside interviews of trolling vessels in conjunction with harvest and effort data from troll fish tickets.

ALASKA HATCHERY PRODUCTION

Chinook Salmon

Private-non-profit and federal hatcheries in Southeast Alaska produce both chinook and coho salmon that are harvested by the troll, drift gillnet, and purse seine fleets. Hatchery-produced chinook salmon began appearing in significant numbers in troll harvests in 1980, when an estimated 5,900 fish were harvested. Peak harvests of Alaska hatchery fish occurred in 1996, when contributions were over 38,000 chinook salmon to the troll harvest (27% of the total troll chinook salmon harvest), and over 84,000 fish to the all-gear harvest (Table 3.11; Figure 3.17). Alaska hatchery contributions are generally greatest during the spring fisheries, followed by the

winter and summer fisheries (Table 3.24). In 2003, Alaska hatcheries contributed about 68,100 chinook salmon to the commercial and sport fisheries, with about 27,700 fish harvested in the troll fishery and 23,600 fish in the sport fishery (Tables 3.10 and 3.25).

Coho Salmon

Hatchery-produced coho salmon were first documented in the troll harvest in 1980. The hatchery contribution to the total coho salmon harvest has increased from less than 1% in 1980 to 26% in 2002, with Alaska hatcheries producing approximately 98% of these fish. In 2003, the hatchery coho salmon contribution was 23% of the harvest (Table 3.26; Figure 3.18).

WILD STOCK ESCAPEMENT

Chinook Salmon Escapement

A 15-year chinook salmon rebuilding program began in 1981. Since 1981, the department has annually estimated chinook salmon escapements on 11 indicator systems. These escapements were initially measured against interim goals established prior to 1985, which in general were set as the largest escapements seen prior to 1981. As a part of the rebuilding program, the department also conducted CWT studies and improved escapement estimation methods. The department also sampled age and sex data in the escapement in order to collect data that would, when included with escapement data, allow the use of spawner-recruit analytical methods to set Maximum Sustained Yield (MSY) escapement goals.

Since the program was established, MSY escapement goal ranges, based on biological data and analysis, have been established for 11 systems. Establishment of MSY goals indicated that the Alek, Situk, Unuk, and Keta rivers were within the ranges of desired escapement prior to the rebuilding program while only the Blossom River was below desired escapements. Over the last 10 years, the Situk, Unuk, Alek, and Stikine rivers have consistently been above the lower escapement goal range (Table 3.27). Of the four indicator systems in Behm Canal, escapements to the Unuk River have consistently been above the lower range, while Chickamin River was below the lower range for seven years until 1999. The Blossom River has been below the lower escapement goal range for the last nine years, and the Keta River has been below for three of the last nine years. However, the escapement goal for the Blossom River is now under review and may be revised within the coming year.

In 2003, escapements generally continued to increase from the low counts in 1998 and 1999, with 4 of 11 index counts above the 2002 escapement values. Ten systems had escapements

above or within goals and only the Blossom River was below the escapement goals. The Blossom River goal is currently under review.

The revised MSY escapement goals indicate that almost all Southeast Alaska and transboundary river stocks are healthy and stable

Coho Salmon Escapement

Only a small percentage of the coho salmon escapements in Southeast Alaska are enumerated or surveyed because of the extremely scattered distribution of stocks and difficult conditions for observation of spawners during the fall months. In 2003, weirs were operated on five systems, while foot or aerial surveys were conducted on another 40 streams. An adult tagging program has been in use since 1987 to estimate the escapement of coho salmon to the Taku River (Figure 3.15).

Variations in environmental conditions and run timing can cause serious problems in obtaining ground and aerial survey escapement estimates that reflect actual spawner abundance. High water events appear to trigger spawning but also adversely affects stream visibility and, therefore, make it difficult or impossible to accurately count fish. Once spawning occurs, stream life is typically very short and post-spawners are quickly removed by predators or flushed downstream by high water. Survey counts are usually higher when fall weather is dry and fish continue to accumulate in streams before spawning occurs. Low peak counts are often associated with seasons when numerous protracted freshets occur in October that bring fish to the spawning areas and then flush out the post-spawners, while at the same time severely limiting survey opportunities. Improved precision can be obtained by conducting multiple surveys throughout the fall. This is feasible for some systems such as those for the Juneau roadside streams, but is more difficult and expensive for remote streams such as the major coho salmon producing systems in southern Southeast Alaska.

Coded wire tagging (CWT) studies conducted since the early 1980s have provided annual harvest rate estimates for four coho salmon stocks. These stocks include Auke Creek near Juneau, the Berners River in lower Lynn Canal, Ford Arm Lake on the outer coast north of Sitka, and Hugh Smith Lake on the mainland southeast of Ketchikan (Figure 3.19). Fish are tagged in these systems and their contribution to the fisheries is estimated through the department's harvest sampling and CWT processing programs. Weirs are operated on the three lake systems to enumerate coho salmon escapements and to estimate the fraction of the returning population marked with CWTs. The Berners River escapement is intensively surveyed on foot. Samples for estimating the fraction of the returning population marked with CWTs are collected with beach seines. Escapement estimates for the Berners River are conservative since a lower river weir is not employed, resulting in harvest rate estimates that are likely to be biased upward.

Migrations into spawning streams generally peak in late September (Figure 3.3). Escapement goals of indicator streams are usually met, and have been exceeded in many cases in recent years (Tables 3.17, 3.18; Figure 3.19).

The escapement to the Berners River in Lynn Canal was above goal at 10,100 spawners while the fish wheel catches in the Chilkat River indicated a very strong escapement in that system (Figure 3.16). Despite the continuous, extended summer season, the troll fishery exploitation rate on the Berners River stock of 24% while greater than 17% in 2002 was well below the 1990s average of 35%. Extensive fall drift gillnet openings in Berners Bay brought the all-gear exploitation rate to 65% which was only slightly below the 1990s average of 68%. The resulting Berners River escapement of 10,100 spawners was above the goal range of 4,000–9,200. (Table 3.18) The estimated escapement of 167,900 coho salmon to the Taku River above Canyon Island was lower than the record 2002 escapement of 219,400 spawners but far above the threshold goal of 35,000 (Table 3.19; Figure 3.20). Escapements to Juneau roadside systems (Jordan, Montana, Peterson, Steep, Switzer, and Auke creeks) were within or above the goal ranges set for all six streams (Table 3.19). The overall index of Stephens Passage systems (i.e., the sum of the escapement peak counts of the five Juneau roadside systems and the Auke Creek weir count) of 2,170 fish was below the 1981–2002 average of 2,630 fish. The Auke Creek weir count of 585 adults was above the goal of 200–500.

The Sitka area (North Central Outside area) coho salmon escapement index of 8,950 spawners (seven streams) was the third highest on record and well above the historical average of 5,400 spawners (Table 3.20; Figure 3.20). The total escapement of 6,790 spawners to Ford Arm Lake was about double the historical average (3,400) and far above the goal range of 1,300–2,900 spawners. Counts for five streams surveyed by foot around Sitka Sound were near average.

The overall index of 13,500 spawners for 15 streams in the Ketchikan (Southern Inside) area was 57% above the 1987–2002 average of 8,600 spawners and was the second largest escapement index on record (Table 3.21; Figure 3.20). The total escapement count of 1,500 spawners at Hugh Smith Lake was well above the 1982–2002 average of 1,300 spawners and the upper bound of the goal range of 500–1,100 spawners.

COHO SALMON EXPLOITATION RATES

Fishery exploitation rates in 2003 were down again from 1980s and 1990s levels, due to economic pressures on the fishery, primarily low exvessel prices.

The 2003 average troll fishery exploitation rate of 26% for the four primary indicator stocks (Berners River, Auke Creek, Ford Arm Lake, and Hugh Smith Lake) was slightly higher than the 2002 average rate of 23% but well below the 1982–1999 mean average of 40% (Table 3.28; Figure 3.21). The outer coastal stock (Ford Arm Lake) was harvested at 32%, which was the lowest troll exploitation rate on record for the stock and well below the historical average of

54%. The three long-term inside indicator stocks all had very low troll exploitation rates of 23-24% that were well below historical averages of 31–38% but above 2002 levels of 17-18%. The effectiveness of the troll fishery on the southern inside indicator stock (Hugh Smith Lake) has decreased sharply since 2000 with 2001-2003 rates averaging only 21% compared to 39% prior to 2001.

The average total exploitation rate by all fisheries on the four stocks in 2003 was only 52% which was comparable to 2000 and 2001 but well above the 2002 average of only 40% (Table 3.28; Figure 3.22). The total exploitation rate on the Ford Arm stock of 49% was well below the historical average of 60%. Although trollers accounted for the majority of the harvest of that stock (32%), purse seine (4%) and marine sport harvests (13%) were substantial.

In the northern inside area, the Auke Creek stock was exploited at only 35% by the combined fisheries, compared with the historical average of 42%. The Berners River stock was exploited at a substantially higher rate (65%) compared with Auke Creek, owing primarily to special drift gillnet openings in Berners Bay to target that stock. Drift gillnetters accounted for 39% of the total exploitation rate of 65%, while trollers accounted for only 24%.

The total exploitation rate for the Hugh Smith Lake stock (55%) was the highest since 1999, but remained well below the 1990s average of 75%. This estimate is preliminary because tag recovery data were not yet available for Canadian fisheries where a small proportion of the harvest was likely taken.

Table 3.1. All-gear treaty chinook salmon harvest, hatchery add-on, total harvest, treaty quota, terminal exclusion harvest and the number of fish over or under the quota, 1985-2003. The hatchery add-on is the Alaska hatchery contribution minus the pre-treaty Alaska hatchery harvest (5,000 fish), plus the statistical error associated with the Alaska hatchery estimate.^{ab}

Year	Treaty Harvest	Hatchery Addon	Terminal Exclusion	Total Harvest	Treaty Quota*	Over/Under Quota
1985	268,293	6,246	0	274,539	263,000	5,293
1986	271,262	11,091	0	282,353	263,000	8,262
1987	265,323	17,095	0	282,418	263,000	2,323
1988	256,787	22,525	0	279,312	263,000	-6,213
1989	269,522	21,510	0	291,032	263,000	6,522
1990	320,996	45,873	0	366,869	302,000	18,996
1991	297,986	61,476	0	359,462	273,000	24,986
1992	221,980	36,811	0	258,791	243,000	-21,020
1993	271,193	32,910	0	304,103	263,000	8,193
1994	235,165	29,185	0	264,350	240,000	-4,835
1995	176,939	58,800	0	235,739	175,000	1,939
1996	154,997	72,599	8,663	236,259	140,000-155,000	0
1997	286,696	46,463	9,843	343,002	277,000-302,000	0
1998	243,152	25,021	2,420	270,593	260,000	-16,848
1999	198,842	47,725	4,453	251,020	184,200	14,642
2000	186,493	74,316	2,481	263,290	178,500	7,993
2001	186,919	77,287	1,528	265,734	250,300	-63,381
2002	369,990	72,995	1,069	444,054	371,900	-1,910
2003	386,179	57,470	2,342	445,991	366,100	20,079
					1985-2003 Sum:	5,021
					1985-2003 Avg.:	264

*All quota targets derived from ADFG management plans (87-93) and BOF reports (94-98).

^a In 1992, the overage from 1987 to 1991 was 45,600. The department was to reduce the overage to 10,000. So in 1992, we fished for 263,000-35,600=227,400. (From 1992 troll management plan).

^b A harvest range, instead of a point harvest target, was used in 1996 and 1997.

Table 3.2. Estimated survival rate (percent) of coho salmon smolts and pre-smolts from wild and hatchery stocks in Southeast Alaska. Wild stock survival represents survival from the time of tagging until return to the fisheries. Hatchery stock survival represents survival from the time of smolt release to return to the fisheries. Whitman Lake and Neets Bay returns from 1981-1983 represent hatchery-raised releases from wild broodstock.

Return Year	Wild Stock						Lake Rearing Hatchery		Hatchery					Hatchery-Remote Release					
	Auke Creek	Berners River	Berners River	Ford Arm Lake	Hugh Smith Lake	Taku River	Deer Lake	Neck Lake	Hidden Falls	Medvejie	DIPAC	Whitman Lake	Neets Bay	Burnett Inlet	Anita Bay	Shamrock Bay	Deep Inlet	Nakat Inlet	Earl West Cove
Year	Smolts	Pre- smolts	Smolts	Pre- smolts	Smolts	Smolts	Smolts	Smolts	Smolts	Smolts	Smolts	Smolts	Smolts	Smolts	Smolts	Smolts	Smolts	Smolts	Smolts
1980	10																		
1981	9										4	8							
1982	11	3		6							3	10							
1983	18	7		10							9	13							
1984	16				8						3	9					9		
1985	25	6		12	8						13	12							
1986	17	5		9	19						17	11							
1987	21	3		4	11		6				3	4					5	10	
1988	17	5		7	4						5	1					6	5	
1989	14	4		13	10		7				2	1					3	2	
1990	21	9	21	9	17		17				7	14					7	14	
1991	23		25	11	17		24		16	24	12	13				10	14	12	
1992	33		24	15	21	20	20		29	18	9	17				8	17	16	
1993	24		15	22	13	14	13		20	20	5	11				16	11	12	
1994	35		29	14	19	23	23		23	14	17	9	7		15	14	8	16	
1995	11		16	6	14	12	13		14	12	6	4	6		14	16	10	7	
1996	23		12	6	18	10	11		13	9	6	5	7		5	8	10	7	
1997	19		12	15	8	7	6		6	3	5	8	5		1		6	5	
1998	23		17	20	11	14	5	16	12	15	10	5	7		8		5	5	
1999	19		13	7	14	10	17	4	16	14	15	10	8	6	7		8	10	
2000	19		12	13	7	8	1	5	10	11	10	4	6	2			5	4	
2001	28		12	8	13	9	15	5	12	7	9	6	8	14		2	5	5	
2002	27		19	15	14	13	30	5	24	10	14	9	13	15	8	3	4		
2003	25		19	17	14	11	6	6	10	14	10	8	10	13	9	2	8		
Average	20	5	17	11	13	13	13	7	16	12	12	7	9	10	8	6	12	8	9

Table 3.3. Southeast Alaska commercial troll permits renewed and fished by calendar year from 1975-1978, from January 1 to September 30 for 1979, and by troll season (October 1 to September 30) for 1980 to 2003.

Year	Hand Troll Permits		Power Troll Permits	
	Renewed	Fished	Renewed	Fished
1975	2,087	1,100	1,078	760
1976	2,082	1,242	998	742
1977	2,951	1,852	970	746
1978	3,922	2,644	976	817
1979	3,700	2,195	978	813
1980	2,436	1,713	973	848
1981	2,048	1,172	969	797
1982	1,906	1,185	967	819
1983	2,031	1,016	967	820
1984	1,983	875	961	799
1985	1,952	930	959	840
1986	1,887	820	957	834
1987	1,820	777	956	832
1988	1,783	801	956	844
1989	1,747	725	955	853
1990	1,699	708	956	841
1991	1,643	703	958	855
1992	1,595	660	957	848
1993	1,550	605	956	842
1994	1,513	551	954	809
1995	1,479	461	954	820
1996	1,420	414	965	739
1997	1,380	387	964	748
1998	1,331	305	962	737
1999	1,155	332	927	724
2000	1,006	318	899	717
2001	1,039	329	927	737
2002	1,017	251	915	671
2003	909	257	883	639

Table 3.4. Number of permits fished, by gear type and fishery, 1980-2003.

YEAR	WINTER FISHERY			SPRING ^a (Experimental/Terminal)			GENERAL SUMMER		
	Troll Gear Type		Total Winter	Troll Gear Type		Total Spring	Troll Gear Type		Total General Summer
	Hand	Power		Hand	Power		Hand	Power	
1980	262	204	466				1,661	843	2,504
1981	183	165	348				1,135	791	1,926
1982	183	211	394				1,060	813	1,873
1983	254	331	585				923	805	1,728
1984	221	366	587				833	787	1,620
1985	196	303	499				887	829	1,716
1986	174	318	492	23	47	70	777	822	1,599
1987	195	319	514	36	69	105	732	825	1,557
1988	295	433	728	149	260	399	726	821	1,547
1989	262	475	737	54	142	195	664	834	1,498
1990	167	356	523	107	170	277	662	834	1,496
1991	182	383	565	76	169	245	670	849	1,519
1992	186	431	617	182	281	463	599	835	1,434
1993	127	366	493	181	338	519	553	831	1,384
1994	77	306	383	75	221	296	531	798	1,329
1995	71	227	298	110	276	386	422	809	1,231
1996	50	180	230	126	336	462	380	725	1,105
1997	49	207	256	145	336	481	338	734	1,072
1998	53	253	306	81	273	354	284	740	1,024
1999	55	235	290	83	253	336	307	718	1,025
2000	70	250	320	111	287	398	255	714	969
2001	81	247	328	122	321	443	252	711	963
2002	62	170	232	94	236	330	251	671	922
2003	96	259	355	79	289	368	187	605	792

^a Does not include permits fished in the hatchery access fisheries in 1989 through 1992.

Table 3.5. Number of days, effort (boat days) and dates the Southeast Alaska troll fishery was open to chinook fishing (chinook retention (CR)), closed to chinook salmon retention (chinook non-retention (CNR)), and closed to all salmon species (all) during the general summer season. (April 15-September 30) from 1978-2003.

Year	Days Open	Days Closed	Dates open	CR Days	CR Effort (Boat days)	Closed Dates	Days Closed	CNR Days	CNR Effort (Boat Days)
1978	169	0	4/15-9/30	169		None	0		
1979	169	0	4/15-9/31	169		None	0		
1980	149	20	4/15-7/14	91		7/15-7/24	10 (all)		
			7/25-9/20	58		9/21-9/30	10 (all)		
1981	101	69	5/15-6/25	42		4/15-5/14	30 (all)		
						6/26-7/4	9 (all)		
			7/5-8/9	36		8/10-8/19	10 (all)		
			8/20-9/3	15		9/4-9/12	9		
			9/13-9/20	8	76,691	9/21-9/30	10 (all)	9	3,526
1982	65	104	5/15-6/6	23		4/15-5-14	30 (all)		
						6/7-6/16	10 (all)		
			6/17-7/28	42	53,371	7/29-8/7	10 (all)		
						8/8-9/20	44		
						9/21-9/30	10 (all)	44	32,727
1983	60	109	5/15-6/8	25		4/15-5/14	30 (all)		
						6/9-6/30	22 (all)		
			7/1-8/4	35	48,734	8/5-8/14	10 (all)		
						8/15-9/20	37		
						9/21-9/30	10 (all)	37	18,385
1984	45	124	6/5-6/30	26		4/15-6/4	51 (all)		
						7/1-7/10	10 (all)		
			7/11-7/29	19	33,641	7/30-8/14	16		
						8/15-8/24	10 (all)		
						8/25-9/20	27		
						9/21-9/30	10 (all)	43	29,583
1985	33.6	135.4	6/3-6/12	10		4/15-6/2	49 (all)		
						6/13-6/30	18 (all)		
			7/1-7/22	22		7/23-8/14	23		
						8/15-8/24	10 (all)		
			8/25-8/26	1.6	30,628	8/26-9/20	25.4		
						9/21-9/30	10 (all)	48.4	35,725
1986	41	128	6/20-7/15	26		4/15-6/19	66 (all)		
						7/16-8/10	26		
						8/11-8/20	10 (all)		
			8/21-8/26	6		8/27-8/31	5		
			9/1-9/9	9	33,079	9/10-9/20	11		
						9/21-9/30	10 (all)	42	34,173
1987	23	146	6/20-7/12	23	19,077	4/15-6/19	66 (all)		
						7/13-8/2	21		
						8/3-8/12	10 (all)		

-continued-

Table 3.5. (2 of 3)

Year	Days Open	Days Closed	Dates open	CR Days	CR Effort (Boat days)	Closed Dates	Days Closed	CNR Days	CNR Effort (Boat Days)
						8/13-9/20	39		
						9/21-9/30	10 (all)	60	37,214
1988	12	157	7/1-7/12	12	9,507	4/15-6/30	77 (all)		
						7/13-7/25	13		
						7/26-8/4	10 (all)		
						8/5-8/14	10		
						8/15-8/24	10 (all)		
						8/25-8/31	7		
						9/1-9/3	3 (all)		
						9/4-9/20	17 a		
						9/21-9/30	10 (all)	47	27,275
1989	13	156	7/1-7/13	13	9,585	4/15-6/30	77 (all)		
						7/14-8/13	31		
						8/14-8/23	10 (all)		
						8/24-9/20	28		
						9/21-9/30	10 (all)	59	38,404
1990	24	145	7/1-7/22	22		4/15-6/30	77 (all)		
						7/23-8/12	21		
			8/23-8/24	2	17,172	8/13-8/22	10 (all)		
						8/25-9/20	27		
						9/21-9/30	10 (all)	48	29,525
1991	7.5	161.5	7/1-7/8	7.5	4,718	4/15-6/30	77 (all)		
						7/8-8/15	38.5		
						8/16-8/24	10 (all)		
						8/25-9/20	26		
						9/21-9/30	10 (all)	64.5	32,565
1992	4.5	164.5	7/1-7/4	3.5		4/15-6/30	77 (all)		
						7/4-8/12	39.5		
						8/13-8/22	10 (all)		
			23-Aug	1	2,881	8/24-9/20	28		
						9/21-9/30	10 (all)	67.5	36,306
1993	20	149	7/1-7/6	6		4/15-6/30	77 (all)		
						7/7-7/11	5 (all)		
						7/12-8/12	32		
						8/13-8/20	8 (all)		
			8/21-8/25	5		8/26-9/11	17		
			9/12-9/20	9	12,036	9/21-9/30	10 (all)	49	30,502
1994	12	157	7/1-7/7	7		4/15-6/30	77 (all)		
						7/8-8/26	50		
			8/29-9/2	5	6,434	8/27-8/28	2 (all)		
						9/3-9/30	28	78	35,716
1995	17	152	7/1-7/10	10		4/15-6/30	77 (all)		
						7/11-7/29	19		
			7/30-8/5	7	8,420	8/6-8/12	7		
						8/13-8/22	10 (all)		

-continued-

Table 3.5. (3 of 3)

Year	Days Open	Days Closed	Dates open	CR Days	CR Effort (Boat days)	Closed Dates	Days Closed	CNR Days	CNR Effort (Boat Days)
						8/23-9/30	39	65	23,435
1996	12	157	7/1-7/10	10		4/15-6/30 7/11-8/13	77 (all) 34		
			8/19-8/20	2	5,282	8/14-8/18 8/21-9/20 9/21-9/30	5 (all) 30 10 (all)	64	23,167
1997	21	148	7/1-7/7	7		4/15-6/30 7/8-8/7 8/8-8/17	77 (all) 30 10 (all)		
			8/18-8/24 8/30-9/5	7 7	9,126	8/25-8/29 9/6-9/20	5 14b	49	17,653
1998	53	116	7/1-7/11	11		4/15-6/30 7/12-8/11 8/12-8/19	77 (all) 30 8 (all)	30	11,928
			8/20-9/30	42	12,517				
1999	11	158	7/1-7/6	6		4/15-6/30 7/7-8/12 8/13-8/17	77 (all) 36 5 (all)		
			8/18-8/22	5	4,678	8/23-9/30	39	75	21,879
2000	24	68	7/1-7/5	5		4/15-6/30	77 (all)		
			8/11-8/12	2		7/6-8/10	36		
			8/23-8/30	8		8/13-8/22	10 (all)		
			9/12-9/20	9	6,784	8/31-9/11	12	48	15,422
2001	25	67	7/1-7/6	6		4/15-6/30 7/7-8/12 8/13-8/17	77 (all) 37 5(all)		
			8/18-9/5	19	7,364	9/6-9/30 9/21-9/24	25 4(all)	58	15,434
2002	40	52	7/1-7/18	18		4/15-6/30 7/19-8/9 8/10-8/11	77 (all) 22 2(all)		
			8/12-9/2	22	10,482	9/3-9/30	28	50	10,214
2003	39	53	7/1-8/8	39	10,737	4/15-6/30 8/9-9/30	77 (all) 53	53	9,209

- a. In 1988, the southern areas of Southeast Alaska were closed due to coho salmon conservation concerns.
- b. In 1997, the northern areas of Southeast Alaska were closed due to coho salmon conservation concerns.

Table 3.6. Southeast Alaska annual commercial troll salmon harvest in numbers of fish by species by calendar year from 1960 to 1978, from Jan. 1 to Sept. 30 for 1979, and by troll season (October 1- September 30) from 1980 to 2003.^a

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1960	282,404	939	396,211	25,563	2,453	707,570
1961	204,289	1,264	399,932	19,303	2,679	627,467
1962	173,597	1,181	643,740	75,083	2,676	896,277
1963	243,679	2,014	693,050	106,939	6,230	1,051,912
1964	329,461	1,004	730,766	124,566	2,576	1,188,373
1965	258,902	1,872	695,887	81,127	6,359	1,044,147
1966	282,083	679	528,621	63,623	5,203	880,209
1967	274,678	157	443,677	57,372	7,051	782,935
1968	304,455	574	779,500	126,271	2,791	1,213,591
1969	290,168	444	388,443	83,727	1,708	764,490
1970	304,602	477	267,647	70,072	3,235	646,033
1971	311,439	929	391,279	104,557	7,602	815,806
1972	242,282	1,060	791,941	166,771	11,634	1,213,688
1973	307,806	1,222	540,125	134,586	10,460	994,199
1974	322,101	2,603	845,109	263,083	13,818	1,446,714
1975	287,342	1,098	214,170	76,882	2,784	582,276
1976	231,239	1,266	524,762	193,786	4,251	955,304
1977	271,735	5,701	506,845	281,244	11,617	1,077,142
1978	375,433	2,804	1,100,902	617,633	26,193	2,122,965
1979	334,317	7,018	918,842	629,130	24,661	1,913,968
1980	303,874	2,921	696,391	266,885	12,048	1,282,119
1981	248,791	7,476	860,792	579,524	8,680	1,705,263
1982	242,315	2,365	1,316,119	503,578	5,700	2,070,077
1983	269,790	8,018	1,276,363	498,245	20,309	2,072,725
1984	235,699	9,559	1,132,644	572,578	28,052	1,978,532
1985	215,842	7,818	1,599,777	963,737	52,787	2,839,961
1986	237,703	6,891	2,127,334	181,677	51,389	2,604,994
1987	242,562	9,727	1,041,059	487,133	12,846	1,793,327
1988	231,373	9,339	500,218	519,390	88,261	1,348,581
1989	235,717	20,173	1,415,517	1,771,249	68,988	3,511,644
1990	287,939	9,175	1,832,393	771,665	62,818	2,963,990
1991	264,044	9,806	1,718,318	427,326	28,438	2,447,932
1992	183,758	22,830	1,929,013	673,805	85,013	2,894,419
1993	226,866	25,336	2,395,505	902,758	525,138	4,075,603
1994	186,201	21,761	3,461,607	942,747	330,376	4,942,692
1995	138,115	27,323	1,750,124	714,312	277,453	2,907,327
1996	141,422	11,024	1,906,690	812,899	406,244	3,278,279
1997	246,409	39,428	1,170,462	545,308	312,042	2,313,649
1998	192,066	6,487	1,636,479	261,093	117,642	2,213,767
1999	146,219	5,725	2,272,574	540,670	74,672	3,039,860
2000	158,717	4,467	1,125,219	187,364	478,144	1,953,911
2001	153,218	8,989	1,845,154	258,943	467,830	2,734,134
2002	325,303	1,247	1,315,034	86,399	117,672	1,845,655
2003	331,016	4,572	1,220,783	159,394	286,410	2,002,175
1960-69 Avg	264,372	1,013	569,983	76,357	3,973	915,697
1970-79 Avg	298,830	2,418	610,162	253,774	11,626	1,176,810
1980-89 Avg	246,367	8,429	1,196,621	634,400	34,906	2,120,722
1990-99 Avg	201,304	17,890	2,007,317	659,258	221,984	3,107,752

^a Includes Annette Island troll harvests.

Table 3.7. Southeast Alaska commercial troll salmon harvest in numbers of fish by species by statistical week, for the 2003 troll season (Oct. 11, 2002 - Sept. 30, 2003).^{ab}

Year	Week	Week of	Chinook	Sockeye	Coho	Pink	Chum	Total
2002	41	7-Oct	2,750	0	0	0	0	2,750
	42	14-Oct	8,248	0	0	0	0	8,248
	43	21-Oct	4,756	0	0	0	0	4,756
	44	28-Oct	1,334	0	0	0	0	1,334
	45	4-Nov	378	0	0	0	0	378
	46	11-Nov	156	0	0	0	0	156
	47	18-Nov	365	0	0	0	0	365
	48	25-Nov	94	0	0	0	0	94
	49	2-Dec	127	0	0	0	0	127
	50	9-Dec	107	0	0	0	0	107
	51	16-Dec	167	0	0	0	0	167
	52	23-Dec	68	0	0	0	0	68
	53	30-Dec	122	0	0	0	0	122
2003	1	1-Jan	73	0	0	0	0	73
	2	6-Jan	220	0	0	0	0	220
	3	13-Jan	501	0	0	0	0	501
	4	20-Jan	722	0	0	0	0	722
	5	27-Jan	1,506	0	0	0	0	1,506
	6	3-Feb	1,338	0	0	0	0	1,338
	7	10-Feb	1,665	0	0	0	0	1,665
	8	17-Feb	2,081	0	0	0	0	2,081
	9	24-Feb	1,199	0	0	0	0	1,199
	10	3-Mar	1,643	0	0	0	0	1,643
	11	10-Mar	1,080	0	0	0	0	1,080
	12	17-Mar	2,307	0	0	0	0	2,307
	13	24-Mar	3,495	0	0	0	0	3,495
	14	31-Mar	5,550	0	0	0	0	5,550
	15	7-Apr	8,802	0	0	0	0	8,802
	16	14-Apr	0	0	0	0	0	0
	17	21-Apr	159	0	0	0	0	159
	18	29-Apr	353	0	0	0	0	353
	19	6-May	1,600	0	0	0	0	1,600
	20	13-May	1,227	0	0	0	0	1,227
	21	20-May	2,768	0	0	0	1	2,769
	22	27-May	3,059	0	0	0	55	3,114
	23	3-Jun	5,295	0	0	8	305	5,608
	24	10-Jun	5,837	53	0	354	1,287	7,531
	25	17-Jun	8,274	104	1,458	1,634	1,978	13,448
	26	24-Jun	6,258	317	1,657	2,697	3,197	14,126
	27	1-Jul	39,670	379	35,571	14,249	3,257	93,126
	28	8-Jul	48,371	628	65,787	27,357	24,336	166,479
	29	15-Jul	40,306	691	87,594	29,414	18,469	176,474
	30	22-Jul	29,410	690	99,087	25,413	55,072	209,672
	31	29-Jul	35,177	532	101,133	21,815	30,683	189,340
	32	5-Aug	48,207	532	121,830	17,869	33,926	222,364
	33	12-Aug	0	208	69,229	15,558	16,831	101,826
	34	19-Aug	0	115	117,093	2,549	1,329	121,086
	35	26-Aug	0	186	173,126	588	199	174,099
	36	2-Sep	0	58	126,282	156	124	126,620
	37	9-Sep	0	62	129,046	51	54	129,213
	38	16-Sep	0	19	62,782	8	28	62,837
	39	23-Sep	0	1	20,849	1	10	20,861
	40	30-Sep	0	7	8,228	0	3	8,238
Winter season subtotal			50,854	0	0	0	0	50,854
Spring season subtotal			35,429	471	3,164	4,729	6,748	50,541
Summer season subtotal			240,605	4,108	1,220,734	154,665	183,503	1,803,615
Hatchery terminal area subtotal			4,164	12	2,676	144	95,487	102,483
Grand Total:			331,052	4,591	1,226,574	159,538	285,738	2,007,493

^a Weekly totals do not include hatchery terminal area harvests.

^b Includes Annette Island troll harvests.

Table 3.8. Southeast Alaska annual commercial hand troll salmon harvest in numbers of fish by species by calendar year from 1975 to 1978, from Jan. 1 to Sept. 30 for 1979, and by troll season (Oct. 1 - Sept. 30) from 1980 to 2003.^{ab}

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1975	27,995	96	40,922	28,853	541	98,407
1976	26,294	516	88,733	44,054	2,061	161,658
1977	33,176	1,740	155,813	116,776	4,143	311,648
1978	54,383	1,155	378,927	243,469	9,573	687,507
1979	57,494	2,448	244,815	281,711	7,926	594,394
1980	52,025	1,257	179,122	111,548	4,532	348,484
1981	33,892	2,171	181,422	173,517	2,582	393,584
1982	36,677	513	260,747	132,135	1,187	431,259
1983	38,635	1,574	235,685	136,656	2,777	415,327
1984	34,287	1,982	178,407	151,231	4,894	370,801
1985	33,136	1,697	260,592	251,645	9,746	556,816
1986	29,714	810	338,312	39,875	6,687	415,398
1987	29,217	2,131	183,229	135,102	3,016	352,695
1988	33,107	1,894	92,326	147,609	14,536	289,472
1989	28,667	2,442	220,262	301,413	6,578	559,362
1990	39,179	1,245	273,359	154,798	6,489	475,070
1991	39,987	1,073	238,456	72,343	3,839	355,698
1992	25,548	1,904	249,487	95,481	6,023	378,443
1993	23,887	1,668	315,521	101,752	34,449	477,277
1994	14,873	1,878	435,947	56,958	32,061	541,717
1995	13,412	1,822	145,094	63,877	21,282	245,487
1996	11,581	698	201,376	31,748	53,646	299,049
1997	14,850	1,207	104,527	35,104	20,042	175,730
1998	9,014	271	119,576	11,782	2,051	142,694
1999	6,010	286	180,072	12,214	583	199,165
2000	8,678	126	67,499	5,386	6,427	88,116
2001	9,811	301	111,059	6,267	12,480	139,918
2002	11,460	33	77,811	2,753	578	92,635
2003	13,510	134	80,882	3,562	3,095	101,183
Average 1975-2002	27,750	1,209	194,482	101,711	9,787	334,448

^a Includes Annette Island troll harvests.

^b Prior to 1975, hand and power troll harvests were not reported separately.

Table 3.9. Southeast Alaska annual commercial power troll salmon harvest in numbers of fish by species by calendar year from 1975 to 1978, from Jan. 1 to Sept. 30 for 1979, and by troll season (October 1 - September 30) from 1980 to 2003.^{ab}

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1975	259,347	1,002	173,248	48,029	2,243	483,869
1976	204,945	750	436,029	149,732	2,190	793,646
1977	238,559	3,961	351,032	164,468	7,474	765,494
1978	321,050	1,649	721,975	374,164	16,620	1,435,458
1979	276,823	4,570	674,027	347,419	16,735	1,319,574
1980	251,849	1,664	517,269	155,337	7,516	933,635
1981	214,899	5,305	679,370	406,007	6,098	1,311,679
1982	205,638	1,852	1,055,372	371,443	4,513	1,638,818
1983	231,155	6,444	1,040,678	361,589	17,532	1,657,398
1984	201,412	7,577	954,237	421,347	23,158	1,607,731
1985	182,953	6,121	1,339,185	712,092	43,041	2,283,392
1986	207,984	6,081	1,789,022	141,802	44,702	2,189,591
1987	213,345	7,596	857,830	352,031	9,830	1,440,632
1988	198,078	7,445	407,892	371,781	73,725	1,058,921
1989	206,942	17,731	1,195,255	1,469,836	62,410	2,952,174
1990	247,921	7,930	1,559,034	616,867	56,329	2,488,081
1991	223,104	8,733	1,479,862	354,983	24,599	2,091,281
1992	157,806	20,926	1,679,526	578,324	78,990	2,515,572
1993	202,674	23,668	2,079,984	801,006	490,689	3,598,021
1994	171,294	19,883	3,025,660	885,789	298,315	4,400,941
1995	124,703	25,501	1,605,030	650,435	256,171	2,661,840
1996	129,827	10,329	1,708,420	781,152	352,758	2,982,486
1997	231,569	38,221	1,065,935	510,204	292,000	2,137,929
1998	183,052	6,216	1,516,903	249,311	115,591	2,071,073
1999	139,890	5,439	2,092,502	528,456	74,089	2,840,376
2000	150,098	4,341	1,057,660	181,978	471,717	1,865,794
2001	143,408	8,688	1,734,095	252,676	455,350	2,594,217
2002	313,875	1,214	1,237,205	83,646	117,094	1,753,034
2003	317,172	4,441	1,139,901	155,829	188,048	1,805,391
Average 1975-2002						
	208,364	9,148	1,215,508	430,267	124,466	1,988,898

^a Includes Annette Island troll harvests.

^b Prior to 1975, hand and power troll harvests were not reported separately.

Table 3.10. 2003 Southeast Alaska Chinook Salmon Harvest

2003 SOUTHEAST ALASKA CHINOOK SALMON HARVESTS 11-13-03									
WILD TERMINAL EXCLUSION CATCHES			ALASKA WILD TOTAL CONTRIBUTION				TERMINAL EXCLUSION BASE		TREATY CATCH
FISHERY	TOTAL CATCH	COMMON PROPERTY CATCH	GENERAL FISHERIES	TERMINAL	SUBTOTAL	EXCLUSION			
GILLNET	STIKINE 66	66	0	0	0	0	402	66	
	TAKU 0	0	0	0	0	0	0	0	
SETNET	YAKUTAT 3,842	2,000	0	1,842	1,842	1,842	2,000	2,000	
SPORT	STIKINE 2,031	2,031	0	0	0	0	2,302	2,031	
	TAKU 0	0	0	0	0	0	0	0	
	YAKUTAT 700	200	0	500	500	500	200	200	
TOTAL TERMINAL EXCLUSION	6,639	4,297	0	2,342	2,342	2,342			4,297
ANNETTE ISLAND CATCHES			ALASKA HATCHERY TOTAL CONTRIBUTION				TERMINAL EXCLUSION BASE		TREATY CATCH
FISHERY	TOTAL CATCH	COMMON PROPERTY CATCH	GENERAL FISHERIES	TERMINAL	SUBTOTAL	ADDON			
SEINE	80	80	0	0	0	0			80
GILLNET	689	689	597	0	597	492			197
TRAP	0	0	0	0	0	0			0
TROLL	4	4	0	0	0	0			4
TOTAL ANNETTE ISLAND	773	773	597	0	597	492			281
GENERAL PURSE SEINE AND GILLNET			ALASKA HATCHERY TOTAL CONTRIBUTION				TERMINAL EXCLUSION BASE		TREATY CATCH
FISHERY	TOTAL CATCH	COMMON PROPERTY CATCH	GENERAL FISHERIES	TERMINAL	SUBTOTAL	ADDON			
SEINE	24,052	19,379	2,231	4,673	6,905	6,512	288	17,540	
GILLNET	10,639	4,370	1,217	6,269	7,486	7,272		3,367	
SETNET	0	0	0	0	0	0		0	
TOTAL NET FISHERIES * (INCLUDING ANNETTE ISLAND)	39,368	26,584	4,045	12,784	16,830	16,118		23,250	
TROLL			ALASKA HATCHERY TOTAL CONTRIBUTION				TERMINAL EXCLUSION BASE		TREATY CATCH
FISHERY	TOTAL CATCH	COMMON PROPERTY CATCH	GENERAL FISHERIES	TERMINAL	SUBTOTAL	ADDON			
WINTER FISHERY									
OCT 11-DEC 31	18,672		1,546	0	1,546	1,274		17,398	
JAN 1-APR 14	32,182		2,829	0	2,829	2,331		29,851	
WINTER TOTAL	50,854		4,375	0	4,375	3,605		47,249	
SPRING FISHERY									
SPRING HATCHERY	35,429		11,971	0	11,971	9,864		25,565	
HATCHERY ACCESS	0		0	0	0	0		0	
TERMINAL	3,826		0	3,614	3,614	3,614	212	25,777	
SPRING TOTAL	39,255		11,971	3,614	15,584	13,478		25,777	
SUMMER FISHERY									
JULY 1-AUG 8	240,573		7,692	0	7,692	6,338		234,235	
	0		0	0	0	0		0	
	0		0	0	0	0		0	
SUMMER TOTAL	240,573		7,692	0	7,692	6,338		234,235	
TOTAL TROLL (INCLUDING ANNETTE ISLAND)	330,686		24,038	3,614	27,651	23,421		307,265	
SPORT			ALASKA HATCHERY TOTAL CONTRIBUTION				TERMINAL EXCLUSION BASE		TREATY CATCH
FISHERY	TOTAL CATCH	COMMON PROPERTY CATCH	GENERAL FISHERIES	TERMINAL	SUBTOTAL	ADDON			
TRADITIONAL	73,206	69,206	19,142	4,000	23,142	19,773		53,433	
TOTAL SPORT *	75,937	71,437	19,142	4,500	23,642	20,273		55,664	
GRAND TOTALS *	445,991		47,225	20,898	68,123	59,812	5,404	386,179	
			HATCHERY BASE				5,000		
			RISK ADJUSTMENT FACTOR				5,311		
			WILD TERMINAL EXCLUSION				2,342		
			ALASKA HATCHERY ADD-ON				57,470		

3.35

Table 3.11. Annual Southeast Alaska commercial and recreational chinook salmon harvests and Alaska hatchery contribution, in thousands of fish, 1965-2003.*

Year	Troll ^a	Net ^b	Subtotal	Sport ^c	Total	Alaska Hatchery Contribution	Total less Alaska Hatchery Contribution
1965	309	28	337	13	350	-	-
1966	282	26	308	13	321	-	-
1967	275	26	301	13	314	-	-
1968	304	27	331	14	345	-	-
1969	290	24	314	14	328	-	-
1970	305	18	323	14	337	-	-
1971	311	23	334	15	349	-	-
1972	242	44	286	15	301	-	-
1973	308	36	344	16	360	-	-
1974	322	24	346	17	363	-	-
1975	287	13	300	17	317	-	-
1976	231	10	241	17	258	-	-
1977	272	13	285	17	302	-	-
1978	375	25	400	17	417	-	-
1979	338	28	366	17	383	-	-
1980	304	20	324	20	344	7	337
1981	249	19	268	21	289	2	287
1982	242	48	290	26	316	1	315
1983	270	19	289	22	311	2	309
1984	236	32	268	22	290	5	285
1985	216	33	249	25	274	13	261
1986	238	22	260	23	283	17	266
1987	243	16	259	24	283	24	259
1988	231	22	253	26	279	29	250
1989	236	24	260	31	291	29	262
1990	288	28	316	51	367	56	311
1991	264	35	299	60	359	66	293
1992	184	32	216	43	259	44	215
1993	227	28	255	49	304	41	263
1994	186	36	222	42	264	37	227
1995	138	48	186	50	236	69	167
1996	141	37	178	58	237	88	149
1997	246	25	271	72	340	62	278
1998	192	24	216	55	271	33	238
1999	146	33	179	72	251	58	193
2000	159	41	200	63	252	84	168
2001	153	38	191	68	259	79	180
2002	325	32	357	85	442	77	365
2003	331	39	370	76	446	68	378

^aTroll harvests prior to 1980 are reported by calendar year. From 1980-present, harvests are by season, Oct.1- Sept.30.

^bPurse seine harvests from 1986-present do not include chinook less than five pounds reported on fish tickets.

^cEstimates of sport catches for 1965-76 based on 1977-80 average catch per capita data. Sport catches for 1977-1999 based on statewide postal harvest surveys. Sport harvest for 2003 based on preliminary creel survey data, pending completion of statewide postal harvest surveys.

* Years 1985-01 were updated in 2001, based on Add-on tables for BOF reports. All subsequent years also based on Add-on tables.

Table 3.12. Southeast Alaska winter troll fishery chinook salmon harvest, vessel landings, and catch per landing, by troll accounting year (October 1 - September 30), 1980-2003.^a

Year	----Early Winter (Oct.-Dec.)----			---Late Winter (Jan.-Apr. 14)---			--Total Winter (Oct. - Apr. 14)--			Annual Total	Winter % of Annual Total
	Chinook	Landings	Catch/ Landing	Chinook	Landings	Catch/ Landing	Chinook	Landings	Catch/ Landing		
1980	4,002	528	8	3,608	406	9	7,610	934	8	304,000	3%
1981	1,737	279	6	7,027	744	9	8,764	1,023	9	249,000	4%
1982	4,865	535	9	6,857	764	9	11,722	1,299	9	242,000	5%
1983	12,517	926	14	17,340	1,424	12	29,857	2,350	13	270,000	11%
1984	14,223	1,217	12	17,153	1,980	9	31,376	3,197	10	236,000	13%
1985	14,235	1,016	14	7,234	1,090	7	21,469	2,106	10	216,000	10%
1986	16,779	1,202	14	6,147	832	7	22,926	2,034	11	238,000	10%
1987	18,453	1,404	13	10,075	994	10	28,528	2,398	12	243,000	12%
1988	44,774	2,626	17	15,684	1,784	9	60,458	4,410	14	231,000	26%
1989	24,426	2,354	10	9,872	1,402	7	34,298	3,756	9	236,000	15%
1990	17,617	1,128	16	15,513	1,476	11	33,130	2,604	13	287,000	12%
1991	19,920	1,094	18	20,622	1,915	11	40,542	3,009	13	263,000	15%
1992	28,277	1,952	14	43,554	2,673	16	71,831	4,625	16	183,000	39%
1993	20,275	1,210	17	42,447	2,365	18	62,722	3,575	18	227,000	28%
1994	35,193	1,132	31	21,175	1,498	14	56,368	2,630	21	186,000	30%
1995	10,382	642	16	7,486	871	9	17,868	1,513	12	138,000	13%
1996	6,008	430	14	3,393	447	8	9,401	877	11	141,000	7%
1997	13,252	627	21	7,705	524	15	20,957	1,151	18	246,000	9%
1998	9,783	578	17	23,021	1,423	16	32,804	2,001	16	192,000	17%
1999	13,989	594	24	16,988	1,432	12	30,977	2,026	15	146,000	21%
2000	17,494	813	22	18,561	1,486	12	36,055	2,299	16	158,700	23%
2001	11,198	939	12	11,384	1,359	8	22,582	2,298	10	153,218	15%
2002	17,178	755	23	12,237	1,361	9	29,415	2,116	14	325,335	9%
2003	18,506	724	26	32,348	2,365	14	50,854	3,089	16	326,884	16%

^a Includes Annette Island troll harvest.

Table 3.13. Spring troll fishery (Experimental and Terminal fisheries) chinook salmon harvests and Alaska hatchery contributions, 1986-2003. Data does not include Hatchery Access fisheries in 1989-1992.^a

Year	Total Harvest	AK Hatchery harvest	Alaska Hatchery %
1986	780	220	28%
1987	4,500	1,500	33%
1988	8,500	2,900	34%
1989	3,400	1,800	53%
1990	7,116	4,316	61%
1991	19,900	12,100	61%
1992	15,300	9,700	63%
1993	18,600	9,300	50%
1994	11,400	5,000	44%
1995	23,000	15,300	67%
1996	47,400	31,400	70%
1997	42,700	23,100	54%
1998	20,500	6,300	31%
1999	23,400	11,200	48%
2000	29,005	19,300	67%
2001	35,273	20,611	58%
2002	43,650	22,896	52%
2003	39,255	15,584	40%

^a Includes Annette Island troll harvests.

Table 3.14. The number of chinook salmon harvested and permits fished in the 2003 spring troll fisheries (experimental and terminal). Due to confidentiality concerns, harvests are omitted where less than 3 permits made landings, therefore totals may not reflect the sum of weekly values.*

Stat Area	Fishery Name	Stat Week	Open	Close	Permits	Chinook	AK%
101-29	Gravina Island	17	20-Apr	26-Apr	*	*	0%
		18	27-Apr	3-May	*	*	0%
		19	4-May	10-May	3	10	-
		20	11-May	17-May	0	0	-
		21	18-May	24-May	4	19	0%
		22	25-May	31-May	9	170	57%
		23	1-Jun	7-Jun	8	150	63%
		24	8-Jun	14-Jun	9	292	38%
		25	15-Jun	21-Jun	16	1,088	60%
		26	22-Jun	28-Jun	19	958	41%
		27	29-Jun	30-Jun	0	0	
Gravina Island Total					38	2,712	50%
101-45	Mountain Point	17	20-Apr	26-Apr			
		18	27-Apr	3-May			
		19	4-May	10-May	4	18	0%
		20	11-May	17-May	*	*	79%
		21	18-May	24-May	*	*	0%
		22	25-May	31-May	3	31	87%
		23	1-Jun	7-Jun	8	255	57%
		24	8-Jun	14-Jun	8	179	76%
		25	15-Jun	21-Jun	8	274	52%
		26	22-Jun	28-Jun	13	630	83%
		27	29-Jun	30-Jun	5	293	100%
Mountain Point Total					23	1,693	77%
101-90	West Behm Canal	18	1-May	3-May			
		19	5-May	8-May			
		20	12-May	15-May			
		21	19-May	22-May			
		22	26-May	29-May	*	*	0%
		23	2-Jun	25-Jun			
		24	9-Jun	13-Jun			
		25	16-Jun	21-Jun	*	*	-
26	22-Jun	28-Jun	*	*	-		
27	29-Jun	30-Jun					
West Behm Canal Total					3	9	
101-95	Neets Bay Term. Area	17	20-Apr	26-Apr			
		18	27-Apr	3-May			
		19	4-May	10-May	*	*	
		20	11-May	17-May			
		21	18-May	24-May			
		22	25-May	31-May			
		23	1-Jun	7-Jun			
		24	8-Jun	14-Jun			
		25	15-Jun	21-Jun			
		26	22-Jun	28-Jun	*	*	
		27	29-Jun	5-Jul			
Total	Neets Bay Total				3	46	100%
102-50	West Clarence Strait	18	1-May	3-May	*	*	0%
		19	5-May	8-May	*	*	0%
		20	12-May	15-May	*	*	31%
		21	19-May	22-May	4	41	35%
		22	26-May	29-May	*	*	0%
		23	2-Jun	5-Jun	4	182	24%
		24	9-Jun	13-Jun	3	105	100%
		25	16-Jun	21-Jun	5	137	17%
		26	22-Jun	28-Jun	4	158	14%
		27	29-Jun	30-Jun			
		W. Clarence Strait Total					11

-continued-

Table 3.14. (page 2 of 5)

Stat Area	Fishery Name	Stat Week	Open	Close	Permits	Chinook	AK%
105-41	Sumner Strait	18	1-May	3-May	6	6	-
		19	5-May	8-May	6	114	0%
		20	12-May	15-May	6	117	20%
		21	19-May	22-May	9	158	20%
		22	26-May	29-May	5	149	17%
		23	2-Jun	5-Jun	6	121	0%
		24	9-Jun	12-Jun	4	88	0%
		25	16-Jun	19-Jun	4	104	0%
		26	23-Jun	26-Jun	3	15	
		27	29-Jun	30-Jun			
Sumner Strait Total					19	867	9%
106-30	Steamer Point	18	1-May	3-May			
		19	5-May	8-May			
		20	12-May	15-May			
		21	19-May	22-May	*	*	-
		22	26-May	29-May	*	*	0%
		23	2-Jun	5-Jun	4	42	0%
		24	9-Jun	12-Jun	3	20	0%
		25	16-Jun	20-Jun	5	140	16%
26	23-Jun	27-Jun	9	135	97%		
Steamer Point Total					11	344	45%
106-44	Wrangell Narrows Term. Area	23	1-Jun	7-Jun	12	74	
		24	8-Jun	14-Jun	17	162	
		25	15-Jun	21-Jun	16	307	
		26	22-Jun	28-Jun	closed	for kings	
		27	29-Jun	5-Jul	closed	for kings	
Wrangell Narrows Total					23	543	100%
107-45	Earl West Cove Term. Area	25	15-Jun	21-Jun	*	*	
		26	22-Jun	28-Jun			
		27	29-Jun	5-Jul			
Earl West Cove Total					*	*	0%
108-30	Baht Harbor	18	1-May	3-May	*	*	-
		19	5-May	7-May	3	10	0%
		20	12-May	14-May	4	17	100%
		21	19-May	21-May	9	62	32%
		22	26-May	28-May	10	179	21%
		23	2-Jun	7-Jun	23	274	19%
		24	9-Jun	14-Jun	11	132	19%
		25	16-Jun	21-Jun	4	67	31%
		26	23-Jun	28-Jun			
		Baht Harbor Total					28
109-10	Little Port Walter	18	1-May	2-May			
		19	8-May	9-May	3	7	-
		20	13-May	16-May			
		21	20-May	23-May			
		22	27-May	30-May	*	*	-
		23	3-Jun	6-Jun			
		24	10-Jun	13-Jun			
		25	17-Jun	21-Jun	*	*	-
26	22-Jun	27-Jun	3	32	0%		
Little Port Walter Total					7	143	10%
109-51	Kingsmill Point	17	20-Apr	26-Apr	6	52	8%
		18	27-Apr	3-May	3	60	4%
		19	4-May	10-May	11	249	15%
		20	11-May	17-May	*	*	28%
		21	18-May	24-May	15	463	22%
		22	25-May	31-May	10	250	32%
		23	1-Jun	7-Jun	9	351	14%
		24	8-Jun	14-Jun	6	174	54%
		25	15-Jun	21-Jun	8	334	0%
		26	22-Jun	28-Jun	7	277	36%
27	29-Jun	30-Jun					
Kingsmill Point Total					42	2,210	21%

-continued-

Table 3.14. (page 3 of 5)

Stat Area	Fishery Name	Stat Week	Open	Close	Permits	Chinook	AK%
109-62	Tebenkof Bay	18	1-May	3-May			
		19	6-May	9-May	5	174	26%
		20	13-May	16-May	3	112	40%
		21	20-May	23-May	11	317	36%
		22	27-May	30-May	10	270	4%
		23	3-Jun	6-Jun	11	681	33%
		24	10-Jun	13-Jun	19	1,677	30%
		25	17-Jun	20-Jun	24	1,180	21%
		26	23-Jun	26-Jun	11	633	27%
		Tebenkof Bay Total					46
110-31	Frederick Sound	17	20-Apr	26-Apr			
		18	27-Apr	3-May	*	*	-
		19	4-May	10-May	4	63	0%
		20	11-May	17-May	*	*	0%
		21	18-May	24-May	4	21	0%
		22	25-May	31-May	*	*	0%
		23	1-Jun	7-Jun	*	*	0%
		24	8-Jun	14-Jun			
		25	15-Jun	21-Jun	3	21	0%
		26	22-Jun	28-Jun	*	*	-
27	29-Jun	30-Jun					
Frederick Sound Total					11	130	2%
112-12	Chatham Strait	17	20-Apr	26-Apr			
		18	27-Apr	3-May			
		19	4-May	10-May	*	*	60%
		20	11-May	17-May			
		21	18-May	24-May	*	*	20%
		22	25-May	31-May	8	196	70%
		23	1-Jun	7-Jun	13	404	46%
		24	8-Jun	14-Jun	11	359	70%
		25	15-Jun	21-Jun	10	349	90%
		26	22-Jun	28-Jun	9	220	33%
27	29-Jun	30-Jun					
Chatham Strait Total					29	1,598	61%
112-22	Hidden Falls Term. Area	17	20-Apr	26-Apr			
		18	27-Apr	3-May			
		19	4-May	10-May			
		20	11-May	17-May			
		21	18-May	24-May			
		22	25-May	31-May	12	149	
		23	1-Jun	7-Jun	20	461	
		24	8-Jun	14-Jun	17	860	
		25	15-Jun	21-Jun	8	363	
		26	22-Jun	28-Jun	14	1,300	
27	29-Jun	30-Jun	*	360			
Hidden Falls Total					36	3,493	100%
113-01	Western Channel	18	1-May	2-May	4	8	0%
		19	5-May	6-May	*	*	0%
		20	12-May	14-May	8	63	0%
		21	19-May	21-May	19	159	22%
		22	26-May	28-May	31	628	28%
		23	2-Jun	4-Jun	31	719	23%
		24	9-Jun	9-Jun	24	209	42%
		25	16-Jun	17-Jun	29	674	24%
Western Channel Total					74	2,460	25%
113-31	Biorka Island	18	1-May	2-May	19	184	26%
		19	5-May	6-May	21	350	5%
		20	12-May	12-May	11	63	0%
		21	19-May	19-May	14	300	9%
		24	9-Jun	9-Jun	17	311	39%
25	16-Jun	16-Jun	17	437	13%		
Biorka Island Total					54	1,645	17%

-continued-

Table 3.14. (page 4 of 5)

Stat Area	Fishery Name	Stat Week	Open	Close	Permits	Chinook	AK%
113-35	Eastern Channel	17	20-Apr	26-Apr	*	*	-
		18	27-Apr	3-May	*	*	0%
		19	4-May	10-May	5	10	-
		20	11-May	17-May	5	71	0%
		21	18-May	24-May	14	196	55%
		22	25-May	31-May	29	273	10%
		23	1-Jun	7-Jun	38	508	27%
		24	8-Jun	14-Jun	43	1,206	58%
		25	15-Jun	21-Jun	47	1,286	30%
		26	22-Jun	28-Jun	37	1,176	45%
		27	29-Jun	30-Jun	*	*	
Eastern Channel Total					98	4,756	40%
113-37	Inner Silver Bay	17	20-Apr	26-Apr			-
		18	27-Apr	3-May	*	*	-
		19	4-May	10-May	*	*	
		20	11-May	17-May			
		21	18-May	24-May	*	*	0%
		22	25-May	31-May	*	*	-
		23	1-Jun	7-Jun	4	43	-
		24	8-Jun	14-Jun	5	68	100%
		25	15-Jun	21-Jun	8	275	93%
		26	22-Jun	28-Jun	9	483	51%
		27	29-Jun	30-Jun	*	*	
Inner Silver Bay Total					17	1,013	62%
113-41	Middle Island	17	20-Apr	26-Apr	4	5	-
		18	27-Apr	3-May	4	6	-
		19	4-May	10-May	7	52	65%
		20	11-May	17-May	7	93	19%
		21	18-May	24-May	11	214	29%
		22	25-May	31-May	4	55	55%
		23	1-Jun	7-Jun	14	268	39%
		24	8-Jun	14-Jun	25	596	75%
		25	15-Jun	21-Jun	36	1,066	53%
		26	22-Jun	28-Jun	21	516	52%
		27	29-Jun	30-Jun	3	21	0%
Middle Island Total					63	2,892	53%
113-45	Shelikof Bay	19	5-May	5-May	27	272	5%
		20	12-May	12-May	3	16	36%
		21	19-May	19-May	13	216	12%
		23	2-Jun	2-Jun	29	873	4%
Shelikof Bay Total					47	1,377	6%
113-62	Salisbury Sound	18	1-May	3-May	*	*	-
		19	5-May	8-May	4	12	0%
		20	12-May	15-May	6	59	21%
		21	19-May	22-May	5	32	3%
		22	26-May	29-May	*	*	0%
		23	2-Jun	5-Jun	3	39	22%
		24	9-Jun	12-Jun	4	62	0%
		25	15-Jun	21-Jun	6	271	100%
		26	22-Jun	27-Jun	10	393	74%
Salisbury Sound Total					27	882	76%
113-95	Lisianski Inlet	19	3-May	4-May	8	116	0%
		20	10-May	11-May	11	268	19%
		21	17-May	18-May	15	247	15%
		22	24-May	25-May	16	454	13%
		23	1-Jun	1-Jun	4	34	0%
		24	8-Jun	8-Jun	*	*	0%
Lisianski Inlet Total					23	1,119	13%

-continued-

Table 3.14. (page 5 of 5)

Stat Area	Fishery Name	Stat Week	Open	Close	Permits	Chinook	AK%
113-97	Stag Bay	19	1-May	4-May	*	*	-
		20	8-May	11-May			
		21	15-May	18-May	4	33	0%
		22	22-May	25-May	3	33	0%
		23	29-May	1-Jun	3	16	0%
		24	5-Jun	8-Jun	*	*	0%
		25	11-Jun	15-Jun	4	110	10%
		26	18-Jun	22-Jun	6	121	6%
		27	25-Jun	29-Jun	3	19	-
Stag Bay Total					11	351	5%
114-21	Cross Sound Pink and Chum	24	9-Jun	13-Jun	6	74	0%
		25	16-Jun	20-Jun	5	32	94%
		26	23-Jun	27-Jun	7	40	0%
Cross Sound Total					13	146	21%
114-23	South Passage	19	3-May	4-May			
		20	10-May	11-May			
		21	17-May	18-May	*	*	17%
		22	22-May	25-May	4	118	0%
		23	29-May	1-Jun	*	*	-
		24	5-Jun	8-Jun			
		25	11-Jun	15-Jun			
		26	18-Jun	22-Jun			
		27	25-Jun	29-Jun			
South Passage Total					7	132	1%
114-25	Homeshore	17	20-Apr	26-Apr	4	82	0%
		18	27-Apr	3-May	3	31	0%
		19	4-May	10-May	6	71	0%
		20	11-May	17-May	9	64	35%
		21	18-May	24-May	7	62	0%
		22	25-May	31-May	4	31	0%
		23	1-Jun	7-Jun	10	85	78%
		24	8-Jun	14-Jun	*	*	0%
		25	15-Jun	21-Jun			
		26	22-Jun	28-Jun	*	*	-
		27	29-Jun	30-Jun			
Homeshore Total					28	456	19%
114-27	Point Sophia	17	20-Apr	26-Apr	*	*	-
		18	27-Apr	3-May	3	9	-
		19	4-May	10-May	*	*	0%
		20	11-May	17-May	*	*	100%
		21	18-May	24-May	4	15	100%
		22	25-May	31-May	7	37	75%
		23	1-Jun	7-Jun	10	89	81%
		24	8-Jun	14-Jun	7	45	100%
		25	15-Jun	21-Jun	*	*	0%
		26	22-Jun	28-Jun	3	55	25%
27	29-Jun	30-Jun	*	*	70%		
Point Sophia Total					23	314	71%
114-50	Port Althorp	19	3-May	4-May	*	*	0%
		20	10-May	11-May	4	120	6%
		21	17-May	18-May	9	167	16%
		22	24-May	25-May	4	78	53%
		23	31-May	1-Jun	13	163	16%
		24	6-Jun	8-Jun	8	164	41%
		25	12-Jun	15-Jun	14	322	11%
		26	18-Jun	22-Jun	12	385	14%
		27	28-Jun	29-Jun	6	89	18%
Port Althorp Total					28	1,488	18%
Spring Experimental Subtotal					365	35,429	36%
Spring Terminal Subtotal					66	3,826	100%
Total Spring Troll					380	39,255	40%

*Confidential data. Totals given may or may not include individual weeks confidential data.

Pelican fisheries (Lisianski Inlet, Port Althorp, South Passage and Stag Bay) are summarized by week in which the fishery closed.

(-) Indicates that harvest was not sampled for coded-wire tags.

Table 3.15. Southeast Alaska troll chinook catch per fleet day during the general summer fishery, 1984-2003.^{ab}

Year	Fishing Period	Days	Chinook Harvest	Catch/Fleet Day	Chinook Abundance Index ^b
1984	June 5-30	26	130,000	5,000	1.34
	July 11-29	19	77,000	4,100	
		45	207,000	4,600	
1985	June 3-12	10	66,000	6,600	1.27
	July 1-22	22	114,000	5,200	
	August 25-26	2	13,000	8,300	
		34	193,000	5,700	
1986	June 20-July 15	26	155,000	6,000	1.48
	August 21-26	6	31,900	5,300	
	September 1-9	9	27,500	3,000	
		41	214,400	5,200	
1987	June 20-July 12	23	209,000	9,100	1.78
1988	July 1 - 12	12	162,000	13,500	2.04
1989	July 1- 13	13	167,000	12,800	1.85
1990	July 1 - 22	22	200,000	9,100	1.84
	August 23-24	2	12,000	6,000	
		24	212,000	8,800	
1991	July 1 - 8	8	154,000	20,500	1.82
1992	July 1 - 4	4	66,000	18,900	1.65
	August 23	1	7,000	7,000	
		5	73,000	16,200	
1993	July 1 - 6	6	101,000	16,800	1.71
	August 21 - 25	5	25,000	5,000	
	September 12 - 20	9	19,000	2,100	
		20	145,000	7,300	
1994	July 1 - 7	7	98,000	14,000	1.55
	August 29 - September 2	5	20,000	4,000	
		12	118,000	9,800	
1995	July 1 - 10	10	76,000	7,600	0.99
	July 30 - August 5	7	21,000	3,000	
		17	97,000	5,700	
1996	July 1 - 10	10	76,000	7,600	0.90
	August 19 - 20	2	8,000	4,000	
		12	84,000	7,000	

-continued-

Table 3.15. (Page 2 of 2).

Year	Fishing Period	Days	Chinook Catch	Catch/Fleet Day	Chinook
					Abundance Index ^b
1997	July 1 - 7	7	122,000	17,400	1.37
	August 18 - 24	7	38,000	5,400	
	August 30-September 5	7	22,000	3,100	
		21	182,000	8,700	
1998	July 1 - 11	11	103,000	9,400	1.25
	August 20 - Sept. 30	42	36,000	960	
		53	139,000	2,600	
1999	July 1 - 6	6	78,000	13,000	1.16
	August 18 - August 22	5	16,000	3,200	
		11	94,000	8,500	
2000	July 1-5	5	50,768	10,150	1.10
	August 11-12	2	12,423	6,210	
	August 23-30	8	24,895	3,110	
	September 12-20	9	5,679	630	
		24	93,765	3,910	
2001	July 1-6	6	64,854	10,809	1.14
	August 18 - September 5	19	30,509	1,606	
		25	95,363	3,810	
2002	July 1-18	18	186,998	10,389	1.74
	August 12 - September 2	22	65,266	2,967	
		40	252,264	6,310	
2003	July 1-August 8	39	240,601	6,169	1.79

^a The general summer fishery does not include experimental, terminal, or hatchery access fisheries, which target Alaska hatchery stocks.

^b Abundance index is estimated by the chinook technical committee of the Pacific Salmon Commission.

Table 3.16. Coho salmon mid-season closure dates and extensions, 1980-2003. During the years listed, coho season opened on June 15 and closed on September 20, unless noted.

Year	Closure Dates	Days Closed	Extension	Area restrictions
1980	July 15 - 24	10	None	
1981	August 10 - 19	10	None	
1982	July 29- August 7	10	None	
1983	August 5 -14	10	None	
1984	August 15 - 24	10	None	
1985	August 15 - 24	10	None	
1986	August 11 - 20	10	None	
1987	August 3 - 12	10	None	
1988	August 15 - 24	10	None	
1989	August 14 - 23	10	None	
1990	August 13 - 22	10	None	
1991	August 16 - 24	10	None	
1992	August 13 - 22	10	None	
1993	August 13 - 20	8	None	
1994	August 27- 28	2	9/21 - 9/30	Districts 1-16 open with some restrictions
1995	August 13 - 22	10	9/21 - 9/30	Districts 1-16 open with some restrictions
1996	August 14 - 18	5	None	
1997	August 8 - 17	10	None	
1998	August 12 - 19	8	9/21 - 9/30	Districts 1-13 open with some restrictions
1999	August 13 - 17	5	9/21 - 9/30	Districts 1-16 open with some restrictions
2000	August 13 - 22	10	None	
2001	August 13 - 17	5	9/25 - 9/30	*Districts 1-16 and 183 open (all state waters)
2002	August 10 - 11	2	9/21 - 9/30	*Entire region open except portion of Sitka Sound
2003	No closure	0	9/21 - 9/30	*Entire region open except portion of Sitka Sound

*Areas of high chinook abundance remained closed and Yakutat area closures were in effect during coho salmon extension periods.

Table 3.17. Escapement goal performance for indicator coho salmon streams in Southeast Alaska. E = exceeded goal, U = under goal, I = within goal, NA = no escapement estimate available.

	Year																							
	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03
SOUTHEAST ALASKA AREA																								
Auke Cr.	E	E	I	E	E	E	I	E	E	E	E	E	E	E	E	I	E	E	E	E	E	E	E	E
Berners R.	NA	NA	I	E	NA	I	U	U	U	I	E	E	E	E	E	I	I	E	I	E	E	E	E	E
Ford Arm L.	NA	NA	I	I	NA	I	I	I	E	I	I	I	E	E	E	I	I	E	E	E	I	I	E	E
Hugh Smith L.	NA	NA	E	E	E	I	E	E	I	U	I	E	E	I	E	E	I	I	I	E	I	E	E	E
Jordan Cr.	U	E	E	I	E	U	I	E	E	I	E	E	E	E	E	I	U	U	U	U	U	I	E	I
Montana Cr.	NA	I	E	E	E	E	U	I	U	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
Petersen Cr.	NA	I	I	I	I	I	E	I	E	I	I	E	E	I	I	I	I	I	I	I	I	I	I	I
Steep Cr.	I	E	I	I	I	I	I	I	I	I	I	I	E	E	I	E	I	I	I	I	U	E	E	E
Switzer Cr.	U	E	E	E	E	E	I	I	I	E	E	E	E	E	E	I	I	I	I	I	I	I	E	E
YAKUTAT AREA																								
Akwe R.	I	I	I	E	I	I	E	NA	I	U	NA	I	NA	NA	NA	NA	NA	NA						
East/Doame R.	U	I	I	I	I	E	U	U	I	U	I	U	I	E	E	I	E	U	NA	NA	NA	NA	NA	NA
Italio R.	I	I	I	U	I	I	I	I	I	I	I	I	I	E	NA	E	U	E	NA	NA	U	NA	NA	NA
Kaliakh R.	U	I	I	I	U	E	I	NA	U	U	U	U	U	NA	NA	U	U	U	NA	NA	NA	NA	NA	NA
Lost R.	I	E	E	E	E	I	I	I	I	U	E	U	I	I	E	I	I	I	NA	NA	NA	NA	E	E
Situk R.	I	I	I	I	E	I	U	U	E	I	U	NA	E	E	E	I	I	I	NA	NA	NA	NA	E	I
Tsiu/Tsivat R.	I	I	E	I	E	E	I	U	I	E	I	I	E	I	E	I	I	I	NA	NA	I	NA	E	E
All-Gear Commercial Harvest (Millions)	1.1	1.4	2.1	2	1.9	3	3	1.5	1.1	2.2	2.7	2.8	3.4	3.5	5.5	3.1	3.0	1.9	2.8	3.3	1.7	2.9	2.5	2.2

Table 3.18. Escapement estimates for four Southeast Alaska coho salmon indicator stocks, 1980-2003. Years when no escapement assessment occurred are indicated by "N/A".

Year	Auke Creek	Berners River	Ford Arm Lake	Hugh Smith Lake
1980	698	N/A	N/A	N/A
1981	646	N/A	N/A	N/A
1982	447	7,505	2,662	2,144
1983	694	9,840	1,938	1,490
1984	651	2,825	N/A	1,408
1985	942	6,169	2,324	903
1986	454	1,752	1,546	1,783
1987	668	3,260	1,694	1,118
1988	756	2,724	3,028	513
1989	502	7,509	2,177	433
1990	697	11,050	2,190	870
1991	808	11,530	2,761	1,826
1992	1,020	15,300	3,847	1,426
1993	859	15,670	4,202	830
1994	1,437	15,920	3,228	1,753
1995	460	4,945	2,445	1,781
1996	515	6,050	2,500	950
1997	609	10,050	4,965	732
1998	862	6,802	7,049	983
1999	845	9,920	3,598	1,246
2000	683	10,650	2,287	600
2001	842	19,290	2,178	1,580
2002	1,112	27,700	7,109	3,291
1980-2002				
Average:	748	9,831	3,186	1,317
2003	585	10,110	6,789	1,510
Escapement Goal Ranges:				
	200-500	4,000-9,200	1,300-2,900	500-1,100

Table 3.19. Northern Inside area coho salmon escapements, 1981-2003.

Year	Auke Creek (Weir)	Montana Creek	Steep Creek	Jordan Creek	Switzer Creek	Peterson Creek	Small Stream Index	Berners River	Taku River
1981	646	227	515	482	109	219	2,198		
1982	447	545	232	368	80	320	1,992	7,505	
1983	694	636	171	184	77	219	1,981	9,840	
1984	651	581	168	251	123	189	1,963	2,825	
1985	942	810	186	72	122	276	2,408	6,169	
1986	454	60	247	163	54	363	1,341	1,752	
1987	668	314	128	251	48	204	1,613	3,260	55,457
1988	756	164	155	215	51	542	1,883	2,724	39,450
1989	502	566	222	133	78	242	1,743	7,509	56,808
1990	697	1,711	185	216	82	324	3,215	11,050	72,196
1991	808	1,415	267	322	227	410	3,449	11,530	127,484
1992	1,020	2,512	612	785	93	403	5,425	15,300	84,853
1993	859	1,352	471	322	94	112	3,210	15,670	109,457
1994	1,437	1,829	200	371	198	318	4,353	15,920	96,343
1995	460	600	409	77	42	277	1,865	4,945	55,710
1996	511	798	134	54	42	263	1,802	6,050	44,635
1997	609	1,018	182	18	67	186	2,080	10,050	32,345
1998	862	1,160	149	63	42	102	2,378	6,802	41,449
1999	845	1,000	392	47	51	272	2,607	9,920	60,768
2000	683	961	88	30	74	202	2,038	10,650	77,078
2001	842	1,119	366	119	50	106	2,602	19,290	106,506
2002	1,112	2,448	380	1,396	124	195	5,655	27,700	219,400
Average	750	992	266	270	88	261	2,627	9,831	79,996
2003	585	808	400	78	100	203	2,174	10,110	167,919
<u>Goals:</u>									
Point	340	450	150	150	50	200		6,300	
Lower	200	200	100	75	25	100		4,000	35,000
Upper	500	500	300	200	75	350		9,200	

Table 3.20. Sitka area coho salmon escapement index, 1982-2003.^a

Year	Starrigavan Creek	Sinitzin Creek	St. John's Creek	Nakwasina River	Eagle River	Black River	Ford Arm Lake (Weir)	Total Index
1982	317	46	<i>116</i>	<i>577</i>	<i>482</i>	<i>749</i>	2,662	4,950
1983	45	31	20	217	<i>143</i>	<i>427</i>	1,938	2,821
1984	385	160	154	715	<i>645</i>	425	<i>4,232</i>	6,716
1985	193	144	109	408	<i>390</i>	1,628	2,324	5,196
1986	57	<i>73</i>	<i>53</i>	275	245	312	1,546	2,561
1987	36	21	<i>22</i>	47	167	262	1,694	2,249
1988	45	56	71	104	<i>126</i>	280	3,028	3,710
1989	101	76	89	129	<i>180</i>	181	2,177	2,933
1990	39	80	38	195	214	842	2,190	3,598
1991	142	186	107	621	454	690	2,761	4,961
1992	241	265	110	654	629	866	3,847	6,612
1993	256	213	90	<i>644</i>	513	764	4,202	6,682
1994	304	313	227	404	717	758	3,228	5,951
1995	274	152	99	626	336	1,265	2,445	5,197
1996	59	150	201	553	488	500	2,500	4,451
1997	55	90	68	300	296	686	4,965	6,460
1998	123	109	57	653	300	1,520	7,049	9,811
1999	167	48	27	291	<i>243</i>	1,590	3,598	5,964
2000	144	62	30	459	108	880	2,287	3,970
2001	133	132	80	703	417	1,080	2,178	4,723
2002	227	169	100	713	659	1,194	7,109	10,171
Average	159	123	89	442	369	805	3,236	5,223
2003	95	102	91	440	373	1,055	6,789	8,945

^a Total index is the sum of counts and interpolated values. Interpolated values are shown in bold italic print.

Table 3.21. Southern inside (Ketchikan) area coho salmon escapement index, 1987-2003 ^a.

Year	Herman Creek	Grant Creek	Eulachon River	Klahini River	Indian River	Barrier Creek	King Creek	Choca Creek	Carroll River	Blossum River	Keta River	Hugh				Total Index
												Marten River	Smith L. (Weir)	Humpback Creek	Tombstone River	
1987	92	79	154	55	348	88	278	137	180	700	800	740	1,118	650	532	5,951
1988	72	150	205	20	300	50	175	150	193	790	850	600	513	52	1,400	5,520
1989	75	101	290	15	925	450	510	200	70	1,000	650	1,175	433	350	950	7,194
1990	150	30	235	150	250	63	35	98	124	800	550	575	870	135	275	4,340
1991	245	50	285	50	550	100	300	220	375	725	800	575	1,826	671	775	7,547
1992	115	270	860	90	675	100	250	150	360	650	627	1,285	1,426	550	1,035	8,443
1993	90	175	460	50	475	325	110	300	310	850	725	1,525	830	600	1,275	8,100
1994	265	220	755	200	560	175	325	225	475	775	1,100	2,205	1,753	560	850	10,443
1995	250	94	435	165	600	220	415	180	400	800	1,155	1,385	1,781	82	2,446	10,408
1996	94	92	383	40	570	230	457	220	240	829	1,506	1,924	950	440	1,806	9,781
1997	75	82	420	60	364	92	291	175	140	1,143	571	759	732	32	847	5,783
1998	94	130	460	120	304	50	411	190	253	1,004	1,169	1,961	983	256	666	8,051
1999	75	127	657	150	356	25	627	225	425	598	1,895	1,518	1,246	520	840	9,284
2000	135	94	600	110	380	72	620	180	275	1,354	1,619	1,421	600	102	1,672	9,234
2001	80	110	929	151	1,140	213	891	450	173	1,561	1,702	1,956	1,580	506	1,843	13,285
2002	88	138	1,105	20	940	70	700	220	270	1,359	1,368	2,302	3,291	2,004	1,639	15,514
Average	125	121	515	90	546	145	400	208	266	934	1,068	1,369	1,246	469	1,178	8,680
2003	242	194	875	39	690	57	1,140	380	425	1,940	1,934	1,980	1,615	214	1,745	13,470

^a Total index is the sum of counts and interpolated values. Interpolated values are shown in italic print.

Table 3.22. Harvest and percent of commercially harvested coho salmon by gear type in Southeast Alaska, 1989-2003.^a

Year	--Commercial Troll--		---Purse Seine---		----Drift Gillnet----		----- Set Gillnet-----		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1989	1,415,517	65%	333,113	15%	255,689	12%	176,773	8%	2,181,092	100%
1990	1,832,604	67%	379,334	14%	377,803	14%	148,891	5%	2,738,632	100%
1991	1,719,082	59%	411,854	14%	601,179	21%	166,731	6%	2,898,846	100%
1992	1,929,945	56%	505,135	15%	699,448	20%	290,095	8%	3,424,623	100%
1993	2,395,887	67%	477,006	13%	445,880	13%	237,446	7%	3,556,219	100%
1994	3,466,784	63%	970,100	18%	744,558	13%	343,843	6%	5,525,285	100%
1995	1,750,262	56%	627,472	20%	456,820	15%	295,030	9%	3,129,584	100%
1996	1,906,756	64%	447,005	15%	404,609	14%	227,802	8%	2,986,172	100%
1997	1,170,349	64%	189,054	10%	156,725	9%	322,776	18%	1,838,904	100%
1998	1,636,711	59%	475,171	17%	441,458	16%	197,629	7%	2,750,969	100%
1999	2,272,653	69%	422,926	13%	394,221	12%	187,055	6%	3,276,855	100%
2000	1,125,219	67%	210,495	12%	181,716	11%	170,948	10%	1,688,378	100%
2001	1,843,571	64%	549,593	19%	291,268	10%	205,233	7%	2,889,665	100%
2002	1,315,016	51%	597,417	23%	475,600	18%	200,888	8%	2,588,921	100%
2003	1,220,783	58%	383,584	18%	419,676	20%	74,165	4%	2,098,208	100%
1989-2003 Average:										
	1,800,076	62%	465,284	16%	423,110	14%	216,354	8%	2,991,171	100%
BOF Allocations (Established 1989)		61%	19%		13%		7%			

^a Includes Annette Island troll harvests.

Table 3.23. Average troll coho salmon weight by week and weighted annual average, 1980-2003. Annual average is the quotient of the total number of troll coho landed divided by the total weight of troll coho salmon landed.^a

Week of	Year																							2003	98-02 Avg.	93-02 Avg.
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002			
July 1	5.4	5.3	5.2	6.1	6.5	6.6	6.2	5.2	5.2	5.2	5.4	5.7	5.1	5.2	6.3	5.6	5.9	5.3	6.6	4.7	5.7	5.7	5.9	5.5	5.7	5.7
July 8	5.6	5.9	6.1	6.1	7.1	6.4	6.4	5.5	5.6	5.5	5.7	5.5	5.7	5.2	6.2	5.6	5.9	5.2	6.8	4.7	5.7	5.6	6.2	5.5	5.8	5.7
July 15	5.7	6.1	6.4	6.1	7.3	6.6	6.6	5.7	6.1	5.7	6.0	5.7	5.9	5.1	6.3	6.0	6.0	5.4	6.8	4.8	6.0	5.6	6.5	5.6	6.0	5.9
July 22	6.3	6.5	6.5	6.1	7.8	6.9	6.9	6.0	6.6	6.0	6.2	5.9	6.2	5.2	6.4	6.4	6.3	5.6	6.9	5.0	6.1	5.7	6.4	5.8	6.0	6.0
July 29	6.5	6.9	6.6	6.3	8.0	7.0	7.1	6.4	6.9	6.3	6.5	6.1	6.4	5.4	6.6	6.6	6.5	5.8	7.0	5.2	6.3	6.0	6.5	6.0	6.2	6.2
August 5	6.7	7.1	6.2	6.5	8.3	7.3	7.4	6.5	7.8	6.6	6.7	6.4	6.7	5.6	7.0	7.0	6.7	6.0	7.1	5.4	6.5	6.1	6.8	6.2	6.4	6.4
August 12	7.1	7.0	7.1	6.6	8.3	7.5	7.2	7.1	7.8	6.8	6.9	6.5	6.7	5.7	7.3	7.1	6.8	7.2	5.4	6.6	6.2	7.0	6.3	6.5	6.6	6.6
August 19	7.3	8.2	7.3	7.3	8.2	8.2	8.4	7.3	7.9	7.3	7.0			5.9	7.7	7.7	7.3	7.0	7.7	5.8		6.6	7.1	6.6	6.8	7.0
August 26	7.8	8.3	7.4	7.6	8.7	8.5	8.3	7.4	8.5	7.3	7.4	6.9	7.4	6.0	7.9	7.8	7.5	7.6	7.8	6.0	7.5	6.6	7.6	6.9	7.1	7.2
September 2	8.1	8.4	7.6	7.9	9.0	8.9	8.7	7.5	8.5	7.2	7.5	7.0	7.8	6.1	8.3	8.2	7.8	8.2	8.5	6.1	8.0	6.8	7.8	7.2	7.4	7.6
September 9	8.2	8.8	7.6	7.9	9.1	8.8	8.4	7.2	8.9	7.3	7.8	7.4	8.2	6.0	8.6	8.4	8.1	8.8	8.8	6.4	8.2	7.2	8.0	7.4	7.7	7.9
September 16	8.0	8.9	7.9	8.1	9.0	8.6	8.3	8.1	9.1	7.3	7.4	7.4	8.5	6.2	8.6	8.7	8.0	8.9	9.2	6.6	8.4	7.7	8.1	7.6	8.0	8.0
Weighted Average:	6.8	7.1	6.7	6.8	8.0	7.5	7.4	6.5	7.2	6.5	6.7	6.3	6.6	5.6	7.2	7.0	6.8	6.5	7.4	5.4	6.5	6.1	6.9	6.5	6.5	6.5
Troll Catch (millions)	0.7	0.9	1.3	1.3	1.1	1.6	2.1	1.0	0.5	1.4	1.8	1.7	1.9	2.4	3.5	1.8	1.9	1.2	1.6	2.3	1.1	1.8	1.3	1.2	1.6	1.8

^a Includes Annette Island troll harvests.

Table 3.24. Contribution in numbers and percent of chinook salmon produced by Alaskan hatcheries in the winter, experimental, terminal, hatchery access and general summer troll fisheries, 1989-2003.^a

Fishery	Year	Total Harvest	Alaskan Hatcheries	
			Number	Percent
Winter	1989	34,300	4,900	14%
	1990	33,100	4,400	13%
	1991	42,600	10,200	24%
	1992	71,800	7,000	10%
	1993	62,700	3,900	6%
	1994	56,400	2,000	4%
	1995	17,900	2,100	12%
	1996	9,400	1,700	18%
	1997	21,000	1,700	8%
	1998	32,800	2,400	7%
	1999	31,000	2,200	7%
	2000	36,100	3,100	9%
	2001	22,600	2,800	12%
	2002	29,400	2,000	7%
2003	50,854	4,380	9%	
1989-2003 Averages		36,797	3,652	11%
Experimental	1989	2,500	900	36%
	1990	7,100	4,300	61%
	1991	14,000	6,200	44%
	1992	11,200	5,600	50%
	1993	15,800	6,500	41%
	1994	11,300	4,900	43%
	1995	21,700	14,000	65%
	1996	31,000	15,000	48%
	1997	33,200	13,600	41%
	1998	19,200	5,000	26%
	1999	21,000	8,800	42%
	2000	21,005	11,300	54%
	2001	28,200	13,700	49%
	2002	37,600	17,000	45%
2003	35,429	11,971	34%	
1989-2003 Averages		20,682	9,251	45%
Terminal ^a	1989	900	900	100%
	1990	16	16	100%
	1991	5,900	5,900	100%
	1992	4,100	4,100	100%
	1993	2,800	2,800	100%
	1994	100	100	100%
	1995	1,300	1,300	100%
	1996	16,400	16,400	100%
	1997	9,500	9,500	100%
	1998	1,300	1,300	100%
	1999	2,400	2,400	100%
	2000	8,000	8,000	100%
	2001	7,100	7,100	100%
	2002	6,000	6,000	100%
2003	3,826	3,826	100%	
1989-2003 Averages		4,643	4,643	100%

-continued-

Table 3.24. (Page 2 of 2).

Fishery	Year	Total Catch	Alaskan Hatcheries	
			Number	Percent
Hatchery Access	1989	30,500	3,800	12%
	1990	35,000	6,800	19%
	1991	46,500	8,600	18%
	1992	23,600	6,500	28%
	1989-1992 Averages	33,900	6,425	19%
General Summer	1989	167,500	5,800	3%
	1990	211,900	14,300	7%
	1991	154,000	6,600	4%
	1992	72,600	2,500	3%
	1993	145,200	4,900	3%
	1994	118,400	5,300	4%
	1995	97,200	9,700	10%
	1996	84,600	4,800	6%
	1997	182,700	4,300	2%
	1998	138,700	3,800	3%
	1999	94,500	3,700	4%
	2000	93,800	6,900	7%
	2001	95,400	5,000	5%
	2002	252,300	6,400	3%
2003	240,573	7,692	3%	
1989-2003 Averages	143,292	6,113	5%	
Total	1989	235,700	16,300	7%
	1990	287,116	29,816	10%
	1991	263,000	37,500	14%
	1992	183,300	25,700	14%
	1993	226,500	18,100	8%
	1994	186,200	12,300	7%
	1995	138,100	27,100	20%
	1996	141,400	37,900	27%
	1997	246,400	29,100	12%
	1998	192,000	12,500	7%
	1999	149,900	17,100	11%
	2000	159,905	29,300	18%
	2001	153,200	28,400	19%
	2002	325,335	31,300	10%
2003	330,686	27,651	8%	
1989-2003 Averages	214,583	25,338	13%	

^a Includes Annette Island troll harvests.

Table 3.25. Total chinook salmon harvest (Total) and Alaska hatchery harvest (AK Hatchery) by gear, 1985-2003.^a

Year	Seine		Drift Gillnet		Set Gillnet		Troll		Sport		All Gear	
	Total	AK Hatchery	Total	AK Hatchery	Total	AK Hatchery	Total	AK Hatchery	Total	AK Hatchery	Total	AK Hatchery
1985	21,546	150	10,386	976	1,232	0	215,842	8,072	24,858	3,365	273,864	12,563
1986	12,113	813	8,441	1,437	1,428	0	237,703	9,886	22,551	5,239	282,236	17,375
1987	4,498	162	8,430	1,846	2,072	4	242,562	16,194	24,324	5,336	281,886	23,542
1988	11,137	350	9,079	4,474	894	0	231,373	19,503	26,160	5,136	278,643	29,463
1989	13,098	1,918	9,579	3,764	798	0	235,717	16,366	31,071	5,859	290,263	27,907
1990	11,355	2,529	14,693	8,866	663	3	287,939	29,834	51,218	13,792	365,868	55,024
1991	11,598	1,389	18,456	11,371	1,747	40	264,044	37,604	60,492	14,165	356,337	64,569
1992	18,012	1,099	11,285	7,303	2,025	10	183,758	25,738	42,892	9,667	257,972	43,817
1993	8,335	1,751	18,011	11,094	1,311	0	226,866	18,226	49,246	9,440	303,769	40,511
1994	14,824	3,201	16,735	11,550	3,897	2	186,201	12,383	42,365	9,216	264,022	36,352
1995	25,115	17,302	13,342	7,457	9,374	0	138,115	27,173	49,667	16,626	235,613	68,558
1996	22,224	20,692	7,822	5,726	4,854	0	141,422	38,364	57,509	19,766	233,831	84,548
1997	10,301	6,223	6,675	4,211	3,264	0	246,409	28,795	71,524	19,296	338,173	58,525
1998	14,469	6,054	5,934	3,477	2,804	0	192,066	12,397	55,013	10,230	270,286	32,158
1999	17,890	11,933	8,980	5,007	5,108	0	146,219	16,962	72,081	20,982	250,278	54,884
2000	20,701	18,353	11,790	10,790	2,460	0	158,717	28,944	63,173	24,339	256,841	82,426
2001	19,405	14,495	11,178	8,565	2,631	0	153,218	28,430	67,921	24,382	254,353	75,872
2002	17,695	11,716	11,484	6,507	2,510	0	325,303	31,290	85,183	31,685	442,175	81,198
2003	24,052	6,905	10,639	7,486	3,842	0	330,686	27,651	75,937 ^b	23,642	445,991	68,123

^a Includes Annette Island harvests.

^b Inseason estimates. Final estimates pending analyses of mail-in survey data.

Table 3.26. Total Southeast Alaska troll coho salmon harvest and estimated wild and hatchery contributions, 1960-2003.^a

Year	Total harvest	Wild Contribution	Alaska Hatchery	Other Hatchery	Total Hatchery	Percent Hatchery
1960	396,211	396,211	-	-	-	-
1961	399,932	399,932	-	-	-	-
1962	643,740	643,740	-	-	-	-
1963	693,050	693,050	-	-	-	-
1964	730,766	730,766	-	-	-	-
1965	695,887	695,887	-	-	-	-
1966	528,621	528,621	-	-	-	-
1967	443,677	443,677	-	-	-	-
1968	779,500	779,500	-	-	-	-
1969	388,443	388,443	-	-	-	-
1970	267,647	267,647	-	-	-	-
1971	391,279	391,279	-	-	-	-
1972	791,941	791,941	-	-	-	-
1973	540,125	540,125	-	-	-	-
1974	845,109	845,109	-	-	-	-
1975	214,170	214,170	-	-	-	-
1976	524,762	524,762	-	-	-	-
1977	506,845	506,845	-	-	-	-
1978	1,100,902	1,100,902	-	-	-	-
1979	918,845	918,845	-	-	-	-
1980	707,360	704,297	2,876	187	3,063	<1%
1981	862,177	846,088	15,918	171	16,089	2%
1982	1,321,546	1,285,969	35,400	177	35,577	3%
1983	1,279,518	1,227,242	51,709	567	52,276	4%
1984	1,131,936	1,062,327	68,594	1,015	69,609	6%
1985	1,605,953	1,499,661	106,111	181	106,292	7%
1986	2,126,159	1,850,004	268,215	7,940	276,155	13%
1987	1,041,175	950,757	87,074	3,344	90,418	9%
1988	499,819	472,334	25,885	1,600	27,485	5%
1989	1,417,966	1,248,491	165,516	3,959	169,475	12%
1990	1,821,041	1,559,530	249,598	11,913	261,511	14%
1991	1,719,741	1,336,889	366,850	16,002	382,852	22%
1992	1,929,112	1,509,115	402,445	17,552	419,997	22%
1993	2,393,244	2,013,913	365,786	13,545	379,331	16%
1994	3,461,259	2,946,740	501,188	13,331	514,519	15%
1995	1,750,066	1,414,052	328,150	7,864	336,014	19%
1996	1,904,962	1,456,794	438,808	9,360	448,168	24%
1997	1,170,462	927,301	240,590	2,571	243,161	21%
1998	1,634,608	1,304,645	321,821	8,142	329,963	20%
1999	2,272,574	1,772,608	499,966	13,521	513,487	23%
2000	1,125,159	876,382	241,909	6,868	248,777	22%
2001	1,845,154	1,473,230	368,538	3,386	371,924	20%
2002	1,315,016	973,893	339,962	1,161	341,123	26%
2003	1,220,783	936,969	282,939	2,759	285,526	23%
1980-1989						
Avg.	1,199,361	1,114,717	82,730	1,914	84,644	7%
1990-2002						
Avg.	1,872,492	1,505,007	358,893	9,632	368,525	20%
	Terminal hatchery harvest			1,630		
	CWT contribution from terminal areas			193		
	Add to AK hatchery			1,437		
	Total Alaska hatchery coho harvest			368,538		

^a Includes Annette Island troll harvests.

Table 3.27. Estimates of total escapements of chinook salmon to escapement indicator systems and to southeast Alaska and transboundary rivers, 1986-2003. Bold numbers are weir counts or mark-recapture estimates. Other numbers are index escapements expanded for survey counting rates and unsurveyed tributaries.

Year	MAJOR SYSTEMS				MEDIUM SYSTEMS								King Salmon	TOTAL ALL SYSTEMS	Expanded Region Total	
	Alsek	Taku	Stikine	Major Subt.	Situk	Chilkat	Andrew	Unuk	Chickamin	Blossom	Keta	Medium Subt.				
1975		12,920	7,571				520		1,914	584	609		63			
1976	5,320	24,582	5,723	35,625	1,421		404		810	272	252		98			
1977	13,490	29,496	11,445	54,431	1,732		456	4,870	1,875	448	690	10,071	201	64,703	77,027	
1978	12,650	17,124	6,835	36,609	808		388	5,530	1,594	572	1,176	10,068	86	46,763	55,670	
1979	15,520	21,617	12,610	49,747	1,284		327	2,880	1,233	216	1,278	7,218	113	57,078	67,950	
77-79 Ave.	13,887	22,746	10,297	46,929	1,275		390	4,427	1,567	412	1,048	9,119	133	56,181	66,883	
1980	12,435	39,239	30,573	82,247	905		282	5,080	2,299	356	576	9,498	104	91,849	109,344	
1981	9,815	49,559	36,057	95,431	702		536	3,655	1,985	636	987	8,501	139	104,071	123,894	
1982	9,845	23,847	40,488	74,180	434		672	6,755	2,952	1,380	2,262	14,455	354	88,989	105,939	
1983	11,185	9,795	6,424	27,404	592		366	5,625	3,099	2,356	2,466	14,504	245	42,153	50,182	
1984	7,860	20,778	13,995	42,633	1,726		389	9,185	5,697	2,032	1,830	20,859	265	63,757	75,901	
1985	6,415	35,916	16,037	58,368	1,521		640	5,920	4,943	2,836	1,872	17,732	175	76,275	90,804	
1986	13,035	38,110	14,889	66,034	2,067		1,414	10,630	9,022	5,112	2,070	30,315	255	96,604	115,004	
1987	12,455	28,935	24,632	66,022	1,379		1,576	9,865	5,041	5,396	2,304	25,561	196	91,779	109,261	
1988	9,970	44,524	37,554	92,048	868		1,128	8,730	4,064	1,536	1,725	18,051	208	110,307	131,318	
1989	11,010	40,329	24,282	75,621	637		1,060	5,745	4,829	1,376	3,465	17,112	240	92,973	110,682	
Average	10,403	33,103	24,493	67,999	1,083		806	7,119	4,393	2,302	1,956	17,659	218	85,876	102,233	
1990	8,490	52,142	22,619	83,251	628		1,328	2,955	2,916	1,028	1,818	10,673	179	94,103	112,027	
1991	11,115	51,645	23,206	85,966	889		800	3,275	2,518	956	816	15,151	134	101,251	112,501	
1992	6,215	55,889	34,129	96,233	1,595		1,556	4,370	1,789	600	651	15,845	99	112,177	124,641	
1993	16,105	66,125	58,962	141,192	952		4,472	2,120	2,011	1,212	1,086	17,193	263	158,648	176,276	
1994	18,100	48,368	33,094	99,562	1,271		6,795	1,144	4,623	2,006	644	918	210	117,173	130,192	
1995	26,985	33,805	16,784	77,574	4,330		3,790	3,860	2,309	686	868	16,368	146	94,088	104,542	
1996	17,995	79,019	28,949	125,963	1,800		4,920	670	5,835	1,587	880	891	288	142,834	158,704	
1997	14,145	114,938	26,996	156,079	1,878		8,100	586	2,970	1,406	528	738	357	172,642	191,824	
1998	4,621	31,039	25,968	61,628	924		3,675	974	4,132	2,021	364	446	132	74,296	82,551	
1999	11,597	20,545	19,947	52,089	1,461		2,271	1,210	3,914	2,544	848	968	300	65,605	72,894	
Average	13,537	55,352	29,065	97,954	1,573		5,023	1,107	4,127	2,111	793	886	211	113,282	126,615	
2000	8,295	30,529	27,531	66,355	1,785		2,035	1,380	5,872	4,141	924	913	137	83,542	92,824	
2001	11,022	41,179	63,523	115,724	656		4,517	2,108	10,541	5,177	816	1,029	24,844	147	140,715	156,350
2002	8,504	48,848	50,875	108,227	1,001		4,050	1,752	6,988	5,007	896	1,233	20,927	153	129,307	143,674
2003	6,800	28,501	33,218	68,519	2,615		5,505	1,190	5,605	4,984	812	966	117	90,313	100,348	
00-03 Ave	9,274	40,185	47,310	96,769	1,147		3,534	1,747	7,800	4,775	879	1,058	146	117,855	130,950	
CHANGE FROM 2002 to 2003																
Number	(1,704)	(20,347)	(17,657)	(39,708)	1,614		1,455	(562)	(1,383)	(23)	(84)	(267)	750	(36)	(38,994)	(43,327)
Percent	-15%	-49%	-28%	-34%	246%		32%	-27%	-13%	0%	-10%	-26%	3%	-24%	-28%	-28%
Goals																
Lower	5,500	30,000	14,000	49,500	450		1,750	650	3,250	2,326	1,000	750	10,176	120	59,796	66,440
Point	8,500	36,000	17,500	62,000	730		2,200	750	4,000	3,490	1,500	1,125	13,795	150	75,945	84,383
Upper	11,500	55,000	28,000	94,500	1,100		3,500	1,500	7,000	4,653	2,000	1,500	21,253	240	115,993	128,881
Total Escapement goals for Alsek, Unuk, Chickamin, Blossom and Keta have not been agreed on, numbers for those four are just expanded index goals for comparison.																
Average percent of point goal																
77-79	163%	63%	59%	76%	175%		52%	111%	45%	27%	93%	66%	89%	74%		
80-89	122%	92%	140%	110%	148%		108%	178%	126%	153%	174%	128%	145%	113%		
90-99	159%	154%	166%	158%	215%		148%	103%	60%	53%	79%	110%	141%	149%		
00-03	109%	112%	270%	156%	157%		161%	233%	195%	137%	59%	94%	152%	97%	155%	

Table 3.28. Overall coho salmon harvest rates by indicator stock for the Alaska troll fishery and all fisheries combined, 1982-2003.

Year	Auke Lake	Berners River	Ford Arm Lake	Hugh Smith Lake	Weighted Average
Alaska Troll Fishery:					
1982	20	42	41	46	37
1983	31	50	54	35	43
1984	34			31	39
1985	35	45	51	36	42
1986	43	55	61	35	49
1987	37	53	45	28	41
1988	25	40	48	27	35
1989	48	53	62	50	53
1990	43	44	56	39	46
1991	17	18	53	37	31
1992	32	33	56	38	40
1993	38	39	62	53	48
1994	35	37	60	46	44
1995	32	31	48	30	35
1996	39	44	56	40	45
1997	12	16	48	48	31
1998	31	44	49	41	41
1999	34	40	59	42	44
2000	23	23	57	37	35
2001	30	28	69	22	37
2002	18	17	38	17	23
2003	23	24	32	24	26
1982-2002 Average	31	38	54	37	40
All Fisheries:					
1982	40	76	44	65	56
1983	44	71	69	62	61
1984	41			65	58
1985	44	75	51	63	58
1986	53	93	62	60	67
1987	43	77	48	52	55
1988	37	82	49	66	59
1989	55	62	65	82	66
1990	53	67	58	81	65
1991	31	67	54	68	55
1992	46	67	59	71	60
1993	46	68	67	81	65
1994	53	78	72	81	71
1995	44	83	67	74	67
1996	55	75	56	76	65
1997	20	35	51	72	45
1998	39	71	56	77	61
1999	41	70	64	70	61
2000	30	50	71	54	51
2001	38	40	75	50	50
2002	27	45	53	38	40
2003	35	65	49	59	52
1982-2002 Average	42	67	60	67	59

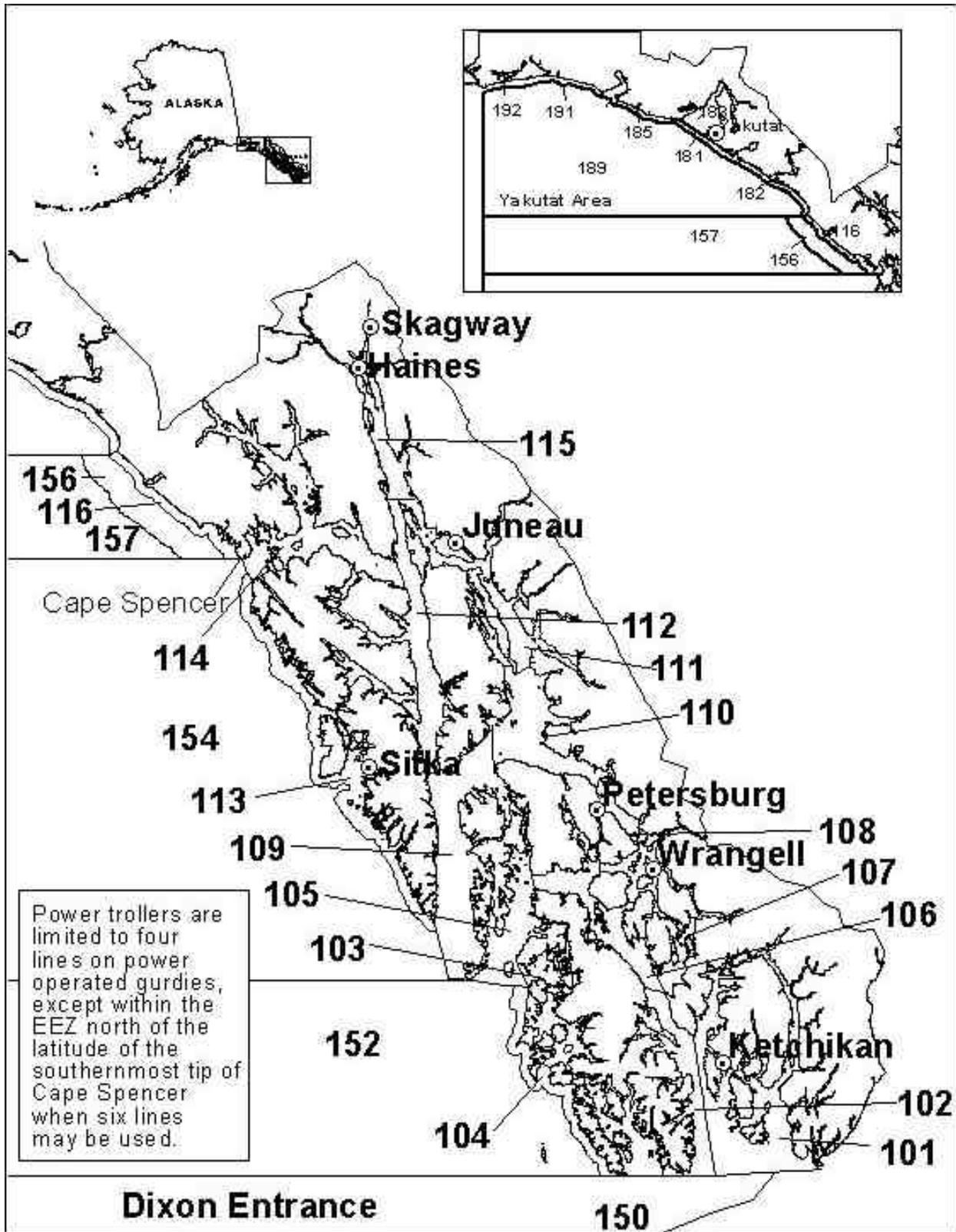


Figure 3.1. Map of Southeast Alaska Region 1 commercial troll fishing districts.

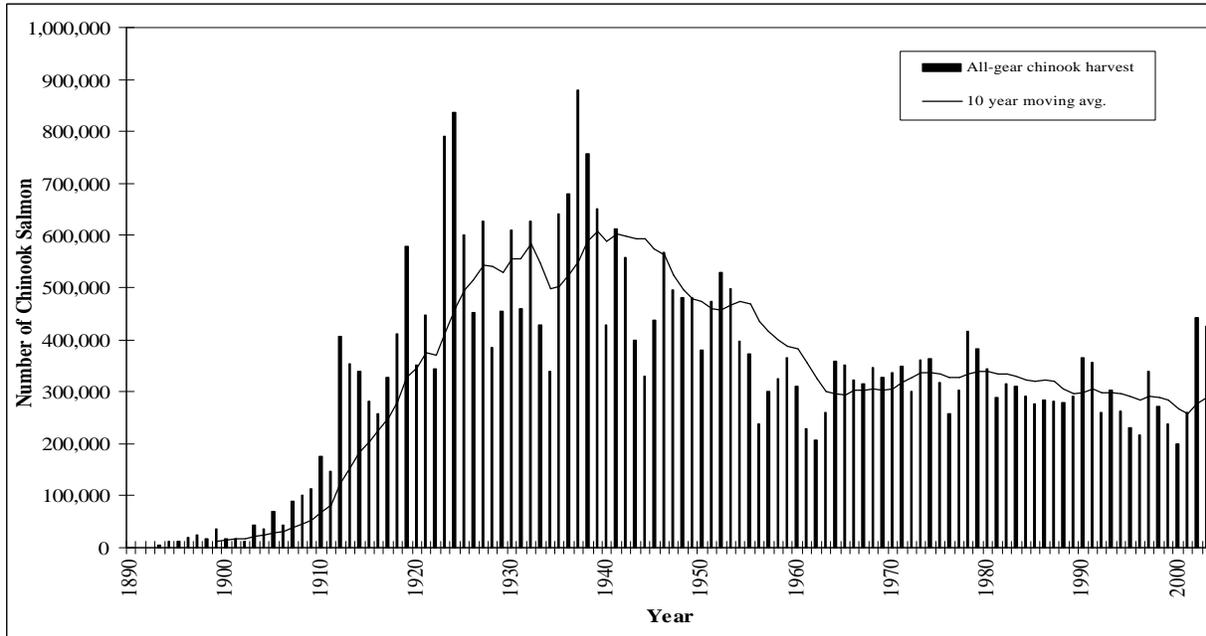


Figure 3.2. All-gear harvests of chinook salmon in common property fisheries, 1890-2003.

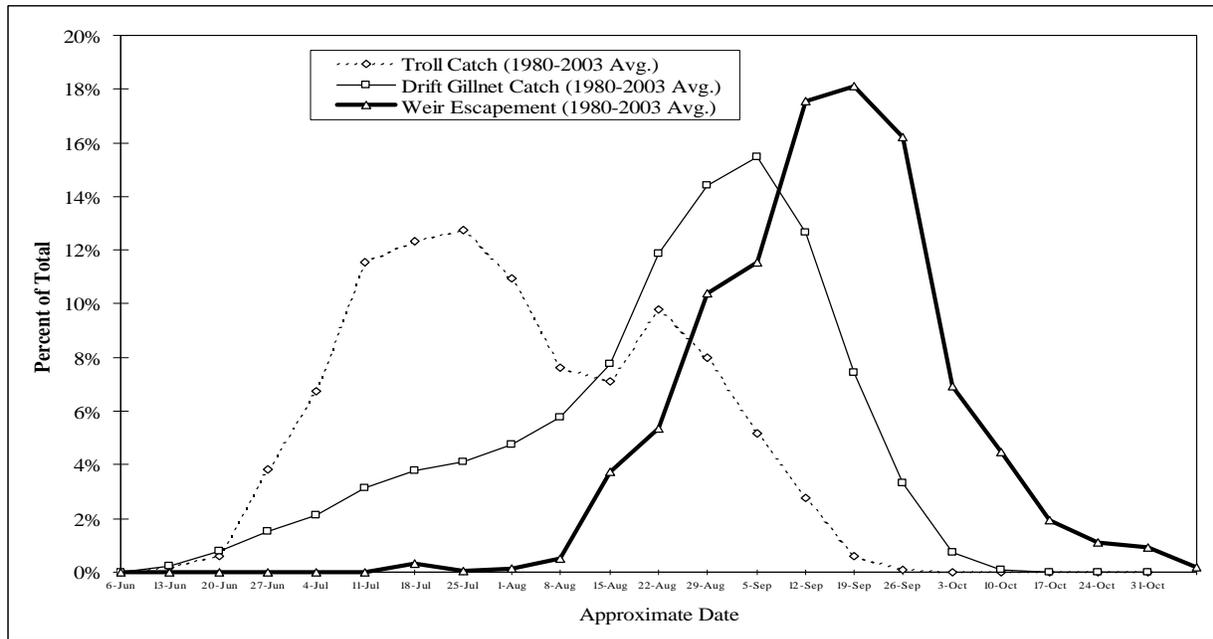


Figure 3.3. Average weekly coho harvest timing of the Southeast Alaska commercial troll and drift gillnet fisheries (1980-2003), and the average weekly coho salmon escapement timing of the Hugh Smith Lake, Ford Arm Lake and Auke Creek weirs (1980-2003).

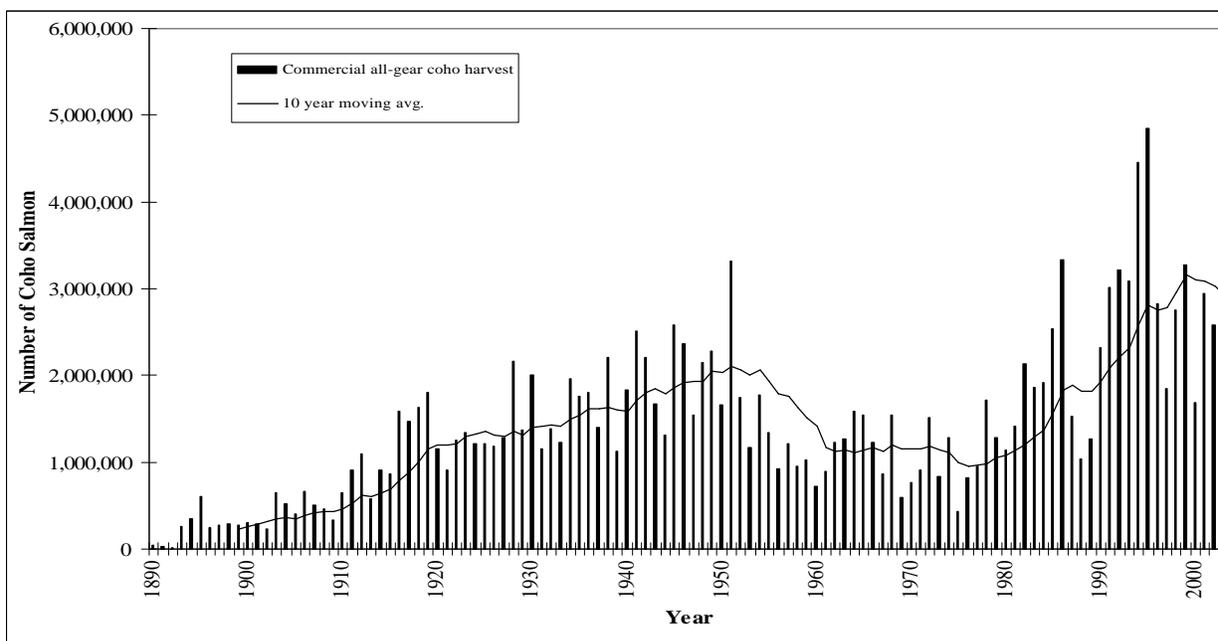


Figure 3.4. Commercial all-gear harvests of coho salmon in common property fisheries, 1890-2003.

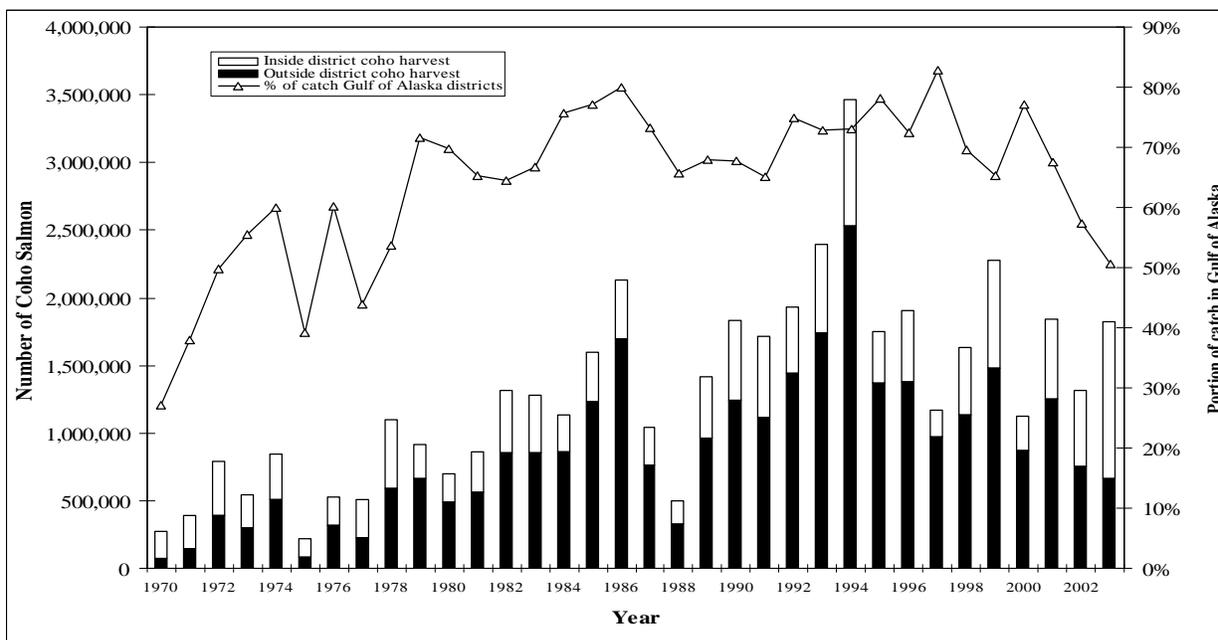


Figure 3.5. Southeast Alaska troll coho salmon harvest in the outside (Gulf of Alaska) districts (103, 104, 113, 116, 152, 154, 156, 157, 181, 183, 189, 191) and the inside districts (101, 102, 105, 106, 107, 108, 109, 110, 111, 112, 114), and the percentage of the harvest the outside districts, 1970-2003.

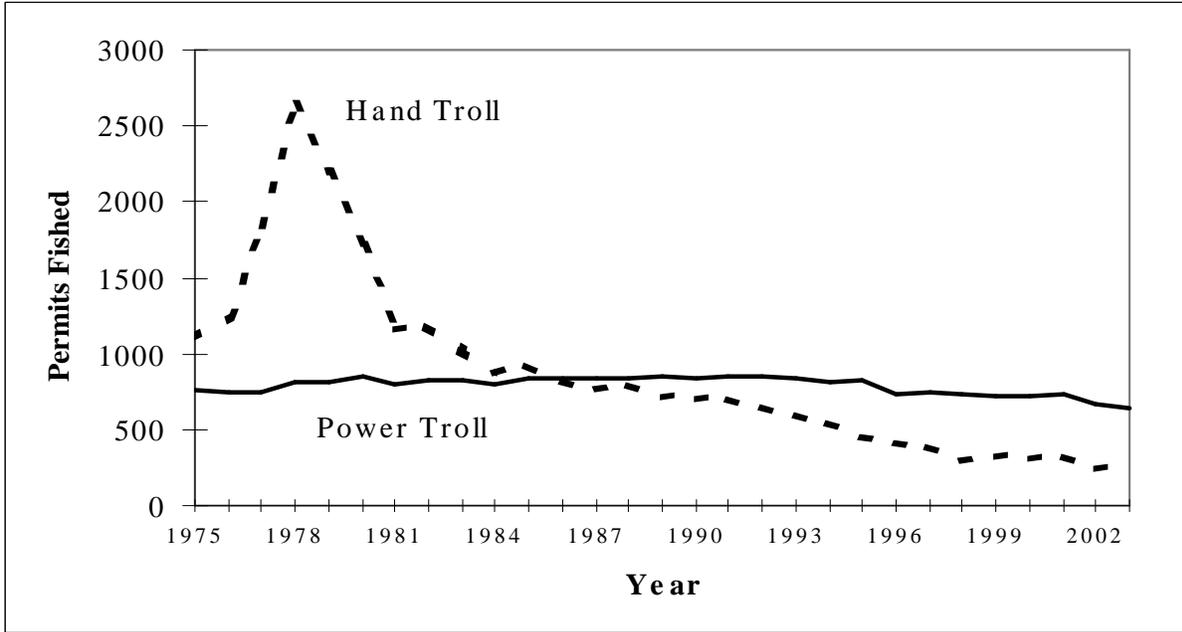


Figure 3.6. Number of troll permits fished by gear type, 1975-2003.

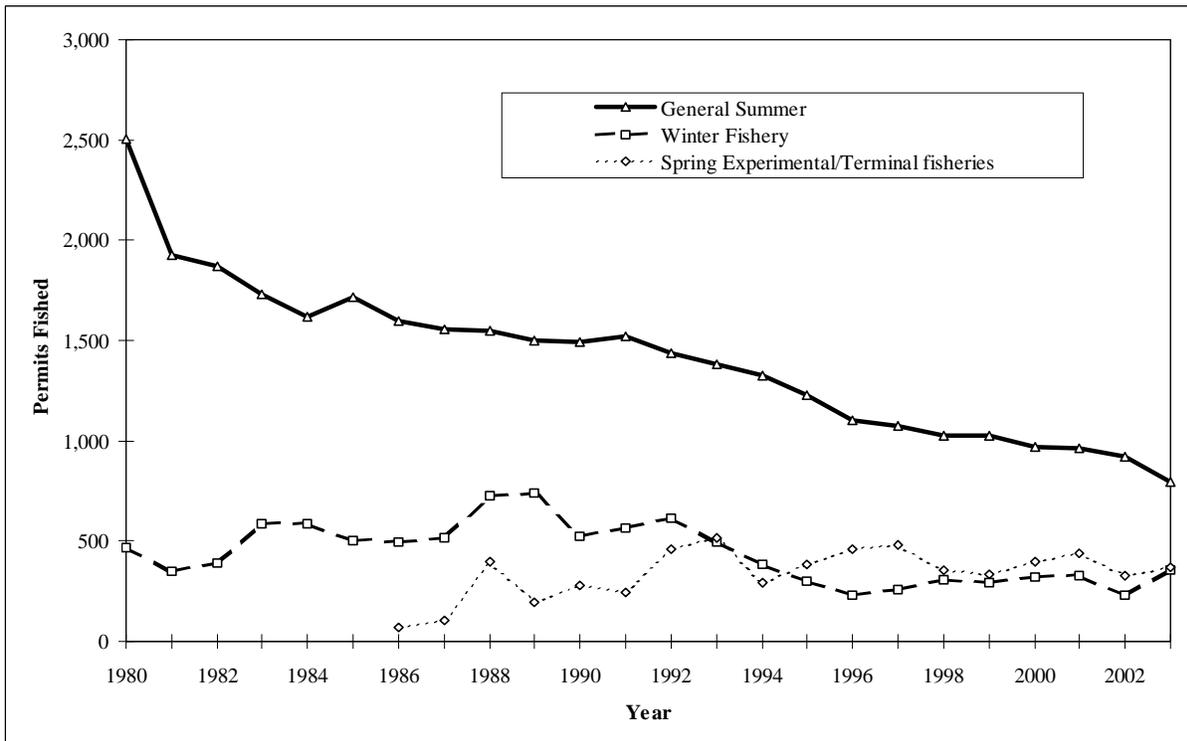


Figure 3.7. Number of troll permits fished in the general summer, winter, and spring experimental and terminal fisheries, 1980-2003.

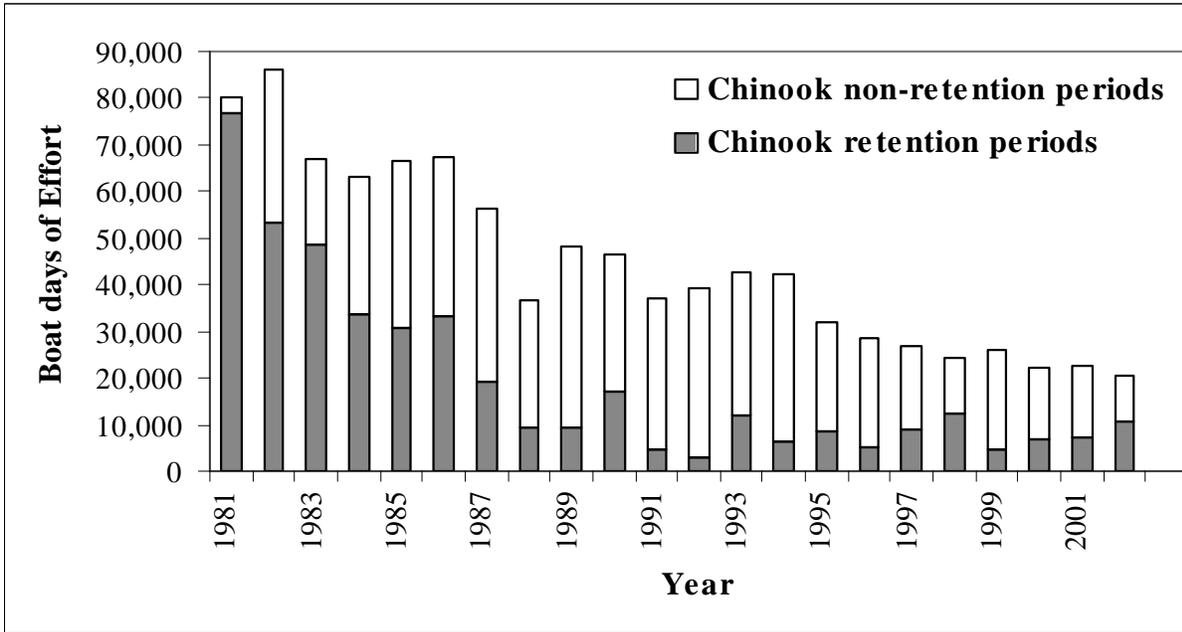


Figure 3.8. General summer troll fishery boat days of effort during chinook retention and chinook non-retention fishing periods, 1981-2003.

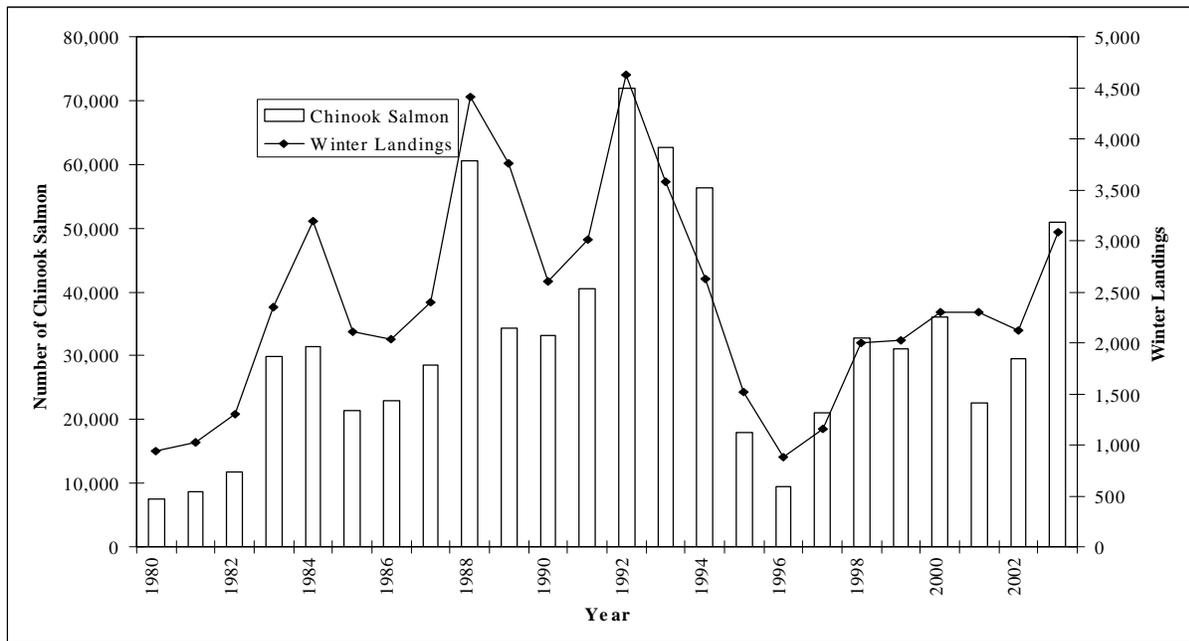


Figure 3.9. Southeast Alaska winter troll fishery chinook salmon harvests and landings, 1980-2003.

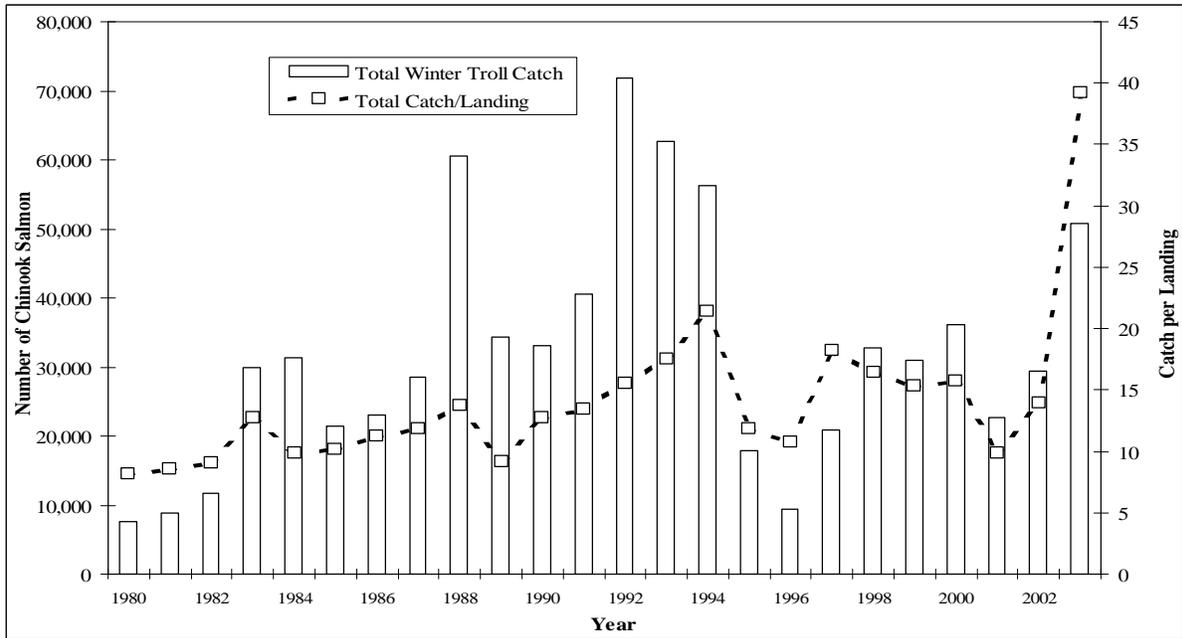


Figure 3.10. Southeast Alaska winter troll harvest and catch per landing for troll gear, 1980-2003.

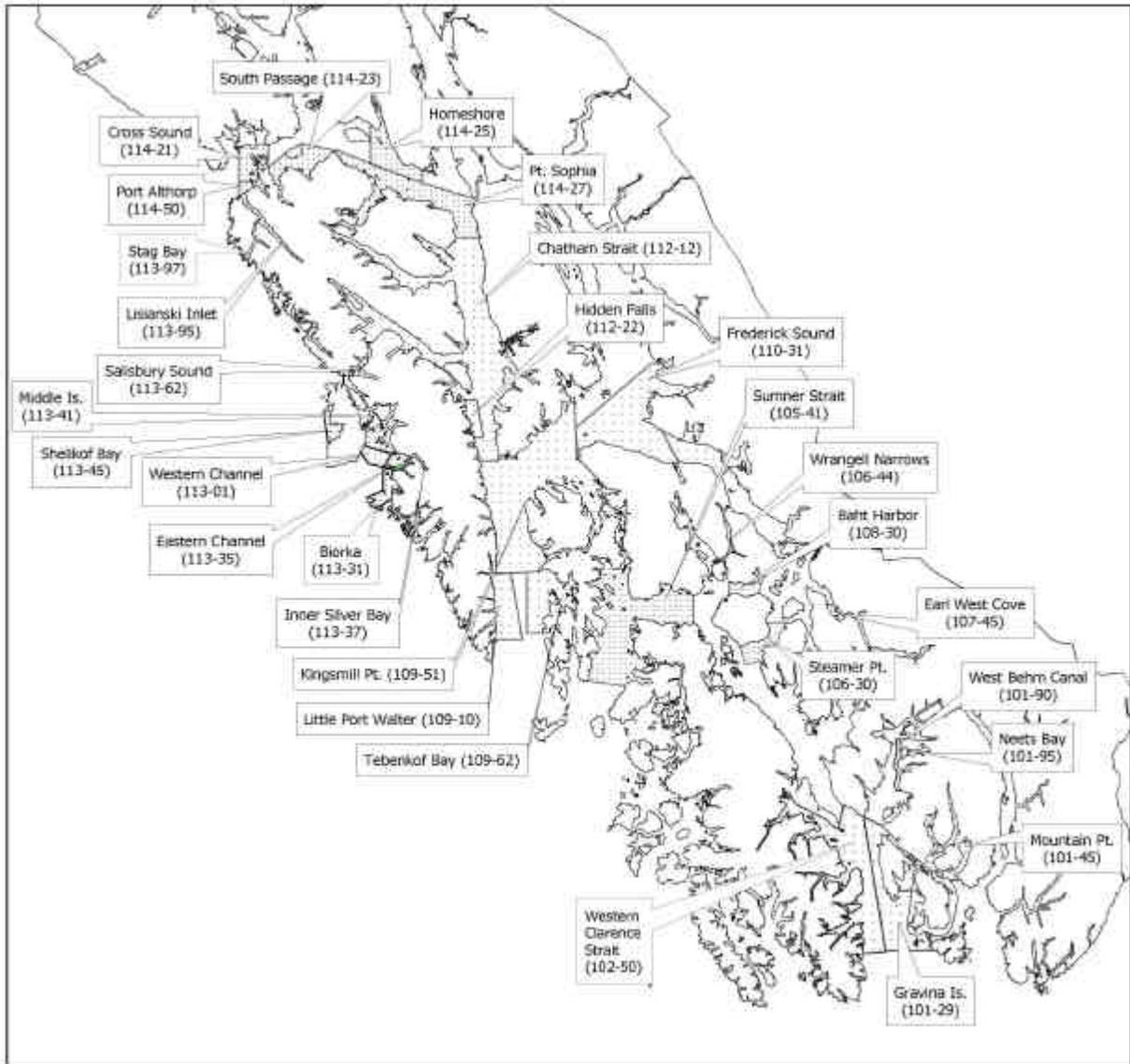


Figure 3.11. Map of Spring troll fisheries. Shaded areas were open in 2003.

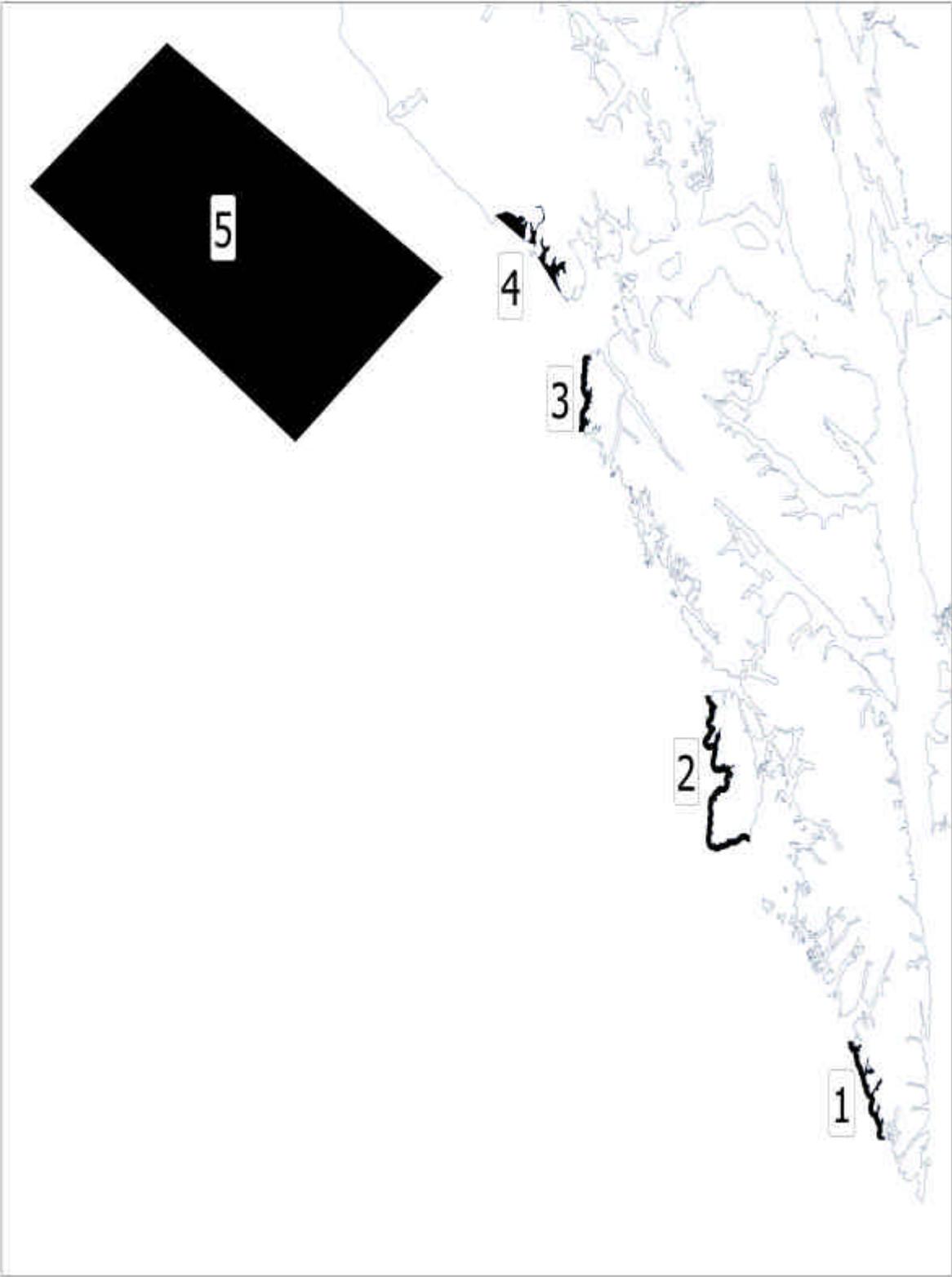


Figure 3.12. Map of closed areas of high chinook salmon abundance (shaded areas).

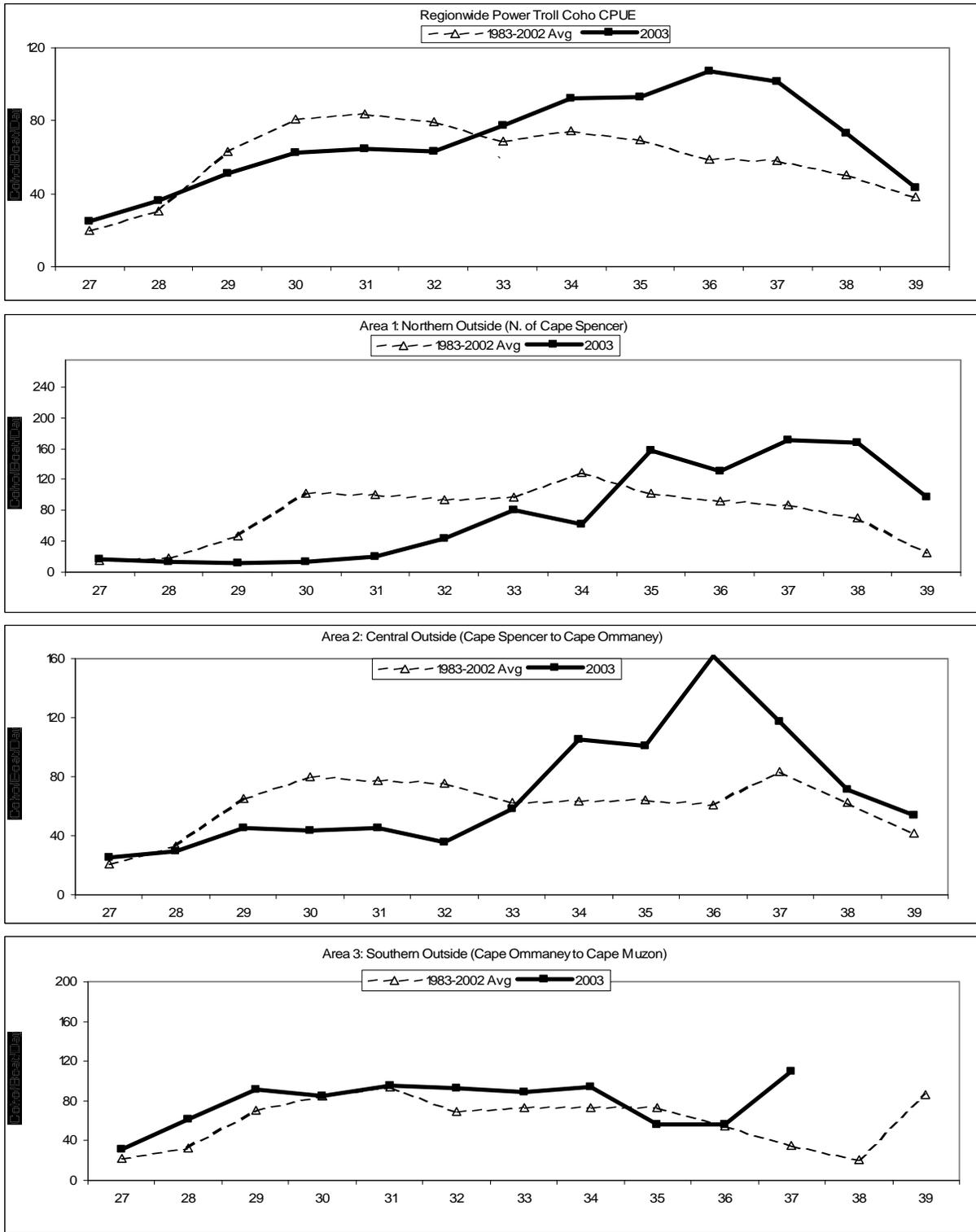


Figure 3.13. Average power troll coho salmon harvest per boat day for Southeast Alaska by area for 2003 and the 1982-2002 average.

-continued-

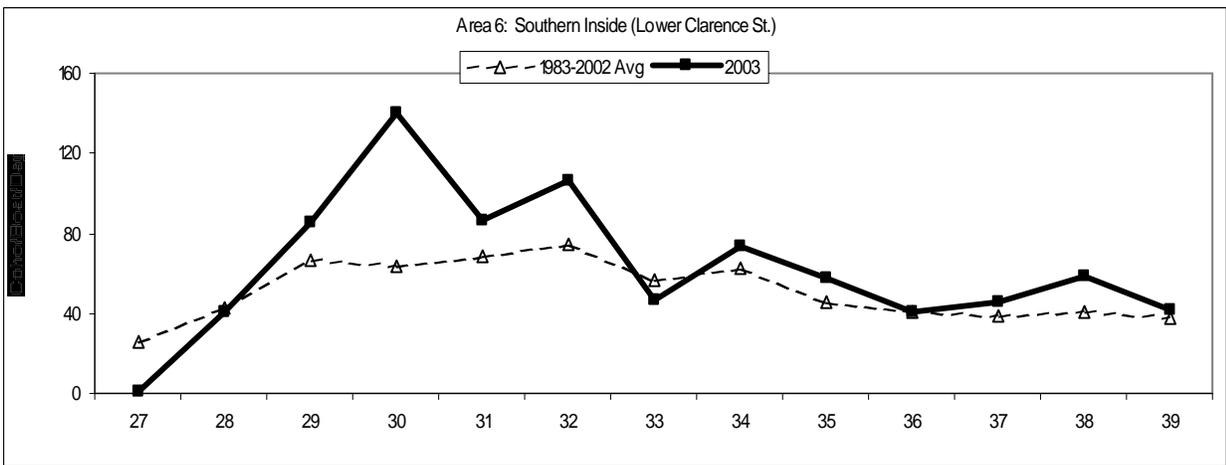
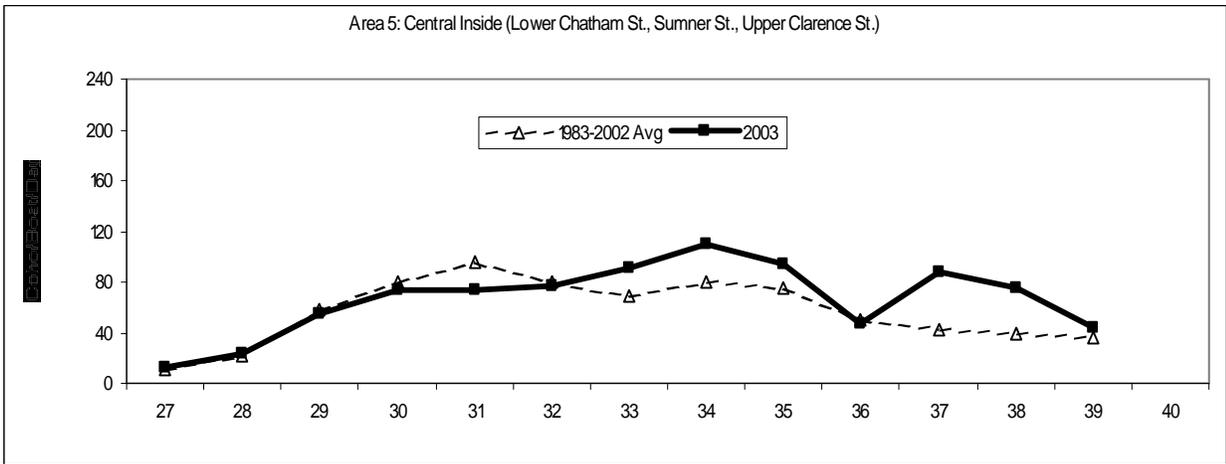
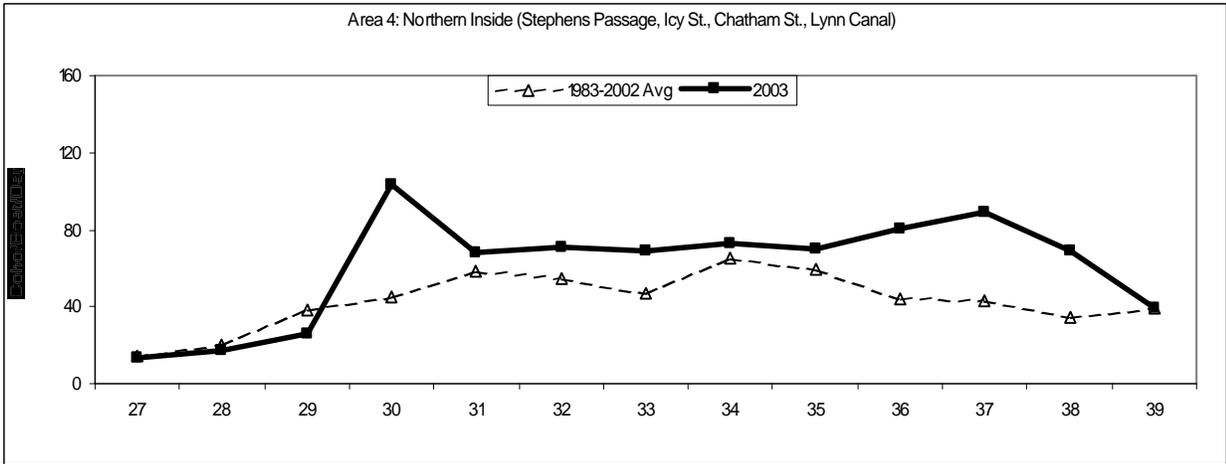


Figure 3.13. (page 2 of 2)

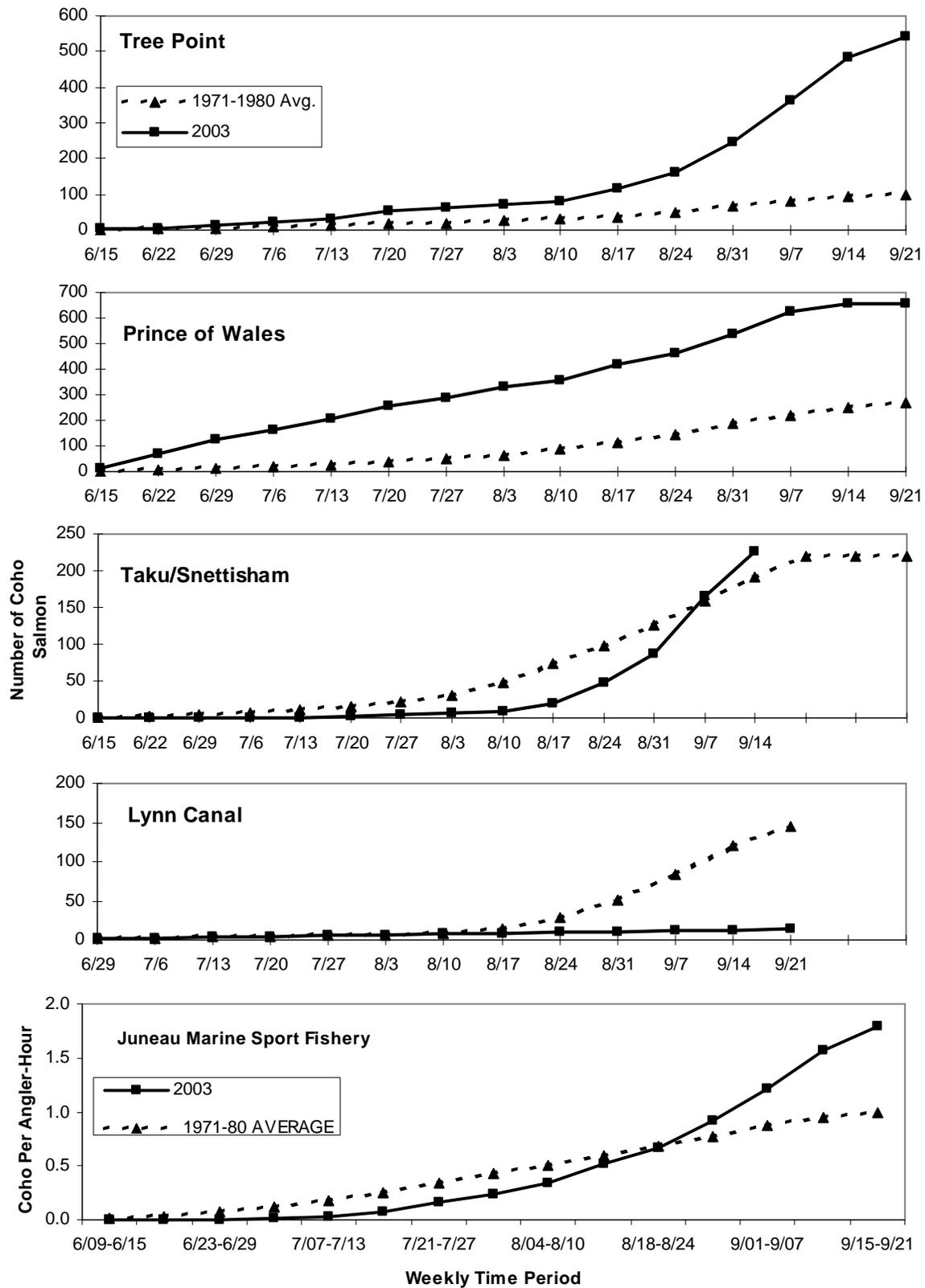


Figure 3.14. Cumulative coho salmon harvest per boat day for the four indicator drift gillnet fisheries and the Juneau marine sport fishery, 1971-80 Average and 2003 season.

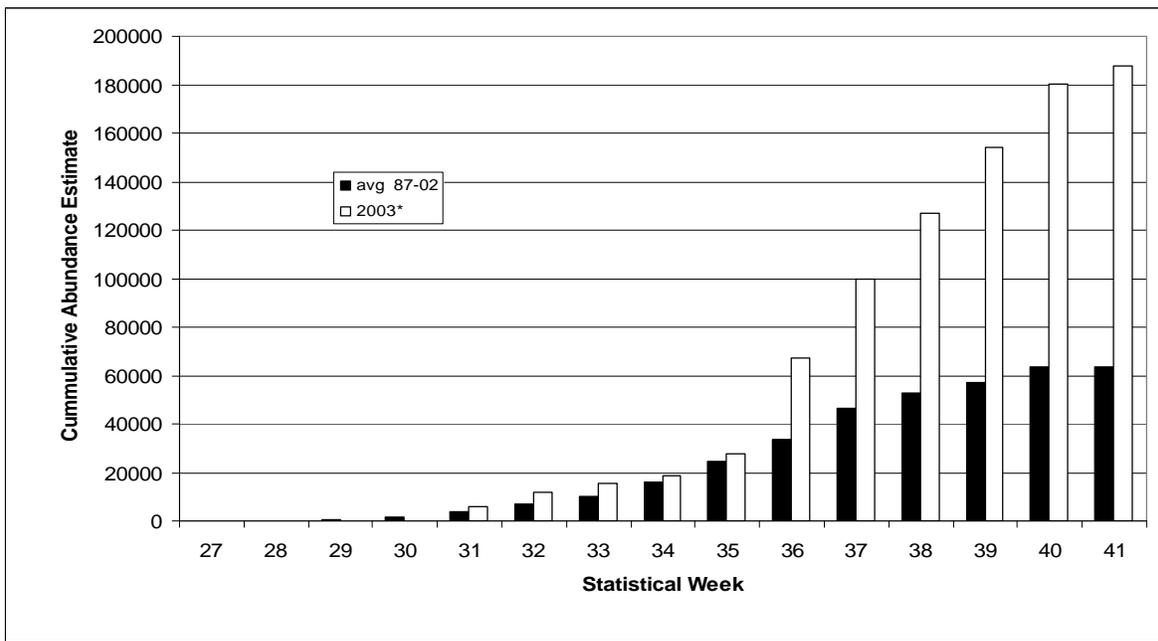


Figure 3.15. Cumulative mark-recapture abundance estimate for Taku River coho salmon from Canyon Island fish wheels, 2003 vs 1987-2002.

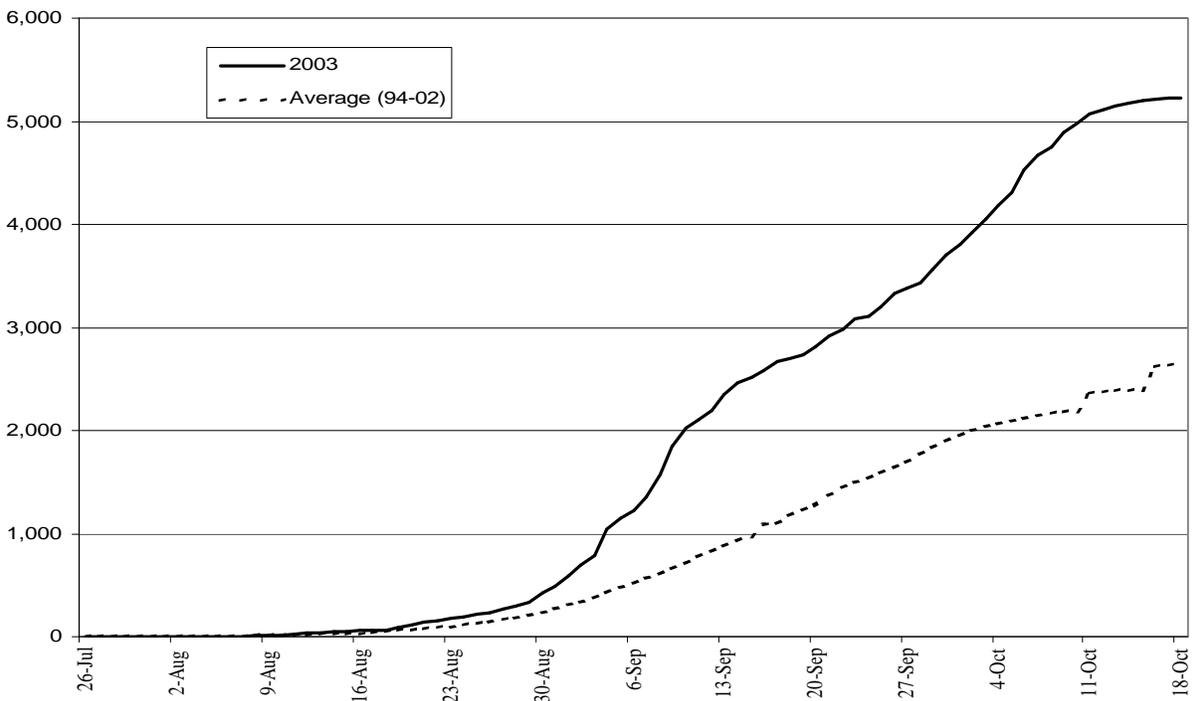


Figure 3.16. Cumulative weekly catch of coho salmon in the Chilkat River fish wheels, average 1994-2002, and 2003.

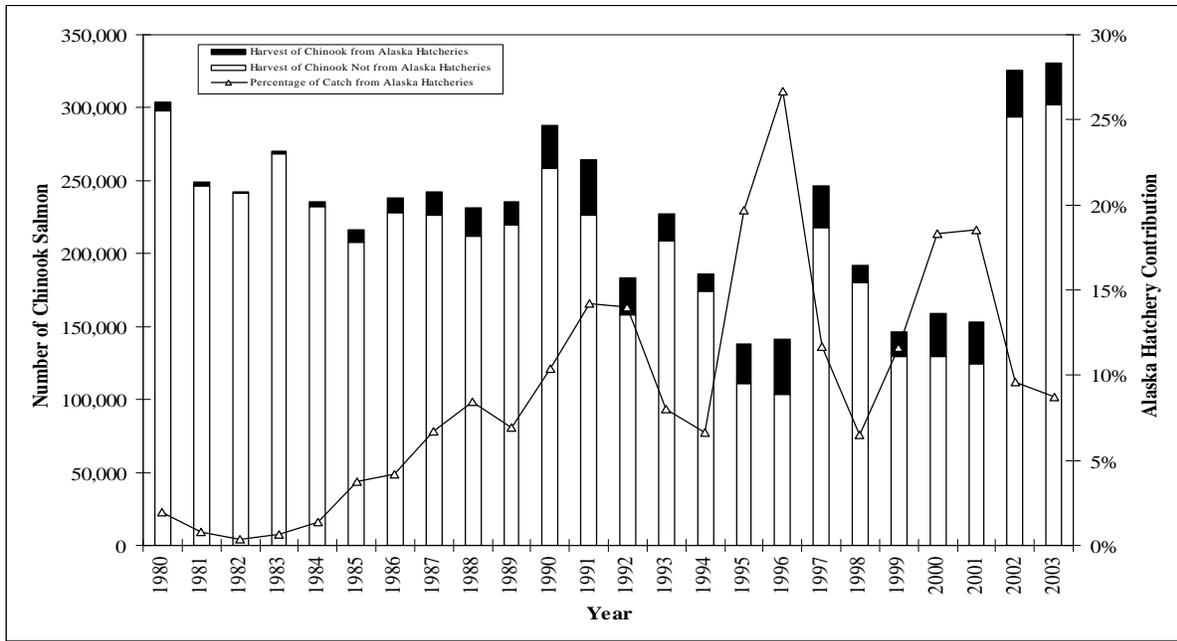


Figure 3.17. Alaska hatchery chinook salmon contributions to the Southeast Alaska troll fishery, 1980-2003.

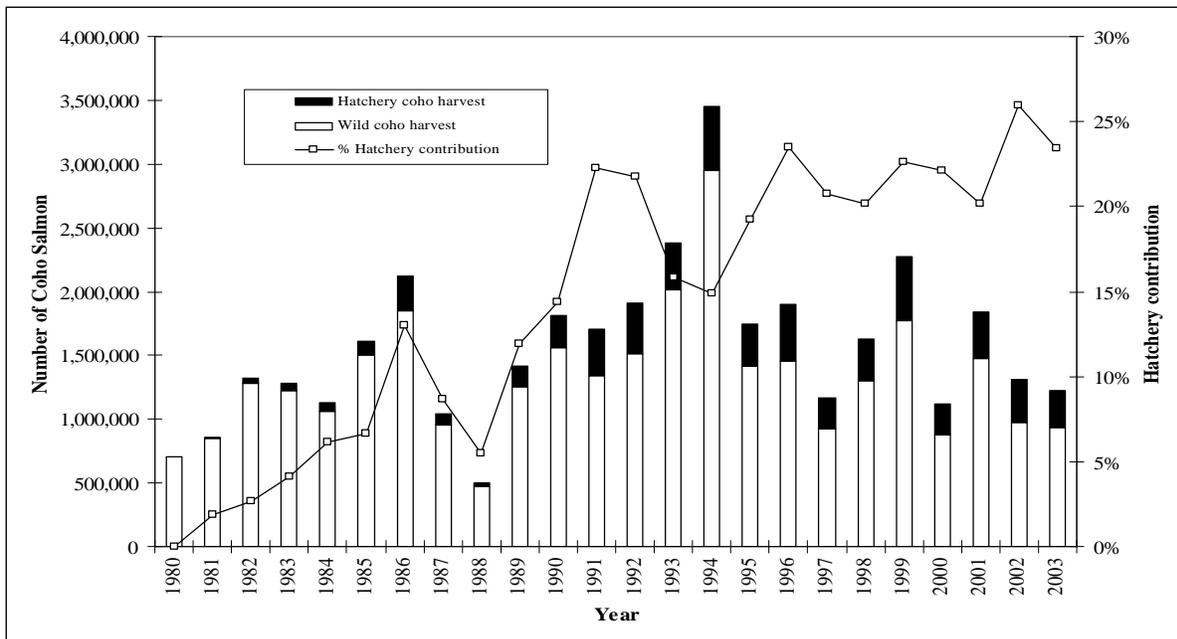


Figure 3.18. Hatchery contributions of coho salmon from all sources to the Southeast Alaska troll fishery, 1980-2003.

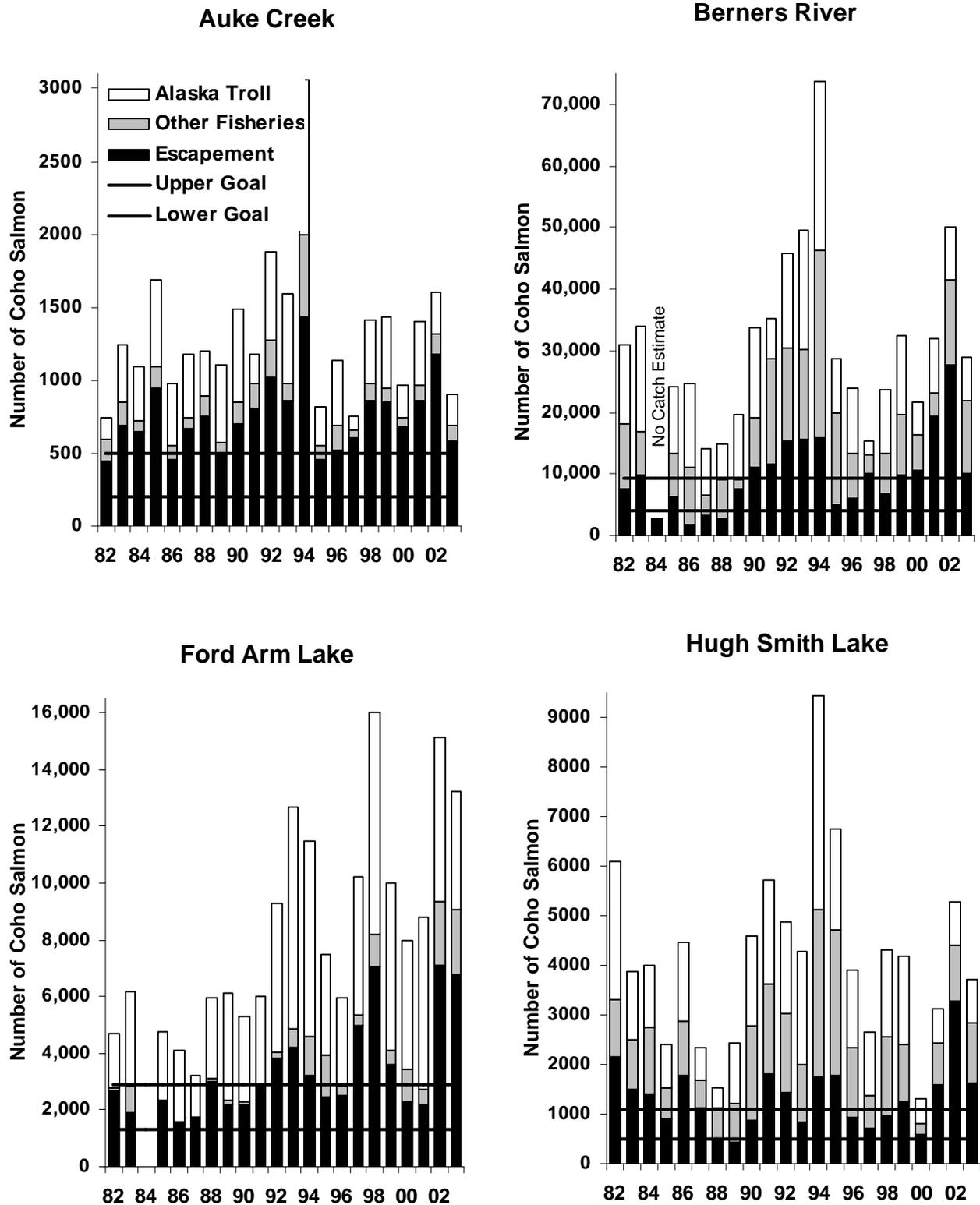


Figure 3.19. Total run size, harvest, escapement and biological escapement goal range for four wild Southeast Alaska coho salmon indicator stocks, 1982-2003.

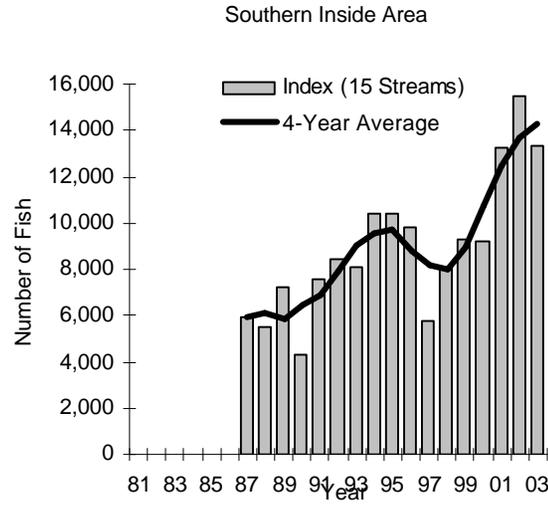
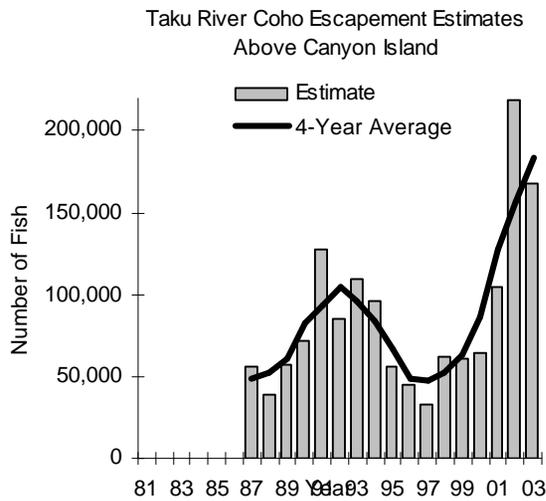
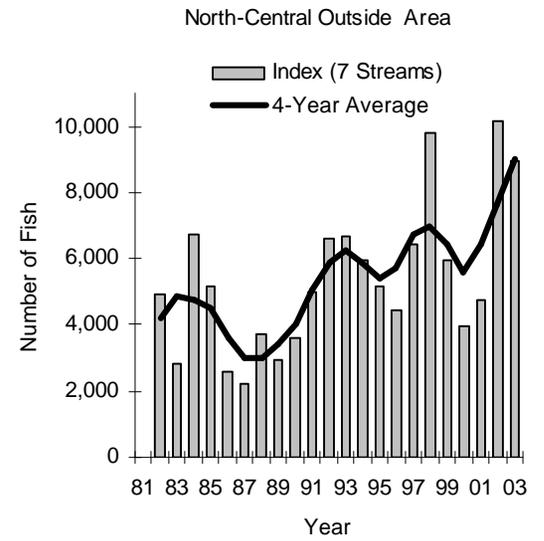
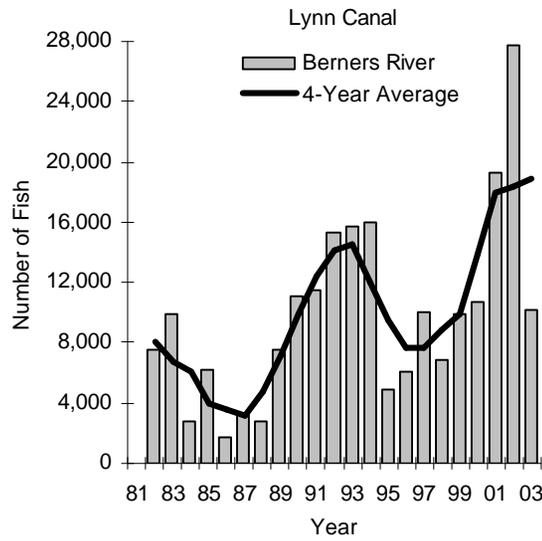
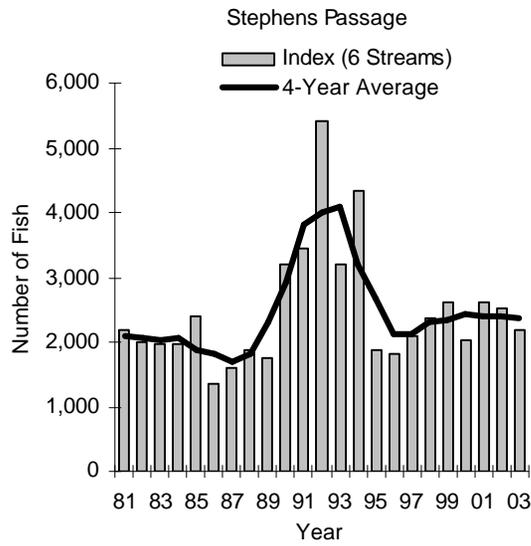


Figure 3.20. Coho salmon escapement counts and estimates in index streams in five areas of Southeast Alaska, 1981-2003.

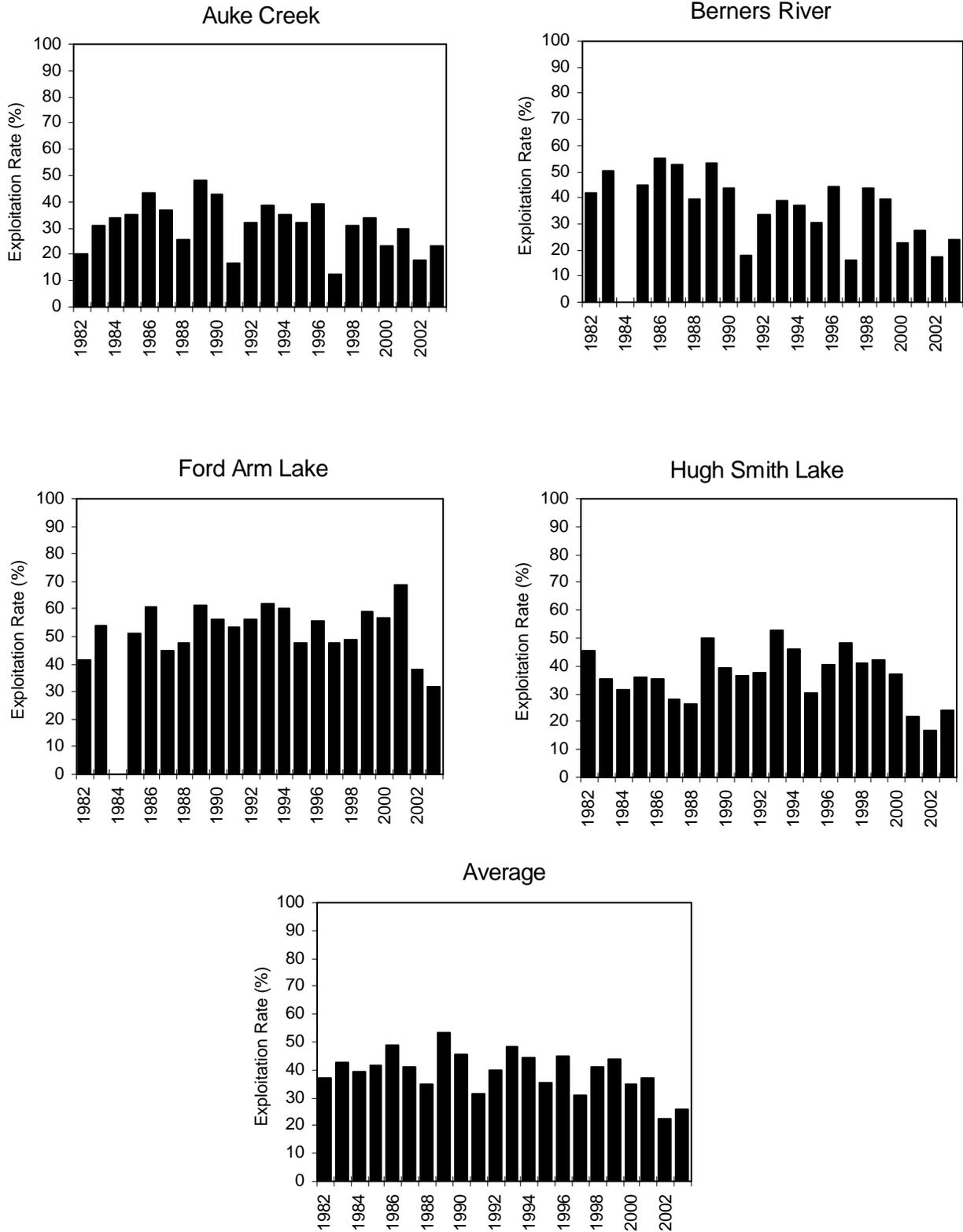


Figure 3.21. Estimated exploitation rates by the Alaskan troll fishery for four coded-wire tagged Southeast Alaska coho salmon stocks, 1982-2003.

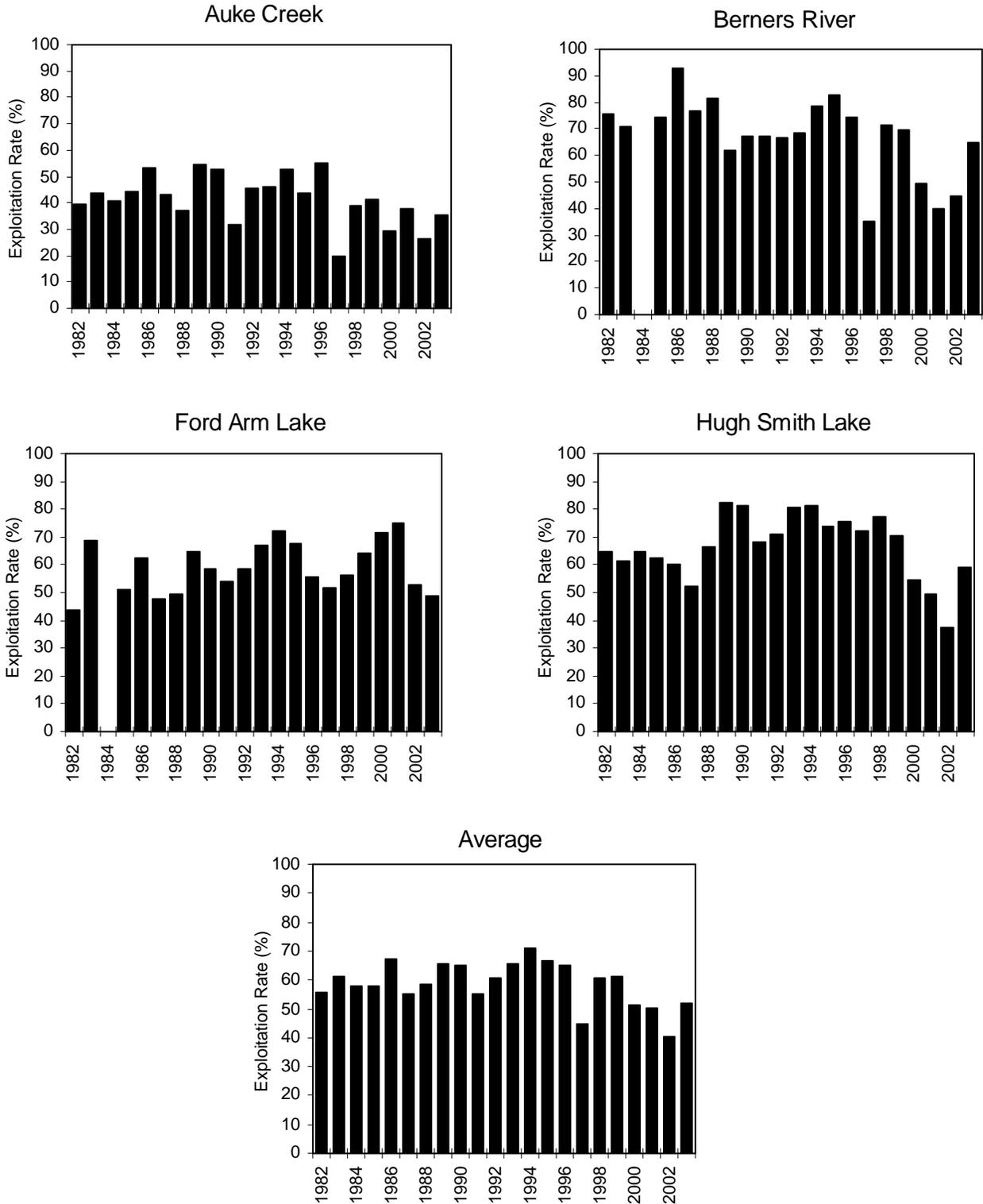


Figure 3.22. Estimated total exploitation rates by all fisheries for four coded-wire tagged Southeast Alaska coho salmon stocks, 1982-2003.