PACIFIC SALMON COMMISSION
NORTHERN BOUNDARY TECHNICAL
COMMITTEE REPORT

STATUS OF COHO SALMON STOCKS AND FISHERIES IN THE NORTHERN BOUNDARY AREA

REPORT TCNB (02)-3

July 2002

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EXECUTIVE SUMMARY

This report by the Northern Boundary Technical Committee (NBTC) includes a summary of information on coho salmon stocks and fisheries in the northern Boundary area of Southeast Alaska and northern British Columbia. The stocks, fisheries and management are described while catch and effort statistics are reported through 1998. The report also compares two independent agency assessments of the status of the stocks through 1998 and provides a brief update of trends in marine survival and abundance indicators through 2001. Finally, the report describes recent progress in stock assessment and some additional priorities as indicated in Attachment B of the 1999 Pacific Salmon Treaty which calls for joint development of biological escapement goals and methods of assessing the abundance of Nass and Skeena coho stocks inseason. Major conclusions of the assessment are:

- Northern boundary coho salmon stocks are widely distributed, are primarily of wild origin and are heavily dependent on the freshwater habitat in which they rear for one or two years. While urbanization, agriculture, transportation and mining have had substantial impacts in localized areas, logging in riparian habitat has been the most wide-spread human influence and is expected to lead to declines in smolt production from some systems in both regions for decades. However, much northern coho habitat remains in near-pristine condition.

- Management of coho salmon fisheries in both regions was relatively passive until the 1980s. Management approaches diverged sharply in the 1990s with conservation of upper Skeena coho stocks becoming the foremost priority in Canadian fisheries in 1998. Although several new management policy initiatives have recently been implemented in Canada, changes in Alaskan management have been relatively minor in comparison since the early 1980s.

- During the past three return years, marine survival has improved substantially from mid-1990s levels for coho stocks in northern British Columbia. An apparent shift occurred between 1998 and 1999 in which survival rates in the regions have re-converged after a period of 7-years when survival rates were consistently far higher in Southeast Alaska. Jack predictions for 2002 suggest that while survival of mainland stocks in both regions will be lower than the 3-year average, the relationship in survival between the regions will remain consistent with the recent trend. Preliminary smolt estimates associated with the 2002 return of three wild indicator stocks in the immediate boundary area have improved from recent low levels to near-average, suggesting that improved freshwater production in this area will help offset lower predicted marine survival.

- Improved survival rates and reduced exploitation rates in Canadian fisheries have resulted in escapements in the upper Skeena system during 1999-2001 that were substantially improved over parent years, and in some cases, exceptionally strong.

- Two independent agency reports differed on the status of some northern British Columbia stocks in the general technical areas of abundance trends and underlying causes, as well as current status, and appropriate targets for escapement and exploitation.

- Although Canadian conservation measures and improved marine survival have reduced the immediate urgency for resolution of these outstanding technical questions, recent improvements in assessment programs in both regions are expected to improve concurrence on stock status in future assessments, and to lead to common biological goals. A high priority should be placed on continued development of indicator stocks, including recently initiated projects in the upper

Skeena River, the upper Nass River, the Queen Charlotte Islands, central coast areas of British Columbia and in southern Southeast Alaska.

- Recent efforts to develop inseason abundance estimation capability for Nass and Skeena coho stocks using fishery performance and CWT based models (as per PST Attachment B) have yielded promising early results that have already been used in some domestic management plans. Continued development of indicator stock projects, particularly those that estimate smolt production before or during the fishing season, could improve the ability to establish and manage for biological escapement goals.

The following are key points in each section:

1) Description of the Stocks.

Most adult coho salmon in both regions are ages 3 and 4, having spent about 1½ to 2½ years in freshwater and the remaining 16 months or so in the ocean. The stocks are distributed among thousands of individual systems throughout both regions including small streams, lake systems, mainland river valleys and interior tributaries. Rearing coho salmon occupy a wide range of freshwater habitats and are particularly dependent on pools and off-channel areas such as sloughs, ponds and highly structured shoreline areas of lakes. The broadest threat to production of northern coho salmon stocks is clear-cut logging in riparian habitats. Loss of recruitment of dead old-growth timber into stream channels reduces pool habitat needed by coho salmon. Although regulations that protect riparian habitats have improved in both regions, many drainages that were logged under old practices are expected to decline in productivity for coho salmon for many decades. More localized habitat impacts have resulted from urbanization, mining, agriculture, construction of roads and railroads. While many northern coho systems have not been affected by these activities, roads, railroads and agriculture have been detrimental to coho rearing habitat in some drainages, particularly within parts of the Skeena watershed.

Fisheries within northern British Columbia and Southeast Alaska harvest primarily local coho salmon stocks from within the regions, while contributions by stocks in southern British Columbia and states in the Pacific Northwest have been relatively minor. Hatchery contributions have averaged about 20% of the harvest in Southeast Alaska and 7% of the harvest in northern British Columbia in recent years. Stock composition model results from 1987–1994 indicate that approximately 20% of the Southeast Alaska harvest, on average, is from northern British Columbia stocks with nearly all of the remainder contributed by Southeast Alaska and transboundary river stocks. Northern British Columbia catches have averaged about 93% Canadian origin with most of the remainder contributed from Southeast Alaska.

2) Fishery Management.

Commercial fisheries in Southeast Alaska and northern British Columbia were initiated late in the 19th century. Coho salmon lagged sockeye and pink salmon by at least two decades in development of active management programs and with few exceptions, coho salmon were managed passively until the mid-1970s or later in both regions.

The management objective for Southeast Alaska fisheries for coho salmon is to achieve maximum sustained yield from wild stocks. Hatchery contributions are identified in key fisheries inseason so that wild stock abundance can be independently evaluated from fishery performance. Since the early 1990s, management in Southeast Alaska has been increasingly focused on inseason run strength assessment for indicator stocks and achievement of biological escapement goals. While management still relies on aggregate fishery performance indicators, there has been a trend toward increasing use of direct inseason abundance estimates and escapement projections for wild indicator stocks based on coded-wire tag recoveries and smolt estimates. A secondary management objective for Southeast Alaska fisheries is achievement of a long-term commercial catch allocation objective established by the Alaska Board of Fisheries in 1989: 61% troll, 19% purse seine, 13% drift gillnet and 7% set gillnet. Coho salmon abundance is assessed throughout the season after July 1, with abundance-dependent provisions for an early region-wide troll closure in late July, a mid-August closure of up to 10 days and a 10 day extension of the troll season until September 30. There are also management provisions under the Pacific Salmon Treaty specifically for northern British Columbia stocks in the troll fishery in southern Southeast. Net fisheries are managed under weekly openings that are adjusted in both area and time depending on the run strength of coho salmon and other stocks.

Canadian salmon management policies have been extensively revamped in the last few years with implementation of several policy initiatives including: the Pacific Salmon Revitalization Strategy, specific conservation measures to protect and rebuild coho stocks in the upper Skeena and Thompson Rivers, the Coho Recovery Plan, the New Directions Policy, and An Allocation Framework for Pacific Salmon. Among other objectives, these initiatives have called for and provided funding toward: a 50% reduction in the number of boats in the fleet; an initial target of zero fishing mortality on coho stocks of concern; a precautionary (risk-averse) management approach with conservation as the primary objective; use of selective methods to harvest salmon; a priority for First Nations food, social and ceremonial requirements and treaty fisheries after conservation; an allocation priority for recreational allocation of coho and chinook salmon (after conservation and First Nations needs are met); an independent board to advise and assist in implementation of allocation policy; and a net gain in productive capacity of salmon habitat in British Columbia. The wild salmon policy initiative that is currently underway will be critical in shaping the Canadian management approach in future years. In addition, Canada is developing species at risk legislation that, when implemented, is expected to influence fisheries management.

3) Catch and Effort.

The trend in the commercial catch of coho salmon in Southeast Alaska shows prominent peaks in the 1940s–early 1950s and in the early to mid-1990s that bracket a period of consistently low catches during 1956–1981. In contrast, the catch in northern British Columbia followed a more stable long-term trend from the 1930s through the mid-1990s with a peak occurring in the 1960s when the average annual catch of 1.39 million fish exceeded the average catch in Southeast Alaska (1.14 million).

In Southeast Alaska, the troll fishery is the primary harvester of coho salmon and has accounted for 1.92 million coho salmon on average, or 62% of the commercial harvest during 1989–1998. Southeast Alaska troll effort in boat-days peaked at 59,200 boat days on average in the late-1970s and has since followed a steady declining trend to less than half of the peak level by 1998. Despite the decrease in fishing effort, the effectiveness of the troll fishery in exploiting Alaskan indicator stocks has remained relatively stable since the early 1980s. The seine fishery has the most stable long-term coho catch trend among the gear types in Southeast, while the drift gillnet catch more than tripled from the 1960s to the 1990s and the Yakutat setnet catch more than doubled. Driven largely by increased charter operations, the recreational

catch in Southeast Alaska increased more than the commercial catch in the 1990s and reached a 1994–1998 peak of 163,500 fish, on average, or 5.3% of the combined commercial-sport catch.

In northern British Columbia, the commercial catch declined to an average of 703,000 fish in 1990–1997 from 948,000 in the 1980s and became non-retention in 1998. The troll catch peaked at an average of 758,000 in the 1960s and declined to 531,000 in the 1990s. Troll fishery effort was relatively stable at 36,000 to 41,000 boat-days during the 1960s through 1970s, then increased in 1980 and has since steadily decreased to 1998. Northern British Columbia seine and gillnet effort steadily decreased from the 1960s to 1990s. Like Southeast Alaska, the sport coho harvest grew appreciably as the result of an influx of lodge and charter operations, increasing from 2.5% of the total ocean harvest in the 1980s to 7% in the 1990s.

4) Independent Reports on Stock Status.

Independent reports on the status of northern boundary coho stocks by Holtby (1999) and Shaul and Van Alen (2001) were compared and some suggestions made for programs that would help resolve differences. Several new stock assessment projects have already been initiated since the independent assessments were made. The reports came to substantially different conclusions in four areas: 1) abundance trend indicated by the Tyee test fishery index; 2) nature and cause of the decline in the Babine stock; 3) interpretation of low juvenile and spawner density estimates in the upper Skeena drainage; and 4) analysis of visual estimates.

The primary technical question in interpretation of the Tyee test fishery is whether or not to adjust the coho index for estimated changes in efficiency for sockeye salmon. Resolution of this question is important because the unadjusted index shows a relatively steady decline in aggregate early coho escapement to the Skeena system from the early 1970s through the mid-1990s while the adjusted index follows a stable trend during the same period. Both reports compare the Tyee index with the Babine coho escapement, but come to different conclusions about appropriateness of the sockeye adjustment based on comparisons made over different periods. Uncertainty over interpretation of the early Tyee test fishery index points to the need for improved direct measures of escapement within the upper Skeena system.

Both reports conclude that the Babine stock underwent a major decline in total abundance after 1978, but the reports differ in their characterization of the decline and its probable cause. Escapement numbers used were very close, but reconstructed exploitation rates and catches used to analyze population trends and spawner-recruit relationships differed. Shaul and Van Alen describe a very abrupt (stepped) decline in total run size of 66%, similar to the pattern observed in escapement, while Holtby describes a less severe but more protracted decline in total abundance of 11% per generation from 1970–1998. Shaul and Van Alen describe evidence in the spawner-recruit data of an abrupt decrease in carrying capacity during the 1976–1978 brood years that they speculate was related to the ecological effects of Babine sockeye enhancement. On the other hand, Holtby describes the decline as an ongoing process that is associated with increased exploitation rates, and concludes that excessive exploitation is the probable cause. Improved information on the distribution of spawners and juveniles within the Babine system would help shed light on some the varying hypotheses for the decline, as would further joint review exploitation rate reconstructions and more recent stock information. Recent extreme escapements that have varied up to 47 fold will provide a useful test of both the intrinsic productivity and carrying capacity of the stock.

Density estimates for juvenile coho salmon sampled in habitats in the upper Skeena drainage have been consistently low compared with levels that are considered by DFO to be indicative of full seeding, based on studies of coastal streams in southern British Columbia (0.75–2 juveniles/m^2). Holtby (1999) considered low densities in the upper Skeena to be evidence that spawning escapements were inadequate to fill available rearing habitat. However, Shaul and Van Alen presented an alternative hypothesis that low densities are typical of lower habitat capability in interior systems. Authors of both reports found that juvenile density estimates were poorly correlated with escapement measurements and agreed that density estimates are difficult to interpret. More extensive indicator stock work appears to provide the best potential to resolve these questions. Direct estimates of spawning escapement and resultant smolt production are needed to resolve questions about the adequacy of spawning escapements in the upper Skeena and the carrying capacity of interior coho habitats relative to coastal streams.

Finally, the authors differed in their use and interpretation of visual estimates of spawning escapement. Shaul and Van Alen put very little weight on the visual estimates. They stated that representative coho escapement estimates from visual counts are difficult to obtain in remote northern coastal systems and are typically of questionable quality. On the other hand, Holtby analyzed trends in the visual estimates and used them as the basis for spawner-recruit relationships. He reported that some stocks, most notably those in Central Coast Area 6 had declined in escapement over the long-term and were chronically well below MSY, while some more northern stocks in Southeast Alaska and Canadian Area 3 were above MSY. Shaul and Van Alen stated concerns that spawner-recruit relationships substantially under-estimate productivity and over-estimate carrying capacity when the time series includes shifts in environmental factors or estimation efficiency. They concluded that the Area 6 data set was likely subject to such errors.

The technical issues surrounding the visual estimates revolve around the following question: when is data good enough to be used and relied upon? It is agreed that serious questions exist about the reliability of the visual estimates for northern coho stocks, but in some areas like the central coast and Queen Charlotte Islands they comprise the only available data source with which to make any assessment. On one hand, the Alaskan authors gave the visual escapement data weighting in proportion to their perception of its dependability as an indicator of stock status. On the other hand, DFO's precautionary management policy mandates that in the face of uncertainty, a declining indicator like the visual escapement estimates for Area 6 be taken at face value with reduced exploitation being perhaps the only controllable remedy. Technical needs to improve resolution and agreement on the status of central coast stocks include establishment of full indicator stocks and development of more systematic and better-documented visual surveys. Some new stock assessment programs to address these needs are underway.

5) Stock Status Update.

The report provides a very brief update of some of the primary survival and abundance indicators for northern boundary coho stocks. Marine survival rates entered a period of extreme divergence during 1992–1998, with marine survival indicators in northern British Columbia being consistently a small fraction of Southeast Alaska rates. However, during 1999–2001, survival of northern British Columbia indicator stocks has improved substantially by one-third to up to two-fold while key Southeast Alaska stocks have survived at lower average rates that were one-fourth to one-third below the 1992–1998 average.

Wild stock returns to Southeast Alaska in 1999–2001 have continued at levels comparable with the average for the 1980s and 1990s, and escapement goals were consistently met or exceeded. In northern British Columbia, improved marine survival rates combined with conservation measures in Canadian

fisheries have resulted in substantial increases in escapement over brood-year levels, with remarkably strong escapements at or near the highest recorded levels observed in some systems.

Jack indicators suggest that the post-1998 pattern of re-convergence in marine survival between the regions will persist in 2002. Marine survival for the Lachmach River in Canadian Area 3 is predicted to be between 9–10% compared with 9–11% for the Taku and Berners Rivers in northern Southeast Alaska. Survival rates in both areas are predicted to be down from 1999–2001 average rates, but while the Lachmach prediction is close to the 1989–2001 average, Alaskan mainland survival rates are predicted to be substantially below longer-term averages. Jack indicators predict considerably higher survival rates on the outer coast of Southeast Alaska compared with inside mainland systems in 2002.

Smolt production associated with the 2002 return has improved to about average abundance for three wild indicators in the immediate boundary area (Hugh Smith Lake, Zolzap Creek, and Lachmach River), up from record lows in the 1999 smolt year (2000 return). Improved freshwater production is expected to help offset lower forecast marine survival rates for mainland stocks in 2002. The total adult return to Lachmach River is predicted to be close to average at 2,800 fish, while the return to Hugh Smith Lake will likely be substantially below average but within the escapement goal range, assuming an average exploitation rate.

6) Stock Assessment Progress and Needs.

The highest priority need for new coho salmon stock assessment projects in the northern Boundary Area is establishment of additional wild indicator stocks. Substantial progress has been made toward that goal in both regions. In Southeast Alaska, new projects have been established in the Unuk River on the mainland north of Ketchikan and on Chuck Creek on the southern outside coast. In central and northern Southeast, projects have been initiated on Slippery Creek on Kuiu Island and the Nakwasina River near Sitka. In northern British Columbia new projects have been initiated on the Slamgeesh River (upper Skeena), Kwinageese (upper Nass), on two systems on the central coast (West Arm Creek and Martin River), and on the Queen Charlotte Islands (Deena River).

Estimation of total production (smolts and adults) from these and more established indicator stocks over several years at varying levels of escapement will provide the information needed to establish biologically based escapement goals, which can then serve as management objectives. Coded-wire tagging and smolt estimation are important elements of this process that also provide real-time information on stock abundance in support of inseason management. The central coast projects in particular will provide missing and urgently needed information on marine survival, exploitation rates and stock productivity for an area where there has been a long-term decline in visual escapement estimates.

Further work is needed to broaden systematic escapement estimation programs beyond the indicator stocks that form the core assessment program. Substantial recent progress has been made with annual mark-recapture estimation on some major systems including the Nass River and the Bulkley-Morice drainage in the upper Skeena system. In addition, work has been initiated in Canada to intensify and standardize escapement survey programs.

In addition to improvement of basic stock assessment programs, efforts have been made to develop inseason stock assessment capability for Nass and Skeena coho stocks as indicated in the 1999 PST agreement. Aggregate abundance indicators based on catch-per-unit-effort have proven useful as predictors of abundance of a number of stocks in Southeast Alaska and northern British Columbia. Troll

and gillnet fishery performance in the areas adjacent to Dixon Entrance are available early in the season and have been closely correlated with abundance of specific upper Skeena indicators. In addition, the cumulative recovery rate of coded-wire tags (as a percentage of tagged smolts released) has proven to provide useful inseason estimates of marine survival of specific stocks in the Nass, Skeena and Lachmach Rivers as well as several Southeast Alaska systems. We anticipate that inseason stock assessment capability based on coded-wire tags will be expanded to new indicator stocks as they are developed. While coded-wire tag recoveries provide useful inseason survival estimates, accurate real-time smolt estimates for more indicator stocks would improve inseason estimation of total abundance.

1 INTRODUCTION

In February 1996, the PSC Northern Panel requested that the Northern Boundary Technical Committee (NBTC) "review all relevant information on the status of coho stocks and fisheries within the Northern Boundary Area." Since the assignment, production of this report has been an ongoing process with extensive analysis and the production of a series of agency reports.

In 1997–1998, the Canada Department of Fisheries and Oceans and the Alaska Department of Fish and Game produced reports about the status of upper Skeena stocks (Holtby and Finnegan 1997, Shaul et al. 1998).

These have more recently been followed by additional independent reports on the status of and forecasts for northern boundary coho stocks (Status Reports: Holtby 1999, Holtby et al. 1999, Shaul and Van Alen 2001, Forecasts: Holtby et al. 1999b, Holtby et al. 2000, and Holtby and Finnegan 2001). This report, produced jointly by the parties, contains a summary and contrast of the two recent agency reports, describes the stocks, and reviews the status of coho fisheries and their management in the northern boundary area. The fishery and management information and stock descriptions are an update of the last joint review (Joint Coho Technical Committee 1991). We also provide a brief joint update of information on the status of the stocks, and a summary of progress toward abundance-based management as per the June 1999 PST agreement (Attachment B).

2 DESCRIPTION OF THE STOCKS

2.1 Southeast Alaska and Transboundary River Stocks Life History Summary

Southeast Alaska and the transboundary rivers provide excellent habitat for coho salmon, a species often associated with small coastal streams. High precipitation and a vast, convoluted shoreline provide flow and drainage for the almost 3,000 principle salmon-producing streams currently known in the region (Figure A1). Coho salmon spawn or rear in most of these streams. Side-channel, beaver pond, slough, and tributary areas are preferred rearing habitat for coho, especially in the larger mainland rivers (Murphy and Koski 1989).

The production of many small to medium streams is often well below 1,000 adults, but collectively they represent a substantial portion of the overall production. Lake systems are also important, and each lake typically produces total runs of 1,000 to 8,000 fish. Large stocks occur in the larger mainland rivers including the Taku, Chilkat, Berners, Stikine, Unuk, and Chickamin Rivers and in most systems along the Yakutat forelands. In addition to wild production, Southeast Alaska hatcheries have contributed about 20% of the harvest in recent years.

Most coho salmon rear in freshwater for 1 or 2 years (sometimes 3 years or more) and in the ocean for 16 – 18 months. Jacks return after only one summer in the ocean. The homeward migration of Southeast Alaska and transboundary river coho salmon from the Gulf of Alaska takes a northwest to southeast routing. Thus, southern inside stocks are exposed to several fisheries along a broad area of coast from Yakutat southward whereas stocks returning to northern inside waters are harvested primarily in local northern areas. Some stocks, have a more localized coastal migration pattern than others. For example, stocks on the outer coast of Prince of Wales Island and adjacent smaller islands remain primarily in local southern outside districts during the fishing season while a large portion of the harvest of southern inside stocks occurs along the outer coast of northern Southeast (Shaul et al. 1985).

Coho salmon enter outer coastal fishing areas in large numbers in late-June and early-July while large numbers from some of the later stocks continue to arrive in outside trolling districts through mid-September. Maturing coho salmon return to their natal streams primarily from mid-August to mid-October. Most spawning occurs in October and November, although some stocks have been observed spawning in late winter. Although the vast majority of Southeast Alaska and transboundary river coho production is from fall stocks, there are a number of summer stocks in the region that enter streams from late June through mid-August. These early stocks, of which several have been identified, appear to be associated primarily with lake systems with partial barriers to migration. Distinct early-run stocks also occur in some interior tributaries of the Taku River, including in particular the Nahlin River.

2.1.1 Stock Groups

Southeast Alaska and transboundary river coho salmon stocks are grouped into seven aggregates (plus the Taku River which falls within the Stephens Passage area), based primarily on geographic location and harvest patterns and distributions (Figure A2). The purpose of these groupings is to establish a logical way of aggregating stocks in the region for management and stock assessment purposes. The primary characteristics that were considered in establishing stock group boundaries were migration patterns and harvest distributions by area and gear type. Also considered were total exploitation rates and primary types of producing systems.

The Central Inside, Southern Outside, and Southern Inside stock groups are closest to the boundary. The Central Inside stock group includes island and mainland systems in central Southeast Alaska. Included are a variety of types of systems from small streams to lake systems and large, glacial mainland rivers including the transboundary Stikine River. The Crystal Lake Hatchery has supplemented wild coho salmon production in this area since the late 1970s. Substantial releases also occur at Earl West Cove and Anita Bay near Wrangell, while Neck Lake on northern Prince of Wales Island has recently been used to rear summer coho broodstock, with the first returns in 1998 totaling over 100,000 fish. Typically, about 70–80% of the harvest of central inside stocks has occurred in the troll fishery while lesser catches have occurred in the drift gillnet fishery in Districts 106 and 108. Purse seine catches account for only about 5% of the total.

The Southern Outside stock group includes the outer coast of Prince of Wales Island and several smaller islands. All of the production in this area occurs in small-medium size island systems. Three of the larger producers include the Sarkar Lake system, Klawock Lake and Staney Creek. Many streams in this area originate in limestone karsts and, therefore, tend to provide highly productive aquatic habitats compared with similar streams that drain from other geological areas. In addition to wild stocks, the Klawock hatchery has a relatively stable coho production program. Southern outside stocks are relatively localized in their coastal migration pattern and are harvested primarily by outside troll and purse seine fisheries in local waters of Districts 103 and 104.

The Southern Inside stock group consists of drainages into Clarence Strait, Behm Canal and Portland Canal. Production is widely distributed among mainland and island systems and small to large producing systems. There are a number of major coho salmon producers on the mainland of which two of the largest are the Unuk and Chickamin Rivers. Many substantial runs also occur on the eastern portion of Prince of Wales Island including Thorne, Karta and Harris Rivers. Very early stocks are known to occur in a few systems including Reflection Lake and the Karta River. Combined returns to hatchery facilities in the Ketchikan area including Neets Bay, Whitman Lake, Tamgas Creek and Deer Mountain usually amount to well over 100,000 fish annually. The harvest of southern inside stocks is distributed over a broad area from Yakutat to northern British Columbia and several gear types including troll, purse seine, drift gillnet, and sport. Early stocks are harvested primarily by net fisheries, while the troll fishery takes the largest proportion of the catch of late stocks.

The North-Central stock group is comprised primarily of small to medium stream and lake systems on the islands of central and northern Southeast. These stocks are usually harvested at modest rates by the troll fishery in northern Southeast, with additional small purse seine and sport harvests but no significant terminal fisheries. Three hatchery facilities in this area produce substantial numbers of coho salmon.

The Lynn Canal and Stephens Passage areas are defined primarily by two fall gillnet fisheries in Districts 115 and 111, respectively (Figure A3), that target coho runs to large mainland systems within the respective areas. Major coho runs in these areas (Taku, Chilkat and Berners Rivers) are usually harvested at higher rates than North-Central stocks and are actively managed in their respective gillnet fisheries. Substantial coho production occurs at the Ladd McCauley Hatchery in Juneau.

Coho salmon production in the Yakutat area is comprised primarily of medium to large mainland producers featuring broad wetland areas. The more important producers are fished in terminal set gillnet fisheries. The Alsek River, a large transboundary system, hosts a modest overall coho run originating in the coastal plain and interior tributaries in Canada. The two most important Yakutat systems are the Situk-Ahrnklin and Tsiu-Tsivat systems that, while modest in physical size, are very large coho producers with documented runs exceeding 100,000 to 200,000 fish. In addition to terminal fisheries, Yakutat stocks are exposed to moderate troll effort along the adjacent coast but are largely unavailable in other major trolling areas around Cross Sound and southward. There is no hatchery production in the Yakutat area.

2.1.2 Catch Compositions

The majority of the coho salmon harvested in Southeast Alaska are wild stocks. However, hatchery contributions to Southeast Alaska commercial fisheries have averaged 563,000 fish or 18% of the catch during 1994–1998 (Figure A4 and Table A1). Most (98.1%) of these hatchery coho salmon originated from Alaskan facilities while 1.6% and 0.3%, respectively, were contributed by hatcheries in British Columbia and Washington. Trace numbers of fish from Oregon hatcheries have been evident in some years. Nearly all Alaskan releases are represented by coded wire tags, so direct estimates of contributions can be made. Coho salmon releases have remained relatively constant in recent years while annual returns are strongly influenced by ocean survivals. There are about 20 release sites for enhanced coho salmon distributed throughout the region. Hatchery fish comprise a greater proportion of the harvest late in the season and in southern inside waters.

Model estimates indicate that roughly 80% of the coho salmon harvested in Southeast Alaska originate from Alaskan streams, the transboundary rivers, and Alaskan hatcheries; the remainder originate primarily from coastal streams in northern British Columbia (Joint Coho Technical Committee 1994). Very small numbers originate from southern B.C. and Washington. Northern B.C. coho salmon stocks are most concentrated in the catch in inside waters south of Ketchikan in July and early August but are present throughout most trolling areas in the region until mid-September.

2.1.3 Habitat Quality

Overall habitat production capability for coho salmon in Southeast Alaska is probably less productive than it was during the previous period of peak abundance that ended in the mid-1950s. A large proportion of the coho salmon habitat in Southeast Alaska and the transboundary rivers remains in pristine condition. However, some streams have been heavily impacted by clear-cut logging, currently the largest single threat to the productivity of coho salmon habitat in the region.

A large-scale timber industry that was initiated in the 1950s has removed extensive areas of forest in some watersheds, particularly in southern Southeast. Many of the net effects of clear-cut logging on Southeast Alaska salmon populations through temperature and flow changes and sedimentation are largely unknown because of a lack of adequate research. However, the presence of large organic debris which is known to be very important to coho salmon production has been reduced in some systems and, regardless of future forest practices, will likely be further reduced in systems where trees have been cut near the banks or blown down because of adjacent cutting. Regulations are currently in place that provide a minimum recommended level of protection for streamside timber buffers (100 foot no-cut zone; Murphy and Koski 1989) on Tongass National Forest Lands and 66% of the recommended minimum on private land.

While protection standards for streams have increased substantially in the most recent Tongass Land Management Plan, the majority of private timber in the region has already been harvested. Therefore, the rate of new impacts on habitat is currently low. However, habitat degradation from past streamside logging is an ongoing concern, as woody debris levels and pool-to-riffle ratios, critical features of coho habitat (Murphy and Koski 1989), are expected to decline for decades after photosynthesis is again reduced by a dense new canopy. Therefore, annual coho smolt production losses as the result of historical timber harvesting practices will likely take many decades to become fully manifested.

Aside from forestry, most of the problems associated with stream degradation in Washington, Oregon, and California (dams, grazing, diversion, roading, flood control and urbanization) have been absent or very minor factors in Southeast Alaska. Federal and state protections in planning of development, combined with increasing public awareness of the needs of salmon, should insure that losses to these factors are minimal in the foreseeable future. Off-channel wetlands, which are extremely important to coho salmon production in major mainland river systems, are in near-pristine condition.

2.1.4 Hatchery Production

A variety of techniques have been used to enhance coho salmon production in Southeast Alaska. These include improving access to spawning and rearing habitat, stocking fry in lakes with barrier falls, construction of spawning channels, improving rearing habitat structure, and raising smolts in hatchery facilities.

Significant enhancement programs by 13 hatcheries located throughout Southeast Alaska for coho salmon began in the late 1970s and expanded rapidly in the early 1980s. Contributions to the region's common property commercial fisheries increased dramatically from 4,500 fish in 1980 to an estimated 383,000 fish in 1986 (Table A1). Contributions declined in the following two years, probably because of low marine survival, before increasing again. During the most recent five-year period (1994–1998), Alaska hatcheries contributed an average of 551,800 coho salmon (range 323,600–713,300) or 17.8% (range 12.9–20.5%) of the commercial catch. During the same period, contributions to Southeast Alaska fisheries by hatcheries in British Columbia showed a similar trend but at a much lower level, averaging 9,800 fish (range 3,200–17,600) or 0.3% (range 0.2–0.4%) of the commercial catch during 1994–1998.

Overall, Alaskan facilities accounted for an average of 98.2% of the total hatchery contribution to Southeast Alaska common property fisheries during 1994–1998 while British Columbia and Washington facilities contributed 1.6% and 0.2%, respectively. Oregon hatcheries have contributed only trace numbers in a few years.

Southeast Alaska hatchery production currently originates almost entirely from private non-profit facilities. Smolt production increased in the 1990s primarily as a result of increased coho salmon releases by hatchery facilities in northern Southeast. Current industry plans suggest that smolt releases will remain relatively stable in the near future while returns and fishery contributions will be influenced primarily by marine survival.

The effect of hatchery production on the health of nearby wild stocks through disease and domestication remains a concern, although little information on these factors is available to guide policy. For the most part, hatcheries have been sited in locations away from major wild stock systems.

Coded-wire tagging of hatchery releases and sampling of fishery harvests is expected to continue as the primary technique used to evaluate enhancement programs and to distinguish wild and hatchery contributions to the fisheries. This should provide an adequate means to manage the fisheries for wild stocks, provided that adequate tagging, sampling, and tag processing rates are maintained.

2.2 Northern British Columbia Stocks

2.2.1 Life History Summary

The freshwater rearing phase is a very significant portion of coho life history with coho juveniles spending between one and three years in freshwater. Juvenile coho exhibit a definite preference for low gradient habitats with low water velocities and an abundance of cover, and inhabit streams, side channels, lakes and beaver ponds. Quite often, this habitat provides cover in the form of undercut banks, over-vegetated side channels and deep pools with large woody debris. In many cases beaver ponds provide stable, sheltered habitat, although juvenile access is sometimes limited. Juvenile coho also occur in large rivers in marginal sloughs and backwaters. In lakes, coho inhabit the near-shore and littoral zone and are seldom encountered in the open water. Juveniles are aggressive and territorial and are often vibrantly coloured with orange fins edged in black and white.

Coho smolts migrate to the ocean from late April to mid-June. In saltwater, juvenile coho migrate north and west along the coast, eventually moving into the north Pacific for the fall and winter. The reverse migration occurs in the spring with a migration eastward to the coast and then southward back to their streams of origin. Coho originating in northern British Columbia are harvested in Southeast Alaska and northern British Columbia, and rarely occur in any southern British Columbia fisheries. Coho arrive along the British Columbia coast from late June through September. Female coho and most males spend about 16 months at sea. A small proportion of the males may return after only one summer at sea and are referred to as “jacks”. In the ocean, coho initially feed on euphausiids and other plankton. Squid, herring, sand lance and other small fishes are included in the diet as the coho grow. Most northern British Columbia coho migrate into freshwater from mid-July through October, with coho bound for the interior portions of large rivers returning first. Spawning occurs from October through January.

2.2.2 Stock Groups

Northern British Columbia coho stock aggregates are grouped by geographical regions, broken down further by statistical areas and further partitioned into smaller production units in areas of concern like the Skeena. The basis for this partitioning includes considerations of geography, migration patterns and productivity.

The Canadian Department of Fisheries and Oceans is currently developing policy on defining the assessment units for the conservation of wild coho salmon in the Pacific Region (Wood 1998; Wood and Holtby 1998). The draft objective for wild coho conservation is, "to take the necessary actions to maintain the present geographic distribution of coho spawning sites and to maintain the present diversity of coho morphology and behaviour". The strategy for implementation will include protection of the quality and diversity of habitat utilised by coho (including access to it) and conservation of genetic diversity by maintaining adequate spawning escapements to all reproductively isolated coho populations. The strategy to conserve the genetic diversity of coho should maintain the viability of partially-isolated populations to preserve the fullest possible variety of genetic adaptations; maintain adequate spawning abundance within populations to prevent inbreeding depression and the random loss of genetic variation; and minimise the adverse impacts of hatchery supplementation through careful selection of enhancement sites and activities, and strict adherence to guidelines and protocol for artificial propagation. It is proposed that limit reference points (LRP) be used to explicitly limit the compromise between maximising total harvest from mixed stock fisheries and conserving biological diversity. The LRP specifies a floor below which deviations from the target spawning escapements are no longer acceptable. Target escapements are still the appropriate management goal for maximising sustainable production; LRP escapements set the minimum level that must be obtained for conservation. A provisional LRP for coho can be defined as: Spawning densities are to exceed three females per kilometre of accessible stream length in at least 90% of coho bearing streams within as assessment unit. Three criteria will be considered in delineating assessment units: population structure and genetic adaptation, geographical variation in intrinsic productivity, and vulnerability to major fisheries and feasibility of management. The initial indications are that the assessment units will be of a similar nature to the stock groups described below.

The Queen Charlotte Islands (Statistical Areas 1, 2E, and 2; Figure C1) are important coho producers and 192 streams have recorded coho escapements. The most productive areas are the north and north-east coasts where the streams are generally low gradient and often associated with swamps or lakes. The west coast streams are generally shorter with steep gradients and production is believed to be relatively modest from these systems.

Coded-wire tag (CWT) ocean recoveries from coho tagged in the Queen Charlotte Islands (QCI) have been reported in Spilsted and Hudson (1996) and indicate a migratory pattern that does not expose the QCI to the same degree of Alaskan harvest as the northern British Columbia mainland stocks. The Pallant Creek stock from the middle east coast (Area 2E) indicates a very small Alaskan exposure, a small harvest in the Canadian Area 1 troll fishery and large harvests in the Area 2E troll and net fisheries (Figure C2 and C3). The Yakoun River stock from the north side of the QCI (Area 1) indicates a very small Alaskan exposure, and a large harvest in the Canadian Area 1 troll fishery (Figure C4 and C5). Information on ocean harvest proportions provided in Table C2 indicates an average of 92 % of the ocean harvest (this is not exploitation rate, but the percent of the total ocean harvest) of CWT coho originating from the Queen Charlotte Islands was taken in Canada, the majority in troll fisheries (68%). First nations and recreational coho harvests in both the ocean and freshwater QCI fisheries have historically been very small relative to commercial harvests.

The central coast (Statistical Areas 6 through 10) is the southern mainland portion of northern British Columbia (Figure C1) and has in the order of 240 streams and rivers with recorded coho escapements. Coho production is strongest from the larger mainland systems, but the smaller coastal and island systems are also important contributors. CWT recovery patterns from coho tagged in the Central Coast (Spilsted and Hudson, 1995) indicate a widespread presence in troll and net fisheries throughout northern British Columbia and Southeast Alaska. The data from Kitimat hatchery (Area 6) indicates a wide harvest distribution throughout Southeast Alaska during July and early August, a large harvest in the Canadian Area 1 troll fishery particularly in July, smaller harvests throughout many northern British Columbia net and troll

fisheries and finally a terminal area harvest in the Area 6 net fishery (Figures C6 to C8). The data from Snootli hatchery (Area 8) outline a similar distribution pattern except the more southern origin of this stock is reflected in the increased presence in southern central coast fisheries in Area 7, 8 and 9 as well as from the north-west corner of Vancouver Island, Area 27 (Figures C9 to C12). The CWT recovery proportions indicated in Table C3 show the highest harvest proportion in Canadian fisheries (71%), with the majority of the harvest from the troll fleet (43%). The Alaskan component was predominantly from the troll fisheries (22%) and to a lesser extent seine fisheries (5%). First nations and recreational coho harvests in both the ocean and freshwater central coast fisheries have historically been very small relative to commercial harvests.

The Skeena and Nass areas (Statistical Areas 3, 4 and 5) are the northern mainland portion of northern British Columbia (Figure C1) and have in the order of 220 coastal streams and Nass and Skeena tributaries with recorded coho escapements. The Nass and Skeena Rivers are of course the main producers in the area, but the numerous Area 3, 4 and 5 coastal systems, mainly associated with small lakes, are important coho producers. The Lachmach River indicator stock is a coastal fall coho stock typical of the coastal systems. CWT recovery patterns from coho tagged at Lachmach River (Spilsted and Hudson, 1996b) indicate a widespread presence in troll and net throughout Southeast Alaska and in Canada Area 1 troll and Area 3 troll and net fisheries (Figure C13 and C14).

The Nass River originates in the Skeena mountains, drains 8,000 km^2, and flows 400 km south and south-west entering the Pacific ocean in Portland Inlet (Figure C15). CWT recovery patterns from coho tagged in the Nass area (Spilsted and Hudson 1996b) indicate a widespread presence in troll and net fisheries throughout northern British Columbia and Southeast Alaska. The Kincolith (lower Nass River) hatchery data illustrates the stock distribution is widespread throughout Southeast Alaska, and in Canadian Area 1 and Area 3 fisheries (Figures C16 to C17). The CWT recovery proportions indicated in Table C4 show the highest ocean harvest proportion in Alaskan fisheries (58%), with the majority of the harvest from the troll fleet (35%) and to a lesser extent the seine (18%) and gillnet (5%) fisheries. The Canadian component was predominantly from the troll fisheries (28%) and, to a lesser extent, net fisheries (14%). First nations and recreational coho harvests in both the ocean and freshwater Nass area fisheries have historically been very small relative to commercial harvests.

2.2.2.1 Skeena River Stocks

The Skeena River drains 51,200 km^2 and is the second largest watershed in British Columbia. It originates in the Skeena Mountains and flows south and south-west for 400 km (Figure C18). Coho salmon spawn in virtually every accessible stream throughout the Skeena River drainage and its tributaries with approximately 25 major coho producing systems in the Skeena and numerous smaller ones. There is considerable variation in the flow rates depending on the season and weather conditions. Many tributaries throughout the Skeena watershed arise in high elevation alpine areas and are glacial fed. In the mainstem Skeena River, stream discharges generally peak in June, corresponding to the period of peak snowmelt. Peak flows in the tributaries of the lower river basin frequently occur during late fall and early winter due to heavy local rainfall and rain on snow events. There is considerable variation in habitat conditions between the interior area and the lower coastal area of the Skeena. Warm relatively dry summers and cold dry winters in which virtually all streams are ice-covered characterize the upper watershed. The lower watershed is characterized by cool wet summers and winters with relatively little ice cover. This creates differences in the factors that may limit coho production between different areas. The Skeena watershed can be divided into three broad zones (Figure C18): Upper Skeena Interior Zone (all drainages east and north of the confluence of the Bulkley and mainstem Skeena), a Lower Skeena Coastal Zone (Terrace Area to the Coast), and an intermediate Mid-River or Transition Zone.

2.2.2.1.1 Upper Skeena Interior Zone

Warm dry summers and cold relatively dry winters during which the streams experience extreme low water characterize this area of the watershed, which drains approximately 20,000 square kilometers. The area encompasses all drainages east and north of the confluence of the Bulkley and mainstem Skeena. The main river systems for coho production in this locale are as follows, Bear, Sustut, Babine, Telkwa, Bulkley, Little Bulkley and Morice (Figure C18). Most rivers originate in alpine areas, many are glacially fed, the most notable exception being the Little Bulkley River that flows through valley bottomlands and is lake headed. Coho gravitate to the low gradient, back channel, beaver dam and sometimes lake areas to spend most of their freshwater life. Most of the Little Bulkley, the upper Telkwa River, several of the tributaries of the Morice and the mainstem Morice below the lake, the lower end of many tributaries flowing into Babine Lake as well as the areas below the outflow of Babine and Nilkitkwa Lakes are prime coho habitat. Further north, the upper sections of the Bear River just below the Lake and the lower sections of tributaries flowing into that lake as well as the upper sections of the Sustut are all considered the prime coho habitat of this region.

There are several coho enhancement operations in this area. Toboggan Creek Hatchery has operated as a coho incubation and rearing facility since 1984. The CWT releases from this facility are the basis for the exploitation rate assessment data for Toboggan coho. The hatchery has also worked with coho stocks from the Little Bulkley, the Morice, Toboggan, Chicken and Kathlyn systems. The Ft. Babine facility operates at the outflow of Babine Lake and has a history of developing and implementing new technological developments for incubation and rearing techniques in cold water conditions. The CWT releases from this facility are the basis for the exploitation rate assessment data for Babine coho.

The distribution, harvest patterns and exploitation rates of upper Skeena coho are covered in detail in later sections of this report. The migration and harvest patterns are similar to the other northern mainland coho stocks while reflecting the earlier run timing of these stocks.

2.2.2.1.2 Mid River or Transitional Zone

The mid river area of the Skeena drains an area bordered by the Nass range to the northwest, the Skeena range to the east. The entire drainage area approximates 15,000 square kilometers. There is an increased coastal influence in this area that results in a wetter climate and higher snow pack. Within this zone there are several large drainages and numerous smaller ones that feed the Skeena. The Kispiox, Kitseguekla, Kitwanga and Zymoetz are the largest and are considered to have the bulk of the coho habitat. The only enhancement operation that operated within this zone has been the Kispiox Hatchery. Operating since 1980 and closed in 1995 this facility operated under contract to the Kispiox band working with coho and chinook. The coho work involved releases of both fry and yearlings and a short-term operation of an adult counting fence on Murder Creek. Kispiox hatchery staff did work with coho from the Kitwanga River for a couple of years. The Kitwanga River has a small side channel excavated near the village of Kitwancool. Originally designed for chum and over-wintering coho and chinook, its initial years were poor due to low oxygen levels. This has changed in recent years and the channel is now used by a variety of species including coho for both spawning and rearing. The Kispiox hatchery is presently being refit for startup once again. Its activity will concentrate on coho within the Kispiox drainage. CWT recovery patterns from coho tagged in the Kispiox area (Spilsted and Hudson 1994) indicate a widespread presence in troll and net fisheries throughout northern British Columbia and Southeast Alaska (Figure C19). There has been no freshwater sport fishery since 1989 in this area. There has been a First Nation fishery for coho in this area largely incidental during sockeye fisheries but with some small directed fisheries.

2.2.2.1.3 Lower Skeena Coastal Zone

This zone of the Skeena watershed begins near the community of Terrace with the Kitsumkalum River drainage and continues west to the coast where the Skeena empties into Chatham Sound. The watershed drains approximately 16,000 square km. The watersheds that drain into the Skeena get their water from the mountains and valleys that form the backbone of the coastal range along the west coast of British Columbia. These rivers all have a large coastal influence with the associated high precipitation and warmer water temperatures. The rivers include Kitsumkalum, Lakelse, Zymagotitz, Gitnadoix, Exchamsiks, Exstew, Kasiks, Khyex, Exstall and Green. Except for the Green, Lakelse, Kitsumkalum and Zymagotitz rivers, which are road accessible, the balance are accessible only by air or by jet boat. Tidal influence occurs for approximately 75 km up the Skeena mainstem. Except for a small run of coho into the Upper Kitsumkalum and Zymacord River most of the coho which spawn and rear in these systems enter the Skeena River in September to late October. They are the target of a sport fishery and a minor food fishery by local Bands.

This lower Skeena zone has had a history of small enhancement operations mostly centered near the Terrace area. Three hatcheries are presently operating; Deep Creek Hatchery that is operated by the Terrace Enhancement Society, Kitsumkalum Hatchery operated by the Kitsumkalum Band and Eby Street Hatchery that is operated by volunteers.

CWT recovery patterns from coho tagged in the lower Skeena area (Spilsted and Hudson 1994) indicate a widespread presence in troll and net fisheries throughout and Southeast Alaska and northern British Columbia Area 1, 3, 4 and 5 (Figure C20). The CWT recovery proportions indicated in Table C5 indicate an even split between Canadian and Alaskan ocean harvest proportion with the majority of the harvest in both areas coming from the troll fleet.

2.2.3 Catch Compositions

The large majority of the coho salmon harvested in northern British Columbia are wild stocks. Enhanced coho CWTs were first recovered in 1975 and the proportion of the Canadian northern boundary coho harvest comprised of enhanced coho has increased from 0.4% in the 1970s to 2.6% in the 1980s up to 7.4% in the 1990s (Table C6). The geographic breakdown of the origin of the enhanced coho in the 1990s is 2.9% Alaskan, 3.8% northern British Columbia, 0.4% southern British Columbia and 0.3 % southern U.S. The calculations do not account for hatchery releases not associated with tag groups (which represent about 10% of hatchery production, Lehmann pers. com.) and therefore may underestimate the Canadian hatchery contribution by about 10 %. For example the 3.8% northern British Columbia origin in the 1990s would be estimated to be 4.2%.

The coho technical committee developed a stock composition estimation model that was applied to northern boundary area fisheries model (Joint Coho Technical Committee 1994). Estimates of stock origin in boundary area fisheries have been made for the years 1987 to 1994 (Tables C7 and C8). The Canadian northern boundary area fisheries are estimated to be 93.4 % Canadian, with a further breakdown of 91.6 % Canadian in the northern troll (Areas 1 to 5) fishery, 95.6 % in the north-central troll (Area 6 to 8) fishery, 96.7 % in the northern net (Areas 1 to 5) and 98.7 % in the central (Areas 6 to 10) net fisheries.

2.2.4 Habitat Quality

Throughout Coastal B.C. North as a whole, forest harvesting (and related road development) is the most widespread land use activity that has the potential to adversely affect fish habitat. Harvesting has been carried out throughout the past century in the water-accessible coastal areas and has expanded greatly in the Interior since the 1960s. Land-based forest harvesting has been quite intense in some of the larger accessible coastal valleys such as the Skeena, Nass, Kitsumkalum, Kitimat, Bella Coola and many other moderate-sized coastal systems. Harvesting has also been very intense on the Queen Charlotte Islands, where high value timber is generally present from tidewater to ridge-tops throughout most watersheds. On the rest of the mainland coast harvesting has generally not been as widespread, due mainly to inaccessibility and variable timber quality. Forest harvesting, as carried out prior to the 1980s, frequently removed all the timber from stream sides and often included such practices as cross-stream yarding. These types of forest harvesting practices often lead to destabilization of stream banks and stream channels, reduction of large wood debris used for cover, and an in-filling of pool habitat used by coho for over-wintering. Poor road design, improper use of culverts, etc. also have frequently resulted in increased sediment introduction and blockages to fish migration. Forest harvesting practices have improved significantly in the past 20 years and direct impacts to fish habitat have generally been greatly reduced over that time. There is little or no data from the North Coast that quantify actual impacts to coho populations from changes to stream habitat as a result of forest harvesting. Impacts undoubtedly vary and probably range from quite significant in some areas to negligible in others, depending upon watershed and fish population characteristics.

Impacts to fish habitat from other land use activities such as urban development, heavy industry, and agriculture can be even more damaging and permanent. Impacts include removal of riparian cover, stream channelization, and water quality/water quantity concerns. These land uses can be very damaging to coho production areas, as agriculture and urban development also tend to be concentrated in flat, low gradient areas. In the Coastal B.C. North area, however, the extent of these land uses is fairly limited. Urban areas are generally quite limited and agriculture has a significant presence only in a few area of the North Coast such as the Bulkley and Kispiox valleys in the Skeena and the Bella Coola Valley on the Central Coast. Heavy industry (2 pulp mills, aluminum smelter, methanol plant, fish processing, port facilities) is quite localized in the main ports of Prince Rupert and Kitimat.

Linear developments such as railroad and highway corridors can also result in considerable damage to fish habitat. In the Skeena valley, for instance, the development of the CN Rail line in the early 1900s as well as highway development in the 1950s and 1960s resulted in cutting off side channel and back channel habitat along large sections of the lower Skeena River and the Upper Bulkley River.

Transboundary Rivers: Most coho habitat in the Canadian portions of these drainages (Taku, Stikine/Iskut, and Unuk systems) is in virtually “pristine” condition. There are only a few very localized impacts from mining development and access roads. Logging in this area is still very limited.

Nass River: Extensive logging has taken place at lower elevations in the downstream portions of the main Nass River valley from the 1960s onward. In more recent years, logging has expanded to a greater degree along the road corridors within the Upper Nass / Bell-Irving. In most areas, however, impacts to coho production are not thought to be severe, although localized impacts do exist. Possibly the most significant impacts to coho habitat have occurred in the Cranberry River, which has been extensively logged. There is very little urban development, agriculture or other land uses in the Nass Valley which might affect coho habitat. Much of the coho habitat in the upper portions of the watershed is in “pristine” or virtually pristine condition.

Skeena River: Impacts to coho habitat from logging activities, road and rail corridors, and urban/agricultural uses have occurred in the Skeena, mainly along the main corridor routes and in parts of the Interior where logging has been extensive. As is the case in other areas, much of the most important coho-producing habitat consists of very low gradient areas, which often do not have significant timber resources immediately adjacent. This tends to reduce some of the significance of impacts from timber harvesting. Coho habitat in some important coho production areas is in pristine (or near pristine) condition (e.g. Ecstall River, Gitnadoix River, and other major systems in the lower Skeena and most of the Upper Skeena upstream from Babine River). In other areas there are a range of impacts from human developments from very low to locally very significant. Overall watershed impacts on coho production from human land uses are very difficult to quantify — but are probably a relative small percentage of the historical capacity for coho production.

Significant problem areas identified are the Upper Bulkley System (road and rail corridor and agricultural impacts), portions of the lower Kispiox (agricultural and logging impacts), portions of the Kitsumkalum, Copper, and Lakelse Rivers (mainly logging impacts), and lower Skeena side channels (road and rail corridor impacts). Detailed habitat matrices to identify problem areas have been completed for the majority of the Skeena watershed.

North Coastal Area: There have undoubtedly been negative impacts to coho habitat in some of the more extensively logged watersheds in this area. Probably the most significant impacts have been in the Kitimat River valley, where analysis has indicated that significant destabilization of the lower mainstem and its side channels has occurred as a result of past logging. This has undoubtedly caused a reduction in overall coho production in the Kitimat system. A number of other major coho producers (e.g. Kwinamass, Khutzeymateen, Kitlope) have either pristine or near pristine habitat. In general, coho habitat in this area is in good condition. Studies such as those at the Lachmach River (a logged valley) have shown that North Coastal coho habitat has very high productivity relative to other study areas.

Queen Charlotte Islands: Forest harvesting has been very intensive in many areas of the Queen Charlotte Islands and, in general, coho habitat in the most heavily logged areas has probably been more significantly affected than in other areas of the North Coast. In the past, streams were often logged to the bank and in some cases were used as yarding corridors. This practice, combined with a high incidence of unstable terrain, has lead to some significant impacts to coho habitat. Many streams that were harvested prior to the late 1970s now have a lack of large woody debris necessary to stabilize spawning gravels and create pool habitat for juveniles. These streams tend to have alder-dominated riparian zones and unstable, aggrading channels. As a result, coho productivity in these streams has been reduced from loss of headwater spawning areas and critical over-winter and summer pool rearing habitat. There is no data to determine quantitatively how much reduction in productivity has occurred. Recent Watershed Restoration Program initiatives have been designed to speed the recovery of riparian areas as well as recreate limiting habitat features. Realistically, however, many of these areas will require natural stabilization over many years to regain historical productivity.

There are other areas on the Charlottes with very significant coho production which have received little or no impacts from land use activity. These include most of the low, swampy areas on the north and east coasts of Graham Island. Although there is very little coho production data for the Queen Charlotte Islands, natural, unaffected habitats are thought to have very high coho productivity as coho rearing conditions are generally quite favourable.

Central Coast: The overall coho habitat assessment is similar to the North Coast — some significant impacts have occurred in the more intensively settled and harvested valleys such as the Bella Coola

Valley, while only localized impacts have occurred in the remainder of the coastal watersheds. In general, coho habitat is in quite good condition. There is little or no coho production information for the Central Coast area. One factor of concern is that there are indications that the general poor ocean survival conditions that currently exist on the South Coast may also be affecting areas of the Central Coast.

2.2.5 Hatchery Production

Enhanced coho production in northern BC is modest relative to Alaska, southern BC or Washington and Oregon. Since the early 1980s a variety of techniques have been used to enhance coho salmon in northern British Columbia. Three moderate sized hatcheries, and a series of small community based hatchery operations have operated in northern B.C.

On the Queen Charlotte Islands (QCI) there are 12 community based groups active with small coho enhancement and restoration projects. The community based groups average annual juvenile coho releases are in the 200,000 to 300,000 range. Pallant Creek hatchery (now being operated by the Council of the Haida Nation) is located on the East side of the Queen Charlotte Islands in Cumshewa Inlet. Plans are to increase coho production from the current 350,000 juvenile releases to 1.25 million over the next few years.

The Nass area has two community based enhancement programs as well as active restoration initiatives, mainly through the Nisga'a Lisims Government. The community based groups average annual juvenile coho releases are in the 25,000 range.

There are seven community based enhancement and restoration programs in the Skeena area as well as a small coho enhancement program at the Fulton River spawning channels. The combined average annual juvenile coho releases are in the range of 400,000 to 500,000.

In the Central Coast there are hatcheries in Kitimat (Statistical Area 6) and Bella Coola (Statistical Area 8) as well as six other community based small enhancement and restoration programs. Juvenile releases average 400,000 to 500,000 from Kitimat Hatchery, 50,000 from Snootli Hatchery in Bella Coola and an additional 500,000 from the community based programs.

3 STATUS OF MANAGEMENT AND FISHERIES THROUGH 1998

3.1 Fishery Status

3.1.1 Southeast Alaska Fisheries

The first documented commercial salmon fishery in Alaska during the post-Russian period occurred in Karta Bay on Prince of Wales Island where a saltery was established in 1868. The canning business began at Klawock in 1878 and the salmon industry expanded rapidly thereafter (Moser 1899). Although sockeye was the primary target species through the end of the 1800s, coho was the second species to be exploited commercially beginning in 1888 (Table A2 and Figure A4).

The salmon industry began fishing localized sockeye runs in a largely unregulated fashion employing nets, weirs and barricades on individual streams. The use of barricades, although illegal, was extensively documented on sockeye systems by Moser (1899). Coho salmon were also taken from these same systems when available, usually later in the season. However, it is doubtful that these destructive early fisheries had a substantial effect on coho stocks because of the scattered distribution of coho runs,

generally later run timing, and the difficulty of maintaining any kind of instream structure during the wet fall months.

As more canneries became established and the limits of the sockeye resource were reached, pink salmon became an important target species. Mixed-stock seine and trap fisheries developed along migration routes where coho salmon were also available. Seines accounted for the largest portion of the coho salmon harvest until the mid-1910s, when the trap fishery came under rapid development (Table A3 and Figure A5). The number of traps in operation increased dramatically from 40 in 1907 to 482 in 1920, but later stabilized to a range of 193–290 units during 1930–1953 (Table A4). Coho salmon were not a target species of traps and comprised a relatively small proportion of the catch by that gear type. Never the less, because of its intensity, the trap fishery accounted for the greatest share of the coho salmon catch during most seasons from 1913 through 1939. Following passage of the White Act by Congress in 1924 and continuing through 1945, the trap and seine fisheries were curtailed in August, well before the peak of the coho migration, to allow for general salmon escapement needs. Although this regulation was later determined to be poor management policy because it shifted effort onto early migrating species and stocks, it likely reduced exploitation on most coho stocks.

Restrictions in the White Act did not apply to the troll fishery. In the 1940s, troll gear replaced traps as the predominant harvester of coho salmon. In recent years, trollers have accounted for about 60–65% of the commercial harvest. The trap fishery was closed (with a very limited exception) with Alaska statehood in 1959 and nearly all of the remaining commercial harvest in recent years has been distributed between purse seine and gillnet fisheries. Important sport, personal use and subsistence fisheries exist in both fresh and saltwater, although their combined harvest has been small compared with the commercial catch.

3.1.1.1 Fishery Management

The principal management objective for Southeast Alaska fisheries for coho salmon is to achieve maximum sustained yield from wild coho stocks. Hatchery contributions and natural production are identified inseason in key fisheries using coded-wire tags so that wild stock fishery performance can be independently evaluated. Fisheries that are directed primarily at coho salmon are managed based on wild stock fishery performance to achieve adequate escapement while harvesting the surplus. Biological escapement goal ranges have been established for a number of wild indicator stocks and surveyed systems.

A secondary management objective is to achieve long-term commercial gear-type allocations that were established by the Alaska Board of Fisheries in 1989. These allocations preserve a 1969–1988 historical base distribution of 61% for troll gear, 19% for purse seine gear, 13% for drift gillnet gear, and 7% for set gillnet gear. During 1989–1998, the cumulative harvest percentages by gear type were: Troll 61.9%, Purse Seine 15.5%, drift gillnet 14.8%, and set gillnet 7.8% (Table A5). The troll and drift and set gillnet percentages have all been slightly above the guideline while the purse seine fishery has fallen behind by 3.5 percentage points. The primary reason for the decrease in the purse seine share compared with the base period allocation was closure of a major mixed-stock seining area in northern Southeast in the mid-1970s. The drift gillnet share is the farthest above the guideline because large runs in the early to mid-1990s resulted in increased fishing opportunities for gillnetters who targeted large surpluses in inside areas, while opportunity for trollers and seiners remained more stable.

The wide distribution of coho salmon production across thousands of small stream populations necessitates that much of the harvest occurs in highly mixed stock fisheries where the stocks intermingle.

Except for years of strong deviations from average abundance, trollers fish a relatively stable season and harvest a relatively stable proportion of the total run. This results in a more even distribution of the troll harvest across all stocks in the region, thereby, realizing some harvest from all stocks while insuring that more heavily exploited inside stocks are able to support some harvest in inside fisheries and still achieve escapement. Most active management to harvest surpluses and achieve escapements is conducted in gillnet fisheries based on returns to single major systems or local concentrations of productive systems. Nearly all of the harvest of many small to medium stocks on the outer coast and along inside passages occurs in the troll fishery, with a small incidental harvest by purse seine fisheries for pink salmon.

Escapements are only monitored in a small subset of the producing streams because of practical and financial limitations. However, smolt production, survival rates, total returns, escapements, and harvest rates are monitored for four long-term wild stocks while a more recent project has been developed for the Taku River. A comparison among these stocks and their primary harvesting fisheries by Shaul (1998) indicates that they are highly correlated with larger coho salmon stock aggregates. While biologists continue to rely heavily upon fishery performance for inseason management, these indicator stocks have played an increasing role in recent years as inseason assessment models have been developed to estimate total abundance and predict escapement relative to biological goals. The ADF&G, Sport Fish Division is currently developing additional indicator stocks in the Ketchikan, Sitka and Craig areas.

Chinook salmon is the principal target species for the first few days of the summer troll fishery, which usually opens on July 1. An initial assessment of regional coho salmon abundance is made during July 20–26 based on troll fishery catch rates monitored in six areas (Figure A6) during the middle two weeks of July. Average troll catch-per-boat-day estimates from dockside interviews during Statistical Weeks 28 and 29 are used to project the commercial catch (wild only and total). At this time, managers also begin tracking wild coho catch and CPUE in the District 106 drift gillnet fishery. Early catch rates in the region troll and District 106 drift gillnet fisheries are the most reliable early indices of coho abundance in the southern portion of the region.

Substantial weakness in the run may trigger an early troll fishery closure of approximately seven days as early as July 25, based on a Board of Fisheries directive that calls for an early closure when the projected commercial catch of wild coho salmon is under 1.1 million fish. In 1988, the coho salmon run in southern Southeast was very weak. In response, the department implemented an early 10-day closure in July followed by 13 additional days of region-wide closures plus an early season closure (17 days) in southern Southeast. These measures, in addition to very restricted net fisheries, resulted in adequate escapement to southern Southeast systems despite the weakness of the run.

Board of Fisheries regulations direct the department to evaluate the need for a mid-season troll closure, typically for about 10 days in mid-August, for allocation and conservation. A mid-season closure has been implemented every year since 1980, except for 1994 when abundance was exceptionally high. In earlier years, this closure was implemented in response to inseason trigger levels of fishery performance in the troll, drift gillnet, and recreational fisheries. The primary objective of these triggers was to insure that enough fish moved to inside waters to maintain an allocation balance between inside and outside users while insuring adequate escapement. In more recent years additional factors have also been considered, including information from improved inseason abundance indicators and the cumulative allocation status of the gear groups since 1989 (relative to the Board of Fisheries guidelines). No mid-season closure was implemented in 1994 because high inseason abundance projections showed that increased effort in all coho-directed fisheries was warranted to harvest available surpluses.

After mid-August, managers continue to monitor fishery performance and other indicators of run strength, including CWT-based estimates of indicator stock abundance and hatchery contributions.

Fishwheel catch rates for early coho entering the Taku River are also evaluated at this time. Additional restrictions on the troll fishery are implemented if needed for conservation. This situation occurred in 1997 when extensive troll, gillnet and sport closures were implemented beginning in late August in response to a very weak run to the Taku River. Likewise, if sufficient abundance exists above escapement needs, the troll season may be extended for up to 10 days beyond the usual September 20 season closing date. Several gillnet fisheries (Districts 106, 108, 111, 115, and Yakutat) begin to target coho salmon in mid to late August. Fall fisheries in these areas are managed by local biologists to achieve desired escapement levels of wild stocks. Historically, these fisheries have been managed primarily by comparing current and historical catch and effort statistics for wild stocks. Feedback from escapement assessment programs is generally not timely enough for inseason management needs with two exceptions: the escapement surveys of Yakutat area streams and a fishwheel mark-recapture project on the lower Taku River. However, inseason CWT and smolt-based abundance estimates and biological targets for indicator stocks (Clark et al. 1994) have played an increasing role in recent years. Open periods and fishery boundaries are adjusted week-to-week in response to all available information on abundance and escapement.

Index escapement goals have been established for seven of the most important streams in the Yakutat area (Clark and Clark 1994), and escapement counts and catch and effort data obtained inseason serve as the basis for management of these terminal, local-stock setnet fisheries.

Marine sport fisheries are managed primarily under a six-fish bag limit. The same bag limit applies in most freshwater systems, except for some more-accessible streams where the bag limit is two fish. The sport fishery has accounted for an average of about 4% of the total region coho salmon harvest, but is an increasing component. Although emergency inseason management actions have been less frequent in the recreational fisheries, seasons have been closed or bag limits reduced in both marine and freshwater fisheries in response to inseason indicators of low abundance. Bag limits were increased in some locations to harvest the very large 1994 return.

Small subsistence coho salmon fisheries occur in Southeast, primarily in terminal areas near Yakutat and Angoon. These fisheries have not been actively managed, but harvest levels are monitored through permit returns.

The department's coded-wire tag lab plays a critical role in inseason management. Fisheries are prioritized based on inseason information needs. Samples are rapidly processed so that information on wild and hatchery contributions to the catch in key fisheries like the District 106 gillnet fishery are available within a week, while preliminary estimates can be made between weekly openings. This allows managers to independently assess run strength for wild production and to manage for escapement of wild stocks. In addition, rapid processing of troll fishery tag recoveries supports inseason models to estimate marine survival and abundance of specific wild indicator stocks. For some stocks, these models enable managers to predict escapement relative to goals under different management scenarios. Finally, it is now possible for managers to easily access inseason information on the origin of tag recoveries in specific subdistricts. This information can provide important clues about the timing and ocean distribution of stocks.

Managers also review inseason information on pink salmon run strength and timing (from sex ratio data) for clues about coho salmon survival and timing. Relationships between these two species are strong enough to provide valuable insight for management of both coho and pink fisheries during the fishing season.

3.1.1.1.1 Troll Fishery

The first salmon troll landings were made in Ketchikan in January 1905 when local businessmen began purchasing hook-and-line caught chinook salmon for fresh shipment to a Puget Sound market (Kutchin 1906). Trolling caught on very quickly in Southeast Alaska and in following years spread southward to other areas of the coast. Large-scale mild cure processing of chinook salmon began in 1906. By 1907, 208 fishers were employed in trolling, with early effort mostly concentrated at Forrester Island off the southern outside coast of Southeast Alaska. Although troll coho landings were reported as early as 1906 (Table A3 and Figure A7) targeting on coho salmon by trollers was first documented in August 1908 at Turnabout Island in Frederick Sound (Marsh and Cobb 1909).

Through the 1930s, chinook salmon was the primary target species of trollers, although coho salmon dominated the catch in value in some areas and times. The troll coho catch increased until it was numerically equal to the troll chinook catch in the 1930s with a decade average of 573,000 fish for each species (Shaul 1998; Figure A8). By the 1940s, declining productivity of the Columbia River and other systems began taking a toll on the chinook catch while coho salmon remained abundant. In addition to the numerical dominance of coho salmon in the troll catch after the 1930s, the surge in the troll catch above the trap catch clearly marks the 1940s as the period when the harvest of coho salmon became a distinct and widespread focus of the Alaska troll fishery.

After reaching a decade peak harvest of just over 1 million fish per year in the 1940s and an annual peak catch of over 2 million fish in 1951, the troll catch underwent a dramatic decline during 1952–1956 from which it did not recover until the early 1980s (Figure A8 and Table A3). During this protracted period of low coho salmon catches in all fisheries, the troll coho salmon harvest averaged only 600,000 fish per year. In 1969, inseason restrictions were implemented in both troll and gillnet fisheries. Until that year, virtually all inseason management of coho salmon occurred in inside gillnet fisheries. An extremely weak return again in 1975 prompted an extensive troll closure. Concern about increasing effectiveness of the troll fleet and continued low coho and chinook salmon abundance brought about numerous fishery restrictions. The power troll segment of the fishery was placed under limited entry in 1975, and the hand troll segment was limited in 1980. Also, during the late 1970s, increasing intensification of the troll fishery occurred as a result of other factors, including an influx of skilled trollers from Washington State following the Boldt decision, increasing use of technological advantages and high prices for troll caught coho salmon. Beginning in 1980, a mid-season closure was implemented to reduce troll fishery exploitation rates and allow more coho salmon to be harvested by inside-waters fisheries and to enter spawning streams.

Concurrent with increasing restrictions to conserve coho salmon, catch ceilings were imposed in the troll chinook fishery beginning in 1979. A further reduction in the ceiling with the ratification of the Pacific Salmon Treaty in 1985 set the stage for increasingly short summer chinook troll seasons, which have been as short as 4 1/2 days (1991). The coho troll season historically occurred during June 15 to September 20. However, as the chinook fishery became more constrained by ceilings during the 1980s, the opening date of the summer troll season was delayed until July 1. In recent years, the primary summer chinook fishery has usually occurred within the first week to 10 days of July, with additional openings occurring as needed to achieve the management objective. With the exception of limited pink and chum fisheries, troll effort has concentrated on coho salmon during the remainder of the season from early to mid July through late-September.

The troll catch began increasing significantly in the early 1980s to a 1982–1989 average of 1.3 million fish. This was followed by another increase in average catch to 2.0 million fish from 1990–1998. The troll catch reached a record peak of nearly 3.5 million fish in 1994. A portion of the increase in average

catch in the 1980s and 1990s can be attributed to increased hatchery production, which became significant in the early 1980s, and accounted for an average of 19% of the troll catch during 1990–1998. However, even the catch of wild coho salmon alone during 1990–1998 averaged 1.6 million fish.

Starting in 1982, fishery performance began to increase substantially, indicating an increase in abundance. The troll coho fishery has been managed in a relatively consistent manner since 1982 and indicator stock exploitation rates have followed a stable trend (Shaul and Van Alen 2001) even though seasonal effort (boat-days standardized to power troll units) has decreased (Figure A9 and Table A6; Shaul 1998). Hand troll participation has steadily declined while active power troll permits have remained more constant (Table A7). Stable troll exploitation rates combined with decreasing effort suggest that individual fishers have become more effective at harvesting coho salmon (Shaul 1998).

Statistics for the number of participants, vessels, and gear (lines or hooks) are available for the early years of the Southeast Alaska troll fishery beginning in the 1920s. However, early numbers were based on patrol surveys and interviews with processors while more reliable numbers were achieved after a mandatory registration system was implemented in 1939. Patrol estimates from 1929, 1931, 1932, and 1934 documented an average of 1,078 fishers that fished 902 vessels (178 powerboats, 606 launches, 118 rowboats and skiffs) and 3,317 lines. During the first 5 years of more reliable effort statistics (1939–1943), the troll fishery employed an average of 1,232 fishers operating 973 vessels and fishing 3,478 lines. The vessels were categorized as follows: 360 powerboats (over 5 tons), 497 launches, and 116 rowboats.

For comparison, statistics from more recent years show an average of 767 power troll vessels and 422 hand troll vessels fishing during 1994–1998 (Table A7). If the number of hooks fished per vessel has not changed since 1981 (Alaska Department of Fish and Game 1981), this would equate to an average of 31,556 hooks fished during 1994–1998 or about 4% more gear than was fished on average during 1946–1959 (average 30,265 hooks; Table A4). In addition to more gear, substantial advances have occurred in navigation, communications, fish locating technology, vessels, fishing gear, and knowledge about effective fishing techniques that would make today's troll fleet substantially more effective than is indicated by a simple comparison of the amount of gear fished.

3.1.1.1.1.1 Troll Harvest By Area

The average troll coho catch in the 1990s has increased from 1960–1989 levels in all areas except for Area 6, which is the southern inside area near the U.S./Canada boundary in Dixon Entrance (Figures A6 and A10; Table A8). In recent years, the majority of the troll catch has typically occurred in Area 2 (central outside), which accounted for an average of 43% (826,000 fish) of the region troll catch during 1990–1998. The catch in this area has shown the greatest increase from 1960's and 1970's levels.

Area 1 (northern outside) is the second most important area with an average harvest of 326,000 coho salmon or 16% of the region total troll catch during 1990–1998. This area has also shown a dramatic increase in catch. The other outside area (Area 3-southern outside) has accounted for an average of 290,000 fish (14% of the total) during the 1990s.

Of the inside areas, Area 5 (central inside) has also shown a strong increase in catch to 265,000 fish in the 1990s for an average of 14% of the region total. Area 4 (northern inside) was on average the most important catch area in the 1960s (28% of total) and 1970s (22% of total), but accounted for only 10% of the catch during 1990–1998. Area 6 (southern inside) has decreased in both total catch and as a percentage of the region total. During 1990–1998, Area 6 accounted for an average of only 69,000 fish (less than 4%) of the region total compared to 91,000 fish (16% of the region total) in 1970–1979.

The reduction in the proportion of the catch coming from Area 4 (northern inside) probably resulted from area-time restrictions on the troll fishery in this migration corridor area that were implemented beginning in 1979. The reduced importance of Area 6 (southern inside) is less clear, although it appears to have been accompanied by a decrease in effort, possibly as a result of lower catch rates compared with other areas in recent years. Historically, a substantial amount of troll effort occurred in the southern portion of this area where excellent catch rates often occur early in the season. Another factor may be lower chinook salmon catch rates in Area 6 compared with Area 3. As most of the troll chinook harvest has been compressed into a short early-July period in recent years, more boats may have moved directly to Area 3 at the beginning of the summer season, regardless of coho fishing opportunities in Area 6.

There has been a trend since the 1960s for more of the troll coho salmon catch to occur in outside waters and in northern areas. During 1990–1998, an average of 73% of the catch occurred in outside areas (1–3) compared with 45% in the 1960s, 50% in the 1970s and 71% in the 1980s. The average percentage taken in northern areas (1,2, and 4) was 58% in the 1960s, 52% in the 1970s, 61% in the 1980s, and 68% during 1990–1998. Some of the probable factors responsible for these trends include: (1) stronger runs in northern areas because of higher marine survival compared with southern areas, (2) area-time restrictions in Area 4 (northern inside) since the late-1970s and (3) higher potential catch rates in outside areas compared with inside areas.

3.1.1.1.1.2 Troll Effort

Troll effort in power troll equivalent units has been reconstructed from 1969–1998. The 1981–1998 estimates were made by multiplying the number of landings within an area and week by the average trip length, based on dockside interviews. Estimates prior to the interview program (1969–1980) were made by applying the average trip length by area and time for 1981–1982 interviews to the number of landings. Hand and power troll landings were not differentiated before 1975. Therefore, the average proportion of landings made by each gear type by area and time for 1975–1976 was applied to troll landings during 1969–1974.

Average total troll effort during the primary coho fishing period (Statistical Weeks 27–40) increased in the late 1970s but has followed a generally declining trend since that time (Table A9 and Figure A9). Effort during 1969–1974 averaged 44,500 boat-days, increased to 59,200 boat-days in 1975–1979 and remained relatively high through the 1980s (1980–1984 average 55,800; 1985–1989 average 52,200). The peak of 81,615 boat-days in 1978 coincided with a peak in hand troll participation of 2,641 active permits fished that year (Table A7). Entry into the power troll fishery was limited in 1975, but hand troll effort soared until it was also limited in 1980. Since that time, hand troll participation has declined dramatically to only 304 active permits in 1998, only about half the number of active permits (601) only 5-years before (1993). Power troll participation has been much more stable, with the annual number of active permits never deviating more than 10% from the 1977–1998 average. However, there has been a decline of 13% from recent peak participation averaging 837 permits during 1988–1993 to only 732 active permits in 1998. Total effort has declined dramatically in recent years to a record low of only 24,643 boat-days in 1998 (Figure A9). These figures understate the actual decline in troll effort on coho salmon since the late-1970s because the mid to late-June period was not included. Before the mid-1980s, the general summer troll season was open in late June when substantial coho salmon catches occurred in some areas. In recent years, there have been only limited troll openings in June to target chinook salmon of Alaska hatchery origin.

Troll fishery management has been relatively consistent in recent years while total coho salmon landings have been averaged high compared with historical levels. Therefore, the likely primary cause for the decline in effort is the decline in the ex-vessel price for salmon. The fact that troll exploitation rates have remained relatively stable despite the decline in effort indicates that recent effort has been allocated much more efficiently and effectively. Far higher catch rates are now required to maintain profitability compared with 20 years ago. Therefore, effort is concentrated in areas and times when catch rates are high. In addition, most current participants have extensive experience in the fishery while many are taking advantage of newer technological advantages including the Global Positioning System (GPS). Hand trolling has declined because hand trollers, limited to two hand gurdies or four sport rods, are at a substantial technological disadvantage in their ability to achieve the high catch rates needed to be profitable.

The area distribution of troll effort has undergone some substantial changes since 1969 (Figure A11, Table A6 and Tables A10–A15). Before 1979, the northern inside area (Area 4) received the greatest troll effort in most years. However, concern about the large amount of effort in migration corridor of coho salmon returning to mainland rivers in Lynn Canal and Stephens Passage prompted several regulatory changes that greatly reduced effort in this area. These changes included elimination of trolling from most of District 111 and implementation of an 8 days on – 6 days off fishing schedule in most of the remaining area. These measures, combined with limited entry for hand trollers beginning in 1980, greatly reduced effort in Area 4 while effort in Area 2 (Central Outside) increased dramatically (Figure A11). Most of the restrictions that contributed to displacement of troll effort from Area 4 have been removed, but in recent years troll effort in this area has been concentrated mainly on the peak of the migration in late-August and September after abundance in outside waters has declined. Although, runs to major inside systems have remained healthy, the economics of trolling has changed enough to greatly limit effort in areas and times when catch rates are not consistently high.

After the 1979 season, concern about the huge increase in troll effort and catch in outside waters led the Board of Fisheries to establish a provision for a mid-season closure of approximately 10-days near the peak of the run. The purpose of this regulation was to insure that sufficient fish reached inside fisheries and the spawning grounds. This measure has helped constrain troll fishery exploitation rates, however, Area 2 has remained the most popular fishing area accounting for an average of 47% of region effort in 1995–1998. Average effort in that area has moderated to an average of 13,200 boat-days from over 20,000 in the 1980s. Although effort in Area 5 (Central Inside) has only declined slightly from historical levels, effort in areas 1, 3, 4 and 6 has declined more sharply since 1994.

The reason for the effort patterns in these areas is not completely clear. Area 1, while often providing high catch rates on a rich mixture of local Yakutat runs and more distant stocks is both remote and exposed. The offshore portion of this area is attractive because it is the only area in the region where trollers can fish 6 lines. However, weather and fishing opportunities can be highly variable, particularly in late August and early September when coho salmon abundance typically reaches its peak offshore of Yakutat. The greater overhead required combined with greater uncertainty inherent in fishing this area may have made it less attractive under recent poor market conditions.

There has been a dramatic reduction in effort in the southern inside area (Area 6) where the average number of boat-days has declined by 80% to only about 800 in 1995–1998 compared with 4,200 boat-days in the late-1970s. In the 1970s, catch rates in Area 6 were typically high compared with other areas but this appears to have changed. In more recent years, the best catch rates have typically occurred in northern Southeast. Historically, a high proportion of the effort in Area 6 occurred from mid-June through August near the boundary. However, this component of the effort in Area 6 appears to have declined most while late-season effort, boosted by late local hatchery returns, has remained more stable.

The early harvest in Area 6 is primarily of northern British Columbia mainland origin and the departure of effort in the 1990s may have been related to the combination of a jump in survival of Alaska-TBR stocks relative to Canadian stocks, and increasing Alaska hatchery production that made it more attractive to fish in areas where Alaskan stocks predominate.

3.1.1.1.2 Purse Seine Fishery

Pink salmon is the principal target species of the purse seine fishery while no directed seine fisheries exist for coho salmon. Therefore, coho abundance seldom becomes a direct factor in seine fishery management. However, pink and coho salmon have a similar one-year ocean rearing period and, therefore, experience similar conditions for marine survival. Purse seine fisheries are often restricted when coho salmon returns are poor, because pink salmon returns are usually low as well.

Although coho salmon is an incidental species in the seine fishery, this gear type has the most stable harvest history since early in the century (Figures A5 and A7). Seines were the major harvester of coho salmon until the trap fishery developed in the mid-1910s. Seine catches increased dramatically again in the early 1960s as this gear type inherited most of the fishing opportunity lost to traps after statehood. During the 1960s and early 1970s, the most important catch area was District 114 (average catch 89,000 fish) where purse seiners targeted mixed-stocks and species in Icy Strait (Table A16). Low salmon abundance combined with the closure of the Icy Strait seine fishery sharply reduced the seine catch in the mid-1970s. The seine catch has increased substantially in the 1980s and 1990s, although not proportionately as much as troll and gillnet catches. During 1990–1998, the seine catch averaged 498,000 fish compared with 205,000 to 321,000 in the previous three decades. Since the 1970s, the most important catch area has been District 104 where the catch during 1990–1998 averaged 190,000 fish per year or 39% of the region total.

Purse seine effort in the boundary area has been relatively evenly distributed among the districts (101–104), on average, and has typically peaked with pink salmon abundance in late July–August (Statistical Weeks 31–35; Tables A17–A20).

Alaska Board of Fisheries guidelines allocate 19% of the commercial coho salmon harvest to the purse seine fishery. During the period when this guideline has been in effect the purse seine fishery has accounted for only 15.2% of the catch (Table A5).

3.1.1.1.3 Gillnet Fisheries

Early gillnet fisheries evolved near major sockeye and chinook salmon producing systems in Yakutat, Lynn Canal, and the Taku, Stikine, and Unuk River areas (Figures A12–A15). Coho salmon soon became an important target species in some of these fisheries, particularly in the Taku, Stikine and Yakutat areas.

Set gillnets are used exclusively in the Yakutat area where nearly all of the harvest occurs within rivers in fisheries directed at coho salmon. Drift gillnets are deployed from boats in other fishing areas of Southeast. Aside from hatchery terminal fisheries, drift gillnetting currently occurs in five inside districts (101, 106, 108, 111, and 115) (Figure A3). Of those, coho has historically been the predominant target species during the fall in Districts 106, 108, 111 and more recently in District 115. During 1990–1998, District 106 accounted for by far the largest share of the harvest with an average catch of 212,000 in the traditional fishery (Table A21). During the same period, the harvest in the Tree Point (District 101)

gillnet fishery averaged far lower at 45,000 fish despite the fact that seasonal effort was similar between the two districts at slightly over 4,000 boat-days, on average (Tables A22 and A23).

During the 1970s and 1980s, most of the fall drift gillnet effort in the region was concentrated in Lynn Canal (District 115) to target chum salmon bound for the Chilkat River at the head of the canal. Management was focused primarily on chum salmon with area restrictions to protect coho salmon when runs were weak. Beginning in 1990, coho abundance and catch began to increase dramatically in District 115 and other gillnetting districts (Shaul 1998). This increased coho abundance has resulted in increased fall fishing opportunities in Districts 106, 108, and 111 with fewer vessels fishing in District 115. During the 1990s, the fishery in Lynn Canal has been managed primarily for coho salmon, which has become the primary target species because of their increased abundance and higher price compared with chum salmon. With fewer vessels participating, the fishery has become focused on the lower canal where coho salmon are found in higher abundance. Area restrictions in the upper canal have been implemented as needed to protect Chilkat River chum stocks which declined in the early 1990s.

The total drift gillnet catch of coho salmon has increased substantially in recent years from an average of 130,000 fish in the 1960s, 166,000 in the 1970s, and 225,000 in the 1980s to 481,000 in the 1990s (Table A21). The most dramatic increase occurred in District 106 where the average traditional fishery catch increased from 60,000 fish in the 1980s to 212,000 in the 1990s. This increase has resulted from increased wild stock production combined with increased production from hatchery releases near Ketchikan and Petersburg (Figure A16 and Table A24). Coho salmon of hatchery origin contributed an average of 26% of the traditional District 106 gillnet catch during 1990–1997. Rapid processing and analysis of tag recovery data to estimate hatchery contributions has become an important inseason tool for management of this fishery.

The catch in the long-standing Stikine (District 108) fishery has not shown a commensurate increase (Figure A14 and Table A21) because most fishing effort has been attracted to District 106 where a greater mix of stocks (including hatchery production) is available. The fishery in District 108 has been more restricted compared with District 106 except in years of very high abundance. The more terminal District 108 is opened when performance in surrounding fisheries is high enough to indicate that a substantial surplus is available.

Despite the poor 1997 season and mediocre catches in 1996 and 1998, the average drift gillnet catch in District 111 nearly tripled during 1990–1998 compared with the average for the three previous decades (Figure A13 and Table A21). Catch and CPUE of wild fish peaked in the early to mid-1990s (Shaul 1998). This fishery targets stocks bound for the Taku River and Port Snettisham systems and is managed primarily on indications of run strength to the Taku River. Increased returns to hatcheries in Juneau beginning in 1991 have also helped bolster the gillnet harvest in District 111.

During the summer the Tree Point gillnet fishery targets a mixture of sockeye, chum and pink salmon. The Tree Point fall fishery is managed primarily for chum salmon stocks bound for Portland Canal, although coho run strength is an important factor in management decisions. This fishery and the District 106 fishery were both initiated around the time of statehood in 1959 when the trap fishery was closed. The average catch at Tree Point has increased each decade since the 1960s, however, the recent increase from 34,000 fish in the 1980s to 45,000 fish in the 1990s (Figure A15 and Table A21) is less dramatic compared with most other gillnet fisheries. Hatchery smolt releases from Nakat Inlet, located just inshore of the fishery, have made an important contribution to the Tree Point catch in recent years. Fishery performance suggests that wild coho salmon abundance in the Tree Point fishery has followed a more stable trend (Figure A17 and Table A25) compared with District 106 where CPUE increased markedly from the 1970s to 1990s (Figure A16 and Table A24).

The gillnet fishery at Annette Island occurs within 3,000 feet of the shore of the reserve and is managed by the Metlakatla Indian Community. The local Tamgas Creek hatchery supports major coho salmon production and has been an important contributor to that fishery since the early 1980s. The Annette Island gillnet catch has increased substantially in the past three decades, averaging 38,000 fish in 1990–1998 (Figure A15).

Yakutat set gillnet fisheries, first established around 1900, are closely managed inseason for escapement needs of local systems. Fisheries in this area have shown a similar dramatic increase in production in recent years comparable with other near-terminal coho fisheries in the region. The Yakutat setnet catch is comprised of virtually 100% natural production as nearly all of the catch occurs inriver and there are no hatcheries in the area. Decade average catches were 114,000 in the 1960s, 65,000 in the 1970s, 147,000 in the 1980s and 248,000 during 1990–1998 (Figure A12 and Table A21). Despite the very large overall Yakutat area catch in the 1990s, some of the more remote systems have been exploited at low rates in some recent years because of a weak salmon market. In the 1990s, the harvest has been concentrated in the more accessible Situk and Lost Rivers that experienced very large runs, and away from the remote Tsiu and Kaliakh systems.

3.1.1.1.4 Recreational Fisheries

Recreational fisheries occur in both freshwater and marine areas of Southeast Alaska. The majority of the harvest occurs in marine waters near Juneau, Ketchikan, Sitka and Craig. The catch in all sport fisheries is estimated from a mail-out survey begun in 1977, while harvests in important marine fisheries are estimated independently through a creel survey program (Tables A3 and A5; Figure A18). The total sport harvest during 1994–1998 averaged 163,500 fish or 5.3% of the combined commercial-sport catch.

Recreational fisheries are managed primarily based on a bag limit. The bag limit is six fish per day in marine waters and most freshwater streams except for some more accessible streams where it is two fish per day. Depending on inseason assessments of run strength, bag limits have been reduced or increased in specific areas while emergency area closures have also been implemented in both marine and freshwater areas.

3.1.1.1.5 Subsistence and Personal Use Fisheries

Minor subsistence and personal use fisheries for coho salmon occur in the region. The combined catch in these fisheries in 1994–1998 averaged 2,500 fish or 0.1% of the total region catch (Table A5). Specific fisheries that target coho salmon occur in the Situk and Lost Rivers near Yakutat and the Hasselborg River near Angoon. A few coho salmon are taken incidentally to other salmon species in other areas including the Chilkat and Taku Rivers.

3.1.2 Northern British Columbia Fisheries

3.1.2.1 Fishery Management

Background information on the management of northern BC fisheries is also available in a summary report previously submitted to the Northern panel (NBTC, 1992), which includes detailed descriptions of historical (up to 1990) net and troll fisheries management for the Queen Charlotte Islands, Central Coast

and Skeena and Nass areas. In addition, the Coho Technical Committee produced a northern boundary coho stock status report in 1991 that includes management descriptions (Joint Coho Technical Committee 1991). Additional detail is available in the NBTC annual reports published each year since 1985. In addition Canada has in recent years produced Integrated Fishery Management Plans for salmon fisheries in northern BC.

The federal Minister of Fisheries establishes Canadian fisheries policies under the authority of the Fisheries Act. There is currently a review of the consultation process and structure of the advisory processes in northern BC. In our current advisory structure in northern British Columbia the North Coast Advisory Board and Queen Charlotte Advisory Board represent the interests of the commercial net fisheries in Statistical Areas 1, 3, 4, 5, and 6. Advice for the troll fishery in northern British Columbia has traditionally been provided by the Outside Troll Advisory Committee and the Northern Trollers Association. With respect to the recreational fisheries, regional advice comes from the Sport Fish Advisory Board (SFAB) while local issues are often dealt with by local subcommittees of the SFAB. Consultation for native fisheries directed on Skeena salmon currently occurs in the Skeena Fisheries Commission as well as through various tribal councils.

3.1.2.1.1 Recent Management Policy and Objectives

Pacific salmon management policies have been extensively revamped in the last few years. A recent report by consultants Edwin Blewett and Timothy Taylor (1999) on 'Selective Fisheries Policy and Practice' provides a review of recent policy initiatives as background in their paper. These policy initiatives included the following:

The Pacific Salmon Revitalization Strategy: The minister set up series of discussions among stakeholders who based on the principles of conservation, economic viability and stakeholder partnership produced a report for the Minister on the Renewal of the Commercial Pacific Salmon Fishery. The government's response to the report, announced on March 29, 1996, was the Pacific Salmon Revitalization strategy (the Mifflin Plan). The major components of the Mifflin Plan include: risk-averse management; a targeted 50% reduction in the number of boats in the fleet over the long term; an eighty million voluntary license-retirement program; single gear licensing; division of the coast into two areas for seine fishing and three each for gillnet and troll fishing; license stacking (fishing more than one area or gear with a single vessel); revamping the consultative process; and addressing the allocation dispute.

The Mifflin plan was successful in reducing the number of licensed vessels in the fishery. Fleet size dropped about 20% through license retirement and another 15% through license stacking. In the context of the semi-collapse of the pacific salmon fishery since 1995, the Mifflin Plan did not go far enough. Recent reports have concluded that further restructuring is needed to develop a sustainable fishery.

Conservation Objectives: On May 19, 1998 the Minister of Fisheries and Oceans announced conservation objectives to protect and rebuild west coast stocks of coho salmon, as well as consultations to develop ways to implement conservation directives for the 1998 salmon season and beyond. The two specific conservation objectives were: zero fishing mortality for critical upper Skeena and Thompson River coho stocks and secondly where upper Skeena and Thompson coho stocks are not prevalent, proposals for selective fisheries capable of demonstrating a minimal risk of coho by-catch mortality will be entertained.

Coho Recovery Plan: On June 19, 1998 the Minister of Fisheries and Oceans announced Canada's Coho Recovery Plan and $400 million of funding. $100 million for a new habitat fund to provide financing for

habitat protection and restoration, watershed stewardship and salmon enhancement. $200 million to support development of selective fisheries, voluntary license retirements, and diversification of commercial fisheries. $100 million to help people and communities adjust to the significant changes that are and will be taking place.

New Directions Policy: In October 1998, DFO published its policy paper, 'A new Direction for Canada's Pacific Salmon Fisheries'. The principles enunciated in the New Directions policy include:

Conservation is the primary objective, taking precedence over all other objectives,

Precautionary approach to fisheries management,

Net gain in productive capacity of salmon habitat in British Columbia,

Ecological approach to fisheries and oceans management,

Trade-offs between current harvest benefits and long term stock well-being will be resolved in favour of the long term,

All sectors will use selective methods to harvest salmon,

First Nations FCS requirements will have first priority after conservation,

The recreational fishery will be provided with more reliable and stable fishing opportunities wherever possible,

The commercial fishery will become more diversified and economically viable,

Information on major issues requiring decisions will be provided to the public, and periodic review of progress and achievements will be initiated to facilitate accountability,

Government and stakeholders together will be responsible and accountable for sustainable fisheries,

Community, regional and sector-wide input decision-making will be enhanced through a structured system of management and advisory boards.

Allocation Framework: In December 1998, DFO released 'An allocation Framework for Pacific Salmon: 1999–2005'. Building on the introduction of selective fishing, the Coho Recovery Plan, and the New Directions paper, the Allocation Framework lays out seven principles designed to guide salmon allocation decisions until at least 2005. These principles include:

Conservation: conservation of pacific salmon stocks is the primary objective and will take precedence in managing the resource – conservation will not be compromised to achieve salmon allocation targets.

First Nations: after conservation needs are met, First Nations' food, social and ceremonial requirements and treaty obligations to First Nations have first priority in salmon allocation.

Common Property Resources: salmon is a common property resource that is managed by the federal government on behalf of all Canadians, both present and future.

Recreational Allocation: after conservation needs are met, and priority access for First Nations is addressed, recreational anglers will be provided priority to directed fisheries on chinook and coho salmon, and predictable and stable fishing opportunities for sockeye, pink and chum.

Commercial Allocation: after conservation needs are met, and priority access for First Nations is addressed, the commercial sector will be allocated at least 95 percent of combined commercial and recreational harvest of sockeye, pink and chum salmon, and commercial harvest of chinook and coho salmon will occur when abundance permits.

Selective Fishing: to encourage selective fishing, a portion of the total commercial catch will be set aside for existing commercial license holders to test alternative, more selective harvesting gear and technology and, over time, commercial allocations will favour those that can demonstrate their ability to fish selectively.

Gear allocations: target allocations for the commercial sector will be established coast-wide by gear with catch of all species expressed in terms of sockeye equivalents, subject to adjustments over time to account for conservation needs including selective fishing and possible changes resulting from the Salmon License Retirement Program.

The allocation framework also promises the establishment of an independent board with coast-wide responsibilities to advise and assist the Minister in implementing salmon allocation policy.

More recently, Canada is developing a wild salmon policy that is expected to have far reaching implications for fisheries management. Separate Species at Risk (Canada's version of the endangered species act) legislation is also expected in the next few years.

3.1.2.1.2 Historical Management

Commercial salmon net fishing began in the north coast in the late 1870s with sockeye and chinook salmon being the primary species targeted in the fisheries. Initially fishing was conducted entirely by sail powered gillnet vessels operating exclusively in the lower portions of the major river systems and their estuaries. As the demand for salmon products increased the fisheries began to target on coho, pink and chum salmon as well. In the late 1920s the fishery began to move seaward, largely due to the introduction of gasoline powered engines. Alternative fishing methods were also developed during this period with the introduction of trolling and seining.

Prior to 1950, fishery management was very basic consisting of openings by regulation each week with the season extending from February through October. Alterations to the length of the closed period each week were based on subjective evaluations of run strength as indicated by the amount of fish being caught or the ability of processors to handle the catch

Peak catches in northern British Columbia coho fisheries generally occurred in the 1925 to 1935 period after which dramatic declines in catches were observed for all species. As the troll and seine fleets began to increase in size in the 1930s and 40s fishing patterns began to change from the historic terminal river mouth fisheries to more mixed stock type fisheries along the major migration routes of the target stocks. A historical reconstruction of the commercial coho harvest in the Skeena beginning in 1877 has been

provided by Argue et. al., 1986. The decade average harvests up to 1939 are outlined in Table C9 . All of the harvests were from the Skeena River or closely adjacent areas and are believed to represent only Skeena River coho, as harvests from any other outside area fisheries were believed to be very small. The coho catches steadily increased to a peak of 423,000 during the 1920s. Area 4 catches decline from this period on, but it is unclear to what extent reduced Area 4 catches were the result of increased interceptions in outside areas, reduced production from over harvesting, or a climate based decline in productivity. Increasing demand for salmon and improving efficiency of the commercial fleet eventually reached the point where management of the fisheries had to change substantially.

During the 1950s and 1960s inseason catch and escapement monitoring was expanded through the initiation of test fisheries to provide daily sockeye and pink escapement information required to adjust net fishing times to reflect stock abundance. Prior to the mid-1970s coho were managed in a very passive manner in all northern British Columbia fisheries. Fisheries were opened by regulation in May and continued through to October. Spring and summer net fisheries were managed to chinook, sockeye, pink and chum abundance with coho as an incidental harvest while coho were targeted in some fall net fisheries. Troll fisheries opened for coho retention in mid-June. In most fisheries stock information was not sufficient to determine the status of individual or aggregate stocks in order to actively manage coho. Although there were no specific objectives such as exploitation rates or biologically derived escapement targets, attempts were made to manage the various more terminal native, sport and commercial fisheries to maintain high coho escapements throughout northern British Columbia.

Seine fishery openings were delayed a month to mid-July to reduce the incidental harvest of juvenile chinook, but this management change also eliminated the seine coho harvests in this period. Troll fisheries continued without any new coho management measures. Recreational fisheries were managed through size and bag limits for both fresh and salt-water fisheries. First Nation fisheries generally operated with restrictions on the number of open days per week. In the late 1970s, concerns for some of the non-target, less productive stocks and species of salmon significantly altered how commercial fisheries were managed in northern British Columbia. Chinook stocks throughout the Pacific region were seriously depressed which resulted in significant reductions in all fisheries. Gillnet fisheries prior to mid-June were eliminated in the mid-70s and mesh restrictions were implemented to reduce chinook catch coastwide. Seine fisheries were delayed to mid-July to reduce the incidental harvest of juvenile chinook. Fall net openings for coho and chum salmon were progressively reduced or eliminated as the stocks of these species also began to show signs of significant declines. Beginning in the 1980s and continuing through to the mid-1990s there has been a progressive reduction in the net fishing times from late July through August and into September in Areas 3, 4 and 5, primarily due to concerns for steelhead and Upper Skeena coho. In the 1980s the troll openings were delayed to July 1, as part of a chinook management plan but this action also eliminated the coho harvest in the last two weeks of July. As a result of the signing of the Pacific Salmon Treaty in 1985 chinook catch ceilings were instituted with the intent of reducing the overall harvest rate on chinook salmon. Limitations on the Skeena net fisheries in Areas 3, 4 and 5 began in 1984 with a maximum of 4 days per week from late July through early September, primarily due to concerns for Skeena steelhead and coho.

3.1.2.1.2.1 Fishery Management for Upper Skeena Coho

Further detail of the management of upper Skeena coho is included as this stock is of greatest concern in the northern boundary area. In 1988 Canada identified severe conservation concerns for upper Skeena coho and implemented additional conservation measures the following year. Recreational fisheries for upper Skeena coho were closed in freshwater. Net fishing days were further reduced in August with a maximum of two days per week during the peak coho migration. Restrictions on trolling in Area 4 were

initiated including a two-week closure in the offshore areas adjacent to the Skeena. Through the 1990s conservation measures escalated each year as the conservation concerns for Skeena coho increased. Net fisheries were reduced and progressively eliminated during the weeks where Skeena coho are abundant. Troll fishery closures were expanded each year to cover a wider portion of the upper Skeena coho migration period, with all of Area 4 closed, then Area 3 closed and finally all troll fisheries affecting upper Skeena coho were closed in 1998.

Canada has used information on terminal run timing of upper Skeena coho to manage the fishery to allow sockeye harvests in Area 4 while minimizing the impact on upper Skeena coho. A measure of the migration timing of upper Skeena coho through Area 4 can be derived from the pattern of coho abundance in the terminal portions of Area 4. There are four data sets presented in Figure C21 that represent the migration timing of Skeena coho through the terminal zone of Area 4. The pattern of relative coho abundance at the Skeena test fishery provides a direct estimate of the coho run timing past the test fishery site near the Skeena River mouth. There are two data sets used, the Skeena test fishery escapement index proportions mean of the 1946 to 1998 period, and then a data set restricted to the more recent years 1985 to 1996 (to compare directly with the run-reconstruction that follows). The Skeena model (Cox-Rogers 1994) estimates coho run timing by using the annual run timing through the test fishery and reconstructing the catch component of the run to estimate coho run timing past the test fishery. The run timing based on escapement alone will be biased if there are disproportionate removals in ocean fisheries. Figure C21 illustrates the estimate of run timing derived by reconstructing the Areas 3 and 4 net catch and the Skeena escapement for the years 1985 to 1996 (using test fishery data to August 24). In other words, this graph estimates the run timing at the test fishery if there had been no Area 3 and 4 coho harvest. The gillnet coho catch rates in the most terminal portions of Area 4 in the Skeena River can also be used as a measure of upper Skeena coho terminal area migration timing. The coho in this terminal area are all from the Skeena River (no non-Skeena CWT have been recovered in this area). Figure C21 includes an illustration of the relative coho abundance based on the trend in average weekly coho catch per unit effort in the “River” portion of the Area 4 fishery. This data agrees closely with the other indicators of the terminal timing of upper Skeena coho. The upper Skeena coho timing indicated is very similar among the four methods. The run timing information is most useful to delineate the start of the run. The end of the run cannot be identified from this data because there is an overlap among the upper, middle and lower Skeena coho run timing beginning in mid-August or earlier. The run timing generated from this analysis is sensitive to the cut-off date (Aug 25 in this case). If escapements from the later periods were used (they would need to be estimated for some years) then the run timing shifts later as the late August early September escapements increase significantly as the middle and late timing coho stocks appear in the test fishery.

An estimation of coho run timing can also be obtained from the CWT recovery patterns. The number of CWTs recovered is standardized by calculating tags per unit effort, this provides an index of run timing. This method is based on the assumption that the relationship between effort and catch is constant and linear which we know is not true as illustrated by Cox-Rogers (1994) in the Skeena model analysis. This method tends to underestimate the abundance index when high levels of effort are present. In the case of upper Skeena coho the June and the mid-August to early September relative abundance is likely lower than indicated, relative to the July abundance estimates during the very high effort periods.

The pattern of effort in Area 4 over the last five decades, relative to the terminal run timing of upper Skeena coho is illustrated in Figure C22. With each decade there has been a steady progression to earlier fisheries and a large reduction in effort during the peak period of coho migration in August.

Samples (fin punches) have been taken from coho captured (and released) from the Skeena test fishery in recent years, and scale samples are available for many years since the initiation of the test fishery in

1956. An extensive DNA baseline-sampling program throughout the Skeena watershed has provided an excellent baseline for the estimation of stock composition from the test fishery sampling programs. Analysis of the test fishery samples will provide estimates of the stock specific run timing of the coho stocks in the Skeena watershed and clarify the uncertainty in the timing of the back half of the upper Skeena coho terminal migration timing. This technique is being evaluated for Canadian fisheries in the northern boundary area to further clarify our current understanding of stock specific coho abundance in these areas.

Even though Skeena sockeye run sizes and catches have increased in recent decades, Canadian managers have maintained or reduced Canadian ocean exploitation rates on Skeena sockeye as fisheries in the 1980s and 1990s have been constrained by concerns for Skeena steelhead and coho abundance. The fisheries harvest a larger proportion of the early segment of the sockeye run while reducing the effort and impacts during the August upper Skeena coho main migration period. Although sockeye catches increased, the management approach in Canadian fisheries resulted in a slow decline in the Canadian net exploitation rates on sockeye (Tables C10 and C11, and Figure C23). The overall exploitation rates on Skeena sockeye remained relatively constant as U.S. exploitation rates (although much lower) increased during the same period.

Prior to the 1998 fishing season, DFO announced far-reaching conservation objectives for the Pacific salmon fisheries. The objective for the 1998 season was to reduce the Canadian exploitation rate on Upper Skeena coho stocks to near zero. The implementation of the Minister's directions took a number of forms. All commercial and recreational fisheries in northern British Columbia were non-possession and non-retention of coho in 1998. Northern British Columbia was divided into areas where upper Skeena coho were prevalent (red zones) and the rest of the areas were called yellow zones. All commercial fisheries conducted in red zones would be closed during those times when these stocks were present. Regular commercial net fisheries were closed in the red zone areas and times, which included all of Areas 3, 4 and 5 after July 19; the outside portions of Areas 3, 4 and all of Area 1 were closed for the season. Troll fisheries were closed for the season in Areas 1, 3, 4, 5, 6 and the northern portions of 2E. Experimental selective fishing opportunities would be permitted as long as impacts on coho were minimal. A selective seine fishery with 20 boats participating was tested in Areas 1, and 3 for 2 days (August 8 and 9) to evaluate progress on selective fishing techniques. Fisheries conducted in areas where Upper Skeena coho were not prevalent allowed to continue with non-retention fisheries and measures to reduce the encounters and release mortality of coho. Recreational fisheries were closed during the red zone times in the Skeena River (after July 25). A very small experimental recreational fishery was held in two areas of the Bulkley River to evaluate coho encounters with respect to gear and area differences. The ocean recreational fisheries were non-retention and non-possession all season. In addition, salmon angling closures were instituted in some red zone areas, while other subareas remained open to salmon angling with non-retention of coho salmon.

3.1.2.2 Trends in Commercial Catch and Effort

Catch information was obtained from the DFO salmon sales slip catch database maintained at the Pacific Biological Station in Nanaimo (Holmes and Whitfield 1991). Effort data for all troll fisheries and the Areas 1 and 6 to 10 net fisheries are from the sales slip database. Effort for the Area 3 and 4 net fisheries are from the DFO hail catch records. Figures C24 and C25 compare the Area 3 seine and Area 4 gillnet effort estimates from the sales slip and hail sources. Effort estimates for nets are generally from direct overflight counts and are more accurate than the sales slip estimates where effort is the number of landings.

Troll fishery catch and effort data from the sales slip program is recorded by landing date. The data used in this report is moved one week earlier to reflect catch date as opposed to landing date. A more sophisticated approach had been used previously for the northern British Columbia troll catch data for the years 1988 to 1994. This method took each sales slip and prorated the catch over the period of open fishing days (which is recorded on each slip). A comparison of the average catch proportion distributions using the one week lag method compared with using the prorating algorithm is presented in Figure C26. The distribution of the weekly proportions is very similar.

Canadian catch and effort information for northern British Columbia coho salmon has previously been summarized through 1989 by the Joint Coho Technical Committee (1991). Coho catch and net effort are reported annually by the NBTC, and detailed coho catch information from northern British Columbia commercial fisheries for 1980 to 1992 was summarised by Spilsted and Hudson (1994).

Annual coho catch by gear for Northern British Columbia statistical areas 1–10 is provided in Tables C12 through C15 and Figures C27 to C50. Weekly catch by gear for Northern Boundary areas 1, 3, 4 and 5 is provided in Tables C16 through C35. Annual effort by gear for Northern British Columbia statistical areas 1–10 is provided in Tables C36 through C38 and Figures C51 through C68. Weekly effort by gear for Northern Boundary areas 1, 3, 4 and 5 are provided in Tables C39 through C53.

3.1.2.2.1 Catch and Effort Trends in Areas 1 to 10

Effort data for all areas is available beginning in 1963 so the Area 1 to 10 effort roll-up starts in 1963.

The total northern British Columbia (Statistical Areas 1 to 10) commercial all gear coho catches have considerable annual variation, and a progressive decline from the high decade average in the 1960s (1,384,000) to about half that level in the 1990s (Figure C30, Table C12).

The gillnet catch increased from 200,000 in the early 1950s to a high of 720,000 in 1965, then declined to relative low stable catches of less than 100,000 in the last two decades (Figure C27, Table C13). The gillnet effort has declined from a decade average 64,000 boat days in the 1950s to 40,000 in the 1960s, 23,000 in the 1970s and 20,000 in the 1980s (Figure C51 and Table C36).

Seine catch was highly variable from 1963 to 1973 then variable without persistent trend, until the decline in the 1990s (Figure C28 and Table C14). Seine effort also steadily decreased from a high of 6,500 boat days in the 1960s to 3,400 boat days in the 1990s (Figure C52 and Table C37).

The troll fishery catch shows considerable annual variation but without long term trends, although the 1960s were the highest (758,000) and the 1990s the lowest (531,000) (Figure C29, Table C15). The troll fishery effort was relatively stable varying between 36,000 to 41,000 boat days for the 1960s through the 1970s, then jumped up in 1980 and has steadily decreased to 1998 (Figure C53, Table C38).

3.1.2.2.2 Catch and Effort Trends in the Canadian Northern Boundary Area

The Canadian commercial all gear coho catches in the northern boundary area (Statistical Areas 1, 3, 4 and 5), also have considerable annual variation, but no trend in decade averages although the 1960s were highest (691,000) and the 1970s lowest (420,000) (Figure C34 and Table C12). Weekly coho harvest by year is illustrated in Table C16.

Gillnet catch was high during the period 1962 to 1972 (average 220,000) then remained low and stable averaging 60,000 in the 1980s and 1990s (Figure C31 and Table C17). Gillnet effort has declined from a decade high of 28,000 boat days in the 1960s, to 21,000 in the 1970s, 13,000 in the 1980s and 16,000 in the 1990s (Figure C54 and Table C 39). The weekly catch patterns illustrate the pre 1970's period where the fishery was opened by regulation in May and remained open into October (Table C16). The changing management strategies in the 1970s eliminated the May and early June fisheries and the 1980s eliminated the September and October fall fisheries directed on coho (Table C39). The 1990's management approach of moving the fishery to concentrate on the early portion of the sockeye run and away from the August peak migration period of upper Skeena coho is evident in the data.

Seine catches have increased from the pre-1980s average (31,000) up to 77,000 for the 1980s and 52,000 for the 1990s (Figures C32, Table C14). Seine effort has increased from near 5,000 in the 1960s and 1970s to near 22,000 in the 1970s and 1980s (Figure C55 and Table C37). Weekly catch by year is presented in Table C18. The weekly effort patterns in Table C40 illustrate the early season management change instituted in 1983 that delayed the start of the seine fishery from mid-June to mid-July. This management change reduced the juvenile salmon by-catch problem that is present early in the season and conserved chinook salmon.

Troll catches have been highly variable with similar decade averages (355,000 to 455,000) except for the 1970s when catches were lower (273,000) (Figure C33 and Table C15). Troll effort has been variable with an average 23,000 boat days in the 1960s, declining to 18,000 in the 1970s, up to 24,000 in the 1980s and decreasing to 14,000 in the 1990s (Figure C56, Table C38). The weekly catch patterns by year illustrate that coho retention in the troll fisheries was allowed beginning the second week of June until 1981 when the troll opening was moved to the week centred around July 1 (Table C19). The weekly effort patterns in Table C41 show the early season effort until the 1980s that was directed at chinook harvest.

3.1.2.2.2.1 Catch and Effort Trends by Statistical Area

3.1.2.2.2.1.1 Area 1

Trends differ among statistical areas within the Canadian northern boundary area. The Area 1 total coho catch was lowest in the 1970s (194,000) and highest in the 1980s (328,000) and the 1990s (320,000; Figure C38, Table C12). The weekly coho harvest patterns are outlined in Table C20.

The gillnet coho harvest in Area 1 has been negligible except for the period 1962 to 1972 when the catch averaged 44,000 (Figure C35 and Table C13). The gillnet effort follows a very similar pattern (Figure C57 and Table C36).

The very small seine catches were highest in the last two decades (Figure C36 and Table C14). Seine effort has increased after averaging 150 boat days in the 1960s and 1970s to 240 in the 1980s and 185 in the 1990s (Figure C58 and Table C37). Weekly catch and effort are outlined in Tables C22 and C43).

The Area 1 troll coho catch averaged around 225,000 during the 1950s and 1960s, declined slightly in the 1970s, then increased to over 300,000 in the 1980s and 1990s (Figure C37 and Table C15). The troll effort in area 1 averaged around 10,000 boat days until the early 1980s when the effort doubled and has since declined to below the pre 1980 levels (Figure C59 and Table C38). The weekly catch patterns are in Table C23. The weekly effort patterns in Table C44 show the May and June chinook fishery was

eliminated by 1985 (Table C44). This makes the relative effort increase during June and July larger than it appears from looking at the data with all weeks considered. The increase in effort in Area 1 was largely the result of trollers moving from other areas to take advantage of the developing market for troll caught pink salmon (Table C69).

3.1.2.2.2.1.2 Area 3

The Area 3 total coho catch was lowest during the 1970s (75,000) and highest in the 1980s (130,000) and the 1990s (115,000) (Figure C42 and Table C12). The weekly catch data is in Table C24.

The gillnet harvest was around 40,000 in the 1950s and 1960s, dropped to 30,000 in the 1970s and declined further to 15,000 in the 1980s and 1990s (Figure C39 and Table C13). The decade average gillnet effort declined from near 8,000 boat days in the 1950s and 1960s to 1,900 in the 1980s then increased to 2,700 over the last decade (Figure C60 and Table C36). The weekly catch patterns over time illustrate a large fall coho fishery in August and September that comprised the bulk of the coho catch in the area (Table C25). The weekly effort patterns show an effort in May and June prior to the 1970s with no associated coho catch, because this was a large mesh gillnet fishery directed on chinook (Table C45).

The seine catch increased from less than 10,000 in the 1950s to a high of 53,000 in the 1980s and 37,000 in the 1990s (Figure C40 and Table C14). Seine effort increased from levels near 600 boat days in the 1950s, 1960s and 1970s to near 1,400 in the 1980s and 1990s (Figure C61 and Table C37). The weekly catch patterns over time illustrate a large fall coho fishery in August and September that comprised the bulk of the coho catch in the area (Table C25). The weekly catch and weekly effort patterns indicate a relatively stable seasonal distribution in catch and effort (Table C26 and Table C46).

The troll coho catch declined to a decade low of 29,000 in the 1970s then increased to 62,000 in the last two decades (Figure C41 and Table C15). The troll effort was highest in the 1960s (4,400 boat days), declined to 3,000 in the 1970s, increased to 3,700 in the 1980s and declined again to 2,600 over the last decade (Figure C62 and Table C38). The weekly catch data shows an increase in the July effort in recent years with a relatively consistent pattern in the August and September fisheries (Table C27). The weekly effort data shows the chinook effort in May and June, and the extent of the last August and September fall coho fishery (Table C47).

3.1.2.2.2.1.3 Area 4

The Area 4 total coho catch declined from 139,000 in the 1960s to average between 75,000 and 88,000 over the last three decades (Figure C46 and Table C12). The weekly catch data is in Table C28.

The gillnet harvest has declined from 62,000 in the 1950s and 1960s to 35,000 in the 1980s and 39,000 in the 1990s (Figure C43 and Table C13). The gillnet effort has fluctuated around 9,000 boat days for the last three decades, down from near 13,400 boat days in the 1950s and 1960s (Figure C63 and Table C36). The patterns of historical weekly catch indicate a relative stable July catch but large reductions in the late June and the August and September coho harvests (Table C28). The weekly effort patterns illustrate the May and June chinook fishery effort and reinforce the decline in effort in June in recent decades, as well as the progressive reduction in the fishing effort after the fourth week of July (Figure C22 and Table C48).

Seine catch increased from a few hundred coho in the 1950s and 1960s to a high of 7,000 in the 1980s down to 4,000 in the 1990s (Figure C44 and Table C14). Seine effort increased in Area 4 from around 10 boat days in the 1950s and 1960s to 170 in the 1970s, 340 in the 1980s and 270 in the 1990s (Figure C64

and Table C37). The weekly patterns of catch and effort show variable timing of the seine fisheries from mid-July to mid-August in the last two decades (Tables C30 and C49).

The troll coho catch has been variable while generally declining from a decade high of 77,000 in the 1970s to 28,000 in the 1970s, up to 46,000 in the 1980s and down again to 31,000 in the 1990s (Figure C45 and Table C15). The troll effort has declined steadily from 4,100 boat days in the 1960s to 500 in the 1990s (Figure C22 and Table C38). This reflects a combination of better opportunities in Area 1 and management restrictions in Area 4. The weekly catch and effort patterns illustrate a large early season chinook effort prior to the 1980s, a gradual reduction in the August and September fisheries over time, and variable effort in July with higher levels in the 1960s and 1980s (Tables C31 and C50).

3.1.2.2.2.1.4 Area 5

The Area 5 coho decade average all gear catch steadily declined from 190,000 in the 1960s to 28,000 in the 1990s (Figure C50 and Table C12). The weekly catch data is in Table C24.

The gillnet harvest has declined from a decade average of 63,000 in the 1960s to 7,000 in the 1980s and 5,000 in the 1990s (Figure C47 and Table C13). The gillnet effort was 2,000 boat days in the 1950s, increased to 5,300 boat days in the 1960s then declined sharply with a decade low of 320 in the 1990s (Figure C66 and Table C36). Weekly catch and effort patterns show the declines in all weeks from the high catch and effort of the 1960s (Tables C33 and C51).

Seine catch decreased from 23,000 coho in the 1960s to between 4,000 and 6,000 over the last three decades (Figure C47 and Table C14). Seine effort averaged 400 boat days in the 1950s, 870 in the 1960s and then declined each decade to a low of 160 in the 1990s (Figure C67 and Table C37). Weekly catch and effort patterns show the declines in all weeks from the high catch and effort of the 1960s (Tables C34 and C52).

The troll coho catch steadily declined from 105,000 in the 1960s to 19,000 in the 1990s (Figure C49 and Table C15). The troll effort has declined steadily from 4,800 boat days in the 1960s to 600 in the 1990s (Figure C68 and Table 38). Weekly catch and effort patterns show the period of the early season chinook fishery and the gradual reduction in effort overall (Tables C35 and C53).

3.1.2.3 Recreational Fisheries

The history of recreational fishing for coho in northern British Columbia is not well documented but presumably began with the arrival of the first settlers. Sport fisheries for steelhead in the Skeena system became world famous in the 1960s. Freshwater fisheries for chinook and coho developed rapidly in the 1970s and 1980s in parts of northern British Columbia as the population grew and access improved. The tidal fishery development was slower with the main expansion occurring in the late 1980s with the extensive lodge and charter boat developments. The tidal fishers target primarily on chinook and coho salmon and non-salmon species. In the non-tidal fishery chinook, coho and steelhead are the most often sought species with some effort directed on sockeye and pink salmon as well in recent years.

Estimates of the northern British Columbia tidal recreational catch for Areas 1 through 10 are provided in Table C54. Coho catch shows an increasing trend, particularly in Areas 1 and 3 as the result of an influx of charter and lodge operations. The northern British Columbia (Area 1–10) recreational coho harvest remains low relative to the commercial harvest with only 2.5 percent of the total ocean harvest in the 1980s rising to

7 percent in the 1990s. The recreational fisheries in Areas 1, 2E, 3, 4 and 5 combined represent 1.5 % of the total ocean harvest in the 1980s and 3.5 % in the 1990s.

3.1.2.4 First Nation Fisheries

Native fisheries have been directed on salmon stocks as long as they have occupied the land. Salmon have been an integral part of the native heritage as a food source and for social and ceremonial purposes. Since the development of the commercial fisheries in the late 1870s management of the aboriginal fisheries was altered from no restrictions at all to time or allocation restrictions. Currently First Nation fisheries have first priority after conservation. Treaty arrangements are being actively negotiated in many areas with the Nisga'a (Nass River) treaty the first North Coast treaty to be implemented in 2000.

In recent years, First Nations have participated in commercial fisheries in the Skeena River to harvest surplus enhanced sockeye under an 'Excess to Salmon Spawning Requirements' (ESSR) license. The surplus sockeye escapements have resulted in part from management actions implemented in the tidal commercial fishery designed to reduce the harvest rates on non-target species such as coho and steelhead.

Our historical data on first nation harvests in northern British Columbia are generally poor. Until recently, the harvest by in-river food fisheries is largely undocumented, although a 1994 radio tagging study indicated a range of 15 to 26 % river harvest rate (6.2 to 10.6 % exploitation rate) for the upper Skeena coho run (Koski et al. 1995). Recent improved catch estimates indicate exploitation rates in the 2 to 3% range although these are not directly comparable to historic (or the tagging study) rates as current First Nation fisheries are constrained because of concerns for coho abundance. As a comparison, the historic record of sockeye IFF harvests is relatively good and the sockeye exploitation rate in the First Nations IFF harvests averages 5% exploitation rate on Skeena sockeye since 1970, without any strong trends. Canada has recently instituted commercial ESSR fisheries in the Skeena Watershed to selectively access surplus sockeye escapement. These fisheries are prosecuted using primarily beach seines and small boat seines (Babine Lake) and to a lesser extent fishwheels and are selectively harvesting sockeye while releasing all other species. The fisheries are closely monitored, particularly to ensure sockeye are captured using only selective harvest methods. There have not been any direct studies of coho encounters, or release mortality rates. Release mortalities are believed to be very small given the nature of the beach seine or small boat seine fisheries, which are small operations efficient at identifying and releasing non-target species.

4 SUMMARY OF INDEPENDENT REPORTS ON STOCK STATUS

In this section, we will briefly summarize the assessments of stock status of Northern boundary coho salmon stocks mainly from Holtby (1999) and Shaul and Van Alen (2001), noting differences and areas of agreement in both methods and conclusions. A number of factors had a bearing on the interpretations and perspectives on the status of the stocks. We will attempt to detail the sources of the different interpretations and in the process, describe assessment programs that would help resolve future assessments.

4.1 A Brief Overview of an Assessment Framework for Skeena Coho

It seems to have taken an inordinately long time to arrive at a summary of status of Skeena coho. A legitimate question is "why should that be so?" Even more perplexing to some will be the apparent lack

of consensus on what the current status is. This section is an attempt to explain the why determining status is not a trivial task and why it remains uncertain. A framework for obtaining the information necessary to address the issue of status is developed along the way to answering the questions.

To determine the status of a salmon population one needs to know three things: the trend in abundance relative to a benchmark. When the status of salmon within a large watershed such as the Skeena is considered there are many census units or populations for which each of those three quantities must be determined, a need that might be characterized as spatial complexity.

In an ideal world we would operate programs to collect information to inform us on the first three elements in all populations within the Skeena. After the application of theoretical production models to those data we would then be able to fully describe the variation in status across the entire watershed or, in other words, describe the spatial complexity or fourth element. The reality is that there is actually very little information that allows determination of the four elements with sufficient precision or spatial resolution to definitively characterize status.

The following Table lists the different sources of assessment information and their characteristics in terms of the four elements identified above. All of the information types will indicate trends if collected consistently over time. The information sources are listed in descending order of "quality": as the list is descended, inferences about stock status become less certain and increasingly subject to conflicting interpretation.

Type	*Description*	*Abundance*	*Benchmark*	*Spatial specificity*	*Available in Skeena*	*Duration*
Wild indicator	*Population where smolt production, escapement, & exploitation rate measured*	*Absolute*	*Theoretical production model*	*High*	*Toboggan * Lachmach §*	*~11 years*
Hatchery indicator	*Hatchery population where marine survival and exploitation rate measured*	*Absolute*	*Provide information for modeling*	*Low*	*Babine, Toboggan*	*~12 years*
Escapement indicator	*Absolute escapement is measured*	*Absolute*	*If exploitation known then theoretical model*	*Low (L) Moderate (M) High (H)*	*Babine (M), upper Bulkley (M), Bulkley/Morice (L), Toboggan wild (H), Sustut (M)*	*Babine-1946; Upper Bulkley12 yr; others < 5 yr*
Stock-specific escapement index†	*Direct index of escapement*	*Index*	*Empirical*	*High*	*none*	*–*
Juvenile density	*Indirect index of escapement &*	*Indirect Index*	*Empirical*	*High*	*Approximately 80*	*5–15yr*

Type	*Description*	*Abundance*	*Benchmark*	*Spatial specificity*	*Available in Skeena*	*Duration*
	predictor of smolt production				*sites throughout watershed*	
Aggregate escapement index	*Index for aggregate*	*Index*	*Empirical*	*Low*	*Test-fishery, pooled visual counts*	*45–50 yrs*
Visual escapement estimates†	*"BC-16" estimates of total escapement reported by DFO*	*Index*	*Empirical*	*High*	*~155 streams*	*50+ yr*
Catch & fishery performance	*Catch in fisheries or CPUE or equivalent*	*Index*	*Empirical, if exploitation rate and composition known then theoretical model*	*Low*	*Variety of catch and CPUE, mostly troll fisheries*	*50+ yr*

**(H) indicates hatchery (W) indicates wild indicator*

§ Lachmach River is at the head of Work Channel and not in the Skeena. It has been used as a proxy for coastal Skeena coho.

† The difference between these two types is their quality. For the BC-16 estimates the methods and data used are, at best, poorly documented.

To develop or fit production models it is necessary to determine total stock size, which requires knowledge of catch and escapement. Because of the geographically dispersed, highly mixed-stock nature of coho fisheries, stock-specific catch can only be determined with coded-wire tagging programs[1]. In the northern boundary area these programs only began in the 1980s, after many of the significant changes in escapement and catch had occurred. That limitation forced the development of an exploitation rate index based on the observed timing and distribution of coded-wire tags applied to historical effort data. The exploitation rate was then used with historical escapement information to estimate abundance.

Theoretical production models include the usual stock-recruitment models but also include habitat-based production models that would allow benchmarks to be established based on measured habitat capability and availability. To develop habitat-based models requires time-series of smolt production over a range of habitat types and escapements. Currently within the Skeena there is only one very short time series of smolt production. Juvenile density measurements are available for a large number of sites throughout the Skeena but the time series are short and there are many interpretive difficulties that are compounded by the lack of measures of smolt production in interior systems.

There are very few places in the Skeena where absolute escapement is measured and only one location where there is a lengthy time series (the Babine fence). Even at the Babine fence there are only complete escapement counts in 11 of 51 years, which forced estimation of total escapement in the majority of years. Total escapement counts in the few other sites are of very short duration and all of them are recent.

[1] For sufficiently large aggregates it may now be possible to use DNA to identify stocks in fisheries.

Escapement has been estimated through visual counts in a large number of sites throughout the Skeena since 1950. Visual counts can be used to estimate abundance provided that observer efficiency is known and variations in counting procedures and environmental conditions are documented and corrected for. However, the procedures used to estimate the BC-16s escapement from visual counts and the data themselves are poorly documented. Furthermore, there are only four sites where the estimates have been made in most years. The time series in other sites is highly fragmented. An attempt was made to consolidate those time series into a single index but this procedure reduces the stock specific information to a large-scale aggregate index. Finally there is the Tyee test-fishery index, a large-scale aggregate index of abundance. Despite procedures that have been painstakingly consistent since the initiation of the program in 1956, efficiency of indexing sockeye escapement has varied over time with an irregular pattern. The efficiency of the test-fishery for other species, including coho, is unknown and cannot be verified without reliable direct escapement estimates. Problems resolving and interpreting this index may be intractable.

When viewed in the context of the above table, it is clear that resolution of questions about the status of Skeena coho was seriously limited by a lack of critical information. Far from starting with a mix of programs that span the rows of the Table, nearly all information came from qualitative indices of escapement to large-scale aggregates and was subject to multiple and conflicting interpretations, if it was interpretable at all. Many of those difficulties are summarized in the following section.

The ordering of information sources in the Table provides a guide to priorities of program development within the Skeena and more generally within the northern boundary area. Those priorities are:

1. Development of wild indicator sites,
2. Expansion of stock-specific, quantitative abundance estimates, and
3. Development of habitat-based production modeling and habitat capability models.

Progress in developing these programs will allow de-emphasis and eventual elimination of those programs providing qualitative, indirect and difficult to interpret indices of escapement.

4.2 Important Technical Issues in Resolving the Stock Status of Upper Skeena Coho Stocks and Other Northern Boundary Coho Stocks

In our analysis of information on upper Skeena coho stocks, we found that several technical issues were critical in preventing a joint resolution of the status of the stocks. These issues are outlined below in the hope that information obtained in the next few years through ongoing and newly designed research programs will lead to their resolution and a common understanding of the status and productivity of the stocks.

4.2.1 Tyee Test Fishery as an Index of Coho Salmon Abundance in the Upper Skeena

The question of whether or not to apply a catchability adjustment to the coho index is important to the reconstruction of historical escapement patterns. Sockeye catchability in the test fishery has varied in a complex but non-random way since the early 1970s. The reason for the changes is unknown. The unadjusted coho index has declined since the early 1970s, while the adjusted index fell abruptly in the early 1970s but has not trended since then.

A long-term declining trend in an index at the rate of 16% per generation[2] would be of concern regardless of the level of current escapement because such a decline could not be sustained indefinitely without risk to the persistence of the indexed stocks. An abrupt decline to a lower but stable level might not be of concern if it only represented a transfer of "surplus" escapement to catch and presented no loss of future production or risk to persistence.

The estimates of sockeye catchability are derived from a fence count of Babine sockeye combined with visual counts of non-Babine sockeye. There are some concerns that underestimation of non-Babine sockeye abundance combined with trends in the relative abundance of non-Babine sockeye may have introduced a time-dependent bias in the estimate of catchability. It may be possible to improve the estimates of sockeye catchability with DNA analysis of historical sockeye scale collections from the test fishery. This will provide an estimate of the abundance of non-Babine sockeye independent of the visual estimates and may help remove biases in the time series of sockeye catchability.

The real issue with the test-fishery index is whether it is useful as a coho escapement indicator. Overlapping runs of upper and lower Skeena stocks combined with variable run timing may seriously limit the accuracy of the index, particularly in years with extreme run timing. DNA analysis may provide some useful information on run timing and stock composition of the test fishery in previous years, but the lack of samples in many years and small sample sizes in most years may limit the information gain. Without a convincing explanation of the cause of the variation in catchability it will not be easy to determine whether or not the correction should be applied. In the future, DNA sampling in the test fishery combined with escapement estimation programs for specific upper river populations has the potential to provide accurate stock-dependent escapement estimates that don't rely on assumptions about inter-annual variations in coho catchability. However, without an explanation for the variations in catchability it remains possible that intra-annual variations are as large or larger than inter-annual ones, which would greatly reduce the utility of the index for escapement estimation.

The committee developed a common data set of unadjusted values for 1956–1998 with interpolations for missing dates up to Sept. 4. Both independent reports used Babine coho escapement as a benchmark for comparison in evaluating whether or not to employ a sockeye efficiency adjustment. There was agreement that it is impossible to definitively determine which index is best, but disagreement on which method is most appropriate based on the preponderance of evidence. The question was critical to the assessments because the unadjusted index indicates a continuous decline in escapement while the adjusted index shows an abrupt decline after 1971 followed by a more stable neutral trend during 1972–1998.

Holtby (1999) concluded that the unadjusted index is more suitable when the period 1970–1998 is considered. He computed r^2 values for periods beginning in 1956 and found the unadjusted index to be better correlated with the Babine fence count overall, and in all periods before 1978. He concluded that "since the Babine Lake aggregate is presumed to be a major component of the larger upper Skeena aggregate indexed by the test fishery index the use of the unadjusted test-fishery index is the most suitable choice."

Shaul and Van Alen (2001) also used the Babine escapement as a primary benchmark for comparison of the unadjusted and adjusted indexes. They found similar results, with a better correlation with the unadjusted index for longer periods that transited what they described as a stepped decline in Babine escapement. However, they reported better correlations with the adjusted index for periods both before and after the decline in Babine escapement. They reported that all correlations were very poor when

[2] The observed rate of decline in the unadjusted Tyee coho index between 1970 and 1996.

confined to periods before the decline but noted a dramatic improvement for periods beginning in 1981. They reported a further improvement in the correlations using 5-year symmetrical average catchability adjustment (as opposed to an annual adjustment). Based on this result, they speculated that the declining trend in sockeye catchability may hold for coho, but that there may be inter-annual variations in sockeye catchability caused by traits specific to sockeye and their migration.

Holtby (1999) evaluated the Tyee index through September 4 (the latest practical date). Shaul and Van Alen chose September 1 as producing the best fit with the Babine escapement, while being as specific as possible for upper Skeena stocks based on radio-telemetry results. The choice between these ending dates had no practical effect on the results of the separate analyses.

Shaul and Van Alen partitioned the Tyee index into Babine and non-Babine components based on Babine escapement counts and a radio telemetry estimate of the proportional contribution by the Babine stock to the Tyee Index in 1994.

4.2.1.1 Description of Trends

Beyond the decision about whether or not to adjust the index for catchability, there is little difference in the characterization of the trend. Both reports described an abrupt decrease in the adjusted index in 1972 followed by a constant trend through the mid-1990s. Holtby (1999) described how the unadjusted values "decrease in a saw-tooth pattern since the mid-1960s". Both reports concluded that the choice of whether or not to adjust for varying sockeye catchability is important. However, they drew opposite conclusions about which method is most appropriate, which in turn resulted in different conclusions about the escapement history of the stocks represented by the Tyee Index. Based on the unadjusted index, Holtby (1999) estimated a generational rate of decrease in escapement of 15.5% with a decrease over three generations of 39.6%, which he concluded was similar to the rate of decrease observed for Babine escapement and total stock size and for upper Skeena average escapement.

Based on the 5-year adjusted index, Shaul and Van Alen (2001) found no significant trend over the most recent 20-year period. When they removed their estimate of the Babine component from the Tyee Index, they reported no significant trend since 1972 or since 1956.

4.2.1.2 Conclusions and Recommendations about the Tyee Coho Index

Any assessment of the Tyee Index of early coho salmon escapement into the Skeena system in the past 20 years clearly depends on the decision about whether or not to apply the sockeye adjustment. The difference in the index trend was minimal before the 1980s when efficiency for sockeye began to decline. Our inability to adequately explain the trend in catchability for sockeye, as well as differences of opinion over the appropriateness of applying a sockeye adjustment to the coho index, point to the need to maintain and improve direct measures of coho escapement in the upper Skeena system. In addition, escapement programs in specific tributaries of the upper Skeena system will provide greater resolution compared with the Tyee test fishery which indexes the overall aggregate of stocks that migrate into the Skeena from July until early September.

Recent progress has been made in this direction with implementation of a mark-recapture program on the Bulkley-Morice system at Moricetown (beginning in 1997) and an indicator stock program on the Slamgeesh River, a far upper Skeena tributary as well as the stock specific weekly DNA stock composition analysis from the Skeena test fishery.

4.2.2 Babine Stock

Historical escapement to the Babine system was estimated jointly. Therefore, the estimated number of spawners migrating past the fence since 1946 differs little between the reports, with the following exceptions. While Shaul and Van Alen did not attempt to estimate Babine escapement for the two years when the fence was not operated (1948 and 1964), Holtby estimated the 1948 escapement from the catch per hook in the Alaska troll fishery and the 1964 escapement from the unadjusted Tyee test fishery index through September 4. Also, while Shaul and Van Alen included the extremely high 1965 extrapolated escapement estimate of 42,985 spawners based on the September 13 count expanded for average run timing, Holtby rejected the exceptional estimate as ”inconsistent with other returns that year” and instead used a figure of 22,985. However, because the exceptional 1965 estimate had a large influence on their estimates of population parameters, Shaul and Van Alen excluded it from some of their analyses. Also, while Holtby used Alaska troll catch-per-hook to estimate what the 1951 escapement would have been had the Babine slide not occurred (20,427), Shaul and Van Alen (2001) used the average escapement for 1949, 1950, 1953 and 1954 (10,706). In both cases, these expanded estimates were used only to estimate recruitment from prior brood years (age 4 returns for the 1947 brood year by Shaul and Van Alen; age 3 and age 4 returns from the 1947 and 1948 brood years by Holtby), and the lower above-slide estimate of 2,276 was used as the 1951 brood year escapement.

4.2.2.1 Exploitation Rate Reconstruction

Although differences in Babine escapement estimates occurred in only 4 years, the reports contain more substantial differences in reconstructed exploitation rates that in turn had a significant effect on the respective analyses of stock productivity and trends in total abundance. This contributed to the reports' different conclusions about the probable cause of the decline.

A joint analysis was conducted to reconstruct historical exploitation rates on Babine River coho salmon based on the recent relationship between fishing effort and exploitation rate for years when coded-wire tag estimates of the exploitation rate were available. However, while the initial analysis was conducted jointly and the concept was agreed upon in principle, there are substantial differences in the results reported in the two reports.

The reconstructed exploitation rates are similar through 1976, but the estimates by Shaul and Van Alen (2001) after 1976 are substantially lower on average compared with Holtby (1999). Shaul and Van Alen attempted to explain the differences, which appeared to result primarily from two sources: (1) a different method for generating direct estimates (accounts for differences in 1988–1998), and (2) use of different statistics for effective effort by commercial marine fisheries in Canada. Shaul and Van Alen (2001) noted that direct coded-wire tag estimates of exploitation rate were poorly correlated between the Babine and Toboggan Creek stocks during 1994–1998, and that estimated average impacts on the Babine stock were higher compared with Toboggan Creek in both Canada and Alaska. Based on these observations, they concluded that the number of tags in the Babine escapement was probably under-estimated by a substantial margin in some years and, therefore, they elected to base their reconstructed Babine exploitation rate on direct CWT estimates for Toboggan Creek. They included an adjustment to account for the average difference in fishery distribution between the stocks that resulted in a higher average proportion of the catch of the Babine stock being taken in Alaska in most years. Their exploitation rate estimates for 1988–1998 were substantially different using this approach. The second major difference results from Shaul and Van Alen’s use of revised estimates of effective fishing effort for upper Skeena stocks that were provided by DFO in January 2000. For years before 1977, the revised estimates were

within 3% of those used by Holtby (1999), but ranged from 6–20% lower (average 12%) during 1977–1997. Use of the revised effective effort statistics by Shaul and Van Alen (2001) accounted for substantially lower exploitation rate values during 1977–1987, compared with Holtby (1999).

The different exploitation rate estimates after the mid-1970s contributed to differences in interpretation of population trends and productivity between the reports. The lower exploitation rate estimates for later years by Shaul and Van Alen (2001) resulted in a lower estimate of intrinsic productivity and higher estimate of MSY escapement for the full time series of data compared with Holtby (1999). They also led Shaul and Van Alen to report a steeper and more abrupt decline in the total Babine stock compared with Holtby. The difference in the estimates contributed to differing interpretations of the cause of the decline. Further work to review the historical exploitation rate estimates and to resolve differences where possible would help further the goal of a common interpretation of stock status.

4.2.2.2 Total Run Reconstruction

With the exception of the 1965 return year, the total stock size estimates are very similar between Shaul and Van Alen (2001) and Holtby (1999) through the late 1970s. The estimates average 24,272 and 24,224, respectively, during 1946–1978. However, the difference in exploitation rate estimates in later years resulted in a substantially different picture of total abundance after 1978 when estimates by Shaul and Van Alen averaged only 8,155 fish for a 66% decline from the 1946–1978 average, compared with a 47% decline to 12,759 fish for estimates reported by Holtby (1999). Since all escapement figures for the most recent 20-year period are in agreement between the reports, the difference in total abundance estimates is the result of the above-described difference in exploitation rate calculations. The differences in reconstructed abundance are very large in some years, with estimates by Shaul and Van Alen (2001) being 63% and 77% below Holtby's estimates in 1994 and 1995, respectively.

4.2.2.3 Trends in Abundance

Holtby (1999) described the trend in abundance by comparing decade median levels of escapement and total return. He reported that the decadal median escapement for the 1990s was only 21% of the median for the 1960s. He described slightly different patterns in escapement and total stock size, with escapement showing a stepped pattern with a marked drop in 1979. However, he described the time series for total stock size as not being stepped, but following a continuous decline since the early 1970s. He computed a finite rate of decrease in stock size of 3.5% per year or 11.1% per generation from 1970 to 1998. His comparable estimates for the decline in escapement were 5.5% per year with a generational rate of decline of 17%.

Holtby (1999) noted that his estimates of the generational rate of decrease for the Babine escapement and total stock size during 1970–1998 were similar to his estimate (15.5% per generation during 1965–1996) of the rate of decline in the unadjusted Tyee Index of aggregate escapement into the lower Skeena River through September 4.

Since the exploitation rate estimates by Shaul and Van Alen were substantially lower after the mid-1970s, their reconstruction of total abundance more closely tracks the pattern in escapement compared with Holtby's total abundance estimates. Based on different total run estimates, Shaul and Van Alen described the decline in both escapement and total abundance as being a very stepped occurrence, with an abrupt decline of approximately 66% after the 1978 return year. They reported an absence of a significant trend in escapement since 1979. Their reconstructed total abundance during 1979–1998

showed a steeper downward linear trend than escapement alone, but they reported that it was not significant at $p < 0.05$.

4.2.2.4 Cause of Decline

Four general hypotheses have been formulated to explain the decline in the abundance of Babine coho salmon:

Hypothesis 1: The decline in abundance was due to recruitment over-fishing with no change in habitat capability or the production characteristics of the stock (i.e. no change in the spawner-recruit relationship or natural survival in freshwater and the ocean). Increased escapement would result in increased recruitment but rebuilding would occur only if the exploitation rate was reduced to a sustainable level. The rate of rebuilding or further decline would be dependent only on the deviation from the long-term sustainable exploitation rate.

Hypothesis 2: The decline in abundance was due to recruitment over-fishing that has resulted in the loss of the lowest productivity stock components. There has been no change in habitat capabilities. The Babine "stock" is actually an aggregate of at least 20 demographic units each of which may have stable production characteristics. The decline in abundance was due to increased exploitation, which resulted in the collapse of the components with the lowest productivity. The collapse of those components led to apparent changes in the aggregate productivity and carrying capacities. Increased escapements will result in increased recruitment but the rate of rebuilding will depend on the degree of component loss and on the factors determining aggregate carrying capacity.

Hypothesis 3: The decline in abundance was caused by a reduction in productivity (i.e. reduced marine or freshwater survival rather than increased exploitation). As in the first two hypotheses, reduced escapement became a controlling factor in the decline, although the initial cause was reduced natural survival not an increase in exploitation. Reversal of the decline under continued lower productivity would require a greater reduction in the exploitation rate than would be necessary under the conditions of Hypothesis 1, and for any reduction in exploitation rate the stock would rebuild more slowly than it would under the conditions of Hypothesis 1. Historically it is doubtful that this hypothesis is distinguishable from either of the first two hypotheses since there are no long-term measures of either freshwater or marine survival, while the exploitation rate appears to have increased coincident with the decline.

Hypothesis 4: The decline in adult abundance is an expression of reduced carrying capacity rather than a change in exploitation or intrinsic productivity. Escapement remains adequate and decreased spawner abundance was not a factor in the decline (i.e. currently available rearing habitat remains fully seeded with fry), however, intrinsic productivity may also have been affected. The decrease in carrying capacity was caused by a decrease in the number of smolts entering the ocean (related to a change in the freshwater environment) and/or their survival at sea. If marine survival declined, the result was a smaller stock size, while escapement remained at or above the level needed for full seeding (unlike hypothesis 3). If smolt production declined, it resulted from changes in the Babine system that reduced its capacity to rear coho salmon. Three mechanisms have been identified that may have caused such a change, including: (a) a physical change in habitat, (b) competition within the lake from enhanced sockeye (which were increasing at the time of the decline), and (c) predatory exclusion from parts of the system due to an increase in predators (in response to increased prey abundance following sockeye enhancement). It would be difficult to predict whether the stock would respond to increases in escapement, particularly to large increases. Because productive capacity has been reduced and juveniles forced into more preferred core habitats (with very poor survival in formerly productive

locations) rebuilding if it occurred at all might be slow and very difficult to sustain. Both MSY and the escapement required to achieve it have declined. However, if the increase in mortality has a depensatory component, extremely low escapements could result in further declines.

Hypotheses 3 and 4 both assume that the run was reduced by a decline in freshwater or ocean survival. The difference lies in the question of whether or not escapement has historically been adequate to fully seed the system. Hypothesis 3 presumes that escapements have been chronically low enough to reduce smolt production and, in concert with reduced natural survival, have limited adult returns. Therefore, escapement has become a controlling factor in the decline and has assumed an increasingly critical role at lower levels of abundance. In contrast, hypothesis 4 presumes that there has been no direct relationship between escapement and production in the brood years leading into or following the decline, which is presumed to be completely an expression of lower survival from egg to adulthood. Although productivity of the stock (its ability to sustain an exploitation rate) has likely also declined under hypothesis 4, escapements have remained sufficiently high in comparison with escapement needs so that a decrease in intrinsic productivity has not resulted in over-fishing.

If either of the first two hypotheses is correct, then fisheries management alone would restore the stock to its former abundance through reductions in exploitation rate (however, rebuilding would take longer and is less predictable under hypothesis 2). Fisheries management actions could also restore the stock under hypothesis 3 but the measures required would be more severe and might not be sufficient if natural survival remains low. Fisheries management actions would be unable to rebuild the stock under hypothesis 4.

Measures of freshwater productivity (smolts/spawner) over a range of escapement (and transcending the period of decline) would have proven invaluable in discriminating between the hypotheses, but such information in unavailable with the exception of hatchery survival data for very recent years. It is for this reason that wild indicator streams are so important.

Information gathered in the next few years on returns from recent and expected escapements could aid in resolving this issue. In particular, the record low 1997 escapement (only 26% of the second lowest on record) and the very high 1999 and 2001 escapements (both estimated among the top four in 56 years), have greatly increased the escapement range from which population responses can be measured.

Both reports independently evaluate the hypotheses for the decline in Babine stock size. Shaul and Van Alen (2001) concluded that the evidence in the spawner-recruit data pointed toward hypothesis 4 (decrease in carrying capacity) rather than an escapement-controlled effect that might be reversed by decreasing exploitation (hypotheses 1, 2 and 3). They evaluated mechanisms that they thought might explain the finding: loss of habitat, reduced marine survival, loss of isolated sub-populations, competition for forage by sockeye, and a habitat-specific predator response to sockeye enhancement. In reviewing the potential causes, they found little support for loss of habitat or reduced marine survival. They cited reports of extensive, little used habitat in the Sutherland River as possible evidence of a severe decline in a sub-population, but found no historical evidence that coho salmon were ever abundant in that tributary. Based on reports of juvenile coho salmon in most other small tributaries in the drainage after only a modest escapement in 1988, they concluded that the Sutherland River was the only location that might have enough isolated habitat (based on Holtby's estimates of accessible habitat) to potentially account for a decline due to loss of a subpopulation in a location where coho recently appeared to be scarce.

Shaul and Van Alen (2001) cited evidence that available zooplankton in Babine Lake was substantially under-utilized prior to enhancement of sockeye stocks in the main basin. They also cited additional

evidence from Alaskan systems that coho salmon can effectively grow and feed in limnetic waters when zooplankton are large and abundant and sockeye scarce. Although they speculated that conditions in Babine Lake prior to sockeye enhancement may have been favorable for juvenile coho salmon to forage in offshore waters, they cited results of extensive seining in the main Basin of the lake that suggest that this did not occur to a significant extent. Holtby (1999) raised several other objections to the hypothesis that coho have declined because of increased competition by sockeye. He cited evidence that zooplankton populations in Babine Lake have continued to be under-utilized, that coho and sockeye use very different parts of Babine Lake, and that wild sockeye have declined in the portion of the lake where coho are primarily found (indicating that competitive interaction should have declined following enhancement rather than increasing). He also cited fishery management goals for escapement that allocate only 12% of the total coho target to tributaries of the main basin, the only area where juvenile coho and sockeye were likely to interact. He stated that "it is difficult to understand how competition between coho and sockeye juveniles in Babine Lake has adversely affected coho in the entire upper Skeena, and in coastal and inlet populations to the south of the Skeena." He presented data indicating that there is not a significant relationship at $p < 0.05$ between Babine sockeye smolt production and either coho stock size or spawner-recruit residuals.

Both reports evaluated the hypothesis that the decline in Babine Lake coho abundance was due to increased predation in specific freshwater habitats that has resulted in an apparent reduction in carrying capacity. Holtby (1999) presented spawner-recruit curves that "seem to indicate that equilibrium spawning stock size of the Babine Lake coho stock became progressively smaller between 1975 and 1983 as the stock became more productive". He cited, as additional evidence, the observed decline in late-run sockeye that spawn in the Babine River and rear in Nilkitkwa Lake and the north arm of Babine Lake.

However, Holtby (1999) concluded that while the predator response hypothesis was a reasonable one, the observations available did not support it. Based on a t-test, he reported "no significant differences in either sockeye escapement or smolt production when the time series are divided on or around the year when coho escapement appears to have declined (1976 smolt year)." He concluded that if the predation field changed rapidly enough to produce a change in coho escapement, a simultaneous decrease in sockeye smolt production and subsequent escapement would be expected. He pointed out (as described above) that the down-step in escapement in coho occurred at the same time that exploitation sharply increased, but that the abrupt drop did not appear in the time series of total stock size estimates. He concluded that the absence of a simultaneous down-step in total coho abundance suggests that there was no abrupt change in the carrying capacity of the Babine Lake system.

Holtby (1999) also found it difficult to envisage numeric responses of predators to increased prey abundance over short periods (i.e. during a smolt migration). He argued that the short exposure to smolts would lead to rapid satiation of the predators during the smolt run (thereby limiting impacts) and that the numeric response would be limited by increased levels of cannibalism and predation on the juveniles of the predatory species during the majority of the year when smolts are not present and prey abundance is much lower. He also pointed out that "the proposed mechanism fails to account for simultaneous declines in coho abundance in other areas of the Skeena basin."

Shaul and Van Alen (2001) concluded that the predator response hypothesis "is most consistent with the body of evidence surrounding the decline in Babine coho production." They described the decline in the Babine stock size as occurring very abruptly (within one generation). They concluded from the trends in reconstructed coho abundance and main basin sockeye fry and smolt output that the decline occurred at about the time when sockeye enhancement reached full capacity. Similar to Holtby (1999), their spawner recruit analysis indicated a reduction in carrying capacity but not intrinsic productivity. However, unlike Holtby (1999) who described "simultaneous declines" in other Skeena populations, Shaul and Van Alen

(2001) described a divergent abundance history between Babine and non-Babine coho stocks. Through a comparison of Babine escapement estimates with both adjusted and unadjusted Tyee Index values, they argued that the Babine component of the early Skeena escapement declined abruptly between 1978 and 1981 regardless of whether or not the Tyee Index is adjusted for changing efficiency on sockeye. They presented estimates of the proportion of the adjusted Tyee index through September 1 that was of Babine origin and concluded that there was an abrupt decline from an average Babine contribution of about 18% before 1981 to only 7% during 1981–1998. They also presented data showing the coefficient of variation of the adjusted Tyee index and the Babine fence and the linear relationship between the two. From these results, they concluded that simultaneous with an abrupt decline in the Babine component of the Skeena run, the Babine run became less variable and much more closely synchronized with other Skeena stocks.

Like Holtby (1999), Shaul and Van Alen (2001) also examined population data for the wild late-run Babine River sockeye stock. They examined the relationship between the estimated number of spawners and smolts-per-spawner, and reported an apparent decrease in smolts per spawner across the range of escapements. They reported no significant difference in the slope of the relationship between spawners and smolts per spawner in any combination of split periods, suggesting that carrying capacity for the sockeye population did not change. However, they did report a significant change in intrinsic productivity when the series were split beginning in brood years 1982 ($p = 0.018$) or 1983 ($p = 0.011$) which (like Holtby 1999) they observed to be later than the decline in coho return per spawner (1976–1978). When the periods are divided between 1959–1977 and 1978–1995, the change in intrinsic productivity was not significant ($p = 0.151$). However, Shaul and Van Alen argued that the predator response hypothesis should not be discarded because of the apparent mismatch in timing for two reasons: (1) error is likely high in the models used to separate early and late-run smolts, which may limit the ability to detect when a change occurred, and (2) the apparent difference in timing may have been an artifact of the expansion of predator populations of different species in different habitats.

Shaul and Van Alen described differences in the spawner-recruit response between coho (reduced carrying capacity) and sockeye (reduced intrinsic productivity) as being consistent with the behavior and distribution of the two species. They speculated that juvenile coho were heavily affected in specific habitats such as exposed shorelines but not in other, more secure habitats, while individual juvenile sockeye which school offshore in Nilkitkwa Lake and the north arm of Babine Lake have experienced a more even and consistent increase in mortality. They hypothesized that expansion of predator populations in response to main basin sockeye enhancement has eliminated use by coho of a large expanse of marginal habitat (likely more exposed lakeshore areas) and is therefore responsible for far lower average abundance, increased stability and increased synchrony with other Skeena coho populations. They further speculated that expansion of predator populations could be either a system-wide response to increased abundance of prey within and migrating from the main basin, or may have been concentrated primarily in portions of the system near the outlet where enhanced smolts are concentrated as they migrate to sea.

4.2.2.5 Stock Productivity and Proposed Escapement Targets

Despite substantial differences in reconstructed abundance since the late-1970s, the authors of both reports noted an apparent change in the Babine coho spawner-recruit relationship since the late-1970s that was manifested in higher estimates of intrinsic productivity and lower estimates of carrying capacity. However, the way in which the apparent change was regarded differs between the reports. Holtby (1999) speculated that “analytical stock-recruitment results, which show increasing productivity and lower carrying capacity as time is restricted to latter periods, are either artifacts of stock-recruitment analysis of over-exploited and collapsing populations or the result of progressive elimination of less productive

components from a stock aggregate." He concluded that the most efficient way to disprove the hypothesis that carrying capacity has decreased is to observe the response to increased coho escapements.

On the other hand, Shaul and Van Alen (2001) concluded that the carrying capacity of the Babine stock has most likely declined and that the cause of the decline is such that it cannot be reversed by simply increasing escapement. However, despite this initial conclusion, they agreed with Holtby (1999) that the response of production to a substantial increase in escapement should help determine whether or not this is the case. They proposed that the response of juvenile and adult abundance to varying escapement be monitored closely in tributaries like the Sutherland River to help determine if use of isolated habitats is sensitive to spawner abundance.

The differing viewpoints of the authors about the potential to rebuild the Babine stock to pre-1979 levels of abundance led to widely varying proposed escapement objectives. Holtby (1999) employed two basic approaches: spawner-recruit analysis and habitat capability estimation. He recommended a target reference point (TRP) escapement that was the average of four estimates (two based on spawner-recruit analysis and two based on habitat capability). The spawner-recruit estimates based on the full 1946–1995 data series were MSY escapement (7,561) and escapement for maximum recruitment (11,285). The two habitat-based estimates were calibrated to an upper MSY density estimate of 13 females per km for Carnation Creek on Vancouver Island (resulting in 13,702 spawners for the Babine system) and a target of 41 spawners per mile for Oregon coastal streams (equating to 13,426 Babine spawners). He proposed the unweighted average of 11,500 spawners as a TRP for the Babine stock. His recommendation for a potential Limit Reference Point (LRP) or conservation floor was 1,200 spawners based on the average of 10% of escapement at maximum stock size (1,129) and 3 females per km in stream habitat only (1,328).

Shaul and Van Alen (2001) used only spawner-recruit analysis to develop a proposed escapement objective for the Babine system. They estimated spawner-recruit parameters for several periods for the combined data series. Their estimate of MSY escapement for the full data series (excluding the extreme 1962 and 1965 outliers) was 7,338 spawners, which was similar to Holtby's estimate of 7,561. For the most recent data series (1984–1995), they standardized returns to an average marine survival rate for the period 1988–1996 based on average survival rate estimates for Toboggan Creek and Fort Babine hatchery smolts. They did not specify an LRP but proposed a target escapement range for the Babine stock. They developed their escapement goal recommendation from the recent survival-adjusted estimates with the lower bound of 1,900 (rounded from their MSY escapement estimate of 1,937). While their estimate of escapement at maximum run size was 2,478 spawners, they set the upper bound at 4,000 spawners based on their estimates that escapements above that level (four brood years) had produced returns that were 30% lower on average than those produced by escapements of fewer than 4,000 spawners. They rationalized their recommendation of a goal range above the MSY estimate based on four considerations: (1) the stock is broadly distributed geographically with isolated pockets of habitat, (2) uncertainty remains about the cause of the 1978–1981 decline, (3) there is a lack of information on stocks in the far upper Skeena drainage (High Interior) that are currently represented by the Babine stock, and (4) a small portion of the run is now (since 1987) spawned and reared in the Fort Babine hatchery.

Although the goal range proposed by Shaul and Van Alen (1,900–4,000) falls between Holtby's proposed escapement reference points (1,200 and 11,500), there is a substantial practical difference. Stocks between the LRP and TRP are considered to be rebuilding under Canadian wild salmon policy (DFO, 2000), which puts Shaul and Van Alen's proposed "target zone" low in the rebuilding range proposed by Holtby.

Given the effects of recently improved survival rates combined with Canadian conservation measures implemented during 1998–2001, there is agreement within the committee that the level of risk to the

Babine stock is currently low. The stock demonstrated considerable resilience following recent weak brood-year escapements, while at the same time the trend in marine survival for Skeena stocks appears to have improved and Canadian conservation restrictions have lowered the trend in exploitation rates. However, varying interpretations of the nature and probable cause of the decline have left unresolved questions about the potential to rebuild the run to 1940s–1970s levels.

Work in several areas would contribute to a resolution of this issue. Further joint technical review of the historical exploitation rate estimates for the Babine stock and the methods used to reconstruct the run may be warranted. Improved information on the distribution of spawners and juveniles within the Babine system would also help answer remaining unresolved questions. This could be accomplished with a radio telemetry program involving tags applied to adults at the fence and tracked to spawning areas, and by expanded juvenile surveys. Finally, continuation of existing stock assessment programs to document and sample escapement, estimate marine survival and reconstruct returns by brood year is essential. The response of the Babine aggregate to the widely varying escapements that have occurred in recent years will improve our ability to define the relationship between spawners and production and, therefore, to jointly recommend objectives for spawning escapement.

4.2.3 Juvenile Density Estimates

Another area where complete agreement could not be found was in the interpretation of information on juvenile densities. One hypothesis is that juvenile densities in upper Skeena tributaries, which in recent year have been lower than southern coastal standards for full seeding, represent clear evidence of over-exploitation. However, a contrary hypothesis is that the observed late-summer juvenile densities are commensurate with the carrying capacity of the rearing habitat and that habitat capabilities in interior streams are lower than in southern coastal streams. There are a variety of plausible explanations for the differences in habitat capability, including differences in the fish communities, water temperatures and harsh winters.

Observing how juvenile densities change in response to larger escapements will help to resolve this question. However, only direct observations of smolt production from a variety of stream types under a range of escapements will fully resolve questions about the productive capabilities of interior streams.

In addition to the trend in the Tyee index and the status of the Babine stock, interpretation of juvenile coho density estimates is a third major area in which the reports differ in their conclusions. Both independent reports reviewed the same data for the north coast and the Skeena system. Uses of the density estimates generally fall into two categories: a) as an annual stock assessment measure of parent escapement or potential smolt production, and b) as a means of comparing the overall escapement status of a population against established standards for fully seeded populations.

Holtby (1999) noted that after the poor 1997 escapement, resultant juvenile densities fell in five of eight areas in the 1998 sampling year, compared to 1997. He also noted that “surprisingly and inexplicably, coho densities increased in the Babine by a factor of 1.29x” but that they still remained low there, “although not as low as in the high interior or in the upper Bulkley”. He did a principal component analysis on juvenile densities over the period 1994–1998 combined with six indices of escapement over the period 1993 to 1997 and found escapement and subsequent juvenile densities to be poorly related. He speculated on several reasons for the poor relationship. He stated that escapement indicators may be poor indices of actual adult numbers, but discounted that hypothesis because he found an indication that escapements varied together over the entire basin and discovered no evidence of consistent bias in visual, test fishery and fence count indices.

He described several reasons why juvenile density measures could be misleading, including: 1) variability caused by potentially major effects of poor weather on juvenile surveys, 2) the possibility that more extensive sample areas are needed to adequately index juvenile abundance, and 3) difficulty in indexing the best rearing habitat (pond, lake margin, deep pool), so that sampled habitats would typically not represent the best available habitat. Holtby also cited evidence that egg to fry survival can be highly variable and that freshwater population processes in coho tend to damp variation in smolt production and subsequent escapement. He also noted that juvenile assessments might be affected by extensive seasonal movement of fish among different habitats.

Holtby (1999) also speculated that "observed changes in coho densities may be distributional shifts resulting from displacement by chinook" which had increased in spawning abundance. However, he noted a positive relationship (although not significant at $p<0.05$) in density of coho and chinook in samples, rather than the negative relationship he would have expected if an interspecies interaction was occurring that was "of sufficient magnitude to bias our measured densities". He cited evidence of consistent differences between the species that allow co-existence in the same habitat and noted that even if chinook have displaced coho from their preferred habitats, "the consequence would have been to lower the productivity of the coho populations and in consequence their ability to sustain harvest".

Shaul and Van Alen (2001) reported similar findings regarding the poor correlation between escapement indicators and juvenile density. They added an additional potential reason to those listed by Holtby (1999), i.e. that juvenile density sampling has occurred near or within the period when maximum density-dependent freshwater mortality takes place, so that juvenile abundance by that time may no longer reflect the number of emergent fry. They found a positive relationship (not significant at $p<0.05$) between escapement indicators and juvenile abundance in three sample locations (upper Bulkley, Kispiox, Terrace) out of eight, which they stated "offers the possibility that they are not fully seeded at low spawning densities". However, they concluded that "actual smolt production (following complete density-dependent interaction) would be needed to conclude that the positively correlated systems are in fact under-seeded in years of low escapement."

Beyond the question of a poor relationship with indices of spawning escapement, sampled juvenile densities have generally been low in the upper Skeena drainage compared with coastal streams. Holtby (1999) stated that "juvenile densities in the low-flow period at the end of summer of between 0.75 and 2 fish/m^2 generally indicate fully seeded streams", and concluded that low densities in the upper Skeena (averaging less than 0.25 fish/m^2) were consistent with "sparse and often-qualitative escapement indices from these areas."

Shaul and Van Alen (2001) also observed that densities were routinely low in the upper Skeena drainage compared with coastal streams. However, they questioned the conclusion that the low densities were likely related to low spawning escapement. They reported estimates showing a similar pattern of far lower smolt and spawner densities in two interior tributaries of the Taku River compared with four indicator stocks in Southeast Alaska, from which they concluded that the similar pattern in the two geographic areas supports the idea that interior coho salmon habitats "typically have a lower carrying capacity per area unit of habitat compared with coastal systems." They described environmental and ecological differences between coastal and interior habitats that they speculated could account for typically lower coho densities in the interior. They concluded that "an estimate of rearing density is, without a very specific standard for comparison, an inadequate measure of the adequacy of parent spawning escapement." They also made a recommendation: "before juvenile density information can be reliably applied as an indicator of spawning escapement relative to full seeding, we recommend that it be compared with measured escapement over a period of years and calibrated with smolt production."

Shaul and Van Alen (2001) related extremely low and variable sampled densities in the upper Bulkley River (average 0.02 juveniles per m^2) to reports by local biologists (obtained from personal communication) of degraded and generally poor habitat quality (evidenced by poor freshwater survival), combined with restricted spawner access to the more suitable habitat in the drainage. They stated agreement with Holtby (1999) that "production has been very poor" but disagreed with "the inference that this condition is caused by poor and declining escapement levels, or that it can be reversed in a meaningful way by increasing escapement". They supported DFO's fry backplanting effort in the upper drainage (combined with opening spawner access) as the "best prospect for restoring natural coho production in the upper Bulkley drainage", short of expensive rehabilitation of the lower drainage.

Holtby (1999) stated that "the most precautionary interpretation of the near absence of juvenile coho in the upper Bulkley and the declining numbers of wild adults is that this particular population is near extinction." He raised a question about whether enhancement (i.e. smolt backplanting) may have had a role in the decline: "it would be interesting to know if the synchrony of enhancement, which began with a 1989 smolt release, and the rapid decline in wild abundance thereafter was merely a coincidence, and if so what was the probable cause of the decline."

4.2.3.1 Upper Bulkley Update

In 1999, the strategy to restore the coho salmon run in the upper Bulkley River has shifted from one of back-planting hatchery-reared smolts in the main river to back-planting fry into tributaries and upper reaches where better habitat exists and where spawner access appears to be limited. Early results from returns in 2001 are very promising. Not only does this approach appear to have a high potential of success, we believe that minimizing residence in the hatchery and allowing fry to rear to smolt-hood in the natural environment greatly reduces the risk of potential negative effects associated with restoration work, including domestication and loss of genetic fitness. We recommend that returns be monitored to identify and alleviate barriers to spawner access so that a completely natural production cycle can be restored as quickly as possible.

4.2.4 Visual Escapement Estimates

Visual escapement estimates are the only available historical escapement record for many tributaries. In particular, the upper Bulkley River is an area where visual estimates in the 1950s suggest a spawning population much larger than in recent years. The methods of deriving escapement estimates from visual observations have not been well documented which leads to concerns about their consistency and reliability. Another significant problem with the counts is that there are very few streams that have been enumerated in most years. These problems have led to some disagreement about the extent to which the estimates can be used as indicators of stock status. The ongoing development of more systematic and quantitative escapement estimation programs within the Skeena drainage and elsewhere in the northern boundary area is expected to improve the utility of escapement indices as status indicators.

The difference between the reports in use and interpretation of visual escapement estimates originated primarily from differences of opinion about the reliability of the data and whether it was adequate to contribute meaningfully to stock assessments.

Holtby (1999) evaluated visual estimates, scaled as a proportion of the maximum observed escapement, for B.C. escapement indicators since 1950 and Southeast Alaska escapement survey records since 1987.

He extended the Alaska escapement indicators back to 1950 using Alaska troll fishery CPUE. He noted a significant increasing trend from 1970–1996 in Alaska ($p<<0.001$) and a significant decreasing trend ($p<<0.001$) in the upper Skeena, eastern Queen Charlottes and Area 6. He reported no significant trend since 1970 for the western and northern Queen Charlotte areas or for lower Skeena and Area 3 stocks.

Holtby also developed spawner-recruit relationships for several geographic stock groupings based on the visual estimates. He estimated exploitation rates that produce maximum sustained yield (MSY). From these data, he developed two measures of stock status: one being the ratio of the average escapement over the past seven years to the Ricker estimate of escapement at MSY. The other measure of status was the finite rate of change between 1970 and 1996 in the escapement indexes. For all groupings, including indicator stocks and visual estimates, he reported significant positive relationships with his estimates of exploitation rate at MSY when compared with: a) recent escapements as a proportion of estimated MSY escapement, and b) the finite rate of change in the escapement index. From this analysis, he concluded that "fishery exploitation rates on Canadian indicator sites are uniformly high and exceed sustainable levels for both indicator and aggregate populations in the upper Skeena, and Areas 5 and 6. Exploitation rates in Area 3 appear to be at optimal levels." His overall conclusion about the relationships is that they "indicate that current (i.e. pre-1998) average levels of total exploitation are excessive for all but Alaskan and Canadian Area 3 (Portland/Nass) and lower Area 4 (Skeena) populations."

Shaul and Van Alen (2001) gave very little weight to the visual estimates in their assessment, citing concerns about the reliability of visual estimates for coho salmon and potential problems in the use of such estimates as the primary basis for spawner-recruit analysis. They pointed to several pitfalls in use of survey data including: a) extreme weather conditions and remoteness that make it difficult to visit streams in the fall and obtain meaningful counts, b) Canadian visual estimates represent estimates of total escapement (not peak counts) made by different observers over time and c) the timing and intensity of surveys and the method used to expand to a season total estimate are poorly documented. For Canadian systems, they cited Holtby's (1999) analysis of escapement trends. For Alaskan systems, they presented only a 1987–1998 index for southern inside stocks in Southeast Alaska that consisted of the sum of peak survey counts for 15 streams that were routinely surveyed near Ketchikan, plus the total escapement to Hugh Smith Lake. They drew few conclusions from this limited data series for southern Southeast Alaska, other than to point out that it shows a peak in the mid-1990s that corresponds with peak coho salmon catches in the region. Holtby (1999) included this data set in his analysis of escapement trends and spawner-recruit relationships.

Shaul and Van Alen (2001) pointed to "several critical parameters that cannot be directly estimated: marine survival, age composition and exploitation rate" in Holtby's (1999) estimates of stock productivity and status from visual estimates. They argued that the results have "a high probability of error because of questionable assumptions about critical unmeasured parameters" including marine survival in particular. As an example, they pointed to clustered data in Holtby's Ricker analysis for Area 6 stocks, that showed intrinsic productivity to be low, recent exploitation rates excessive, and average escapement over two generations to be only 31% of what was needed for MSY. They argued that such data clustering, when it results from shifting environmental states or observer estimation efficiency, causes a stock "to appear less productive, but with a higher carrying capacity". They concluded that this factor has "likely resulted in downward bias in estimates of intrinsic productivity for Area 6 stocks and a false conclusion that the aggregate has been over-exploited".

Shaul and Van Alen (2001) concluded that credible direct information on the status of most northern B.C. stock aggregates, including particularly the Central Coast, was missing. However, they expressed some optimism about the status of the stocks in those aggregates based on a stable trend in aggregate fishery measures of abundance, combined with their inference from fishing patterns and CWT

distributions that recent exploitation rates have probably been moderate for Central Coast stocks and very low for Queen Charlotte stocks. This same problem of the lack of credible direct information also applies to some stock aggregates in Southeast Alaska, including in particular the southern outside and central portions of the region, where there have been no consistent indicator stocks or direct assessment measures of any kind.

4.3 Status and Appropriate Levels of Exploitation

The central conclusion of Holtby (1999) was that recent exploitation rates on upper Skeena coho stocks and some other northern B.C. stocks have resulted in harvests that were unsustainable. He concluded "fishery exploitation rates measured on Canadian indicator sites are uniformly high and exceed sustainable levels for both indicator and aggregate populations in the upper Skeena and Areas 5 and 6" and that "current average levels of total exploitation rate are excessive for all but Alaskan and Canadian Area 3 (Portland/Nass) and lower Area 4 (Skeena) populations."

Holtby (1999) concluded that since exploitation rates were relatively uniform over the region, his observations on the spatial patterns of status reflect geographic variation in stock productivity, i.e. that "productivity declines from north to south and from coast to interior." He concluded that a latitudinal gradient in marine survival existed, with higher average marine survival rates in the north compared with the south. He also speculated on a coastal-interior gradient in freshwater productivity, with lower productivity in interior systems (like upper Skeena tributaries) compared with coastal streams.

Holtby (1999) summarized "that a serious conservation problem exists for upper Skeena coho and that the problem has arisen because of a long-term or chronic mismatch of productivity and exploitation rate." He pointed to results of a simulation study indicating that recovery of the Babine Lake coho aggregate was contingent on both future survival and exploitation rates. He predicted that the stock would slowly recover to carrying capacity if exploitation rates were held at 15 to 25 percentage points below rates exerted in the 1980s and 1990s, but that recovery was uncertain at pre-1997 exploitation rates unless marine survival improved substantially. He expressed optimism that "the reappearance of coho throughout the upper Skeena in 1998 and 1999 following reductions in exploitation rates do indicate that recovery is possible with prudent and conservative fisheries management."

Unlike Holtby (1999), Shaul and Van Alen (2001) concluded that with the exception of the 1997 return, exploitation rates on northern Boundary coho stocks were not excessive. Their differing conclusion reflected different basic conclusions about recent trends and causes in stock abundance. They concluded that "the history of abundance of upper Skeena River coho salmon reconstructed from the Tyee index shows a relatively stable long-term trend in total abundance that appears similar to the trend for the overall aggregate of northern B.C. mainland stocks . . . ." They cited two exceptions (Babine and Upper Bulkley Rivers) in which specific components of the run had declined substantially, but concluded that both declines likely resulted from factors other than over-fishing.

Shaul and Van Alen (2001) described a north-south gradient in marine survival, similar to Holtby (1999), and pointed to an increased divergence between Southeast Alaska and northern B.C. in marine survival in the mid-1990s. They also cited evidence in agreement with Holtby's conclusions that interior stocks are probably less productive than those on the coast. However, they concluded that "the preponderance of evidence suggests that interior Skeena stocks have been productive enough to sustain historical levels of fishing." They reported Ricker spawner-recruit estimates of escapement at MSY that were below most recent escapements at Toboggan Creek and the Babine River. They stated "while abundance of northern B.C. stocks has not followed the increase seen in Southeast Alaska, we find no evidence of chronic

inadequacy of spawning escapement nor any direct indication that escapements have been limited by smolt production, with the exception of the 1997 brood year." Finally, they stated "aside from the extremely weak 1997 run, our results run counter to the conclusion by Holtby and Finnegan (1997) that exploitation rates averaging 60–65% in the early to mid-1990s were unsustainable."

While Shaul and Van Alen (2001) disagreed with Holtby's (1999) conclusion that historical exploitation rates were excessive, they cited several reasons why existing risks have been substantially reduced including: a) fleet reduction and restructuring in Canadian fisheries, b) the 1999 PST agreement calling for development of joint abundance-based management, c) promising technical progress toward inseason stock assessment, and d) increased investment by the parties in stock assessment projects. Rather than focus on a particular level of exploitation, they called for development of spawner-recruit based escapement goals for the indicator stocks, and inseason management to achieve the goals. They concluded that "evidence indicating that production from upper Skeena stocks has been sustainable for decades with only limited active management suggests that fishing at a pre-1998 average level of about 60% under a more responsive escapement-based management program would pose little risk to the stocks in the future."

5. STATUS UPDATE THROUGH 2001

In this section, we will provide a brief update of information on stock and fishery status, new stock assessment programs and progress toward abundance-based stock assessment. This is not intended to be a detailed update of information contained in the independent reports, but a very brief joint overview of significant stock and assessment program changes in the past 3-years. Figures included in this update for 2001 are very preliminary.

Fishery changes and changes in survival of young salmon have resulted in substantial shifts in abundance of coho salmon returns and escapements in the northern boundary region since 1997. Northern B.C. stocks have increased in total abundance relative to Southeast Alaska stocks during 1999–2001, while most measures of escapement in the upper Skeena drainage have increased dramatically as a combined result of fishery restrictions and improved natural survival.

In addition to changes in status, there have been improvements in stock assessment programs and progress toward inseason stock assessment. New indicator stock programs have been under development since 1998 that promise to fill some important stock assessment gaps in both regions. In addition, several methods have been under development to assess abundance of specific stocks as well as larger aggregates before and during the fishing season.

5.1 Stock Status

5.1.1 Marine Survival

Marine survival rates for inside indicator stocks in northern British Columbia and Southeast Alaska have converged in the past three return years, following a 7-year period of extreme divergence in 1992–1998. Survival rates for northern B.C. indicators improved markedly in 1999–2001 by one-third to two fold while Southeast Alaska indicators declined by about one-fourth to one-third (Figure J2). Marine survival for Alaskan indicator stocks peaked in the early to mid-1990s and has since trended lower, although still at historically favorable levels. Average survival rates for hatchery smolts from Toboggan Creek declined from 3.7% in 1988–1991 to only 2.3% in 1992–1998 before increasing dramatically to 7.2% (range 4.9–10.4%)

in 1999–2001. During the same period, the Hugh Smith Lake indicator stock in southern Southeast Alaska increased in average marine survival from 12.3% in 1988–1991 to 14.9% in 1992–1998 before falling to 11.3% in 1999–2001. Marine survival for the Berners River stock in northern Southeast declined from an average of 17.9% in 1992–1998 to 12.2% in 1999–2001.

The relationship between regions in marine survival shows an interesting pattern, with a period of extreme divergence occurring in 1992–1998 when Toboggan Cr. smolts survived at an average of only 13% of the rate for Southeast Alaska indicators, compared with 29% in 1988–1991 (Figure J2). Survival rates re-converged in 1999–2001 when Toboggan Creek smolts survived at an average of 62% of the rate for Southeast Alaska indicators. In addition, while marine survival of the Lachmach River indicator stock tracked consistently lower than that of Alaskan indicators for 10 years (1989–1998), it then converged with Alaskan stocks with an average survival rate in 1999–2001 (12.4%) that was slightly higher than both Hugh Smith Lake (11.3%) and the Berners River (12.2%).

The historical catch in commercial fisheries in Southeast Alaska and northern British Columbia (Figure J3) also shows a sharp divergence in the early 1990s that is likely related closely to marine survival changes in the regions. In addition, the pattern of historical catches suggests that similar shifts have occurred at several points in the past, including the mid-1950s and late 1970s. The coho salmon catch in northern B.C. has been strongly correlated with the wild catch in Southeast Alaska within specific periods demarcated by sudden shifts in the relationship between the regions. Fishery performance and indicator stock returns suggest that the most recent shift around 1998 has returned the relationship to one similar to the period that followed the widely recognized 1977 Northeast Pacific regime shift (Hare et al. 1999) and extended through 1991. However, while latitudinal differences in marine survival have narrowed again after 1998, there does not yet appear to be an actual reversal in the coast-wide survival gradient as appeared to occur from 1960–1976 (based on higher catches in northern British Columbia; Figure J3).

While we have observed a clear shift in marine survival between the regions in the past three years and an associated rebound in northern British Columbia, we lack an explanation for the observed change that is sufficient to predict future survival rates. However, strong evidence of a recent shift, combined with a history of decadal scale trends in marine survival, provides us with some optimism that the improved survival trend for Canadian stocks may persist for a few more years. Jack returns suggest that marine survival for the 2002 Lachmach River return will be between 9–10% (Figure J2) which, while lower than 1999–2001 estimates, is close to the 1989–2001 historical average for the data series.

Jack returns to Auke Creek suggest that mainland systems like the Taku and Berners Rivers in northern Southeast Alaska will survive at rates of about 9–11% that are well below the 1980s–1990s averages for those systems, but similar to the prediction for Lachmach River. Indications for Hugh Smith Lake are also for survival to be well below the 1980s–1990s average of 13%. Thus the jack indicators for the 2002 return predict a continuation of the recent pattern of closer marine survival rates for mainland stocks in Southeast Alaska and northern British Columbia coho that began with a convergent shift in 1999. However, while jack indicators for mainland stocks in Southeast Alaska suggest lower survival and abundance in 2002 compared with recent averages, jack returns to Ford Arm Lake and Chuck Creek (Figure J1) were relatively strong, suggesting that returns will be average or better along the outer coast.

5.1.2 Abundance and Escapement

Improved survival combined with conservation restrictions in Canadian fisheries have led to dramatic increases in escapement. Babine escapements in 1999 (14,907 spawners) and 2001 (21,500 spawners) were near the highest recorded estimates since the fence was first operated in 1946 (Figure J4), and the 2000

escapement of 2,230 spawners, while below average, was a dramatic improvement from only 453 spawners in the predominant brood year (1997).

Wild coho salmon total returns from the Toboggan Creek indicator stock in the Bulkley-Morice drainage have increased substantially in 1999–2001 from very low levels in 1995–1998 (Figure J5). Escapements in Toboggan Creek have made an even more impressive rebound, due in large part to conservation measures in Canadian fisheries. The 2001 overall escapement estimate for the Bulkley-Morice drainage (including Toboggan Creek) of over 45,000 coho salmon (preliminary) past Moricetown is the highest on record (1961, 1997–2001).

Meanwhile, recent returns to long-term Southeast Alaska indicator systems and the transboundary Taku River have generally been well below runs in the early 1990s (Figures J6 and J7). However, biological escapement goals have been met or exceeded in all recent years.

Marine survival rates in the intermediate area (Canadian Area 3) as indicated by the Lachmach River and Zolzap Creek (Nass) indicators have generally improved as well in 1999–2001 (Figure J10). However, despite a 33% increase in average marine survival, total adult run sizes for the Lachmach indicator remained below the 1989–1998 average because of a reduced trend in smolt production in 1999–2001. Despite lower total run sizes, reduced exploitation rates have resulted in strong escapements to the Lachmach River, with the 2000 and 2001 escapements of 1,533 and 1,793 spawners, respectively, being the highest on record. The Nass River indicator (Zolzap Creek) also had lower smolt production contributing to the 1999–2001 returns that acted to offset improved marine survival. However, the 2001 escapements were the second highest observed in Zolzap Creek and in the Nass River system above the canyon, and the highest observed at the Meziadin fishway through September 27 (Figure J10).

The 2001 Lachmach smolt migration improved to near the long-term average (Figure J11) which, combined with average forecast marine survival, suggests that the 2002 adult return will also be close to average at about 2,800 fish. Similar to Lachmach River, smolt production from Hugh Smith Lake improved to near average in 2001, however, the jack return suggests that marine survival in 2002 will likely be low, resulting in a below-average return to that system (although likely within the escapement goal range under an average exploitation rate). On the other hand, stronger jack abundance at outer coastal sites in 2001 suggests that adult returns to outer coastal streams in Southeast Alaska will be relatively strong in 2002.

Preliminary smolt production estimates for the three wild indicator stocks in the immediate northern boundary area (Hugh Smith Lake, Lachmach River and Zolzap Creek) improved to near-average in the 2001 smolt year, from record low levels for all three stocks in 1999 (Figure J11). This improvement in freshwater production will help offset forecast lower marine survival for mainland stocks in 2002.

5.2 Progress Toward Abundance-Based Management

Northern coho stocks have displayed wide fluctuations in abundance (e.g. Babine escapements shown in Figure 4 have varied by up to 47 fold within a 4-year period). Therefore, an ability to assess abundance on a real-time basis and to manage for biological escapement goals is a desirable objective for conservation of the stocks and utilization of the resource. Timely and precise run strength assessment can provide increased security for coho stocks against over-fishing, while increasing harvest opportunities in years of high abundance.

DFO and ADF&G have worked jointly in the past three fishing seasons to develop inseason stock assessment capability for upper Skeena, Nass and Lachmach coho stocks, with promising results to date.

Parallel with efforts to forecast abundance, there have been recent improvements in coho stock assessment throughout the northern boundary area that will contribute toward appropriate biological targets for inseason management.

Successful abundance-based management for northern coho salmon requires two primary elements: 1) assessment of key stocks to establish biologically based escapement objectives, and 2) accurate inseason estimates of abundance. Unlike sockeye and chinook stocks, coho salmon production is widely distributed among hundreds of streams. Therefore, fiscal and logistical constraints necessitate that stock assessment and management programs be developed around selected "indicator stocks" that indicate the abundance, productivity and migratory patterns of larger stock groupings.

5.2.1 Stock Monitoring and Establishment of Biological Escapement Objectives

The highest priority for stock assessment is to develop indicator stocks that represent the more vulnerable elements within major stock groups (i.e. those that have lower natural productivity and/or are typically most exposed to fisheries). Estimation of total production (smolts and adults) from these stocks over several years at varying levels of escapement provides the information needed to establish biologically based escapement goals, which then serve as a management objective. Coded-wire tagging and smolt estimation are important elements of this process that also provide real-time information on abundance in support of inseason management.

In addition to indicator stocks, other stock assessment methods can be useful in supporting abundance-based management, including rearing juvenile and spawner surveys and full-system escapement estimation. Results of survey programs, while typically less reliable and more difficult to interpret, provide more geographic coverage than is feasible using indicator stocks alone. In addition, escapement estimation programs for major rivers or tributaries (examples: Taku, Nass and Bulkley-Morice mark-recapture estimates) can provide monitoring that is more comprehensive compared with isolated small indicator stocks.

5.2.1.1 Progress

A combination of favorable conditions and limited fishing resulted in exceptionally strong escapements to upper Skeena indicator systems in both 1999 and 2001. The response of the stocks to these escapements will help determine the potential for increased spawning escapement to increase total abundance of returning Babine River adults to pre-1979 levels.

Evidence of rebuilding from the extremely poor 1997 brood year is encouraging. While preliminary data suggests that smolt production in some areas of the upper Skeena system in 1999 was reduced by the low parent escapement, the combination of a natural rebound in total abundance and conservation measures in Canadian fisheries resulted in escapements in 2000 that were several times those observed in 1997. The 2000 escapement of 2,230 spawners past the Babine fence was well below the 20-year average (3,819), but approximately five times the total escapement of 453 spawners in the primary brood year (1997). The 2000 escapement was only 5–16% lower than the 1995 and 1996 brood year escapements that produced the abundant 1999 run, the largest since 1978. In 2001, marine survival was again good and a total of 21,500 spawners were counted at the Babine fence, the second highest total escapement estimate on record. The 2001 return resulted from escapements of 4,291 spawners in 1998, the primary brood year, and 453 spawners in 1997. Analysis of age samples and coded-wire tag recoveries will determine the total return and contribution by each brood year.

In addition to these two upper Skeena indicator stocks, total escapement in the Bulkley-Morice system above Moricetown has been estimated annually since 1997 (and in 1961), using mark-recapture techniques. The 2001 estimate of over 45,000 (preliminary) coho salmon past Moricetown is the highest on record. The projects in the Babine and Bulkley-Morice systems provide major stock assessment capability for two of the three major upper Skeena production areas.

A wild indicator stock in the Lachmach River, a coastal stream north of the Skeena River, provides a valuable indicator for coastal stocks. In addition, estimates of the abundance of smolts migrating from the Lachmach River in the spring and jacks returning in the fall provide a preseason forecast of marine survival for the Nass-Skeena area. The Nass drainage is also well represented, with main-stem escapement estimation, an established wild indicator stock program at Zolzap Creek and a new Nisga'a pilot indicator stock in the Nass interior.

New wild indicator stocks were also started in 2001 in Central Coast Areas 6 (West Arm Creek in Drake Inlet) and 8 (Martin River). The Queen Charlotte Islands are represented by the Deena River indicator stock in Area 2E, with pilot projects for at least one other site.

Hugh Smith Lake is an excellent indicator stock in the southern inside area of Southeast Alaska. However, an additional indicator stock is needed in the northern portion of the southern inside area, and another to represent the unique southern outside stock group. Progress toward filling these needs is underway with initiation of two new indicator stocks: Unuk River, a major mainland producer north of Ketchikan, and Chuck Creek located on Hecata Island on the southern outside coast of Southeast Alaska. Run reconstruction estimates are available for the Unuk River for the three most recent years. A weir count was obtained for Chuck Creek in 2001 that was higher than three comparable counts in 1982, 1983 and 1985. Smolt estimation and tagging at Chuck Creek will begin in spring 2002.

In addition, work is underway in Canada to intensify escapement surveys in some areas and to insure that surveys are carried out in a systematic fashion and are well documented.

5.2.1.2 Additional Priorities

In many cases, annual smolt production is estimated after marked adults have returned to indicator streams. However, real-time smolt estimates (available before the fishing season) on more systems would be highly useful for inseason assessment of adult returns.

Northern coho stocks present substantial challenges to accurate aging because of their extended freshwater residence and wide variety of habitats. Preliminary work indicates that substantial errors have occurred in Southeast Alaska using historical aging techniques. Newly emerged fry have been marked to provide known-age samples that provide standards for development of accurate aging guidelines. Continuation of this work is a high priority because accurate aging is needed for development of brood tables that are an essential element in development of biological escapement goals.

5.2.2 Inseason Estimates of Abundance

An important natural factor that contributes to successful inseason management of Southeast Alaska and transboundary stocks is a high level of synchrony in abundance among stocks within and even among major geographic groupings. For example, total returns to three northern inside systems (Berners River,

Auke Creek and Taku River) with widely different habitats, exploitation rates and average abundance have been closely synchronized (Figure J8). Returns of these stocks are also closely correlated with fishery performance in the Alaska troll fishery, suggesting that the level of synchrony extends beyond these systems.

Catch rate sampling and inseason processing of coded-wire tag data from the highly mixed-stock Alaska troll fishery provides estimates that are timely enough to be effective for management of inside stocks like the Taku River. The marked fraction of the run in early fishwheel catches at Canyon Island in the lower Taku River is incorporated with CWT-based marine survival estimates to generate inseason catch and total abundance estimates. The inseason projections of total run size are supplemented by real-time estimates of escapement in the Taku system to manage fisheries in both Alaska and Canada.

Abundance indicators based on the troll fishery are available well ahead of the time when most fish arrive in inside waters and are, therefore, highly useful for management of intensive inside gillnet fisheries that target specific stock groups. In most years, the Alaska troll fishery is managed less intensively than are inside net fisheries. However, the inseason assessments are critical in years when specific runs are very weak and the troll fishery needs to be curtailed as well in order to achieve escapement goals. In 1997, for example, inseason assessments of a weak northern inside run, particularly to the Taku River, prompted extensive restrictions in both commercial and sport fisheries throughout the migration corridor of the run. Combined, these restrictions had a major positive effect on spawning escapement in the Taku system (Figure J7), while escapement of the late Berners River stock actually exceeded the goal range, despite one of the smallest total returns on record (Figure J6).

In addition to meeting conservation needs, the inseason assessments have also had major benefits to fisheries when runs have been large. In 1994, for example, indications of extremely strong, broad-based abundance led managers to cancel the typical mid-season troll closure and to extend fall gillnet openings throughout the region.

The June 1999 PST management agreement for northern boundary coho stocks initiated a coordinated management program that restricts fishing when abundance is low, as measured by Alaska troll fishery performance. The agreement also calls for further development of escapement goals and methods of inseason assessment for Nass and Skeena stocks.

Subsequent analysis has demonstrated relatively strong relationships between a number of real-time indicators and abundance of northern B.C. mainland coho in general and Skeena stocks in particular (Shaul pers. com., Holtby et al. 1999 and 2000, Holtby 2000)

Four types of abundance measures have been developed for use in inseason assessment of Skeena coho stocks. The categories include: 1) a preseason indicator of marine survival based on jack returns to a coastal indicator stock (Lachmach River) located north of the Skeena River; 2) aggregate abundance indicators based on performance in two fisheries in which northern B.C. mainland stocks (including the upper Skeena River) predominate; 3) inseason estimation of marine survival and abundance of specific indicator stocks in the upper Skeena drainage, based on smolt migration estimates and inseason coded-wire tag recoveries; and 4) an escapement indicator based on the early Skeena coho test fishery index. Types of inseason forecasts and the first dates when they are typically useful are shown in the following table.

Category	Indicator	Typical Date of First Estimate
Preseason season	Lachmach Jack Survival	7 months before fishing
Aggregate	Tree Point Gillnet CPUE	July 9
	Alaska Area 6 Troll CPUE	July 17
Stock Specific	Troll Tag Recoveries (observed)	July 24
	Troll Tag Recoveries (expanded)	July 31
Escapement	Skeena Test Fishery Index	August 5

5.2.2.1 Forecast Descriptions

5.2.2.1.1 Preseason Forecast

Sibling forecasts based on the abundance of jacks (fish returning after only one summer at sea) are commonly used to forecast returns of adult coho salmon. Upper Skeena indicator stocks have very few jacks. Therefore, jack return rates are used from the Lachmach River, a coastal indicator stock located on Work Channel north of the Skeena River.

The Lachmach preseason jack predictor of marine survival has marginal predictive capability for marine survival and returns to the upper Skeena system. It reflected strong runs to the upper Skeena that occurred in 1991, 1999 and 2001 (Figure 9). However, unlike all of the inseason indicators, it failed to differentiate the 1997 return as being exceptionally weak, compared with runs that were only mediocre like 1992, 1993 and 1998. While the jack predictor provides the best preseason expectation of marine survival, it is surpassed during the fishing season by inseason predictors.

5.2.2.1.2 Aggregate Abundance Indicators

Several aggregate and specific indicators for northern British Columbia mainland coho abundance have displayed a similar pattern over the past 20 years (Figure J9). The close correlation among general and specific abundance indicators suggests that the stocks are synchronized closely enough to be managed as a major grouping in the mixed stock fisheries, and that early general indicators of aggregate abundance for a northern British Columbia mainland grouping have substantial power to predict run strength in more critical areas like the upper Skeena River.

Coded-wire tag recoveries indicate that the early-season coho harvest in the immediate Dixon Entrance area of Southeast Alaska is comprised primarily of a mixture of northern B.C. mainland stocks south of Portland Inlet. The catch composition in the immediate boundary area changes dramatically in August and, by September, is comprised mainly of southern inside stocks in Southeast Alaska. The most useful Alaskan fishery indicators of the abundance of the early pool of primarily northern B.C. coho are the Tree Point gillnet fishery and the small early troll fishery that occurs primarily around Duke Island, Cape Chacon and Cape Muzon.

Catch-per-unit-of-effort (CPUE) in these fisheries is strongly correlated with the commercial catch in Canadian Areas 1–5 though 1997 (Figure J9), providing another indication that they harvest primarily

common stocks. More importantly, the general abundance indicators (Area 6 troll, Tree Point gillnet, Canadian Commercial Catch) are strongly correlated with the upper Skeena indicators (early Skeena test fishery, Toboggan wild run, Babine and Bulkley escapement). All of the indicators show relatively high abundance in 1989–1991, 1999 and 2001 and, of greatest interest, reflect the record low return in 1997.

5.2.2.1.2.1 Tree Point Indicator

The early Tree Point fishery has a history of stable effort directed primarily at sockeye and chum salmon, while coho salmon have accounted for only a small incidental component. Although early coho catch rates at Tree Point are very low, averaging only 2 to 3 fish per boat-day, weekly catch-per-boat-day (CPUE) cumulated from mid-June through mid-July has proven to be a strong predictor of the abundance of northern B.C. coho stocks as indicated by upper Skeena returns and the Canadian commercial catch through 1997 (Figure J9).

While the relationship with northern B.C. abundance indicators is strongest when Tree Point CPUE is cumulated over Statistical Weeks 25–29, it provides a reasonably strong preliminary assessment by about July 9.

5.2.2.1.2.2 Alaska Boundary Troll Indicator

Early CPUE by Alaskan trollers in the Dixon Entrance area also has predictive power and forms the basis for some inseason conservation actions for northern B.C. coho stocks specified in the 1999 PST agreement. Effort in this fishery has been relatively low in recent years, while CPUE is determined from dockside interviews. The fact that fishery performance sample sizes are substantially lower for the Area 6 troll fishery compared with the Tree Point gillnet fishery may account for a poorer fit with northern B.C. coho abundance indicators. Also, since the early Boundary area troll fishery is usually directed primarily at coho salmon, the number of fishery performance samples available for assessment tends to decrease at low abundance as fishing in the area becomes less economical.

Despite these limitations, the boundary troll indicator provides expanded geographic coverage over the Tree Point index, and an independent fix on early coho abundance in Dixon Entrance. Under the current treaty arrangement, troll CPUE is computed for all samples throughout Alaska Fishery Performance Area 6 (except hatchery terminal fisheries) and for hand and power troll gear combined. Closer analysis indicates that samples restricted to power troll gear in statistical subdistricts in Dixon Entrance (i.e. boundary strip) and including trolling grounds near Cape Muzon and Cordova Bay, just to the west of Area 6, have slightly greater predictive power than the combined-gear samples from within Area 6.

5.2.2.1.3 Stock-specific Survival and Abundance Indicators

Coded-wire tag samples from Alaskan fisheries are transported, processed and entered on computer very rapidly. This program produces timely inseason estimates of the wild and hatchery components of the catch. It also enables biologists to estimate marine survival and abundance (where smolt production is known) for Alaskan indicator stocks based on the accumulation of tags in the troll catch. Predictions of marine survival from inseason tag recoveries are applied to smolt estimates to estimate total indicator stock abundance periodically during the fishing season. Exploitation rates are then predicted from recent historical averages and ranges, with any unusual management or fishery changes taken into account.

Escapement is then predicted in relation to the biological goal range for each indicator stock, and appropriate management recommendations are made.

Recently, similar models have been under development for northern British Columbia stocks including Lachmach River, Zolzap Creek, Toboggan Creek and Babine River. These models can be sensitive to variations in fishery efficiency and migratory patterns and, therefore, work best with a stable, broadly-distributed fishery like the Alaska troll fishery and for stocks that are located near the assessment fishery. The primary advantage of CWT-based predictors is that they use information from highly mixed-stock fisheries to indicate survival and/or abundance of a specific stock, even if it is a very small contributing component of the fishery.

In the Alaska troll fishery, the primary limitation in estimating the harvest of a tagged stock is the delay in estimating catch in the fishery. While tags are typically processed and entered on computer within a week of being sampled, fish tickets can take up to 2 weeks or more from the landing date until catches are available on computer. For inseason assessments through Statistical Week 29, for example, stable estimates of the total troll catch of tagged fish are not available until at least the end of July.

However, in July 2000 a more immediate model was devised to circumvent the catch estimation problem and provide estimates of marine survival about a week after the tags were recovered. Sampling effort in the Alaska fisheries has been relatively stable in recent years which allows preliminary estimates of marine survival to be made based solely on the number of tags recovered, without estimating the total number caught. For example, a useful prediction of marine survival for Toboggan Creek hatchery smolts in 2000 was made on July 24.

5.2.2.1.3.1 Upper Skeena Stocks

The harvest of coded-wire tags from the Fort Babine and Toboggan Creek hatcheries (upper Skeena drainage) by the Alaska troll fishery during the first 3 weeks of July has tracked well with total marine survival of releases from those hatcheries (Figure J9). Marine survival of these upper Skeena hatchery releases has, in turn, tracked relatively well with wild stock returns in the same systems. Of primary interest, the inseason tag recoveries accurately predicted record low and very high abundance in 1997 and 1999, respectively. Record low survival in 1997 was evident throughout the season.

However, while the models are good at predicting marine survival for the tagged hatchery smolts, an estimate for the wild coho return relies on an estimate of wild smolt production and a stable relationship in marine survival between wild and hatchery smolts. The hatchery fraction of the Toboggan Creek run in 1999–2001 has increased substantially above prior levels for reasons that are not entirely clear. While it has still been possible to generate useful inseason estimates of wild stock abundance at Toboggan Creek, improved wild smolt estimation and tagging would substantially improve the reliability of the estimates.

The potential error associated with a lack of real-time smolt estimates also became apparent in 2001 predictions of the Babine escapement, which appeared to be driven by smolt production that was exceptionally strong compared with other recent years. Inseason indicators based on CWTs and Tree Point fishery performance both predicted a 2001 Babine escapement of about 8,200–8,400 spawners (second highest in 23 years but only 24th highest since 1946) compared with an observed escapement of 21,500 spawners (second highest since 1946).

Overall, results to date indicate that analysis of inseason coded-wire tag recoveries from mixed stock fisheries is a timely and accurate predictor of marine survival and a reasonably reliable predictor of total

abundance and escapement of upper Skeena coho stocks. In addition to the various independent indicators, it would be useful to develop a single "best" estimate of abundance. This might be best accomplished using a Bayesian model similar to models used by the PSC Chinook Technical Committee to estimate the chinook abundance index by fishery, and by DFO to estimate Nass sockeye abundance.

5.2.2.1.3.2 Canadian Area 3 Stocks

Canadian Area 3 (Portland Inlet) stocks have been somewhat intermediate between Southeast Alaska and Skeena stocks in both marine survival and migratory patterns in the ocean. Therefore, while aggregate fishery performance indicators for Southeast Alaska and Skeena area stocks are both useful inseason, neither aggregate by itself fits closely with Area 3 stocks across the shifts in survival between the regions in the 1990s.

The jack return to the Lachmach River (Figure J10) provides a useful preseason predictor of the return to that stream, and to some extent the surrounding systems. The marked rate for jacks returning in the year of the smolt migration provides a preseason estimate of freshwater production, while the proportion of smolts returning as jacks is used to predict marine survival. The preseason jack-based forecast is supplemented inseason by an independent estimate based on the recovery rate of tags in the Alaska troll fishery. The inseason estimate of marine survival for the Lachmach stock based on fishery recoveries becomes more precise than the jack predictor by about mid-August. The precision of the inseason models used to estimate Lachmach smolt survival has been limited by low numbers of tagged smolts in some years.

Unfortunately, jacks are scarce to non-existent in many of the larger mainland river systems that are of primary interest in fishery management (i.e. Taku, Berners, Chilkat, Unuk, Nass and Skeena Rivers). In these cases, preseason estimates of marine survival are of necessity based on smaller streams that have jacks and are located nearby. For example, jack returns to the Lachmach River are used as a survival predictor for upper Skeena stocks (Holtby and Finnegan 2001). However, maturity schedules are variable, and while the return rate as jacks is useful as a rough predictor of marine survival, it has accounted for only about half of the observed variability in marine survival even within the Lachmach stock over the past 11 years.

Although real-time estimates of marine survival are of substantial use in predicting abundance and achieving biological escapement needs, the abundance of adult returns to some systems has also been substantially affected by fluctuations in smolt production. In particular, lack of real-time smolt estimates for the Nass River is a major factor limiting the reliability of preseason and inseason abundance estimates. For example, the extremely strong 1994 return to Zolzap Creek (lower Nass tributary) and the Nass River in general (Figure J10) was clearly driven by exceptional smolt production as well as high marine survival, as was the case in some Alaskan systems. Smolt production also appears somewhat variable within the Nass system as indicated by returns that have varied among assessment locations such as Zolzap Creek, Meziadin Fishway and the overall drainage above the lower Nass Canyon (Figure J10). Unfortunately, high flow rates during the spring freshet and interchange of fish within river systems contribute to difficult logistical and statistical challenges in fielding the programs needed to estimate the smolt abundance in the migration year. For example, real-time estimates of the number of smolts migrating Zolzap Creek in 1992–2000 have averaged only 43% (range 23–70%) of post-season estimates generated from sampling returning adults.

While mixed-stock recoveries of tagged Zolzap Creek coho salmon provide a relatively reliable inseason assessment of marine survival by early to mid-August, tagging of smolts upstream of the Nass River fishwheels (similar to the Taku River project) could potentially improve Nass coho run assessment capability after mid-August.

Overall, Canadian Area 3 stocks have been somewhat intermediate in survival and migratory patterns and can be assessed inseason by observing general fishery performance measures for stocks in both Southeast Alaska and systems south of Area 3. Jack returns and inseason coded-wire tag recoveries together provide a relatively reliable picture of marine survival specific to stocks in this area. However, the primary challenge to further improve inseason stock assessment, particularly for Nass stocks, is timely estimation of smolt production.

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Table A1. Total Southeast Alaska commercial coho salmon catch and hatchery contribution by state/province, 1960–1998.

Year	Wild Catch[a]	Hatchery Contributions by Region: Alaska	British Columbia	Wash.	Oregon	Hatchery Catch	Total Catch	Percent Alaska Hatchery	Percent Total Hatchery
1960	681,604						681,604		
1961	833,609						833,609		
1962	1,156,277						1,156,277		
1963	1,265,328						1,265,328		
1964	1,586,258						1,586,258		
1965	1,543,807						1,543,807		
1966	1,218,827						1,218,827		
1967	864,250						864,250		
1968	1,539,686						1,539,686		
1969	596,407						596,407		
1970	758,900						758,900		
1971	914,382						914,382		
1972	1,508,654						1,508,654		
1973	836,167						836,167		
1974	1,276,941						1,276,941		
1975	424,657						424,657		
1976	821,801						821,801		
1977	944,654						944,654		
1978	1,713,168						1,713,168		
1979	1,278,045						1,278,045		
1980	1,110,016	4,509	775	94	0	5,378	1,115,394	0.4	0.5
1981	1,333,801	19,095	278	0	48	19,420	1,353,221	1.4	1.4
1982	2,040,728	61,103	494	249	10	61,856	2,102,584	2.9	2.9
1983	1,867,923	73,491	893	373	0	74,757	1,942,680	3.8	3.8
1984	1,760,379	117,706	1,904	1,027	7	120,645	1,881,024	6.3	6.4
1985	2,385,203	176,806	238	0	0	177,044	2,562,247	6.9	6.9
1986	2,865,047	383,227	9,802	903	3	393,934	3,258,981	11.8	12.1
1987	1,374,372	108,584	3,770	144	0	112,497	1,486,869	7.3	7.6
1988	987,079	45,845	2,208	436	52	48,541	1,035,620	4.4	4.7
1989	2,006,549	168,853	5,600	546	24	175,023	2,181,572	7.7	8.0
1990	2,327,063	397,826	14,474	529	4	412,833	2,739,896	14.5	15.1
1991	2,289,032	587,796	20,167	453	0	608,416	2,897,448	20.3	21.0
1992	2,684,709	716,829	21,376	1,032	0	739,237	3,423,946	20.9	21.6
1993	3,012,115	526,852	15,932	1,502	0	544,286	3,556,401	14.8	15.3
1994	4,788,250	713,340	17,599	730	245	731,914	5,520,164	12.9	13.3
1995	2,546,630	572,266	8,719	1,945	0	582,930	3,129,560	18.3	18.6
1996	2,360,020	612,653	11,357	2,016	0	626,026	2,986,046	20.5	21.0
1997	1,512,090	323,574	3,195	102	0	326,871	1,838,961	17.6	17.8
1998	2,203,876	537,323	8,116	1,398	20	546,856	2,750,732	19.5	19.9
1994–1998 Avg.	2,682,173	551,831	9,797	1,238	53	562,919	3,245,093	17.8	18.1

[a] Small undocumented hatchery contributions occurred before 1980.

Table A2. Southeast Alaska total commercial catch of coho salmon, 1888–1998.

Year	Wild	Hatchery	Total	Year	Wild	Hatchery	Total
1888	16,000	0	16,000	1944	1,306,203	0	1,306,203
1889	11,000	0	11,000	1945	2,587,615	0	2,587,615
1890	43,000	0	43,000	1946	2,366,848	0	2,366,848
1891	23,000	0	23,000	1947	1,546,079	0	1,546,079
1892	14,000	0	14,000	1948	2,145,853	0	2,145,853
1893	256,000	0	256,000	1949	2,279,890	0	2,279,890
1894	347,000	0	347,000	1950	1,651,905	0	1,651,905
1895	608,000	0	608,000	1951	3,310,226	0	3,310,226
1896	239,000	0	239,000	1952	1,743,753	0	1,743,753
1897	267,000	0	267,000	1953	1,163,581	0	1,163,581
1898	290,000	0	290,000	1954	1,770,807	0	1,770,807
1899	279,000	0	279,000	1955	1,338,477	0	1,338,477
1900	296,000	0	296,000	1956	916,542	0	916,542
1901	280,000	0	280,000	1957	1,218,479	0	1,218,479
1902	234,000	0	234,000	1958	955,349	0	955,349
1903	652,000	0	652,000	1959	1,024,390	0	1,024,390
1904	516,000	0	516,000	1960	709,083	0	709,083
1905	397,000	0	397,000	1961	870,467	0	870,467
1906	657,000	0	657,000	1962	1,190,742	0	1,190,742
1907	527,741	0	527,741	1963	1,265,328	0	1,265,328
1908	478,532	0	478,532	1964	1,586,258	0	1,586,258
1909	364,235	0	364,235	1965	1,543,807	0	1,543,807
1910	658,534	0	658,534	1966	1,218,827	0	1,218,827
1911	904,408	0	904,408	1967	864,250	0	864,250
1912	1,046,593	0	1,046,593	1968	1,539,686	0	1,539,686
1913	619,013	0	619,013	1969	596,407	0	596,407
1914	909,002	0	909,002	1970	758,900	0	758,900
1915	918,979	0	918,979	1971	914,420	0	914,420
1916	1,593,015	0	1,593,015	1972	1,508,654	0	1,508,654
1917	1,649,731	0	1,649,731	1973	836,167	0	836,167
1918	1,622,636	0	1,622,636	1974	1,276,941	0	1,276,941
1919	1,822,825	0	1,822,825	1975	424,657	0	424,657
1920	1,045,309	0	1,045,309	1976	821,801	0	821,801
1921	1,005,978	0	1,005,978	1977	944,654	0	944,654
1922	1,307,237	0	1,307,237	1978	1,713,168	0	1,713,168
1923	1,357,679	0	1,357,679	1979	1,278,045	0	1,278,045
1924	1,134,839	0	1,134,839	1980	1,110,016	5,378	1,115,394
1925	1,184,352	0	1,184,352	1981	1,333,801	19,420	1,353,221
1926	1,178,393	0	1,178,393	1982	2,040,728	61,856	2,102,584
1927	1,345,908	0	1,345,908	1983	1,867,923	74,757	1,942,680
1928	2,159,409	0	2,159,409	1984	1,760,379	120,645	1,881,024
1929	1,368,442	0	1,368,442	1985	2,385,203	177,044	2,562,247
1930	1,998,507	0	1,998,507	1986	2,865,047	393,934	3,258,981
1931	1,152,099	0	1,152,099	1987	1,374,372	112,497	1,486,869
1932	1,389,406	0	1,389,406	1988	987,079	48,541	1,035,620
1933	1,223,081	0	1,223,081	1989	2,006,549	175,023	2,181,572
1934	1,956,014	0	1,956,014	1990	2,327,063	412,833	2,739,896
1935	1,759,654	0	1,759,654	1991	2,289,032	608,416	2,897,448
1936	1,799,813	0	1,799,813	1992	2,684,709	739,237	3,423,946
1937	1,399,754	0	1,399,754	1993	3,012,115	544,286	3,556,401
1938	2,199,625	0	2,199,625	1994	4,788,250	731,914	5,520,164
1939	1,122,183	0	1,122,183	1995	2,546,630	582,930	3,129,560
1940	1,838,309	0	1,838,309	1996	2,360,020	626,026	2,986,046
1941	2,515,069	0	2,515,069	1997	1,512,090	326,871	1,838,961
1942	2,211,103	0	2,211,103	1998	2,203,876	546,856	2,750,732
1943	1,680,198	0	1,680,198				

Table A3. Harvest of coho salmon in Southeast Alaska by gear type, 1907–1998.[a]

	Number of Fish						
Year	Trap	Troll	Seine	Gillnet	Sport	Personal Use and Subsistence	Total
1907	139,783	1,052	302,963	83,943			527,741
1908	119,034	1,329	273,993	84,176			478,532
1909	112,213	8,000	165,177	78,845			364,235
1910	165,023	6,000	322,521	164,990			658,534
1911	276,206	37,068	420,515	170,619			904,408
1912	392,206	15,059	497,091	142,237			1,046,593
1913	291,731	42,601	168,430	116,251			619,013
1914	472,425	47,161	227,867	161,549			909,002
1915	392,632	77,999	234,038	214,310			918,979
1916	811,069	202,097	351,756	228,093			1,593,015
1917	678,642	343,758	305,471	321,860			1,649,731
1918	699,726	300,395	373,266	249,249			1,622,636
1919	794,053	278,692	414,341	335,739			1,822,825
1920	552,972	44,710	284,106	163,521			1,045,309
1921	366,007	216,704	236,165	187,102			1,005,978
1922	679,586	168,580	336,201	122,870			1,307,237
1923	741,262	99,866	381,950	134,601			1,357,679
1924	716,403	100,429	178,667	139,340			1,134,839
1925	546,733	298,217	93,043	246,359			1,184,352
1926	493,617	390,318	128,141	166,317			1,178,393
1927	413,850	477,417	146,470	308,171			1,345,908
1928	957,766	791,122	203,626	206,895			2,159,409
1929	624,287	496,232	129,329	118,594			1,368,442
1930	909,805	635,817	173,081	279,804			1,998,507
1931	386,703	445,253	131,845	188,298			1,152,099
1932	565,234	594,195	86,775	143,202			1,389,406
1933	571,425	357,213	150,347	144,096			1,223,081
1934	925,261	559,763	233,352	237,638			1,956,014
1935	707,554	578,724	229,041	244,335			1,759,654
1936	712,930	749,963	168,893	168,027			1,799,813
1937	520,517	639,527	133,710	106,000			1,399,754
1938	910,015	789,466	242,402	257,742			2,199,625
1939	453,005	378,504	128,419	162,255			1,122,183
1940	689,547	630,602	251,576	266,584			1,838,309
1941	661,605	1,072,571	363,558	417,335			2,515,069
1942	637,041	1,005,248	253,395	315,419			2,211,103
1943	573,444	811,701	121,561	173,492			1,680,198
1944	497,089	528,104	153,317	127,693			1,306,203
1945	666,656	1,437,936	223,182	259,841			2,587,615
1946	720,373	1,257,513	195,979	192,983			2,366,848
1947	416,645	841,775	139,725	147,934			1,546,079
1948	530,689	1,273,548	122,947	218,669			2,145,853
1949	569,543	1,478,694	140,711	90,942			2,279,890
1950	435,774	935,362	127,943	152,826			1,651,905
1951	821,696	2,002,653	231,777	254,100			3,310,226

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Table A3. (page 2 of 2)

Year	Number of Fish						
	Trap	Troll	Seine	Gillnet	Sport	Personal Use and Subsistence	Total
52	344,941	983,609	128,185	287,018			1,743,753
53	268,321	487,784	148,333	259,143			1,163,581
54	193,735	1,049,445	110,036	417,591			1,770,807
55	166,991	749,434	92,491	329,561			1,338,477
56	148,941	408,207	125,705	233,689			916,542
57	132,938	794,709	125,188	165,644			1,218,479
58	170,098	474,324	113,037	197,890			955,349
59	7,887	567,166	185,046	264,291			1,024,390
60	2,387	396,211	125,871	184,614			709,083
61	5,740	399,932	246,524	218,271			870,467
62	3,975	643,740	239,382	303,645			1,190,742
63	1,646	693,050	316,491	254,141			1,265,328
64	6,796	730,766	506,505	342,191			1,586,258
65	2,256	695,887	557,005	288,659			1,543,807
66	15,975	528,621	452,057	222,174			1,218,827
67	368	443,677	188,965	231,240			864,250
68	1,663	779,500	463,553	294,970			1,539,686
69	400	388,443	109,956	97,608			596,407
70	2,499	267,647	294,574	194,180			758,900
71	0	391,279	326,264	196,877			914,420
72	4,688	791,941	390,343	321,682			1,508,654
73	324	540,125	129,593	166,125			836,167
74	1,006	845,109	166,687	264,139			1,276,941
75	562	214,170	70,201	139,724		136	424,793
76	1,223	524,762	87,604	208,212		64	821,865
77	1,374	506,845	160,519	275,916	36,152	849	981,655
78	4,371	1,100,902	245,074	362,821	48,508	969	1,762,645
79	3,684	918,845	176,593	178,923	23,112	789	1,301,946
80	1,789	696,361	185,479	231,765	32,808	992	1,149,194
81	1,647	860,898	238,502	252,174	28,158	1,830	1,383,209
82	4,576	1,316,013	431,804	350,191	53,436	2,279	2,158,299
83	6,270	1,276,363	360,287	299,760	55,403	571	1,998,654
84	5,595	1,132,637	361,325	381,467	59,812	1,293	1,942,129
85	3,562	1,600,294	422,636	535,755	59,910	419	2,622,576
86	1,410	2,128,033	588,718	540,820	58,322	863	3,318,166
87	932	1,041,051	131,178	313,708	50,284	1,000	1,538,153
88	87	500,227	158,434	376,872	43,688	296	1,079,604
89	477	1,415,517	333,116	432,462	90,789	1,433	2,273,794
90	1,288	1,832,583	379,334	526,691	105,212	1,625	2,846,733
91	318	1,719,667	411,240	766,223	123,946	851	3,022,245
92	142	1,929,126	505,135	989,543	99,939	4,828	3,528,713
93	610	2,395,518	477,006	683,267	121,874	3,422	3,681,697
94	0	3,461,665	970,098	1,088,401	191,860	2,648	5,714,672
95	0	1,750,219	627,472	751,869	97,128	2,392	3,229,080
96	0	1,906,682	447,003	632,361	193,758	2,488	3,182,292
97	0	1,170,462	189,054	479,445	163,202	2,314	2,004,477
98	0	1,636,479	475,166	639,087	171,395	2,726	2,924,853

[a] Blanks indicate that catch estimates were unavailable.

Table A4. Trap harvest of wild coho salmon, number of traps fished and catch-per-trap, 1907–1958, and troll harvest of wild coho salmon, number of hooks fished, and catch-per-hook, 1946–1998, in Southeast Alaska.

	Trap Fishery			Troll Fishery		
Year	Number of Fish	Number of Traps	Catch Per Trap	Number of Fish	Number of Hooks	Catch Per Hook
1907	139,783	40	3,495			
1908	119,034	61	1,951			
1909	112,213	46	2,439			
1910	165,023	54	3,056			
1911	276,206	91	3,035			
1912	392,206	176	2,228			
1913	291,731	163	1,790			
1914	472,425	177	2,669			
1915	392,632	185	2,122			
1916	811,069	254	3,193			
1917	678,642	312	2,175			
1918	699,726	363	1,928			
1919	794,053	434	1,830			
1920	552,972	482	1,147			
1921	366,007	111	3,297			
1922	679,586	246	2,763			
1923	741,262	326	2,274			
1924	716,403	351	2,041			
1925	546,733	406	1,347			
1926	493,617	481	1,026			
1927	413,850	575	720			
1928	957,766	453	2,114			
1929	624,287	444	1,406			
1930	909,805	444	2,049			
1931	386,703	274	1,411			
1932	565,234	193	2,929			
1933	571,425	261	2,189			
1934	925,261	290	3,191			
1935	707,554	280	2,527			
1936	712,930	284	2,510			
1937	520,517	284	1,833			
1938	910,015	286	3,182			
1939	453,005	285	1,589			

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Table A4. (page 2 of 3)

Year	Trap Fishery			Troll Fishery		
	Number of Fish	Number of Traps	Catch Per Trap	Number of Fish	Number of Hooks	Catch Per Hook
1940	689,547	275	2,507			
1941	661,605	249	2,657			
1942	637,041	270	2,359			
1943	573,444	254	2,258			
1944	497,089	264	1,883			
1945	666,656	265	2,516			
1946	720,373	273	2,639	1,257,513	18,156	69.3
1947	416,645	267	1,560	841,775	28,941	29.1
1948	530,689	242	2,193	1,273,548	29,048	43.8
1949	569,543	216	2,637	1,478,694	26,004	56.9
1950	435,774	247	1,764	935,362	28,650	32.6
1951	821,696	252	3,261	2,002,653	30,450	65.8
1952	344,941	205	1,683	983,609	31,445	31.3
1953	268,321	256	1,048	487,784	27,111	18.0
1954	193,735	118	1,642	1,049,445	27,158	38.6
1955	166,991	113	1,478	749,434	27,642	27.1
1956	148,941	122	1,221	408,207	52,894	7.7
1957	132,938	123	1,081	794,709	31,624	25.1
1958	170,098	146	1,165	474,324	32,376	14.7
1959				567,166	32,216	17.6
1960				396,211	24,128	16.4
1961				399,932	36,862	10.8
1962				643,740	23,904	26.9
1963				693,050	26,000	26.7
1964				730,766	29,000	25.2
1965				695,887	33,000	21.1
1966				528,621	33,000	16.0
1967				443,677	34,908	12.7
1968				779,500	36,817	21.2
1969				388,443	38,725	10.0
1970				267,647	41,357	6.5
1971				391,279	36,201	10.8
1972				791,941	40,969	19.3

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Table A4. (page 3 of 3)

Year	Trap Fishery			Troll Fishery		
	Number of Fish	Number of Traps	Catch Per Trap	Number of Fish	Number of Hooks	Catch Per Hook
1973				540,125	45,564	11.9
1974				845,109	49,599	17.0
1975				214,170	40,106	5.3
1976				524,762	41,374	12.7
1977				506,845	49,414	10.3
1978				1,100,902	62,111	17.7
1979				918,845	56,656	16.2
1980				693,203	50,299	13.8
1981				844,757	42,029	20.1
1982				1,280,093	41,497	30.8
1983				1,223,563	39,942	30.6
1984				1,061,148	38,262	27.7
1985				1,493,749	40,115	37.2
1986				1,847,961	38,583	47.9
1987				949,695	38,084	24.9
1988				472,568	38,300	12.3
1989				1,293,745	37,289	34.7
1990				1,540,911	37,660	40.9
1991				1,335,682	37,945	35.2
1992				1,508,957	36,877	40.9
1993				2,001,223	36,271	55.2
1994				2,946,481	34,460	85.5
1995				1,414,181	33,805	41.8
1996				1,457,934	30,482	47.8
1997				928,329	30,191	30.7
1998				1,307,000	28,840	45.3

Table A5. Southeast Alaska coho salmon catch by gear type (1989–1998) and Board of Fisheries allocation guidelines for the primary commercial gear types.

Year	Troll	%	Purse Seine	%	Drift Gillnet	%	Set Gillnet	%	Primary Commercial Total	%
1989	1,415,517	64.9	333,113	15.3	255,689	11.7	176,773	8.1	2,180,893	100.0
1990	1,832,604	66.9	379,334	13.9	377,803	13.8	148,891	5.4	2,737,681	100.0
1991	1,719,082	59.4	411,854	14.2	601,179	20.7	166,731	5.7	2,897,130	100.0
1992	1,929,945	56.3	505,135	14.8	699,448	20.4	290,095	8.5	3,423,804	100.0
1993	2,395,887	67.4	477,006	13.4	445,880	12.5	237,446	6.7	3,555,919	100.0
1994	3,466,784	62.7	970,100	17.6	744,558	13.5	343,843	6.2	5,520,155	100.0
1995	1,750,262	55.9	627,472	20.0	456,820	14.6	295,030	9.4	3,129,560	100.0
1996	1,906,756	63.9	447,005	15.0	404,609	13.5	227,802	7.6	2,984,501	100.0
1997	1,170,349	63.6	189,054	10.3	156,725	8.5	322,776	17.6	1,838,904	100.0
1998	1,636,711	59.5	475,171	17.3	441,458	16.0	197,629	7.2	2,750,969	100.0
Average	1,922,390	62.1	481,524	15.2	458,417	14.5	240,702	8.2	3,101,952	100.0
BOF Allocation		61		19		13		7		100
Absolute Deviation(%)		1.1		-3.8		1.5		1.2		
Relative Deviation (%)		1.7		-20.2		11.8		17.8		

Year	Trap	Sport	Subsistence and Personal Use	Grand Total
1989	477	90,789	1,433	2,273,592
1990	1,288	105,212	1,625	2,845,806
1991	318	123,946	851	3,022,245
1992	142	99,939	4,828	3,528,713
1993	610	121,874	3,422	3,681,825
1994	0	191,860	2,648	5,714,663
1995	0	97,128	2,392	3,229,080
1996	0	193,758	2,488	3,180,747
1997	0	163,202	2,314	2,004,420
1998	0	171,395	2,726	2,925,090
Average	284	135,910	2,473	3,240,618

Table A6. Estimated number of boat-days fished in the summer troll fishery (Statistical Weeks 27–40) in Southeast Alaska by area, 1969–1998.

Year	Area						Total
	1	2	3	4	5	6	
1969	7,615	6,158	7,003	15,622	4,855	1,640	42,893
1970	5,379	6,165	5,798	15,685	5,033	3,088	41,148
1971	1,865	6,288	6,234	10,771	6,187	2,489	33,834
1972	3,136	6,066	8,379	12,789	5,935	5,054	41,360
1973	4,083	8,166	9,301	15,377	7,188	4,014	48,130
1974	8,685	5,609	15,418	18,238	7,628	3,963	59,542
1975	2,290	5,208	10,002	6,236	5,518	3,678	32,931
1976	6,016	9,348	8,648	10,782	5,902	3,720	44,416
1977	11,652	15,840	6,082	23,905	6,871	3,999	68,349
1978	6,531	25,016	8,573	26,380	9,842	5,271	81,615
1979	4,775	30,557	9,682	9,130	10,344	4,169	68,657
1980	6,302	27,880	8,666	8,760	8,958	3,563	64,129
1981	5,080	19,102	8,788	10,144	8,321	2,922	54,357
1982	8,498	23,639	9,696	12,272	5,582	4,551	64,239
1983	6,732	18,104	5,450	7,958	7,226	5,003	50,474
1984	5,705	18,478	4,635	7,473	6,650	2,781	45,721
1985	11,399	22,915	8,615	9,037	5,293	3,044	60,303
1986	5,892	30,145	8,477	4,584	10,467	2,802	62,366
1987	5,340	19,812	9,629	6,988	7,865	2,362	51,996
1988	4,974	11,221	6,944	8,873	4,855	1,133	38,001
1989	5,042	16,024	7,121	12,708	6,049	1,597	48,540
1990	5,979	16,645	6,173	9,242	6,598	2,265	46,903
1991	2,275	14,591	6,020	6,362	5,593	2,597	37,438
1992	2,369	17,273	5,602	6,808	5,073	2,130	39,254
1993	3,393	17,897	6,648	7,661	6,176	1,385	43,160
1994	3,191	17,773	6,773	8,393	5,229	1,043	42,403
1995	3,973	13,070	4,644	4,325	4,659	921	31,593
1996	3,149	11,368	4,514	3,544	4,887	850	28,311
1997	1,362	15,900	3,754	2,006	3,729	643	27,394
1998	1,291	12,403	3,024	2,354	4,660	911	24,643
Average							
1969	7,615	6,158	7,003	15,622	4,855	1,640	42,893
1970–79	5,441	11,826	8,812	14,929	7,045	3,945	51,998
1980–89	6,496	20,732	7,802	8,880	7,127	2,976	54,012
1990–98	2,998	15,213	5,239	5,633	5,178	1,416	35,678

Table A7. Number of active limited entry and interim use permits issued and fished in the Southeast Alaska and Yakutat salmon fisheries, 1977 to 1998.[a]

	Number of Permits									
	Purse Seine		Drift Gillnet		Set Gillnet		Hand Troll		Power Troll	
Year	Issued	Fished	Issued	Fished	Issued	Fished	Issued	Fished	Issued	Fished
1977	414	327	474	458	159	145	2,951	1,850	970	746
1978	420	379	492	497	164	155	3,922	2,641	976	817
1979	418	321	492	475	167	158	3,700	2,224	979	816
1980	417	336	489	466	167	159	2,436	1,667	974	842
1981	418	366	487	476	167	158	2,048	1,159	970	793
1982	421	372	486	432	164	147	1,909	1,071	968	811
1983	421	339	480	458	165	145	2,150	954	968	810
1984	422	384	481	468	164	140	2,147	864	963	795
1985	420	372	485	451	164	148	1,030	915	963	830
1986	420	369	488	461	164	154	1,983	805	957	827
1987	420	382	486	466	165	154	1,937	764	957	828
1988	420	395	485	471	165	159	1,870	778	956	829
1989	420	366	485	467	166	160	1,817	695	955	831
1990	420	361	486	466	166	158	1,782	700	956	840
1991	420	384	485	466	168	161	1,741	701	958	848
1992	420	355	485	468	170	159	1,688	645	957	838
1993	419	385	482	461	171	157	1,633	601	956	837
1994	418	391	482	447	171	150	1,579	548	954	804
1995	418	374	483	453	171	147	1,540	461	954	818
1996	417	358	483	440	171	139	1,501	412	965	739
1997	416	351	482	424	170	141	1,459	387	967	740
1998	416	378	479	423	170	142	1,409	304	967	732
Average 1994-1998	417	370	482	437	171	144	1,498	422	961	767

[a] Data provided by Commercial Fisheries Entry Commission (www.cfec.state.ak.us).

Table A8. Southeast Alaska troll coho salmon catch by area, 1960–1998.

	Area						
Year	1	2	3	4	5	6	Total
1960	32,319	68,372	46,879	105,419	42,513	100,709	396,211
1961	31,016	70,208	60,782	105,313	31,052	101,561	399,932
1962	33,525	132,452	120,664	103,646	79,594	173,859	643,740
1963	49,775	216,048	92,893	221,641	75,321	37,372	693,050
1964	25,863	196,148	149,520	154,100	102,023	103,112	730,766
1965	71,598	164,020	108,650	208,289	117,099	26,231	695,887
1966	26,319	104,161	95,360	125,367	113,207	64,207	528,621
1967	131,162	41,775	33,504	144,541	79,690	13,005	443,677
1968	136,013	78,815	96,481	228,842	101,451	137,898	779,500
1969	97,819	38,262	34,155	151,525	29,728	36,954	388,443
1970	16,921	24,477	31,292	127,165	26,760	41,032	267,647
1971	20,539	50,244	77,519	129,476	59,998	53,503	391,279
1972	108,674	93,723	191,960	134,297	83,588	179,699	791,941
1973	97,695	69,452	133,013	122,603	56,659	60,703	540,125
1974	136,462	96,423	274,367	136,951	102,990	97,916	845,109
1975	10,496	13,970	59,468	19,971	28,994	81,271	214,170
1976	100,256	137,916	78,076	88,738	57,700	62,076	524,762
1977	89,762	77,557	55,489	142,199	60,279	81,559	506,845
1978	137,176	345,231	108,732	248,110	95,098	166,555	1,100,902
1979	118,217	315,231	229,154	37,430	132,032	86,781	918,845
1980	61,112	223,054	202,298	35,697	88,633	85,567	696,361
1981	96,838	215,150	251,015	109,911	122,530	65,454	860,898
1982	198,077	475,582	175,990	158,209	154,838	153,317	1,316,013
1983	189,786	473,408	189,079	132,219	155,039	136,832	1,276,363
1984	180,895	520,233	156,149	128,563	87,980	58,817	1,132,637
1985	332,153	632,073	270,056	135,247	113,446	117,319	1,600,294
1986	244,797	1,124,110	331,928	78,111	236,277	112,810	2,128,033
1987	163,109	279,374	321,320	93,417	115,375	68,456	1,041,051
1988	116,528	96,069	115,739	89,245	59,475	23,171	500,227
1989	243,824	464,468	254,253	217,731	164,368	70,873	1,415,517
1990	312,386	586,599	343,127	214,392	266,684	109,395	1,832,583
1991	126,513	706,092	286,252	199,819	257,994	142,997	1,719,667
1992	300,932	956,797	187,588	226,559	183,853	73,397	1,929,126
1993	454,167	887,251	404,754	288,018	301,868	59,460	2,395,518
1994	622,650	1,402,851	505,188	432,184	413,224	85,568	3,461,665
1995	405,698	725,438	236,007	148,116	209,117	25,843	1,750,219
1996	424,726	662,774	293,156	155,046	318,451	52,529	1,906,682
1997	125,340	702,260	143,050	44,289	129,713	25,810	1,170,462
1998	163,562	805,461	208,530	110,338	304,819	43,769	1,636,479
Average							
1960–69	63,541	111,026	83,889	154,868	77,168	79,491	569,983
1970–79	83,620	122,422	123,907	118,694	70,410	91,110	610,163
1980–89	182,712	450,352	226,783	117,835	129,796	89,262	1,196,739
1990–98	326,219	826,169	289,739	202,085	265,080	68,752	1,978,045

Table A9. Estimated total effort in the Alaska troll fishery in boat-days (power troll equivalent) during Statistical Weeks 27–40.

Year	Statistical Week														Total
	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1969	4,735	2,680	5,541	4,998	4,364	4,675	4,124	3,808	3,849	3,281	201	419	220	0	42,893
1970	4,471	3,568	5,409	4,948	3,508	3,675	3,354	2,953	3,609	2,504	1,899	1,038	213	0	41,148
1971	4,288	2,806	3,790	4,307	3,671	3,422	2,774	1,819	2,276	1,979	1,146	1,160	396	0	33,834
1972	3,163	3,092	4,564	4,046	3,587	3,931	3,829	3,682	3,300	3,097	2,643	1,702	724	0	41,360
1973	4,213	3,653	5,182	6,041	4,601	5,085	3,752	3,911	4,036	3,428	2,297	1,744	186	0	48,130
1974	5,213	5,252	7,292	6,001	5,900	6,263	6,023	5,510	4,519	3,792	2,283	1,352	141	0	59,542
1975	3,992	3,419	4,176	3,772	3,735	3,415	4,479	662	682	1,691	1,415	1,414	78	0	32,931
1976	3,885	2,403	3,773	4,202	3,561	4,573	4,239	4,867	4,553	3,680	2,562	1,689	428	0	44,416
1977	4,848	4,804	7,649	8,061	6,472	5,508	6,245	5,889	6,527	5,436	4,039	1,783	1,089	0	68,349
1978	7,117	7,494	9,465	9,634	8,080	8,290	7,938	7,367	6,520	5,691	2,751	1,152	116	0	81,615
1979	5,273	6,997	7,322	10,327	8,186	9,303	5,627	5,076	5,738	4,582	20	28	179	0	68,657
1980	6,641	7,613	3,156	2,746	6,400	7,755	6,094	5,982	6,777	5,257	3,559	2,102	47	0	64,129
1981	115	6,289	6,468	8,242	7,881	6,343	2,461	1,679	5,070	6,383	1,702	1,313	410	0	54,357
1982	5,373	4,750	7,792	8,312	5,277	6	7,739	7,476	7,842	4,926	2,532	1,683	532	0	64,239
1983	1,555	6,128	5,038	6,774	6,156	6,280	148	4,053	4,076	4,192	2,471	1,917	1,687	0	50,474
1984	983	2,367	4,985	6,480	8,320	5,835	3,994	187	3,429	4,682	2,857	1,471	133	0	45,721
1985	6,103	7,402	7,207	8,838	4,471	5,051	4,577	15	5,346	6,319	3,358	1,601	14	0	60,303
1986	4,982	7,649	6,866	5,520	7,084	6,590	2,436	3,947	7,177	4,406	4,206	1,498	6	0	62,366
1987	6,278	7,476	7,110	5,699	5,930	2,496	973	5,184	4,668	3,056	1,975	931	220	0	51,996
1988	1,511	6,587	5,955	3,318	1,590	1,457	4,982	1,921	2,572	4,171	2,311	1,320	304	0	38,001
1989	5,550	6,386	4,467	6,403	6,554	5,489	2,126	903	5,018	2,295	2,610	738	0	0	48,540
1990	4,697	4,823	5,926	4,336	5,348	4,813	2,534	1,964	4,422	3,129	3,511	1,402	0	0	46,903
1991	3,872	4,712	3,528	3,951	3,611	3,641	3,029	0	3,176	2,215	3,227	2,475	0	0	37,438
1992	2,664	1,071	3,403	4,380	3,865	4,488	3,307	0	4,319	4,700	3,680	2,558	819	0	39,254
1993	1,096	3,690	3,208	4,509	4,192	5,025	4,457	733	4,347	4,547	2,699	3,436	1,220	0	43,160
1994	570	4,215	3,669	4,007	5,082	5,293	4,423	4,044	3,711	3,704	2,171	1,014	376	121	42,403
1995	3,347	3,030	2,673	2,947	3,936	4,577	0	1,262	3,702	3,401	1,716	777	225	0	31,593
1996	2,677	3,124	2,574	3,133	3,508	3,294	1,407	2,050	2,237	2,015	1,588	705	0	0	28,311
1997	2,749	2,458	2,403	3,270	3,190	2,338	0	2,748	3,103	2,667	1,386	1,082	0	0	27,394
1998	1,878	3,051	2,409	2,953	2,787	2,798	967	1,626	1,738	1,340	1,294	1,173	479	150	24,643

Table A10. Estimated effort in Alaska troll Area 1 in boat-days (power troll equivalent) during Statistical Weeks 27–40.

Year	Statistical Week														Total
	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1969	738	307	220	881	876	755	1,004	1,267	606	897	21	36	8	0	7,615
1970	695	532	336	725	561	490	613	520	423	221	178	78	8	0	5,379
1971	337	144	97	110	92	160	238	200	212	43	92	78	63	0	1,865
1972	29	53	48	151	581	827	400	457	320	134	107	21	8	0	3,136
1973	337	263	556	876	392	210	255	426	292	269	114	71	24	0	4,083
1974	666	1,274	809	597	658	867	953	1,445	612	518	242	36	8	0	8,685
1975	477	169	164	333	223	358	307	108	98	11	10	24	8	0	2,290
1976	361	463	399	461	464	491	855	1,174	857	325	118	48	0	0	6,016
1977	446	495	515	1,340	2,078	1,265	1,441	1,696	1,315	746	245	39	31	0	11,652
1978	356	314	313	597	539	782	1,353	871	552	538	292	24	0	0	6,531
1979	326	302	151	366	798	373	127	654	1,200	477	0	0	0	0	4,775
1980	436	272	138	86	257	599	923	1,117	1,593	438	308	127	8	0	6,302
1981	0	354	327	385	914	605	366	79	740	984	222	89	15	0	5,080
1982	300	110	226	484	284	0	342	1,598	2,385	1,099	993	570	107	0	8,498
1983	0	105	399	340	566	485	14	972	1,397	1,019	634	699	102	0	6,732
1984	146	407	190	258	992	1,260	457	5	366	819	345	336	123	0	5,705
1985	208	1,086	1,052	2,433	869	869	590	0	2,291	1,295	345	361	0	0	11,399
1986	575	418	696	251	268	1,308	133	321	528	764	527	102	0	0	5,892
1987	422	234	507	241	661	234	45	474	1,326	968	179	49	0	0	5,340
1988	0	760	780	328	273	234	512	251	346	755	524	174	38	0	4,974
1989	845	827	137	251	196	691	430	60	743	397	403	62	0	0	5,042
1990	448	687	1,340	714	618	317	270	179	621	440	304	41	0	0	5,979
1991	286	561	31	98	160	319	279	0	247	190	95	10	0	0	2,275
1992	54	2	28	168	305	424	402	0	391	236	281	53	24	0	2,369
1993	9	41	122	415	460	366	375	52	259	296	338	553	107	0	3,393
1994	160	192	37	190	260	246	346	451	553	436	245	67	3	4	3,191
1995	209	303	117	142	395	708	0	243	787	781	208	73	8	0	3,973
1996	208	193	265	359	236	397	332	284	432	275	136	32	0	0	3,149
1997	153	100	138	153	209	47	0	85	104	157	99	117	0	0	1,362
1998	159	114	33	50	100	139	62	141	196	49	143	104	0	0	1,291

Table A11. Estimated effort in Alaska troll Area 2 in boat-days (power troll equivalent) during Statistical Weeks 27–40.

Year	Statistical Week														Total
	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1969	989	576	836	905	641	654	485	396	312	219	28	80	37	0	6,158
1970	883	691	761	972	589	432	372	383	298	277	253	182	74	0	6,165
1971	1,197	832	980	993	684	288	149	238	186	258	204	161	118	0	6,288
1972	413	461	643	848	610	281	388	386	312	461	534	419	310	0	6,066
1973	544	531	674	1,071	965	772	585	963	544	692	365	427	33	0	8,166
1974	593	423	862	843	554	471	317	463	269	342	256	186	30	0	5,609
1975	620	651	740	572	390	246	866	395	328	197	69	95	39	0	5,208
1976	1,031	508	822	1,000	952	1,166	789	777	717	830	349	303	105	0	9,348
1977	1,722	1,347	2,138	2,423	1,473	1,013	1,161	976	775	1,185	874	410	344	0	15,840
1978	2,631	2,977	2,533	3,622	3,540	2,374	1,977	2,224	1,092	1,398	406	197	45	0	25,016
1979	2,497	3,400	3,507	4,633	3,564	3,020	2,761	2,508	2,280	2,247	17	28	95	0	30,557
1980	2,999	3,854	1,100	1,148	3,148	2,111	2,894	2,127	2,668	2,806	2,078	909	39	0	27,880
1981	0	2,168	2,184	3,764	3,163	2,277	985	474	1,650	1,713	374	251	100	0	19,102
1982	2,250	2,421	3,794	4,223	2,431	0	2,225	2,302	1,670	1,648	336	224	115	0	23,639
1983	733	3,438	2,175	3,338	2,906	3,161	127	541	590	627	205	183	81	0	18,104
1984	824	948	2,610	4,098	4,331	2,503	2,013	25	282	534	253	56	0	0	18,478
1985	3,818	3,183	3,517	4,216	2,082	1,795	1,497	0	1,095	1,267	285	159	0	0	22,915
1986	2,235	4,403	3,898	3,050	3,573	2,792	1,323	2,849	2,558	1,916	1,511	36	0	0	30,145
1987	3,441	3,832	3,525	1,880	2,190	913	142	1,820	1,212	581	236	26	13	0	19,812
1988	937	3,330	2,589	512	293	337	1,291	555	569	801	7	0	0	0	11,221
1989	2,475	2,568	1,483	2,314	2,236	2,229	701	225	1,211	202	318	63	0	0	16,024
1990	2,483	2,196	2,311	1,896	2,487	2,034	1,101	784	854	228	227	44	0	0	16,645
1991	1,956	2,184	1,749	2,233	2,038	1,634	1,298	0	557	227	308	406	0	0	14,591
1992	1,439	521	1,887	2,901	2,280	2,487	1,695	0	1,200	1,562	678	427	197	0	17,273
1993	349	1,936	1,376	1,823	1,574	2,134	2,255	581	1,846	1,889	937	875	322	0	17,897
1994	225	1,853	1,805	1,892	2,352	2,435	1,784	1,898	1,154	1,632	531	178	27	8	17,773
1995	1,703	1,643	1,467	1,556	2,004	2,090	0	383	997	668	410	134	14	0	13,070
1996	1,428	1,477	1,191	1,310	1,932	1,482	407	809	446	469	312	103	0	0	11,368
1997	1,557	1,404	1,289	2,117	1,959	1,348	0	1,844	1,765	1,416	584	616	0	0	15,900
1998	945	1,751	1,685	1,643	1,569	1,444	395	626	604	497	517	495	164	68	12,403

Table A12. Estimated effort in Alaska troll Area 3 in boat-days (power troll equivalent) during Statistical Weeks 27–40.

Year	Statistical Week														Total
	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1969	1,464	502	797	1,134	967	763	608	324	229	188	10	4	14	0	7,003
1970	1,335	525	641	986	731	569	395	313	87	85	53	68	9	0	5,798
1971	1,480	393	647	1,169	1,023	760	412	122	71	111	13	28	5	0	6,234
1972	1,307	591	888	894	930	821	1,195	933	420	210	152	8	27	0	8,379
1973	1,323	855	805	1,610	1,259	1,316	887	537	387	195	46	56	23	0	9,301
1974	1,666	990	1,096	1,894	2,256	2,160	2,261	1,797	753	439	86	20	0	0	15,418
1975	1,414	931	1,137	1,522	1,549	1,202	1,584	0	0	430	154	78	0	0	10,002
1976	1,345	426	695	1,008	748	900	846	1,260	680	433	250	35	23	0	8,648
1977	668	468	466	827	818	626	643	446	354	383	215	119	50	0	6,082
1978	1,066	790	691	1,422	1,111	978	979	752	387	187	125	77	9	0	8,573
1979	1,192	771	803	1,553	1,455	1,495	1,238	566	387	222	0	0	0	0	9,682
1980	1,591	936	428	406	1,314	1,360	1,060	823	484	137	99	29	0	0	8,666
1981	110	1,056	936	1,643	1,531	1,221	389	222	899	672	93	11	6	0	8,788
1982	996	1,019	1,482	1,726	1,049	0	1,674	966	361	377	42	0	6	0	9,696
1983	252	936	882	980	1,021	664	0	367	229	116	0	3	0	0	5,450
1984	7	327	648	605	671	666	478	28	455	462	212	76	0	0	4,635
1985	1,193	1,146	1,235	904	886	1,090	867	4	426	506	338	20	0	0	8,615
1986	713	737	785	1,079	994	1,149	320	128	1,848	446	213	65	0	0	8,477
1987	863	1,239	1,113	1,431	1,414	610	388	1,163	831	411	140	26	0	0	9,629
1988	248	1,197	1,117	1,105	357	283	1,035	311	481	567	236	0	6	0	6,944
1989	826	1,122	1,122	992	1,028	561	243	221	649	216	94	49	0	0	7,121
1990	996	1,056	1,169	707	597	686	322	223	275	112	27	4	0	0	6,173
1991	781	808	941	883	792	777	591	0	261	100	62	23	0	0	6,020
1992	661	263	630	653	528	931	503	0	825	331	172	60	45	0	5,602
1993	554	857	696	953	908	836	732	17	479	373	108	90	43	0	6,648
1994	106	1,415	934	985	835	846	633	464	379	128	37	9	5	0	6,773
1995	818	503	445	505	711	646	0	214	482	281	37	2	0	0	4,644
1996	685	672	543	734	692	499	218	184	177	85	17	6	0	0	4,514
1997	690	607	463	513	493	349	0	292	179	132	31	3	0	0	3,754
1998	418	616	292	515	414	313	97	189	117	10	28	15	0	0	3,024

Table A13. Estimated effort in Alaska troll Area 4 in boat-days (power troll equivalent) during Statistical Weeks 27–40.

Year	Statistical Week														Total
	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1969	1,036	904	2,916	1,529	1,022	1,609	1,639	1,342	2,200	1,288	38	59	40	0	15,622
1970	843	1,082	2,660	1,475	603	1,257	1,506	1,213	2,282	1,224	1,097	411	31	0	15,685
1971	496	672	1,168	1,161	770	989	1,357	778	1,377	725	559	620	99	0	10,771
1972	794	1,135	2,023	1,212	487	893	1,110	960	1,463	1,204	862	460	185	0	12,789
1973	1,265	1,287	2,086	1,410	764	1,237	1,331	1,090	2,030	1,259	977	587	56	0	15,377
1974	1,559	1,740	3,167	1,795	846	1,531	1,684	1,068	2,116	1,306	940	467	18	0	18,238
1975	551	914	1,130	552	431	628	692	53	94	373	332	481	6	0	6,236
1976	517	527	1,105	1,079	470	626	801	830	1,688	1,069	1,134	785	151	0	10,782
1977	1,578	1,860	3,825	2,718	1,053	1,336	2,237	1,646	3,162	1,640	1,879	667	304	0	23,905
1978	2,086	2,206	4,657	2,633	1,299	2,187	2,564	2,188	3,270	1,710	1,163	405	12	0	26,380
1979	534	1,362	1,690	1,743	304	1,890	232	92	761	513	3	0	6	0	9,130
1980	618	1,200	604	699	278	1,443	366	818	1,092	831	337	474	0	0	8,760
1981	5	1,565	1,536	771	196	884	130	653	1,082	1,798	775	604	145	0	10,144
1982	1,005	348	1,305	1,029	392	0	2,618	1,225	2,125	650	719	641	216	0	12,272
1983	157	541	510	334	469	357	0	1,482	945	1,675	820	570	98	0	7,958
1984	6	353	302	530	932	642	604	115	1,285	1,458	872	373	0	0	7,473
1985	313	1,102	476	422	224	550	541	0	653	2,594	1,625	525	14	0	9,037
1986	314	462	529	97	240	165	130	334	809	497	597	405	6	0	4,584
1987	166	740	541	442	774	240	248	790	762	652	900	608	124	0	6,988
1988	135	463	585	643	307	298	1,185	362	728	1,236	1,539	1,137	255	0	8,873
1989	357	674	785	1,668	2,136	1,420	314	326	1,713	1,241	1,596	478	0	0	12,708
1990	167	246	247	354	698	786	357	426	1,556	1,511	1,902	992	0	0	9,242
1991	96	287	255	219	93	419	209	0	911	978	1,612	1,284	0	0	6,362
1992	81	151	595	235	236	242	160	0	1,138	1,247	1,496	1,022	203	0	6,808
1993	115	257	572	786	635	912	446	61	751	1,057	893	924	251	0	7,661
1994	61	404	637	494	854	895	845	708	757	825	1,060	554	227	72	8,393
1995	241	251	302	447	444	446	0	176	573	823	406	169	46	0	4,325
1996	179	465	286	265	246	297	126	270	432	396	331	249	0	0	3,544
1997	121	176	228	214	209	209	0	153	308	135	106	147	0	0	2,006
1998	21	80	31	117	94	209	159	119	406	372	382	335	26	3	2,354

Table A14. Estimated effort in Alaska troll Area 5 in boat-days (power troll equivalent) during Statistical Weeks 27–40.

Year	Statistical Week														Total
	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1969	335	278	634	453	702	746	295	334	246	411	78	223	122	0	4,855
1970	319	414	624	553	637	672	264	303	304	413	232	208	91	0	5,033
1971	512	572	650	680	892	873	327	351	221	620	211	167	111	0	6,187
1972	235	381	466	538	527	612	346	425	335	632	749	495	194	0	5,935
1973	429	439	608	707	760	1,198	437	549	417	680	580	334	51	0	7,188
1974	406	404	769	575	1,093	996	541	458	427	800	601	472	85	0	7,628
1975	506	418	556	495	686	633	496	107	142	357	659	437	25	0	5,518
1976	342	227	287	388	494	1,005	548	592	315	698	517	339	149	0	5,902
1977	288	471	471	450	622	995	541	713	449	893	489	243	247	0	6,871
1978	424	751	798	970	998	1,624	733	729	610	1,332	531	322	20	0	9,842
1979	471	893	770	1,722	1,624	2,136	991	712	372	598	0	0	55	0	10,344
1980	699	1,117	406	377	1,035	1,900	580	819	513	599	539	372	0	0	8,958
1981	0	993	1,242	1,445	1,673	1,118	366	227	407	832	0	9	9	0	8,321
1982	529	684	557	492	564	0	555	687	541	483	306	135	48	0	5,582
1983	290	709	727	1,177	779	1,122	0	581	633	469	486	192	62	0	7,226
1984	0	300	872	734	1,225	662	309	6	869	875	586	203	10	0	6,650
1985	546	662	577	584	156	451	733	0	544	332	474	233	0	0	5,293
1986	991	1,361	742	893	1,838	934	290	270	1,143	551	986	469	0	0	10,467
1987	1,270	1,251	1,213	1,442	609	291	123	635	398	354	204	69	6	0	7,865
1988	192	751	775	515	267	278	833	277	411	538	4	10	5	0	4,855
1989	930	976	853	990	754	423	280	58	484	167	109	25	0	0	6,049
1990	417	406	609	543	849	930	403	265	796	597	712	70	0	0	6,598
1991	608	591	281	376	353	363	489	0	987	493	682	369	0	0	5,593
1992	260	82	190	335	439	283	346	0	466	1,075	690	755	150	0	5,073
1993	44	435	312	466	494	660	502	18	928	789	324	803	402	0	6,176
1994	18	282	190	382	687	780	715	454	755	585	233	101	41	6	5,229
1995	330	292	250	238	346	633	0	240	809	775	474	221	51	0	4,659
1996	152	237	249	384	340	563	296	470	661	659	671	206	0	0	4,887
1997	166	154	268	245	289	341	0	330	702	730	380	124	0	0	3,729
1998	276	454	338	591	576	632	238	504	373	262	102	71	196	48	4,660

Table A15. Estimated effort in Alaska troll Area 6 in boat-days (power troll equivalent) during Statistical Weeks 27–40.

Year	Statistical Week														Total
	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1969	173	114	138	95	156	148	93	145	255	279	25	17	0	0	1,640
1970	396	324	386	237	386	256	204	220	215	285	87	91	0	0	3,088
1971	266	193	248	194	210	352	291	130	210	222	67	106	0	0	2,489
1972	385	471	495	402	451	496	389	522	450	455	238	299	0	0	5,054
1973	315	277	454	367	462	352	257	346	366	333	215	268	0	0	4,014
1974	324	421	588	297	493	238	266	278	341	387	158	171	0	0	3,963
1975	425	337	448	298	455	347	534	0	21	323	191	299	0	0	3,678
1976	289	252	465	265	434	385	400	233	297	326	193	180	0	0	3,720
1977	145	163	234	305	428	272	223	412	473	589	338	305	113	0	3,999
1978	554	456	472	390	592	346	332	602	609	527	233	128	31	0	5,271
1979	252	270	402	310	442	389	277	544	737	525	0	0	23	0	4,169
1980	298	235	479	31	368	344	270	277	427	445	197	192	0	0	3,563
1981	0	154	243	235	404	239	225	24	292	385	238	349	135	0	2,922
1982	293	169	427	359	557	6	325	698	761	669	135	113	39	0	4,551
1983	122	398	346	605	415	491	7	110	283	285	327	270	1,345	0	5,003
1984	0	32	363	254	169	102	133	8	171	533	589	427	0	0	2,781
1985	25	223	349	279	254	296	349	11	337	326	291	303	0	0	3,044
1986	155	268	216	149	171	242	240	46	292	231	372	422	0	0	2,802
1987	116	181	211	264	281	208	28	302	138	90	314	153	77	0	2,362
1988	0	86	109	215	94	27	125	165	38	274	0	0	0	0	1,133
1989	117	219	86	189	204	166	159	13	219	72	91	61	0	0	1,597
1990	187	233	250	122	97	58	81	87	319	241	340	251	0	0	2,265
1991	145	282	271	143	175	129	162	0	213	227	467	383	0	0	2,597
1992	169	52	73	87	76	120	202	0	299	249	363	241	199	0	2,130
1993	25	163	131	66	121	117	146	3	84	143	99	192	94	0	1,385
1994	0	69	67	63	95	90	100	71	113	99	66	105	74	31	1,043
1995	46	38	92	59	36	55	0	6	52	72	181	179	107	0	921
1996	25	79	41	80	62	55	28	32	88	130	121	108	0	0	850
1997	62	17	17	29	31	44	0	43	44	97	186	75	0	0	643
1998	59	36	29	36	35	62	16	48	42	150	122	153	93	31	911

Table A16. Southeast Alaska purse seine catch of coho salmon by district, 1960–1998.

	District (Number of Fish)							
Year	101	102	103	104	105	106	107	109
1960	13,415	11,316	4,091	54,402	100	625	1,344	1,067
1961	23,171	39,859	40,461	28,022	2,437	13,069	879	10,315
1962	44,448	46,445	16,366	59,307	3,930	17,679	6,363	2,721
1963	11,420	29,577	37,409	73,461	1,310	15,069	1,346	6,887
1964	46,690	103,760	28,153	103,810	4,553	30,760	9,211	17,147
1965	5,190	70,162	71,836	124,760	6,614	29,134	5,800	20,943
1966	40,431	95,601	44,868	56,858	1,545	30,745	11,655	32,053
1967	509	6,166	2,915	56,486	1,020	1,575	0	9,772
1968	70,033	52,741	30,708	81,668	1,827	12,074	5,938	17,846
1969	905	6,200	995	12,718	58	888	461	960
1970	32,183	35,782	43,815	5,876	900	7,784	2,294	23,848
1971	27,768	58,350	30,000	28,217	1,282	32,522	20,422	16,340
1972	71,777	49,395	17,686	71,198	317	12,965	11,377	18,955
1973	4,807	32,218	8,045	21,673	184	4,595	1,846	4,162
1974	22,632	35,045	25,300	51,029	2,513	1,686	1,067	8,386
1975	4,175	34,046	10,880	7,797	29	8,930	2,159	817
1976	4,935	30,711	17,666	14,684	15	14,462	3,387	14
1977	38,539	51,748	5,565	23,523	46	8,298	12,606	17,580
1978	60,425	72,236	11,994	71,517	233	11,746	7,822	1,418
1979	4,252	27,517	14,178	102,596	212	6,546	1,302	8,052
1980	28,422	15,708	20,725	108,045	201	0	0	5,021
1981	5,893	16,140	41,272	125,092	1,689	4,280	120	2,447
1982	82,968	53,393	15,536	142,354	805	0	1,415	26,205
1983	44,966	31,045	24,397	187,259	3,538	11,213	3,412	3,747
1984	75,663	46,027	39,646	140,775	1,914	5,438	3,159	21,889
1985	107,518	50,656	48,108	129,183	4,468	5,122	5	21,364
1986	152,626	61,901	75,526	273,342	1,108	5,013	1,416	7,798
1987	17,134	16,184	20,249	48,983	203	0	0	4,178
1988	8,347	16,550	12,466	94,263	332	0	1,503	9,317
1989	33,860	52,214	24,369	158,839	0	3,049	4,263	17,209
1990	39,691	61,861	25,367	198,242	733	5,432	4,626	20,521
1991	26,804	31,460	35,501	201,836	3,590	2,217	3,900	54,900
1992	49,860	47,789	16,366	222,375	133	0	5,659	111,687
1993	38,474	58,393	61,819	170,478	18,792	0	14,837	50,727
1994	26,855	64,043	32,561	344,837	674	22,331	11,503	226,011
1995	53,491	65,854	33,453	224,497	13,462	2,565	10,946	165,976
1996	49,370	53,527	16,357	177,918	299	4,426	7,503	85,462
1997	16,304	14,757	8,555	63,100	6,820	8,812	2,484	26,297
1998	68,539	72,666	45,877	102,671	2,092	18,874	3,033	82,356
Average								
1960–69	25,621	46,183	27,780	65,149	2,339	15,162	4,300	11,971
1970–79	27,149	42,705	18,513	39,811	573	10,953	6,428	9,957
1980–89	55,740	35,982	32,229	140,814	1,426	3,412	1,529	11,918
1990–98	41,043	52,261	30,651	189,550	5,177	7,184	7,166	91,549

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Table A16. (page 2 of 2).

Year	District (Number of Fish)					
	110	111	112	113	114	Total
1960	2,472	1,112	5,774	2,290	27,863	125,871
1961	5,437	1,232	16,423	12,688	52,531	246,524
1962	585	112	3,795	3,048	34,583	239,382
1963	352	2,240	15,914	12,373	109,133	316,491
1964	6,714	1,194	35,204	3,643	115,666	506,505
1965	337	0	44,188	25,553	152,488	557,005
1966	2,535	518	26,464	2,788	105,996	452,057
1967	200	0	13,878	3,097	93,347	188,965
1968	18,672	2,253	35,860	2,448	131,485	463,553
1969	14	0	13,844	6,503	66,410	109,956
1970	4,203	1,928	71,370	3,484	61,107	294,574
1971	0	0	28,135	2,181	81,047	326,264
1972	3,475	807	42,889	682	88,820	390,343
1973	128	0	3,747	445	47,743	129,593
1974	859	0	7,965	3,481	6,724	166,687
1975	0	0	0	819	549	70,201
1976	0	0	0	226	1,504	87,604
1977	0	0	0	2,614	0	160,519
1978	0	0	2,913	4,770	0	245,074
1979	217	264	1,219	10,108	130	176,593
1980	6	0	3,014	2,387	1,950	185,479
1981	1,329	0	13,327	20,110	6,803	238,502
1982	35,833	1,653	62,163	4,434	5,045	431,804
1983	844	0	22,268	23,396	4,202	360,287
1984	1,590	0	17,413	3,376	4,435	361,325
1985	10,314	0	25,825	15,759	4,314	422,636
1986	0	0	8,668	768	552	588,718
1987	3,098	144	11,027	7,757	2,221	131,178
1988	0	0	13,000	502	2,154	158,434
1989	9,717	0	22,568	3,709	3,319	333,116
1990	1,783	0	17,025	514	3,539	379,334
1991	6,560	0	37,396	1,955	5,121	411,240
1992	10,632	0	23,017	5,607	12,010	505,135
1993	1,292	0	45,257	11,968	4,969	477,006
1994	57,819	0	125,464	12,791	45,209	970,098
1995	71	0	31,696	24,753	708	627,472
1996	3,478	0	42,822	5,841	0	447,003
1997	6	0	25,949	9,271	6,699	189,054
1998	3,639	0	62,320	13,099	0	475,166
Average						
1960–69	3,732	866	21,134	7,443	88,950	320,631
1970–79	888	300	15,824	2,881	28,762	204,745
1980–89	6,273	180	19,927	8,220	3,500	321,147
1990–98	9,476	0	45,661	9,533	8,695	497,945

Table A17. Weekly effort (boat-days) in the Alaska District 101 purse seine fishery, 1969–1998.

Year	Statistical Week																			Total
	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	
1969	0	0	0	0	0	20	13	18	0	0	0	0	0	0	0	0	0	0	0	51
1970	0	0	309	406	305	213	192	253	290	188	95	0	0	0	0	0	0	0	0	2,251
1971	0	0	0	0	0	0	0	43	92	146	141	66	49	0	0	0	0	0	0	537
1972	0	0	148	357	496	477	388	299	334	362	188	83	0	0	0	0	0	0	0	3,131
1973	0	0	0	0	72	108	146	62	0	0	0	0	0	0	0	0	0	0	0	388
1974	0	0	0	187	90	102	192	138	145	145	94	0	0	0	0	0	0	0	0	1,092
1975	0	0	0	0	0	0	42	53	22	46	0	0	0	0	0	0	0	0	0	163
1976	0	0	0	0	0	0	0	0	0	23	62	118	0	0	0	0	0	0	0	203
1977	0	0	0	0	29	304	261	229	140	22	69	0	0	0	0	0	0	0	0	1,053
1978	0	0	167	431	444	1,584	162	381	175	231	71	0	0	0	0	0	0	0	0	3,646
1979	0	0	0	0	0	0	81	79	65	0	0	0	0	0	0	0	0	0	0	226
1980	0	0	0	0	72	69	342	569	518	356	148	0	0	0	0	0	0	0	0	2,074
1981	0	0	0	0	0	115	248	69	22	0	0	0	0	0	0	0	0	0	0	454
1982	0	0	53	208	138	26	55	206	246	212	356	160	0	0	0	0	0	0	0	1,658
1983	0	0	0	45	147	251	168	142	283	140	0	0	0	0	0	0	0	0	0	1,176
1984	0	0	39	215	212	390	520	362	120	322	0	97	0	0	0	0	0	0	0	2,275
1985	0	0	0	89	137	210	271	346	325	252	109	16	27	0	12	0	0	0	0	1,793
1986	0	0	58	154	314	395	282	257	263	453	102	0	32	45	17	0	0	0	0	2,371
1987	0	0	3	40	114	43	71	187	0	0	0	0	0	51	39	0	0	0	0	548
1988	0	0	79	150	57	105	221	298	72	9	51	23	55	0	18	10	2	0	0	1,150
1989	21	44	45	187	215	489	275	338	258	266	25	1	4	0	0	0	0	0	0	2,169
1990	0	38	15	43	134	103	200	161	114	107	0	10	5	2	0	1	0	0	0	933
1991	0	0	24	105	280	169	169	101	43	33	1	8	3	2	4	0	0	0	0	939
1992	0	0	99	142	126	164	223	120	111	200	63	13	4	0	0	0	0	0	0	1,266
1993	0	0	71	73	125	136	179	178	219	93	133	7	20	4	5	0	0	0	0	1,243
1994	0	0	67	74	64	37	63	94	52	19	11	2	3	0	0	0	0	0	0	486
1995	0	14	24	37	117	181	356	375	129	128	52	13	16	4	0	0	0	0	0	1,447
1996	1	1	48	305	307	404	387	181	83	77	22	21	16	2	0	0	0	0	0	1,855
1997	0	1	30	25	145	125	56	27	52	54	25	22	18	1	1	0	0	0	0	582
1998	4	20	72	135	212	260	240	199	139	107	4	4	0	0	0	0	0	0	0	1,396

Table A18. Weekly effort (boat-days) in the Alaska District 102 purse seine fishery, 1969–1998.

Year	Statistical Week																			Total
	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	
1969	0	0	0	0	0	47	109	113	0	0	0	0	0	39	0	0	0	0	0	308
1970	0	0	25	26	49	163	245	202	359	285	77	45	0	0	0	0	0	0	0	1,474
1971	0	0	0	0	0	0	0	129	198	346	245	59	61	27	0	0	0	0	0	1,065
1972	0	0	2	50	63	71	183	190	278	194	229	87	0	87	67	0	0	0	0	1,500
1973	0	0	0	0	88	199	351	352	216	136	217	214	206	84	3	20	10	0	0	2,096
1974	0	0	0	0	57	98	88	113	87	200	146	0	176	77	12	85	19	0	7	1,165
1975	0	0	0	0	0	0	113	186	262	261	0	272	0	185	93	30	0	0	0	1,401
1976	0	0	0	0	0	0	0	0	122	340	529	314	54	185	0	73	0	0	0	1,616
1977	0	0	0	0	3	107	181	231	181	107	205	108	120	112	0	0	0	0	0	1,353
1978	0	0	184	159	279	406	189	873	215	507	183	0	0	0	0	0	6	25	0	3,028
1979	0	0	0	0	0	0	497	278	98	0	0	148	0	0	0	0	0	0	0	1,020
1980	0	0	0	0	8	14	81	343	237	141	134	0	14	17	0	0	8	0	0	996
1981	0	0	0	0	0	62	97	146	94	0	0	0	0	0	0	0	0	0	0	399
1982	0	0	0	23	54	56	76	90	169	122	64	38	0	0	50	0	0	0	0	743
1983	0	0	0	1	15	22	38	10	221	242	0	0	56	0	0	0	0	0	0	604
1984	0	0	5	52	38	23	105	131	128	92	177	49	50	77	0	0	0	0	0	927
1985	0	0	0	56	29	11	86	160	46	188	57	62	7	0	7	0	0	0	0	707
1986	0	0	0	19	63	51	102	222	59	281	49	0	12	2	60	5	0	0	0	925
1987	0	0	0	0	0	11	67	81	0	0	61	70	19	54	18	166	4	0	0	551
1988	0	0	0	8	5	0	53	93	46	194	54	232	125	235	90	41	9	3	0	1,187
1989	0	0	10	81	231	179	197	288	149	179	0	32	17	24	40	0	0	0	0	1,427
1990	0	0	24	15	106	35	34	139	166	213	0	31	20	26	30	0	0	0	0	839
1991	0	0	0	49	119	61	123	79	89	65	14	54	67	79	37	6	0	0	0	842
1992	0	0	17	31	24	9	17	58	129	226	47	40	69	131	38	2	0	0	0	838
1993	0	0	2	40	12	49	159	158	138	80	144	18	25	56	130	107	46	0	1	1,163
1994	0	0	57	51	59	37	51	77	86	108	98	0	32	85	60	52	43	14	2	911
1995	23	71	99	111	108	73	256	305	221	198	65	76	103	78	45	22	0	0	0	1,852
1996	8	44	98	102	61	11	96	309	174	278	17	12	44	11	45	24	0	0	0	1,333
1997	7	40	65	119	113	84	127	86	59	12	0	47	48	85	51	44	42	2	0	1,030
1998	0	92	129	110	171	137	138	171	152	117	0	57	118	239	75	33	13	9	0	1,759

Table A19. Weekly effort (boat-days) in the Alaska District 103 purse seine fishery, 1969–1998.

	Statistical Week														
Year	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Total
1969	0	0	0	0	0	0	70	0	0	0	0	0	0	0	70
1970	0	0	0	0	0	0	311	543	578	209	0	0	0	0	1,641
1971	0	0	0	0	0	0	41	108	328	218	155	0	0	0	850
1972	0	0	0	0	0	0	118	237	248	174	67	0	36	0	879
1973	0	0	0	0	0	24	113	127	0	0	0	0	0	0	264
1974	0	0	0	0	0	0	98	203	227	79	0	0	0	0	607
1975	0	0	0	0	0	0	57	243	209	0	0	0	0	0	509
1976	0	0	0	0	0	0	0	0	231	278	267	0	19	0	795
1977	0	0	0	0	0	0	105	131	22	19	0	32	0	0	309
1978	0	0	0	0	0	0	162	112	182	40	0	0	0	0	497
1979	0	0	0	0	0	0	336	136	0	0	0	0	0	0	472
1980	0	0	0	0	0	16	272	476	455	34	0	0	0	0	1,253
1981	0	0	0	0	19	262	665	485	196	78	0	0	0	0	1,704
1982	0	0	0	0	0	0	0	54	69	139	130	0	0	0	392
1983	0	0	0	0	0	0	104	335	103	0	0	0	0	0	542
1984	0	0	0	0	0	10	39	193	370	0	0	0	0	0	611
1985	0	0	0	0	0	0	617	403	105	28	0	0	0	0	1,152
1986	0	0	0	0	0	2	175	337	635	28	35	22	39	0	1,274
1987	0	0	0	0	0	0	0	86	0	52	38	4	0	0	180
1988	0	0	0	0	0	0	0	20	321	173	54	57	29	9	663
1989	0	0	0	5	144	126	236	184	47	0	0	4	0	0	746
1990	0	0	0	0	10	31	208	155	198	0	0	8	0	0	608
1991	0	0	0	13	19	95	164	180	143	12	0	0	0	0	625
1992	0	0	0	0	0	11	16	66	121	3	0	0	0	0	217
1993	0	0	0	0	0	23	78	298	135	182	0	0	0	0	717
1994	0	0	0	0	1	3	49	80	145	52	0	0	0	0	329
1995	0	0	0	0	1	22	54	108	206	46	0	0	0	0	436
1996	0	0	2	0	6	22	50	149	137	12	0	0	0	0	377
1997	0	0	0	0	30	26	71	42	14	0	0	0	0	0	182
1998	0	0	0	0	10	20	135	263	206	0	0	0	0	0	634

Table A20. Weekly effort (boat-days) in the Alaska District 104 purse seine fishery, 1969–1998.

	Statistical Week											
Year	27	28	29	30	31	32	33	34	35	36	37	Total
1969	0	36	24	61	125	239	104	142	0	0	0	732
1970	0	37	26	30	101	117	37	41	5	0	0	394
1971	0	0	0	0	0	0	90	116	74	42	0	323
1972	0	17	81	59	21	174	223	307	162	33	5	1,082
1973	0	81	208	173	237	177	12	6	0	0	0	894
1974	0	86	59	68	225	168	143	92	178	6	0	1,026
1975	0	282	321	0	0	0	0	0	0	0	0	602
1976	0	258	365	414	0	0	0	30	0	0	0	1,067
1977	0	311	365	115	57	83	33	0	37	0	0	1,001
1978	567	141	251	171	171	105	337	43	76	20	0	1,881
1979	422	666	592	251	142	0	43	18	0	0	0	2,133
1980	763	0	833	300	246	344	141	106	14	4	0	2,752
1981	0	309	304	174	188	333	186	106	0	0	0	1,600
1982	0	385	326	323	91	118	274	314	290	359	0	2,480
1983	0	346	320	223	554	586	669	327	0	0	0	3,024
1984	119	108	78	209	350	458	447	172	71	0	0	2,012
1985	0	94	51	244	286	470	334	211	129	0	0	1,821
1986	0	54	205	447	465	832	502	211	367	0	0	3,082
1987	0	64	102	151	60	289	264	111	0	0	0	1,040
1988	0	144	368	181	116	416	511	212	411	129	0	2,486
1989	35	84	81	169	487	228	323	224	123	0	0	1,752
1990	68	143	47	50	356	503	683	423	190	0	0	2,462
1991	0	101	75	17	723	699	438	474	172	37	0	2,736
1992	0	90	36	36	585	672	405	334	278	0	0	2,436
1993	0	70	66	172	380	310	343	285	130	124	0	1,881
1994	0	27	54	91	280	401	508	238	344	145	0	2,086
1995	28	13	17	143	218	402	314	277	267	77	0	1,755
1996	0	23	75	34	497	477	302	63	182	16	0	1,669
1997	0	142	132	124	311	267	101	241	0	0	0	1,317
1998	0	40	31	33	124	241	343	193	46	0	0	1,050

Table A21. Southeast Alaska gillnet coho salmon catch by district and harvest type, 1960–1998.

	District (Number of Fish)								
	District 101			Dist. 102	District 106		Dist. 107	District 108	
Year	Tree Pt.	Annette	Terminal	Traditional	Traditional	Terminal	Terminal	Traditional	Terminal
1960	4,312	0	0	0	336	0	0	27,479	0
1961	4,067	0	0	0	14,934	0	0	36,858	0
1962	12,110	0	0	0	42,276	0	0	38,386	0
1963	3,110	0	0	0	52,103	0	0	11,612	0
1964	15,707	0	0	0	64,654	0	0	29,388	0
1965	10,675	0	0	0	75,728	0	0	8,301	0
1966	9,362	0	0	385	62,823	0	0	16,493	0
1967	3,112	0	0	0	17,670	0	0	6,747	0
1968	17,032	10	0	0	67,151	0	0	36,407	0
1969	3,154	0	0	0	10,280	0	0	5,790	0
1970	16,425	0	0	0	35,470	0	0	18,403	0
1971	5,170	0	0	0	48,085	0	0	14,876	0
1972	35,695	0	0	0	93,427	0	0	38,520	0
1973	18,459	0	0	0	38,447	0	0	5,837	0
1974	21,327	0	0	0	45,687	0	0	16,021	0
1975	12,631	0	0	0	30,962	0	0	0	0
1976	17,574	0	0	0	19,126	0	0	6,056	0
1977	12,173	768	0	0	8,401	0	0	14,405	0
1978	47,797	2,187	0	0	55,578	0	0	32,650	0
1979	6,427	1,726	0	0	28,083	3,371	0	234	0
1980	19,329	2,565	0	0	16,666	0	0	2,946	0
1981	19,125	5,092	0	0	22,614	0	0	1,403	0
1982	28,015	6,665	0	0	31,664	13,580	0	19,971	0
1983	41,556	7,887	0	0	62,442	0	0	15,369	0
1984	35,384	8,240	0	130	41,359	6,885	0	5,141	0
1985	53,019	23,227	0	47	91,142	6,417	0	1,926	3,206
1986	61,567	52,834	1,463	304	194,912	10,686	0	7,439	6,885
1987	36,654	24,042	1,469	0	34,534	2,617	0	1,015	0
1988	16,855	7,138	358	149	13,103	1,316	5,661	12	0
1989	32,485	21,266	388	0	92,385	1,392	1,393	4,261	0
1990	42,893	26,764	33	0	164,235	2,961	2,164	8,218	0
1991	70,319	55,804	40	0	197,803	626	4,794	15,864	0
1992	40,001	54,289	63	0	298,935	949	1,669	22,127	0
1993	32,508	28,199	80	0	231,038	1,820	6,993	14,307	0
1994	47,014	46,433	322	0	267,862	4,830	2,898	44,891	0
1995	53,674	41,662	1,095	0	170,561	0	5,240	17,834	0
1996	33,169	36,039	46	0	223,640	489	4,494	19,059	0
1997	25,687	25,485	2,542	0	77,550	0	3,857	2,140	0
1998	60,265	29,012	283	0	273,197	0	4,055	19,206	0
Average									
1960–69	8,264	1	0	39	40,796	0	0	21,746	0
1970–79	19,368	468	0	0	40,327	337	0	14,700	0
1980–89	34,399	15,896	368	63	60,082	4,289	705	5,948	1,009
1990–98	45,059	38,187	500	0	211,647	1,297	4,018	18,183	0

(continued)

Table A21. (page 2 of 2)

	District (Number of Fish)							
	Dist. 111	Dist. 113	District 115		D. Gillnet	Drift Gillnet	Yakutat	Grand
Year	Traditional	Terminal	Traditional	Terminal	Misc.	Total	Setnet	Total
1960	22,374	0	10,964	0	0	65,465	119,149	184,614
1961	15,486	0	18,256	0	0	89,601	128,670	218,271
1962	15,661	0	24,436	0	0	132,869	170,776	303,645
1963	10,855	0	35,096	0	0	112,776	141,365	254,141
1964	29,315	0	33,347	0	0	172,411	169,780	342,191
1965	32,667	0	39,081	0	0	166,452	122,207	288,659
1966	26,065	0	40,794	0	0	155,922	66,252	222,174
1967	40,391	0	66,109	0	0	134,029	97,211	231,240
1968	39,103	0	43,262	0	0	202,965	92,005	294,970
1969	10,802	0	35,027	0	0	65,053	32,555	97,608
1970	44,960	0	48,643	0	0	163,901	30,279	194,180
1971	41,830	0	49,182	0	0	159,143	37,734	196,877
1972	49,780	0	57,971	0	0	275,393	46,289	321,682
1973	35,453	0	26,153	0	0	124,349	41,776	166,125
1974	38,667	0	64,881	0	0	186,583	77,556	264,139
1975	1,185	0	57,543	0	0	102,321	37,403	139,724
1976	41,729	0	71,984	0	0	156,469	51,743	208,212
1977	54,917	0	91,426	0	1,612	183,702	92,214	275,916
1978	31,944	0	53,165	0	0	223,321	139,500	362,821
1979	16,194	0	27,015	0	0	83,050	95,873	178,923
1980	41,677	0	28,898	0	0	112,081	119,684	231,765
1981	26,711	0	44,650	0	0	119,595	132,579	252,174
1982	29,072	0	72,370	0	0	201,337	148,854	350,191
1983	21,455	0	69,510	0	0	218,219	81,541	299,760
1984	33,836	0	68,215	0	21	199,211	182,256	381,467
1985	55,597	0	98,290	0	49	332,920	202,835	535,755
1986	30,512	0	82,121	0	0	448,723	92,097	540,820
1987	35,219	0	53,751	0	0	189,301	124,407	313,708
1988	44,818	0	81,536	0	0	170,946	205,926	376,872
1989	51,812	0	50,307	0	0	255,689	176,773	432,462
1990	67,530	0	63,072	0	0	377,870	148,821	526,691
1991	126,436	0	128,365	0	0	600,051	166,172	766,223
1992	172,662	0	108,753	0	0	699,448	290,095	989,543
1993	65,539	5,444	59,952	0	0	445,880	237,387	683,267
1994	188,501	1,043	140,764	0	0	744,558	343,843	1,088,401
1995	83,626	3,199	79,393	556	0	456,840	295,029	751,869
1996	33,633	1,382	52,545	113	0	404,609	227,752	632,361
1997	3,515	377	15,458	114	0	156,725	322,720	479,445
1998	28,713	609	25,959	159	0	441,458	197,629	639,087
Average								
1960–69	24,272	0	34,637	0	0	129,754	113,997	243,751
1970–79	35,666	0	54,796	0	161	165,823	65,037	230,860
1980–89	37,071	0	64,965	0	7	224,802	146,695	371,497
1990–98	85,573	1,339	74,918	105	0	480,827	247,716	728,543

Table A22. Weekly effort (boat-days) in the Tree Point Drift Gillnet fishery, 1969–1998.

	Statistical Week																	
Year	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	Total
1969	150	310	370	280	350	231	106	51	132	0	0	0	0	0	0	0	0	1,980
1970	288	332	344	475	555	400	352	336	395	375	290	96	52	0	0	0	0	4,290
1971	228	288	348	380	404	192	0	0	0	120	110	68	0	0	0	0	0	2,138
1972	0	444	496	532	540	680	512	496	436	500	352	224	140	108	18	0	0	5,478
1973	484	640	676	450	612	592	366	294	216	306	94	84	87	39	0	0	0	4,940
1974	630	454	410	0	221	320	304	384	381	348	392	0	0	0	0	0	0	3,844
1975	440	492	460	321	196	0	0	117	128	233	200	0	0	0	0	0	0	2,586
1976	0	428	544	544	548	258	0	0	0	82	292	148	90	10	10	0	0	2,954
1977	0	456	456	528	580	150	504	312	388	390	120	72	48	15	0	0	0	4,019
1978	668	728	621	549	284	468	680	339	306	440	159	48	18	36	0	0	0	5,344
1979	580	616	644	500	220	216	176	50	0	0	0	0	0	0	0	0	0	3,002
1980	428	492	399	532	540	246	74	375	630	580	280	115	15	9	0	0	0	4,714
1981	321	528	390	393	234	206	148	445	308	488	152	60	34	10	0	0	0	3,717
1982	0	416	448	300	496	556	244	428	344	335	230	270	184	99	0	0	0	4,350
1983	0	384	504	236	252	540	635	500	535	465	335	176	93	117	36	0	0	4,807
1984	366	387	323	350	512	488	540	475	392	375	355	150	123	69	0	0	0	4,905
1985	432	492	348	188	380	495	575	535	530	505	375	228	177	96	0	0	0	5,355
1986	372	309	99	304	696	845	595	530	465	380	340	285	138	123	0	0	0	5,480
1987	0	436	387	212	168	428	172	392	428	0	49	140	255	195	104	0	0	3,365
1988	0	448	568	317	632	254	226	532	640	254	5	156	168	97	95	0	0	4,391
1989	500	363	360	208	570	555	564	655	540	480	600	146	170	118	0	0	0	5,828
1990	472	238	220	182	170	380	300	380	385	430	248	150	174	180	0	0	0	3,908
1991	356	285	207	186	249	455	460	445	440	370	236	129	171	183	0	0	0	4,172
1992	0	324	380	340	372	368	465	450	440	415	370	122	88	162	138	0	0	4,433
1993	0	384	504	342	267	352	485	510	525	515	400	380	100	124	110	0	0	4,998
1994	0	460	366	276	267	324	216	210	360	390	235	172	132	132	123	58	24	3,744
1995	404	396	376	316	158	328	344	450	380	340	350	324	192	219	84	0	0	4,661
1996	404	468	388	392	480	340	420	350	310	235	205	175	100	75	50	0	0	4,392
1997	372	348	285	288	219	475	480	455	375	310	168	132	118	110	0	0	0	4,135
1998	0	372	392	420	235	380	475	410	375	300	285	183	156	168	111	0	0	4,262
Averages																		
1970s	332	488	500	428	416	328	289	233	225	279	201	74	44	21	3	0	0	3,859
1980s	242	425	382	304	448	461	377	487	481	386	272	173	136	93	23	0	0	4,691
1990s	223	364	346	305	269	378	405	407	399	367	277	196	137	150	68	6	3	4,301

Table A23. Weekly effort (boat-days) in the District 106 Drift Gillnet fishery, 1969–1998.

	Statistical Week																	
Year	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	Total
1969	78	108	252	316	312	248	237	312	249	0	0	0	0	0	0	0	0	2,112
1970	93	138	174	168	141	141	153	156	204	195	216	72	12	0	0	0	0	1,863
1971	81	138	138	123	138	150	164	238	396	321	490	256	96	36	9	0	0	2,774
1972	0	186	292	240	291	219	261	288	366	369	381	249	99	44	26	0	0	3,311
1973	252	279	126	166	327	246	480	570	546	308	0	0	0	0	0	0	0	3,300
1974	132	234	284	153	0	100	306	232	176	188	184	94	38	26	22	8	0	2,177
1975	130	104	152	91	186	0	0	134	185	335	466	0	0	0	0	0	0	1,782
1976	0	261	0	35	78	74	0	0	0	0	264	150	34	21	4	0	1	922
1977	0	168	184	114	40	0	0	342	468	0	9	12	39	4	1	0	0	1,381
1978	9	16	40	129	133	80	129	167	357	138	207	102	34	24	2	0	0	1,567
1979	112	47	86	206	291	354	218	450	561	326	39	13	0	0	0	0	0	2,703
1980	98	86	98	144	240	246	306	0	20	36	32	16	2	0	0	0	0	1,324
1981	110	114	339	180	384	429	330	453	495	75	9	10	0	0	0	0	0	2,928
1982	72	330	348	248	178	184	94	0	0	20	86	82	30	22	0	0	0	1,693
1983	0	94	190	92	60	158	134	34	126	141	106	80	96	84	38	20	0	1,452
1984	80	86	108	104	249	171	201	112	134	246	110	96	92	26	0	0	0	1,814
1985	162	158	188	238	438	405	212	222	120	140	152	128	52	30	28	0	0	2,672
1986	200	244	280	0	90	206	314	348	426	309	270	330	285	134	74	0	0	3,509
1987	0	190	214	210	312	170	192	220	90	0	46	34	27	62	0	0	0	1,766
1988	0	92	158	150	237	228	232	154	53	79	88	24	0	0	0	0	0	1,494
1989	148	190	162	267	315	381	378	273	273	369	182	96	152	36	0	0	0	3,221
1990	168	220	188	342	242	348	286	210	240	351	327	315	124	130	11	0	0	3,501
1991	152	170	224	274	276	258	244	182	154	324	414	246	264	288	92	34	16	3,612
1992	0	168	400	351	357	357	378	238	168	162	216	384	351	348	306	46	0	4,229
1993	0	140	158	186	248	254	387	381	366	333	351	378	260	274	372	218	47	4,352
1994	0	88	168	188	226	363	528	534	272	204	552	540	357	126	201	99	22	4,467
1995	134	176	190	228	244	348	262	242	381	429	378	363	140	132	10	0	0	3,656
1996	118	156	484	649	420	474	486	459	450	375	390	372	315	120	22	0	0	5,289
1997	82	237	309	327	270	248	336	396	368	428	202	218	45	122	80	0	0	3,667
1998	0	198	160	200	262	262	360	381	369	528	327	318	312	336	285	84	16	4,397
Averages																		
1970s	81	157	148	143	162	136	171	258	326	218	226	95	35	16	6	1	0	2,178
1980s	87	158	208	163	250	258	239	182	174	141	108	90	74	39	14	2	0	2,187
1990s	73	173	253	305	283	323	363	336	307	348	351	348	241	208	153	53	11	4,130

Table A24. District 106 season total catch of wild and hatchery coho salmon, total effort, fall effort (Statistical Weeks 34–41), cumulative catch-per-boat-day of wild and hatchery coho salmon, 1969–1997. Interpolations were made of CPUE for weeks when no fishery occurred.

	Number of Fish					Wild	Hatchery	Total
Year	Wild Catch	Hatchery Catch	Total Catch	Total Boat-Days	Fall Boat-Days	Cum. CPUE	Cum. CPUE	Cum. CPUE
1969	10,280		10,280	2,190	0			126
1970	35,470		35,470	1,863	495			306
1971	48,085		48,085	2,753	1,196			259
1972	93,427		93,427	3,230	1,131			554
1973	38,400		38,400	3,295	306			253
1974	45,676		45,676	2,177	560			392
1975	30,962		30,962	1,766	778			288
1976	19,126		19,126	840	480			445
1977	8,401		8,401	1,399	59			330
1978	55,578		55,578	1,514	508			560
1979	28,083		28,083	2,702	374			276
1980	16,666		16,666	1,325	86			394
1981	22,240	374	22,614	2,930	94	409	61	470
1982	30,150	10,942	41,092	1,683	240	526	68	594
1983	56,388	6,054	62,442	1,561	600	605	92	697
1984	36,942	9,237	46,179	1,813	570	344	70	415
1985	83,781	11,843	95,624	2,909	658	590	106	696
1986	162,540	40,921	203,461	3,192	1,272	733	226	959
1987	30,848	5,168	36,016	1,574	155	481	148	629
1988	12,872	916	13,788	1,262	164	250	44	294
1989	87,030	5,355	92,385	3,222	835	483	96	579
1990	114,247	51,765	166,012	3,502	1,258	556	269	825
1991	133,423	64,693	198,116	3,612	1,678	544	366	910
1992	186,380	113,029	299,410	4,230	1,813	692	405	1,097
1993	152,254	78,784	231,038	4,353	2,233	504	322	826
1994	228,154	36,868	265,022	4,468	2,101	764	138	902
1995	143,084	27,477	170,561	3,657	1,452	553	156	708
1996	167,398	55,242	222,640	5,290	1,594	502	227	730
1997	58,174	17,193	75,367	3,668	1,095	357	189	546
1998	172,081	101,116	273,197	4,398	2,206	589	414	1,003
Averages								
1970s	40,321		40,321	2,154	589			366
1980s	53,946	10,090	63,027	2,147	467	491	101	573
1990s	150,577	60,685	211,262	4,131	1,714	562	276	838

Table A25. Tree Point season total catch of wild and hatchery coho salmon, fall and summer effort, and cumulative catch-per-boat-day of wild and hatchery coho salmon, 1969–1998. Interpolations were made of CPUE for weeks when no fishery occurred.

Year	Wild Catch	Hatchery Catch	Total Catch	Summer Boat-Days (Wks 25–33)	Fall Boat-Days (Wks 25–33)	Total Boat-Days	Wild Cum. CPUE	Hatchery Cum. CPUE	Total Cum. CPUE
1969			3,107	1,962	0	1,962			
1970			16,626	3,473	816	4,289			94
1971			14,798	1,942	298	2,240			263
1972			35,660	4,124	1,332	5,456			148
1973			18,448	4,153	610	4,763			115
1974			23,170	3,104	954	4,058			113
1975			14,965	2,143	418	2,561			197
1976			16,275	2,274	556	2,830			151
1977			12,143	3,365	645	4,010			134
1978			47,766	4,643	698	5,341			274
1979			6,427	3,002	0	3,002			
1980			19,324	3,699	1,004	4,703			125
1981			18,326	2,961	734	3,695			203
1982			27,739	3,232	1,110	4,342			112
1983			41,553	3,568	1,222	4,790			193
1984			35,383	3,815	1,072	4,887			203
1985			48,821	4,066	1,381	5,447			170
1986			61,567	3,927	1,209	5,136			280
1987			36,644	2,676	772	3,448			212
1988			16,846	3,231	645	3,876			239
1989	24,333	8,152	32,485	4,361	1,514	5,875	120	50	170
1990	33,123	9,770	42,893	2,727	1,182	3,909	199	34	233
1991	47,389	22,930	70,319	3,083	1,089	4,172	340	93	433
1992	29,856	10,145	40,001	3,139	1,295	4,434	132	64	195
1993	27,229	5,279	32,508	3,369	1,629	4,998	136	37	173
1994	40,327	6,686	47,013	2,476	1,266	3,742	198	41	239
1995	33,134	20,540	53,674	3,152	1,509	4,661	133	144	277
1996	25,159	8,010	33,169	3,552	840	4,392	145	83	228
1997	18,359	7,330	25,689	3,297	776	4,073	187	40	226
1998	44,104	16,161	60,265	3,059	1,203	4,262	206	99	305
Averages									
1970s			20,628	3,222		3,855			165
1980s	24,333	8,152	33,869	3,554	1,066	4,620	120	50	191
1990s	33,187	11,872	45,059	3,095	1,199	4,294	186	71	257

Table C1. Summary of Julian Week, Statistical Week, and Calendar Week notations for 2001.

JULIAN WEEK	STATISTICAL WEEK	START OF FISHING WEEK	JULIAN WEEK	STATISTICAL WEEK	START OF FISHING WEEK
1	011	Jan 1 – 7	27	071	Jul 2 – 8
2	012	Jan 8 – 14	28	072	Jul 9 – 15
3	013	Jan 15 – 21	29	073	Jul 16 – 22
4	014	Jan 22 – 28	30	074	Jul 23 – 29
5	015	Jan 29 – Feb 4	31	075	Jul 30 – Aug 5
6	021	Feb 5 – 11	32	081	Aug 6 – 12
7	022	Feb 12 – 18	33	082	Aug 13 – 19
8	023	Feb 19 – 25	34	083	Aug 20 – 26
9	024	Feb 26 – Mar 4	35	084	Aug 27 – Sep 2
10	031	Mar 5 – 11	36	091	Sep 3 – 9
11	032	Mar 12 – 18	37	092	Sep 10 – 16
12	033	Mar 19 – 25	38	093	Sep 17 – 23
13	034	Mar 26 – Apr 1	39	094	Sep 24 – 30
14	041	Apr 2 – 8	40	101	Oct 1 – 7
15	042	Apr 9 – 15	41	102	Oct 8 – 14
16	043	Apr 16 – 22	42	103	Oct 15 – 21
17	044	Apr 23 – 29	43	104	Oct 22 – 28
18	045	Apr 30 – May 6	44	105	Oct 29 – Nov 4
19	051	May 7 – 13	45	111	Nov 5 – 11
20	052	May 14 – 20	46	112	Nov 12 – 18
21	053	May 21 – 27	47	113	Nov 19 – 25
22	054	May 28 – Jun 3	48	114	Nov 26 – Dec 2
23	061	Jun 4 – 10	49	121	Dec 3 – 9
24	062	Jun 11 – 17	50	122	Dec 10 – 16
25	063	Jun 18 – 24	51	123	Dec 17 – 23
26	064	Jun 25 – Jul 1	52	124	Dec 24 – 30

Table C2. CWT recovery data of QCI origin age-3 coho.

ANNUAL ESTIMATED ADJUSTED CWT RECOVERIES OF QCI ORIGIN AGE 3 COHO.

		BROOD-YEAR													
COUNTRY	GEAR	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	80-92 AVG
ALASKA	GILLNET	8	2	3		5	3	9	14	5	4	20	27	11	9
ALASKA	SEINE	46	9	5		7		32	270	78	43	120	264	6	80
ALASKA	TROLL	68	16	5	12	34	7	55	256	305	63	299	636	28	137
ALASKA TOTAL:		122	27	13	12	46	10	96	540	388	110	439	927	45	213
CANADA	NET	20	29	205	170	437	273	360	1,202	996	1,150	385	447	302	459
CANADA	TROLL	1,025	295	146	88	1,413	1,334	1,377	3,922	2,309	3,101	1,689	2,573	950	1,556
CANADA TOTAL:		1,045	324	351	258	1,850	1,607	1,737	5,124	3,295	4,251	2,074	3,020	1,252	2,014

PROPORTIONS OF ANNUAL ESTIMATED ADJUSTED CWT RECOVERIES OF QCI ORIGIN AGE 3 COHO.

		BROOD-YEAR													
COUNTRY	GEAR	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	80-92 AVG
ALASKA	GILLNET	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00
ALASKA	SEINE	0.04	0.03	0.01	0.00	0.00	0.00	0.02	0.05	0.02	0.01	0.05	0.07	0.00	0.04
ALASKA	TROLL	0.06	0.05	0.01	0.04	0.02	0.00	0.03	0.05	0.05	0.01	0.12	0.16	0.02	0.05
ALASKA TOTAL:		0.10	0.08	0.04	0.04	0.02	0.01	0.05	0.10	0.11	0.03	0.17	0.23	0.03	0.08
CANADA	NET	0.02	0.08	0.56	0.63	0.23	0.17	0.20	0.21	0.27	0.26	0.15	0.11	0.23	0.24
CANADA	TROLL	0.88	0.84	0.40	0.33	0.75	0.82	0.75	0.68	0.63	0.71	0.67	0.85	0.73	0.68
CANADA TOTAL:		0.90	0.92	0.96	0.96	0.98	0.99	0.95	0.90	0.89	0.97	0.83	0.77	0.97	0.92

ESTIMATED ADJUSTED CWT WEEKLY RECOVERIES OF AGE 3 COHO OF QCI ORIGIN, 1980 TO 1992 BROOD YEARS.

			STATISTICAL WEEK																		
COUNTRY	GEAR	BROOD-YEAR	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104
ALASKA	GILLNET	1980	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ALASKA	GILLNET	1981	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	
ALASKA	GILLNET	1982	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ALASKA	GILLNET	1984	0	0	0	0	2	0	0	0	0	3	0	0	0	0	0	0	0	0	0	
ALASKA	GILLNET	1985	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ALASKA	GILLNET	1986	0	1	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ALASKA	GILLNET	1987	0	5	2	3	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	
ALASKA	GILLNET	1988	0	0	2	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	
ALASKA	GILLNET	1989	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
ALASKA	GILLNET	1990	0	0	7	8	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	
ALASKA	GILLNET	1991	0	0	0	3	11	3	9	0	0	0	0	0	0	1	0	0	0	0	0	
ALASKA	GILLNET	1992	0	4	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ALASKA GILLNET TOTAL:			0	10	22	26	22	5	11	0	0	10	0	2	0	1	2	0	0	0	0	
ALASKA	SEINE	1980	0	0	0	0	24	4	9	0	3	0	0	3	3	0	0	0	0	0	0	
ALASKA	SEINE	1981	0	0	0	0	0	4	0	0	0	0	5	0	0	0	0	0	0	0	0	
ALASKA	SEINE	1982	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ALASKA	SEINE	1984	0	0	0	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
ALASKA	SEINE	1986	0	0	0	0	4	0	7	0	16	0	0	5	0	0	0	0	0	0	0	
ALASKA	SEINE	1987	0	0	0	75	68	24	7	57	17	14	0	8	0	0	0	0	0	0	0	
ALASKA	SEINE	1988	0	0	0	0	15	0	6	16	10	5	19	7	0	0	0	0	0	0	0	
ALASKA	SEINE	1989	0	0	0	0	3	4	1	8	12	4	2	9	0	0	0	0	0	0	0	
ALASKA	SEINE	1990	0	0	0	0	25	7	21	17	21	17	2	10	0	0	0	0	0	0	0	
ALASKA	SEINE	1991	0	0	0	0	42	54	44	39	42	23	9	11	0	0	0	0	0	0	0	
ALASKA	SEINE	1992	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	
ALASKA SEINE TOTAL:			0	0	0	75	190	100	95	143	121	63	37	53	3	0	0	0	0	0	0	
ALASKA	TROLL	1980	0	0	0	0	17	17	26	4	4	0	0	0	0	0	0	0	0	0	0	
ALASKA	TROLL	1981	0	0	8	2	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	
ALASKA	TROLL	1982	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	
ALASKA	TROLL	1983	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	
ALASKA	TROLL	1984	0	0	4	8	2	5	13	2	0	0	0	0	0	0	0	0	0	0	0	
ALASKA	TROLL	1985	0	0	0	0	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	
ALASKA	TROLL	1986	0	0	5	15	13	0	10	3	6	3	0	0	0	0	0	0	0	0	0	
ALASKA	TROLL	1987	0	2	4	38	61	46	25	37	11	18	0	14	0	0	0	0	0	0	0	
ALASKA	TROLL	1988	0	0	0	16	20	61	70	57	35	28	0	15	0	0	3	0	0	0	0	
ALASKA	TROLL	1989	0	2	0	3	6	23	6	0	4	4	0	12	3	0	0	0	0	0	0	
ALASKA	TROLL	1990	0	0	0	0	42	19	71	35	32	38	4	16	27	0	11	4	0	0	0	
ALASKA	TROLL	1991	0	0	0	0	60	205	98	112	69	50	27	11	4	0	0	0	0	0	0	
ALASKA	TROLL	1992	0	0	0	0	0	7	16	5	0	0	0	0	0	0	0	0	0	0	0	
ALASKA TROLL TOTAL:			0	4	21	82	230	398	339	255	161	141	31	68	34	2	14	4	0	0	0	
CANADA	NET	1980	0	0	0	0	0	0	15	0	5	0	0	0	0	0	0	0	0	0	0	

Table C3. CWT recovery data of central coast origin age-3 coho.

ANNUAL ESTIMATED ADJUSTED CWT RECOVERIES OF CENTRAL COAST ORIGIN AGE-3 COHO.

		BROOD-YEAR														
COUNTRY	GEAR	1975	1976	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	75-92 AVG
ALASKA	GILLNET					74	9	12	26	53	68	65	72	25	62	33
ALASKA	SEINE			4		197	20	70	119	499	456	689	585	650	552	274
ALASKA	TROLL			18	26	1,329	228	243	436	1,883	1,992	2,431	2,166	1,909	1,276	996
ALASKA TOTAL:				22	26	1,600	257	325	581	2,435	2,516	3,185	2,823	2,584	1,890	1,303
CANADA	NET	387	161	22	86	920	92	1,015	257	1,184	948	1,692	866	2,147	3,128	922
CANADA	TROLL	468	254	69	159	1,888	330	674	444	2,476	3,230	2,546	1,858	2,753	1,203	1,311
CANADA TOTAL:		855	415	91	245	2,808	422	1,689	701	3,660	4,178	4,238	2,724	4,900	4,331	2,233

PROPORTIONS OF ANNUAL ESTIMATED ADJUSTED CWT RECOVERIES OF CENTRAL COAST ORIGIN AGE-3 COHO.

		BROOD-YEAR														
COUNTRY	GEAR	1975	1976	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	75-92 AVG
ALASKA	GILLNET					0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.00	0.01	0.01
ALASKA	SEINE			0.04		0.04	0.03	0.03	0.09	0.08	0.07	0.09	0.11	0.09	0.09	0.05
ALASKA	TROLL			0.16	0.10	0.30	0.34	0.12	0.34	0.31	0.30	0.33	0.39	0.26	0.21	0.22
ALASKA TOTAL:				0.19	0.10	0.36	0.38	0.16	0.45	0.40	0.38	0.43	0.51	0.35	0.30	0.29
CANADA	NET	0.45	0.39	0.19	0.32	0.21	0.14	0.50	0.20	0.19	0.14	0.23	0.16	0.29	0.50	0.28
CANADA	TROLL	0.55	0.61	0.61	0.59	0.43	0.49	0.33	0.35	0.41	0.48	0.34	0.33	0.37	0.19	0.43
CANADA TOTAL:		1.00	1.00	0.81	0.90	0.64	0.62	0.84	0.55	0.60	0.62	0.57	0.49	0.65	0.70	0.71

ESTIMATED ADJUSTED CWT WEEKLY RECOVERIES OF AGE-3 COHO OF CENTRAL COAST ORIGIN, 1975, 1976 AND 1981 TO 1992 BROOD YEARS.

			STATISTICAL WEEK																		
COUN	GEAR	BROO	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104
ALASK	GILLNI	1983	0	3	0	10	6	12	14	7	10	4	8	0	0	0	0	0	0	0		0
ALASK	GILLNI	1984	0	0	0	0	0	2	0	0	0	3	0	0	2	2	0	0	0	0		0
ALASK	GILLNI	1985	0	0	0	2	0	3	3	2	2	0	0	0	0	0	0	0	0	0		0
ALASK	GILLNI	1986	0	0	9	2	0	2	0	0	0	0	6	4	0	3	0	0	0	0		0
ALASK	GILLNI	1987	0	0	9	8	2	2	0	7	0	4	9	7	5	0	0	0	0	0		0
ALASK	GILLNI	1988	0	3	3	0	8	5	8	4	6	12	7	0	4	3	5	0	0	0		0
ALASK	GILLNI	1989	0	0	0	2	4	2	3	4	8	0	6	0	13	7	2	14	0	0		0
ALASK	GILLNI	1990	0	0	2	4	0	4	13	16	3	0	0	10	6	3	11	0	0	0		0
ALASK	GILLNI	1991	0	0	2	6	0	5	2	9	0	0	0	0	0	1	0	0	0	0		0
ALASK	GILLNI	1992	1	0	5	12	1	8	9	14	0	0	0	9	0	0	3	0	0	0		0
KA GILLNET TOTAL:			1	6	30	46	21	45	52	63	29	23	36	30	30	19	21	14	0	0		0
ALASK	SEINE	1981	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0		0
ALASK	SEINE	1983	0	0	0	0	10	21	16	29	18	48	33	22	0	0	0	0	0	0		0
ALASK	SEINE	1984	0	0	0	0	7	7	6	0	0	0	0	0	0	0	0	0	0	0		0
ALASK	SEINE	1985	0	0	0	0	0	4	12	4	12	15	10	13	0	0	0	0	0	0		0
ALASK	SEINE	1986	0	0	0	0	15	7	18	28	24	0	27	0	0	0	0	0	0	0		0
ALASK	SEINE	1987	0	0	0	30	52	27	32	99	66	98	64	30	1	0	0	0	0	0		0
ALASK	SEINE	1988	0	0	0	0	20	35	31	80	93	62	108	27	0	0	0	0	0	0		0
ALASK	SEINE	1989	0	0	0	0	16	19	5	106	99	81	37	317	9	0	0	0	0	0		0
ALASK	SEINE	1990	0	0	0	0	55	81	102	115	68	66	26	57	15	0	0	0	0	0		0
ALASK	SEINE	1991	0	0	0	0	25	83	56	133	190	63	40	27	33	0	0	0	0	0		0
ALASK	SEINE	1992	0	0	0	2	0	10	17	116	75	133	119	54	26	0	0	0	0	0		0
ASKA SEINE TOTAL:			0	0	0	32	200	294	295	710	645	566	468	547	84	0	0	0	0	0		0
ALASK	TROLL	1981	0	0	0	0	0	0	0	7	0	7	0	0	4	0	0	0	0	0		0
ALASK	TROLL	1982	0	0	0	0	8	10	0	3	0	5	0	0	0	0	0	0	0	0		0
ALASK	TROLL	1983	0	0	25	61	243	407	244	135	96	69	3	42	0	4	0	0	0	0		0
ALASK	TROLL	1984	0	0	16	22	25	35	38	20	39	4	16	13	0	0	0	0	0	0		0
ALASK	TROLL	1985	0	0	0	0	12	32	65	27	7	55	36	0	6	3	0	0	0	0		0
ALASK	TROLL	1986	0	2	0	31	37	67	89	72	66	48	0	18	0	6	0	0	0	0		0
ALASK	TROLL	1987	0	0	14	132	323	329	226	267	165	168	25	111	51	53	19	0	0	0		0
ALASK	TROLL	1988	0	3	3	96	255	453	312	291	200	179	0	99	24	49	28	0	0	0		0
ALASK	TROLL	1989	0	0	0	11	160	329	477	279	413	386	0	152	155	42	15	12	0	0		0
ALASK	TROLL	1990	0	0	0	42	323	260	349	312	250	206	15	203	123	22	53	8	0	0		0
ALASK	TROLL	1991	0	0	0	5	356	472	329	277	189	121	69	55	25	7	4	0	0	0		0
ALASK	TROLL	1992	0	0	0	110	165	251	232	194	158	48	46	48	20	4	0	0	0	0		0
ASKA TROLL TOTAL:			0	5	58	510	1,907	2,645	2,361	1,884	1,583	1,296	210	741	408	190	119	20	0	0		0
CANA	NET	1975	0	0	1	14	44	35	35	34	62	33	80	13	0	0	3	33	0	0		0
CANA	NET	1976	0	2	0	10	8	21	24	20	12	18	12	0	0	34	0	0	0	0		0
CANA	NET	1981	0	0	0	0	0	0	0	0	0	6	8	8	0	0	0	0	0	0		0
CANA	NET	1982	0	0	0	3	0	6	12	6	0	4	3	6	16	0	30	0	0	0		0
CANA	NET	1983	0	0	0	0	9	28	60	86	269	100	141	103	124	0	0	0	0	0		0
CANA	NET	1984	0	0	0	0	0	4	35	10	32	8	0	3	0	0	0	0	0	0		0
CANA	NET	1985	0	0	0	0	33	66	70	136	158	30	44	40	245	0	95	0	98	0		0
CANA	NET	1986	0	0	7	6	16	44	4	0	13	27	60	67	7	0	0	6	0	0		0
CANA	NET	1987	0	3	15	16	14	46	52	138	199	98	157	316	37	0	19	46	24	4		0
CANA	NET	1988	0	0	2	12	37	106	142	146	67	77	12	184	24	78	0	61	0	0		0
CANA	NET	1989	0	0	0	16	18	95	55	151	136	151	152	0	513	205	97	80	0	20		3
CANA	NET	1990	0	0	10	46	43	52	95	210	28	35	16	4	19	138	42	101	27	0		0
CANA	NET	1991	0	0	0	4	120	83	252	422	223	124	135	187	547	0	10	40	0	0		0
CANA	NET	1992	2	0	40	53	40	98	117	89	209	859	440	748	75	284	0	74	0	0		0
ANADA NET TOTAL:			2	5	75	180	382	684	953	1,448	1,408	1,570	1,260	1,679	1,607	739	296	441	149	24	0	3
CANA	TROLL	1975	5	27	42	73	44	15	30	37	52	56	40	37	10	0	0	0	0	0		0
CANA	TROLL	1976	0	13	37	22	53	34	25	18	6	16	15	11	4	0	0	0	0	0		0
CANA	TROLL	1981	0	0	0	10	18	10	0	6	6	4	0	4	7	2	2	0	0	0		0
CANA	TROLL	1982	0	0	0	3	41	10	33	25	7	4	5	17	13	0	1	0	0	0		0
CANA	TROLL	1983	0	6	86	243	316	357	356	177	120	85	65	37	40	0	0	0	0	0		0
CANA	TROLL	1984	0	0	0	12	82	63	50	43	12	20	28	10	7	3	0	0	0	0		0
CANA	TROLL	1985	0	0	0	0	97	128	136	48	115	23	60	40	2	25	0	0	0	0		0
CANA	TROLL	1986	0	0	0	78	97	68	67	31	19	44	40	0	0	0	0	0	0	0		0
CANA	TROLL	1987	0	0	11	585	326	528	251	296	159	102	52	72	50	41	0	3	0	0		0
CANA	TROLL	1988	0	0	0	366	481	783	431	324	189	5	240	129	159	89	28	3	3	0		0
CANA	TROLL	1989	0	0	0	60	365	299	252	316	251	480	124	257	59	67	16	0	0	0		0
CANA	TROLL	1990	0	0	0	52	114	251	340	164	289	155	48	204	116	86	39	0	0	0		0
CANA	TROLL	1991	0	0	0	0	172	260	453	603	462	296	243	156	72	21	15	0	0	0		0
CANA	TROLL	1992	0	0	0	78	182	131	88	111	142	195	103	130	28	15	0	0	0	0		0
ADA TROLL TOTAL:			5	46	176	1,582	2,388	2,937	2,512	2,199	1,829	1,485	1,063	1,104	567	349	101	6	3	0	0	0

Table C4. CWT recovery data of Nass River origin age-4 coho.

ANNUAL ESTIMATED ADJUSTED CWT RECOVERIES OF NASS RIVER ORIGIN AGE 4 COHO.

		BROOD-YEAR								
COUNTRY	**GEAR**	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**	**1991**	**84-91 AVG**
ALASKA	GILLNET	0	21	61	106	36	41	77	25	46
ALASKA	SEINE	14	40	199	185	110	67	243	93	119
ALASKA	TROLL	9	83	483	651	345	328	798	70	346
ALASKA TOTAL:		23	144	743	942	491	436	1,118	188	511
CANADA	NET	4	43	157	246	118	141	149	59	115
CANADA	TROLL	8	60	624	813	238	177	475	41	305
CANADA TOTAL:		12	103	781	1,059	356	318	624	100	419

PROPORTIONS OF ANNUAL ESTIMATED ADJUSTED CWT RECOVERIES OF NASS RIVER ORIGIN AGE 4 COHO.

		BROOD-YEAR								
COUNTRY	**GEAR**	**1984**	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**	**1991**	**84-91 AVG**
ALASKA	GILLNET	0.00	0.09	0.04	0.05	0.04	0.05	0.04	0.09	0.05
ALASKA	SEINE	0.40	0.16	0.13	0.09	0.13	0.09	0.14	0.32	0.18
ALASKA	TROLL	0.26	0.34	0.32	0.33	0.41	0.44	0.46	0.24	0.35
ALASKA TOTAL:		0.66	0.58	0.49	0.47	0.58	0.58	0.64	0.65	0.58
CANADA	NET	0.11	0.17	0.10	0.12	0.14	0.19	0.09	0.20	0.14
CANADA	TROLL	0.23	0.24	0.41	0.41	0.28	0.23	0.27	0.14	0.28
CANADA TOTAL:		0.34	0.42	0.51	0.53	0.42	0.42	0.36	0.35	0.42

ESTIMATED ADJUSTED CWT WEEKLY RECOVERIES OF AGE 4 COHO OF NASS RIVER ORIGIN, 1984 TO 1991 BROOD YEARS.

			STATISTICAL WEEK																			
COUNTRY	**GEAR**	**BROOD-YEAR**	**62**	**63**	**64**	**71**	**72**	**73**	**74**	**75**	**81**	**82**	**83**	**84**	**91**	**92**	**93**	**94**	**101**	**102**	**103**	**104**
ALASKA	GILLNET	1985			2	0	0	0	0	0	0	8	11	0	0	0	0	0	0			
ALASKA	GILLNET	1986			0	1	0	0	6	5	4	11	9	8	9	0	8	0	0			
ALASKA	GILLNET	1987			0	1	3	0	2	8	12	29	12	4	16	7	12	0	0			
ALASKA	GILLNET	1988			0	0	0	0	0	2	5	7	11	6	0	0	5	0	0			
ALASKA	GILLNET	1989			0	0	0	2	0	0	7	5	5	0	3	8	6	5	0			
ALASKA	GILLNET	1990			0	0	0	0	0	0	0	9	2	7	26	23	4	5	1			
ALASKA	GILLNET	1991			0	0	0	0	0	2	2	0	5	9	5	0	0	2	0			
ALASKA GILLNET TOTAL:					2	2	3	2	8	17	30	69	55	34	59	38	35	12	1			
ALASKA	SEINE	1984			0	0	0	0	0	0	0	10	0	4	0	0	0	0	0			
ALASKA	SEINE	1985			0	0	4	4	7	0	16	0	9	0	0	0	0	0	0			
ALASKA	SEINE	1986			0	15	12	3	0	58	13	52	15	31	0	0	0	0	0			
ALASKA	SEINE	1987			0	0	15	5	15	26	48	26	32	18	0	0	0	0	0			
ALASKA	SEINE	1988			0	0	0	0	0	8	20	17	13	52	0	0	0	0	0			
ALASKA	SEINE	1989			0	0	0	11	4	3	19	0	10	20	0	0	0	0	0			
ALASKA	SEINE	1990			0	0	2	10	22	65	56	34	13	16	25	0	0	0	0			
ALASKA	SEINE	1991			0	0	0	0	0	0	17	31	15	30	0	0	0	0	0			
ALASKA SEINE TOTAL:					0	15	33	33	48	160	189	170	107	171	25	0	0	0	0			
ALASKA	TROLL	1984			0	0	0	0	1	0	0	6	2	0	0	0	0	0	0			
ALASKA	TROLL	1985			0	8	11	13	20	18	7	3	0	3	0	0	0	0	0			
ALASKA	TROLL	1986			0	12	45	104	96	74	40	64	9	19	5	10	5	0	0			
ALASKA	TROLL	1987			0	34	38	129	104	142	74	66	0	31	20	3	10	0	0			
ALASKA	TROLL	1988			0	0	3	51	73	26	60	68	0	15	27	15	7	0	0			
ALASKA	TROLL	1989			0	10	26	34	51	34	24	59	0	33	28	13	8	8	0			
ALASKA	TROLL	1990			0	0	44	74	105	141	107	96	125	70	18	4	14	0	0			
ALASKA	TROLL	1991			0	0	12	8	8	4	21	3	3	7	0	4	0	0	0			
ALASKA TROLL TOTAL:					0	64	179	413	458	439	333	365	139	178	98	49	44	8	0			
CANADA	NET	1984			0	0	0	0	0	0	0	0	4	0	0	0	0	0	0			
CANADA	NET	1985			0	0	4	0	0	4	13	18	4	0	0	0	0	0	0			
CANADA	NET	1986			0	0	0	3	8	62	67	14	0	0	0	3	0	0	0			
CANADA	NET	1987			2	0	6	0	12	60	55	29	56	26	0	0	0	0	0			
CANADA	NET	1988			0	0	0	5	0	13	34	24	40	0	2	0	0	0	0			
CANADA	NET	1989			5	0	6	10	18	12	10	19	2	31	25	3	0	0	0			
CANADA	NET	1990			2	0	0	3	15	13	28	45	41	0	0	0	0	2	0			
CANADA	NET	1991			0	0	0	0	10	6	11	15	14	0	0	3	0	0	0			
CANADA NET TOTAL:					9	0	16	21	63	170	218	164	161	57	27	9	0	2	0			
CANADA	TROLL	1984			0	0	0	0	0	0	0	0	0	3	0	5	0	0	0			
CANADA	TROLL	1985			0	0	21	0	4	0	6	15	14	0	0	0	0	0	0			
CANADA	TROLL	1986			5	30	39	73	32	27	53	7	65	53	159	62	17	0	2			
CANADA	TROLL	1987			0	32	88	160	62	55	49	10	37	50	83	107	46	31	3			

Table C5. CWT recovery data of lower Skeena River origin age-3 coho.

ANNUAL ESTIMATED ADJUSTED CWT RECOVERIES OF LOWER SKEENA RIVER ORIGIN AGE 3 COHO.

		BROOD-YEAR									
COUNTRY	GEAR	1975	1976	1985	1987	1988	1989	1990	1991	1992	75-92 AVG
ALASKA	GILLNET	0	0	0	90	37	4	3	5	6	16
ALASKA	SEINE	0	0	4	332	132	11	0	53	9	60
ALASKA	TROLL	0	0	3	930	345	37	4	303	64	187
ALASKA TOTAL:		0	0	7	1352	514	52	7	361	79	264
CANADA	NET	3	0	0	211	61	18	3	29	12	37
CANADA	TROLL	16	5	6	709	222	23	0	181	17	131
CANADA TOTAL:		19	5	6	920	283	41	3	210	29	168

PROPORTIONS OF ANNUAL ESTIMATED ADJUSTED CWT RECOVERIES OF LOWER SKEENA RIVER ORIGIN AGE 3 COHO.

		BROOD-YEAR									
COUNTRY	GEAR	1975	1976	1985	1987	1988	1989	1990	1991	1992	75-92 AVG
ALASKA	GILLNET	0.00	0.00	0.00	0.04	0.05	0.04	0.30	0.01	0.06	0.05
ALASKA	SEINE	0.00	0.00	0.31	0.15	0.17	0.12	0.00	0.09	0.08	0.10
ALASKA	TROLL	0.00	0.00	0.23	0.41	0.43	0.40	0.40	0.53	0.59	0.33
ALASKA TOTAL:		0.00	0.00	0.54	0.60	0.64	0.56	0.70	0.63	0.73	0.49
CANADA	NET	0.16	0.00	0.00	0.09	0.08	0.19	0.30	0.05	0.11	0.11
CANADA	TROLL	0.84	1.00	0.46	0.31	0.28	0.25	0.00	0.32	0.16	0.40
CANADA TOTAL:		1.00	1.00	0.46	0.40	0.36	0.44	0.30	0.37	0.27	0.51

ESTIMATED ADJUSTED CWT WEEKLY RECOVERIES OF AGE 3 COHO OF LOWER SKEENA RIVER ORIGIN, 1975, 1976, 1985, AND 1987 TO 1992 BROOD YEARS.

			STATISTICAL WEEK																			
COUNTRY	GEAR	BROOD-YEAR	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104
ALASKA	GILLNET	1987		5	3	1	0	3	3	0	0	7	15	20	23	4	6	0	0			
ALASKA	GILLNET	1988		0	0	0	0	0	2	0	3	0	2	4	8	10	7	1	0			
ALASKA	GILLNET	1989		0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
ALASKA	GILLNET	1990		0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0			
ALASKA	GILLNET	1991		0	2	0	0	0	0	0	0	3	0	0	0	0	0	0	0			
ALASKA	GILLNET	1992		1	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0			
	ALASKA GILLNET TOTAL:			6	9	1	0	3	5	0	3	10	17	27	31	19	13	1	0			
ALASKA	SEINE	1985		0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0			
ALASKA	SEINE	1987		0	0	10	18	0	9	64	34	119	63	15	0	0	0	0	0			
ALASKA	SEINE	1988		0	0	0	7	13	17	30	29	15	19	2	0	0	0	0	0			
ALASKA	SEINE	1989		0	0	0	0	0	0	0	0	7	0	4	0	0	0	0	0			
ALASKA	SEINE	1991		0	0	0	0	3	0	9	7	8	4	22	0	0	0	0	0			
ALASKA	SEINE	1992		0	0	0	0	0	0	0	0	4	0	5	0	0	0	0	0			
	ALASKA SEINE TOTAL:			0	0	10	25	16	26	103	70	153	86	52	0	0	0	0	0			
ALASKA	TROLL	1985		0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0			
ALASKA	TROLL	1987		2	76	55	103	121	88	125	66	109	40	83	41	21	0	0	0			
ALASKA	TROLL	1988		0	0	8	18	36	46	74	37	62	0	17	24	10	13	0	0			
ALASKA	TROLL	1989		0	0	0	5	9	6	4	2	2	0	6	3	0	0	0	0			
ALASKA	TROLL	1990		0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0			
ALASKA	TROLL	1991		0	0	0	22	25	48	34	13	25	48	29	26	15	15	3	0			
ALASKA	TROLL	1992		0	0	0	0	15	12	3	6	3	5	10	5	5	0	0	0			
	ALASKA TROLL TOTAL:			2	76	63	148	206	205	240	124	201	93	145	101	51	28	3	0			
CANADA	NET	1975		0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0			
CANADA	NET	1987		3	4	5	4	8	8	24	43	24	44	17	21	6	0	0	0			
CANADA	NET	1988		0	0	4	0	4	7	16	12	10	0	8	0	0	0	0	0			
CANADA	NET	1989		0	0	0	0	6	0	3	0	0	7	0	2	0	0	0	0			
CANADA	NET	1990		0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0			
CANADA	NET	1991		0	0	2	0	6	3	6	4	6	2	0	0	0	0	0	0			
CANADA	NET	1992		0	0	0	2	0	5	0	0	0	2	0	0	3	0	0	0			
	CANADA NET TOTAL:			3	4	11	6	24	23	52	59	40	55	25	23	12	0	0	0			
CANADA	TROLL	1975		4	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0			
CANADA	TROLL	1976		0	0	0	3	0	0	0	0	0	0	0	0	0	2	0	0			
CANADA	TROLL	1985		0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0			
CANADA	TROLL	1987		0	16	140	71	74	24	47	53	31	20	76	73	48	22	10	4			
CANADA	TROLL	1988		0	0	22	23	17	20	4	14	0	10	15	15	47	20	12	3			
CANADA	TROLL	1989		0	0	0	8	0	0	0	0	0	0	12	3	0	0	0	0			
CANADA	TROLL	1991		0	0	0	0	8	9	21	21	12	16	24	45	15	10	0	0			
CANADA	TROLL	1992		0	0	0	6	0	0	4	0	0	4	0	0	3	0	0	0			

Table C6. Estimate of enhanced coho proportions in Canadian northern boundary area (Areas 1, 3, 4, and 5) fisheries.

Enhanced Stock Origin	Average 1970s	Average 1980s	Average 1990s	Average 1975–97
All areas	0.4%	2.6%	7.4%	3.8%
Alaska	0.0%	1.0%	2.9%	1.5%
NBC	0.0%	1.0%	3.8%	1.7%
SBC	0.3%	0.4%	0.4%	0.4%
Southern US	0.1%	0.2%	0.3%	0.2%

Table C7. Stock composition in northern boundary area fisheries (from Coho Technical Committee estimates).

Year	Alaskan Interception of NBC	Total SE Coho Harvest	% NBC Origin	Canadian Interception of Alaska	Total Canadian Coho Harvest	% AK Origin
1987	267,623	1,586,869	16.9	50,700	847,424	6.0
1988	127,661	1,135,620	11.2	29,006	892,628	3.2
1989	399,796	2,273,794	17.6	40,355	779,113	5.2
1990	559,813	2,846,733	19.7	122,308	1,292,158	9.5
1991	815,766	3,022,245	27.0	83,479	1,274,517	6.5
1992	702,431	3,528,713	19.9	69,254	781,017	8.9
1993	512,029	3,681,697	13.9	23,936	528,837	4.5
1994	1,104,244	5,714,672	19.3	89,336	1,009,792	8.8
			18.2			6.6

Table C8. Estimates of coho catch composition for northern boundary area fisheries, 1987–1994.

Canadian Fisheries	Gear	Percent Northern B.C. 1987	Percent Alaska and Transbdy. 1987	Percent Northern B.C. 1988	Percent Alaska and Transbdy. 1988	Percent Northern B.C. 1989	Percent Alaska and Transbdy. 1989	Percent Northern B.C. 1990	Percent Alaska and Transbdy. 1990	Percent Northern B.C. 1991	Percent Alaska and Transbdy. 1991	Percent Northern B.C. 1992	Percent Alaska and Transbdy. 1992	Percent Northern B.C. 1993	Percent Alaska and Transbdy. 1993	Percent Northern B.C. 1994	Percent Alaska and Transbdy. 1994	Percent Northern B.C. Average 87 to 94	Percent Alaska and Transbdy. Average 87 to 94
Northern	Troll	93.2	6.8	92.6	7.4	94.4	5.6	88.9	11.1	92.2	7.8	87.9	12.1	94.1	5.9	89.2	10.8	91.6	8.4
North/Central	Troll	94.5	5.5	95.3	4.7	94.8	5.2	91.6	8.4	97.2	2.8	95.8	4.2	99.6	0.4	96.1	3.9	95.6	4.4
Northern	Net	98.6	1.4	97.7	2.3	95.2	4.8	95.2	4.8	97.4	2.6	97.0	3.0	97.4	2.6	94.9	5.1	96.7	3.3
Central	Net	94.8	5.2	99.7	0.3	99.5	0.5	99.3	0.7	98.9	1.1	99.5	0.5	99.0	1.0	99.0	1.0	98.7	1.3
Alaskan Fisheries																			
Southw est Quadrant	Troll	27.2	72.8	26.5	73.5	37.0	63.0	36.9	63.1	47.4	52.6	20.2	79.8	41.4	58.6	36.1	63.9	34.1	65.9
Southeast Quadrant	Troll	72.8	27.2	49.3	50.7	61.1	38.9	38.8	61.2	56.2	43.8	22.8	77.2	60.5	39.5	36.8	63.2	49.8	50.2
Northw est Quadrant	Troll	9.9	90.1	6.9	93.1	10.8	89.2	13.6	86.4	29.3	70.7	19.8	80.2	13.5	86.5	21.3	78.7	15.6	84.4
Northeast Quadrant	Troll	17.2	82.8	17.1	82.9	18.7	81.3	12.3	87.7	8.7	91.3	6.4	93.6	12.7	87.3	6.5	93.5	12.5	87.6
District 111	Net	0	100	0	100	0	100	0	100	0	100	0	100	0.7	99.3	0	100	0.1	99.9
District 106	Net	0	100	10.4	89.6	7.8	92.2	4.8	95.2	2.5	97.5	1.6	98.4	3.8	96.2	4.6	95.4	4.4	95.6
Districts 101 & 102	Net	32.5	67.5	18.4	81.6	22.3	77.7	18.6	81.4	40.1	59.9	5.8	94.2	18.5	81.5	16.3	83.7	21.6	78.4
Distrcts 112 &114	Net	0	100	0	100	8.5	91.5	3.3	96.7	2.2	97.8	0	100	1.6	98.4	0	100	2.0	98.1
District 113	Net	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100	0	100
Districts 103 & 104	Net	20.5	79.5	32.5	67.5	35.5	64.5	58.9	41.1	59.9	40.1	49.4	50.6	58.8	41.2	62.3	37.7	47.2	52.8
Districts 105, 109 &110	Net	0	100	0	100	4.5	95.5	5.8	94.2	3.7	96.3	0.1	99.9	7.5	92.5	1.3	98.7	2.9	97.1

Table C9. Estimated historical commercial coho harvest in the Skeena River. From Argue et al. 1986).

Decade	Average Annual Harvest
1877-79	5,000
1880-89	35,000
1890-99	65,700
1900-09	125,500
1910-19	335,300
1920-29	423,300
1930-39	283,900

Table C10. Skeena sockeye stock reconstruction from 1970 to 1997.

				CANADIAN CATCH OF SKEENA SOCKEYE						ALASKAN CATCH OF SKEENA SOCKEYE								
YEAR	ESCAPEMENT	IFF	ESSR	AREA 1	AREA 3	AREA 4	AREA 5	TOTAL COMM. CATCH	TOTAL CANADIAN STOCK	101 GN	106 GN	101 SN	102 SN	103 SN	104 SN	TOTAL US COMM. CATCH	TOTAL CAN & US CATCH	TOTAL STOCK
1970	678652	50122		35426	56569	524039	109258	725292	1454066	9462	6046	6947	2883	728	8277	34343	759635	1488409
1971	821850	71091		36704	116973	849940	54793	1058410	1951351	18521	8815	3160	2461	1619	5441	40017	1098427	1991368
1972	697237	51892		43442	128446	665747	58364	895999	1645128	23300	15831	12051	3790	883	45464	101319	997318	1746447
1973	820196	67729		20727	144909	1265997	27870	1459503	2347428	21861	10839	3249	4907	374	60464	101694	1561197	2449122
1974	723898	82477		8694	267904	1350474	11162	1638234	2444609	22558	9104	5679	2822	1830	66846	108839	1747073	2553448
1975	822633	85955		14346	67840	475749	26423	584358	1492946	4127	4547	246	2388	1999	13254	26561	610919	1519507
1976	575590	81196		8087	92568	644035	15889	760579	1417365	16253	2076	51	731	1561	56593	77265	837844	1494630
1977	951805	104143		24425	369007	843153	26601	1263186	2319134	30121	9107	14312	7425	688	111189	172842	1436028	2491976
1978	424075	115920		3009	117077	390703	27791	538580	1078575	22350	7350	15660	7826	228	49491	102905	641485	1181480
1979	1166236	153948		52865	148562	1201459	19817	1422703	2742887	13425	11018	2142	4238	484	151256	182563	1605266	2925450
1980	541164	140665		48075	121363	334960	24137	528535	1210364	17860	16163	13811	4900	1207	209437	263378	791913	1473742
1981	1424509	115840		154378	248901	1508713	22201	1934193	3474542	17669	29133	8007	4647	6940	143754	210150	2144343	3684692
1982	1140737	208320		43823	306636	1454529	64898	1869886	3218943	78593	32101	23729	18593	51	152867	305934	2175820	3524877
1983	893724	140566		15162	247116	246607	11007	519892	1554182	46159	3484	16859	5589	397	269199	341687	861579	1895869
1984	1055215	178660		101	149432	682218	28576	860327	2094202	8365	2458	13512	7271	144	170702	202452	1062779	2296654
1985	2174806	208080		75763	306805	1932565	41718	2356851	4739737	99427	58722	29604	34880	1571	324097	548301	2905152	5288038
1986	716312	150766		33551	100695	435933	24018	594197	1461275	22553	11880	5562	11329	1305	206945	259574	853771	1720849
1987	1324128	139307		47545	162326	497380	31656	738907	2202342	17376	9273	1353	6757	42	67298	102099	841006	2304441
1988	1417543	135436		80601	258397	1470018	34122	1843138	3396117	28297	5427	5225	3404	878	452209	495440	2338578	3891557
1989	1137994	149378		24838	268729	595059	18589	907215	2194587	73586	27601	49668	22582	301	215831	389569	1296784	2584156
1990	989566	156185		34800	153681	805289	46067	1039837	2185588	25397	24368	22362	21443	720	353386	447676	1487513	2633264
1991	1232568	139069		43549	507243	928006	33970	1512768	2884405	52530	6883	10155	4923	377	523728	598596	2111364	3483001
1992	1550109	175000	67000	34089	312572	1461203	39780	1914644	3639753	16967	14682	11397	7032	338	644786	695202	2609846	4334955
1993	1629426	188277	133735	34785	410291	1393109	25407	1997327	3815030	44205	28408	47662	17992	489	421355	560111	2557438	4375141
1994	1026816	136311	42276	9734	159256	592542	24962	828770	1991897	8089	17329	14313	10430	345	452807	503313	1332083	2495210
1995	1720292	134132	211813	73892	983163	1533145	35360	2837373	4691797	38162	53298	98845	43243	152	277393	511093	3348466	5202890
1996	1727147	140489	494286	0	462075	3122721	321643	4400725	6268361	49380	51552	141455	4433	0	432777	679597	5080322	6947958
1997	984947	122700	244383	165255	306143	915140	17817	1648738	2756385	42353	31004	19414	8686	8138	528641	638236	2286974	3394621
1970-79	768217	86447		24773	150986	821130	37797	1034684	1889349	18198	8473	6350	3947	1039	56828	94835	1129519	1984184
1980-89	1182613	156702		52384	217040	915798	30092	1215314	2554629	40989	19624	16733	11995	1284	221234	311858	1527173	2866488
1990-97	1357609	149020	198916	49513	411803	1343894	68126	2022523	3529152	34635	28441	45700	14773	1320	454359	579228	2601751	4108380

NOTE: -Escapement data taken from DFO Green Book Publication.

-Areas 1 to 5 catch of Skeena sockeye is calculated from the weekly stock proportions as determined from the 1982 and 83 International tagging programs for the years 1970 to 81 and 96 to 97.

-Areas 1 to 5 catch information by fishery for the years 1982 to 95 taken from LGL run reconstruction.

-Alaskan catch of Skeena sockeye for the years 1970 to 81 and 96 to 97 is calculated from the weekly stock proportions as determined from scale pattern analysis.

-Alaskan catch information by fishery for the years 1982 to 95 taken from LGL run reconstruction.

-Area 4 foodfish numbers are the combined tidal and non-tidal catches.

-1998 very preliminary.

Table C11. Exploitation rates on Skeena sockeye by fishery.

YEAR	IFF	ESSR	AREA 4	AREA 1	AREA 3	AREA 5	CANADIAN TOTAL	CANADIAN TOTAL (-ESSR)	101 GN	101 SN	DIST. 102 SN	DIST. 103 SN	DIST. 104 SN	AL T
1970	0.03	0.00	0.35	0.02	0.04	0.07	0.52	0.52	0.01	0.00	0.00	0.00	0.01	
1971	0.04	0.00	0.43	0.02	0.06	0.03	0.57	0.57	0.01	0.00	0.00	0.00	0.00	
1972	0.03	0.00	0.38	0.02	0.07	0.03	0.54	0.54	0.01	0.01	0.00	0.00	0.03	
1973	0.03	0.00	0.52	0.01	0.06	0.01	0.62	0.62	0.01	0.00	0.00	0.00	0.02	
1974	0.03	0.00	0.53	0.00	0.10	0.00	0.67	0.67	0.01	0.00	0.00	0.00	0.03	
1975	0.06	0.00	0.31	0.01	0.04	0.02	0.44	0.44	0.00	0.00	0.00	0.00	0.01	
1976	0.05	0.00	0.43	0.01	0.06	0.01	0.56	0.56	0.01	0.00	0.00	0.00	0.04	
1977	0.04	0.00	0.34	0.01	0.15	0.01	0.55	0.55	0.01	0.01	0.00	0.00	0.04	
1978	0.10	0.00	0.33	0.00	0.10	0.02	0.55	0.55	0.02	0.01	0.01	0.00	0.04	
1979	0.05	0.00	0.41	0.02	0.05	0.01	0.54	0.54	0.00	0.00	0.00	0.00	0.05	
1980	0.10	0.00	0.23	0.03	0.08	0.02	0.45	0.45	0.01	0.01	0.00	0.00	0.14	
1981	0.03	0.00	0.41	0.04	0.07	0.01	0.56	0.56	0.00	0.00	0.00	0.00	0.04	
1982	0.06	0.00	0.41	0.01	0.09	0.02	0.59	0.59	0.02	0.01	0.01	0.00	0.04	
1983	0.07	0.00	0.13	0.01	0.13	0.01	0.35	0.35	0.02	0.01	0.00	0.00	0.14	
1984	0.08	0.00	0.30	0.00	0.07	0.01	0.45	0.45	0.00	0.01	0.00	0.00	0.07	
1985	0.04	0.00	0.37	0.01	0.06	0.01	0.49	0.49	0.02	0.01	0.01	0.00	0.06	
1986	0.09	0.00	0.25	0.02	0.06	0.01	0.43	0.43	0.01	0.00	0.01	0.00	0.12	
1987	0.06	0.00	0.22	0.02	0.07	0.01	0.38	0.38	0.01	0.00	0.00	0.00	0.03	
1988	0.03	0.00	0.38	0.02	0.07	0.01	0.51	0.51	0.01	0.00	0.00	0.00	0.12	
1989	0.06	0.00	0.23	0.01	0.10	0.01	0.41	0.41	0.03	0.02	0.01	0.00	0.08	
1990	0.06	0.00	0.31	0.01	0.06	0.02	0.45	0.45	0.01	0.01	0.01	0.00	0.13	
1991	0.04	0.00	0.27	0.01	0.15	0.01	0.47	0.47	0.02	0.00	0.00	0.00	0.15	
1992	0.04	0.02	0.34	0.01	0.07	0.01	0.48	0.47	0.00	0.00	0.00	0.00	0.15	
1993	0.04	0.03	0.32	0.01	0.09	0.01	0.50	0.47	0.01	0.01	0.00	0.00	0.10	
1994	0.05	0.02	0.24	0.00	0.06	0.01	0.39	0.37	0.00	0.01	0.00	0.00	0.18	
1995	0.03	0.04	0.29	0.01	0.19	0.01	0.57	0.53	0.01	0.02	0.01	0.00	0.05	
1996	0.02	0.07	0.45	0.00	0.07	0.05	0.65	0.58	0.01	0.02	0.00	0.00	0.06	
1997	0.04	0.07	0.27	0.05	0.09	0.01	0.52	0.45	0.01	0.01	0.00	0.00	0.16	
1970-79	0.05	0.00	0.40	0.01	0.07	0.02	0.56	0.56	0.01	0.00	0.00	0.00	0.03	
1980-89	0.06	0.00	0.29	0.02	0.08	0.01	0.46	0.46	0.01	0.01	0.00	0.00	0.09	
1990-98	0.04	0.03	0.31	0.01	0.10	0.01	0.51	0.47	0.01	0.01	0.00	0.00	0.12	

Table C12. Coho sales slip catch for all gear combined, Canadian Statistical Areas 1 – 10.

YEAR	1	2E	2W	3	4	5	6	7	8	9	10	1 to 10	1,3,4 and 5
1952	147,365	93,866	5,859	64,008	149,982	95,028	98,700	180,400	91,884	35,051	11,581	973,724	456,383
1953	179,559	42,250	7,030	69,094	89,227	48,195	41,984	116,456	132,558	23,746	5,257	755,356	386,075
1954	209,613	46,891	16,081	74,745	178,810	57,760	68,347	68,771	122,081	28,833	8,521	880,453	520,928
1955	375,629	86,640	4,853	125,875	142,589	64,896	54,929	93,684	107,563	41,014	10,855	1,108,527	708,989
1956	233,068	119,186	10,645	114,181	120,535	102,147	117,255	139,153	166,548	35,488	12,170	1,170,376	569,931
1957	334,426	115,301	4,538	110,206	98,799	75,091	72,874	166,704	118,583	21,931	10,235	1,128,688	618,522
1958	175,395	61,718	1,581	126,392	87,565	66,850	97,836	155,384	140,132	30,862	11,769	955,484	456,202
1959	149,461	54,373	2,285	60,407	86,458	63,446	57,589	82,625	100,737	36,158	13,788	707,327	359,772
1960	124,472	71,322	2,812	93,545	59,636	66,331	101,758	122,844	92,364	37,220	20,122	792,426	343,984
1961	200,129	93,046	3,283	83,253	61,047	80,683	119,554	156,747	132,479	48,494	43,744	1,022,459	425,112
1962	302,080	119,387	23,514	115,974	146,646	185,909	135,443	199,111	162,229	36,436	24,613	1,451,342	750,609
1963	311,270	104,244	17,371	40,230	122,555	221,962	235,263	202,489	114,496	22,679	18,650	1,411,209	696,017
1964	350,052	160,956	22,492	92,652	183,553	270,695	251,397	197,460	167,130	52,492	27,690	1,776,569	896,952
1965	240,955	81,435	14,193	101,899	133,637	217,566	294,766	139,784	80,940	60,568	208,094	1,573,837	694,057
1966	336,067	166,917	22,290	147,408	291,148	371,871	191,609	163,445	164,452	47,063	122,327	2,024,597	1,146,494
1967	207,371	97,784	14,221	50,566	81,320	87,173	56,584	76,624	38,810	29,761	258,808	999,022	426,430
1968	368,894	149,072	12,390	156,674	241,134	342,056	208,030	176,093	217,089	69,730	117,377	2,058,539	1,108,758
1969	248,069	62,864	10,979	48,489	71,457	56,833	42,510	80,762	38,194	27,168	43,424	730,749	424,848
1970	280,663	116,534	20,154	107,961	86,215	113,122	191,713	224,500	121,261	37,303	34,531	1,333,957	587,961
1971	233,605	128,499	13,205	92,928	114,290	66,618	52,871	178,887	114,018	33,785	11,259	1,039,965	507,441
1972	271,979	177,787	23,451	117,543	148,985	187,375	233,292	226,172	134,595	48,080	25,673	1,594,932	725,882
1973	138,998	101,075	5,268	32,201	73,024	104,210	93,830	202,236	104,788	52,511	22,505	930,646	348,433
1974	167,393	104,618	12,558	42,075	45,347	72,465	105,789	170,197	126,083	16,609	12,626	875,760	327,280
1975	128,140	56,371	8,452	47,998	51,143	36,427	22,539	103,820	57,586	24,608	12,915	549,999	263,708
1976	67,061	193,264	15,868	36,342	56,502	54,092	61,512	120,761	168,994	72,772	63,005	910,173	213,997
1977	99,651	47,869	9,065	82,449	52,354	39,801	28,379	69,478	37,117	69,612	16,172	551,947	274,255
1978	267,312	153,438	39,465	134,107	73,664	42,841	104,129	105,996	81,124	35,469	22,614	1,060,159	517,924
1979	285,832	105,944	51,590	52,190	67,547	26,146	55,676	115,044	75,373	18,838	16,569	870,749	431,715
1980	319,525	112,468	83,742	77,759	34,187	37,295	108,996	73,260	48,734	21,348	9,093	926,407	468,766
1981	214,396	70,171	59,688	56,945	47,844	12,583	59,735	72,782	45,802	12,705	13,976	666,627	331,768
1982	156,977	100,965	40,719	143,160	100,193	39,582	67,917	62,808	22,046	9,271	20,534	764,172	439,912
1983	362,623	106,996	29,158	284,726	133,646	33,834	140,931	46,132	68,156	14,941	68,630	1,289,773	814,829
1984	342,176	33,656	38,552	152,149	98,238	29,537	68,610	69,784	32,016	11,720	19,422	895,860	622,100
1985	351,612	65,296	43,264	99,059	116,718	28,183	48,094	45,609	33,902	6,235	17,355	855,327	595,572
1986	645,987	126,544	68,353	211,549	162,613	87,000	138,625	79,369	158,846	56,465	48,548	1,783,899	1,107,149
1987	322,202	99,089	104,784	85,671	66,454	17,868	62,406	45,290	43,484	6,897	19,593	873,738	492,195
1988	216,692	58,184	22,119	42,081	51,306	19,390	61,369	22,197	47,302	9,863	10,110	560,613	329,469
1989	350,334	43,301	80,472	150,670	64,602	45,449	14,703	17,902	14,290	3,316	12,146	797,185	611,055
1990	665,486	86,208	93,965	119,111	129,984	43,771	103,202	59,065	72,291	10,117	26,086	1,409,286	958,352
1991	661,402	75,797	72,442	212,878	125,832	30,126	34,478	43,860	13,652	4,143	21,313	1,295,923	1,030,238
1992	265,447	66,791	30,924	120,848	108,324	46,031	43,782	38,073	30,308	15,036	20,614	786,178	540,650
1993	213,274	33,446	35,568	106,635	64,552	18,200	8,335	11,295	14,415	5,530	15,442	526,692	402,661
1994	482,120	37,647	60,114	218,508	82,960	33,180	22,455	17,484	64,256	5,760	11,044	1,035,528	816,768
1995	210,889	17,366	13,617	91,023	39,874	35,976	10,552	11,151	18,121	2,281	2,117	452,967	377,762
1996	253,123	18,574	1,484	155,239	89,800	37,501	19,430	3,987	22,012	0	1,128	602,278	535,663
1997	131,434	11,366	10,801	6,987	29,494	6,009	6,723	6,966	8,879	83	492	219,234	173,924
1998	0	0	0	0	0	0	0	991	0	0	0	991	0

52-59 AVG	225,565	77,528	6,609	93,114	119,246	71,677	76,189	125,397	122,511	31,635	10,522	959,992	509,600
60-69 AVG	268,936	110,703	14,355	93,069	139,213	190,108	163,691	151,536	120,818	43,161	88,485	1,384,075	691,326
70-79 AVG	194,063	118,540	19,908	74,579	76,907	74,310	94,973	151,709	102,094	40,959	23,787	971,829	419,860
80-89 AVG	328,252	81,667	57,085	130,377	87,580	35,072	77,139	53,513	51,458	15,276	23,941	941,360	581,282
90-98 AVG	320,353	38,577	35,435	114,581	74,536	27,866	27,662	21,430	27,104	4,772	10,915	703,231	537,335

Table C13. Gillnet coho saleslip catch, Canadian Statistical Areas 1 –10.

YEAR	1	2E	2W	3	4	5	6	7	8	9	10	1 to 10	1, 3, 4 and 5
1952	166	223	475	5,101	45,923	10,117	11,093	18,304	41,499	31,318	7,415	171,634	61,307
1953	409	342	236	33,484	54,175	24,627	11,881	16,822	68,859	17,478	5,032	233,345	112,695
1954	163	2,369	47	46,736	85,160	30,382	23,520	21,119	76,012	27,802	7,232	320,542	162,441
1955	44	2,181	128	69,210	92,453	37,009	30,374	25,237	50,875	38,800	9,982	356,293	198,716
1956	8,283	1,986	1	58,062	61,146	26,904	33,369	28,369	99,468	33,315	11,839	362,742	154,395
1957	5,476	137	0	52,181	52,143	23,222	45,601	25,678	78,539	20,296	7,732	311,005	133,022
1958	4,704	2,184	248	39,920	59,995	9,319	34,626	19,246	72,236	26,259	5,230	273,967	113,938
1959	1,526	4	20	20,896	47,111	31,711	27,095	22,143	58,020	30,538	4,986	244,050	101,244
1960	3,169	562	0	37,081	36,076	35,443	37,620	33,366	41,445	34,691	15,000	274,453	111,769
1961	2,600	2,690	25	40,500	37,271	20,688	46,869	47,724	69,404	45,268	40,603	353,642	101,059
1962	15,463	4,739	118	43,570	70,980	104,776	59,785	42,253	62,735	33,969	18,404	456,792	234,789
1963	13,324	5,105	0	19,477	48,646	122,680	112,821	47,673	56,313	21,916	10,280	458,235	204,127
1964	39,688	10,229	249	31,736	82,495	96,440	83,508	43,522	63,738	46,349	25,705	523,659	250,359
1965	37,320	5,859	1,073	70,863	53,708	73,632	130,803	50,766	33,754	57,577	204,560	719,915	235,523
1966	41,819	2,862	630	88,233	124,952	88,684	74,235	50,086	70,440	41,984	89,838	673,763	343,688
1967	36,489	11,546	241	22,876	49,496	6,743	19,954	7,611	13,601	25,989	204,325	398,871	115,604
1968	88,667	14,434	786	62,165	74,444	53,489	77,210	33,168	65,886	44,904	81,854	597,007	278,765
1969	39,952	5,074	176	16,960	40,779	23,023	17,402	14,537	19,243	18,933	29,858	225,937	120,714
1970	70,182	16,825	644	61,976	63,597	50,735	81,747	92,614	35,086	31,487	13,970	518,863	246,490
1971	52,306	13,800	107	42,614	83,458	11,392	16,952	21,665	27,902	24,494	4,974	299,664	189,770
1972	54,025	6,427	963	55,005	69,394	25,089	68,810	76,948	30,973	31,820	12,330	431,784	203,513
1973	7,463	7,322	267	12,916	39,128	11,044	16,937	69,607	25,426	32,930	13,108	236,148	70,551
1974	9,833	3,918	500	17,550	24,225	24,224	33,122	80,534	21,168	6,103	6,578	227,755	75,832
1975	15,564	183	1,792	24,680	23,123	13,330	11,002	60,706	29,875	17,837	6,422	204,514	76,697
1976	2,693	2,582	106	12,287	26,262	18,386	10,743	14,775	39,969	35,164	15,178	178,145	59,628
1977	1,127	5,161	320	30,989	34,732	19,661	2,328	11,066	5,405	39,844	10,031	160,664	86,509
1978	410	8,202	68	30,340	55,328	25,529	15,244	23,954	19,967	16,597	7,742	203,381	111,607
1979	1,164	0	177	13,960	42,218	12,885	2,997	10,328	18,023	5,523	5,135	112,410	70,227
1980	16,614	5,094	909	17,657	21,001	13,647	14,440	16,336	11,820	1,506	2,493	121,517	68,919
1981	5,953	3,163	257	8,232	29,062	5,809	8,590	12,310	9,054	2,848	1,631	86,909	49,056
1982	90	676	187	20,147	43,486	10,368	14,049	12,865	7,826	1,302	6,598	117,594	74,091
1983	642	0	15	25,770	38,710	8,202	7,133	1,431	15,675	2,743	3,806	104,127	73,324
1984	221	2,160	58	28,101	34,694	7,319	2,575	2,642	7,275	6,465	1,494	93,004	70,335
1985	114	12,981	71	11,562	55,445	2,083	6,857	8,108	10,391	3,982	9,076	120,670	69,204
1986	914	6,943	41	20,036	44,876	11,131	6,940	6,766	43,084	10,654	6,891	158,276	76,957
1987	304	2,685	0	4,716	18,452	1,645	3,084	3,803	6,587	4,570	5,248	51,094	25,117
1988	538	2,776	2	3,413	24,286	2,532	6,942	3,274	10,255	6,201	3,906	64,125	30,769
1989	370	2,734	26	13,388	39,552	8,210	375	3,610	7,646	2,060	3,570	81,541	61,520
1990	326	3,806	74	7,816	63,568	6,522	4,437	4,831	15,859	6,204	3,911	117,354	78,232
1991	220	4,494	176	12,162	46,910	8,491	1,063	3,985	4,804	3,203	9,567	95,075	67,783
1992	863	2,626	48	15,960	32,291	6,210	563	3,615	3,562	5,769	10,320	81,827	55,324
1993	605	1,540	3	20,523	41,074	4,001	375	1,396	6,704	4,654	14,142	95,017	66,203
1994	897	1,114	0	24,998	69,338	7,543	1,222	1,810	14,912	3,327	5,796	130,957	102,776
1995	1,351	825	0	22,671	31,893	4,543	57	3,400	9,317	1,585	1,287	76,929	60,458
1996	61	561	0	24,962	48,670	5,383	241	681	10,207	0	439	91,205	79,076
1997	4,920	399	0	5,474	16,470	1,608	811	758	3,248	0	0	33,688	28,472
1998	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	2,596	1,178	144	40,699	62,263	24,161	27,195	22,115	68,189	28,226	7,431	284,197	129,720
60-69 AVG	31,849	6,310	330	43,346	61,885	62,560	66,021	37,071	49,656	37,158	72,043	468,227	199,640
70-79 AVG	21,477	6,442	494	30,232	46,147	21,228	25,988	46,220	25,379	24,180	9,547	257,333	119,082
80-89 AVG	2,576	3,921	157	15,302	34,956	7,095	7,099	7,115	12,961	4,233	4,471	99,886	59,929
90-98 AVG	1,027	1,707	33	14,952	38,913	4,922	974	2,275	7,624	2,749	5,051	80,228	59,814

Table C14. Seine coho saleslip catch, Canadian Statistical Areas 1 – 10.

YEAR	1	2E	2W	3	4	5	6	7	8	9	10	1 to 10	1,3,4 and 5
1952	2,175	1,416	1,650	2,127	13	14,163	73,027	9,679	14,959	2,196	3,238	124,643	18,478
1953	411	4,112	4,081	5,771	174	11,758	17,445	9,495	27,237	1,451	225	82,160	18,114
1954	10,968	18,558	14,712	5,872	1,056	13,001	42,824	8,942	18,768	570	22	135,293	30,897
1955	9,361	12,550	3,357	4,230	125	12,743	17,382	15,134	12,622	1,737	0	89,241	26,459
1956	2,216	13,252	8,451	14,495	120	22,056	77,230	16,959	35,329	1,701	4	191,813	38,887
1957	3,036	3,239	806	14,900	355	3,647	18,800	6,513	8,556	12	0	59,864	21,938
1958	349	3,805	118	22,562	14	13,725	50,176	2,377	19,674	458	0	113,258	36,650
1959	0	786	0	3,273	115	8,800	8,871	3,007	7,395	220	0	32,467	12,188
1960	102	2,508	166	1,117	209	10,997	33,593	5,504	28,744	1,308	96	84,344	12,425
1961	248	13,080	68	7,781	301	16,466	44,923	16,344	47,754	1,752	430	149,147	24,796
1962	1,386	8,969	0	3,007	45	27,908	48,102	14,001	66,439	1,119	532	171,508	32,346
1963	2,200	9,338	0	677	390	16,967	64,860	13,023	40,124	119	84	147,782	20,234
1964	6,830	16,119	3,532	11,208	248	38,714	59,975	19,097	73,981	379	1,013	231,096	57,000
1965	5,393	7,688	3,242	16,685	100	25,185	89,796	39,372	30,997	653	10	219,121	47,363
1966	3,532	6,994	4,288	19,926	0	54,595	67,683	25,306	49,347	15	15	231,701	78,053
1967	1,005	10,977	1,849	18,217	67	3,357	16,485	3,827	3,498	273	0	59,555	22,646
1968	1,416	7,151	1,459	24,291	761	30,217	70,724	20,522	80,826	7,833	272	245,472	56,685
1969	541	966	992	9,770	122	3,196	9,094	4,314	6,263	3,483	116	38,857	13,629
1970	1,290	5,583	10,024	14,539	162	14,623	62,426	14,876	28,854	1,532	9	153,918	30,614
1971	2,386	5,344	3,096	15,340	1,773	8,363	14,749	10,086	6,735	1,012	0	68,884	27,862
1972	7,731	4,662	11,701	8,950	2,650	7,882	92,562	28,394	20,736	11,108	732	197,108	27,213
1973	986	1,940	810	3,502	2,028	2,263	23,118	21,359	18,196	8,886	155	83,243	8,779
1974	1,494	1,662	1,446	3,999	3,654	2,242	32,892	21,432	40,383	3,995	155	113,354	11,389
1975	3,359	274	2,749	5,261	4,804	5,779	2,397	16,476	13,207	1,577	1	55,884	19,203
1976	1,409	6,987	4,518	6,289	1,142	3,802	23,424	23,842	45,295	8,561	14	125,283	12,642
1977	2,666	5,701	3,893	17,039	3,080	5,671	9,596	12,120	8,610	3,934	337	72,647	28,456
1978	2,751	1,705	6,441	57,358	3,863	3,123	58,033	16,212	17,120	2,993	15	169,614	67,095
1979	14,710	0	25,214	23,395	5,208	1,314	33,294	37,288	29,655	0	0	170,078	44,627
1980	11,886	1,145	16,050	20,789	1,105	4,297	68,587	17,446	16,338	0	0	157,643	38,077
1981	10,869	488	7,430	10,288	3,926	536	33,776	27,998	16,764	0	1	112,076	25,619
1982	9,734	97	3,850	71,554	21,713	5,383	36,667	27,565	3,808	0	0	180,371	108,384
1983	4,763	0	4,577	130,341	0	3,749	87,489	7,855	27,270	0	0	266,044	138,853
1984	7,233	2,284	7,469	49,316	11,598	12,672	24,260	9,681	5,983	0	0	130,496	80,819
1985	20,789	11,385	3,671	40,276	14,838	3,154	29,552	13,579	15,401	0	0	152,645	79,057
1986	19,702	10,276	2,402	72,631	6,811	16,798	90,786	25,256	87,141	0	0	331,803	115,942
1987	13,205	1,511	470	47,094	4,725	5,528	33,646	18,207	18,115	0	0	142,501	70,552
1988	3,163	3,859	747	15,035	2,055	3,327	36,671	5,791	34,762	0	0	105,410	23,580
1989	7,731	4,260	5,254	74,119	2,645	3,097	1,297	5,027	5,288	0	0	108,718	87,592
1990	16,910	6,530	6,723	34,188	3,111	14,147	51,961	16,211	50,083	0	0	199,864	68,356
1991	3,788	2,022	5,741	103,773	2,447	5,955	9,746	8,678	6,577	0	0	148,727	115,963
1992	6,615	2,921	4,043	35,805	10,067	4,634	12,175	7,062	24,495	0	0	107,817	57,121
1993	4,262	4,732	1,179	47,970	6,219	2,412	1,035	2,120	7,371	0	0	77,300	60,863
1994	22,150	889	3,269	41,223	41	3,021	13,860	5,645	47,620	0	0	137,718	66,435
1995	7,195	84	0	38,200	3,669	1,411	1,811	5,199	8,218	0	0	65,787	50,475
1996	626	532	0	30,678	14,683	4,372	10,128	3,060	10,860	0	0	74,939	50,359
1997	345	35	542	723	175	231	1,964	3,570	5,452	0	0	13,037	1,474
1998	0	0	0	0	0	0	0	991	0	0	0	991	0
52-59 AVG	3,565	7,215	4,147	9,154	247	12,487	38,219	9,013	18,068	1,043	436	103,592	25,451
60-69 AVG	2,265	8,379	1,560	11,268	224	22,760	50,524	16,131	42,797	1,693	257	157,858	36,518
70-79 AVG	3,878	3,386	6,989	15,567	2,836	5,506	35,249	20,209	22,879	4,360	142	121,001	27,788
80-89 AVG	10,908	3,531	5,192	53,144	6,942	5,854	44,273	15,841	23,087	0	0	168,771	76,848
90-98 AVG	6,877	1,972	2,389	36,951	4,490	4,020	11,409	5,837	17,853	0	0	91,798	52,338

Table C15. Troll coho saleslip catch, Canadian Statistical Areas 1 – 10.

YEAR	1	2E	2W	3	4	5	6	7	8	9	10	1 to 10	1, 3, 4 and 5
1952	145,024	92,227	3,734	56,780	104,046	70,748	14,580	152,417	35,426	1,537	928	677,447	376,598
1953	178,739	37,796	2,713	29,839	34,878	11,810	12,658	90,139	36,462	4,817	0	439,851	255,266
1954	198,482	25,964	1,322	22,137	92,594	14,377	2,003	38,710	27,301	461	1,267	424,618	327,590
1955	366,224	71,909	1,368	52,435	50,011	15,144	7,173	53,313	44,066	477	873	662,993	483,814
1956	222,569	103,948	2,193	41,624	59,269	53,187	6,656	93,825	31,751	472	327	615,821	376,649
1957	325,914	111,925	3,732	43,125	46,301	48,222	8,473	134,513	31,488	1,623	2,503	757,819	463,562
1958	170,342	55,729	1,215	63,910	27,556	43,806	13,034	133,761	48,222	4,145	6,539	568,259	305,614
1959	147,935	53,583	2,265	36,238	39,232	22,935	21,623	57,475	35,322	5,400	8,802	430,810	246,340
1960	121,201	68,252	2,646	55,347	23,351	19,891	30,545	83,974	22,175	1,221	5,026	433,629	219,790
1961	197,281	77,276	3,190	34,972	23,475	43,529	27,762	92,679	15,321	1,474	2,711	519,670	299,257
1962	285,231	105,679	23,396	69,397	75,621	53,225	27,556	142,857	33,055	1,348	5,677	823,042	483,474
1963	295,746	89,801	17,371	20,076	73,519	82,315	57,582	141,793	18,059	644	8,286	805,192	471,656
1964	303,534	134,608	18,711	49,708	100,810	135,541	107,914	134,841	29,411	5,764	972	1,021,814	589,593
1965	198,242	67,888	9,878	14,351	79,829	118,749	74,167	49,646	16,189	2,338	3,524	634,801	411,171
1966	290,716	157,061	17,372	39,249	166,196	228,592	49,691	88,053	44,665	5,064	32,474	1,119,133	724,753
1967	169,877	75,261	12,131	9,473	31,757	77,073	20,145	65,186	21,711	3,499	54,483	540,596	288,180
1968	278,811	127,487	10,145	70,218	165,929	258,350	60,096	122,403	70,377	16,993	35,251	1,216,060	773,308
1969	207,576	56,824	9,811	21,759	30,556	30,614	16,014	61,911	12,688	4,752	13,450	465,955	290,505
1970	209,191	94,126	9,486	31,446	22,456	47,764	47,540	117,010	57,321	4,284	20,552	661,176	310,857
1971	178,913	109,355	10,002	34,974	29,059	46,863	21,170	147,136	79,381	8,279	6,285	671,417	289,809
1972	210,223	166,698	10,787	53,588	76,941	154,404	71,920	120,830	82,886	5,152	12,611	966,040	495,156
1973	130,549	91,813	4,191	15,783	31,868	90,903	53,775	111,270	61,166	10,695	9,242	611,255	269,103
1974	156,066	99,038	10,612	20,526	17,468	45,999	39,775	68,231	64,532	6,511	5,893	534,651	240,059
1975	109,217	55,914	3,911	18,057	23,216	17,318	9,140	26,638	14,504	5,194	6,492	289,601	167,808
1976	62,959	183,695	11,244	17,766	29,098	31,904	27,345	82,144	83,730	29,047	47,813	606,745	141,727
1977	95,858	37,007	4,852	34,421	14,542	14,469	16,455	46,292	23,102	25,834	5,804	318,636	159,290
1978	264,151	143,531	32,956	46,409	14,473	14,189	30,852	65,830	44,037	15,879	14,857	687,164	339,222
1979	269,958	105,944	26,199	14,835	20,121	11,947	19,385	67,428	27,695	13,315	11,434	588,261	316,861
1980	291,025	106,229	66,783	39,313	12,081	19,351	25,969	39,478	20,576	19,842	6,600	647,247	361,770
1981	197,574	66,520	52,001	38,425	14,856	6,238	17,369	32,474	19,984	9,857	12,344	467,642	257,093
1982	147,153	100,192	36,682	51,459	34,994	23,831	17,201	22,378	10,412	7,969	13,936	466,207	257,437
1983	357,218	106,996	24,566	128,615	94,936	21,883	46,309	36,846	25,211	12,198	64,824	919,602	602,652
1984	334,722	29,212	31,025	74,732	51,946	9,546	41,775	57,461	18,758	5,255	17,928	672,360	470,946
1985	330,709	40,930	39,522	47,221	46,435	22,946	11,685	23,922	8,110	2,253	8,279	582,012	447,311
1986	625,371	109,325	65,910	118,882	110,926	59,071	40,899	47,347	28,621	45,811	41,657	1,293,820	914,250
1987	308,693	94,893	104,314	33,861	43,277	10,695	25,676	23,280	18,782	2,327	14,345	680,143	396,526
1988	212,991	51,549	21,370	23,633	24,965	13,531	17,756	13,132	2,285	3,662	6,204	391,078	275,120
1989	342,233	36,307	75,192	63,163	22,405	34,142	13,031	9,265	1,356	1,256	8,576	606,926	461,943
1990	648,250	75,872	87,168	77,107	63,305	23,102	46,804	38,023	6,349	3,913	22,175	1,092,068	811,764
1991	657,394	69,281	66,525	96,943	76,475	15,680	23,669	31,197	2,271	940	11,746	1,052,121	846,492
1992	257,969	61,244	26,833	69,083	65,966	35,187	31,044	27,396	2,251	9,267	10,294	596,534	428,205
1993	208,407	27,174	34,386	38,142	17,259	11,787	6,925	7,779	340	876	1,300	354,375	275,595
1994	459,073	35,644	56,845	152,287	13,581	22,616	7,373	10,029	1,724	2,433	5,248	766,853	647,557
1995	202,343	16,457	13,617	30,152	4,312	30,022	8,684	2,552	586	696	830	310,251	266,829
1996	252,436	17,481	1,484	99,599	26,447	27,746	9,061	246	945	0	689	436,134	406,228
1997	126,169	10,932	10,259	790	12,849	4,170	3,948	2,638	179	83	492	172,509	143,978
1998	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	219,404	69,135	2,318	43,261	56,736	35,029	10,775	94,269	36,255	2,367	2,655	572,202	354,429
60-69 AVG	234,822	96,014	12,465	38,455	77,104	104,788	47,147	98,334	28,365	4,310	16,185	757,989	455,169
70-79 AVG	168,709	108,712	12,424	28,781	27,924	47,576	33,736	85,281	53,835	12,419	14,098	593,495	272,989
80-89 AVG	314,769	74,215	51,737	61,930	45,682	22,123	25,767	30,558	15,410	11,043	19,469	672,704	444,505
90-98 AVG	312,449	34,898	33,013	62,678	31,133	18,923	15,279	13,318	1,627	2,023	5,864	531,205	425,183

Table C16. Weekly coho saleslip catch for all gear combined, Canadian Statistical Areas 1, 3, 4 and 5 combined.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	2	6,128	18,507	44,735	48,354	45,895	58,492	42,601	35,587	35,646	45,084	20,770	26,344	12,506	8,152	4,584	2,030	332	634	0	0	0
1953	0	0	0	0	0	2,442	5,661	9,434	13,098	29,606	33,360	33,065	28,990	41,566	38,826	35,398	53,644	29,066	19,519	12,202	133	61	4	0	0	0
1954	0	0	0	0	0	450	508	1,821	3,037	16,237	61,210	69,839	53,479	46,001	31,897	68,014	61,577	34,566	24,974	26,895	16,955	2,957	511	0	0	0
1955	0	0	0	0	18	262	1,802	4,438	16,566	60,946	101,134	82,384	60,940	77,563	79,922	69,668	35,720	43,603	35,343	12,514	9,228	6,206	759	0	1,067	8,906
1956	0	0	0	24	375	5,160	16,290	58,078	46,311	51,154	50,136	54,340	44,331	52,701	40,157	53,596	33,124	24,613	16,307	19,625	1,891	1,718	0	0	0	0
1957	0	0	0	0	934	8,356	23,162	80,455	75,289	51,387	51,444	44,718	59,575	52,555	45,791	29,303	23,698	27,772	23,517	14,513	2,921	3,132	0	0	0	0
1958	0	0	0	0	15	10,092	7,012	18,609	20,238	26,228	50,296	53,327	33,124	58,866	48,986	42,123	31,772	28,190	15,653	7,213	3,673	785	0	0	0	0
1959	0	0	0	0	0	4,594	3,695	14,161	31,914	32,931	36,713	40,499	2,183	21,453	51,030	49,855	29,945	22,578	16,928	1,237	0	0	56	0	0	0
1960	0	0	0	0	0	3,934	9,128	15,153	35,064	23,418	26,256	26,986	29,813	26,464	31,031	33,042	28,239	26,210	17,828	11,383	35	0	0	0	0	0
1961	0	0	0	7	629	29,737	31,656	69,277	43,569	20,036	12,954	25,495	36,456	29,729	29,128	35,729	33,206	19,128	7,446	930	0	0	0	0	0	0
1962	0	0	0	1	680	13,280	54,275	84,326	77,996	92,464	62,094	42,111	52,092	57,666	53,622	54,622	39,333	34,404	30,568	1,075	0	0	0	0	0	0
1963	0	0	0	0	108	4,473	15,854	55,476	75,178	88,120	27,957	88,662	39,464	128,921	62,773	44,217	19,699	15,394	18,505	11,216	0	0	0	0	0	0
1964	0	0	0	0	0	15,617	36,107	58,808	67,320	76,675	91,636	88,001	110,014	100,391	82,161	68,316	44,722	34,023	15,968	7,025	82	85	0	0	1	0
1965	0	0	0	0	0	459	4,147	13,799	39,017	84,922	84,800	73,501	82,299	69,619	75,211	39,404	41,476	39,860	23,504	21,277	694	65	3	0	0	0
1966	0	0	0	0	0	6,565	88,900	70,449	61,549	84,434	108,532	130,913	129,754	105,516	100,551	69,137	44,209	46,073	42,953	28,715	16,668	11,548	1	27	0	0
1967	0	0	0	4	383	8,309	14,435	32,187	49,320	63,749	65,224	50,744	42,597	26,641	18,964	23,597	12,550	8,754	5,329	2,621	597	324	101	0	0	0
1968	0	1	0	0	2,337	55,737	92,600	116,031	108,775	140,769	119,286	104,554	71,009	57,499	53,029	54,267	38,802	38,157	32,621	14,693	7,569	998	24	0	0	0
1969	0	0	0	0	1	3,928	11,875	16,411	40,557	40,492	73,504	53,138	53,565	29,365	20,702	16,216	32,624	18,212	11,219	2,037	606	197	107	89	3	0
1970	0	0	180	0	53	8,409	41,007	48,415	56,692	63,341	63,268	56,734	34,602	38,206	48,713	37,729	25,576	25,839	24,541	13,921	422	313	0	0	0	0
1971	0	0	0	62	1	1,851	6,879	15,155	24,031	28,314	50,039	38,818	56,139	53,651	74,125	38,467	48,381	31,229	20,820	13,257	5,124	549	242	304	3	0
1972	0	0	0	0	40	2,548	17,581	32,801	77,715	81,771	108,660	71,377	82,921	66,591	40,703	34,432	23,006	32,417	24,141	23,469	4,055	1,633	21	0	0	0
1973	0	0	0	0	331	3,772	12,739	33,043	21,030	15,925	61,914	39,994	31,065	44,426	41,739	12,118	15,496	8,256	3,728	2,080	374	309	93	0	1	0
1974	0	0	0	0	274	15,288	30,038	25,560	28,754	26,194	15,187	19,535	28,865	29,308	21,250	26,128	21,163	25,376	8,992	2,576	1,820	836	66	0	69	1
1975	0	0	0	0	25	2,540	9,052	20,611	25,317	35,623	24,571	21,899	7,216	23,153	13,691	13,560	21,926	25,907	12,276	2,977	2,706	657	1	0	0	0
1976	0	0	0	0	5	700	7,177	21,355	21,413	23,020	15,211	10,642	15,471	14,461	15,289	13,123	11,198	16,806	13,728	11,217	2,356	728	69	18	10	0
1977	0	0	0	5	11	207	1,407	886	2,640	5,781	11,000	26,075	36,211	45,060	28,422	38,539	26,312	27,995	22,684	464	231	84	6	201	34	0
1978	0	0	0	37	301	4,436	22,503	53,286	61,430	51,869	32,650	51,824	56,797	55,929	33,058	28,130	19,683	24,859	16,644	3,285	940	261	0	0	0	0
1979	0	0	0	37	17	3,055	8,905	17,801	52,350	62,112	83,744	57,463	34,806	42,431	22,121	16,446	10,079	15,135	3,672	806	413	311	6	5	0	0
1980	0	0	0	13	47	5,667	14,390	35,014	49,712	62,970	68,029	70,883	38,482	26,132	33,827	24,186	19,113	13,923	3,537	918	697	543	520	163	0	5
1981	0	0	0	0	0	7	653	4,305	12,858	18,082	51,058	74,308	41,771	37,101	26,158	19,789	14,584	16,279	7,440	5,173	2,187	15	0	0	0	0
1982	0	0	0	134	1	7	454	14,449	32,216	59,623	59,186	80,142	37,719	27,965	53,887	19,256	22,509	14,537	11,344	2,624	3,784	61	0	0	0	0
1983	0	0	0	0	51	0	0	3,275	76,873	104,415	93,524	188,489	102,051	61,812	62,498	46,041	29,529	17,296	8,890	12,121	7,964	0	0	0	0	0
1984	0	0	0	0	0	0	0	16,546	62,804	42,660	75,365	85,660	82,691	58,386	55,577	47,674	33,069	26,699	28,248	4,852	1,865	1	3	0	0	0
1985	0	0	0	0	0	0	0	18,345	103,807	83,778	89,916	87,109	64,041	48,588	31,330	29,647	9,544	7,897	7,266	4,849	8,923	89	117	326	0	0
1986	0	0	0	0	0	1,190	59,931	88,584	122,764	139,168	191,290	100,372	103,237	72,878	49,055	73,778	83,604	11,704	8,043	0	0	790	719	42	0	0
1987	0	0	0	0	0	0	0	2,788	80,873	64,551	79,806	94,941	57,362	29,896	29,545	26,877	12,561	11,067	1,623	164	141	0	0	0	0	0
1988	0	0	0	0	0	0	0	204	22,065	50,918	61,092	44,972	38,987	28,624	33,174	22,543	5,442	19,179	1,712	87	154	239	0	0	0	77
1989	0	0	0	0	0	0	751	54,581	122,514	83,066	114,753	32,559	46,664	67,589	35,650	31,997	19,253	1,343	0	161	174	0	0	0	0	0
1990	0	0	0	0	0	0	6,482	150,128	128,350	182,008	122,546	118,194	68,418	56,200	25,874	28,227	19,514	26,925	14,728	7,220	3,501	37	0	0	0	0
1991	0	0	0	0	0	0	508	66,679	117,855	192,945	126,292	140,814	138,194	31,017	41,997	39,018	45,385	33,305	33,926	14,909	7,365	29	0	0	0	0
1992	0	0	0	0	0	1	0	5,556	48,846	60,792	49,399	42,898	63,160	98,712	33,341	66,974	25,254	19,803	21,383	3,618	913	0	0	0	0	0
1993	0	0	0	0	0	0	156	5,210	27,169	39,393	82,883	57,997	99,220	16,084	12,556	14,387	18,187	19,908	9,494	8	9	0	0	0	0	0
1994	0	0	0	0	0	0	55	3,197	20,936	57,091	121,370	214,091	164,945	76,885	33,309	27,868	42,777	28,913	17,716	4,718	2,859	38	0	0	0	0
1995	0	0	0	0	17	631	1,388	19,136	43,591	28,786	30,525	59,620	29,696	58,472	27,050	40,078	19,783	13,154	5,409	32	394	0	0	0	0	0
1996	0	0	0	0	0	250	387	3,553	20,253	54,414	78,597	81,460	61,704	69,437	44,164	40,631	28,562	20,752	17,708	12,258	596	0	683	254	0	0
1997	0	0	0	0	0	2	6	509	7,933	16,235	37,067	16,398	41,002	23,164	9,788	9,706	9,563	1,118	353	94	983	0	3	0	0	0
1998	0	0	0	0	0	0	0	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	3	168	4,686	9,580	28,966	31,851	39,298	55,348	52,597	39,776	48,294	47,712	46,091	36,978	27,862	20,049	12,348	4,604	1,899	246	0	133	1,113
60-69 AVG	0	0	0	1	414	14,204	35,898	53,192	59,835	71,508	67,224	68,411	64,706	63,181	52,717	43,855	33,486	28,022	20,594	10,097	2,625	1,322	24	12	0	0
70-79 AVG	0	0	18	14	106	4,281	15,729	26,891	37,137	39,395	46,624	39,436	38,409	41,322	33,911	25,867	22,282	23,382	15,123	7,405	1,844	568	50	53	12	0
80-89 AVG	0	0	0	15	10	687	7,618	23,809	68,649	70,923	88,402	85,944	61,301	45,897	41,070	34,179	24,921	13,992	7,810	3,095	2,589	174	136	53	0	8
90-98 AVG	0	0	0	0	2	98	998	28,219	46,104	70,185	72,076	81,275	74,038	47,775	25,342	29,654	23,225	18,209	13,413	4,762	1,847	12	76	28	0	0

Table C17. Weekly gillnet coho saleslip catch, Canadian Statistical Areas 1, 3, 4 and 5 combined.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	0	2	0	623	1,162	3,249	2,195	1,821	8,556	14,814	11,639	3,042	9,869	1,319	252	389	1,615	126	634	0	0	0
1953	0	0	0	0	0	0	0	546	551	1,195	1,750	2,732	2,573	7,526	10,988	13,619	30,578	18,287	11,974	10,376	0	0	0	0	0	0
1954	0	0	0	0	0	3	1	1	369	852	1,074	3,665	8,708	10,760	1,107	34,680	33,841	21,461	14,548	21,702	9,145	134	390	0	0	0
1955	0	0	0	0	0	0	20	800	1,212	2,400	2,595	1,634	3,604	13,393	30,883	38,180	22,071	28,050	26,979	11,267	8,669	6,200	759	0	0	0
1956	0	0	0	24	0	0	577	969	2,628	2,382	3,221	4,335	6,296	21,184	15,748	28,155	16,883	18,966	12,613	17,315	1,437	1,662	0	0	0	0
1957	0	0	0	0	0	0	4	0	19	7	3,124	4,598	16,781	11,743	18,966	13,962	15,466	14,869	18,162	12,507	1,530	1,284	0	0	0	0
1958	0	0	0	0	0	0	1	1,092	2,420	1,198	2,418	6,208	9,587	17,294	10,384	10,579	15,081	16,619	10,569	6,236	3,634	618	0	0	0	0
1959	0	0	0	0	0	0	0	396	1,208	1,138	2,135	3,281	0	0	17,263	29,791	18,384	14,393	13,199	0	0	0	56	0	0	0
1960	0	0	0	0	0	0	0	54	1,711	2,754	2,730	5,623	5,313	11,431	14,891	16,473	14,443	14,824	12,129	9,393	0	0	0	0	0	0
1961	0	0	0	0	5	1	1,123	3,701	1,850	2,225	1,648	4,256	6,075	9,820	12,241	18,150	21,674	11,607	6,142	541	0	0	0	0	0	0
1962	0	0	0	0	0	265	4,566	11,252	9,690	9,343	13,739	14,942	15,107	22,828	26,109	31,138	25,805	25,106	23,947	952	0	0	0	0	0	0
1963	0	0	0	0	0	0	116	4,339	10,245	12,945	3	965	1,338	75,917	27,750	24,215	11,428	9,980	14,655	10,231	0	0	0	0	0	0
1964	0	0	0	0	0	0	3	791	6,186	10,443	13,112	15,796	26,969	41,723	30,739	38,338	26,091	22,132	11,751	6,200	0	85	0	0	0	0
1965	0	0	0	0	0	0	10	685	2,405	2,372	15,519	14,633	21,465	18,535	50,601	22,490	21,687	28,457	17,506	19,158	0	0	0	0	0	0
1966	0	0	0	0	0	0	1	591	9,329	7,371	9,144	23,502	29,508	37,700	41,540	37,227	27,971	34,026	34,796	24,074	15,533	11,375	0	0	0	0
1967	0	0	0	0	0	0	370	1,549	10,081	7,827	15,956	15,637	17,033	9,962	1,718	14,744	5,785	7,165	4,365	2,418	576	317	101	0	0	0
1968	0	0	0	0	0	6	3,813	10,432	20,580	18,212	22,864	24,890	22,931	20,951	27,941	24,560	17,022	18,917	24,811	12,693	7,180	962	0	0	0	0
1969	0	0	0	0	0	0	1,055	2,599	9,447	4,878	7,916	9,882	9,692	12,798	9,186	8,494	23,970	12,650	7,405	289	119	163	89	82	0	0
1970	0	0	0	0	46	0	8,829	11,887	15,296	11,632	20,085	18,839	16,252	19,476	26,368	25,041	18,933	19,915	20,812	12,498	328	253	0	0	0	0
1971	0	0	0	62	1	0	393	2,338	175	1,006	8,258	19,315	11,631	14,050	35,525	15,899	28,903	19,734	15,182	11,596	4,674	488	242	297	1	0
1972	0	0	0	0	40	0	0	7,177	14,803	17,372	21,578	12,701	14,927	23,487	15,833	14,314	12,683	18,230	13,725	16,206	274	163	0	0	0	0
1973	0	0	0	0	0	0	591	2,182	3,272	369	5,727	7,242	9,544	10,279	14,799	1,241	7,509	4,256	1,775	1,507	39	128	91	0	0	0
1974	0	0	0	0	0	0	3,616	2,463	7,791	2,321	2,363	2,735	4,917	6,312	116	7,518	14,247	16,585	4,068	107	84	463	56	0	69	1
1975	0	0	0	0	0	28	508	2,445	5,872	6,273	2,585	10,940	1,862	2,375	5,022	2,508	12,188	16,392	6,193	219	862	425	0	0	0	0
1976	0	0	0	0	0	70	45	1,064	2,438	3,384	1,970	2,363	4,257	4,245	1,906	5,419	5,090	9,852	9,582	7,716	60	167	0	0	0	0
1977	0	0	0	0	0	0	196	54	138	822	3,344	4,629	6,158	16,996	5,156	11,918	6,957	16,351	13,380	188	5	1	0	182	34	0
1978	0	0	0	37	0	75	630	1,330	10,334	9,903	3,563	10,133	10,922	11,471	14,705	7,259	9,632	11,750	9,484	3	157	219	0	0	0	0
1979	0	0	0	37	0	0	67	632	904	2,098	9,598	12,404	9,516	15,137	3,913	1,883	24	11,932	1,982	100	0	0	0	0	0	0
1980	0	0	0	0	0	0	425	5,149	10,148	6,989	7,993	7,318	8,649	2,482	3,033	5,807	6,100	4,826	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	2	557	2,702	2,162	3,224	7,937	5,206	5,987	7,650	5,347	3,932	2,060	2,167	55	44	24	0	0	0	0	0
1982	0	0	0	0	0	7	240	370	2,008	11,653	8,481	8,167	9,651	4,233	12,121	4,895	4,537	3,799	3,929	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	2	19	117	5,945	12,713	10,316	10,599	12,573	13,038	7,988	14	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	145	81	1,506	5,142	7,042	10,749	9,819	16,144	9,837	5,819	4,048	0	0	0	0	3	0	0	0
1985	0	0	0	0	0	0	0	0	5,283	11,273	13,236	8,553	8,205	9,169	7,968	5,418	0	0	0	15	3	46	35	0	0	0
1986	0	0	0	0	0	0	0	0	57	1,714	4,802	7,448	8,467	7,398	9,086	13,284	16,168	6,740	1,040	0	0	399	312	42	0	0
1987	0	0	0	0	0	0	0	0	0	572	1,381	2,851	3,126	4,862	6,412	4,605	958	75	33	119	123	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	281	1,284	5,909	4,630	2,418	5,065	3,131	6,116	1,446	0	19	0	154	239	0	0	0	77
1989	0	0	0	0	0	0	296	2,492	6,059	14,941	17,272	1,847	2,021	5,205	5,139	4,155	1,758	0	0	161	174	0	0	0	0	0
1990	0	0	0	0	0	0	804	1,427	4,226	2,999	4,688	11,016	11,391	15,410	7,808	6,734	3,385	5,422	2,769	116	0	37	0	0	0	0
1991	0	0	0	0	0	0	0	775	1,670	5,132	11,146	12,068	13,948	6,340	6,227	5,802	4,604	0	0	0	42	29	0	0	0	0
1992	0	0	0	0	0	1	0	0	4,485	4,694	4,976	5,078	11,241	7,290	6,962	6,113	529	1,742	2,175	38	0	0	0	0	0	0
1993	0	0	0	0	0	0	156	3,289	12,317	11,504	10,870	7,422	8,941	3,934	2,152	1,506	1,811	1,654	630	8	9	0	0	0	0	0
1994	0	0	0	0	0	0	55	1,484	3,130	7,132	16,882	32,848	18,226	10,191	3,576	2,294	1,996	680	0	1,404	2,840	38	0	0	0	0
1995	0	0	0	0	17	631	774	7,054	13,552	7,535	8,480	8,791	2,825	2,037	2,264	2,806	438	10	3,212	32	0	0	0	0	0	0
1996	0	0	0	0	0	250	387	3,553	15,963	14,127	12,285	11,970	6,781	5,550	4,659	41	887	33	1,063	1,501	26	0	0	0	0	0
1997	0	0	0	0	0	2	6	329	3,232	9,406	7,155	5,787	2,446	87	10	5	1	0	6	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	3	0	1	75	553	1,196	1,553	2,314	3,534	7,013	12,089	14,622	21,501	20,272	16,746	13,537	9,974	3,254	1,253	230	0	0	0
60-69 AVG	0	0	0	0	1	27	1,106	3,599	8,152	7,837	10,263	13,013	15,543	26,167	24,272	23,583	19,588	18,486	15,751	8,595	2,341	1,290	19	8	0	0
70-79 AVG	0	0	0	14	9	17	1,488	3,157	6,102	5,518	7,907	10,130	8,999	12,383	12,334	9,300	11,617	14,500	9,618	5,014	648	231	39	48	10	0
80-89 AVG	0	0	0	0	0	1	152	1,086	2,610	5,327	7,810	6,578	6,959	6,648	8,095	7,109	4,683	2,167	508	32	49	64	36	8	0	8
90-98 AVG	0	0	0	0	2	98	242	1,990	6,508	6,948	8,498	10,553	8,422	5,649	3,740	2,811	1,517	1,060	1,095	344	324	12	0	0	0	0

Table C18. Weekly seine coho saleslip catch, Canadian Statistical Areas 1, 3, 4, and 5 combined.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	0	0	0	0	110	416	677	814	2,679	2,904	4,798	3,328	2,692	60	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	8	33	39	199	255	1,320	2,391	3,598	2,148	1,543	3,700	2,704	0	133	39	4	0	0	0
1954	0	0	0	0	0	0	0	0	2	72	244	560	711	2,368	492	7,113	6,849	1,653	168	248	####	2,588	121	0	0	0
1955	0	0	0	0	0	0	0	0	4	62	109	267	1,141	2,536	5,020	2,266	3,073	2,366	156	98	455	0	0	0	0	####
1956	0	0	0	0	0	0	0	0	31	128	698	1,871	4,197	8,228	6,095	9,409	5,298	785	258	1,394	439	56	0	0	0	0
1957	0	0	0	0	0	0	10	0	0	2	535	720	4,322	5,921	4,332	1,218	323	1,010	66	1,146	485	1,848	0	0	0	0
1958	0	0	0	0	0	0	0	24	133	431	1,167	3,585	7,356	11,182	8,668	2,311	34	971	592	0	29	167	0	0	0	0
1959	0	0	0	0	0	0	0	2	3	151	313	968	0	0	4,994	1,963	1,335	1,583	876	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	188	255	434	1,020	823	796	1,687	2,894	1,785	1,324	774	445	0	0	0	0	0	0
1961	0	0	0	0	0	0	66	229	180	721	1,168	1,382	3,663	5,279	3,391	4,840	2,801	592	240	244	0	0	0	0	0	0
1962	0	0	0	0	0	0	1	98	520	2,176	1,239	685	1,421	5,423	1,820	6,355	4,816	4,973	2,819	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	1	66	221	983	0	730	124	7,247	5,522	3,567	186	269	1,299	19	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	16	393	713	734	4,071	6,940	9,591	9,999	9,411	6,916	6,820	1,378	18	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	59	59	140	1,113	2,480	3,325	5,271	9,481	5,308	10,761	6,332	2,958	76	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	1	957	1,657	2,318	8,086	8,326	15,145	17,913	11,558	4,438	3,842	2,519	1,058	71	164	0	0	0	0
1967	0	0	0	0	0	0	2	26	112	668	3,154	4,277	7,557	4,301	70	1,152	942	339	42	0	0	4	0	0	0	0
1968	0	0	0	0	0	4	747	1,923	3,963	5,205	6,375	3,199	3,907	3,316	6,769	8,089	5,124	6,525	1,079	460	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	3	61	457	620	1,187	649	2,170	1,413	1,337	3,102	2,558	67	0	5	0	0	0	0	0
1970	0	0	0	0	0	0	113	753	610	1,604	1,024	1,092	1,824	4,007	11,181	3,474	1,048	1,499	1,706	679	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	195	170	1,646	1,422	3,196	6,400	3,801	8,113	2,682	225	0	8	4	0	0	0	0
1972	0	0	0	0	0	0	0	1,279	2,285	1,483	1,820	2,267	4,014	4,082	3,459	2,073	777	2,061	712	886	13	2	0	0	0	0
1973	0	0	0	0	0	0	1	66	446	23	1,983	1,953	1,805	1,058	1,241	0	174	3	3	1	3	18	1	0	0	0
1974	0	0	0	0	0	0	125	18	1,160	863	555	1,720	2,429	1,084	1	885	1,463	843	0	0	31	212	0	0	0	0
1975	0	0	0	0	0	0	16	77	1,587	1,863	714	3,763	1,779	2,191	3,295	350	1,332	1,273	958	2	3	0	0	0	0	0
1976	0	0	0	0	0	12	0	481	332	307	505	1,271	2,128	2,986	45	580	1,247	1,984	4	760	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	59	364	205	1,153	2,352	6,951	6,402	4,161	2,665	516	1,419	2,182	0	0	27	0	0	0	0
1978	0	0	0	0	0	121	601	1,191	5,802	10,209	2,337	9,947	15,000	11,903	6,416	2,828	439	262	0	0	38	1	0	0	0	0
1979	0	0	0	0	0	0	15	173	570	774	16,049	6,308	13,044	3,727	2,567	789	0	611	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	24	464	1,940	5,895	5,588	5,185	4,916	6,387	1,849	1,595	1,877	2,357	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	96	432	508	2,212	6,050	5,269	6,881	1,960	1,229	689	178	115	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	12	26	177	14,660	14,624	29,472	16,811	4,498	14,196	2,843	5,625	2,646	2,794	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	184	6,377	52,661	27,882	21,006	14,780	14,874	1,089	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	10,256	19,081	8,356	14,564	10,828	8,514	5,893	3,327	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	1	19,626	20,994	18,055	9,145	10,048	1,052	0	0	0	0	2	0	0	134	0	0
1986	0	0	0	0	0	0	0	0	0	0	11,896	18,343	24,075	17,029	13,904	12,443	5,487	4,964	7,003	0	0	391	407	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	4,142	19,811	19,499	11,741	7,617	7,673	6	0	0	45	18	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	5,418	4,990	3,638	2,702	3,661	2,357	814	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	45,388	1,918	3,529	24,242	10,490	1,671	354	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	86	83	2,636	10,748	20,326	23,907	7,432	1,427	625	1,041	45	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	110	23,965	26,793	25,944	20,384	11,116	5,349	2,302	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	15	20	7,214	1,377	13,265	19,481	7,113	7,703	37	896	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	1	1	54	10,048	33,493	7,170	4,825	843	2,181	2,247	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	47	14,643	28,792	13,088	5,921	3,939	0	0	5	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	2,616	7,307	12,380	9,936	10,897	5,165	2,174	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	5,295	8,081	14,440	8,405	9,723	2,966	1	835	191	422	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	323	349	484	40	278	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	0	0	1	4	40	163	493	1,130	2,716	4,441	4,750	3,720	2,643	1,516	603	361	####	587	16	0	0	####
60-69 AVG	0	0	0	0	0	0	82	242	665	1,298	1,716	2,712	3,674	5,854	5,807	5,451	4,087	3,357	1,318	232	8	17	0	0	0	0
70-79 AVG	0	0	0	0	0	13	87	410	1,316	1,753	2,631	3,232	5,040	4,064	3,877	1,745	1,511	1,264	579	233	10	26	0	0	0	0
80-89 AVG	0	0	0	0	0	0	13	92	263	2,295	12,937	17,772	13,364	11,327	8,860	5,371	2,132	1,341	980	5	2	39	41	13	0	0
90-98 AVG	0	0	0	0	0	0	0	0	11	903	5,514	10,086	15,627	11,632	4,980	2,382	664	486	52	0	0	0	0	0	0	0

Table C19. Weekly troll coho saleslip catch,* Canadian Statistical Areas 1, 3, 4, and 5 combined.

	JULIAN/STATISTICAL WEEK NUMBER																									
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
YEAR	45	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104
1952	0	0	0	0	0	2	6,126	18,507	44,112	47,082	42,230	55,620	39,966	24,352	17,928	28,647	14,400	13,783	11,127	7,900	4,195	415	206	0	0	0
1953	0	0	0	0	0	0	2,442	5,661	8,880	12,514	28,372	31,411	30,078	25,097	31,649	24,240	19,631	21,523	7,079	4,841	1,826	0	22	0	0	0
1954	0	0	0	0	0	0	447	507	1,820	2,666	15,313	59,892	65,614	44,060	32,873	30,298	26,221	20,887	11,452	10,258	4,945	102	235	0	0	0
1955	0	0	0	0	0	18	262	1,782	3,638	15,350	58,484	98,430	80,483	56,195	61,634	44,019	29,222	10,576	13,187	8,208	1,149	104	6	0	0	1,067
1956	0	0	0	0	0	375	5,160	15,713	57,109	43,652	48,644	46,217	48,134	33,838	23,289	18,314	16,032	10,943	4,862	3,436	916	15	0	0	0	0
1957	0	0	0	0	0	934	8,356	23,148	80,455	75,270	51,378	47,785	39,400	38,472	34,891	22,493	14,123	7,909	11,893	5,289	860	906	0	0	0	0
1958	0	0	0	0	0	15	10,092	7,011	17,493	17,685	24,599	46,711	43,534	16,181	30,390	29,934	29,233	16,657	10,600	4,492	977	10	0	0	0	0
1959	0	0	0	0	0	0	4,594	3,695	13,763	30,703	31,642	34,265	36,250	2,183	21,453	28,773	18,101	10,226	6,602	2,853	1,237	0	0	0	0	0
1960	0	0	0	0	0	0	3,934	9,128	15,099	33,165	20,409	23,092	20,343	23,677	14,237	14,453	13,675	12,011	10,062	4,925	1,545	35	0	0	0	0
1961	0	0	0	0	7	624	29,736	30,467	65,347	41,539	17,090	10,138	19,857	26,718	14,630	13,496	12,739	8,731	6,929	1,064	145	0	0	0	0	0
1962	0	0	0	0	1	680	13,015	49,708	72,976	67,786	80,945	47,116	26,484	35,564	29,415	25,693	17,129	8,712	4,325	3,802	123	0	0	0	0	0
1963	0	0	0	0	0	108	4,473	15,737	51,071	64,712	74,192	27,954	86,967	38,002	45,757	29,501	16,435	8,085	5,145	2,551	966	0	0	0	0	0
1964	0	0	0	0	0	0	15,617	36,104	58,001	60,741	65,519	77,790	68,134	76,105	49,077	41,423	20,567	11,715	5,071	2,839	807	82	0	0	0	1
1965	0	0	0	0	0	0	459	4,137	13,055	36,553	82,410	68,168	56,388	57,509	45,813	15,129	11,606	9,028	5,071	3,040	2,043	694	65	3	0	0
1966	0	0	0	0	0	0	6,565	88,899	69,857	51,263	75,406	97,070	99,325	91,920	52,671	41,098	20,352	11,800	8,205	5,638	3,583	1,064	9	1	27	0
1967	0	0	0	0	4	383	8,309	14,063	30,612	39,127	55,254	46,114	30,830	18,007	12,378	17,176	7,701	5,823	1,250	922	203	21	3	0	0	0
1968	0	0	1	0	0	2,337	55,727	88,040	103,676	84,232	117,352	90,047	76,465	44,171	33,232	18,319	21,618	16,656	12,715	6,731	1,540	389	36	24	0	0
1969	0	0	0	0	0	1	3,928	10,820	13,809	31,049	35,157	64,968	42,069	43,224	14,397	10,103	6,385	5,552	3,004	3,747	1,748	482	34	18	7	3
1970	0	0	0	180	0	7	8,409	32,065	35,775	40,786	50,105	42,159	36,803	16,526	14,723	11,164	9,214	5,595	4,425	2,023	744	94	60	0	0	0
1971	0	0	0	0	0	0	1,851	6,486	12,817	23,856	27,113	41,611	17,857	43,086	36,405	32,200	18,767	11,365	8,813	5,413	1,661	442	57	0	7	2
1972	0	0	0	0	0	0	2,548	17,581	24,345	60,627	62,916	85,262	56,409	63,980	39,022	21,411	18,045	9,546	12,126	9,704	6,377	3,768	1,468	21	0	0
1973	0	0	0	0	0	331	3,772	12,147	30,795	17,312	15,533	54,204	30,799	19,716	33,089	25,699	10,877	7,813	3,997	1,950	572	332	163	1	0	1
1974	0	0	0	0	0	274	15,288	26,297	23,079	19,803	23,010	12,269	15,080	21,519	21,912	21,133	17,725	5,453	7,948	4,924	2,469	1,705	161	10	0	0
1975	0	0	0	0	0	25	2,512	8,528	18,089	17,858	27,487	21,272	7,196	3,575	18,587	5,374	10,702	8,406	8,242	5,125	2,756	1,841	232	1	0	0
1976	0	0	0	0	0	5	618	7,132	19,810	18,643	19,329	12,736	7,008	9,086	7,230	13,338	7,124	4,861	4,970	4,142	2,741	2,296	561	69	18	10
1977	0	0	0	0	5	11	207	1,211	773	2,138	4,754	6,503	19,094	23,102	21,662	19,105	23,956	18,839	10,225	7,122	276	226	56	6	19	0
1978	2	0	0	0	0	301	4,240	21,272	50,765	45,294	31,757	26,750	31,744	30,875	32,555	11,937	18,043	9,612	12,847	7,160	3,282	745	41	0	0	0
1979	0	0	0	0	0	17	3,055	8,823	16,996	50,876	59,240	58,097	38,751	12,246	23,567	15,641	13,774	10,055	2,592	1,690	706	413	311	6	5	0
1980	0	0	0	0	13	47	5,667	13,941	29,401	37,624	50,086	54,448	58,380	24,917	17,263	28,945	16,784	11,136	6,740	3,537	918	697	543	520	163	0
1981	0	0	0	0	0	0	5	0	1,171	10,188	12,646	37,071	63,833	28,903	27,491	19,582	15,168	12,346	13,997	7,385	5,129	2,163	15	0	0	0
1982	14	0	0	0	134	1	0	202	14,053	30,031	33,310	36,081	42,503	11,257	19,234	27,570	11,518	12,347	8,092	4,621	2,624	3,784	61	0	0	0
1983	0	0	0	0	0	51	0	0	3,273	76,854	104,114	81,202	123,115	63,853	30,207	35,145	18,129	20,452	17,282	8,890	12,121	7,964	0	0	0	0
1984	0	0	0	0	0	0	0	0	16,401	62,723	41,154	59,967	59,537	63,586	34,003	28,605	29,323	21,357	19,324	28,248	4,852	1,865	1	0	0	0
1985	0	0	0	0	0	0	0	0	18,345	98,524	72,504	57,054	57,562	37,781	30,274	13,314	23,177	9,544	7,897	7,266	4,849	8,906	86	71	157	0
1986	0	0	0	0	0	0	1,190	59,931	88,584	122,707	137,454	174,592	74,581	70,695	48,451	26,065	48,051	61,949	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	2,788	80,873	63,979	74,283	72,279	34,737	13,293	15,516	14,599	11,597	10,992	1,590	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	204	21,784	49,634	49,765	35,352	32,931	20,857	26,382	14,070	3,182	19,179	1,693	87	0	0	0	0	0
1989	0	0	0	0	0	0	0	455	52,089	116,455	68,125	52,093	28,794	41,114	38,142	20,021	26,171	17,141	1,343	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	5,678	148,701	124,038	178,926	115,222	96,430	36,701	16,883	10,634	20,066	15,504	20,462	11,914	7,104	3,501	0	0	0	0
1991	0	0	0	0	0	0	0	508	65,904	116,185	187,703	91,181	101,953	98,302	4,293	24,654	27,867	38,479	33,305	33,926	14,909	7,323	0	0	0	0
1992	0	0	0	0	0	0	0	0	5,556	44,346	56,078	37,209	36,443	38,654	71,941	19,266	53,158	24,688	17,165	19,208	3,580	913	0	0	0	0
1993	0	0	0	0	0	0	0	0	1,921	14,851	27,888	71,959	40,527	56,786	4,980	5,579	12,038	14,195	16,007	8,864	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	1,713	17,806	49,959	104,441	166,600	117,927	53,606	23,812	21,635	40,781	28,233	17,711	3,314	19	0	0	0	0
1995	0	0	0	0	0	0	0	614	12,082	30,039	18,635	14,738	38,449	16,935	45,538	19,621	35,098	19,345	13,144	2,197	0	394	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	4,290	34,992	58,231	55,050	46,518	54,164	36,539	40,589	26,840	20,528	16,223	10,757	570	0	683	254	0
1997	0	0	0	0	0	0	0	0	180	4,701	6,829	29,589	10,262	38,072	23,037	9,500	9,701	9,562	1,118	347	94	983	0	3	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	0	168	4,685	9,503	28,409	30,615	37,583	52,541	47,932	30,047	31,763	28,340	20,870	14,063	9,600	5,910	2,013	194	59	0	0	133
60-69 AVG	0	0	0	0	1	413	14,176	34,710	49,350	51,017	62,373	55,246	52,686	45,490	31,161	22,639	14,821	9,811	6,178	3,526	1,270	277	15	5	3	0
70-79 AVG	0	0	0	18	1	97	4,250	14,154	23,324	29,719	32,124	36,086	26,074	24,371	24,875	17,700	14,823	9,155	7,619	4,925	2,158	1,186	311	11	5	1
80-89 AVG	1	0	0	0	15	10	686	7,453	22,631	65,776	63,301	67,656	61,594	40,977	27,922	24,115	21,699	18,105	10,485	6,323	3,058	2,538	71	59	32	0
90-98 AVG	0	0	0	0	0	0	0	756	26,229	39,584	62,334	58,063	60,635	49,988	30,494	16,623	24,461	21,044	16,662	12,266	4,418	1,523	0	76	28	0

*Weekly saleslip information corrected by lagging data back 1 week to reflect actual date of catch.

Table C20. Weekly coho saleslip catch for all gear combined, Canadian Statistical Area 1.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	2	2,747	9,338	30,117	16,255	19,465	22,470	14,449	9,563	6,591	9,341	2,614	2,026	101	981	776	323	206	0	0	0	0
1953	0	0	0	0	0	1,095	3,843	5,740	7,410	26,652	29,722	24,185	19,875	25,964	15,584	8,130	8,519	1,794	197	651	133	61	4	0	0	0
1954	0	0	0	0	0	302	266	1,349	1,462	8,903	35,871	31,394	31,473	24,699	23,171	18,549	11,638	5,079	2,563	2,094	7,722	2,957	121	0	0	0
1955	0	0	0	0	2	68	463	1,097	11,056	53,622	85,771	50,675	42,800	51,690	32,229	21,429	6,092	5,619	2,518	70	455	0	0	0	1,067	8,906
1956	0	0	0	24	44	1,261	3,207	36,493	21,213	33,438	27,620	35,368	22,777	13,902	12,292	9,928	5,995	1,791	1,611	2,510	1,876	1,718	0	0	0	0
1957	0	0	0	0	807	6,860	21,462	72,180	64,200	36,818	32,167	17,142	18,652	23,947	13,852	6,674	2,792	4,743	4,109	1,968	2,921	3,132	0	0	0	0
1958	0	0	0	0	10	8,064	3,558	12,690	11,388	17,583	36,889	21,415	6,899	15,993	15,413	14,620	4,476	2,676	540	987	1,409	785	0	0	0	0
1959	0	0	0	0	0	3,586	2,639	10,498	28,529	27,428	26,543	15,764	1,981	13,363	10,443	4,506	2,339	441	1,224	121	0	0	56	0	0	0
1960	0	0	0	0	0	3,411	6,654	11,649	24,911	8,475	15,969	11,258	15,898	5,066	6,441	5,812	4,395	2,672	1,381	462	18	0	0	0	0	0
1961	0	0	0	7	478	25,393	23,357	51,269	26,735	12,371	5,855	11,977	20,697	7,533	5,976	3,886	1,220	2,028	562	785	0	0	0	0	0	0
1962	0	0	0	0	462	8,043	31,288	43,320	44,494	56,518	25,910	18,774	26,373	21,011	13,793	4,703	2,697	1,231	2,511	952	0	0	0	0	0	0
1963	0	0	0	0	21	1,135	7,399	37,732	52,142	56,781	24,395	52,976	18,002	25,849	13,311	8,727	4,159	3,899	2,975	1,767	0	0	0	0	0	0
1964	0	0	0	0	0	9,339	16,444	24,980	33,035	39,183	49,041	37,690	52,924	34,846	24,334	13,851	7,655	3,929	2,324	477	0	0	0	0	0	0
1965	0	0	0	0	0	164	814	4,035	18,557	61,143	50,729	31,240	23,686	21,645	12,335	9,232	3,413	1,788	1,560	614	0	0	0	0	0	0
1966	0	0	0	0	0	1,977	14,261	26,190	17,720	38,714	48,943	48,690	51,596	33,649	30,789	8,582	4,485	4,602	891	1,309	1,568	2,101	0	0	0	0
1967	0	0	0	4	150	1,994	4,031	18,792	32,250	43,175	30,829	24,418	14,434	9,020	11,797	8,143	4,139	820	1,382	980	591	321	101	0	0	0
1968	0	1	0	0	1,819	12,512	27,769	43,756	53,655	50,742	51,473	44,189	32,937	22,380	14,159	5,673	2,288	2,223	1,011	689	654	963	1	0	0	0
1969	0	0	0	0	1	1,876	4,761	11,273	27,274	33,662	61,611	39,886	39,834	15,472	6,306	3,532	983	399	359	367	127	175	89	82	0	0
1970	0	0	0	0	53	6,386	28,195	38,167	38,175	45,654	45,703	35,267	13,692	14,898	6,735	4,276	1,127	439	100	1,155	328	313	0	0	0	0
1971	0	0	0	62	0	871	3,167	10,954	16,719	16,976	33,872	24,802	39,149	34,013	31,434	13,506	3,505	2,179	592	433	329	501	242	298	1	0
1972	0	0	0	0	40	987	5,153	18,234	39,697	38,564	54,107	40,545	30,759	22,693	7,044	7,496	1,839	1,588	1,376	1,188	411	258	0	0	0	0
1973	0	0	0	0	36	929	3,910	13,310	12,000	5,528	24,694	9,052	13,005	25,504	17,947	6,623	3,131	1,399	991	375	291	180	93	0	0	0
1974	0	0	0	0	135	9,742	13,090	16,684	14,421	17,668	4,957	10,998	19,973	18,954	15,579	13,916	3,467	4,701	1,606	378	346	642	66	0	69	1
1975	0	0	0	0	0	1,561	5,538	14,220	16,753	27,326	16,603	7,936	3,137	16,459	2,352	6,786	2,421	3,462	996	1,034	1,130	425	1	0	0	0
1976	0	0	0	0	5	287	2,692	6,659	8,468	9,726	5,517	5,645	6,429	4,449	6,599	4,507	1,980	1,711	1,178	625	442	104	38	0	0	0
1977	0	0	0	0	0	131	701	549	1,291	2,880	4,622	15,078	14,062	18,872	14,577	12,171	7,052	4,435	2,399	285	221	84	6	201	34	0
1978	0	0	0	0	192	3,529	17,964	47,148	41,195	26,593	23,180	28,186	25,913	23,694	6,109	11,134	3,812	7,057	790	307	246	261	0	0	0	0
1979	0	0	0	0	12	2,609	8,143	17,079	48,602	58,028	59,189	35,328	10,238	21,471	12,596	5,302	3,957	1,173	777	608	404	311	0	5	0	0
1980	0	0	0	0	0	4,493	10,674	29,768	46,330	49,273	49,916	52,434	17,698	16,447	22,528	7,657	3,584	3,564	2,344	892	697	543	520	163	0	5
1981	0	0	0	0	0	0	391	2,160	12,381	12,430	35,106	59,171	29,571	21,840	12,833	8,532	6,654	7,452	3,127	1,608	1,140	0	0	0	0	0
1982	0	0	0	134	1	0	17	10,887	23,830	21,754	23,518	31,526	8,375	12,195	11,462	2,392	3,685	2,238	1,324	1,095	2,483	61	0	0	0	0
1983	0	0	0	0	0	0	0	0	33,458	64,190	55,603	79,361	44,483	23,395	20,199	12,007	10,591	5,708	2,203	5,589	5,836	0	0	0	0	0
1984	0	0	0	0	0	0	0	5,807	48,971	30,500	50,801	53,040	47,631	29,532	19,771	18,181	10,815	6,511	15,689	4,540	383	1	3	0	0	0
1985	0	0	0	0	0	0	0	8,346	69,776	59,329	50,975	52,361	30,973	20,579	6,855	19,574	7,788	6,144	6,196	3,805	8,379	89	117	326	0	0
1986	0	0	0	0	0	0	49,873	71,695	89,779	81,473	140,266	49,726	45,552	29,069	17,637	33,270	29,068	547	6,481	0	0	790	719	42	0	0
1987	0	0	0	0	0	0	0	651	67,540	55,174	54,608	64,581	26,061	11,236	13,945	13,235	7,137	6,845	884	164	141	0	0	0	0	0
1988	0	0	0	0	0	0	0	62	11,929	37,027	38,528	33,515	27,335	17,820	21,802	9,136	2,261	15,178	1,619	87	154	239	0	0	0	0
1989	0	0	0	0	0	0	0	36,126	94,735	54,514	45,289	21,901	28,789	32,127	14,602	14,580	6,510	826	0	161	174	0	0	0	0	0
1990	0	0	0	0	0	0	1,635	113,773	105,454	155,721	106,836	80,273	44,834	12,579	5,418	11,362	8,699	11,670	5,154	1,344	697	37	0	0	0	0
1991	0	0	0	0	0	0	24	52,946	97,549	160,366	76,744	83,641	88,185	4,443	19,721	22,455	25,312	14,308	9,803	4,390	1,486	29	0	0	0	0
1992	0	0	0	0	0	0	0	2,585	26,903	36,071	23,167	19,889	29,127	52,000	13,653	35,075	12,856	5,766	5,723	2,354	278	0	0	0	0	0
1993	0	0	0	0	0	0	0	142	12,970	22,008	61,176	36,618	50,741	3,394	2,222	6,332	3,614	9,410	4,647	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	901	12,145	40,153	85,599	141,841	106,550	44,515	13,148	9,182	16,754	5,684	4,063	1,521	26	38	0	0	0	0
1995	0	0	0	0	0	0	27	5,986	25,530	14,052	10,052	33,772	17,885	41,350	14,021	28,384	9,775	7,427	2,202	32	394	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	3,680	20,107	40,206	43,004	26,946	42,426	24,270	26,238	13,788	4,483	5,612	1,333	532	0	244	254	0	0
1997	0	0	0	0	0	0	0	268	4,746	6,933	29,028	11,600	33,173	16,828	9,017	8,743	8,547	1,118	353	94	983	0	3	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	3	108	2,998	5,597	21,271	20,189	27,989	37,132	26,299	19,253	22,019	16,541	10,806	5,485	2,781	1,718	1,147	1,855	1,107	23	0	133	1,113
60-69 AVG	0	0	0	1	293	6,584	13,678	27,300	33,077	40,076	36,476	32,110	29,638	19,647	13,924	7,214	3,543	2,359	1,496	840	296	356	19	8	0	0
70-79 AVG	0	0	0	6	47	2,703	8,855	18,300	23,732	24,894	27,244	21,284	17,636	20,101	12,097	8,572	3,229	2,814	1,081	639	415	308	45	50	10	0
80-89 AVG	0	0	0	13	0	449	6,096	16,550	49,873	46,566	54,461	49,762	30,647	21,424	16,163	13,856	8,809	5,501	3,987	1,794	1,939	172	136	53	0	1
90-98 AVG	0	0	0	0	0	0	187	19,622	32,109	50,601	48,090	50,071	44,160	24,171	11,274	16,419	11,038	6,652	4,173	1,230	488	12	27	28	0	0

Table C21. Weekly gillnet coho saleslip catch, Canadian Statistical Area 1.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	111	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	28	184	48	30	0	0	0	9	67	43	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	9	8	0	0	10	134	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	5	0	0	0	0	0	0	0	0	0
1956	0	0	0	24	0	0	0	0	297	140	196	240	143	360	384	858	723	517	506	796	1,437	1,662	0	0	0	0
1957	0	0	0	0	0	0	4	0	0	0	9	26	2	50	61	70	255	660	912	613	1,530	1,284	0	0	0	0
1958	0	0	0	0	0	0	0	0	128	14	499	830	194	14	35	71	80	0	0	848	1,373	618	0	0	0	0
1959	0	0	0	0	0	0	0	4	0	55	50	160	0	0	21	6	27	235	912	0	0	0	56	0	0	0
1960	0	0	0	0	0	0	0	54	355	347	905	79	22	132	231	961	83	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	41	443	82	39	131	10	71	26	37	81	233	369	496	541	0	0	0	0	0	0
1962	0	0	0	0	0	265	388	525	923	1,001	1,989	2,796	2,806	1,451	890	200	355	178	744	952	0	0	0	0	0	0
1963	0	0	0	0	0	0	116	61	101	645	0	6	0	1,971	1,518	1,461	2,684	2,494	1,109	1,158	0	0	0	0	0	0
1964	0	0	0	0	0	0	2	576	2,206	3,121	2,774	4,091	8,820	5,885	3,293	3,477	3,083	1,572	403	385	0	0	0	0	0	0
1965	0	0	0	0	0	0	8	146	1,074	1,273	9,219	6,687	3,759	2,389	6,773	4,660	855	171	306	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	148	852	573	1,306	4,713	4,694	7,334	8,591	4,343	1,731	2,866	432	812	1,487	1,937	0	0	0	0
1967	0	0	0	0	0	0	361	701	8,743	4,964	2,165	2,670	3,742	2,438	1,718	4,984	625	424	1,085	875	576	317	101	0	0	0
1968	0	0	0	0	0	6	1,971	5,820	12,323	8,585	12,908	14,438	10,986	9,754	7,806	565	488	322	404	680	649	962	0	0	0	0
1969	0	0	0	0	0	0	1,046	2,288	7,708	3,193	4,209	5,179	5,961	6,562	837	1,936	264	2	29	285	119	163	89	82	0	0
1970	0	0	0	0	46	0	7,487	10,241	11,001	4,852	14,749	9,619	3,647	4,805	2,158	231	299	0	0	466	328	253	0	0	0	0
1971	0	0	0	62	0	0	392	2,338	164	900	5,774	13,176	6,434	6,588	9,465	4,629	300	443	160	299	180	462	242	297	1	0
1972	0	0	0	0	40	0	0	7,027	12,367	10,714	11,129	2,932	3,421	4,083	1,126	432	0	0	0	317	274	163	0	0	0	0
1973	0	0	0	0	0	0	553	1,580	2,360	9	251	209	845	154	65	1,155	16	1	2	6	38	128	91	0	0	0
1974	0	0	0	0	0	0	3,413	1,374	3,321	343	372	0	0	0	4	143	100	3	0	107	77	450	56	0	69	1
1975	0	0	0	0	0	28	508	2,157	3,164	2,748	2,580	1,608	0	37	36	20	160	936	76	219	862	425	0	0	0	0
1976	0	0	0	0	0	0	0	827	615	201	362	559	0	0	0	7	20	11	0	0	5	86	0	0	0	0
1977	0	0	0	0	0	0	0	4	4	13	265	400	2	23	6	0	158	0	4	31	0	1	0	182	34	0
1978	0	0	0	0	0	0	0	7	0	0	0	8	0	0	0	28	1	0	0	0	147	219	0	0	0	0
1979	0	0	0	0	0	0	32	557	237	248	0	0	25	65	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	377	5,149	10,123	401	19	0	148	185	140	72	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	346	1,211	2,156	330	150	126	1,046	339	170	66	0	11	0	2	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	46	18	13	13	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	19	33	557	8	22	0	3	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	126	0	2	15	22	7	1	9	36	0	0	0	0	3	0	0	0
1985	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	7	0	0	0	0	15	3	46	35	0	0
1986	0	0	0	0	0	0	0	0	0	0	87	0	0	0	0	2	14	12	46	0	0	399	312	42	0	0
1987	0	0	0	0	0	0	0	0	0	0	52	1	0	6	2	1	0	0	0	119	123	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0	0	26	105	13	1	0	0	0	154	239	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	16	1	7	11	0	0	0	0	161	174	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	2	158	7	0	3	93	0	0	26	0	37	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	13	78	58	0	0	0	0	0	0	42	29	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	82	45	175	126	100	1	213	83	38	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	419	0	0	21	47	99	19	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	76	389	87	92	23	95	0	0	90	7	38	0	0	0	0
1995	0	0	0	0	0	0	0	9	71	202	346	397	137	152	0	0	0	0	5	32	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	13	26	0	0	0	0	0
1997	0	0	0	0	0	0	0	88	498	791	733	2,117	601	86	0	0	0	0	6	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	3	0	0	1	1	57	49	100	161	42	53	63	139	160	183	291	282	544	462	7	0	0	0
60-69 AVG	0	0	0	0	0	27	393	1,076	3,437	2,374	3,561	4,067	4,086	3,794	3,169	2,267	1,040	840	501	569	283	338	19	8	0	0
70-79 AVG	0	0	0	6	9	3	1,239	2,611	3,323	2,003	3,548	2,851	1,437	1,576	1,286	665	105	139	24	145	191	219	39	48	10	0
80-89 AVG	0	0	0	0	0	0	72	636	1,228	91	35	19	178	59	46	16	3	6	5	28	47	64	36	8	0	0
90-98 AVG	0	0	0	0	0	0	0	11	63	110	166	299	156	65	29	25	23	24	13	22	8	12	0	0	0	0

Table C22. Weekly seine coho saleslip catch, Canadian Statistical Area 1.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	0	0	0	0	0	0	0	0	24	28	523	684	916	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	235	0	0	0	0	133	39	4	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	79	140	422	0	0	7,610	2,588	121	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	455	0	0	0	0	8,906
1956	0	0	0	0	0	0	0	0	0	0	0	0	0	0	133	194	0	0	0	1,394	439	56	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	139	0	26	538	485	1,848	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	2	0	0	5	22	53	68	3	0	0	0	29	167	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	36	6	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0	244	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	12	61	127	27	0	34	20	46	2	0	1	1,056	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	1	3	1	0	0	0	0	0	0	661	186	255	1,074	19	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	7	1,895	450	164	92	468	1,210	1,208	1,318	18	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	356	430	64	46	701	1,092	1,780	269	655	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	161	74	334	848	395	178	307	221	384	11	384	71	164	0	0	0	0
1967	0	0	0	0	0	0	2	0	0	0	0	4	0	4	70	10	661	250	0	0	0	4	0	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	73	60	131	153	233	153	613	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	22	314	21	109	0	64	0	6	0	0	0	0	5	0	0	0	0	0
1970	0	0	0	0	0	0	0	119	122	0	60	0	1	20	121	111	60	0	0	676	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	165	9	139	373	1,633	34	0	0	29	0	0	0	4	0	0	0	0
1972	0	0	0	0	0	0	0	1,279	2,076	660	1,725	538	1,010	63	27	76	0	0	0	262	13	2	0	0	0	0
1973	0	0	0	0	0	0	0	30	120	0	59	520	18	45	184	0	0	0	0	1	3	5	1	0	0	0
1974	0	0	0	0	0	0	87	3	760	162	3	0	0	0	0	105	214	0	0	0	8	152	0	0	0	0
1975	0	0	0	0	0	0	10	76	1,110	1,022	714	215	0	0	0	0	199	0	8	2	3	0	0	0	0	0
1976	0	0	0	0	0	0	0	480	323	12	434	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	24	245	0	178	0	216	326	1,016	460	174	0	0	0	0	27	0	0	0	0
1978	0	0	0	0	0	0	268	577	723	254	0	298	387	161	44	0	0	0	0	0	38	1	0	0	0	0
1979	0	0	0	0	0	0	13	173	509	686	5,143	2,267	1,372	1,980	2,567	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	24	464	1,940	1,396	1,051	1,384	1,298	3,787	506	36	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	45	98	508	897	1,806	2,028	3,797	312	431	689	159	99	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	3,103	1,473	3,178	1,629	351	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	1,925	1,179	160	485	230	298	486	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	750	919	1,277	1,014	1,528	499	865	381	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	9,994	7,558	1,602	365	807	327	0	0	0	0	2	0	0	134	0	0
1986	0	0	0	0	0	0	0	0	0	0	3,872	3,947	2,423	1,616	23	11	42	535	6,435	0	0	391	407	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	2,493	5,885	1,075	248	1,901	1,540	0	0	0	45	18	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	228	651	986	200	472	473	153	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	7,096	0	0	222	413	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	2,768	12,173	0	0	258	625	1,041	45	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	585	1,835	1,317	51	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	207	3,025	1,744	333	381	29	896	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	1,048	2,344	460	410	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0	14,303	5,747	995	1,105	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	667	735	1,833	3,430	0	530	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	191	422	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	30	131	184	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	0	0	0	0	0	0	0	0	4	7	89	158	150	53	3	242	1,144	587	16	0	0	1,113
60-69 AVG	0	0	0	0	0	0	0	2	8	60	49	285	146	82	130	282	422	298	411	67	8	17	0	0	0	0
70-79 AVG	0	0	0	0	0	0	38	276	599	296	833	414	338	423	399	75	65	3	1	94	7	19	0	0	0	0
80-89 AVG	0	0	0	0	0	0	7	56	245	540	3,069	2,673	1,425	860	631	387	171	102	644	5	2	39	41	13	0	0
90-98 AVG	0	0	0	0	0	0	0	0	0	0	77	608	3,966	1,411	199	253	74	236	52	0	0	0	0	0	0	0

Table C23. Weekly troll coho saleslip catch,* Canadian Statistical Area 1.

	JULIAN/STATISTICAL WEEK NUMBER																									
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
YEAR	45	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104
1952	0	0	0	0	0	2	2,747	9,338	30,117	16,255	19,465	22,470	14,449	9,539	6,563	8,818	1,875	999	101	981	776	323	206	0	0	0
1953	0	0	0	0	0	0	1,095	3,843	5,740	7,382	26,468	29,674	24,155	19,875	25,964	15,584	7,886	8,452	1,751	197	651	0	22	0	0	0
1954	0	0	0	0	0	0	302	266	1,349	1,462	8,903	35,871	31,394	31,473	24,693	23,167	18,470	11,489	4,649	2,563	2,094	102	235	0	0	0
1955	0	0	0	0	0	2	68	463	1,097	11,056	53,622	85,771	50,675	42,800	51,690	32,229	21,390	6,087	5,619	2,518	70	0	0	0	0	1,067
1956	0	0	0	0	0	44	1,261	3,207	36,493	20,916	33,298	27,424	35,128	22,634	13,542	11,775	8,876	5,272	1,274	1,105	320	0	0	0	0	0
1957	0	0	0	0	0	807	6,860	21,458	72,180	64,200	36,818	32,158	17,116	18,650	23,897	13,791	6,604	2,398	4,083	3,171	817	906	0	0	0	0
1958	0	0	0	0	0	10	8,064	3,558	12,690	11,260	17,567	36,390	20,585	6,700	15,957	15,325	14,481	4,393	2,676	540	139	7	0	0	0	0
1959	0	0	0	0	0	0	3,586	2,639	10,494	28,529	27,373	26,493	15,604	1,981	13,363	10,422	4,500	2,312	206	312	121	0	0	0	0	0
1960	0	0	0	0	0	0	3,411	6,654	11,595	24,556	8,128	15,064	11,179	15,876	4,934	6,150	4,815	4,306	2,672	1,381	462	18	0	0	0	0
1961	0	0	0	0	7	478	25,393	23,316	50,826	26,653	12,332	5,724	11,967	20,623	7,507	5,939	3,804	987	1,659	66	0	0	0	0	0	0
1962	0	0	0	0	0	462	7,778	30,900	42,783	43,510	55,390	23,894	15,978	23,533	19,540	12,857	4,501	2,342	1,052	711	0	0	0	0	0	0
1963	0	0	0	0	0	21	1,135	7,282	37,668	52,040	56,136	24,395	52,970	18,002	23,878	11,793	6,605	1,289	1,150	792	590	0	0	0	0	0
1964	0	0	0	0	0	0	9,339	16,442	24,404	30,829	36,062	46,260	31,704	43,654	28,797	20,949	9,906	3,362	1,149	603	74	0	0	0	0	0
1965	0	0	0	0	0	0	164	806	3,889	17,483	59,870	41,154	24,123	19,863	19,210	4,861	3,480	778	1,348	599	614	0	0	0	0	0
1966	0	0	0	0	0	0	1,977	14,261	26,042	16,868	37,980	47,563	43,643	46,054	25,920	22,020	3,932	2,533	1,352	448	113	10	0	0	0	0
1967	0	0	0	0	4	150	1,994	3,668	18,091	23,507	38,211	28,664	21,744	10,692	6,578	10,009	3,149	2,853	146	297	105	15	0	0	0	0
1968	0	0	1	0	0	1,819	12,506	25,798	37,936	41,332	42,157	38,565	29,678	21,891	12,495	6,200	4,875	1,647	1,288	607	9	5	1	1	0	0
1969	0	0	0	0	0	1	1,876	3,715	8,985	19,544	30,155	57,381	34,598	33,873	8,846	5,469	1,590	719	397	330	82	3	12	0	0	0
1970	0	0	0	0	0	7	6,386	20,708	27,807	27,052	40,802	30,894	25,648	10,044	10,073	4,456	3,934	768	439	100	13	0	60	0	0	0
1971	0	0	0	0	0	0	871	2,775	8,616	16,555	15,911	28,089	11,487	32,342	25,792	21,935	8,877	3,205	1,707	432	134	149	35	0	1	0
1972	0	0	0	0	0	0	987	5,153	9,928	25,254	27,190	41,253	37,075	26,328	18,547	5,891	6,988	1,839	1,588	1,376	609	124	93	0	0	0
1973	0	0	0	0	0	36	929	3,357	11,700	9,520	5,519	24,384	8,323	12,142	25,305	17,698	5,468	3,115	1,398	989	368	250	47	1	0	0
1974	0	0	0	0	0	135	9,742	9,590	15,307	10,340	17,163	4,582	10,998	19,973	18,954	15,575	13,668	3,153	4,698	1,606	271	261	40	10	0	0
1975	0	0	0	0	0	0	1,533	5,020	11,987	12,479	23,556	13,309	6,113	3,137	16,422	2,316	6,766	2,062	2,526	912	813	265	0	1	0	0
1976	0	0	0	0	0	5	287	2,692	5,352	7,530	9,513	4,721	4,926	6,429	4,449	6,599	4,500	1,960	1,700	1,178	625	437	18	38	0	0
1977	0	0	0	0	0	0	131	701	521	1,042	2,867	4,179	14,678	13,844	18,523	13,555	11,711	6,720	4,435	2,395	254	221	56	6	19	0
1978	2	0	0	0	0	192	3,529	17,696	46,564	40,472	26,339	23,180	27,880	25,526	23,533	6,065	11,106	3,811	7,057	790	307	61	41	0	0	0
1979	0	0	0	0	0	12	2,609	8,098	16,349	47,856	57,094	54,046	33,061	8,841	19,426	10,029	5,302	3,957	1,173	777	608	404	311	0	5	0
1980	0	0	0	0	0	0	4,493	10,273	24,155	34,267	47,476	48,846	51,050	16,252	12,475	21,882	7,549	3,584	3,564	2,344	892	697	543	520	163	0
1981	0	0	0	0	0	0	0	0	851	9,717	11,203	33,150	57,017	24,728	21,189	12,232	7,777	6,495	7,342	3,127	1,606	1,140	0	0	0	0
1982	0	0	0	0	134	1	0	17	10,887	23,830	18,605	22,027	28,335	6,733	11,844	11,462	2,392	3,685	2,238	1,324	1,095	2,483	61	0	0	0
1983	0	0	0	0	0	0	0	0	0	33,458	64,190	53,659	78,149	43,766	22,902	19,947	11,709	10,102	5,708	2,203	5,589	5,836	0	0	0	0
1984	0	0	0	0	0	0	0	0	5,807	48,971	30,374	50,051	52,119	46,339	28,496	18,236	17,681	9,941	6,094	15,689	4,540	383	1	0	0	0
1985	0	0	0	0	0	0	0	0	8,346	69,776	59,321	40,981	44,803	29,371	20,214	6,048	19,240	7,788	6,144	6,196	3,805	8,362	86	71	157	0
1986	0	0	0	0	0	0	0	49,873	71,695	89,779	81,473	136,307	45,779	43,129	27,453	17,614	33,257	29,012	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	651	67,540	55,174	52,063	58,695	24,986	10,982	12,042	11,694	7,137	6,845	884	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	62	11,929	37,027	38,300	32,864	26,349	17,594	21,225	8,650	2,107	15,178	1,619	87	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	36,126	94,735	54,514	38,193	21,885	28,788	31,898	14,178	14,580	6,510	826	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	1,635	113,773	105,454	155,721	106,836	77,503	32,503	12,572	5,418	11,101	7,981	10,629	5,109	1,318	697	0	0	0	0
1991	0	0	0	0	0	0	0	24	52,946	97,549	160,366	76,744	83,043	86,272	3,068	19,670	22,455	25,312	14,308	9,803	4,390	1,444	0	0	0	0
1992	0	0	0	0	0	0	0	0	2,585	26,903	36,071	23,167	19,600	26,057	50,081	13,194	34,594	12,826	4,657	5,640	2,316	278	0	0	0	0
1993	0	0	0	0	0	0	0	0	142	12,970	22,008	60,757	35,570	48,397	2,913	1,765	6,233	3,595	9,410	4,647	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	901	12,145	40,153	85,599	141,765	91,858	38,681	12,061	8,054	16,659	5,684	4,063	1,431	19	0	0	0	0
1995	0	0	0	0	0	0	0	27	5,977	25,459	13,850	9,039	32,640	15,915	37,768	14,021	27,854	9,775	7,427	2,197	0	394	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	3,680	20,107	40,206	43,004	26,946	42,426	24,270	26,238	13,775	4,292	5,168	1,320	506	0	244	254	0
1997	0	0	0	0	0	0	0	0	180	4,248	6,142	28,265	9,352	32,388	16,742	9,017	8,743	8,547	1,118	347	94	983	0	3	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	0	108	2,998	5,597	21,270	20,133	27,939	37,031	26,138	19,207	21,959	16,389	10,510	5,175	2,545	1,423	624	167	58	0	0	133
60-69 AVG	0	0	0	0	1	293	6,557	13,284	26,222	29,632	37,642	32,866	27,758	25,406	15,771	10,625	4,666	2,082	1,221	583	205	5	1	0	0	0
70-79 AVG	0	0	0	0	0	39	2,700	7,579	15,413	19,810	22,595	22,864	18,019	15,861	18,102	10,412	7,832	3,059	2,672	1,056	400	217	70	6	3	0
80-89 AVG	0	0	0	0	13	0	449	6,016	15,858	48,400	45,936	51,358	47,070	29,044	20,505	15,487	13,453	8,636	5,394	3,339	1,761	1,890	69	59	32	0
90-98 AVG	0	0	0	0	0	0	0	187	19,612	32,045	50,491	47,846	49,164	40,037	22,695	11,046	16,141	10,941	6,392	4,108	1,208	480	0	27	28	0

Table C24. Weekly coho saleslip catch for all gear combined, Canadian Statistical Area 3.

	JULIAN/STATISTICAL WEEK NUMBER																										
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	0	582	1,815	964	3,864	2,002	3,100	1,583	3,103	2,306	6,764	6,606	8,765	10,646	6,411	3,263	1,625	126	483	0	0	0
1953	0	0	0	0	0	36	96	522	305	564	596	1,070	3,105	3,229	5,534	10,919	18,174	12,951	7,705	4,288	0	0	0	0	0	0
1954	0	0	0	0	0	40	42	31	256	541	2,235	3,094	2,621	2,910	1,202	9,462	11,550	4,206	11,633	16,923	7,609	0	390	0	0	0
1955	0	0	0	0	0	105	463	937	1,753	971	5,542	8,424	6,061	10,853	14,944	12,539	10,289	14,948	17,208	7,957	6,410	5,712	759	0	0	0
1956	0	0	0	0	79	254	1,671	3,704	6,323	5,641	3,965	4,340	5,601	7,407	10,517	16,720	4,707	17,074	11,911	14,252	15	0	0	0	0	0
1957	0	0	0	0	15	72	93	643	546	1,721	4,963	9,664	12,406	10,347	13,052	7,653	10,057	17,191	12,957	8,826	0	0	0	0	0	0
1958	0	0	0	0	5	415	603	2,043	3,982	2,223	4,369	4,711	11,124	18,866	20,655	13,879	14,048	15,201	9,091	3,766	1,411	0	0	0	0	0
1959	0	0	0	0	0	258	154	573	1,783	1,188	2,244	1,839	35	5,527	11,758	9,932	7,702	9,087	7,438	889	0	0	0	0	0	0
1960	0	0	0	0	0	339	712	1,738	6,824	8,326	5,934	4,492	4,369	4,834	6,651	9,364	12,985	11,833	8,582	6,557	5	0	0	0	0	0
1961	0	0	0	0	115	322	1,789	3,625	2,374	2,279	1,188	2,669	4,426	6,894	7,785	17,241	17,183	10,472	4,772	119	0	0	0	0	0	0
1962	0	0	0	0	19	199	5,380	11,759	12,237	12,372	11,680	3,740	6,305	7,295	10,965	9,847	7,501	7,137	9,503	35	0	0	0	0	0	0
1963	0	0	0	0	2	74	155	444	665	153	0	628	1,767	6,745	4,730	4,935	3,926	3,343	7,391	5,272	0	0	0	0	0	0
1964	0	0	0	0	0	199	557	1,809	4,535	5,897	4,456	7,506	8,376	11,108	9,049	8,295	10,631	5,411	9,965	4,699	74	85	0	0	0	0
1965	0	0	0	0	0	34	86	276	596	978	1,712	3,093	4,647	11,530	5,559	11,384	14,498	17,015	11,779	18,638	74	0	0	0	0	0
1966	0	0	0	0	0	390	327	722	1,026	1,746	3,581	6,139	9,393	11,566	17,198	13,919	10,624	18,285	16,567	17,176	10,551	8,198	0	0	0	0
1967	0	0	0	0	7	104	32	57	873	1,196	6,470	6,902	9,384	4,836	1,524	4,507	5,859	5,017	2,678	1,119	1	0	0	0	0	0
1968	0	0	0	0	26	1,344	1,802	4,212	7,499	11,398	10,950	10,527	6,503	7,795	8,801	17,731	16,170	22,092	17,778	8,152	3,870	24	0	0	0	0
1969	0	0	0	0	0	10	72	318	1,077	1,053	2,345	4,047	2,621	4,248	3,963	4,577	9,790	8,051	4,846	1,155	310	6	0	0	0	0
1970	0	0	0	0	0	154	768	3,416	4,854	3,566	1,666	3,099	1,620	4,773	20,859	15,392	10,259	12,378	16,264	8,812	81	0	0	0	0	0
1971	0	0	0	0	0	155	38	54	433	946	2,143	5,241	3,305	2,632	7,795	11,841	16,444	18,791	13,031	7,008	3,045	26	0	0	0	0
1972	0	0	0	0	0	125	992	923	2,709	8,346	6,700	10,789	5,820	9,683	3,321	5,177	11,323	18,462	15,839	13,620	2,480	1,226	8	0	0	0
1973	0	0	0	0	24	54	558	1,576	811	760	3,484	1,958	2,400	3,006	1,503	2,048	7,479	4,123	1,088	1,228	24	77	0	0	0	0
1974	0	0	0	0	105	382	1,093	1,093	3,391	1,969	1,325	1,353	2,155	1,515	3,416	3,944	7,015	7,699	2,675	1,859	1,079	7	0	0	0	0
1975	0	0	0	0	1	257	419	699	2,960	3,426	659	3,952	1,381	557	1,560	1,940	9,126	11,791	8,857	2	286	125	0	0	0	0
1976	0	0	0	0	0	12	13	262	458	2,211	1,267	942	2,572	3,969	1,713	1,905	4,862	4,756	2,831	6,806	1,204	545	4	0	10	0
1977	0	0	0	5	11	0	196	85	171	776	3,974	5,423	6,739	8,082	6,806	15,514	6,064	18,722	9,719	157	5	0	0	0	0	0
1978	0	0	0	37	72	419	1,526	2,677	8,268	9,943	4,643	12,530	25,438	20,370	11,637	8,074	7,135	7,266	10,555	2,846	671	0	0	0	0	0
1979	0	0	0	0	5	101	242	167	1,258	1,479	15,861	6,228	9,536	1,024	2,287	5,092	2,885	5,955	70	0	0	0	0	0	0	0
1980	0	0	0	0	7	411	1,626	2,796	996	5,160	9,720	8,806	8,922	7,192	7,759	9,084	9,014	5,163	1,103	0	0	0	0	0	0	0
1981	0	0	0	0	0	7	262	582	164	2,522	6,031	4,829	5,922	5,649	6,530	5,843	4,613	6,416	4,109	2,670	796	0	0	0	0	0
1982	0	0	0	0	0	7	393	1,591	3,401	19,813	16,559	16,913	11,836	8,344	27,454	6,293	9,107	9,990	9,619	1,365	475	0	0	0	0	0
1983	0	0	0	0	51	0	0	3,070	26,394	19,048	18,368	69,707	38,229	27,870	24,422	23,287	11,424	8,644	6,400	5,949	1,863	0	0	0	0	0
1984	0	0	0	0	0	0	0	8,289	5,427	3,255	13,014	12,650	11,502	15,477	17,479	17,625	18,077	18,289	9,583	0	1,482	0	0	0	0	0
1985	0	0	0	0	0	0	0	7,243	16,714	6,791	15,538	11,532	13,210	13,074	8,013	2,529	1,139	874	928	1,029	445	0	0	0	0	0
1986	0	0	0	0	0	487	7,096	14,687	20,023	16,948	17,423	21,366	28,250	21,380	14,952	18,034	24,459	6,444	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	1,642	5,840	3,279	5,418	15,880	24,224	10,507	5,552	6,250	2,941	3,708	430	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	130	3,364	4,619	8,259	4,082	5,834	4,219	4,978	3,222	1,043	2,331	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	751	15,308	14,219	9,747	44,298	6,590	9,100	25,682	13,493	6,274	5,208	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	4,783	16,493	6,559	4,366	3,307	10,033	8,888	15,739	9,710	7,542	7,881	7,988	7,696	5,498	2,628	0	0	0	0	0
1991	0	0	0	0	0	0	438	5,051	5,925	5,760	24,923	30,863	28,254	19,679	13,874	10,671	13,770	16,768	21,824	10,010	5,068	0	0	0	0	0
1992	0	0	0	0	0	0	0	2,962	4,286	5,432	9,516	6,580	11,563	18,552	9,382	16,899	8,530	11,091	14,250	1,170	635	0	0	0	0	0
1993	0	0	0	0	0	0	156	5,017	6,493	5,253	6,969	9,712	32,233	9,079	7,175	6,192	7,623	7,501	3,232	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	55	2,249	7,264	11,473	22,628	42,576	31,601	17,312	14,900	14,408	18,585	20,708	13,173	1,576	0	0	0	0	0	0
1995	0	0	0	0	0	629	1,359	10,745	7,257	7,362	8,623	16,684	9,286	9,996	6,962	5,825	3,631	2,664	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	250	385	2,066	6,231	16,126	13,583	16,112	19,126	16,218	10,767	10,619	10,186	13,359	10,557	9,151	64	0	439	0	0	0
1997	0	0	0	0	0	2	6	74	1,141	2,189	2,513	693	302	39	28	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	12	220	617	1,177	2,352	1,856	3,377	4,341	5,507	7,681	10,553	10,964	10,662	12,663	10,544	7,521	2,134	730	204	0	0	0
60-69 AVG	0	0	0	0	17	302	1,091	2,496	3,771	4,540	4,832	4,974	5,779	7,685	7,623	10,180	10,917	10,866	9,386	6,292	1,489	831	0	0	0	0
70-79 AVG	0	0	0	4	22	166	585	1,095	2,531	3,342	4,172	5,152	6,097	5,561	6,090	7,093	8,259	10,994	8,093	4,234	888	201	1	0	1	0
80-89 AVG	0	0	0	0	6	91	1,013	5,534	9,654	9,118	15,463	17,236	15,703	13,939	13,063	9,844	8,703	6,186	3,217	1,101	506	0	0	0	0	0
90-98 AVG	0	0	0	0	0	98	798	4,962	5,017	6,440	10,229	14,806	15,695	11,846	8,089	8,017	7,801	8,898	7,859	3,045	933	0	49	0	0	0

Table C25. Weekly gillnet coho saleslip catch, Canadian Statistical Area 3.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	0	0	0	137	155	361	175	106	503	588	826	9	0	0	0	39	1,593	126	483	0	0	0
1953	0	0	0	0	0	0	0	122	157	241	200	389	1,976	269	495	3,258	9,892	9,265	3,905	3,315	0	0	0	0	0	0
1954	0	0	0	0	0	0	1	1	127	76	164	743	1,062	1,081	236	5,454	7,888	358	6,712	14,909	7,534	0	390	0	0	0
1955	0	0	0	0	0	0	3	211	523	490	385	122	1,344	3,471	4,881	7,729	8,036	8,904	13,209	7,091	6,343	5,709	759	0	0	0
1956	0	0	0	0	0	0	575	599	1,891	1,529	1,740	1,770	1,168	1,838	2,489	7,933	0	13,408	9,428	13,694	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	19	3	1,169	1,503	3,229	2,985	6,014	3,177	5,762	8,874	11,235	8,211	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	1,066	1,945	598	387	563	695	1,395	1,994	3,345	6,936	9,277	7,252	3,056	1,411	0	0	0	0	0
1959	0	0	0	0	0	0	0	392	1,076	351	482	748	0	0	1,994	5,101	1,815	4,244	4,693	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	973	1,426	601	1,386	889	1,713	1,757	3,630	7,919	5,566	5,682	5,539	0	0	0	0	0	0
1961	0	0	0	0	5	1	1,036	2,404	978	553	117	56	492	1,740	2,193	9,431	11,126	6,571	3,797	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	3,532	5,697	2,266	1,521	4,947	975	1,091	1,825	3,030	3,206	3,510	4,628	7,342	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	281	459	57	0	0	0	3,256	1,576	2,321	287	315	5,884	5,041	0	0	0	0	0	0
1964	0	0	0	0	0	0	1	21	782	1,086	790	2,642	1,217	1,300	899	2,596	4,799	2,775	8,433	4,310	0	85	0	0	0	0
1965	0	0	0	0	0	0	0	0	539	276	777	554	1,659	7,760	2,657	8,317	8,317	13,151	9,259	17,597	0	0	0	0	0	0
1966	0	0	0	0	0	0	1	432	333	680	927	4,168	3,233	4,324	5,111	5,157	6,981	12,872	12,102	14,006	9,708	8,198	0	0	0	0
1967	0	0	0	0	0	0	7	47	466	410	3,272	2,079	1,981	764	0	2,458	3,444	4,276	2,557	1,115	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	855	3,468	4,079	3,400	3,322	1,284	1,140	2,393	6,843	4,320	8,681	12,430	6,369	3,581	0	0	0	0	0
1969	0	0	0	0	0	0	5	188	502	470	1,230	984	452	600	504	1,641	4,532	3,703	2,149	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	26	679	980	1,123	413	1,245	728	2,042	7,614	10,275	6,648	8,500	13,440	8,263	0	0	0	0	0	0
1971	0	0	0	0	0	0	1	0	4	45	894	3,212	0	0	685	2,012	7,157	10,491	9,112	6,136	2,839	26	0	0	0	0
1972	0	0	0	0	0	0	0	22	1,079	2,175	2,996	4,606	1,323	4,909	808	2,422	5,804	9,555	9,317	9,989	0	0	0	0	0	0
1973	0	0	0	0	0	0	27	462	503	160	929	762	1,086	1,000	311	0	3,775	2,346	443	1,111	1	0	0	0	0	0
1974	0	0	0	0	0	0	203	303	2,886	983	630	420	572	0	0	1,448	5,274	4,808	16	0	7	0	0	0	0	0
1975	0	0	0	0	0	0	0	172	1,680	1,868	0	2,893	250	31	412	434	3,317	7,518	6,105	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	1	56	222	1,368	470	107	209	58	0	56	2,508	2,786	8	4,410	15	13	0	0	0	0
1977	0	0	0	0	0	0	196	50	48	401	2,009	1,418	745	1,658	1,123	4,479	238	12,845	5,617	157	5	0	0	0	0	0
1978	0	0	0	37	0	75	627	858	2,995	2,695	393	1,532	6,747	2,410	2,004	1,827	1,939	1,763	4,435	3	0	0	0	0	0	0
1979	0	0	0	0	0	0	13	0	0	567	4,693	1,621	471	0	0	1,830	0	4,765	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	20	0	25	937	2,530	2,328	812	1,341	1,839	3,627	2,754	1,444	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	2	211	332	6	1,011	2,662	511	440	809	1,910	58	96	63	55	42	24	0	0	0	0	0
1982	0	0	0	0	0	7	240	251	902	2,474	985	935	1,260	502	2,842	1,117	2,600	2,103	3,929	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	2	19	10	1,542	4,873	3,376	4,481	3,844	4,697	2,926	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	145	81	553	1,236	2,146	1,508	4,448	5,430	5,368	3,377	3,809	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	540	2,661	601	1,971	2,916	1,669	474	730	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	57	675	883	918	2,844	1,837	1,029	2,656	4,724	4,413	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	62	203	571	1,372	209	694	1,398	207	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	92	1,661	343	430	399	287	201	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	296	1,942	617	4,766	3,043	121	0	1,108	1,095	400	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	804	330	1,019	637	506	619	511	787	203	827	506	0	1,067	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	775	1,047	1,354	558	892	1,612	1,231	1,240	2,313	1,140	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	1,453	2,868	790	1,093	2,010	750	1,878	2,207	122	710	2,079	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	156	3,289	5,112	3,083	1,099	793	1,242	980	767	794	926	1,653	629	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	55	1,475	1,697	2,376	5,754	5,808	1,000	2,389	1,021	879	1,870	674	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	629	772	5,696	4,453	1,652	1,408	3,093	1,154	1,116	986	1,712	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	250	385	2,066	5,837	3,522	2,434	1,629	2,773	3,139	2,051	17	859	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	2	6	74	901	2,129	1,901	310	151	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	0	0	72	316	737	456	588	743	1,247	1,453	2,366	4,501	5,041	6,791	7,054	6,289	2,110	729	204	0	0	0
60-69 AVG	0	0	0	0	1	0	458	993	1,077	1,056	1,606	1,617	1,230	2,442	2,012	4,560	5,524	6,254	6,964	5,398	1,329	828	0	0	0	0
70-79 AVG	0	0	0	4	0	8	109	260	1,040	1,139	1,343	1,782	1,213	1,211	1,296	2,478	3,666	6,538	4,849	3,007	287	4	0	0	0	0
80-89 AVG	0	0	0	0	0	1	77	267	225	1,324	1,535	1,472	1,496	1,680	1,944	2,025	1,668	1,183	398	4	2	0	0	0	0	0
90-98 AVG	0	0	0	0	0	98	242	1,523	2,391	1,958	1,606	1,582	1,161	1,155	905	972	603	337	419	0	0	0	0	0	0	0

Table C26. Weekly seine coho saleslip catch, Canadian Statistical Area 3.

	JULIAN/STATISTICAL WEEK NUMBER																										
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	0	0	0	0	0	0	21	66	577	390	1,013	0	0	60	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	8	0	2	57	152	682	2,195	2,157	472	29	17	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	10	350	323	1,187	0	2,516	1,185	0	0	226	75	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	6	2	60	606	1,216	1,520	740	80	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	12	33	60	438	1,467	3,789	2,941	4,716	0	785	254	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	2	468	359	3,572	5,155	3,789	0	0	907	40	608	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	24	75	101	410	1,297	4,288	8,360	7,159	35	24	581	208	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	2	2	10	32	160	0	0	1,308	351	395	656	357	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	23	33	143	457	49	56	15	135	39	43	16	108	0	0	0	0	0	0
1961	0	0	0	0	0	0	66	226	96	255	538	586	1,000	2,044	434	1,574	435	287	240	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	1	40	52	873	374	7	96	676	66	375	152	295	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	15	11	11	0	0	0	64	7	342	0	14	213	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	49	5	19	921	3,506	3,221	462	1,086	1,069	838	32	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	28	54	255	949	2,302	2,856	2,045	900	4,004	2,452	764	76	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	1	130	0	198	214	2,085	3,193	8,345	4,735	205	486	334	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	1	16	317	2,874	4,102	6,774	3,363	0	618	75	35	42	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	657	831	3,288	3,578	1,100	1,534	2,396	2,866	3,110	1,080	3,228	208	415	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	3	28	107	570	1,061	644	1,285	1,121	1,068	1,436	2,409	38	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	8	36	358	258	454	53	1,005	8,314	1,536	401	509	1,604	3	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	30	79	1,452	0	0	4,863	2,117	4,336	2,393	62	0	8	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	209	823	95	1,240	1,701	903	828	776	100	955	709	611	0	0	0	0	0	0
1973	0	0	0	0	0	0	1	36	308	23	966	509	781	647	74	0	154	3	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	38	15	335	572	475	687	1,036	0	0	444	98	299	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	6	1	476	828	0	1,059	1,022	199	532	0	0	188	950	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	1	6	293	71	716	1,755	2,743	0	0	83	5	0	616	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	35	119	198	934	2,220	3,710	5,037	2,110	560	0	1,419	697	0	0	0	0	0	0	0
1978	0	0	0	0	0	121	333	458	4,468	7,047	2,165	8,540	14,613	11,549	5,169	2,573	137	185	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	2	0	0	87	10,158	3,770	8,245	0	0	789	0	344	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	3,281	4,101	3,378	3,452	2,489	1,263	842	799	1,184	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	51	12	0	1,201	2,139	1,461	2,978	1,648	798	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	12	26	56	10,550	11,176	9,392	9,393	4,147	14,196	2,788	4,378	2,646	2,794	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	184	3,905	50,878	27,021	20,062	14,393	13,660	238	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	9,058	8,755	5,715	8,721	6,007	3,248	5,028	2,784	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	1	9,564	5,614	9,510	8,172	6,690	725	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	7,568	13,244	15,821	12,812	10,729	7,905	2,521	2,031	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	1,418	11,102	17,792	9,199	3,705	3,872	6	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	4,458	2,519	2,562	1,691	2,626	1,179	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	37,534	1,765	3,452	21,212	8,529	1,627	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	26	0	2,037	6,768	6,792	12,798	4,618	1,149	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	94	21,514	25,751	23,067	17,309	8,992	4,744	2,302	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	15	18	6,797	1,118	7,112	10,078	4,314	6,353	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	1	0	15	5,198	26,887	6,189	4,409	843	2,181	2,247	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	45	14,081	13,412	5,928	4,925	2,832	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	2,515	4,170	10,457	7,535	7,182	4,848	1,493	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	4,618	2,177	6,839	4,922	8,752	2,548	0	822	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	293	212	151	39	28	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	0	0	0	4	11	19	133	360	1,439	2,787	2,486	1,104	214	376	107	104	9	0	0	0	0	0
60-69 AVG	0	0	0	0	0	0	7	94	126	494	855	940	1,799	1,915	1,536	1,394	850	1,009	189	60	0	0	0	0	0	0
70-79 AVG	0	0	0	0	0	12	38	55	596	1,026	1,520	2,065	3,292	2,208	2,189	880	531	630	402	123	1	0	0	0	0	0
80-89 AVG	0	0	0	0	0	0	6	4	6	1,522	9,092	10,811	9,770	9,015	6,894	3,585	1,297	865	279	0	0	0	0	0	0	0
90-98 AVG	0	0	0	0	0	0	0	0	5	805	4,117	7,825	9,986	7,586	3,854	1,935	589	250	0	0	0	0	0	0	0	0

Table C27. Weekly troll coho saleslip catch,* Canadian Statistical Area 3.

	JULIAN/STATISTICAL WEEK NUMBER																									
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
YEAR	45	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104
1952	0	0	0	0	0	0	582	1,815	827	3,709	1,641	2,904	1,411	2,023	1,328	4,925	6,597	8,765	10,586	6,411	3,224	32	0	0	0	0
1953	0	0	0	0	0	0	36	96	392	148	321	339	529	447	765	2,882	7,189	8,253	3,669	3,800	973	0	0	0	0	0
1954	0	0	0	0	0	0	40	41	30	129	465	2,061	2,001	1,236	642	966	1,492	2,477	3,848	4,921	1,788	0	0	0	0	0
1955	0	0	0	0	0	0	105	460	726	1,230	475	5,155	8,242	4,111	6,166	8,543	4,070	2,173	6,044	3,999	866	67	3	0	0	0
1956	0	0	0	0	0	79	254	1,096	3,105	4,420	4,079	2,165	2,132	2,966	1,780	5,087	4,071	4,707	2,881	2,229	558	15	0	0	0	0
1957	0	0	0	0	0	15	72	93	643	527	1,716	3,326	7,802	5,605	2,207	3,249	4,476	4,295	7,410	1,682	7	0	0	0	0	0
1958	0	0	0	0	0	5	415	603	953	1,962	1,524	3,572	2,851	6,141	9,111	11,502	10,499	7,088	5,343	1,631	710	0	0	0	0	0
1959	0	0	0	0	0	0	258	154	179	705	827	1,730	931	35	5,527	8,456	4,480	5,492	4,187	2,388	889	0	0	0	0	0
1960	0	0	0	0	0	0	339	712	1,738	5,828	6,867	5,190	2,649	3,431	3,065	4,879	5,599	5,027	6,224	2,884	910	5	0	0	0	0
1961	0	0	0	0	0	110	321	687	995	1,300	1,471	533	2,027	2,934	3,110	5,158	6,236	5,622	3,614	735	119	0	0	0	0	0
1962	0	0	0	0	0	19	199	1,847	6,022	9,919	9,978	6,359	2,758	5,118	4,794	7,869	6,266	3,839	2,214	2,161	35	0	0	0	0	0
1963	0	0	0	0	0	2	74	155	148	195	85	0	628	1,767	3,425	3,147	2,272	3,639	3,014	1,294	231	0	0	0	0	0
1964	0	0	0	0	0	0	199	556	1,788	3,704	4,806	3,647	3,943	3,653	6,587	7,688	4,613	4,763	1,798	1,500	389	74	0	0	0	0
1965	0	0	0	0	0	0	34	86	276	29	648	680	1,590	686	914	857	2,167	2,177	1,412	1,756	965	74	0	0	0	0
1966	0	0	0	0	0	0	390	326	289	563	1,066	2,456	1,757	4,075	4,049	3,742	4,027	3,438	4,927	4,131	3,170	843	0	0	0	0
1967	0	0	0	0	0	7	104	25	9	391	469	324	721	629	709	1,524	1,431	2,340	706	79	4	1	0	0	0	0
1968	0	0	0	0	0	26	1,344	1,802	2,700	3,200	4,031	3,972	6,105	3,685	4,259	3,542	7,778	10,770	10,183	5,140	1,368	289	24	0	0	0
1969	0	0	0	0	0	0	10	67	127	547	476	545	2,002	1,525	2,363	2,338	1,868	3,822	1,939	2,659	1,155	310	6	0	0	0
1970	0	0	0	0	0	0	154	742	2,729	3,838	2,085	995	1,400	839	1,726	4,931	3,581	3,210	3,369	1,220	546	81	0	0	0	0
1971	0	0	0	0	0	0	155	37	54	429	871	1,170	577	3,305	2,632	2,247	7,712	4,951	5,907	3,857	872	198	0	0	0	0
1972	0	0	0	0	0	0	125	992	901	1,421	5,348	3,609	4,943	2,796	3,871	1,685	1,979	5,419	7,952	5,813	3,020	2,480	1,226	8	0	0
1973	0	0	0	0	0	24	54	530	1,078	0	577	1,589	687	533	1,359	1,118	2,048	3,550	1,774	645	117	23	77	0	0	0
1974	0	0	0	0	0	105	382	852	775	170	414	220	246	547	1,515	3,416	2,052	1,643	2,592	2,659	1,859	1,072	7	0	0	0
1975	0	0	0	0	0	1	257	413	526	804	730	659	0	109	327	616	1,506	5,809	4,085	1,802	2	286	125	0	0	0
1976	0	0	0	0	0	0	12	12	205	230	550	726	119	608	1,168	1,713	1,849	2,271	1,965	2,823	1,780	1,189	532	4	0	10
1977	0	0	0	0	5	11	0	0	0	4	177	1,031	1,785	2,284	1,387	3,573	10,475	5,826	4,458	3,405	0	0	0	0	0	0
1978	0	0	0	0	0	72	223	566	1,361	805	201	2,085	2,458	4,078	6,411	4,464	3,674	5,059	5,318	6,120	2,843	671	0	0	0	0
1979	0	0	0	0	0	5	101	227	167	1,258	825	1,010	837	820	1,024	2,287	2,473	2,885	846	70	0	0	0	0	0	0
1980	0	0	0	0	0	7	411	1,606	2,796	971	942	3,089	3,100	4,658	3,362	4,657	4,615	5,461	2,535	1,103	0	0	0	0	0	0
1981	0	0	0	0	0	0	5	0	238	158	310	1,230	2,857	2,504	3,192	3,822	5,785	4,517	6,353	4,054	2,628	772	0	0	0	0
1982	0	0	0	0	0	0	0	141	1,314	2,443	6,789	4,398	6,586	1,183	3,695	10,416	2,388	2,129	5,241	2,896	1,365	475	0	0	0	0
1983	0	0	0	0	0	51	0	0	3,068	26,375	18,854	12,921	13,956	7,832	3,327	6,185	4,930	8,260	8,644	6,400	5,949	1,863	0	0	0	0
1984	0	0	0	0	0	0	0	0	8,144	5,346	2,702	2,720	1,749	4,279	2,308	6,042	9,009	9,672	11,696	9,583	0	1,482	0	0	0	0
1985	0	0	0	0	0	0	0	0	7,243	16,174	4,129	5,373	3,947	784	3,233	849	1,074	1,139	874	928	1,029	445	0	0	0	0
1986	0	0	0	0	0	0	487	7,096	14,687	19,966	16,273	8,972	7,204	9,585	6,731	3,194	7,473	17,214	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	1,642	5,840	3,217	3,797	4,207	5,060	1,099	1,153	980	2,728	3,708	430	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	130	3,364	4,527	2,140	1,220	2,842	2,129	2,065	1,842	1,043	2,331	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	455	13,366	13,602	4,981	3,721	4,704	5,648	3,362	3,869	4,247	5,208	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	3,979	16,163	5,514	3,729	764	2,646	1,585	2,154	4,889	5,566	7,375	7,988	6,629	5,498	2,628	0	0	0	0
1991	0	0	0	0	0	0	0	438	4,276	4,878	4,312	2,851	4,220	3,575	1,139	3,642	3,614	10,328	16,768	21,824	10,010	5,068	0	0	0	0
1992	0	0	0	0	0	0	0	0	2,962	2,818	2,546	1,929	4,369	2,441	7,724	3,190	8,339	8,408	10,381	12,171	1,170	635	0	0	0	0
1993	0	0	0	0	0	0	0	0	1,728	1,380	2,170	5,855	3,721	4,104	1,910	1,999	4,555	4,516	3,601	2,603	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	774	5,567	9,097	16,829	22,687	17,189	8,995	8,954	10,697	16,715	20,034	13,173	1,576	0	0	0	0	0
1995	0	0	0	0	0	0	0	587	5,049	2,804	3,195	3,045	3,134	597	1,698	1,128	2,620	3,631	2,664	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	394	7,986	8,972	7,644	11,431	4,327	6,168	10,602	8,505	13,359	10,557	9,151	64	0	439	0	0
1997	0	0	0	0	0	0	0	0	0	240	60	319	171	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	0	12	220	545	857	1,604	1,381	2,657	3,237	2,821	3,441	5,701	5,359	5,406	5,496	3,383	1,127	14	0	0	0	0
60-69 AVG	0	0	0	0	0	16	301	626	1,409	2,568	2,990	2,371	2,418	2,750	3,328	4,074	4,226	4,544	3,603	2,234	835	160	3	0	0	0
70-79 AVG	0	0	0	0	1	22	146	437	780	896	1,178	1,309	1,305	1,592	2,142	2,605	3,735	4,062	3,827	2,841	1,104	600	197	1	0	1
80-89 AVG	0	0	0	0	0	6	90	930	5,263	9,424	6,272	4,836	4,953	4,438	3,244	4,225	4,234	5,737	4,138	2,539	1,097	504	0	0	0	0
90-98 AVG	0	0	0	0	0	0	0	556	3,439	2,622	3,677	4,507	5,399	4,547	3,105	3,330	5,110	6,609	8,311	7,440	3,045	933	0	49	0	0

*Weekly saleslip information corrected by lagging data back 1 week to reflect actual date of catch.

Table C28. Weekly coho saleslip catch for all gear combined, Canadian Statistical Area 4.

	JULIAN/STATISTICAL WEEK NUMBER																										
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	0	2,102	4,942	9,017	20,002	18,362	24,402	14,141	11,976	20,116	13,654	1,572	6,785	1,679	464	545	72	0	151	0	0	0
1953	0	0	0	0	0	803	584	1,892	2,055	1,256	1,972	6,354	4,236	11,082	15,691	9,061	16,345	6,961	5,668	5,267	0	0	0	0	0	0
1954	0	0	0	0	0	32	92	186	437	5,801	19,922	32,052	15,930	14,131	6,028	29,548	19,978	14,771	10,534	7,744	1,624	0	0	0	0	0
1955	0	0	0	0	16	68	737	1,876	2,695	3,633	6,319	17,630	8,148	8,293	27,164	22,888	14,136	7,509	14,364	4,256	2,363	494	0	0	0	0
1956	0	0	0	0	127	2,271	6,248	10,479	8,617	7,268	7,445	5,596	6,846	22,814	7,543	13,666	10,703	5,315	2,734	2,863	0	0	0	0	0	0
1957	0	0	0	0	112	1,116	1,015	2,518	6,160	5,588	9,327	8,385	21,220	10,634	12,062	6,459	5,732	3,056	4,116	1,299	0	0	0	0	0	0
1958	0	0	0	0	0	536	537	1,980	1,841	2,171	2,586	6,022	8,571	15,041	10,331	7,436	12,675	9,485	5,179	2,324	850	0	0	0	0	0
1959	0	0	0	0	0	473	256	1,138	488	2,090	5,995	15,910	167	2,278	17,619	17,062	10,100	6,583	6,101	198	0	0	0	0	0	0
1960	0	0	0	0	0	115	381	539	1,685	3,732	2,211	6,374	6,127	11,455	9,231	5,962	1,659	4,472	3,593	2,095	5	0	0	0	0	0
1961	0	0	0	0	36	650	730	4,188	3,012	1,983	3,015	4,842	6,884	9,648	7,698	5,827	7,229	3,337	1,943	25	0	0	0	0	0	0
1962	0	0	0	0	135	2,846	9,865	17,100	15,236	10,116	11,950	4,193	15,332	12,507	11,256	18,429	9,617	4,231	3,751	82	0	0	0	0	0	0
1963	0	0	0	0	85	1,055	3,361	6,021	7,322	10,724	1,020	20,470	8,737	21,579	10,249	8,891	10,135	7,560	2,893	2,453	0	0	0	0	0	0
1964	0	0	0	0	0	3,421	10,444	16,359	10,629	11,497	12,657	14,892	21,222	30,583	15,767	19,105	7,534	4,292	3,502	1,641	8	0	0	0	0	0
1965	0	0	0	0	0	195	1,724	4,523	9,740	11,079	10,793	12,766	23,678	10,228	16,885	1,522	8,932	13,699	6,163	1,710	0	0	0	0	0	0
1966	0	0	0	0	0	3,454	25,689	19,457	11,389	25,551	20,842	29,409	29,887	27,454	25,946	25,789	12,749	6,828	13,552	7,445	4,467	1,240	0	0	0	0
1967	0	0	0	0	123	2,726	1,270	3,241	1,490	6,827	13,762	14,135	13,510	9,297	2,714	8,055	425	2,333	925	480	4	3	0	0	0	0
1968	0	0	0	0	134	14,106	23,271	24,341	14,429	35,134	20,699	24,078	15,858	10,250	10,491	12,007	11,465	7,417	9,963	4,416	3,045	8	22	0	0	0
1969	0	0	0	0	0	577	1,965	1,808	3,472	1,778	5,542	6,956	9,766	7,818	8,448	1,995	10,294	5,977	4,607	365	63	1	17	5	3	0
1970	0	0	180	0	0	1,507	2,407	2,808	3,340	2,531	3,809	7,700	1,208	8,102	15,265	10,300	9,495	9,182	5,950	2,423	8	0	0	0	0	0
1971	0	0	0	0	1	279	772	1,187	1,336	2,791	6,455	3,067	10,245	9,181	25,959	9,782	22,141	8,500	6,211	5,521	853	8	0	0	1	0
1972	0	0	0	0	0	1,020	4,043	8,766	12,312	12,438	13,618	6,521	16,234	14,532	15,086	12,504	6,921	8,709	6,568	8,661	901	138	13	0	0	0
1973	0	0	0	0	47	295	2,024	2,338	4,635	683	13,306	10,649	8,269	9,346	11,503	1,571	4,109	2,349	1,413	438	44	4	0	0	1	0
1974	0	0	0	0	6	2,722	1,756	602	4,233	3,909	2,023	5,079	5,827	7,874	1,150	4,118	463	511	4,511	134	302	127	0	0	0	0
1975	0	0	0	0	0	411	2,220	3,611	3,401	3,490	3,627	7,648	2,393	2,636	7,581	3,213	3,696	2,934	1,822	1,340	1,025	95	0	0	0	0
1976	0	0	0	0	0	223	2,323	6,530	5,887	3,834	5,737	2,578	5,315	5,550	2,288	302	454	5,180	6,809	3,274	109	74	25	10	0	0
1977	0	0	0	0	0	17	213	207	649	1,397	1,017	3,689	12,894	14,375	4,414	6,133	6,720	401	225	0	3	0	0	0	0	0
1978	0	0	0	0	37	128	2,923	1,153	6,431	9,840	4,008	8,567	1,180	9,362	11,081	6,225	2,909	5,532	4,161	114	13	0	0	0	0	0
1979	0	0	0	0	0	149	79	282	1,752	1,723	5,697	14,762	13,045	17,835	6,524	3,024	2,297	262	110	0	0	0	6	0	0	0
1980	0	0	0	13	0	626	617	1,032	485	5,757	4,953	7,479	8,487	925	675	529	686	1,876	47	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	67	181	1,803	9,864	8,717	5,192	9,170	6,467	4,646	426	156	139	850	166	0	0	0	0	0
1982	0	0	0	0	0	0	44	1,160	2,224	13,249	13,093	27,986	16,702	5,955	13,271	1,774	2,186	1,866	120	30	519	0	0	0	0	0
1983	0	0	0	0	0	0	0	205	14,824	18,457	15,806	33,999	14,141	8,789	13,319	7,282	4,893	1,021	202	449	259	0	0	0	0	0
1984	0	0	0	0	0	0	0	2,050	7,924	8,679	10,590	19,489	20,162	5,659	11,445	5,846	3,465	763	1,854	312	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	2,756	15,557	16,306	16,611	18,226	15,732	10,959	13,762	6,518	22	104	66	0	99	0	0	0	0	0
1986	0	0	0	0	0	703	1,818	1,216	9,263	21,109	24,100	24,988	23,488	10,071	9,912	13,516	21,287	1,142	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	483	7,200	5,633	17,441	12,118	4,272	4,968	7,077	5,446	1,280	227	309	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	12	6,617	7,483	11,114	5,536	1,968	5,318	4,200	7,082	952	928	19	0	0	0	0	0	0	77
1989	0	0	0	0	0	0	0	1,911	6,959	11,794	15,228	3,463	3,597	6,080	3,850	9,463	2,131	126	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	64	16,908	9,263	14,143	8,736	24,113	12,819	15,150	8,140	8,335	2,934	7,203	1,864	136	176	0	0	0	0
1991	0	0	0	0	0	0	46	8,310	13,764	26,400	18,266	19,666	17,468	5,080	6,739	3,651	4,333	926	1,146	0	37	0	0	0	0	0
1992	0	0	0	0	0	1	0	0	13,167	14,502	12,477	12,046	17,376	17,977	6,013	10,672	2,749	866	478	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	43	6,624	11,122	13,233	9,317	10,564	3,316	1,049	692	4,890	2,842	843	8	9	0	0	0	0	0
1994	0	0	0	0	0	0	0	9	1,214	4,307	11,521	26,775	17,518	6,721	4,324	2,586	3,141	692	5	1,314	2,833	0	0	0	0	0
1995	0	0	0	0	17	2	2	1,914	8,964	5,316	10,285	4,184	1,580	999	1,708	1,285	401	10	3,207	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	2	1,234	8,302	15,215	18,897	16,629	7,221	5,169	5,972	3,156	3,078	1,972	1,447	1,506	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	126	1,918	6,033	4,770	3,278	6,575	6,272	516	5	1	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	32	925	1,801	3,636	5,287	5,771	9,746	13,261	9,637	13,049	13,762	13,462	12,057	6,920	6,145	3,062	614	62	19	0	0	0
60-69 AVG	0	0	0	0	51	2,915	7,870	9,758	7,840	11,842	10,249	13,812	15,100	15,082	11,869	10,758	8,004	6,015	5,089	2,071	759	125	4	1	0	0
70-79 AVG	0	0	18	0	9	675	1,876	2,748	4,398	4,264	5,930	7,026	7,661	9,879	10,085	5,717	5,921	4,356	3,778	2,191	326	45	4	1	0	0
80-89 AVG	0	0	0	1	0	133	248	1,089	7,123	11,027	13,880	16,200	11,374	6,789	8,398	6,210	3,733	821	276	164	104	0	0	0	0	8
90-98 AVG	0	0	0	0	2	0	13	3,172	7,024	10,782	10,909	12,890	10,125	6,743	3,829	3,376	2,392	1,612	999	329	339	0	0	0	0	0

Table C29. Weekly gillnet coho saleslip catch, Canadian Statistical Area 4.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	0	2	0	486	786	2,703	1,854	1,485	6,679	13,238	10,523	0	6,073	1,319	252	350	22	0	151	0	0	0
1953	0	0	0	0	0	0	0	424	260	624	1,290	2,177	0	6,925	10,195	5,465	11,583	5,343	4,824	5,065	0	0	0	0	0	0
1954	0	0	0	0	0	3	0	0	161	522	654	2,560	7,088	8,558	869	23,375	13,309	11,907	7,760	6,793	1,601	0	0	0	0	0
1955	0	0	0	0	0	0	17	449	467	391	662	787	251	5,851	24,356	19,949	12,206	6,564	13,634	4,052	2,326	491	0	0	0	0
1956	0	0	0	0	0	0	2	3	0	5	35	128	3,082	17,706	6,981	12,359	10,300	5,041	2,679	2,825	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	4	1,215	1,876	12,340	7,562	10,465	5,585	5,115	3,013	3,696	1,272	0	0	0	0	0	0
1958	0	0	0	0	0	0	1	26	1	319	995	2,951	7,712	14,661	7,462	4,387	8,028	7,154	3,252	2,196	850	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	253	656	947	0	0	12,932	11,977	8,576	5,806	5,964	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	10	37	516	2,886	3,888	7,656	7,258	4,402	170	4,067	3,229	1,957	0	0	0	0	0	0
1961	0	0	0	0	0	0	46	374	261	915	952	3,598	4,624	6,858	5,931	4,281	5,515	2,067	1,849	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	646	1,959	2,419	1,784	3,790	2,117	10,388	9,212	9,076	15,452	7,417	3,489	3,231	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	193	607	405	0	227	999	15,065	6,200	4,162	8,457	7,171	2,840	2,320	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	11	711	835	2,486	4,793	11,692	21,960	10,602	15,474	5,828	3,683	2,915	1,505	0	0	0	0	0	0
1965	0	0	0	0	0	0	2	8	99	134	655	1,334	8,304	0	14,418	0	8,086	13,075	6,032	1,561	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	1,101	1,367	1,687	4,451	15,650	17,454	21,180	20,045	10,395	5,741	13,134	7,169	4,338	1,240	0	0	0	0
1967	0	0	0	0	0	0	0	24	227	1,159	10,226	10,785	11,072	6,426	0	6,200	97	2,167	685	428	0	0	0	0	0	0
1968	0	0	0	0	0	0	19	950	1,996	1,884	4,989	5,181	7,055	5,197	7,466	8,257	8,590	6,529	9,128	4,253	2,950	0	0	0	0	0
1969	0	0	0	0	0	0	4	123	446	486	1,916	3,717	2,989	5,414	6,778	25	9,402	5,506	3,969	4	0	0	0	0	0	0
1970	0	0	0	0	0	0	1	208	517	801	739	5,360	33	7,031	14,279	9,431	8,812	8,668	5,468	2,249	0	0	0	0	0	0
1971	0	0	0	0	1	0	0	0	4	30	310	2,362	4,771	6,681	22,749	8,201	19,948	7,464	5,118	4,984	835	0	0	0	0	0
1972	0	0	0	0	0	0	0	21	380	2,778	4,262	2,415	7,026	7,457	12,316	9,783	5,345	7,312	4,399	5,900	0	0	0	0	0	0
1973	0	0	0	0	0	0	3	99	323	200	4,432	4,718	6,810	7,313	8,585	86	3,324	1,671	1,174	390	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	37	1,413	980	1,094	2,242	4,345	6,312	112	3,601	10	14	4,052	0	0	13	0	0	0	0
1975	0	0	0	0	0	0	0	6	831	1,597	5	5,440	1,612	2,294	4,517	1,655	3,428	1,738	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	70	44	0	94	1,386	867	811	3,730	3,743	1,358	99	37	4,367	6,668	2,917	3	68	0	0	0	0
1977	0	0	0	0	0	0	0	0	39	293	942	2,340	5,064	14,075	3,057	4,942	3,731	231	18	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	5,976	6,638	3,135	7,100	10	7,633	9,877	3,356	2,454	5,183	3,966	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	75	37	879	4,244	10,496	7,881	14,677	3,907	3	15	4	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	5,078	4,172	3,735	6,533	39	0	22	12	1,410	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	1,553	5,093	4,557	4,267	6,502	3,267	3,793	30	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	8,175	6,235	6,926	8,270	3,731	8,423	30	0	1,696	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	107	3,621	7,516	4,880	5,503	7,974	5,797	3,298	14	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	675	3,674	4,894	8,252	2,994	8,579	3,193	2,433	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	4,582	8,503	12,514	6,503	5,094	6,228	7,340	4,681	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	906	3,139	6,413	5,394	2,099	6,804	9,859	9,120	1,142	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	355	905	2,098	1,386	4,190	5,478	3,181	751	75	33	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	281	1,060	3,991	3,880	1,722	4,561	2,395	5,380	920	0	19	0	0	0	0	0	0	77
1989	0	0	0	0	0	0	0	536	4,947	9,409	11,148	1,258	2,020	3,222	2,550	3,379	1,083	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	667	2,132	1,406	3,826	9,491	10,463	12,302	7,377	5,904	2,786	5,422	1,702	90	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	514	3,722	7,898	9,071	10,920	4,256	4,682	3,168	2,679	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	1	0	0	1,774	1,443	3,798	3,820	8,115	6,057	3,326	2,719	406	819	13	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	6,214	7,756	9,200	5,595	6,998	2,844	1,049	533	866	1	1	8	9	0	0	0	0	0
1994	0	0	0	0	0	0	0	9	1,150	4,065	10,288	25,775	14,556	5,456	2,463	1,392	31	6	0	1,314	2,833	0	0	0	0	0
1995	0	0	0	0	17	2	2	1,270	8,344	5,108	6,149	3,288	1,387	766	1,226	1,094	23	10	3,207	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	2	1,234	8,086	9,602	9,610	9,660	3,197	2,095	2,570	24	28	33	1,041	1,488	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	126	1,726	5,624	4,193	3,193	1,591	1	10	5	1	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	0	1	3	174	209	603	920	1,614	4,644	9,313	10,473	10,387	9,399	5,768	5,258	2,819	600	61	19	0	0	0
60-69 AVG	0	0	0	0	0	0	72	364	788	901	2,722	3,909	7,666	9,524	8,891	7,830	6,396	5,350	4,701	1,920	729	124	0	0	0	0
70-79 AVG	0	0	0	0	0	7	5	45	961	1,558	2,003	4,328	4,128	7,722	8,076	4,116	4,710	3,665	3,086	1,644	84	8	0	0	0	0
80-89 AVG	0	0	0	0	0	0	0	54	981	3,582	5,449	4,778	4,782	3,907	5,281	3,932	1,765	434	5	0	0	0	0	0	0	8
90-98 AVG	0	0	0	0	2	0	0	367	3,327	4,303	6,107	7,766	6,359	3,753	2,523	1,649	758	699	663	322	316	0	0	0	0	0

Table C30. Weekly seine coho saleslip catch, Canadian Statistical Area 4.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	0	0	0	0	0	0	0	1	0	0	12	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	39	134	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	0	3	0	21	125	490	323	62	9	0	0	23	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	0	0	0	0	1	107	17	0	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0	36	8	49	0	23	0	4	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	10	0	0	0	0	0	139	172	0	24	10	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	60	34	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	1	0	73	20	93	22	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	0	0	0	0	0	2	30	36	0	199	34	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	0	0	0	0	0	0	13	32	0	0	0	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	0	0	0	0	286	0	31	28	45	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	2	0	0	31	28	102	52	0	0	5	28	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	29	0	0	0	71	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0	44	0	0	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	0	12	32	2	176	4	0	33	0	93	400	9	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	0	0	0	0	0	122	0	0	0	0	0	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	33	0	0	75	0	0	26	0	28	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0	830	669	158	116	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	466	243	1,918	0	0	0	7	3	13	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	18	0	752	568	584	26	60	0	20	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	21	129	48	975	1,393	1,084	0	0	0	0	0	0	4	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	2	0	1,981	557	8	2,256	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	12	0	0	0	1	0	395	373	243	0	0	0	0	0	118	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	7	3	48	2,922	20	59	21	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	419	2,293	166	886	0	0	77	0	22	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	58	0	530	0	2,932	1,688	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	459	235	230	67	0	0	0	0	114	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	5	2,098	1,717	106	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	17	511	15,795	5,390	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	111	9,407	120	0	0	1,960	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	6,955	6,454	0	1,429	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0	5,580	102	20	835	274	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	2,719	0	65	461	1,480	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	1,484	26	544	0	1	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0	1,695	818	44	88	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	83	71	124	32	2,360	436	5	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	16	0	0	0	824	1,370	237	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	2	2	31	1,505	6,215	2,304	0	8	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	1	6	3,259	2,481	472	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	2	3	21	7	1	2	0	0	5	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	2,317	784	191	128	98	151	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	512	5,102	5,810	2,754	428	76	1	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	6	21	1	147	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	0	0	1	0	0	0	0	0	25	40	85	50	36	5	1	0	3	0	0	0	0	0
60-69 AVG	0	0	0	0	0	0	0	1	3	0	21	32	10	37	31	20	60	5	3	0	0	0	0	0	0	0
70-79 AVG	0	0	0	0	0	1	0	3	52	243	157	532	983	568	261	17	4	1	0	13	0	0	0	0	0	0
80-89 AVG	0	0	0	0	0	0	0	0	0	48	296	3,831	1,774	241	273	432	36	11	0	0	0	0	0	0	0	0
90-98 AVG	0	0	0	0	0	0	0	0	0	68	833	1,113	778	1,159	492	44	1	0	1	0	0	0	0	0	0	0

Table C31. Weekly troll coho saleslip catch,* Canadian Statistical Area 4.

	JULIAN/STATISTICAL WEEK NUMBER																									
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
YEAR	45	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104
1952	0	0	0	0	0	0	2,100	4,942	8,531	19,216	15,659	22,548	12,655	5,297	6,878	3,119	1,572	712	360	212	195	50	0	0	0	0
1953	0	0	0	0	0	0	803	584	1,468	1,795	632	682	4,177	4,236	4,157	5,495	3,557	4,628	1,618	844	202	0	0	0	0	0
1954	0	0	0	0	0	0	29	92	186	276	5,279	19,265	29,492	8,821	5,448	4,669	5,850	6,607	2,855	2,774	951	0	0	0	0	0
1955	0	0	0	0	0	16	68	720	1,427	2,228	3,242	5,657	16,843	7,897	2,441	2,701	2,922	1,930	945	730	204	37	3	0	0	0
1956	0	0	0	0	0	127	2,271	6,246	10,476	8,617	7,263	7,410	5,468	3,728	5,100	513	1,307	380	274	51	38	0	0	0	0	0
1957	0	0	0	0	0	112	1,116	1,005	2,518	6,160	5,584	8,112	6,509	8,741	2,900	1,597	850	607	43	420	27	0	0	0	0	0
1958	0	0	0	0	0	0	536	536	1,954	1,840	1,852	1,591	3,071	859	366	2,869	3,049	4,647	2,331	1,927	128	0	0	0	0	0
1959	0	0	0	0	0	0	473	256	1,138	488	1,837	5,339	14,963	167	2,278	4,666	5,085	1,464	743	137	198	0	0	0	0	0
1960	0	0	0	0	0	0	115	381	539	1,675	3,695	1,694	3,488	2,166	3,779	1,880	1,538	1,489	405	364	138	5	0	0	0	0
1961	0	0	0	0	0	36	650	684	3,814	2,751	1,068	2,063	1,244	2,258	2,760	1,731	1,546	1,515	1,236	94	25	0	0	0	0	0
1962	0	0	0	0	0	135	2,846	9,219	15,141	12,817	8,332	8,160	2,076	4,944	3,282	2,148	2,977	2,200	742	520	82	0	0	0	0	0
1963	0	0	0	0	0	85	1,055	3,361	5,828	6,715	10,319	1,020	19,957	7,738	6,483	4,021	4,684	1,678	389	53	133	0	0	0	0	0
1964	0	0	0	0	0	0	3,421	10,444	16,348	9,916	10,662	10,171	10,068	9,502	8,521	5,113	3,631	1,706	604	559	136	8	0	0	0	0
1965	0	0	0	0	0	0	195	1,722	4,515	9,641	10,945	10,109	11,432	15,374	10,228	2,396	1,522	846	624	131	149	0	0	0	0	0
1966	0	0	0	0	0	0	3,454	25,689	19,457	10,288	24,184	19,155	24,958	14,237	10,000	4,766	5,744	2,354	1,087	418	276	129	0	0	0	0
1967	0	0	0	0	0	123	2,726	1,270	3,217	1,263	5,668	3,536	3,350	2,438	2,848	2,714	1,811	328	166	240	52	4	3	0	0	0
1968	0	0	0	0	0	134	14,106	23,252	23,379	12,401	33,248	15,534	18,893	8,803	5,020	3,025	3,657	2,475	879	835	163	95	8	22	0	0
1969	0	0	0	0	0	0	577	1,961	1,685	3,026	1,292	3,626	3,239	6,777	2,282	1,670	1,970	892	471	638	361	63	1	17	5	3
1970	0	0	0	180	0	0	1,507	2,406	2,567	2,823	1,730	2,995	2,340	1,175	1,045	986	841	683	514	482	174	8	0	0	0	0
1971	0	0	0	0	0	0	279	772	1,187	1,332	2,761	6,145	705	4,644	1,831	3,052	1,465	2,193	1,036	1,093	537	18	8	0	0	1
1972	0	0	0	0	0	0	1,020	4,043	8,745	11,932	9,660	9,356	3,640	8,965	5,157	2,770	2,721	1,576	1,390	2,166	2,748	901	138	13	0	0
1973	0	0	0	0	0	47	295	2,021	2,239	4,294	483	8,122	5,363	875	2,007	2,858	1,485	765	678	239	48	44	4	0	0	1
1974	0	0	0	0	0	6	2,722	1,756	565	2,799	2,800	881	1,862	89	478	1,038	517	453	497	459	134	298	114	0	0	0
1975	0	0	0	0	0	0	411	2,220	3,605	2,570	1,891	3,622	227	224	334	808	1,558	268	1,196	1,822	1,340	1,025	95	0	0	0
1976	0	0	0	0	0	0	141	2,279	6,530	5,793	2,447	4,870	1,372	1,212	1,564	930	203	417	813	141	239	106	6	25	10	0
1977	0	0	0	0	0	0	17	213	207	610	1,097	72	1,301	4,908	280	1,298	1,170	2,989	170	207	0	3	0	0	0	0
1978	0	0	0	0	0	37	128	2,923	1,153	36	909	707	581	1,170	1,729	1,127	2,869	433	349	195	114	13	0	0	0	0
1979	0	0	0	0	0	0	149	79	207	1,657	844	923	4,266	2,232	1,470	2,617	3,021	2,282	258	110	0	0	0	6	0	0
1980	0	0	0	0	13	0	626	617	1,032	485	220	546	3,514	1,887	886	675	507	674	352	47	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	67	181	245	2,673	2,443	819	2,668	3,200	853	396	156	139	850	166	0	0	0	0
1982	14	0	0	0	0	0	0	44	1,160	2,224	5,057	6,347	5,265	3,042	2,224	4,848	1,744	2,186	170	120	30	519	0	0	0	0
1983	0	0	0	0	0	0	0	0	205	14,824	18,350	12,185	26,483	9,261	3,286	5,345	1,485	1,595	1,007	202	449	259	0	0	0	0
1984	0	0	0	0	0	0	0	0	2,050	7,924	8,004	6,805	5,188	11,790	2,665	2,866	693	1,032	763	1,854	312	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	2,756	10,975	7,803	4,097	4,768	4,184	4,731	4,993	1,837	22	104	66	0	99	0	0	0	0
1986	0	0	0	0	0	0	703	1,818	1,216	9,263	20,203	20,961	18,575	12,514	7,870	3,088	2,822	11,893	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	483	7,200	5,278	16,536	7,301	2,886	713	1,138	785	529	152	276	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	12	6,336	6,423	7,123	172	220	213	1,805	1,701	32	928	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	1,375	2,012	2,385	4,080	2,205	1,577	1,163	482	6,040	960	126	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	64	16,241	7,131	12,654	4,839	14,498	2,324	488	327	2,426	148	1,781	162	46	176	0	0	0	0
1991	0	0	0	0	0	0	0	46	8,310	13,250	22,662	10,368	10,595	6,548	0	687	246	1,654	926	1,146	0	37	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	11,393	13,057	8,677	8,195	7,756	5,705	383	7,953	2,335	47	465	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	43	410	3,365	4,027	463	1,085	0	0	159	4,024	2,841	842	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	64	242	1,231	997	2,941	1,258	1,860	1,192	3,110	686	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	644	620	208	1,819	112	2	105	384	40	378	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	216	5,101	4,185	1,159	1,270	2,646	3,326	3,131	3,050	1,939	406	18	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	192	409	577	79	4,963	6,270	359	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	0	32	925	1,798	3,462	5,078	5,169	8,826	11,647	4,968	3,696	3,204	3,024	2,622	1,146	887	243	11	0	0	0	0
60-69 AVG	0	0	0	0	0	51	2,915	7,798	9,392	7,049	10,941	7,507	9,871	7,424	5,520	2,946	2,908	1,548	660	385	152	30	1	4	1	0
70-79 AVG	0	0	0	18	0	9	667	1,871	2,701	3,385	2,462	3,769	2,166	2,549	1,590	1,748	1,585	1,206	690	691	533	242	37	4	1	0
80-89 AVG	1	0	0	0	1	0	133	248	1,036	6,142	7,397	8,135	7,591	4,818	2,642	2,844	1,847	1,932	376	270	164	104	0	0	0	0
90-98 AVG	0	0	0	0	0	0	0	12	2,804	3,697	6,411	3,969	4,011	2,988	1,830	814	1,683	1,633	913	336	7	24	0	0	0	0

*Weekly saleslip information corrected by lagging data back 1 week to reflect actual date of catch.

Table C32. Weekly coho saleslip catch for all gear combined, Canadian Statistical Area 5.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	0	697	2,412	4,637	8,233	6,066	8,520	12,428	10,945	6,633	15,325	9,978	8,768	80	296	0	10	0	0	0	0	0
1953	0	0	0	0	0	508	1,138	1,280	3,328	1,134	1,070	1,456	1,774	1,291	2,017	7,288	10,606	7,360	5,949	1,996	0	0	0	0	0	0
1954	0	0	0	0	0	76	108	255	882	992	3,182	3,299	3,455	4,261	1,496	10,455	18,411	10,510	244	134	0	0	0	0	0	0
1955	0	0	0	0	0	21	139	528	1,062	2,720	3,502	5,655	3,931	6,727	5,585	12,812	5,203	15,527	1,253	231	0	0	0	0	0	0
1956	0	0	0	0	125	1,374	5,164	7,402	10,158	4,807	11,106	9,036	9,107	8,578	9,805	13,282	11,719	433	51	0	0	0	0	0	0	0
1957	0	0	0	0	0	308	592	5,114	4,383	7,260	4,987	9,527	7,297	7,627	6,825	8,517	5,117	2,782	2,335	2,420	0	0	0	0	0	0
1958	0	0	0	0	0	1,077	2,314	1,896	3,027	4,251	6,452	21,179	6,530	8,966	2,587	6,188	573	828	843	136	3	0	0	0	0	0
1959	0	0	0	0	0	277	646	1,952	1,114	2,225	1,931	6,986	0	285	11,210	18,355	9,804	6,467	2,165	29	0	0	0	0	0	0
1960	0	0	0	0	0	69	1,381	1,227	1,644	2,885	2,142	4,862	3,419	5,109	8,708	11,904	9,200	7,233	4,272	2,269	7	0	0	0	0	0
1961	0	0	0	0	0	3,372	5,780	10,195	11,448	3,403	2,896	6,007	4,449	5,654	7,669	8,775	7,574	3,291	169	1	0	0	0	0	0	0
1962	0	0	0	1	64	2,192	7,742	12,147	6,029	13,458	12,554	15,404	4,082	16,853	17,608	21,643	19,518	21,805	14,803	6	0	0	0	0	0	0
1963	0	0	0	0	0	2,209	4,939	11,279	15,049	20,462	2,542	14,588	10,958	74,748	34,483	21,664	1,479	592	5,246	1,724	0	0	0	0	0	0
1964	0	0	0	0	0	2,658	8,662	15,660	19,121	20,098	25,482	27,913	27,492	23,854	33,011	27,065	18,902	20,391	177	208	0	0	0	0	1	0
1965	0	0	0	0	0	66	1,523	4,965	10,124	11,722	21,566	26,402	30,288	26,216	40,432	17,266	14,633	7,358	4,002	315	620	65	3	0	0	0
1966	0	0	0	0	0	744	48,623	24,080	31,414	18,423	35,166	46,675	38,878	32,847	26,618	20,847	16,351	16,358	11,943	2,785	82	9	1	27	0	0
1967	0	0	0	0	103	3,485	9,102	10,097	14,707	12,551	14,163	5,289	5,269	3,488	2,929	2,892	2,127	584	344	42	1	0	0	0	0	0
1968	0	0	0	0	358	27,775	39,758	43,722	33,192	43,495	36,164	25,760	15,711	17,074	19,578	18,856	8,879	6,425	3,869	1,436	0	3	1	0	0	0
1969	0	0	0	0	0	1,465	5,077	3,012	8,734	3,999	4,006	2,249	1,344	1,827	1,985	6,112	11,557	3,785	1,407	150	106	15	1	2	0	0
1970	0	0	0	0	0	362	9,637	4,024	10,323	11,590	12,090	10,668	18,082	10,433	5,854	7,761	4,695	3,840	2,227	1,531	5	0	0	0	0	0
1971	0	0	0	0	0	546	2,902	2,960	5,543	7,601	7,569	5,708	3,440	7,825	8,937	3,338	6,291	1,759	986	295	897	14	0	6	1	0
1972	0	0	0	0	0	416	7,393	4,878	22,997	22,423	34,235	13,522	30,108	19,683	15,252	9,255	2,923	3,658	358	0	263	11	0	0	0	0
1973	0	0	0	0	224	2,494	6,247	15,819	3,584	8,954	20,430	18,335	7,391	6,570	10,786	1,876	777	385	236	39	15	48	0	0	0	0
1974	0	0	0	0	28	2,442	14,099	7,181	6,709	2,648	6,882	2,105	910	965	1,105	4,150	10,218	12,465	200	205	93	60	0	0	0	0
1975	0	0	0	0	24	311	875	2,081	2,203	1,381	3,682	2,363	305	3,501	2,198	1,621	6,683	7,720	601	601	265	12	0	0	0	0
1976	0	0	0	0	0	178	2,149	7,904	6,600	7,249	2,690	1,477	1,155	493	4,689	6,409	3,902	5,159	2,910	512	601	5	2	8	0	0
1977	0	0	0	0	0	59	297	45	529	728	1,387	1,885	2,516	3,731	2,625	4,721	6,476	4,437	10,341	22	2	0	0	0	0	0
1978	0	0	0	0	0	360	90	2,308	5,536	5,493	819	2,541	4,266	2,503	4,231	2,697	5,827	5,004	1,138	18	10	0	0	0	0	0
1979	0	0	0	37	0	196	441	273	738	882	2,997	1,145	1,987	2,101	714	3,028	940	7,745	2,715	198	9	0	0	0	0	0
1980	0	0	0	0	40	137	1,473	1,418	1,901	2,780	3,440	2,164	3,375	1,568	2,865	6,916	5,829	3,320	43	26	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	1,496	132	1,327	57	1,591	1,086	442	328	768	2,891	2,255	65	45	85	15	0	0	0	0
1982	0	0	0	0	0	0	0	811	2,761	4,807	6,016	3,717	806	1,471	1,700	8,797	7,531	443	281	134	307	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	2,197	2,720	3,747	5,422	5,198	1,758	4,558	3,465	2,621	1,923	85	134	6	0	0	0	0	0
1984	0	0	0	0	0	0	0	400	482	226	960	481	3,396	7,718	6,882	6,022	712	1,136	1,122	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	1,760	1,352	6,792	4,990	4,126	3,976	2,700	1,026	595	775	76	15	0	0	0	0	0	0
1986	0	0	0	0	0	0	1,144	986	3,699	19,638	9,501	4,292	5,947	12,358	6,554	8,958	8,790	3,571	1,562	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	12	293	465	2,339	2,362	2,805	3,185	2,971	1,946	1,203	287	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	155	1,789	3,191	1,839	3,850	1,267	2,194	3,103	1,186	742	74	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	1,236	6,601	7,011	9,938	605	5,178	3,700	3,705	1,680	5,404	391	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	2,954	7,074	7,778	3,667	3,775	1,877	12,732	2,606	988	0	64	14	242	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	372	617	419	6,359	6,644	4,287	1,815	1,663	2,241	1,970	1,303	1,153	509	774	0	0	0	0	0
1992	0	0	0	0	0	0	0	9	4,490	4,787	4,239	4,383	5,094	10,183	4,293	4,328	1,119	2,080	932	94	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	8	1,082	1,010	1,505	2,350	5,682	295	2,110	1,171	2,060	155	772	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	38	313	1,158	1,622	2,899	9,276	8,337	937	1,692	4,297	1,829	475	307	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	491	1,840	2,056	1,565	4,980	945	6,127	4,359	4,584	5,976	3,053	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	253	2,040	2,966	5,911	5,715	8,411	5,624	3,155	618	1,510	938	92	268	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	41	128	1,080	756	827	952	25	227	958	1,015	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	16	542	1,564	2,883	4,023	3,682	5,094	8,696	5,380	5,546	6,856	10,859	8,775	5,498	1,642	618	2	0	0	0	0	0
60-69 AVG	0	0	0	0	53	4,404	13,259	13,638	15,146	15,050	15,668	17,515	14,189	20,767	19,302	15,702	11,022	8,782	4,623	894	82	9	1	3	0	0
70-79 AVG	0	0	0	4	28	736	4,413	4,747	6,476	6,895	9,278	5,975	7,016	5,781	5,639	4,486	4,873	5,217	2,171	342	216	15	0	1	0	0
80-89 AVG	0	0	0	0	4	14	262	636	1,998	4,212	4,598	2,746	3,577	3,744	3,446	4,268	3,676	1,484	331	35	40	2	0	0	0	0
90-98 AVG	0	0	0	0	0	0	0	463	1,954	2,362	2,847	3,508	4,058	5,015	2,150	1,842	1,994	1,047	382	158	86	0	0	0	0	0

Table C33. Weekly gillnet coho saleslip catch, Canadian Statistical Area 5.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	0	0	0	0	221	185	166	230	1,374	988	290	2,978	3,685	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	106	146	212	136	597	332	298	4,887	9,036	3,636	3,245	1,996	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	81	254	256	362	558	1,121	0	5,851	12,635	9,188	76	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	0	140	222	1,519	1,548	725	2,009	4,071	1,646	10,463	1,824	12,582	136	124	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	367	440	708	1,250	2,197	1,903	1,280	5,894	7,005	5,860	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	731	1,193	1,210	1,146	2,426	5,130	4,334	2,322	2,319	2,411	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	346	267	537	1,864	986	1,224	893	2,776	37	188	65	136	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	132	479	947	1,426	0	0	2,316	12,707	7,966	4,108	1,630	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	373	944	708	1,272	514	1,930	5,645	7,480	6,271	5,191	3,218	1,897	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	480	529	718	448	592	888	1,196	4,080	4,357	4,800	2,600	0	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	3,071	4,082	5,037	3,013	9,054	822	10,340	13,113	12,280	14,523	16,811	12,630	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	3,804	9,078	11,838	3	732	339	55,625	18,456	16,271	0	0	4,822	1,712	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	183	2,487	5,401	7,062	4,270	5,240	12,578	15,945	16,791	12,381	14,102	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	531	693	689	4,868	6,058	7,743	8,386	26,753	9,513	4,429	2,060	1,909	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	11	7,043	4,751	5,224	10,170	5,931	8,588	6,658	7,682	8,864	12,547	9,128	2,087	0	0	0	0	0	0
1967	0	0	0	0	0	0	2	777	645	1,294	293	103	238	334	0	1,102	1,619	298	38	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	1,823	2,807	2,793	3,664	1,567	1,949	3,606	4,860	10,276	8,895	3,624	3,385	2,849	1,391	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	791	729	561	2	290	222	1,067	4,892	9,772	3,439	1,258	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	1,315	759	2,798	4,856	4,184	2,615	11,844	5,598	2,317	5,104	3,174	2,747	1,904	1,520	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	3	31	1,280	565	426	781	2,626	1,057	1,498	1,336	792	177	820	0	0	0	0	0
1972	0	0	0	0	0	0	0	107	977	1,705	3,191	2,748	3,157	7,038	1,583	1,677	1,534	1,363	9	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	8	41	86	0	115	1,553	803	1,812	5,838	0	394	238	156	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	749	171	15	267	73	0	0	0	2,326	8,863	11,760	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	110	197	60	0	999	0	13	57	399	5,283	6,200	12	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	181	1,507	429	271	886	318	444	548	5,257	2,525	2,688	2,906	389	37	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	47	115	128	471	347	1,240	970	2,497	2,830	3,275	7,741	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	3	465	1,363	570	35	1,493	4,165	1,428	2,824	2,048	5,238	4,804	1,083	0	10	0	0	0	0	0
1979	0	0	0	37	0	0	22	0	630	404	661	287	1,139	395	6	50	9	7,163	1,982	100	0	0	0	0	0	0
1980	0	0	0	0	0	0	28	0	0	573	1,272	1,255	1,156	917	1,054	2,086	3,334	1,972	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	1,159	0	330	32	12	234	0	0	15	1,934	2,093	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	119	1,106	958	1,243	293	108	0	856	3,748	1,937	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	763	291	1,503	607	733	2,544	1,761	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	152	232	0	974	2,355	2,128	1,275	0	203	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	161	101	121	79	195	1,272	154	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	133	693	117	229	3,462	1,253	767	2,310	1,173	994	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	155	221	181	368	457	238	25	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	132	257	407	266	79	344	522	525	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	14	495	766	3,081	452	0	868	1,483	376	675	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	430	1,075	956	356	904	259	2,314	228	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	109	56	2,690	2,092	1,338	795	305	321	785	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	1,258	383	388	83	1,071	308	1,632	1,087	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	991	665	152	1,034	701	89	289	80	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	283	691	840	1,189	2,281	2,259	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	79	684	573	577	2,013	147	3	52	0	415	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	253	2,040	1,003	241	681	811	316	38	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	41	107	862	328	167	103	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	0	0	0	63	194	445	706	1,017	1,080	1,270	1,720	6,475	5,672	4,003	934	583	0	0	0	0	0	0
60-69 AVG	0	0	0	0	0	0	183	1,166	2,851	3,507	2,375	3,420	2,561	10,406	10,199	8,926	6,628	6,043	3,585	709	0	0	0	0	0	0
70-79 AVG	0	0	0	4	0	0	135	241	778	819	1,013	1,169	2,220	1,875	1,677	2,042	3,135	4,157	1,659	219	87	0	0	0	0	0
80-89 AVG	0	0	0	0	0	0	3	129	176	330	792	309	503	1,002	824	1,136	1,248	544	99	0	0	0	0	0	0	0
90-98 AVG	0	0	0	0	0	0	0	89	727	577	619	907	746	676	283	165	133	0	0	0	0	0	0	0	0	0

Table C34. Weekly seine coho saleslip catch, Canadian Statistical Area 5.

	JULIAN/STATISTICAL WEEK NUMBER																										
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105	
1952	0	0	0	0	0	0	0	0	110	416	656	747	2,078	2,486	3,250	2,644	1,776	0	0	0	0	0	0	0	0	0	
1953	0	0	0	0	0	0	0	0	33	37	142	103	638	196	1,440	1,402	1,380	3,683	2,704	0	0	0	0	0	0	0	
1954	0	0	0	0	0	0	0	0	2	72	231	210	367	1,050	0	4,195	5,462	1,222	168	22	0	0	0	0	0	0	
1955	0	0	0	0	0	0	0	0	4	56	107	207	535	1,319	3,393	1,509	2,993	2,366	156	98	0	0	0	0	0	0	
1956	0	0	0	0	0	0	0	0	19	95	638	1,433	2,694	4,431	2,972	4,499	5,275	0	0	0	0	0	0	0	0	0	
1957	0	0	0	0	0	0	0	0	0	0	67	361	611	594	543	1,194	174	103	0	0	0	0	0	0	0	0	
1958	0	0	0	0	0	0	0	0	58	328	757	2,288	3,063	2,786	1,456	2,208	7	390	384	0	0	0	0	0	0	0	
1959	0	0	0	0	0	0	0	0	1	141	281	808	0	0	3,665	1,612	880	893	519	0	0	0	0	0	0	0	
1960	0	0	0	0	0	0	0	0	165	222	290	563	701	720	1,519	2,701	1,740	1,281	758	337	0	0	0	0	0	0	
1961	0	0	0	0	0	0	0	3	84	466	630	796	2,658	3,205	2,921	3,265	2,167	271	0	0	0	0	0	0	0	0	
1962	0	0	0	0	0	0	0	46	407	1,176	838	678	1,291	4,714	1,676	5,978	4,664	4,677	1,763	0	0	0	0	0	0	0	
1963	0	0	0	0	0	0	0	48	209	972	0	444	124	7,152	5,487	2,519	0	0	12	0	0	0	0	0	0	0	
1964	0	0	0	0	0	0	0	16	342	708	708	1,224	2,956	6,104	9,393	7,857	4,637	4,769	0	0	0	0	0	0	0	0	
1965	0	0	0	0	0	0	0	59	31	86	473	1,101	959	2,369	6,664	3,316	4,977	3,611	1,539	0	0	0	0	0	0	0	
1966	0	0	0	0	0	0	0	0	827	1,496	2,046	7,538	5,393	11,557	9,390	6,516	4,012	2,972	2,174	674	0	0	0	0	0	0	
1967	0	0	0	0	0	0	0	25	96	351	280	171	783	911	0	480	206	54	0	0	0	0	0	0	0	0	
1968	0	0	0	0	0	4	747	1,254	3,100	1,915	2,621	2,022	2,313	756	3,750	4,653	3,491	2,675	871	45	0	0	0	0	0	0	
1969	0	0	0	0	0	0	0	0	11	36	29	17	5	699	292	263	1,666	149	29	0	0	0	0	0	0	0	
1970	0	0	0	0	0	0	113	593	452	1,246	631	638	1,770	2,956	2,746	1,799	587	990	102	0	0	0	0	0	0	0	
1971	0	0	0	0	0	0	0	0	0	0	82	55	219	894	1,345	1,568	3,777	260	163	0	0	0	0	0	0	0	
1972	0	0	0	0	0	0	0	0	0	0	0	23	1,060	1,198	2,604	1,221	677	1,099	0	0	0	0	0	0	0	0	
1973	0	0	0	0	0	0	0	0	0	0	206	356	422	340	923	0	0	0	3	0	0	13	0	0	0	0	
1974	0	0	0	0	0	0	0	0	44	0	29	58	0	0	1	336	1,151	544	0	0	19	60	0	0	0	0	
1975	0	0	0	0	0	0	0	0	1	11	0	508	200	1,984	507	350	1,133	1,085	0	0	0	0	0	0	0	0	
1976	0	0	0	0	0	0	0	0	3	1	0	0	0	0	45	580	1,164	1,979	4	26	0	0	0	0	0	0	
1977	0	0	0	0	0	0	0	0	0	0	38	84	103	1,019	976	1,624	342	0	1,485	0	0	0	0	0	0	0	
1978	0	0	0	0	0	0	0	156	192	615	6	223	0	193	1,126	255	280	77	0	0	0	0	0	0	0	0	
1979	0	0	0	0	0	0	0	0	3	1	218	271	495	59	0	0	0	267	0	0	0	0	0	0	0	0	
1980	0	0	0	0	0	0	0	0	0	759	201	193	99	111	80	717	1,078	1,059	0	0	0	0	0	0	0	0	
1981	0	0	0	0	0	0	0	322	0	109	7	63	0	0	0	0	19	16	0	0	0	0	0	0	0	0	
1982	0	0	0	0	0	0	0	0	121	990	1,464	1,107	399	0	0	55	1,247	0	0	0	0	0	0	0	0	0	
1983	0	0	0	0	0	0	0	0	0	0	547	604	701	459	157	916	365	0	0	0	0	0	0	0	0	0	
1984	0	0	0	0	0	0	0	0	0	0	337	0	1,244	4,829	3,293	2,807	0	162	0	0	0	0	0	0	0	0	
1985	0	0	0	0	0	0	0	0	0	0	68	867	489	608	1,122	0	0	0	0	0	0	0	0	0	0	0	
1986	0	0	0	0	0	0	0	0	0	0	456	1,152	251	2,499	3,132	3,692	2,650	2,398	568	0	0	0	0	0	0	0	
1987	0	0	0	0	0	0	0	0	0	0	231	105	632	2,229	1,550	781	0	0	0	0	0	0	0	0	0	0	
1988	0	0	0	0	0	0	0	0	0	0	732	336	64	267	563	704	661	0	0	0	0	0	0	0	0	0	
1989	0	0	0	0	0	0	0	0	0	0	758	153	77	1,113	730	0	266	0	0	0	0	0	0	0	0	0	
1990	0	0	0	0	0	0	0	0	60	0	528	1,088	1,329	8,749	2,378	15	0	0	0	0	0	0	0	0	0	0	
1991	0	0	0	0	0	0	0	0	0	0	2,451	457	1,042	934	703	368	0	0	0	0	0	0	0	0	0	0	
1992	0	0	0	0	0	0	0	0	0	0	415	21	1,623	1,444	162	969	0	0	0	0	0	0	0	0	0	0	
1993	0	0	0	0	0	0	0	0	0	0	33	543	1,781	49	6	0	0	0	0	0	0	0	0	0	0	0	
1994	0	0	0	0	0	0	0	0	0	0	0	559	1,056	1,406	0	0	0	0	0	0	0	0	0	0	0	0	
1995	0	0	0	0	0	0	0	0	0	101	153	404	377	157	219	0	0	0	0	0	0	0	0	0	0	0	
1996	0	0	0	0	0	0	0	0	0	165	802	1,791	729	543	342	0	0	0	0	0	0	0	0	0	0	0	
1997	0	0	0	0	0	0	0	0	0	0	0	0	128	0	103	0	0	0	0	0	0	0	0	0	0	0	
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
52-59 AVG	0	0	0	0	0	0	0	0	28	143	360	770	1,248	1,608	2,090	2,408	2,243	1,082	491	15	0	0	0	0	0	0	
60-69 AVG	0	0	0	0	0	0	75	145	527	743	792	1,455	1,718	3,819	4,109	3,755	2,756	2,046	715	106	0	0	0	0	0	0	
70-79 AVG	0	0	0	0	0	0	11	75	70	187	121	222	427	864	1,027	773	911	630	176	3	2	7	0	0	0	0	
80-89 AVG	0	0	0	0	0	0	0	32	12	186	480	458	396	1,212	1,063	967	629	364	57	0	0	0	0	0	0	0	
90-98 AVG	0	0	0	0	0	0	0	0	7	30	487	540	896	1,476	435	150	0	0	0	0	0	0	0	0	0	0	

Table C35. Weekly troll coho saleslip catch,* Canadian Statistical Area 5.

	JULIAN/STATISTICAL WEEK NUMBER																										
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
YEAR	45	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104
1952	0	0	0	0	0	0	697	2,412	4,637	7,902	5,465	7,698	11,451	7,493	3,159	11,785	4,356	3,307	80	296	0	10	0	0	0	0
1953	0	0	0	0	0	0	508	1,138	1,280	3,189	951	716	1,217	539	763	279	999	190	41	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	76	108	255	799	666	2,695	2,727	2,530	2,090	1,496	409	314	100	0	112	0	0	0	0	0
1955	0	0	0	0	0	0	21	139	388	836	1,145	1,847	4,723	1,387	1,337	546	840	386	579	961	9	0	0	0	0	0
1956	0	0	0	0	0	125	1,374	5,164	7,035	9,699	4,004	9,218	5,406	4,510	2,867	939	1,778	584	433	51	0	0	0	0	0	0
1957	0	0	0	0	0	0	308	592	5,114	4,383	7,260	4,189	7,973	5,476	5,887	3,856	2,193	609	357	16	9	0	0	0	0	0
1958	0	0	0	0	0	0	1,077	2,314	1,896	2,623	3,656	5,158	17,027	2,481	4,956	238	1,204	529	250	394	0	3	0	0	0	0
1959	0	0	0	0	0	0	277	646	1,952	981	1,605	703	4,752	0	285	5,229	4,036	958	1,466	16	29	0	0	0	0	0
1960	0	0	0	0	0	0	69	1,381	1,227	1,106	1,719	1,144	3,027	2,204	2,459	1,544	1,723	1,189	761	296	35	7	0	0	0	0
1961	0	0	0	0	0	0	3,372	5,780	9,712	10,835	2,219	1,818	4,619	903	1,253	668	1,153	607	420	169	1	0	0	0	0	0
1962	0	0	0	0	1	64	2,192	7,742	9,030	1,540	7,245	8,703	5,672	1,969	1,799	2,819	3,385	331	317	410	6	0	0	0	0	0
1963	0	0	0	0	0	0	2,209	4,939	7,427	5,762	7,652	2,539	13,412	10,495	11,971	10,540	2,874	1,479	592	412	12	0	0	0	0	0
1964	0	0	0	0	0	0	2,658	8,662	15,461	16,292	13,989	17,712	22,419	19,296	5,172	7,673	2,417	1,884	1,520	177	208	0	0	0	0	1
1965	0	0	0	0	0	0	66	1,523	4,375	9,400	10,947	16,225	19,243	21,586	15,461	7,015	4,437	5,227	1,687	554	315	620	65	3	0	0
1966	0	0	0	0	0	0	744	48,623	24,069	23,544	12,176	27,896	28,967	27,554	12,702	10,570	6,649	3,475	839	641	24	82	9	1	27	0
1967	0	0	0	0	0	103	3,485	9,100	9,295	13,966	10,906	13,590	5,015	4,248	2,243	2,929	1,310	302	232	306	42	1	0	0	0	0
1968	0	0	0	0	0	358	27,771	37,188	39,661	27,299	37,916	31,976	21,789	9,792	11,458	5,552	5,308	1,764	365	149	0	0	3	1	0	0
1969	0	0	0	0	0	0	1,465	5,077	3,012	7,932	3,234	3,416	2,230	1,049	906	626	957	119	197	120	150	106	15	1	2	0
1970	0	0	0	0	0	0	362	8,209	2,672	7,073	5,488	7,275	7,415	4,468	1,879	791	858	934	103	221	11	5	0	0	0	0
1971	0	0	0	0	0	0	546	2,902	2,960	5,540	7,570	6,207	5,088	2,795	6,150	4,966	713	1,016	163	31	118	77	14	0	6	1
1972	0	0	0	0	0	0	416	7,393	4,771	22,020	20,718	31,044	10,751	25,891	11,447	11,065	6,357	712	1,196	349	0	263	11	0	0	0
1973	0	0	0	0	0	224	2,494	6,239	15,778	3,498	8,954	20,109	16,426	6,166	4,418	4,025	1,876	383	147	77	39	15	35	0	0	0
1974	0	0	0	0	0	28	2,442	14,099	6,432	6,494	2,633	6,586	1,974	910	965	1,104	1,488	204	161	200	205	74	0	0	0	0
1975	0	0	0	0	0	24	311	875	1,971	2,005	1,310	3,682	856	105	1,504	1,634	872	267	435	589	601	265	12	0	0	0
1976	0	0	0	0	0	0	178	2,149	7,723	5,090	6,819	2,419	591	837	49	4,096	572	213	492	0	97	564	5	2	8	0
1977	0	0	0	0	0	0	59	297	45	482	613	1,221	1,330	2,066	1,472	679	600	3,304	1,162	1,115	22	2	0	0	0	0
1978	0	0	0	0	0	0	360	87	1,687	3,981	4,308	778	825	101	882	281	394	309	123	55	18	0	0	0	0	0
1979	0	0	0	0	0	0	196	419	273	105	477	2,118	587	353	1,647	708	2,978	931	315	733	98	9	0	0	0	0
1980	0	0	0	0	0	40	137	1,445	1,418	1,901	1,448	1,967	716	2,120	540	1,731	4,113	1,417	289	43	26	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	15	132	888	18	1,516	852	442	328	753	938	146	65	45	85	15	0	0	0
1982	0	0	0	0	0	0	0	0	692	1,534	2,859	3,309	2,317	299	1,471	844	4,994	4,347	443	281	134	307	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	2,197	2,720	2,437	4,527	2,994	692	3,668	5	495	1,923	85	134	6	0	0	0	0
1984	0	0	0	0	0	0	0	0	400	482	74	391	481	1,178	534	1,461	1,940	712	771	1,122	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	1,599	1,251	6,603	4,044	3,442	2,096	1,424	1,026	595	775	76	15	0	0	0	0	0
1986	0	0	0	0	0	0	0	1,144	986	3,699	19,505	8,352	3,023	5,467	6,397	2,169	4,499	3,830	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	12	293	310	1,887	2,076	1,805	499	1,183	1,140	1,203	287	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	155	1,657	2,202	1,096	3,520	921	1,287	1,877	0	742	74	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	1,222	6,106	6,245	6,099	0	5,101	1,719	1,492	1,304	4,463	391	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	2,524	5,939	6,822	2,783	1,783	289	1,669	0	973	0	64	14	242	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	372	508	363	1,218	4,095	1,907	86	655	1,552	1,185	1,303	1,153	509	774	0	0	0	0
1992	0	0	0	0	0	0	0	0	9	3,232	4,404	3,436	4,279	2,400	8,431	2,499	2,272	1,119	2,080	932	94	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	8	91	345	1,320	773	3,200	157	1,815	1,091	2,060	155	772	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	38	30	467	782	1,151	5,939	4,672	937	1,692	4,297	1,829	475	307	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	412	1,156	1,382	835	2,563	421	5,967	4,088	4,584	5,561	3,053	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	1,798	4,868	3,243	6,871	4,765	2,775	618	1,510	938	92	268	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	21	218	428	660	721	25	124	958	1,015	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	0	16	542	1,564	2,820	3,802	3,094	4,028	6,910	3,052	2,668	3,046	1,977	860	413	217	20	2	0	0	0	0
60-69 AVG	0	0	0	0	0	53	4,403	13,002	12,327	11,768	10,800	12,502	12,639	9,910	6,542	4,994	3,021	1,638	693	323	79	82	9	1	3	0
70-79 AVG	0	0	0	0	0	28	736	4,267	4,431	5,629	5,889	8,144	4,584	4,369	3,041	2,935	1,671	827	430	337	121	127	8	0	1	0
80-89 AVG	0	0	0	0	0	4	14	259	475	1,810	3,696	3,327	1,980	2,678	1,531	1,559	2,165	1,800	577	175	35	40	2	0	0	0
90-98 AVG	0	0	0	0	0	0	0	0	374	1,220	1,755	1,741	2,061	2,416	2,864	1,433	1,527	1,861	1,047	382	158	86	0	0	0	0

*Weekly saleslip information corrected by lagging data back 1 week to reflect actual date of catch.

Table C36. Gillnet saleslip effort, Canadian Statistical Areas 1 – 10.

YEAR	1	2E	2W	3*	4*	5*	6	7	8	9	10	1 to 10	1, 3, 4 and 5
1952				1,273	6,060	190						7,523	7,523
1953				1,414	5,397	643						7,454	7,454
1954				8,533	27,172	2,819						38,524	38,524
1955				10,382	16,078	3,143						29,603	29,603
1956				14,044	9,879	2,894						26,817	26,817
1957				8,446	13,756	1,796						23,998	23,998
1958				12,337	13,139	2,128						27,604	27,604
1959				12,639	10,959	3,547						27,145	27,145
1960				12,389	10,389	3,762						26,540	26,540
1961				11,414	17,468	2,370						31,252	31,252
1962				10,456		9,869						20,325	20,325
1963	727	683	38	4,445		6,525	6,349	5,545	13,814	11,811	3,916	53,853	11,697
1964	1,024	2,620	160	4,915		7,741	6,784	5,639	11,890	23,114	4,849	68,736	13,680
1965	874	1,015	183	8,116	7,631	6,657	7,927	4,072	7,387	15,686	5,711	65,259	23,278
1966	1,359	336	56	8,026	15,870	7,598	6,742	5,362	10,079	12,464	3,382	71,274	32,853
1967	1,316	2,997	108	6,059	19,225	1,635	2,366	1,896	6,340	15,411	6,252	63,605	28,235
1968	2,399	3,876	105	8,247	14,226	4,794	5,439	4,247	9,419	21,823	6,230	80,805	29,666
1969	1,733	856	83	6,739	10,447	2,004	1,446	2,704	4,571	11,892	3,091	45,566	20,923
1970	2,412	3,331	219	5,930	9,253	6,406	6,641	9,644	8,772	3,584	2,566	58,758	24,001
1971	2,279	2,327	102	4,139	11,232	1,612	1,219	3,250	4,295	5,191	1,544	37,190	19,262
1972	2,046	2,121	240	5,672	11,437	2,985	3,970	8,315	5,540	9,270	2,338	53,934	22,140
1973	706	1,930	144	5,396	10,373	1,005	829	9,732	4,679	10,923	2,332	48,049	17,480
1974	687	2,117	275	5,613	11,724	655	2,062	7,285	5,049	2,105	5,488	43,060	18,679
1975	1,047	45	190	3,309	6,059	496	726	3,195	6,084	921	1,720	23,792	10,911
1976	274	416	29	3,366	6,356	1,610	521	3,277	8,043	9,097	2,027	35,016	11,606
1977	492	1,860	117	6,230	10,962	1,199	369	1,757	3,532	9,365	1,385	37,268	18,883
1978	58	960	13	4,487	6,496	1,350	1,368	4,278	5,007	8,685	3,184	35,886	12,391
1979	80	0	24	1,931	11,165	683	559	2,140	5,880	1,192	399	24,053	13,859
1980	605	875	179	2,980	5,726	852	1,410	4,203	5,759	267	418	23,274	10,163
1981	525	381	10	2,127	13,170	552	703	1,923	4,451	1,127	1,146	26,115	16,374
1982	17	141	17	3,145	8,799	548	663	1,818	3,056	605	4,034	22,843	12,509
1983	49	0	5	2,377	4,699	501	512	258	4,574	544	1,963	15,482	7,626
1984	137	509	25	2,929	7,685	435	225	748	1,461	1,200	382	15,736	11,186
1985	148	2,952	41	736	12,510	169	431	1,037	3,560	2,630	4,844	29,058	13,563
1986	367	977	16	1,125	6,102	529	405	946	8,445	6,024	5,622	30,558	8,123
1987	71	793	0	1,015	5,748	192	239	834	3,175	6,697	3,512	22,276	7,026
1988	85	1,469	7	727	13,837	317	1,236	1,140	4,625	5,509	4,687	33,639	14,966
1989	53	891	7	1,525	7,571	362	53	460	1,542	1,105	1,264	14,833	9,511
1990	72	585	9	977	8,583	282	284	768	5,216	3,351	1,345	21,472	9,914
1991	42	954	130	1,813	10,931	357	71	515	1,782	1,898	5,010	23,503	13,143
1992	121	764	32	2,387	11,248	345	24	256	1,183	3,734	6,041	26,135	14,101
1993	74	273	3	3,546	10,664	186	27	406	1,787	1,283	3,335	21,584	14,470
1994	186	354	0	3,310	7,985	430	126	384	2,861	678	1,287	17,601	11,911
1995	333	258	0	4,306	12,062	434	28	569	5,390	917	585	24,882	17,135
1996	56	192	0	4,430	13,487	507	29	261	2,389	0	246	21,597	18,480
1997	700	192	0	2,759	9,558	269	134	228	1,688	0	0	15,528	13,286
1998	12	156	0	1,197	1,041	47	1,132	172	2,164	0	0	5,921	2,297
52-59 AVG				8,634	12,805	2,145						23,584	23,584
60-69 AVG	1,347	1,769	105	8,081	13,608	5,296	5,293	4,209	9,071	16,029	4,776	52,722	23,845
70-79 AVG	1,008	1,511	135	4,607	9,506	1,800	1,826	5,287	5,688	6,033	2,298	39,701	16,921
80-89 AVG	206	899	31	1,869	8,585	446	588	1,337	4,065	2,571	2,787	23,381	11,105
90-98 AVG	177	414	19	2,747	9,507	317	206	395	2,718	1,318	1,983	19,803	12,749

*Hail data, obtained from field catch records.

Table C37. Seine saleslip effort, Canadian Statistical Areas 1 – 10.

YEAR	1	2E	2W	3*	4*	5*	6	7	8	9	10	1 to 10	1, 3, 4 and 5
1952				90	2	209						301	301
1953				138	3	125						266	266
1954				633	69	478						1,180	1,180
1955				500	16	1,092						1,608	1,608
1956				1,271	11	689						1,971	1,971
1957				804	9	326						1,139	1,139
1958				906	2	524						1,432	1,432
1959				640	11	693						1,344	1,344
1960				469	15	792						1,276	1,276
1961				828	19	988						1,835	1,835
1962				245		974						1,219	1,219
1963	10	282	0	84		484	1,393	431	1,804	3	12	4,503	578
1964	120	705	153	336	0	1,302	1,831	1,085	3,809	6	36	9,383	1,758
1965	79	261	99	624	4	549	2,062	1,209	1,665	17	1	6,570	1,256
1966	388	284	137	280	0	1,600	2,551	1,106	1,443	1	9	7,799	2,268
1967	25	576	52	1,344	2	247	548	344	646	24	0	3,808	1,618
1968	380	622	141	900	0	1,106	2,458	988	3,036	971	12	10,614	2,386
1969	48	49	71	616	0	251	401	346	330	249	17	2,378	915
1970	109	517	325	414	8	953	2,911	784	2,134	112	3	8,270	1,484
1971	63	254	121	378	115	293	334	308	310	52	0	2,228	849
1972	169	345	369	455	138	599	3,358	1,218	1,040	398	25	8,114	1,361
1973	149	368	108	434	219	378	620	951	634	602	5	4,468	1,180
1974	130	222	275	848	501	99	948	584	1,624	130	10	5,371	1,578
1975	214	12	153	489	426	207	219	558	739	40	2	3,059	1,336
1976	89	575	82	182	39	146	384	591	1,624	386	3	4,101	456
1977	228	327	306	1,546	141	255	441	337	285	371	8	4,245	2,170
1978	62	98	140	1,504	73	211	1,107	351	656	266	1	4,469	1,850
1979	267	0	410	743	49	169	944	861	971	0	0	4,414	1,228
1980	173	59	244	912	41	158	1,350	608	726	0	0	4,271	1,284
1981	273	18	110	1,189	401	49	570	379	607	3	1	3,600	1,912
1982	156	13	100	1,659	827	197	423	495	139	0	0	4,009	2,839
1983	101	0	200	2,157	0	55	1,106	118	508	0	0	4,245	2,313
1984	652	398	304	1,580	749	355	288	510	126	0	0	4,962	3,336
1985	301	595	106	1,099	819	241	523	397	616	0	0	4,697	2,460
1986	332	301	85	1,221	94	389	1,383	549	2,379	0	0	6,733	2,036
1987	150	234	5	1,780	216	269	643	409	1,323	0	0	5,029	2,415
1988	196	435	30	888	219	244	1,917	485	3,484	0	0	7,898	1,547
1989	64	170	19	1,059	77	85	23	86	121	0	0	1,704	1,285
1990	242	343	303	556	60	296	714	532	2,583	0	0	5,629	1,154
1991	92	224	163	2,958	178	225	185	170	324	0	0	4,519	3,453
1992	239	259	81	981	174	128	202	124	864	0	0	3,052	1,522
1993	175	121	174	1,656	281	59	15	96	269	0	0	2,846	2,171
1994	159	131	59	698	0	74	191	147	1,323	0	0	2,782	931
1995	202	11	0	2,537	485	154	71	222	655	0	0	4,337	3,378
1996	54	66	0	1,115	975	347	96	55	160	0	0	2,868	2,491
1997	496	23	34	809	172	25	40	85	175	0	0	1,859	1,502
1998	9	81	75	203	0	4	300	82	590	0	0	1,344	216
52-59 AVG				623	15	517						1,155	1,155
60-69 AVG	150	397	93	573	5	829	1,606	787	1,819	182	12	4,939	1,511
70-79 AVG	148	272	229	699	171	331	1,127	654	1,002	236	6	4,874	1,349
80-89 AVG	240	222	120	1,354	344	204	823	404	1,003	0	0	4,715	2,143
90-98 AVG	185	140	99	1,279	258	146	202	168	771	0	0	3,248	1,869

*Hail data, obtained from field catch records.

Table C38. Troll saleslip effort, Canadian Statistical Areas 1 – 10.

YEAR	1	2E	2W	3	4	5	6	7	8	9	10	1 to 10	1, 3, 4 and 5
1952													
1953													
1954													
1955													
1956													
1957													
1958													
1959													
1960													
1961													
1962													
1963	7,985	1,672	747	3,788	3,103	3,376	2,497	5,555	539	45	196	29,503	18,252
1964	9,969	2,693	698	4,863	4,892	4,114	6,160	6,113	1,500	340	193	41,535	23,838
1965	9,337	2,539	1,082	3,826	4,519	5,544	6,781	4,892	984	117	256	39,877	23,226
1966	8,544	2,545	1,064	4,559	3,784	5,156	4,942	4,923	1,552	172	641	37,882	22,043
1967	9,477	2,218	1,406	3,238	3,007	4,859	3,773	5,284	1,194	234	2,059	36,749	20,581
1968	10,835	2,607	703	5,828	5,427	6,258	5,184	5,418	2,251	2,090	1,956	48,557	28,348
1969	11,552	3,639	1,501	4,726	4,141	3,972	2,928	4,961	1,236	352	1,120	40,128	24,391
1970	13,848	3,924	1,157	4,511	2,894	3,289	5,696	6,320	2,370	393	841	45,243	24,542
1971	11,101	3,749	1,767	3,840	2,813	3,348	1,994	5,655	1,402	244	240	36,153	21,102
1972	9,783	4,376	1,495	4,237	3,277	4,940	4,962	6,382	2,218	607	830	43,107	22,237
1973	8,781	3,750	736	3,100	2,044	3,780	2,988	5,037	1,557	805	567	33,145	17,705
1974	9,292	3,572	1,338	2,644	1,338	2,628	3,159	3,605	2,259	1,014	502	31,351	15,902
1975	11,531	3,727	1,574	2,405	2,305	2,201	2,250	3,453	1,363	705	563	32,077	18,442
1976	8,857	5,481	1,773	1,903	2,131	1,601	1,461	4,825	2,790	2,328	1,481	34,631	14,492
1977	8,769	3,931	2,015	2,278	1,255	1,306	2,159	5,570	2,317	2,576	707	32,883	13,608
1978	11,190	4,118	2,766	3,036	982	504	2,497	5,096	2,484	1,490	581	34,744	15,712
1979	13,897	3,991	2,583	2,029	1,155	1,034	1,805	6,178	1,938	1,315	686	36,611	18,115
1980	25,361	6,320	7,122	3,600	1,100	1,723	2,864	6,147	2,362	1,544	808	58,951	31,784
1981	19,343	5,305	7,398	3,495	1,192	805	2,465	5,121	2,187	990	971	49,272	24,835
1982	18,151	4,461	6,139	3,208	1,520	1,078	2,224	5,033	906	748	836	44,304	23,957
1983	20,803	4,691	3,289	7,116	2,639	1,323	2,844	3,799	1,325	420	2,284	50,533	31,881
1984	21,128	1,339	3,482	5,292	1,991	777	2,420	4,352	1,221	304	910	43,216	29,188
1985	18,328	1,785	7,321	2,445	1,193	637	1,049	2,415	817	284	512	36,786	22,603
1986	13,745	3,022	2,433	4,567	1,640	884	1,461	2,451	1,029	613	1,489	33,334	20,836
1987	15,824	2,995	7,519	2,813	888	516	1,169	2,193	830	174	594	35,515	20,041
1988	15,450	1,518	3,100	2,092	594	573	1,312	1,116	223	318	341	26,637	18,709
1989	11,484	846	6,409	1,972	401	562	500	619	105	68	275	23,241	14,419
1990	13,821	1,860	5,106	3,431	774	440	1,214	1,454	314	184	1,080	29,678	18,466
1991	17,464	2,033	4,489	4,073	1,140	606	1,013	2,037	117	39	527	33,538	23,283
1992	12,181	1,754	2,160	3,147	1,285	1,095	1,238	1,514	113	436	357	25,280	17,708
1993	11,761	1,051	4,409	2,045	371	402	437	842	58	107	90	21,573	14,579
1994	11,945	1,125	6,880	4,010	197	506	428	735	179	136	716	26,857	16,658
1995	13,009	906	1,691	2,348	168	1,297	621	435	56	73	198	20,802	16,822
1996	5,326	467	42	4,118	471	792	233	37	56	0	63	11,605	10,707
1997	7,991	892	1,187	95	258	345	331	238	15	11	37	11,400	8,689
1998	80	11	5,482	0	0	0	168	80	30	0	0	5,851	80
52-59 AVG													
60-69 AVG	9,671	2,559	1,029	4,404	4,125	4,754	4,609	5,307	1,322	479	917	39,176	22,954
70-79 AVG	10,705	4,062	1,720	2,998	2,019	2,463	2,897	5,212	2,070	1,148	700	35,995	18,186
80-89 AVG	17,962	3,228	5,421	3,660	1,316	888	1,831	3,325	1,101	546	902	40,179	23,825
90-98 AVG	10,398	1,122	3,494	2,585	518	609	631	819	104	110	341	20,732	14,110

Table C39. Weekly gillnet hail effort, Canadian Statistical Areas 1*, 3, 4, and 5 combined.

	JULIAN/STATISTICAL WEEK NUMBER																										
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105	
1952																											
1953																											
1954																											
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1964																											
1965	9	14	38	87	224	395	501	1,166	2,387	1,855	2,505	2,096	2,411	1,680	2,360	1,411	1,350	1,347	727	714	0	0	0	0	0	0	
1966	6	3	22	41	202	317	405	943	1,953	2,277	3,303	3,127	4,119	2,782	3,175	2,495	2,568	1,707	1,348	1,007	587	465	0	0	0	0	
1967	20	14	102	256	401	541	680	2,012	2,478	2,779	5,204	5,034	3,586	1,861	151	1,351	566	567	314	183	39	37	42	6	0	0	
1968	7	37	115	299	380	528	1,148	1,990	2,396	2,646	3,497	3,976	2,574	1,805	1,875	2,196	1,452	1,137	706	584	279	39	0	0	0	0	
1969	77	172	212	254	408	407	530	1,509	1,783	1,907	2,331	3,141	1,101	1,856	1,120	858	1,657	791	443	46	56	75	80	75	0	0	
1970	3	10	120	232	349	555	1,185	1,717	2,162	2,152	2,033	2,436	1,984	2,686	2,113	1,483	1,044	682	561	403	55	34	0	0	0	0	
1971	12	34	120	197	322	344	619	927	203	249	1,712	2,316	1,991	1,644	3,089	1,389	1,504	1,248	603	366	197	67	47	53	4	0	
1972	11	47	111	152	258	292	414	1,678	2,117	1,693	2,411	2,560	2,880	2,686	2,180	1,060	709	385	352	16	42	77	0	0	0	0	
1973	4	9	90	90	225	472	1,091	1,564	1,338	324	3,734	3,016	2,092	1,535	805	73	494	212	108	73	44	38	49	0	0	0	
1974	0	0	7	50	115	118	953	980	1,716	2,156	3,014	3,241	3,380	1,348	13	427	488	558	0	12	16	41	24	0	15	1	
1975	0	2	0	0	103	295	192	923	1,131	1,586	117	2,729	487	719	772	183	394	473	420	78	252	54	0	0	0	0	
1976	0	3	16	61	90	94	62	963	1,181	1,194	560	1,105	2,385	1,110	542	400	546	582	323	375	1	12	0	0	0	0	
1977	0	2	4	21	33	1	730	901	1,374	1,528	2,191	2,582	2,588	2,394	1,621	1,088	668	681	427	3	2	5	0	27	11	0	
1978	0	1	0	0	0	807	841	889	1,575	2,220	860	1,533	775	566	804	465	391	320	303	0	12	29	0	0	0	0	
1979	0	0	0	0	0	2	731	52	299	1,056	2,587	3,494	2,214	2,178	527	312	0	309	98	0	0	0	0	0	0	0	
1980	0	0	0	0	0	0	119	145	181	2,145	2,699	1,290	1,617	524	564	351	327	201	0	0	0	0	0	0	0	0	
1981	0	0	0	0	0	0	521	759	176	2,697	4,046	3,331	1,955	1,093	965	624	138	68	0	1	0	0	0	0	0	0	
1982	0	0	0	0	0	0	595	685	861	1,951	2,153	2,041	2,312	720	487	195	167	147	195	0	0	0	0	0	0	0	
1983	0	0	0	0	0	0	0	0	0	0	674	1,825	1,160	790	1,406	1,283	488	0	0	0	0	0	0	0	0	0	
1984	0	0	0	0	0	0	0	425	0	649	2,710	2,043	1,622	1,402	1,547	401	166	220	0	0	0	0	1	0	0	0	
1985	0	0	0	0	0	0	0	0	894	2,094	2,094	2,637	2,208	1,339	1,281	889	0	0	0	0	6	9	75	37	0	0	
1986	0	0	0	0	0	0	0	0	0	439	498	1,726	1,242	750	1,131	1,006	753	242	64	0	0	66	131	75	0	0	
1987	0	0	0	0	0	0	0	0	0	378	486	1,220	1,301	1,707	886	788	230	0	0	11	19	0	0	0	0	0	
1988	0	0	0	0	0	0	0	0	650	2,051	3,041	3,214	1,177	2,324	1,114	1,002	327	0	0	0	18	48	0	0	0	0	
1989	0	0	0	0	0	0	554	591	783	3,198	1,674	397	675	802	502	201	104	0	0	21	9	0	0	0	0	0	
1990	0	0	0	0	0	0	279	529	595	621	1,487	2,397	1,528	1,158	781	205	146	106	75	4	0	3	0	0	0	0	
1991	0	0	0	0	0	0	0	304	591	2,007	3,288	2,899	2,140	645	520	548	193	0	0	0	5	3	0	0	0	0	
1992	0	0	0	0	0	0	0	0	1,269	2,632	2,052	2,892	1,882	1,643	844	680	185	7	3	11	1	0	0	0	0	0	
1993	0	0	0	0	0	0	133	594	1,345	2,663	3,418	2,159	1,707	1,026	655	334	255	156	25	0	0	0	0	0	0	0	
1994	0	0	0	0	0	0	159	538	929	1,512	3,708	1,441	1,923	825	327	196	79	40	0	90	114	30	0	0	0	0	
1995	0	0	0	0	23	319	652	1,171	3,032	3,734	3,674	2,215	1,125	335	399	308	0	0	131	17	0	0	0	0	0	0	
1996	0	0	0	0	0	283	360	1,244	2,331	3,589	3,413	3,549	1,900	900	644	0	61	10	93	84	19	0	0	0	0	0	
1997	0	0	0	0	0	98	226	1,479	1,744	3,135	2,994	2,936	657	11	0	0	0	0	6	0	0	0	0	0	0	0	
1998	0	0	0	0	0	17	52	330	571	613	384	12	125	86	38	32	28	0	0	2	2	1	4	0	0	0	
52-59 AVG																											
60-69 AVG	24	48	98	187	323	438	653	1,524	2,199	2,293	3,368	3,475	2,758	1,997	1,736	1,662	1,519	1,110	708	507	192	123	24	16	0	0	
70-79 AVG	3	11	47	80	150	298	682	1,059	1,310	1,416	1,922	2,501	2,078	1,687	1,247	688	624	545	320	133	62	36	12	8	3	0	
80-89 AVG	0	0	0	0	0	0	179	261	355	1,560	2,008	1,972	1,527	1,145	988	674	270	88	26	3	5	12	21	11	0	0	
90-98 AVG	0	0	0	0	3	80	207	688	1,379	2,278	2,713	2,278	1,443	737	468	256	105	35	37	23	16	4	0	0	0	0	

Table C40. Weekly seine hail effort, Canadian Statistical Areas 1*, 3, 4, and 5 combined.

	JULIAN/STATISTICAL WEEK NUMBER																										
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952																										
1953																										
1954																										
1955																										
1956																										
1957																										
1958																										
1959																										
1960																										
1961																										
1962																										
1963																										
1964																										
1965	0	0	0	0	0	0	0	23	72	81	124	190	139	131	177	93	128	78	18	2	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	11	84	159	332	259	212	216	250	205	175	263	67	14	1	20	0	0	0	0
1967	0	0	0	0	0	0	2	61	78	150	304	378	410	169	6	33	11	6	1	0	0	6	3	0	0	0
1968	0	0	0	0	0	0	120	146	316	303	204	117	184	136	224	201	239	158	36	2	0	0	0	0	0	0
1969																										
1970																										
1971	0	0	0	0	0	0	2	0	4	15	49	162	132	81	183	74	95	39	6	0	0	5	2	0	0	0
1972	0	0	0	0	0	0	0	36	117	85	171	194	255	231	119	63	65	1	5	8	6	5	0	0	0	0
1973	0	0	0	0	0	0	28	69	106	12	221	148	208	227	88	4	12	0	2	6	6	28	15	0	0	0
1974	0	0	0	0	0	0	25	64	114	161	332	332	358	58	0	47	54	20	0	1	4	5	3	0	0	0
1975	0	0	0	0	1	0	4	92	160	123	41	533	130	45	103	19	49	10	24	1	1	0	0	0	0	0
1976	0	0	0	0	0	0	0	24	34	17	32	76	63	64	1	23	64	47	6	5	0	0	0	0	0	0
1977	0	0	0	0	0	0	17	32	122	123	243	265	524	440	246	85	20	22	28	0	0	2	0	1	0	0
1978	0	0	0	0	0	71	95	125	159	338	68	205	235	207	222	44	61	11	6	0	2	1	0	0	0	0
1979	0	0	0	0	0	0	56	15	45	93	434	212	219	102	28	18	0	6	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	8	16	27	339	301	135	125	91	59	38	97	48	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	26	58	20	349	608	487	224	66	32	25	15	2	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	36	38	99	373	725	822	332	89	116	58	70	40	41	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	93	1,023	486	319	179	159	54	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	712	873	328	353	266	283	357	164	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	1	1	3	298	1,071	570	267	203	28	0	0	0	0	2	1	0	15	0	0
1986	0	0	0	0	0	0	0	0	0	0	216	407	419	317	287	193	82	51	44	0	0	5	15	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	174	705	622	427	307	171	6	0	0	1	2	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	370	445	160	282	111	116	63	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	479	83	207	291	191	21	13	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	94	226	219	362	119	28	37	65	3	0	0	0	1	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	658	1,299	748	441	232	53	22	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	363	66	337	399	144	155	18	40	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	354	594	799	249	105	11	26	29	0	0	0	0	0	0	4	0
1994	0	0	0	0	0	0	0	0	0	0	126	151	384	141	101	28	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	571	505	1,025	565	389	197	126	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	365	537	561	565	354	50	0	16	28	15	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	58	534	458	363	58	31	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	23	28	45	64	33	10	13	0	0	0	0	0	0	0	0	0
52-59 AVG																										
60-69 AVG	0	0	0	0	0	0	31	60	138	173	241	236	236	163	164	133	138	126	31	5	0	7	1	0	0	0
70-79 AVG	0	0	0	0	0	8	25	51	96	107	177	236	236	162	110	42	47	17	9	2	2	5	2	0	0	0
80-89 AVG	0	0	0	0	0	0	7	11	15	106	398	605	347	250	175	109	76	31	9	0	0	1	2	2	0	0
90-98 AVG	0	0	0	0	0	0	0	0	0	110	355	490	447	273	112	46	15	18	2	0	0	0	0	0	0	0

Table C41. Weekly troll saleslip effort,* Canadian Statistical Areas 1, 3, 4, and 5 combined.

	JULIAN/STATISTICAL WEEK NUMBER																									
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
YEAR	45	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104
1952																										
1953																										
1954																										
1955																										
1956																										
1957																										
1958																										
1959																										
1960																										
1961																										
1962																										
1963	198	498	624	974	637	865	929	1,010	1,135	1,221	868	399	1,330	1,191	1,527	1,268	1,078	753	590	398	208	0	1	0	1	29
1964	310	490	887	1,106	1,325	1,245	1,418	1,441	1,657	1,490	1,626	1,724	1,528	1,512	1,358	1,457	987	805	450	323	98	6	0	0	0	26
1965	356	677	924	1,277	1,115	1,339	1,153	1,408	1,332	1,415	1,813	1,695	1,458	1,611	1,604	853	803	745	368	270	228	80	16	41	2	2
1966	208	450	750	823	1,064	1,348	1,247	1,623	1,299	1,118	1,122	1,543	1,354	1,724	1,339	1,354	831	628	501	423	307	111	65	31	27	43
1967	364	600	801	977	1,100	1,315	1,363	1,226	1,437	1,234	1,558	1,309	1,218	1,050	858	935	780	613	324	212	97	68	50	51	56	92
1968	356	698	1,037	1,571	1,577	1,889	1,839	1,965	1,886	1,688	2,044	1,737	1,618	1,443	1,421	1,000	1,073	904	782	576	240	62	57	23	16	38
1969	317	625	1,247	1,110	1,457	1,468	1,355	1,536	1,269	1,511	1,374	1,758	1,681	1,734	1,103	1,050	699	690	580	524	364	233	110	129	75	96
1970	409	658	933	1,151	2,181	1,842	1,275	1,770	1,523	1,785	1,711	1,652	1,600	1,022	756	816	785	690	539	365	263	48	46	11	28	6
1971	248	488	1,015	1,075	1,211	1,491	1,178	1,663	1,290	1,214	1,368	1,199	717	1,237	1,049	875	901	833	617	555	276	161	41	12	39	34
1972	101	512	578	865	916	1,237	1,365	1,384	1,077	1,485	1,384	1,692	1,323	1,613	1,418	974	938	657	788	717	560	316	136	4	9	2
1973	273	636	757	907	1,024	1,192	853	1,204	1,398	411	554	1,306	943	903	1,056	1,155	806	688	544	345	184	113	75	7	14	19
1974	210	408	502	894	860	1,069	1,319	1,025	927	936	1,153	820	777	707	691	708	711	451	550	435	273	197	55	3	1	17
1975	431	791	821	1,138	1,311	1,249	1,362	1,139	1,244	1,083	1,323	1,263	265	103	538	284	672	601	663	640	495	296	135	13	29	34
1976	318	379	781	787	721	1,038	796	794	864	852	1,002	736	506	521	428	679	601	538	581	465	359	289	146	74	5	10
1977	186	194	530	437	589	694	566	719	361	766	497	566	687	702	758	804	1,079	1,219	735	722	203	225	119	32	7	3
1978	206	471	434	641	703	866	801	733	999	902	361	587	842	878	1,175	890	1,032	668	903	723	450	138	25	0	2	0
1979	181	529	512	794	813	861	999	1,125	1,074	1,062	1,309	1,325	1,255	482	1,059	1,101	1,043	832	383	466	278	261	135	2	5	0
1980	273	503	685	925	841	1,794	1,623	1,601	2,136	1,570	1,682	2,308	2,647	2,296	1,496	2,071	1,380	1,155	994	954	1,429	664	193	128	111	0
1981	148	324	848	751	1,243	941	1,395	1,497	738	1,321	1,185	1,383	2,092	1,281	1,387	1,287	1,461	1,154	1,323	1,076	874	874	0	0	0	0
1982	195	453	680	816	1,036	2,518	40	63	1,152	1,637	1,800	1,712	1,893	259	1,001	1,698	932	1,322	1,128	1,310	924	983	104	0	0	0
1983	306	738	1,035	794	1,452	1,267	2,702	64	86	2,165	2,667	2,050	2,599	1,961	967	1,525	1,308	1,672	2,056	1,215	1,401	1,233	0	0	0	0
1984	0	0	74	507	1,672	0	0	0	939	2,547	1,586	2,151	2,381	2,465	2,187	2,542	2,444	2,055	1,852	3,248	419	118	1	0	0	0
1985	0	156	1,623	0	0	0	0	0	402	2,518	1,834	1,830	2,193	2,103	1,726	1,052	1,802	1,070	1,030	1,390	809	1,052	11	1	1	0
1986	0	0	0	0	0	0	47	1,277	2,524	2,197	2,493	2,532	1,359	1,513	1,296	1,044	1,846	2,708	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	191	2,716	2,401	2,728	2,957	2,145	1,342	1,773	1,260	1,291	1,131	106	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	29	1,277	2,422	2,464	2,071	3,166	1,724	2,177	808	383	1,961	177	50	0	0	0	0	0
1989	0	0	0	0	0	0	0	12	1,253	1,973	2,381	1,369	1,093	1,367	1,686	1,027	1,391	761	106	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	99	2,222	2,204	3,211	2,391	2,099	1,300	829	532	809	658	737	705	447	223	0	0	0	0
1991	0	0	0	0	0	0	0	56	1,879	2,267	3,288	2,124	2,401	2,982	331	1,362	1,179	1,822	1,408	1,254	656	274	0	0	0	0
1992	0	0	0	0	0	0	0	0	336	1,971	2,220	1,788	1,684	1,541	2,693	774	1,638	1,067	870	859	221	46	0	0	0	0
1993	0	0	0	0	0	0	0	0	142	1,422	1,295	3,362	1,712	2,729	270	275	695	888	1,139	650	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	79	1,266	1,796	2,252	3,096	2,113	1,048	647	729	1,245	1,263	851	256	17	0	0	0	0
1995	0	0	0	0	0	0	0	33	1,001	2,379	1,456	1,081	2,788	738	1,976	890	2,109	1,176	1,014	150	0	31	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	56	608	895	1,192	949	1,052	935	1,153	1,056	1,032	760	866	38	0	87	28	0
1997	0	0	0	0	0	0	0	0	35	728	712	1,866	524	1,114	746	674	803	908	203	177	71	92	0	36	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	13	12	47	0	0	0	0
52-59 AVG																										
60-69 AVG	301	577	896	1,120	1,182	1,353	1,329	1,458	1,431	1,382	1,486	1,452	1,455	1,466	1,316	1,131	893	734	514	389	220	80	43	39	25	47
70-79 AVG	256	507	686	869	1,033	1,154	1,051	1,156	1,076	1,050	1,066	1,115	892	817	893	829	857	718	630	543	334	204	91	16	14	13
80-89 AVG	92	217	495	379	624	652	581	451	945	1,992	2,045	2,053	2,129	1,856	1,481	1,620	1,463	1,357	1,158	948	591	492	31	13	11	0
90-98 AVG	0	0	0	0	0	0	0	21	633	1,366	1,621	1,751	1,722	1,496	994	677	1,013	980	853	602	281	85	0	14	3	0

*Weekly saleslip information corrected by lagging data back 1 week to reflect actual date of effort.

Table C42. Weekly gillnet saleslip effort, Canadian Statistical Area 1.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952																										
1953																										
1954																										
1955																										
1956																										
1957																										
1958																										
1959																										
1960																										
1961																										
1962																										
1963	0	0	0	0	0	0	118	29	43	28	0	1	3	100	65	71	67	69	68	65	0	0	0	0	0	0
1964	0	0	0	0	0	0	2	57	62	63	47	74	108	134	133	129	92	60	30	23	0	0	0	0	0	0
1965	0	1	0	0	1	0	3	29	95	92	125	115	75	56	101	88	64	20	9	0	0	0	0	0	0	0
1966	0	0	0	0	1	1	0	31	38	11	59	104	83	102	131	204	213	196	34	38	43	70	0	0	0	0
1967	5	0	0	0	0	0	73	86	135	124	47	40	67	82	151	191	64	30	49	48	39	37	42	6	0	0
1968	0	0	1	2	0	1	188	163	166	193	195	197	227	265	281	157	121	79	36	51	37	39	0	0	0	0
1969	0	0	0	1	1	2	115	174	177	139	157	141	137	177	73	74	18	3	12	46	56	75	80	75	0	0
1970	0	0	3	0	1	1	330	438	369	247	241	143	162	159	84	99	27	0	0	19	55	34	0	0	0	0
1971	0	0	0	1	0	0	246	381	30	38	338	281	169	174	193	141	31	18	17	26	24	67	47	53	4	0
1972	0	0	0	0	5	1	0	430	381	277	280	143	121	126	95	52	0	0	0	16	42	77	0	0	0	0
1973	0	0	0	0	0	0	119	98	120	1	16	14	39	25	10	73	11	18	10	21	44	38	49	0	0	0
1974	0	0	0	0	0	0	142	97	104	110	26	0	0	0	13	66	13	1	0	12	16	41	24	0	15	1
1975	0	2	0	0	3	1	63	85	98	68	117	60	0	15	8	7	19	64	52	78	252	54	0	0	0	0
1976	0	0	0	0	1	0	0	26	34	19	28	79	0	0	1	24	32	16	0	0	1	12	0	0	0	0
1977	0	2	4	1	7	1	15	6	11	53	24	76	38	32	58	15	75	24	2	3	2	5	0	27	11	0
1978	0	1	0	0	0	0	1	2	1	0	1	2	2	0	2	1	4	0	0	0	12	29	0	0	0	0
1979	0	0	0	0	0	0	4	30	19	13	2	1	4	6	1	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	119	145	181	14	3	1	8	18	95	20	1	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	50	80	176	53	18	12	12	31	27	43	20	2	0	1	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	3	2	1	11	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	6	6	17	14	3	0	3	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	9	6	7	13	29	2	8	20	42	0	0	0	0	1	0	0	0
1985	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	20	0	0	0	0	6	9	75	37	0	0
1986	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	42	22	12	12	0	0	66	131	75	0	0
1987	0	0	0	0	0	0	0	0	0	0	23	2	12	2	1	1	0	0	0	11	19	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	1	6	1	6	1	2	2	0	0	0	18	48	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	8	2	9	4	0	0	0	0	21	9	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	11	40	2	1	1	10	0	0	4	0	3	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	5	13	16	0	0	0	0	0	0	5	3	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	30	6	11	26	24	2	7	3	11	1	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	14	4	0	7	8	30	8	3	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	11	22	15	15	9	16	2	0	28	38	30	0	0	0	0
1995	0	0	0	0	0	0	0	8	13	49	115	85	23	21	0	0	0	0	2	17	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	18	9	19	0	0	0	0	0
1997	0	0	0	0	0	0	0	10	37	139	174	213	110	11	0	0	0	0	6	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	2	1	4	0	0	0
52-59 AVG																										
60-69 AVG	1	0	0	0	0	1	71	81	102	93	90	96	100	131	134	131	91	65	34	39	25	32	17	12	0	0
70-79 AVG	0	1	1	0	2	0	92	159	117	83	107	80	54	54	47	48	21	14	8	18	45	36	12	8	3	0
80-89 AVG	0	0	0	0	0	0	17	23	36	8	7	4	8	11	13	14	7	6	1	3	5	12	21	11	0	0
90-98 AVG	0	0	0	0	0	0	0	2	6	21	34	40	24	9	6	7	4	2	3	8	7	4	0	0	0	0

Table C43. Weekly seine saleslip effort, Canadian Statistical Area 1.

	JULIAN/STATISTICAL WEEK NUMBER																										
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952																										
1953																										
1954																										
1955																										
1956																										
1957																										
1958																										
1959																										
1960																										
1961																										
1962																										
1963	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	1	1	3	1	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	0	0	1	1	1	2	14	34	45	17	3	2	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	0	0	7	8	3	2	12	9	25	10	3	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	2	1	4	3	8	15	42	94	188	7	3	1	20	0	0	0	0
1967	0	0	0	0	0	0	2	1	0	0	0	1	0	3	6	1	1	1	0	0	0	6	3	0	0	0
1968	0	0	0	0	0	0	0	0	0	0	0	4	4	24	62	96	110	80	0	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	2	14	3	6	0	6	0	4	0	0	0	0	6	5	1	1	0	0
1970	0	0	0	0	0	0	0	6	13	0	2	0	1	3	24	40	8	0	0	8	4	0	0	0	0	0
1971	0	0	0	0	0	0	2	0	0	4	3	8	10	23	5	0	0	1	0	0	0	5	2	0	0	0
1972	0	0	0	0	0	0	0	22	46	13	22	10	15	6	8	8	0	0	0	8	6	5	0	0	0	0
1973	0	0	0	0	0	0	0	3	13	0	2	21	13	14	24	4	0	0	0	6	6	28	15	0	0	0
1974	0	0	0	0	0	0	8	8	34	24	6	6	0	0	0	23	8	0	0	1	4	5	3	0	0	0
1975	0	0	0	0	1	0	4	12	54	60	41	25	0	0	0	0	14	0	1	1	1	0	0	0	0	0
1976	0	0	0	0	0	0	0	20	23	8	22	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	2	11	14	0	10	0	12	47	68	43	18	0	0	0	0	2	0	1	0	0
1978	0	0	0	0	0	0	11	16	11	5	0	6	6	3	1	0	0	0	0	0	2	1	0	0	0	0
1979	0	0	0	0	0	0	4	15	33	5	32	33	47	70	28	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	8	16	27	26	21	13	19	21	13	9	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	11	7	20	33	36	38	55	20	15	25	11	2	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	45	42	43	23	3	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	19	27	7	9	7	5	27	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	23	24	23	22	34	144	325	57	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	1	1	3	66	109	45	26	14	18	0	0	0	0	2	1	0	15	0	0
1986	0	0	0	0	0	0	0	0	0	0	70	62	59	42	2	13	12	19	33	0	0	5	15	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	39	41	15	12	13	27	0	0	0	1	2	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	10	57	49	15	12	7	46	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	35	0	0	20	9	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	27	97	0	0	14	36	64	3	0	0	0	1	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	20	32	38	2	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	7	69	71	20	14	18	40	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	50	73	33	15	0	0	0	0	0	0	0	0	0	4	0
1994	0	0	0	0	0	0	0	0	0	0	0	0	84	39	19	17	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	35	45	40	58	0	24	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	28	15	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	155	162	175	4	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0
52-59 AVG																										
60-69 AVG	0	0	0	0	0	0	0	0	0	2	2	3	2	6	16	27	39	42	2	1	1	4	1	0	0	0
70-79 AVG	0	0	0	0	0	0	3	11	24	12	14	13	10	17	16	12	5	0	0	2	2	5	2	0	0	0
80-89 AVG	0	0	0	0	0	0	2	2	5	11	36	41	30	19	12	25	42	8	3	0	0	1	2	2	0	0
90-98 AVG	0	0	0	0	0	0	0	0	0	0	21	35	63	27	6	8	8	15	2	0	0	0	0	0	0	0

Table C44. Weekly troll saleslip effort,* Canadian Statistical Area 1.

	JULIAN/STATISTICAL WEEK NUMBER																									
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
YEAR	45	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104
1952																										
1953																										
1954																										
1955																										
1956																										
1957																										
1958																										
1959																										
1960																										
1961																										
1962																										
1963	54	190	231	383	242	346	333	499	606	808	520	309	827	593	722	468	425	127	108	54	52	0	0	0	0	9
1964	125	242	375	454	411	469	650	658	710	668	761	915	699	737	652	661	434	143	87	44	8	0	0	0	0	0
1965	114	294	336	408	479	607	517	710	583	570	970	936	681	532	664	292	246	185	40	25	21	0	0	0	0	0
1966	78	203	391	502	445	666	649	628	456	246	465	794	605	780	580	563	141	101	74	26	16	1	0	0	0	0
1967	244	349	398	488	399	614	573	628	755	648	881	754	698	596	334	410	266	189	73	33	18	2	0	0	0	1
1968	163	419	534	691	784	850	662	695	717	803	805	699	614	610	613	363	240	128	92	66	22	3	3	1	0	0
1969	172	259	631	525	725	525	652	668	586	676	783	1,249	1,081	1,082	652	446	203	137	167	84	83	19	16	8	0	0
1970	282	371	531	606	1,471	1,139	768	1,025	1,037	988	1,046	1,049	968	642	537	336	338	173	130	66	47	5	39	0	0	0
1971	132	284	574	654	698	933	693	853	642	700	781	723	376	802	579	467	445	237	155	115	42	60	18	0	10	0
1972	60	323	306	526	537	702	712	544	539	667	609	736	710	613	721	373	403	180	188	122	129	31	14	0	0	0
1973	168	433	527	595	598	730	414	575	623	218	256	569	411	418	516	536	310	250	186	119	77	44	33	2	0	0
1974	133	309	315	560	556	516	773	435	559	475	816	398	501	573	516	447	496	224	326	144	61	53	12	1	0	0
1975	364	654	597	897	960	892	868	684	723	622	950	755	185	80	393	145	402	252	233	155	214	92	0	2	13	0
1976	283	347	651	614	632	616	506	454	423	470	501	426	394	335	273	387	379	268	265	240	111	112	19	19	0	0
1977	160	149	410	328	484	536	406	456	291	466	377	350	428	400	525	495	551	507	337	407	193	223	117	26	7	0
1978	167	414	393	564	604	688	655	584	810	804	294	437	611	658	859	472	682	332	491	239	171	40	25	0	2	0
1979	172	476	406	683	621	596	786	833	821	904	1,206	1,161	1,037	345	833	694	461	435	231	365	246	238	135	0	5	0
1980	239	415	547	665	512	1,472	1,300	1,234	1,579	1,364	1,479	1,992	2,322	1,791	1,138	1,633	853	673	633	766	1,396	664	193	128	111	0
1981	81	299	682	593	912	753	987	1,316	512	1,212	1,032	1,281	1,848	1,109	1,096	917	1,049	813	927	622	534	552	0	0	0	0
1982	164	387	605	683	957	2,047	40	15	884	1,277	1,363	1,256	1,474	167	785	1,235	509	909	650	881	645	855	104	0	0	0
1983	218	576	658	595	1,008	798	2,053	64	0	920	1,267	1,308	1,684	1,379	703	1,092	1,003	1,108	1,323	687	880	953	0	0	0	0
1984	0	0	36	275	1,233	0	0	0	210	1,978	1,273	1,828	2,133	1,812	1,798	1,875	1,684	1,259	970	2,285	398	80	1	0	0	0
1985	0	103	1,244	0	0	0	0	0	197	1,917	1,528	1,434	1,840	1,842	1,386	819	1,480	876	826	1,213	657	953	11	1	1	0
1986	0	0	0	0	0	0	11	775	1,610	1,469	1,570	1,947	928	940	853	786	1,329	1,527	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	23	2,116	2,018	2,281	2,421	1,695	1,141	1,545	963	872	681	68	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	6	918	2,056	2,106	1,824	2,709	1,324	1,858	599	284	1,559	157	50	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	887	1,640	2,060	1,146	904	1,083	1,463	800	1,009	405	87	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	16	1,643	1,707	2,770	2,198	1,787	1,121	647	322	479	332	326	305	96	72	0	0	0	0
1991	0	0	0	0	0	0	0	3	1,475	1,849	2,877	1,861	1,993	2,713	225	1,128	951	1,172	601	375	180	61	0	0	0	0
1992	0	0	0	0	0	0	0	0	246	1,612	1,725	1,428	1,267	1,247	2,023	487	957	599	231	238	108	13	0	0	0	0
1993	0	0	0	0	0	0	0	0	40	1,257	1,080	3,010	1,525	2,498	150	165	418	439	733	446	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	44	1,081	1,609	1,893	2,680	1,686	759	380	347	639	521	227	62	17	0	0	0	0
1995	0	0	0	0	0	0	0	2	685	2,003	1,101	557	2,338	645	1,741	711	1,798	605	642	150	0	31	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	30	290	564	859	538	751	606	587	413	227	218	125	30	0	60	28	0
1997	0	0	0	0	0	0	0	0	35	674	629	1,704	453	1,027	652	647	753	838	203	177	71	92	0	36	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	13	12	47	0	0	0	0
52-59 AVG																										
60-69 AVG	136	279	414	493	498	582	577	641	630	631	741	808	744	704	602	458	279	144	92	47	31	4	3	1	0	1
70-79 AVG	192	376	471	603	716	735	658	644	647	631	684	660	562	487	575	435	447	286	254	197	129	90	41	5	4	0
80-89 AVG	70	178	377	281	462	507	439	340	591	1,481	1,565	1,658	1,738	1,453	1,169	1,256	1,048	873	766	668	456	406	31	13	11	0
90-98 AVG	0	0	0	0	0	0	0	2	463	1,135	1,342	1,468	1,434	1,275	772	494	699	560	388	239	73	40	0	11	3	0

*Weekly saleslip information corrected by lagging data back 1 week to reflect actual date of effort.

Table C45. Weekly gillnet hail effort, Canadian Statistical Area 3.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	2	2	3	6	25	34	62	250	216	232	150	90	80	50	40	7	0	0	5	5	5	4	4	0	0	0
1953	2	2	3	6	26	34	61	250	216	230	152	95	80	50	42	40	34	30	30	30	0	0	0	0	0	0
1954	1	10	35	40	160	309	342	29	1,286	922	710	746	395	374	0	678	836	0	372	746	542	0	0	0	0	0
1955	2	9	10	85	111	188	231	969	1,059	972	655	295	1,109	749	450	485	535	604	563	616	397	249	39	0	0	0
1956	0	10	1	166	286	363	1,424	1,499	1,751	1,427	1,238	1,069	874	570	689	986	0	1,000	49	642	0	0	0	0	0	0
1957	14	39	75	197	358	284	286	6	41	17	1,041	911	515	313	497	581	700	1,261	758	552	0	0	0	0	0	0
1958	15	35	175	367	589	533	529	1,815	2,288	1,558	960	612	426	273	340	351	453	374	375	188	53	0	0	0	0	0
1959	13	26	116	347	400	512	533	1,894	1,931	1,589	1,359	1,202	0	0	572	707	284	608	534	0	0	0	0	0	0	0
1960	16	41	80	254	342	510	546	505	1,806	1,417	928	563	370	451	836	789	1,136	768	512	511	0	0	0	0	0	0
1961	8	81	144	374	406	526	1,787	1,983	1,322	672	331	74	184	265	460	953	919	649	260	0	0	0	0	0	0	0
1962	4	23	98	228	360	451	2,380	1,465	875	577	1,032	302	396	314	351	366	403	371	456	0	0	0	0	0	0	0
1963	11	26	66	182	279	340	280	881	357	182	0	0	0	500	257	292	71	38	349	331	0	0	0	0	0	0
1964	0	1	46	107	158	276	374	352	606	393	145	485	387	206	152	161	299	192	348	226	0	0	0	0	0	0
1965	9	12	37	85	166	277	295	186	1,015	502	591	520	495	1,153	244	442	468	605	375	638	0	0	0	0	0	0
1966	6	3	21	41	120	207	285	797	497	450	246	579	602	561	622	459	454	519	470	449	336	301	0	0	0	0
1967	3	1	56	160	288	385	361	488	219	380	1,037	917	509	180	0	207	289	311	178	90	0	0	0	0	0	0
1968	4	7	76	234	272	389	362	531	746	821	640	815	331	217	341	838	491	431	336	236	129	0	0	0	0	0
1969	72	150	193	219	328	259	179	687	663	673	820	638	189	324	80	311	498	269	153	0	0	0	0	0	0	0
1970	3	8	97	185	257	425	427	456	453	340	367	222	322	427	527	393	260	271	278	210	0	0	0	0	0	0
1971	4	17	75	162	270	268	339	364	94	120	426	665	0	0	83	142	245	396	244	159	65	0	0	0	0	0
1972	3	36	105	135	240	276	280	611	522	417	780	152	579	124	268	379	341	222	199	0	0	0	0	0	0	0
1973	3	9	90	90	225	471	965	1,054	741	60	328	307	204	229	177	0	317	90	18	18	0	0	0	0	0	0
1974	0	0	6	47	115	118	806	756	849	793	740	614	156	0	0	179	310	124	0	0	0	0	0	0	0	0
1975	0	0	0	0	100	294	127	765	461	379	0	283	35	34	44	37	148	234	368	0	0	0	0	0	0	0
1976	0	0	16	54	76	65	61	906	880	454	112	11	29	34	0	0	254	164	0	250	0	0	0	0	0	0
1977	0	0	0	20	26	0	715	886	1,308	892	555	229	131	182	236	273	0	574	203	0	0	0	0	0	0	0
1978	0	0	0	0	0	805	838	745	365	268	100	221	580	118	89	101	127	47	83	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	706	0	0	119	341	183	97	0	0	312	0	173	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	383	620	396	245	412	434	251	164	75	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	471	480	0	433	289	172	121	60	101	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	595	685	739	195	180	38	113	54	93	86	110	62	195	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	190	551	462	254	238	466	216	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	425	0	307	418	336	195	384	430	194	91	149	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	152	94	17	120	163	59	63	68	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	150	88	56	172	174	115	135	130	105	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	82	20	131	327	91	103	156	105	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	154	176	114	120	64	48	51	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	554	203	105	282	188	5	5	118	43	22	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	279	89	103	125	83	55	16	67	50	31	33	0	46	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	304	222	377	131	163	249	128	55	108	76	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	401	872	197	230	215	96	149	152	75	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	133	594	473	754	389	162	223	162	193	129	156	153	25	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	133	501	506	499	1,194	75	65	134	70	32	63	38	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	319	629	627	891	519	335	515	183	54	117	117	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	238	331	597	959	663	329	205	426	522	99	0	61	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	98	174	547	596	766	422	124	32	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	30	313	250	235	51	12	125	86	38	29	28	0	0	0	0	0	0	0	0	0
52-59 AVG	6	17	52	152	244	282	434	839	1,099	868	783	628	435	297	329	479	355	485	336	347	125	32	5	0	0	0
60-69 AVG	13	35	82	188	272	362	685	788	811	607	577	489	346	417	334	482	503	415	344	248	47	30	0	0	0	0
70-79 AVG	1	7	39	69	131	272	526	654	567	384	375	289	213	115	142	182	200	230	139	64	7	0	0	0	0	0
80-89 AVG	0	0	0	0	0	0	162	179	100	208	219	192	192	167	167	143	82	39	20	0	0	0	0	0	0	0
90-98 AVG	0	0	0	0	0	73	190	397	489	534	348	171	170	139	86	66	55	21	8	0	0	0	0	0	0	0

Table C46. Weekly seine hail effort, Canadian Statistical Area 3.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	0	0	0	0	0	0	21	20	17	15	17	0	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	21	20	17	15	17	15	17	16	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	2	32	43	129	116	138	0	99	67	0	0	6	1	0	0	0	0	0
1955	0	0	0	0	0	0	0	3	7	19	21	38	162	123	74	46	6	1	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	4	5	25	52	65	149	236	262	212	120	0	125	16	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	3	2	97	110	200	229	117	0	1	38	3	4	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	18	77	122	145	153	170	138	73	2	4	1	3	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	22	45	97	141	135	0	0	80	45	14	33	28	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	79	125	158	62	11	18	1	7	2	3	1	2	0	0	0	0	0	0
1961	0	0	0	0	0	0	45	126	116	133	125	98	70	46	10	32	7	18	2	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	10	31	49	79	23	8	11	16	4	1	2	11	0	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	26	28	14	0	0	0	3	2	6	0	1	4	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	0	25	8	1	48	90	115	11	10	22	4	2	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	0	49	40	69	147	118	86	33	10	33	33	4	2	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	11	14	0	8	18	51	33	84	52	2	2	5	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	31	30	109	279	372	380	123	0	13	5	1	1	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	71	47	129	133	108	54	115	101	74	21	39	5	3	0	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	30	15	47	89	177	49	57	31	60	27	32	2	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	0	22	14	18	20	80	22	64	141	20	6	1	6	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	4	11	30	147	0	0	98	53	25	10	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	5	54	46	88	105	59	51	30	2	9	1	5	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	28	66	93	12	77	38	36	53	19	0	12	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	17	50	72	120	201	179	183	0	0	19	4	3	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	80	104	52	0	122	54	16	37	1	0	0	23	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	3	5	6	10	47	57	44	0	0	5	0	0	5	0	0	0	0	0	0
1977	0	0	0	0	0	0	15	21	106	123	225	241	358	298	115	13	0	22	9	0	0	0	0	0	0	0
1978	0	0	0	0	0	71	84	104	127	257	66	191	227	197	121	37	11	8	3	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	52	0	0	83	346	142	98	0	0	18	0	4	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	248	271	122	105	65	43	11	32	15	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	15	40	0	311	342	251	167	46	17	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	36	38	74	294	422	193	200	86	116	58	61	40	41	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	67	993	477	307	161	143	9	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	493	315	255	238	126	59	32	62	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	216	265	303	188	117	10	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	135	292	294	202	195	84	14	5	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	102	521	580	356	160	55	6	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	299	233	105	102	65	84	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	425	73	190	234	129	8	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	80	141	93	163	65	14	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	585	1,228	671	293	120	39	22	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	333	45	175	218	82	128	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	193	407	689	213	88	11	26	29	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	118	126	265	96	82	11	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	478	229	861	459	289	133	88	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	294	114	176	358	128	41	0	4	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	55	356	247	102	36	13	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	19	28	45	64	33	10	4	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	0	0	1	6	20	41	69	94	115	115	74	41	14	27	6	1	0	0	0	0	0	0
60-69 AVG	0	0	0	0	0	0	13	30	53	69	86	98	90	60	25	21	14	11	2	0	0	0	0	0	0	0
70-79 AVG	0	0	0	0	0	7	20	35	58	73	106	129	109	72	56	16	7	5	5	1	0	0	0	0	0	0
80-89 AVG	0	0	0	0	0	0	5	8	7	85	277	326	268	182	113	51	15	12	4	0	0	0	0	0	0	0
90-98 AVG	0	0	0	0	0	0	0	0	0	92	225	362	317	167	73	33	6	3	0	0	0	0	0	0	0	0

Table C47. Weekly troll saleslip effort,* Canadian Statistical Area 3.

	JULIAN/STATISTICAL WEEK NUMBER																										
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
YEAR	45	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104
1952																										
1953																										
1954																										
1955																										
1956																										
1957																										
1958																										
1959																										
1960																										
1961																										
1962																										
1963	50	70	123	127	207	210	201	183	170	156	46	0	71	220	295	336	248	352	343	248	60	0	0	0	1	3
1964	25	112	144	185	254	293	257	208	254	264	286	273	257	218	287	327	291	429	225	177	59	4	0	0	0	0
1965	54	102	131	209	183	271	254	219	149	151	185	179	193	141	158	195	236	252	194	163	145	20	0	0	2	0
1966	38	113	96	103	216	233	181	206	197	192	177	217	152	225	280	314	311	299	337	305	257	89	0	0	0	0
1967	35	80	111	195	191	291	220	135	125	144	135	96	138	118	173	211	212	293	132	27	15	7	21	0	28	46
1968	87	96	168	235	300	268	216	225	188	203	202	183	259	303	348	252	444	511	561	412	193	46	24	6	0	8
1969	72	164	193	219	338	259	179	169	139	127	159	109	273	234	245	328	223	367	258	325	178	103	3	11	1	12
1970	27	87	177	295	310	279	173	153	221	245	227	129	258	152	99	365	329	309	324	171	115	25	0	0	3	0
1971	57	91	143	175	164	175	181	151	118	118	152	105	98	185	190	191	320	328	375	324	125	59	0	4	0	0
1972	19	57	78	116	122	182	212	190	161	131	211	155	209	165	224	169	201	301	424	367	236	174	102	1	0	0
1973	45	117	111	135	226	221	81	176	172	0	92	147	114	121	161	182	207	271	252	150	48	12	16	0	2	2
1974	26	48	109	172	183	210	130	168	128	104	103	34	53	68	99	156	127	125	132	197	145	85	29	1	0	6
1975	3	53	105	116	195	168	204	144	116	116	114	71	0	3	22	19	98	255	282	152	24	31	92	0	0	0
1976	10	6	23	33	28	62	39	39	19	16	60	65	16	64	69	128	158	205	201	205	187	110	115	22	0	9
1977	13	33	58	28	29	6	4	5	0	7	41	98	97	134	128	195	430	399	321	232	0	0	0	0	0	0
1978	24	2	4	17	1	98	61	72	91	46	12	73	152	160	243	310	227	273	360	426	254	95	0	0	0	0
1979	9	47	84	85	115	156	63	141	145	88	45	46	55	54	101	212	252	226	80	11	0	0	0	0	0	0
1980	6	39	63	127	152	146	175	168	281	70	58	179	103	301	276	319	331	384	258	143	0	0	0	0	0	0
1981	43	7	72	81	155	121	210	88	98	55	68	43	111	93	145	242	334	260	359	397	280	207	0	0	0	0
1982	12	27	31	74	51	322	0	38	108	149	190	127	166	28	104	301	193	216	400	357	244	47	0	0	0	0
1983	87	79	197	127	279	157	322	0	76	749	957	382	413	320	148	242	257	437	582	496	479	254	0	0	0	0
1984	0	0	38	150	299	0	0	0	522	282	141	149	135	270	184	354	606	664	741	719	0	38	0	0	0	0
1985	0	34	322	0	0	0	0	0	143	341	109	166	109	87	162	110	171	162	150	149	140	90	0	0	0	0
1986	0	0	0	0	0	0	30	409	768	534	541	199	244	314	262	170	312	784	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	156	428	262	210	356	291	139	125	171	238	409	28	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	21	247	156	108	169	344	334	215	108	98	292	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	12	315	215	171	98	162	198	169	172	261	199	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	80	427	305	185	58	122	116	137	198	239	318	376	387	334	149	0	0	0	0
1991	0	0	0	0	0	0	0	52	269	237	135	101	140	104	92	210	198	529	673	736	445	152	0	0	0	0
1992	0	0	0	0	0	0	0	0	86	114	141	91	160	83	249	186	440	409	528	524	103	33	0	0	0	0
1993	0	0	0	0	0	0	0	0	97	117	133	217	129	145	115	95	216	288	341	152	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	31	158	158	307	376	309	211	225	320	478	658	597	182	0	0	0	0	0
1995	0	0	0	0	0	0	0	31	261	279	298	410	350	58	89	49	172	231	120	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	22	238	236	218	281	122	177	413	533	666	504	673	8	0	27	0	0
1997	0	0	0	0	0	0	0	0	0	36	13	35	11	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG																										
60-69 AVG	52	105	138	182	241	261	215	192	175	177	170	151	192	208	255	280	281	358	293	237	130	38	7	2	5	10
70-79 AVG	23	54	89	117	137	156	115	124	117	87	106	92	105	111	134	193	235	269	275	224	113	59	35	3	1	2
80-89 AVG	15	19	72	56	94	75	74	72	249	307	265	166	197	225	192	225	274	344	319	229	114	64	0	0	0	0
90-98 AVG	0	0	0	0	0	0	0	18	130	141	145	162	167	122	113	127	222	310	374	322	193	38	0	3	0	0

*Weekly saleslip information corrected by lagging data back 1 week to reflect actual date of effort.

Table C48. Weekly gillnet hail effort, Canadian Statistical Area 4.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	20	30	50	36	56	72	74	511	668	599	775	765	776	793	681	0	75	30	10	10	8	0	3	0	0	0
1953	25	30	30	40	70	75	60	605	656	664	623	631	0	620	539	292	200	107	60	50	0	0	0	0	0	0
1954	2	38	83	136	190	233	320	0	2,766	2,795	3,467	3,003	3,836	2,729	58	3,050	1,610	1,415	744	525	166	0	0	0	0	0
1955	4	1	0	16	20	56	169	1,191	1,244	1,487	1,628	1,396	0	1,213	2,305	2,028	1,444	607	598	397	215	47	0	0	0	0
1956	2	1	12	61	105	199	253	308	304	336	233	217	1,455	1,912	1,412	998	1,103	511	271	183	0	0	0	0	0	0
1957	2	23	6	35	83	153	289	0	16	25	1,293	1,485	3,161	2,862	2,102	1,091	522	278	201	128	0	0	0	0	0	0
1958	2	17	40	32	70	190	216	258	311	1,140	1,500	1,681	2,487	2,010	1,508	557	449	295	229	100	38	0	0	0	0	0
1959	5	23	30	67	167	210	305	302	277	851	996	1,009	0	0	2,768	1,485	1,312	727	416	0	0	0	0	0	0	0
1960	6	16	19	53	92	243	345	364	437	480	1,101	1,174	1,405	1,743	1,073	703	0	546	324	262	0	0	0	0	0	0
1961	13	30	50	194	224	338	472	714	1,058	1,599	2,201	3,145	2,578	1,711	1,452	874	451	181	146	0	0	0	0	0	0	0
1962																								0	0	0
1963																								0	0	0
1964																								0	0	0
1965					57	118	200	164	603	855	1,017	774	1,180	0	1,075	0	596	617	299	76	0	0	0	0	0	0
1966					74	103	120	113	634	847	1,954	1,505	2,924	1,644	1,950	1,365	1,273	378	326	358	208	94	0	0	0	0
1967	12	12	45	96	111	156	245	933	1,737	2,070	4,063	4,045	2,966	1,550	0	864	0	181	83	45	0	0	0	0	0	0
1968	3	27	38	63	106	138	101	683	1,119	1,107	2,444	2,696	1,685	1,055	737	780	546	386	208	191	113	0	0	0	0	0
1969	5	14	19	34	79	144	236	648	676	893	1,210	2,355	725	1,306	864	0	742	311	186	0	0	0	0	0	0	0
1970	0	1	18	45	89	129	208	515	802	673	654	1,589	0	1,452	1,325	638	576	232	209	98	0	0	0	0	0	0
1971	8	17	45	34	51	76	34	182	71	86	387	1,100	1,741	1,415	2,684	1,009	1,138	694	261	144	55	0	0	0	0	0
1972	8	8	6	17	11	11	22	497	1,038	710	687	2,056	1,362	2,251	1,657	501	276	160	153	0	0	0	0	0	0	0
1973	0	0	0	0	0	1	4	393	454	263	3,346	2,290	1,609	1,149	562	0	130	82	56	34	0	0	0	0	0	0
1974	0	0	1	3	0	0	5	12	736	1,236	2,220	2,601	3,224	1,348	0	159	0	179	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	2	5	516	1,114	0	2,290	442	667	718	137	115	53	0	0	0	0	0	0	0	0
1976	0	3	0	3	11	29	1	4	16	683	394	805	2,329	1,050	491	0	0	258	179	100	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	9	11	514	1,537	2,172	2,300	2,079	1,229	626	484	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	2	2	5	1,104	1,898	735	1,220	0	387	525	234	104	130	150	0	0	0	0	0	0	0
1979	0	0	0	0	0	2	5	22	33	886	2,203	3,278	2,055	2,155	526	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	1,669	1,931	796	1,260	0	0	0	0	70	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	2,112	3,724	3,129	1,785	1,002	837	581	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	1,652	1,901	1,954	2,165	666	376	0	0	85	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	443	1,220	591	495	1,086	704	160	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	290	2,232	1,700	1,352	891	1,006	159	55	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	702	1,991	2,061	2,494	2,032	1,224	1,205	801	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	269	388	1,636	1,048	413	938	768	557	85	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	275	424	1,046	942	1,557	749	630	125	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	650	1,854	2,822	3,014	1,024	2,218	1,027	923	305	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	350	643	2,827	1,420	383	668	634	395	160	91	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	392	452	456	1,374	2,266	1,463	1,046	723	173	103	106	29	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	351	1,596	3,036	2,653	1,837	468	452	421	117	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	819	1,734	1,835	2,556	1,607	1,506	609	474	108	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	846	1,876	2,950	1,975	1,467	847	437	175	91	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	26	37	393	950	2,424	1,339	1,736	545	242	155	0	0	0	62	76	0	0	0	0	0
1995	0	0	0	0	23	0	23	488	1,984	3,060	3,175	1,571	898	250	270	191	0	0	129	0	0	0	0	0	0	0
1996	0	0	0	0	0	45	29	621	1,298	2,893	2,977	3,269	1,350	320	535	0	0	0	75	75	0	0	0	0	0	0
1997	0	0	0	0	0	0	52	843	1,048	2,174	2,360	2,574	507	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	17	22	17	289	368	328	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	8	20	31	53	95	149	211	397	780	987	1,314	1,273	1,464	1,517	1,422	1,188	839	496	316	174	53	6	0	0	0	0
60-69 AVG	8	20	34	88	106	177	246	517	895	1,122	1,999	2,242	1,923	1,287	1,022	655	515	371	225	133	46	13	0	0	0	0
70-79 AVG	2	3	7	10	16	25	28	164	478	806	1,216	1,940	1,506	1,395	972	330	282	179	101	38	6	0	0	0	0	0
80-89 AVG	0	0	0	0	0	0	0	35	200	1,294	1,735	1,737	1,287	910	762	473	129	24	0	0	0	0	0	0	0	0
90-98 AVG	0	0	0	0	3	7	17	266	831	1,679	2,273	2,023	1,207	554	363	177	47	12	26	15	8	0	0	0	0	0

Table C49. Weekly seine hail effort, Canadian Statistical Area 4.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	0	1	1	0	2	9	16	21	11	6	0	0	2	0	0	0	0	0
1955	0	0	0	0	0	0	0	0	0	1	0	3	2	3	4	1	2	0	0	0	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	0	0	0	0	0	5	1	2	0	1	1	1	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	1	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	7	1	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	0	0	2	0	4	4	4	1	0	0	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	1	0	0	0	0	1	1	8	0	7	1	0	0	0	0	0	0	0	0
1962																										
1963																										
1964																										
1965	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
1968																										
1969																										
1970	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0	86	29	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	32	16	90	0	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	136	17	63	0	3	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	4	17	119	128	175	58	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	328	54	0	44	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	13	6	20	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	1	11	122	2	5	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	8	55	0	7	0	3	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	8	0	5	0	18	18	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	227	174	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	191	540	96	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	180	534	0	0	0	35	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	0	570	188	0	61	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0	58	0	0	24	12	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	129	0	0	48	39	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	109	0	110	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0	22	37	13	5	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0	0	35	23	0	1	1	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0	0	87	88	3	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	9	61	78	26	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	148	118	15	0	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	54	229	75	38	28	47	14	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	63	272	267	156	211	5	0	1	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	13	43	80	18	18	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	0	0	0	0	0	0	0	1	2	2	3	3	3	1	0	0	0	0	0	0	0	0
60-69 AVG	0	0	0	0	0	0	0	0	0	0	1	0	1	1	3	1	1	0	0	0	0	0	0	0	0	0
70-79 AVG	0	0	0	0	0	0	0	0	2	8	29	52	61	13	5	0	0	0	0	0	0	0	0	0	0	0
80-89 AVG	0	0	0	0	0	0	0	0	0	4	60	206	34	13	15	11	2	0	0	0	0	0	0	0	0	0
90-98 AVG	0	0	0	0	0	0	0	0	0	13	74	57	39	51	23	2	0	0	0	0	0	0	0	0	0	0

Table C50. Weekly troll saleslip effort,* Canadian Statistical Area 4.

	JULIAN/STATISTICAL WEEK NUMBER																										
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
YEAR	45	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104
1952																										
1953																										
1954																										
1955																										
1956																										
1957																										
1958																										
1959																										
1960																										
1961																										
1962																										
1963	46	118	66	197	116	160	215	175	173	153	176	24	204	153	193	168	241	165	79	42	53	0	1	0	0	17
1964	69	100	169	350	318	312	254	343	397	294	317	289	243	245	282	210	179	133	50	83	20	2	0	0	0	11
1965	113	161	217	412	264	239	257	249	298	272	300	219	211	340	275	138	117	120	41	29	43	0	0	0	0	0
1966	60	52	176	117	201	122	288	350	310	221	261	203	258	216	183	143	164	114	29	41	20	14	1	0	0	4
1967	23	57	101	156	273	199	251	146	199	88	182	127	154	123	124	125	103	37	36	41	23	6	10	0	15	6
1968	87	103	204	350	287	330	469	454	393	245	451	325	350	283	191	176	127	119	46	59	25	11	7	4	8	30
1969	33	116	140	196	203	349	307	366	259	271	199	170	185	301	134	189	128	113	83	59	66	44	16	51	44	16
1970	25	104	102	120	201	225	238	202	135	148	106	219	139	104	51	62	60	83	76	100	84	4	1	11	11	6
1971	49	57	95	104	156	211	207	285	180	113	146	155	60	136	134	107	71	171	70	91	78	8	15	5	1	12
1972	14	50	97	180	124	177	232	222	148	224	196	198	100	231	148	88	124	103	103	168	192	77	18	3	5	1
1973	20	31	38	78	80	90	68	157	86	105	35	175	94	95	107	239	115	92	71	57	41	27	14	5	12	13
1974	28	28	32	52	18	89	133	76	53	111	120	109	102	11	37	43	31	44	51	37	26	32	14	1	1	0
1975	48	40	48	58	85	45	141	114	185	200	144	197	16	8	16	48	97	45	93	257	200	126	12	11	1	1
1976	24	10	54	87	21	184	174	218	193	207	155	163	56	77	76	95	32	41	95	20	29	24	2	23	2	0
1977	6	4	35	76	56	105	79	124	43	69	38	32	87	128	25	61	65	152	16	24	0	1	0	0	0	0
1978	12	38	32	47	67	30	32	63	57	6	20	72	40	55	61	98	96	36	27	33	18	3	0	0	0	0
1979	0	4	15	10	24	25	79	74	71	59	30	44	117	63	80	131	163	108	41	7	0	0	0	2	0	0
1980	14	11	25	32	53	59	78	61	132	48	43	53	161	96	36	47	32	27	43	24	0	0	0	0	0	0
1981	7	14	51	60	111	61	50	24	62	39	47	48	83	49	129	103	49	30	12	28	50	80	0	0	0	0
1982	6	29	44	32	27	108	0	9	108	106	103	227	181	49	59	133	67	76	35	44	16	52	0	0	0	0
1983	0	62	86	34	124	117	162	0	10	407	342	271	374	193	81	100	47	70	77	11	32	23	0	0	0	0
1984	0	0	0	32	92	0	0	0	174	256	163	153	88	327	165	208	53	53	65	141	21	0	0	0	0	0
1985	0	18	57	0	0	0	0	0	62	222	173	108	121	128	93	78	94	2	15	13	0	9	0	0	0	0
1986	0	0	0	0	0	0	6	76	83	142	207	264	165	199	112	54	60	272	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	11	148	90	177	150	113	33	44	44	50	18	10	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	2	106	104	163	20	17	14	62	49	1	56	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	21	35	45	51	27	36	16	22	89	45	14	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	3	101	89	147	91	152	46	13	12	63	8	32	11	4	2	0	0	0	0
1991	0	0	0	0	0	0	0	1	107	131	269	132	189	116	1	13	12	44	44	77	0	4	0	0	0	0
1992	0	0	0	0	0	0	0	0	2	136	240	182	152	140	177	21	139	35	16	45	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	4	19	66	84	11	16	0	0	12	87	46	26	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	7	13	27	15	38	13	18	13	30	23	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	34	21	8	54	6	1	4	10	9	21	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	4	47	42	62	20	42	61	72	48	45	21	7	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	8	25	48	12	52	92	21	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG																										
60-69 AVG	62	101	153	254	237	244	292	298	290	221	269	194	229	237	197	164	151	114	52	51	36	11	5	8	10	12
70-79 AVG	23	37	55	81	83	118	138	154	115	124	99	136	81	91	74	97	85	88	64	79	67	30	8	6	3	3
80-89 AVG	3	13	26	19	41	35	30	17	67	151	132	152	137	121	74	85	58	63	34	27	12	16	0	0	0	0
90-98 AVG	0	0	0	0	0	0	0	0	28	46	91	73	67	48	38	17	36	30	23	20	1	1	0	0	0	0

*Weekly saleslip information corrected by lagging data back 1 week to reflect actual date of effort.

Table C51. Weekly gillnet hail effort, Canadian Statistical Area 5.

	JULIAN/STATISTICAL WEEK NUMBER																									
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	0	0	0	0	30	17	16	18	19	18	28	22	22	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	47	33	30	25	104	24	9	48	99	82	70	72	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	263	344	186	138	129	280	0	226	640	609	4	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	22	321	188	245	355	183	350	342	131	470	86	434	5	11	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	255	344	246	292	432	302	87	335	245	356	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	248	249	101	102	201	331	261	143	160	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	435	176	258	444	125	182	258	250	0	0	0	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	447	447	426	794	0	0	164	459	442	229	139	0	0	0	0	0	0	0
1960	1	0	0	0	0	0	0	1	328	342	258	300	109	221	426	405	592	404	253	122	0	0	0	0	0	0
1961	0	54	0	9	0	0	0	401	244	295	213	105	118	128	291	0	160	192	160	0	0	0	0	0	0	0
1962	0	0	5	0	0	1	0	422	903	954	518	1,115	171	808	1,197	1,168	1,137	981	489	0	0	0	0	0	0	0
1963	0	0	5	3	1	3	5	690	702	1,111	3	75	22	1,262	1,240	897	0	0	336	165	0	0	0	0	0	0
1964	8	10	0	1	0	5	4	120	906	834	1,225	450	402	605	811	814	677	860	0	0	0	0	0	0	0	0
1965	0	1	1	2	0	0	3	787	674	406	772	687	661	471	940	881	222	105	44	0	0	0	0	0	0	0
1966	0	0	1	0	7	6	0	2	784	969	1,044	939	510	475	472	467	628	614	518	162	0	0	0	0	0	0
1967	0	1	1	0	2	0	1	505	387	205	57	32	44	49	0	89	213	45	4	0	0	0	0	0	0	0
1968	0	3	0	0	2	0	497	613	365	525	218	268	331	268	516	421	294	241	126	106	0	0	0	0	0	0
1969	0	8	0	0	0	2	0	0	267	202	144	7	50	49	103	473	399	208	92	0	0	0	0	0	0	0
1970	0	1	2	2	2	0	220	308	538	892	771	482	1,500	648	177	353	181	179	74	76	0	0	0	0	0	0
1971	0	0	0	0	1	0	0	0	8	5	561	270	81	55	129	97	90	140	81	37	53	0	0	0	0	0
1972	0	3	0	0	2	4	112	140	176	289	664	209	818	185	160	128	92	3	0	0	0	0	0	0	0	0
1973	1	0	0	0	0	0	3	19	23	0	44	405	240	132	56	0	36	22	24	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	115	27	17	28	26	0	0	0	23	165	254	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	68	56	25	0	96	10	3	2	2	112	122	0	0	0	0	0	0	0	0
1976	0	0	0	4	2	0	0	27	251	38	26	210	27	26	50	376	260	144	144	25	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	44	69	75	105	119	101	98	174	109	83	222	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	137	105	54	24	90	193	61	188	129	156	143	70	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	16	0	247	38	41	32	58	17	0	0	0	136	98	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	79	145	97	104	94	35	80	162	56	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	199	0	99	15	18	37	0	0	0	118	66	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	122	101	70	48	23	0	18	109	57	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	35	48	90	27	79	113	109	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	43	54	0	62	98	109	40	0	29	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	40	8	16	23	13	56	13	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	20	15	34	22	163	78	61	44	40	52	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	21	19	41	20	57	33	1	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	43	42	80	32	36	38	26	20	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	38	35	89	66	1	0	41	60	19	13	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	48	40	40	30	65	9	43	7	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	18	34	121	78	41	33	13	19	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	49	26	20	76	54	30	60	30	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	26	33	65	18	17	10	17	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	30	63	90	16	100	131	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	48	144	106	49	44	21	10	12	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	26	74	33	107	75	124	58	10	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	79	63	56	38	25	8	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	32	10	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	0	0	3	72	219	189	226	285	141	129	141	256	238	187	47	10	0	0	0	0	0	0
60-69 AVG	1	8	1	2	1	2	51	354	556	584	445	398	242	434	600	562	432	365	202	56	0	0	0	0	0	0
70-79 AVG	0	0	0	1	1	0	35	81	148	143	223	193	305	123	86	128	120	123	71	14	5	0	0	0	0	0
80-89 AVG	0	0	0	0	0	0	0	24	20	50	48	39	40	57	46	45	52	19	5	0	0	0	0	0	0	0
90-98 AVG	0	0	0	0	0	0	0	22	53	45	58	44	42	35	13	5	0	0	0	0	0	0	0	0	0	0

Table C52. Weekly seine hail effort, Canadian Statistical Area 5.

	JULIAN/STATISTICAL WEEK NUMBER																										
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
YEAR	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104	105
1952	0	0	0	0	0	0	0	0	10	14	14	21	25	56	41	18	10	0	0	0	0	0	0	0	0	0
1953	0	0	0	0	0	0	0	0	11	8	10	12	9	11	14	19	20	9	1	1	0	0	0	0	0	0
1954	0	0	0	0	0	0	0	0	29	35	70	40	63	78	0	55	66	36	6	0	0	0	0	0	0	0
1955	0	0	0	0	0	0	1	7	24	42	43	61	52	160	358	179	103	54	5	3	0	0	0	0	0	0
1956	0	0	0	0	0	0	0	12	17	17	78	81	97	98	69	87	133	0	0	0	0	0	0	0	0	0
1957	0	0	0	0	0	0	0	0	0	0	26	76	58	55	61	50	0	0	0	0	0	0	0	0	0	0
1958	0	0	0	0	0	0	0	0	12	50	63	92	113	69	63	58	0	0	4	0	0	0	0	0	0	0
1959	0	0	0	0	0	0	0	0	18	44	75	192	0	0	207	92	50	15	0	0	0	0	0	0	0	0
1960	0	0	0	0	0	0	0	0	35	59	41	55	44	130	142	107	104	75	0	0	0	0	0	0	0	0
1961	0	0	0	0	0	0	0	9	26	90	140	190	209	145	107	0	46	25	1	0	0	0	0	0	0	0
1962	0	0	0	0	0	0	0	27	78	116	81	35	83	75	69	173	114	82	41	0	0	0	0	0	0	0
1963	0	0	0	0	0	0	0	11	35	99	0	9	6	128	135	60	0	0	1	0	0	0	0	0	0	0
1964	0	0	0	0	0	0	0	6	46	106	101	98	159	127	228	205	117	109	0	0	0	0	0	0	0	0
1965	0	0	0	0	0	0	0	23	22	41	47	35	18	43	130	74	70	35	11	0	0	0	0	0	0	0
1966	0	0	0	0	0	0	0	0	70	157	323	237	158	175	151	111	79	73	55	11	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	29	48	41	25	5	30	43	0	17	5	4	0	0	0	0	0	0	0	0
1968	0	0	0	0	0	0	49	99	187	170	96	59	65	11	88	84	90	73	33	2	0	0	0	0	0	0
1969	0	0	0	0	0	0	0	0	5	13	4	3	1	32	43	10	126	12	2	0	0	0	0	0	0	0
1970	0	0	0	0	0	0	9	30	95	127	90	80	137	214	55	52	26	37	1	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	16	7	36	29	80	21	70	28	6	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	9	17	26	29	63	91	174	81	53	56	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	6	72	96	160	42	0	0	0	2	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	6	4	0	6	19	0	0	0	5	42	17	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	2	11	0	58	22	29	22	18	35	10	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	1	6	3	0	0	0	0	1	23	59	47	6	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	2	0	7	13	32	93	58	29	2	0	19	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	5	13	21	2	1	2	4	100	7	50	3	3	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	4	5	51	37	56	14	0	0	0	2	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	24	9	0	1	5	3	18	65	33	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	11	0	5	3	24	2	0	0	0	4	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	25	34	70	46	13	0	0	0	9	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	7	3	2	3	11	11	18	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	16	0	50	93	106	45	0	45	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	0	0	0	0	0	16	127	34	53	11	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	11	53	8	73	90	72	44	27	11	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	33	14	27	59	86	50	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	61	46	6	55	34	25	17	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	19	10	17	15	16	0	8	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	14	58	29	164	31	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	73	51	45	23	22	11	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	30	5	32	32	16	13	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	13	19	22	3	2	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	8	25	35	6	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	39	12	44	28	14	17	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	8	151	118	51	15	4	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	3	10	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG	0	0	0	0	0	0	0	2	15	26	47	72	52	66	102	70	48	14	2	1	0	0	0	0	0	0
60-69 AVG	0	0	0	0	0	0	5	20	55	89	86	73	77	91	109	84	75	49	14	1	0	0	0	0	0	0
70-79 AVG	0	0	0	0	0	0	1	5	14	19	21	35	47	72	44	21	34	14	4	0	0	0	0	0	0	0
80-89 AVG	0	0	0	0	0	0	0	1	3	6	25	32	16	36	36	22	17	11	1	0	0	0	0	0	0	0
90-98 AVG	0	0	0	0	0	0	0	0	0	6	35	36	28	29	10	3	0	0	0	0	0	0	0	0	0	0

Table C53. Weekly troll saleslip effort,* Canadian Statistical Area 5.

	JULIAN/STATISTICAL WEEK NUMBER																										
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
YEAR	45	51	52	53	54	61	62	63	64	71	72	73	74	75	81	82	83	84	91	92	93	94	101	102	103	104
1952																										
1953																										
1954																										
1955																										
1956																										
1957																										
1958																										
1959																										
1960																										
1961																										
1962																										
1963	48	120	204	267	72	149	180	153	186	104	126	66	228	225	317	296	164	109	60	54	43	0	0	0	0	0
1964	91	36	199	117	342	171	257	232	296	264	262	247	329	312	137	259	83	100	88	19	11	0	0	0	0	15
1965	75	120	240	248	189	222	125	230	302	422	358	361	373	598	507	228	204	188	93	53	19	60	16	41	0	2
1966	32	82	87	101	202	327	129	439	336	459	219	329	339	503	296	334	215	114	61	51	14	7	64	31	27	39
1967	62	114	191	138	237	211	319	317	358	354	360	332	228	213	227	189	199	94	83	111	41	53	19	51	13	39
1968	19	80	131	295	206	441	492	591	588	437	586	530	395	247	269	209	262	146	83	39	0	2	23	12	8	0
1969	40	86	283	170	191	335	217	333	285	437	233	230	142	117	72	87	145	73	72	56	37	67	75	59	30	68
1970	75	96	123	130	199	199	96	390	130	404	332	255	235	124	69	53	58	125	9	28	17	14	6	0	14	0
1971	10	56	203	142	193	172	97	374	350	283	289	216	183	114	146	110	65	97	17	25	31	34	8	3	28	22
1972	8	82	97	43	133	176	209	428	229	463	368	603	304	604	325	344	210	73	73	60	3	34	2	0	4	1
1973	40	55	81	99	120	151	290	296	517	88	171	415	324	269	272	198	174	75	35	19	18	30	12	0	0	4
1974	23	23	46	110	103	254	283	346	187	246	114	279	121	55	39	62	57	58	41	57	41	27	0	0	0	11
1975	16	44	71	67	71	144	149	197	220	145	115	240	64	12	107	72	75	49	55	76	57	47	31	0	15	33
1976	1	16	53	53	40	176	77	83	229	159	286	82	40	45	10	69	32	24	20	0	32	43	10	10	3	1
1977	7	8	27	5	20	47	77	134	27	224	41	86	75	40	80	53	33	161	61	59	10	1	2	6	0	3
1978	3	17	5	13	31	50	53	14	41	46	35	5	39	5	12	10	27	27	25	25	7	0	0	0	0	0
1979	0	2	7	16	53	84	71	77	37	11	28	74	46	20	45	64	167	63	31	83	32	23	0	0	0	0
1980	14	38	50	101	124	117	70	138	144	88	102	84	61	108	46	72	164	71	60	21	33	0	0	0	0	0
1981	17	4	43	17	65	6	148	69	66	15	38	11	50	30	17	25	29	51	25	29	10	35	0	0	0	0
1982	13	10	0	27	1	41	0	1	52	105	144	102	72	15	53	29	163	121	43	28	19	29	0	0	0	0
1983	1	21	94	38	41	195	165	0	0	89	101	89	128	69	35	91	1	57	74	21	10	3	0	0	0	0
1984	0	0	0	50	48	0	0	0	33	31	9	21	25	56	40	105	101	79	76	103	0	0	0	0	0	0
1985	0	1	0	0	0	0	0	0	0	38	24	122	123	46	85	45	57	30	39	15	12	0	0	0	0	0
1986	0	0	0	0	0	0	0	17	63	52	175	122	22	60	69	34	145	125	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	1	24	31	60	30	46	29	59	82	131	23	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	6	106	87	58	96	52	42	52	0	54	20	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	30	83	105	74	0	50	38	33	32	112	5	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	51	103	109	44	38	17	32	0	28	0	3	2	13	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	28	50	7	30	79	49	13	11	18	77	90	66	31	57	0	0	0	0
1992	0	0	0	0	0	0	0	0	2	109	114	87	105	71	244	80	102	24	95	52	10	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	1	29	16	51	47	70	5	15	49	74	19	26	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	4	20	16	25	25	80	65	24	49	98	61	27	12	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	21	76	49	60	94	34	142	120	130	319	252	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	33	53	53	110	137	91	81	62	94	17	61	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	10	45	79	48	35	2	6	50	70	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52-59 AVG																										
60-69 AVG	52	91	191	191	206	265	246	328	336	354	306	299	291	316	261	229	182	118	77	55	24	27	28	28	11	23
70-79 AVG	18	40	71	68	96	145	140	234	197	207	178	226	143	129	111	104	90	75	37	43	25	25	7	2	6	8
80-89 AVG	5	7	19	23	28	36	38	23	39	53	84	77	57	58	46	54	83	78	40	24	8	7	0	0	0	0
90-98 AVG	0	0	0	0	0	0	0	0	12	44	43	48	54	52	71	39	56	80	68	21	14	6	0	0	0	0

*Weekly saleslip information corrected by lagging data back 1 week to reflect actual date of effort.

Table C54. Annual tidal coho sport catch: Northern British Columbia Areas 1 through 10.

YEAR	LOCATION TYPE	1	2 E	2 W	3	4	5	6	7	8	9	10	TOTAL (1 TO 10)
1980	TIDAL WATERS	**500**	**3,000**	**500**	**1,000**	**2,500**	**200**	**2,000**	**500**	**3,000**	**5,000**	**50**	18,250
1981	TIDAL WATERS	**500**	**3,000**	**500**	**1,000**	**2,500**	**200**	**2,000**	**500**	**3,000**	**5,000**	**50**	18,250
1982	TIDAL WATERS	**500**	**3,000**	**500**	**1,000**	**2,500**	**200**	**2,000**	**500**	**3,000**	**5,000**	**50**	18,250
1983	TIDAL WATERS	**500**	**3,000**	**500**	**1,000**	**2,500**	**200**	2,100	900	3,932	5,100	75	19,807
1984	TIDAL WATERS	**500**	**3,000**	**500**	**1,000**	**2,500**	**200**	5,900	2,000	7,562	5,668	75	28,905
1985	TIDAL WATERS	500	3,100	**500**	1,000	2,500	**200**	**3,000**	2,281	2,085	2,756	100	18,022
1986	TIDAL WATERS	1,031	2,718	**500**	1,000	4,000	200	**2,000**	1,591	3,247	3,805	75	20,167
1987	TIDAL WATERS	2,040	5,752	1,000	**1,000**	2,500	250	2,000	3,431	2,401	3,928	100	24,402
1988	TIDAL WATERS	**3,000**	5,978	**2,000**	**1,000**	1,500	300	1,421	2,100	3,651	3,000	100	24,050
1989	TIDAL WATERS	3,854	1,995	2,580	**1,000**	3,500	500	2,724	1,750	3,916	3,372	100	25,291
1990	TIDAL WATERS	11,437	3,255	1,988	**1,000**	5,000	**300**	6,426	2,365	6,807	7,335	100	46,013
1991	TIDAL WATERS	11,284	1,960	2,585	**1,000**	1,000	**300**	9,270	1,404	5,258	8,904	**100**	43,065
1992	TIDAL WATERS	4,846	2,800	2,094	**1,000**	**1,500**	**300**	2,809	4,851	8,715	11,415	150	40,480
1993	TIDAL WATERS	4,397	1,330	4,728	1,532	1,946	**300**	1,165	1,281	5,013	9,405	100	31,197
1994	TIDAL WATERS	11,057	**1,000**	4,286	4,964	12,753	**300**	**2,000**	3,340	5,064	14,050	**100**	58,914
1995	TIDAL WATERS	7,904	**1,000**	2,949	2,060	1,870	**300**	**3,000**	1,530	3,989	13,623	**100**	38,325
1996	TIDAL WATERS	18,142	**1,000**	4,599	8,562	4,059	**300**	5,200	1,896	5,492	9,768	**100**	59,118
1997	TIDAL WATERS	6,967	**1,000**	2,555	**6,000**	**1,000**	**300**	4,000	5,290	4,218	5,640	**100**	37,070

Numbers in **bold print** are subjective estimates provided where there is no available data.

Figure A1. Streams and hatcheries in Southeast Alaska that produce coho salmon.

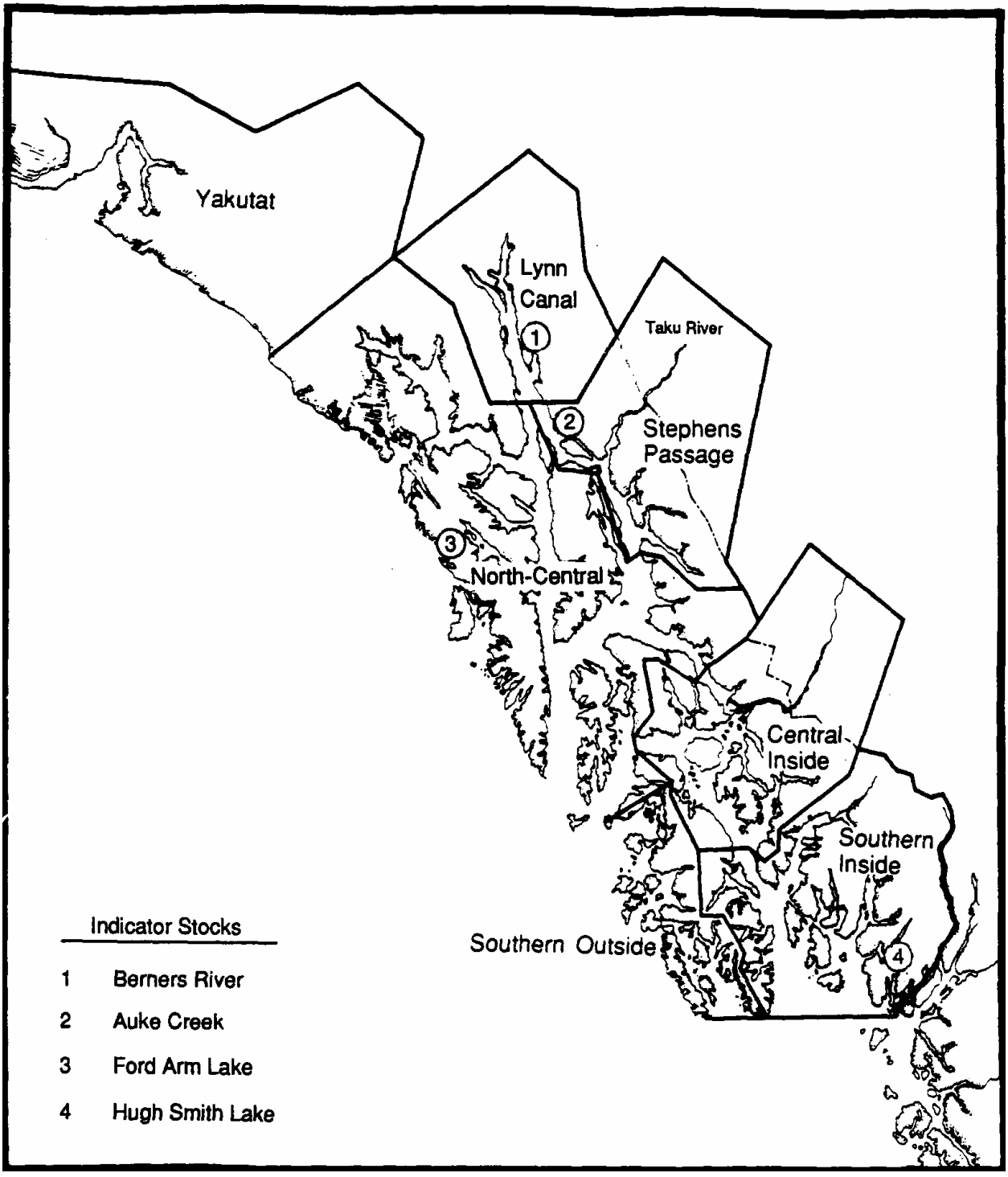


Figure A2. Coho salmon stock groupings and long-term wild coded-wire tagged indicator stocks in Southeast Alaska.

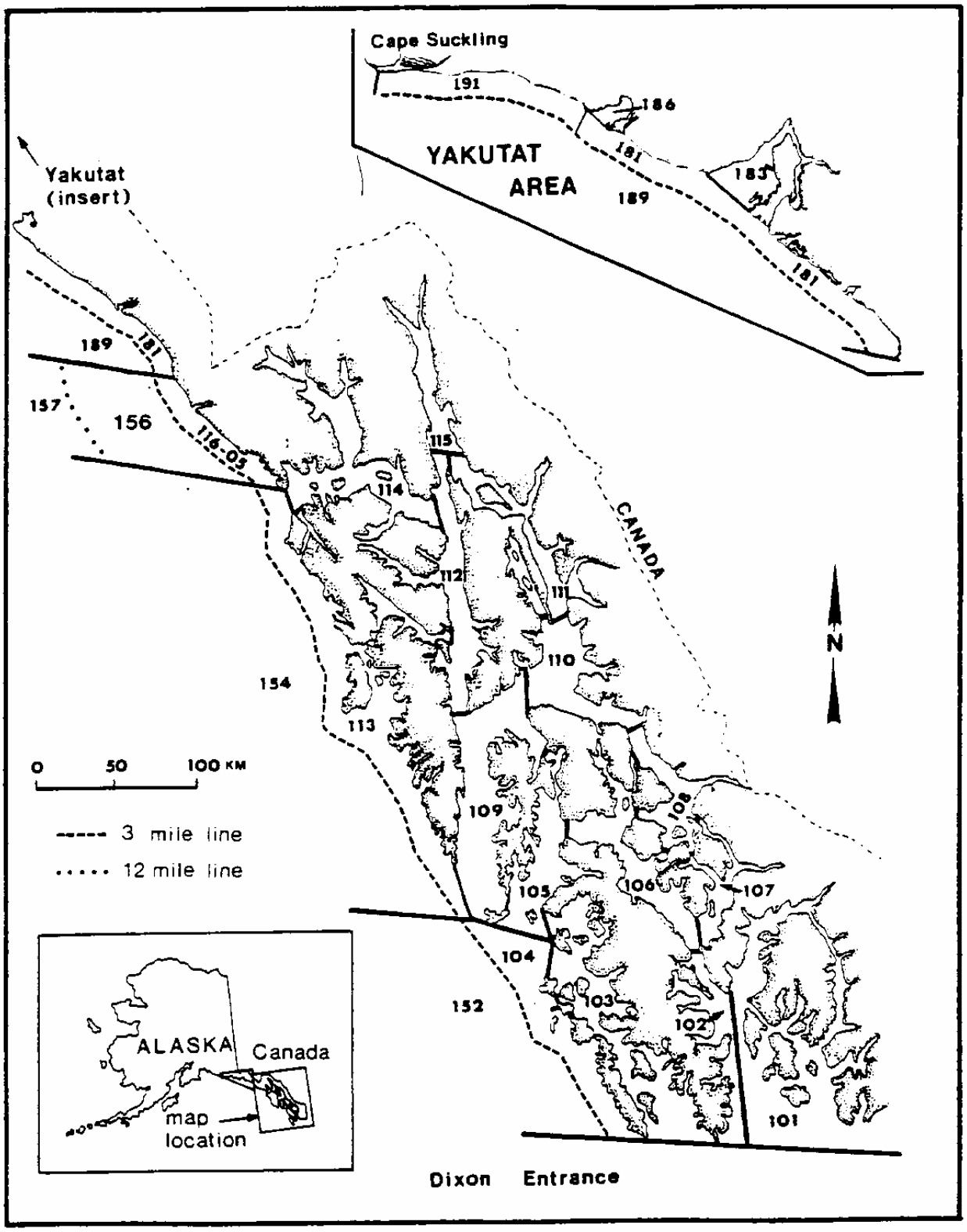


Figure A3. Southeast Alaska statistical fishing districts.

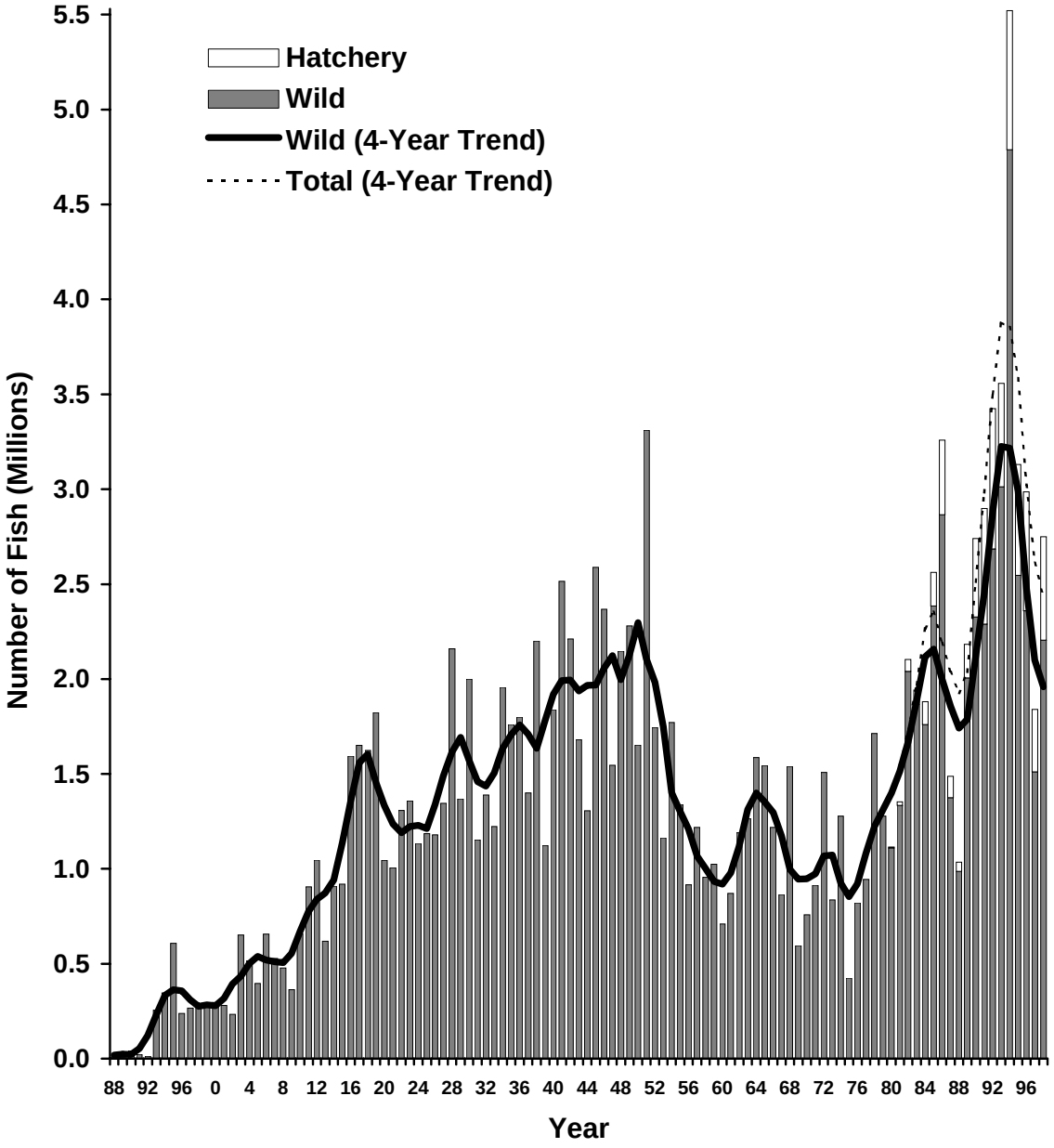


Figure A4. Commercial harvest of wild and hatchery coho salmon in Southeast Alaska, 1888–1998.

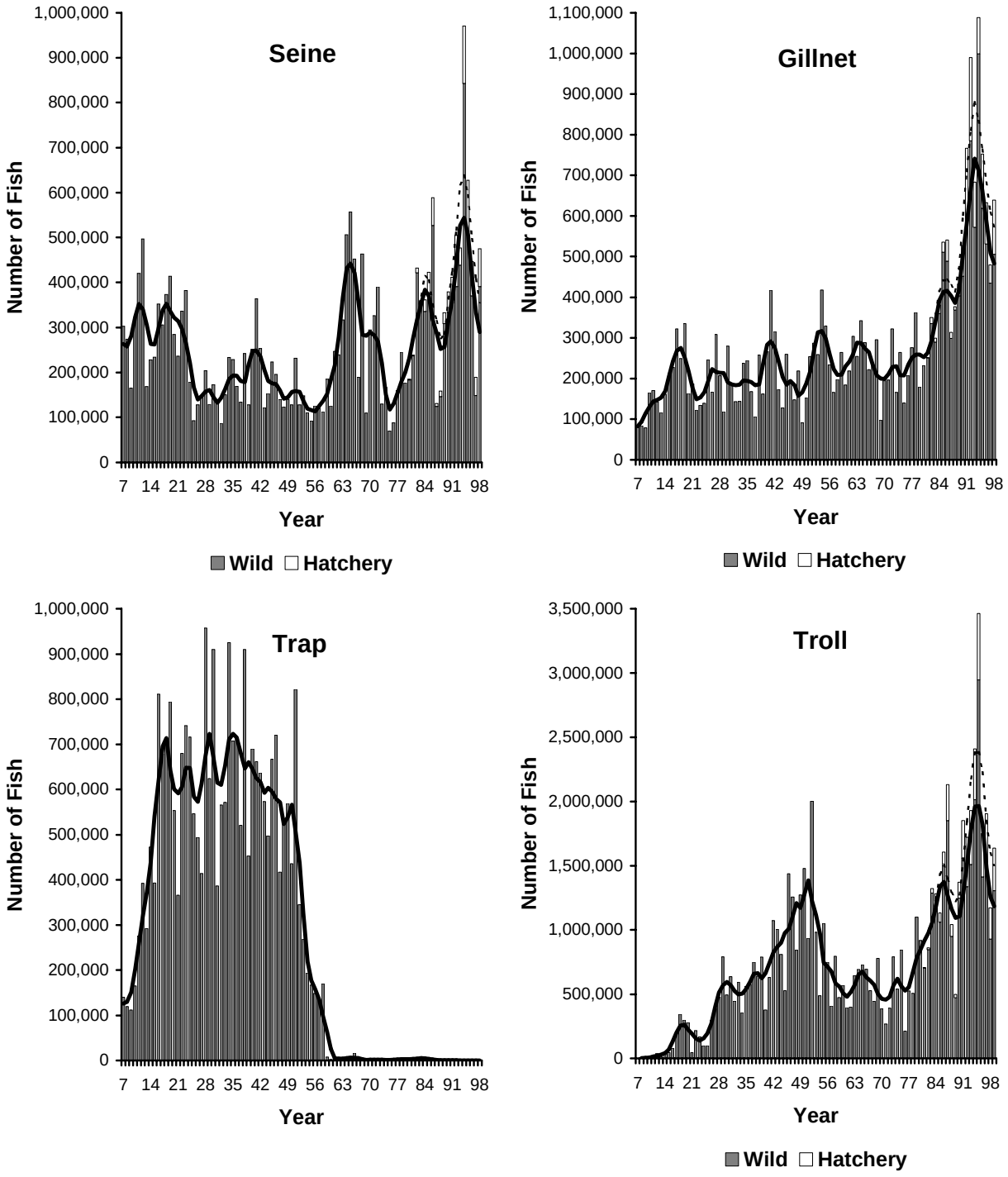


Figure A5. Southeast Alaska commercial catch of wild and hatchery coho salmon by gear type, 1907–1998.

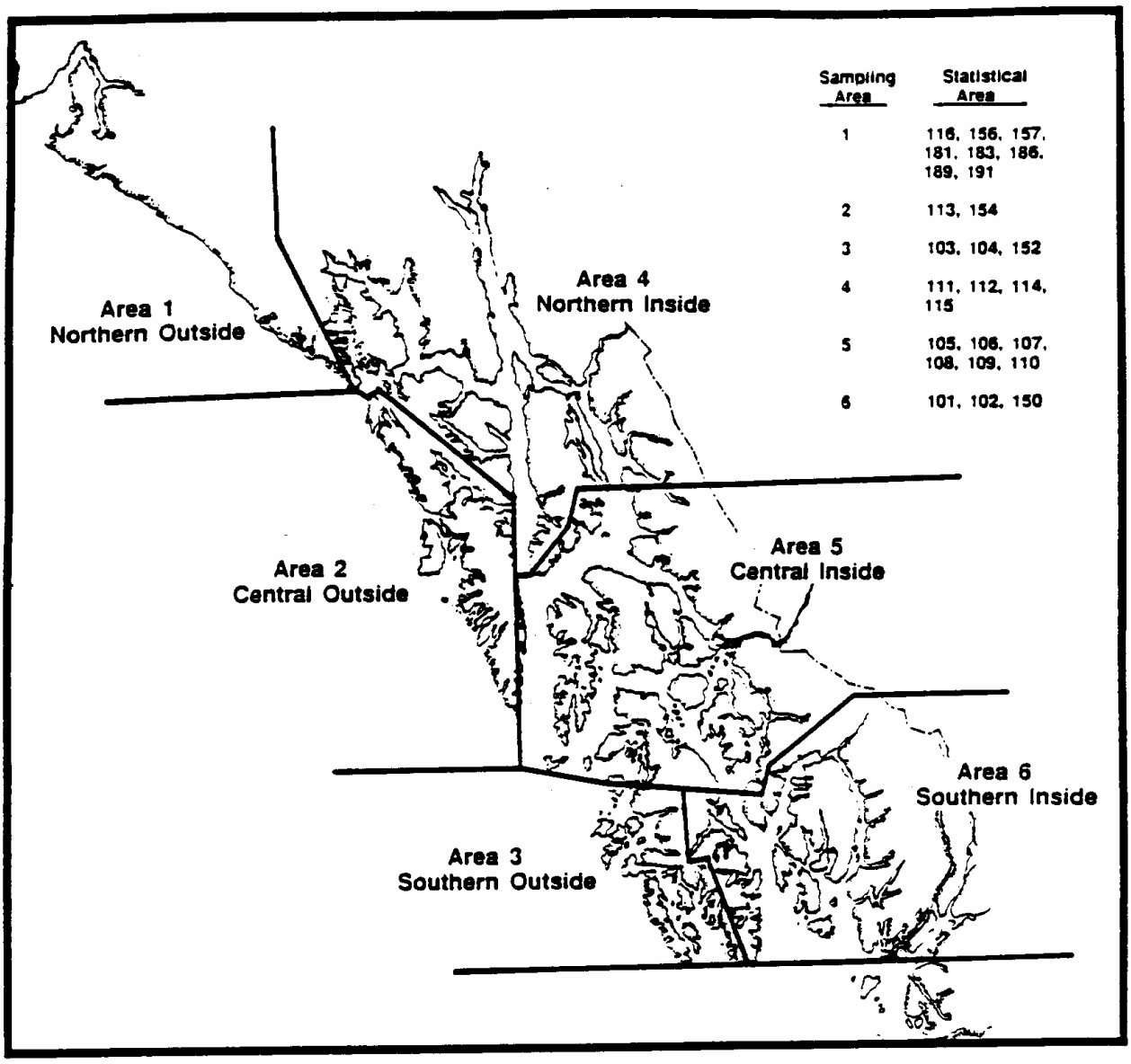
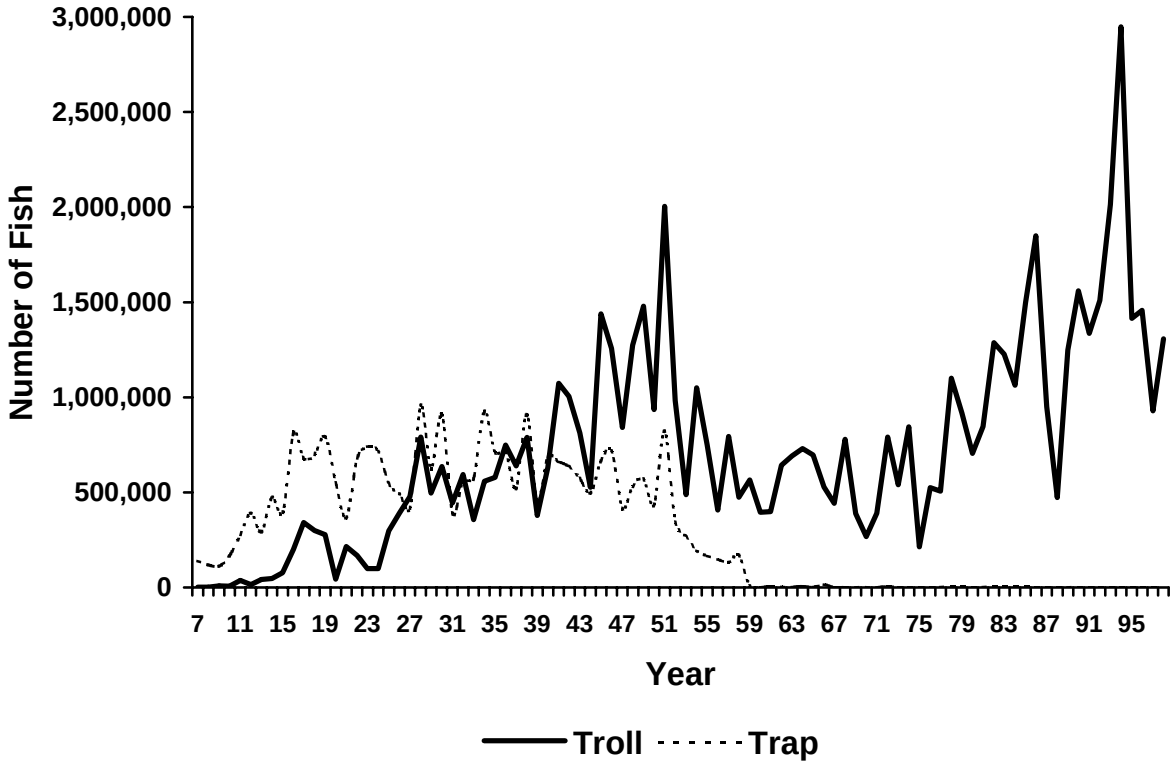


Figure A6. Fishery performance assessment areas for the Alaska troll fishery.



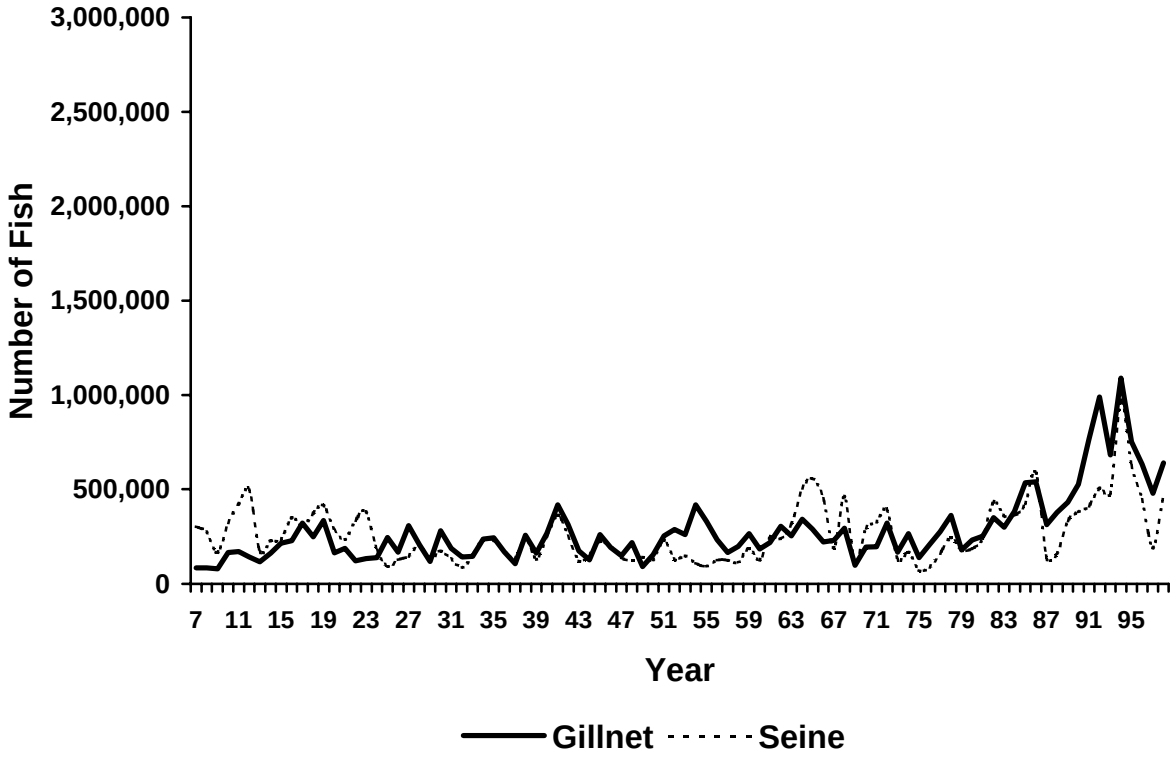


Figure A7. Southeast Alaska commercial catch of wild coho salmon by Gear Type, 1907–1998.

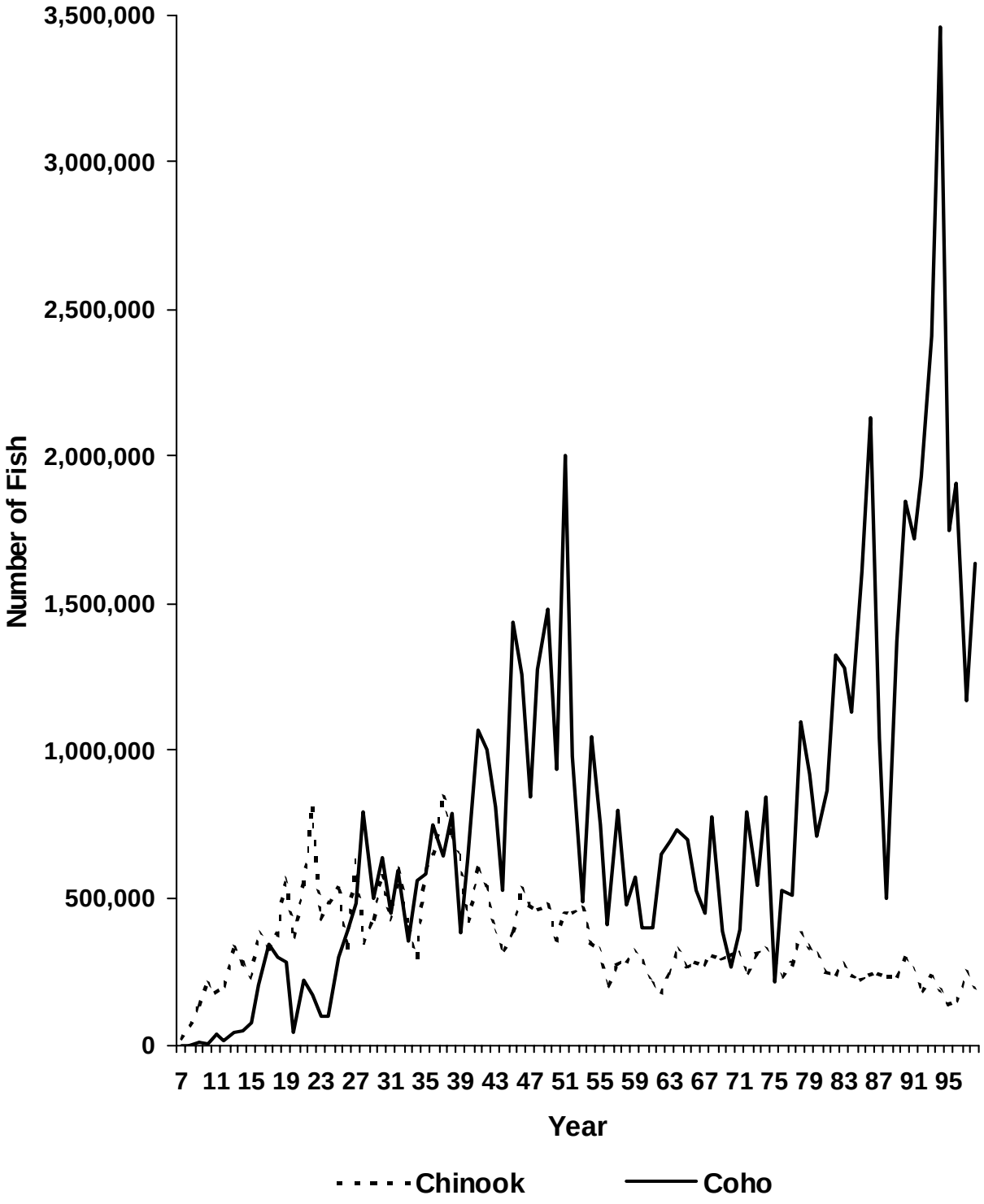


Figure A8. Southeast Alaska troll catch of coho and chinook salmon, 1907–1998.

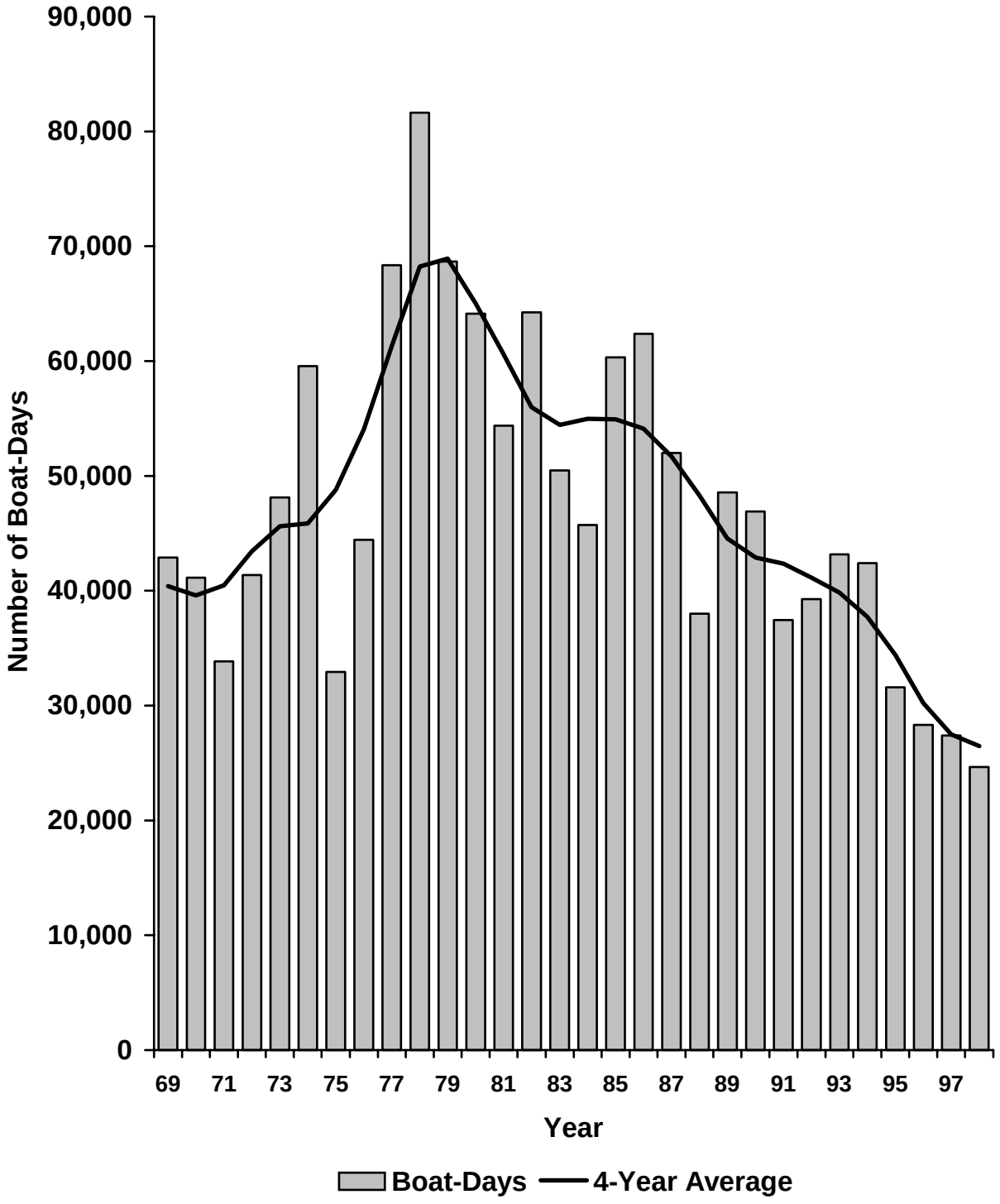


Figure A9. Effort in the Alaska troll fishery in boat-days (power troll equivalent) during the primary coho salmon fishing period (Statistical Weeks 27–40).

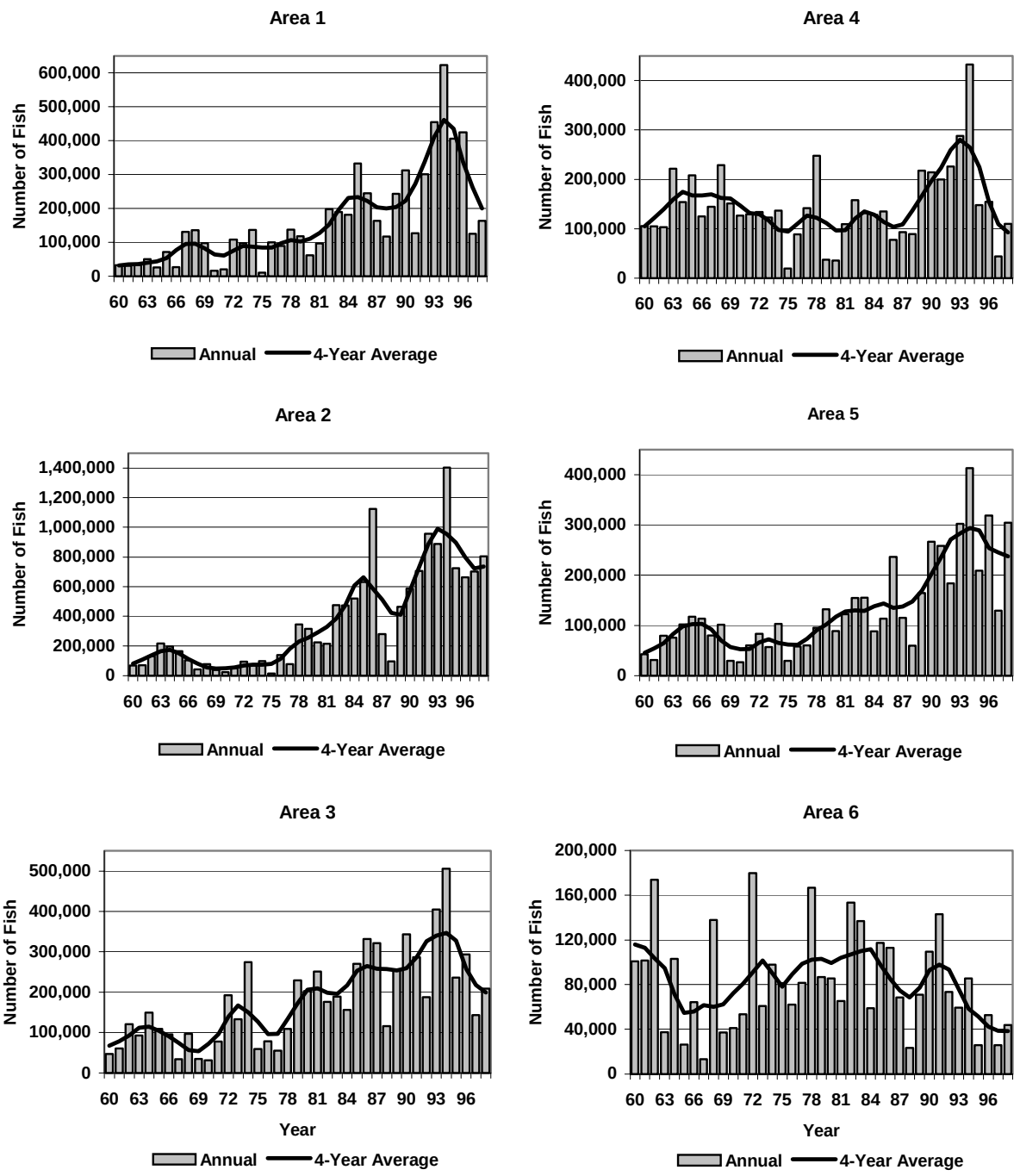


Figure A10. Southeast Alaska troll coho salmon catch by area, 1960–1998.

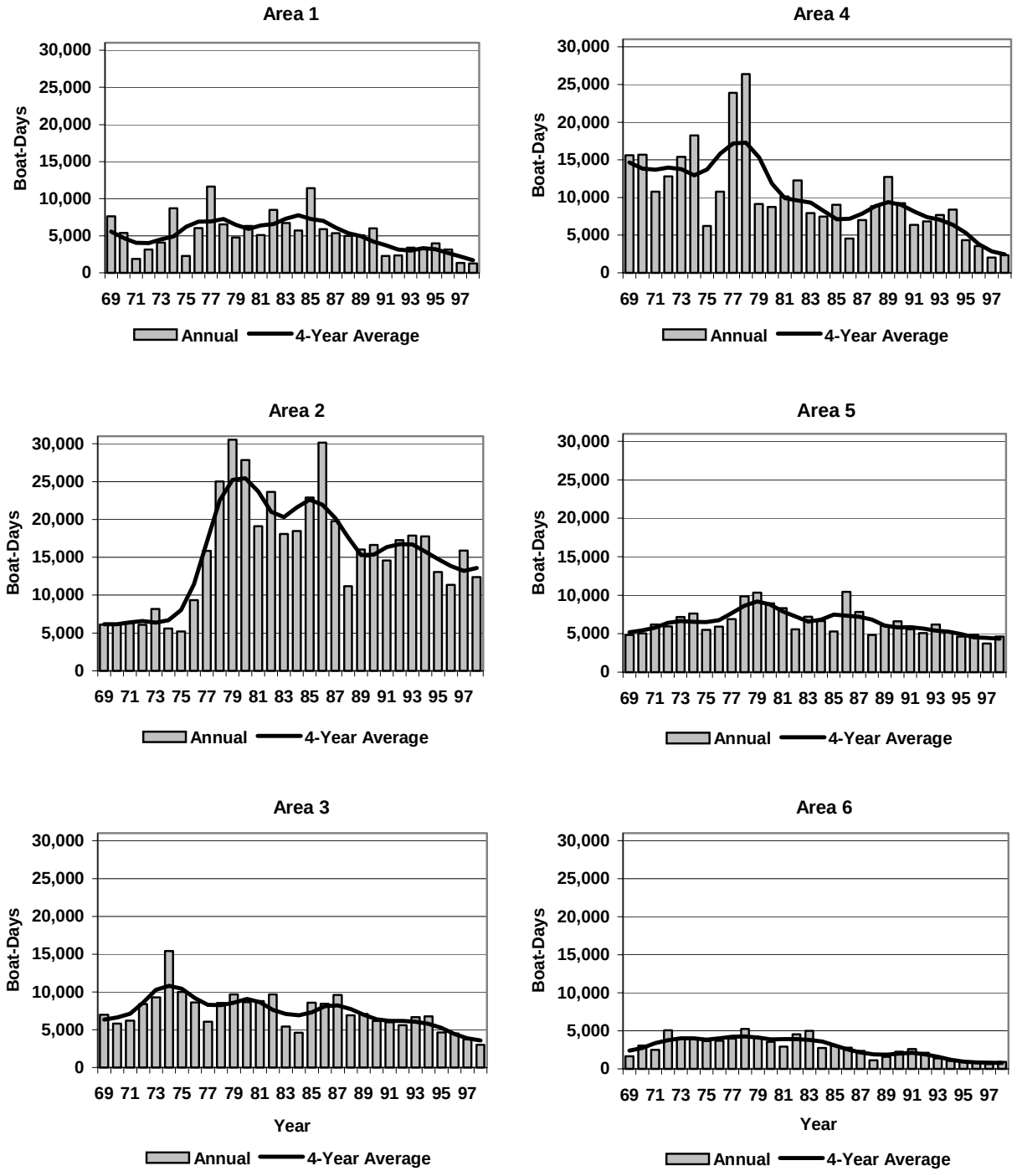
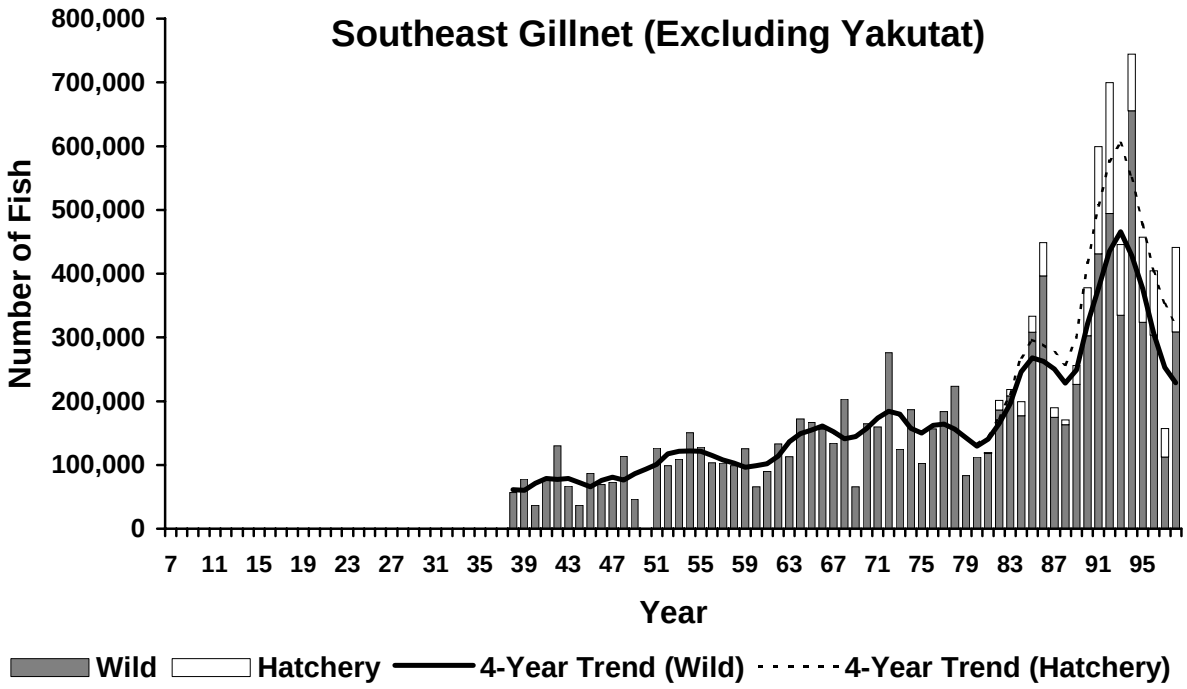


Figure A11. Southeast Alaska troll effort by area in power troll equivalents (stat. weeks 27–39), 1969–1998.



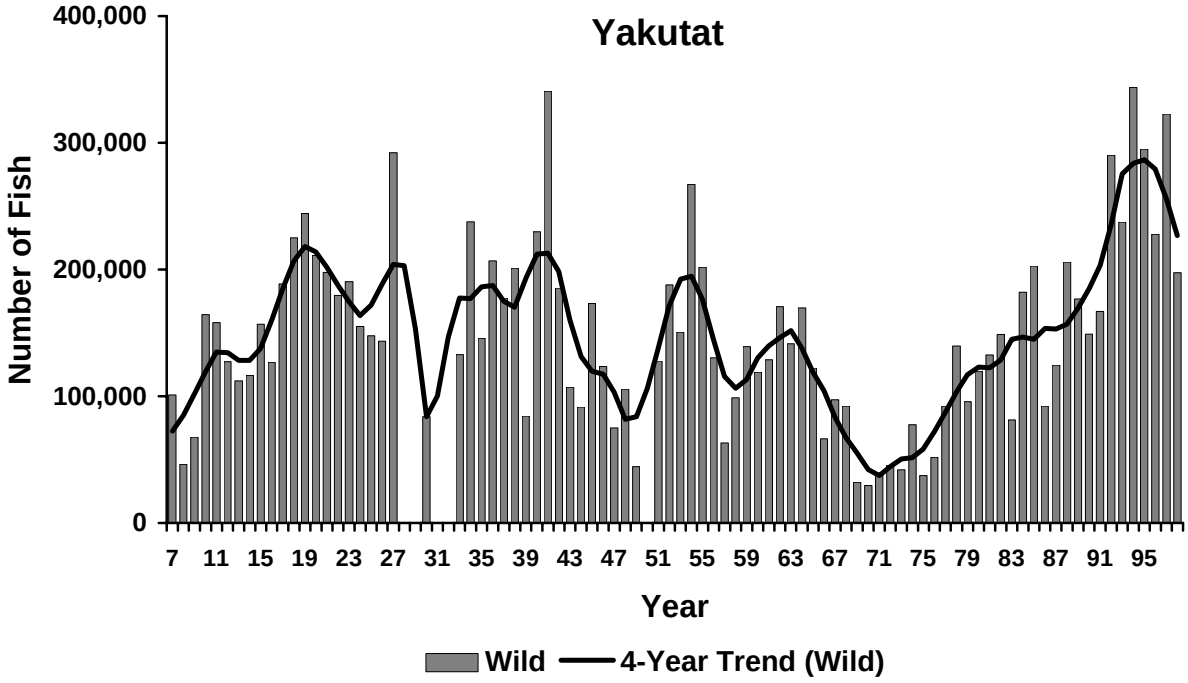


Figure A12. Southeast Alaska reported gillnet coho salmon catch (1938–1998; excluding Yakutat) and the total Yakutat area coho salmon catch (almost entirely set gillnet), 1907–1998.

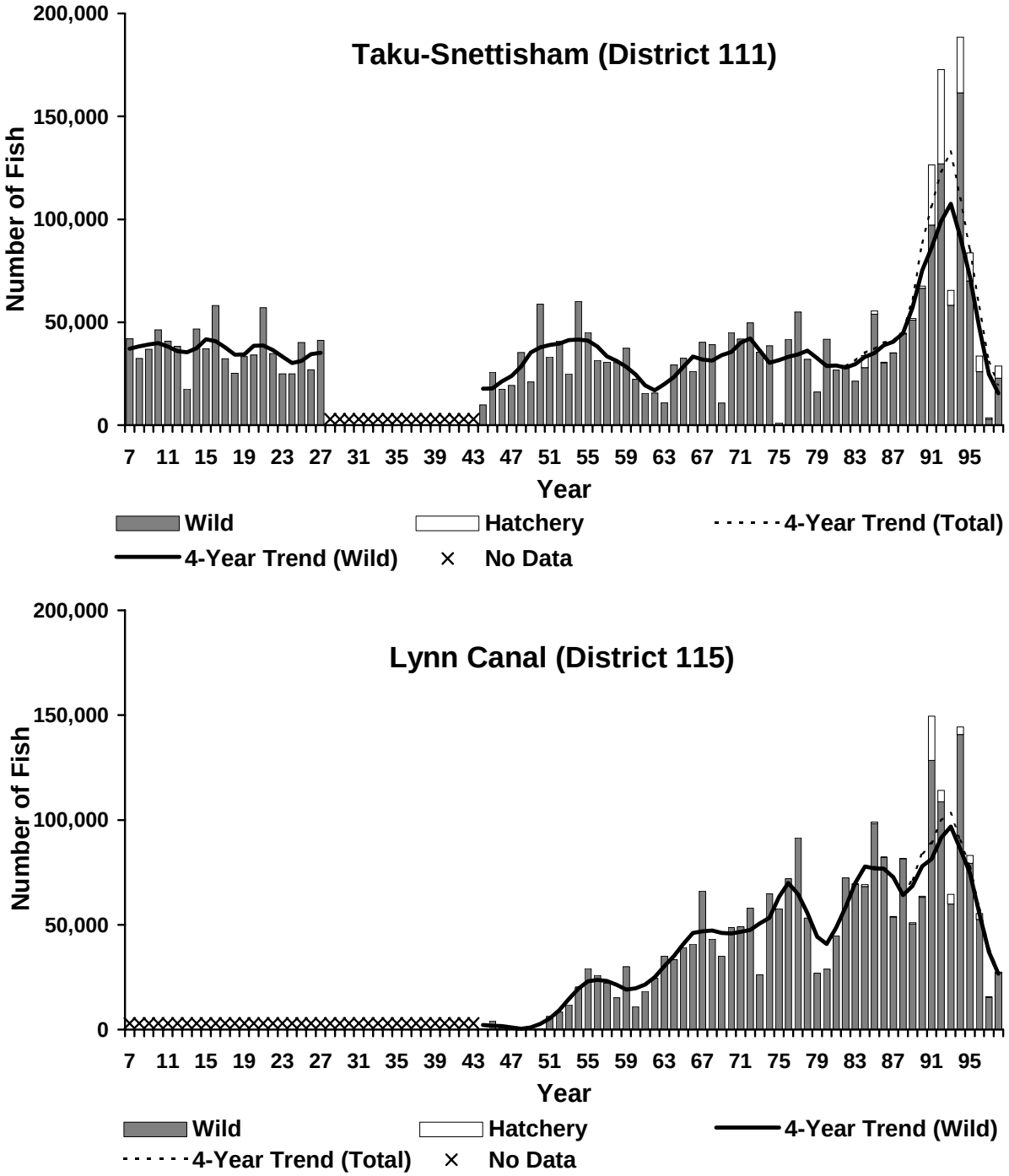


Figure A13. Coho salmon catch in the Taku-Snettisham (District 111) and Lynn Canal (District 115) drift gillnet fisheries, 1907–1998.

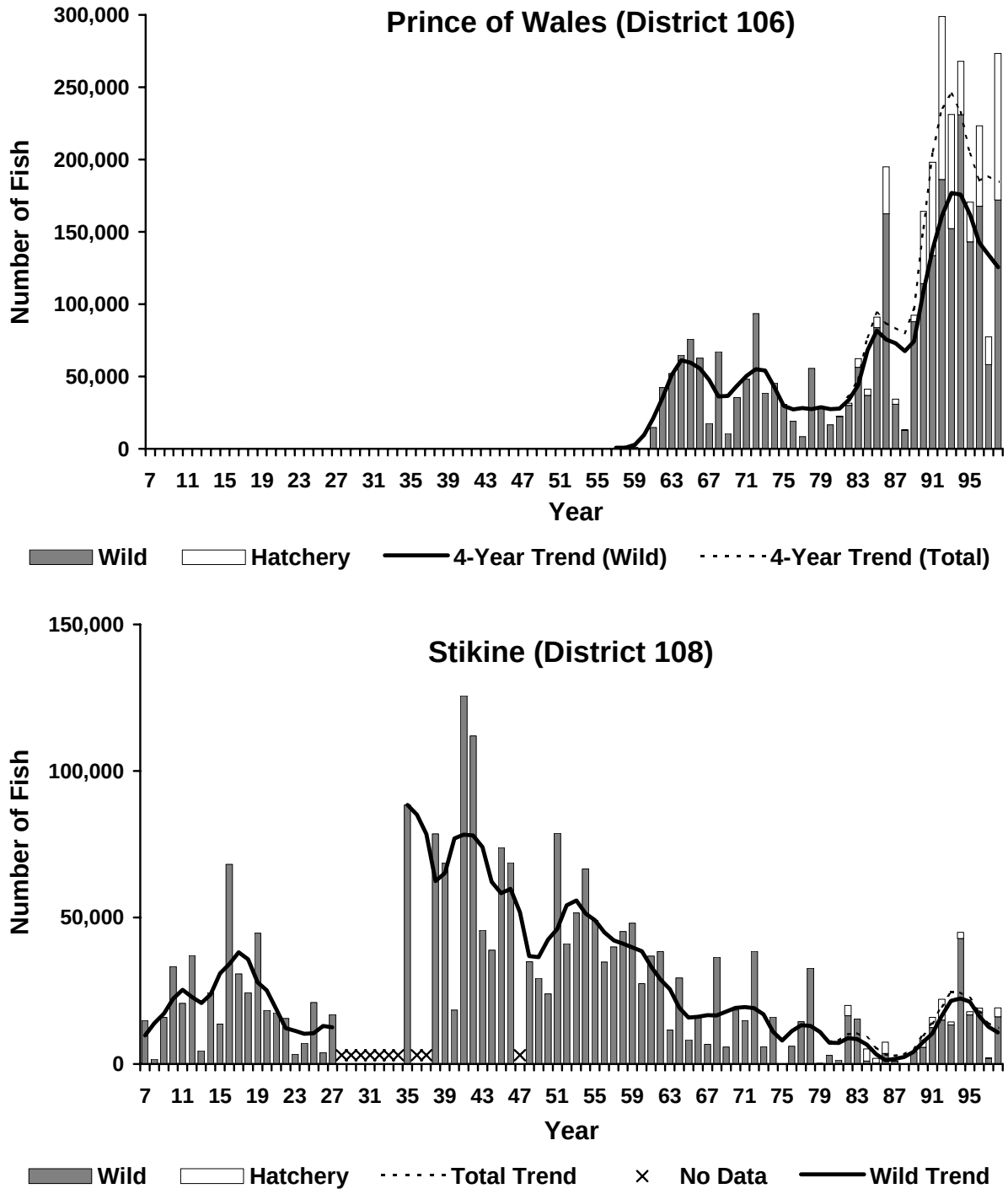


Figure A14. Coho salmon catch in the Prince of Wales (District 106) and Stikine (District 108) drift gillnet fisheries, 1907–1998. Stikine catches during 1938 to 1942 may contain other gillnet catch from the Petersburg-Wrangell area.

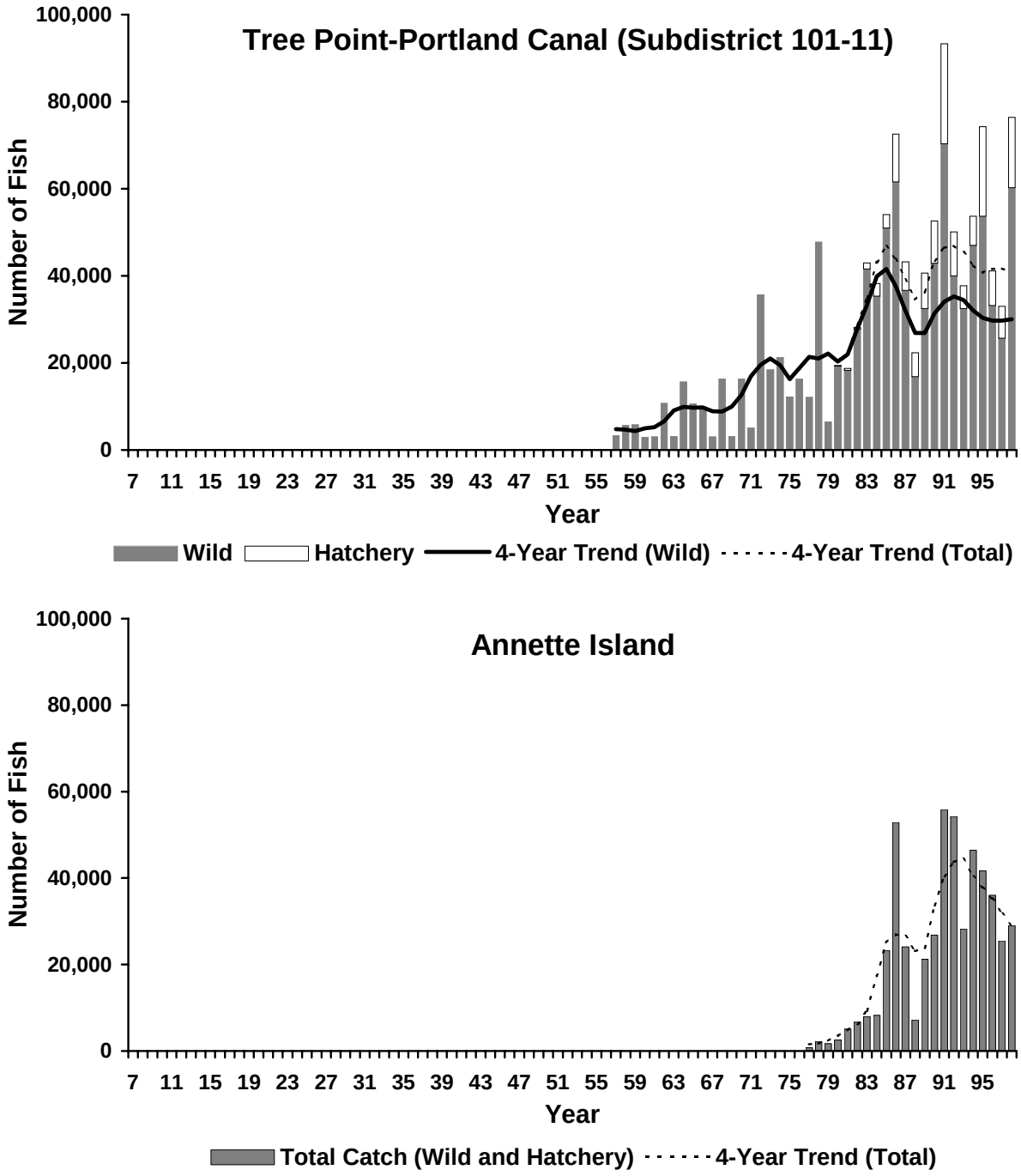


Figure A15. Drift gillnet catch of coho salmon by the Tree Point - Portland Canal fishery (wild and hatchery catch shown separately) and the Annette Island fishery (wild and hatchery catch combined) through 1998.

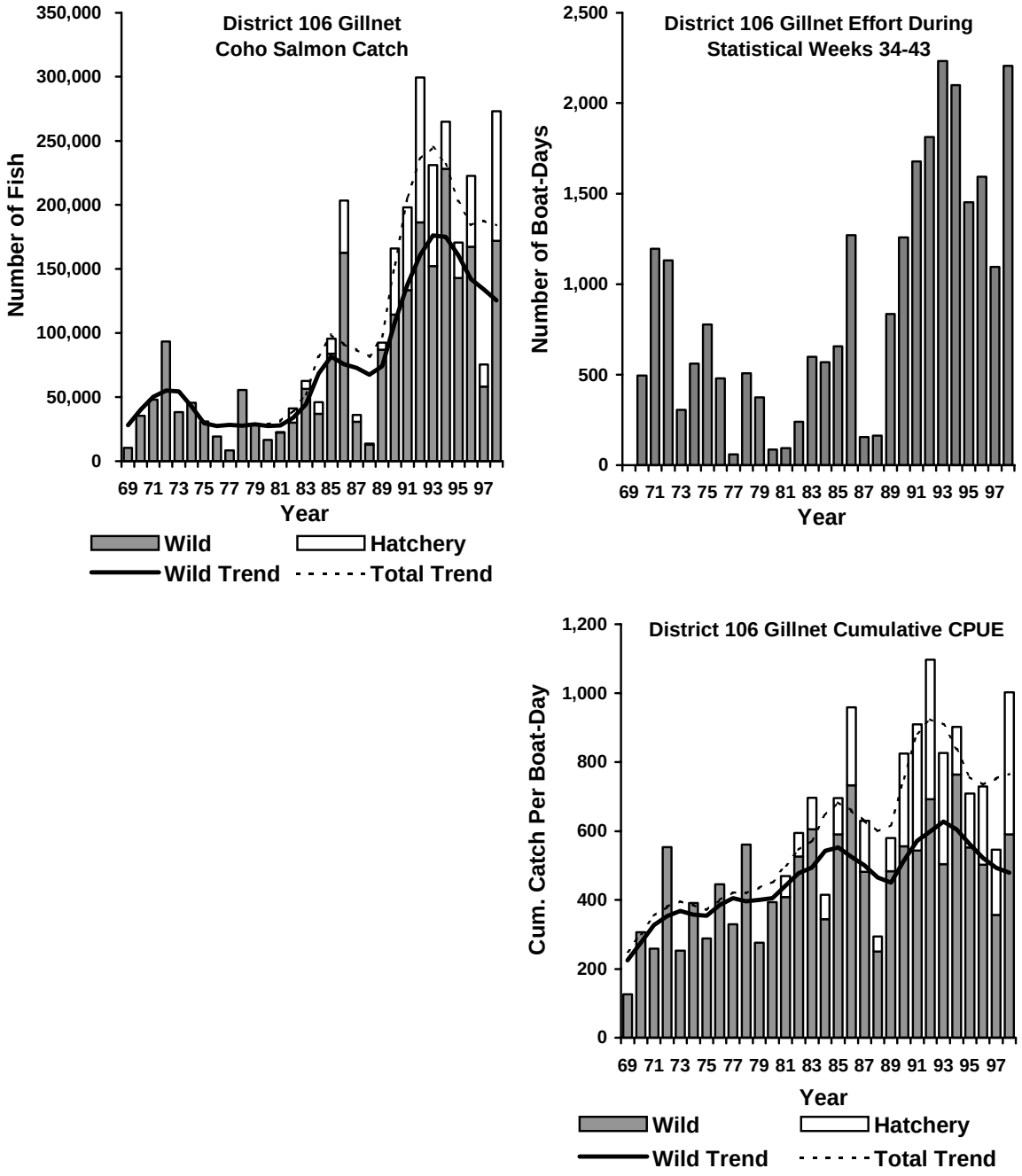


Figure A16. District 106 drift gillnet coho salmon catch, fall effort and season cumulative catch-per-boat-day, 1969–1998. Catch-per-boat-day was interpolated for weeks when the fishery was closed.

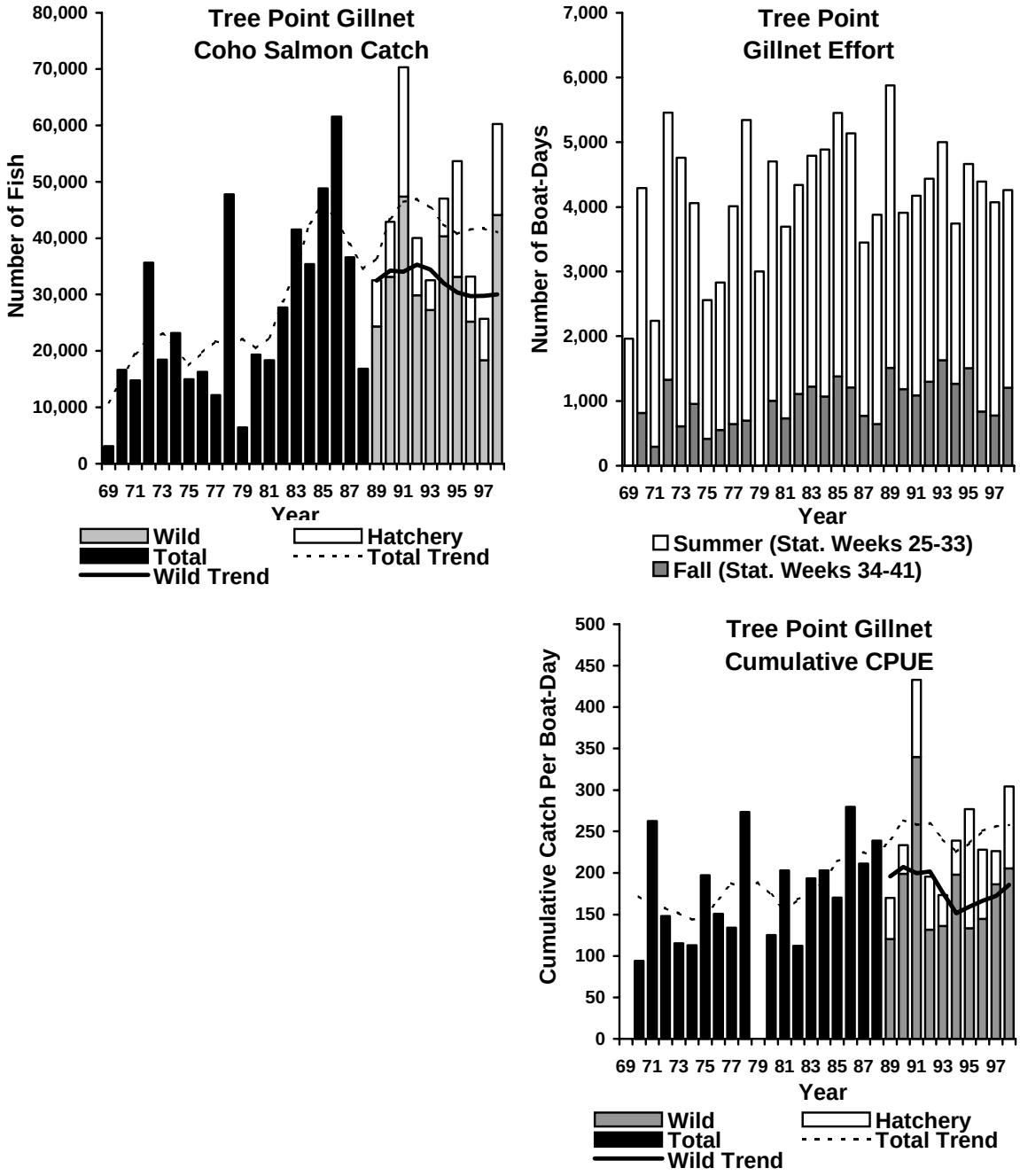


Figure A17. Tree Point (District 101) drift gillnet coho salmon catch, effort and season cumulative catch-per-boat-day, 1969–1998. Catch-per-boat-day was interpolated for weeks when the fishery was closed.

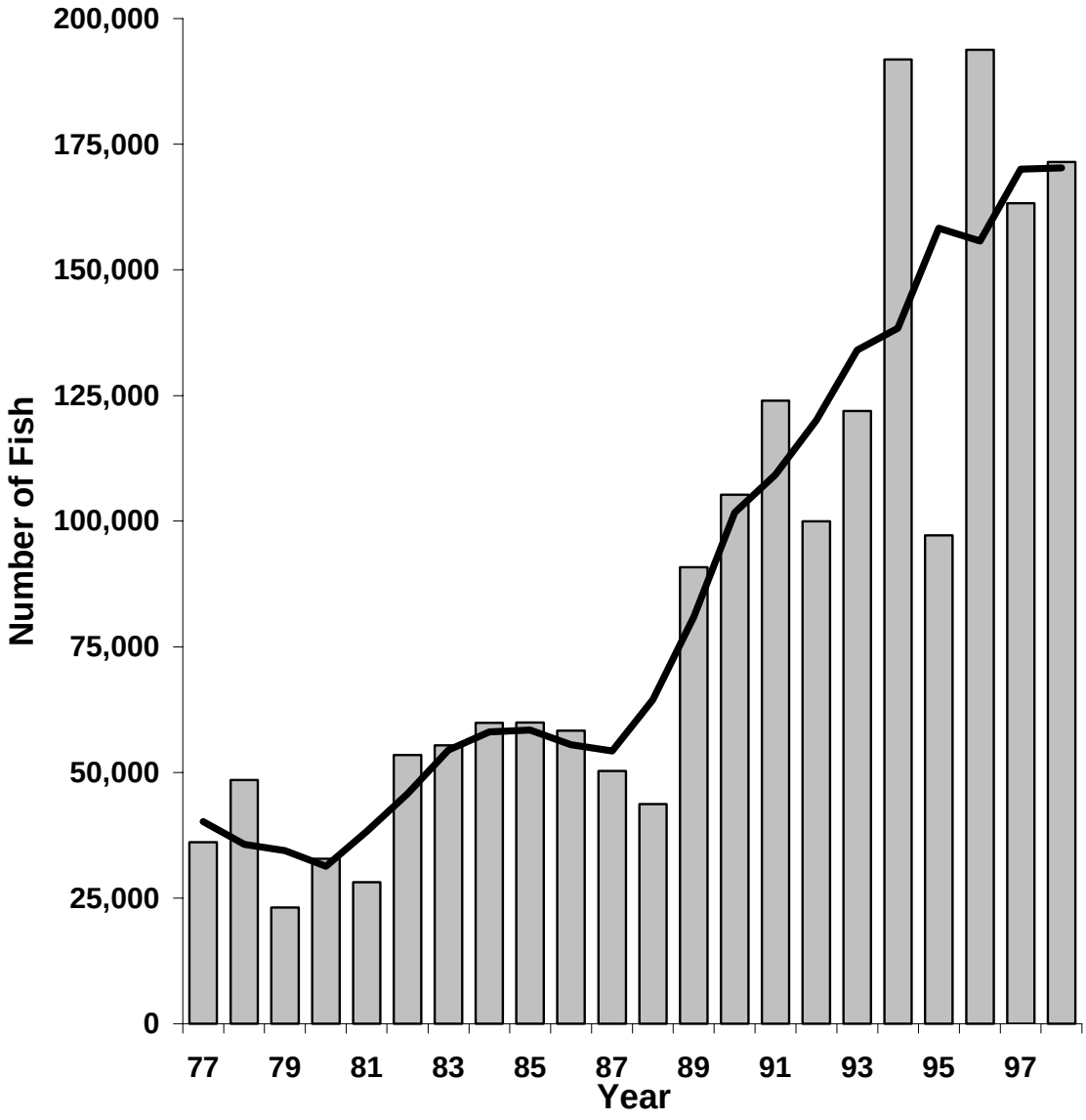


Figure A18. Recreational harvest of coho salmon in Southeast Alaska, 1977–1998.

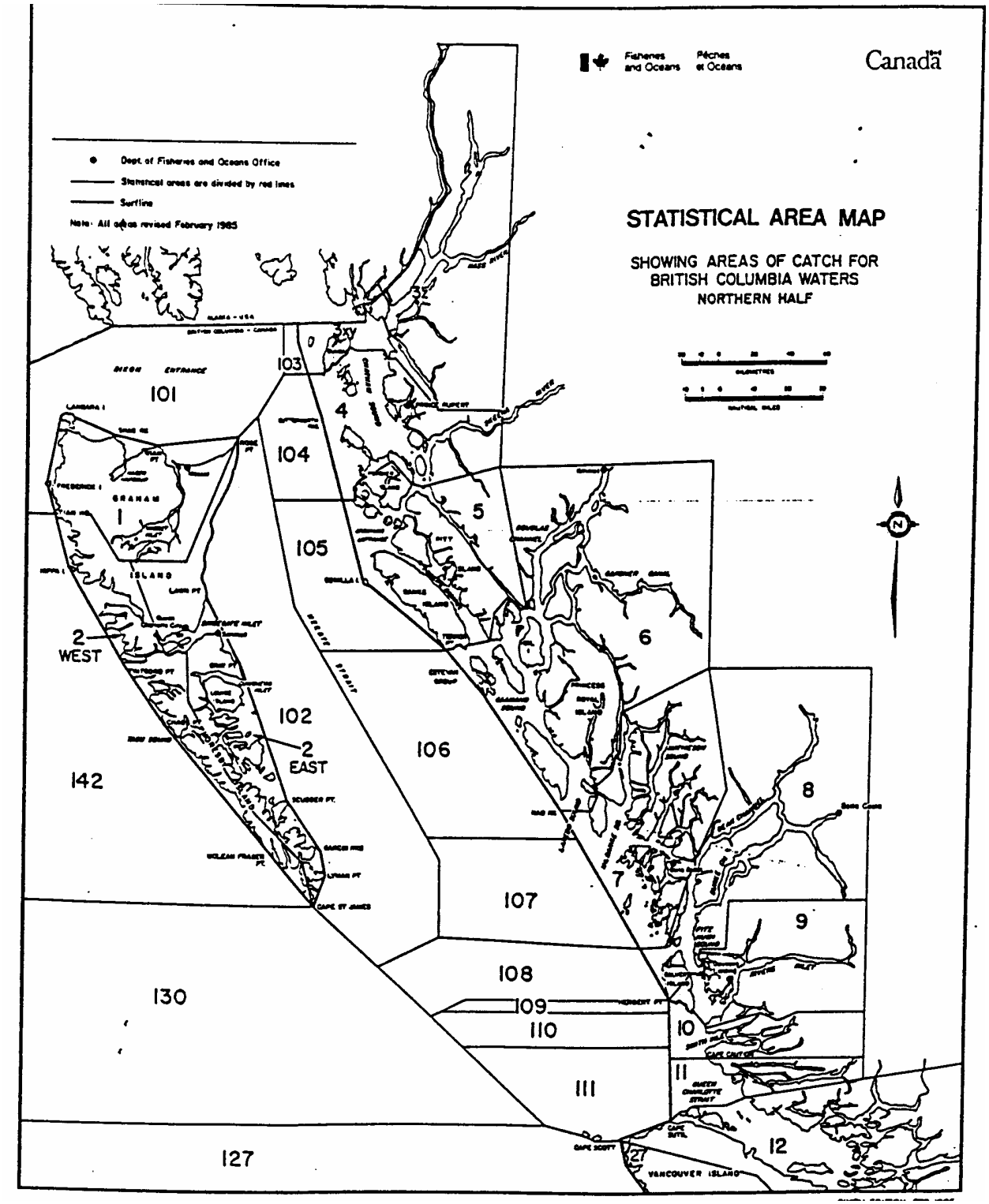


Figure C1. Map of North Coastal B.C., Statistical Areas 1 to 10.

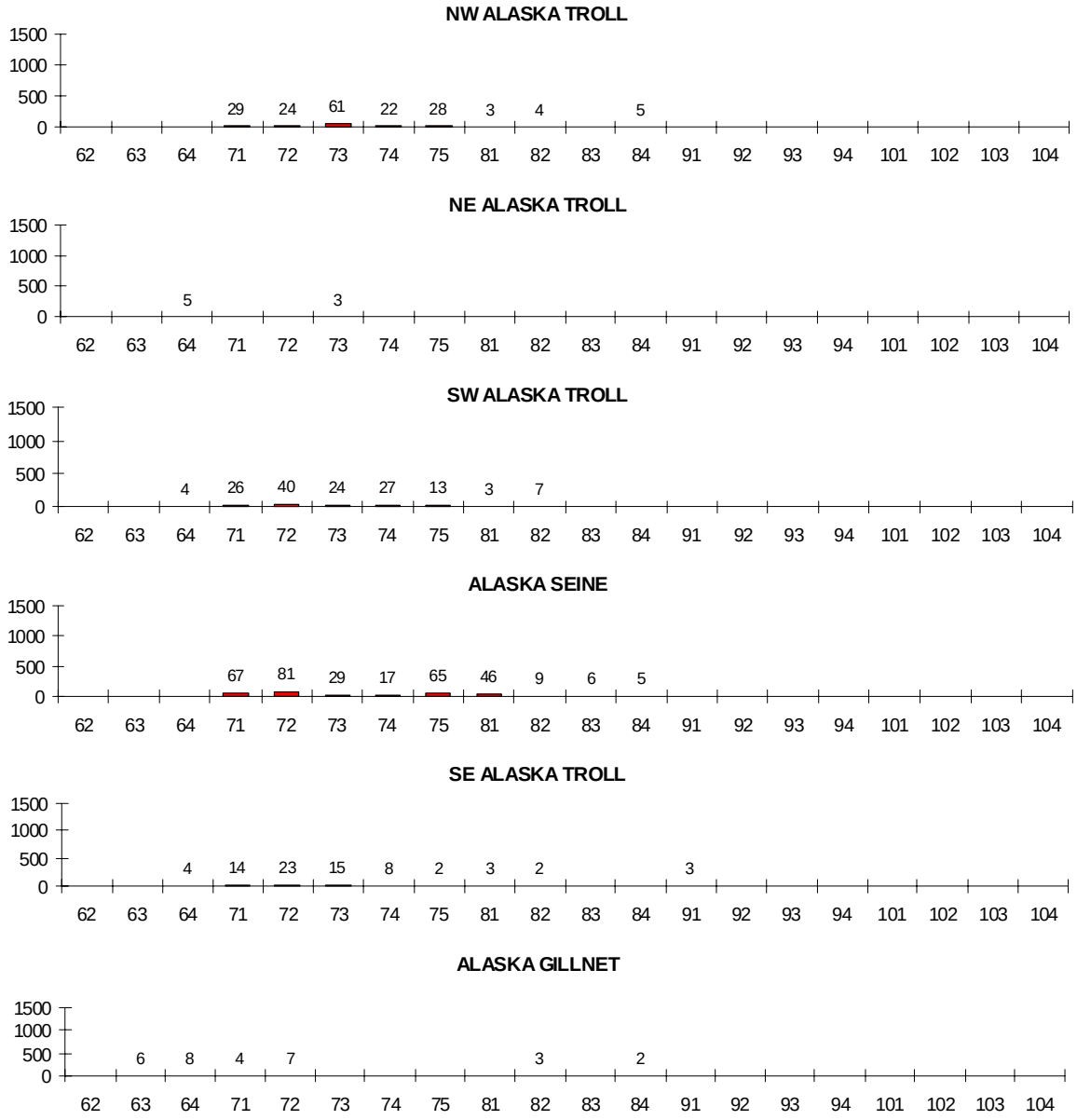


Figure C2. Estimated adjusted CWT weekly recoveries of age-3 coho tagged in the Pallant Creek (Cumshewa Inlet) tag group. 1983 to 1989 brood years, 1986 to 1992 recovery years.

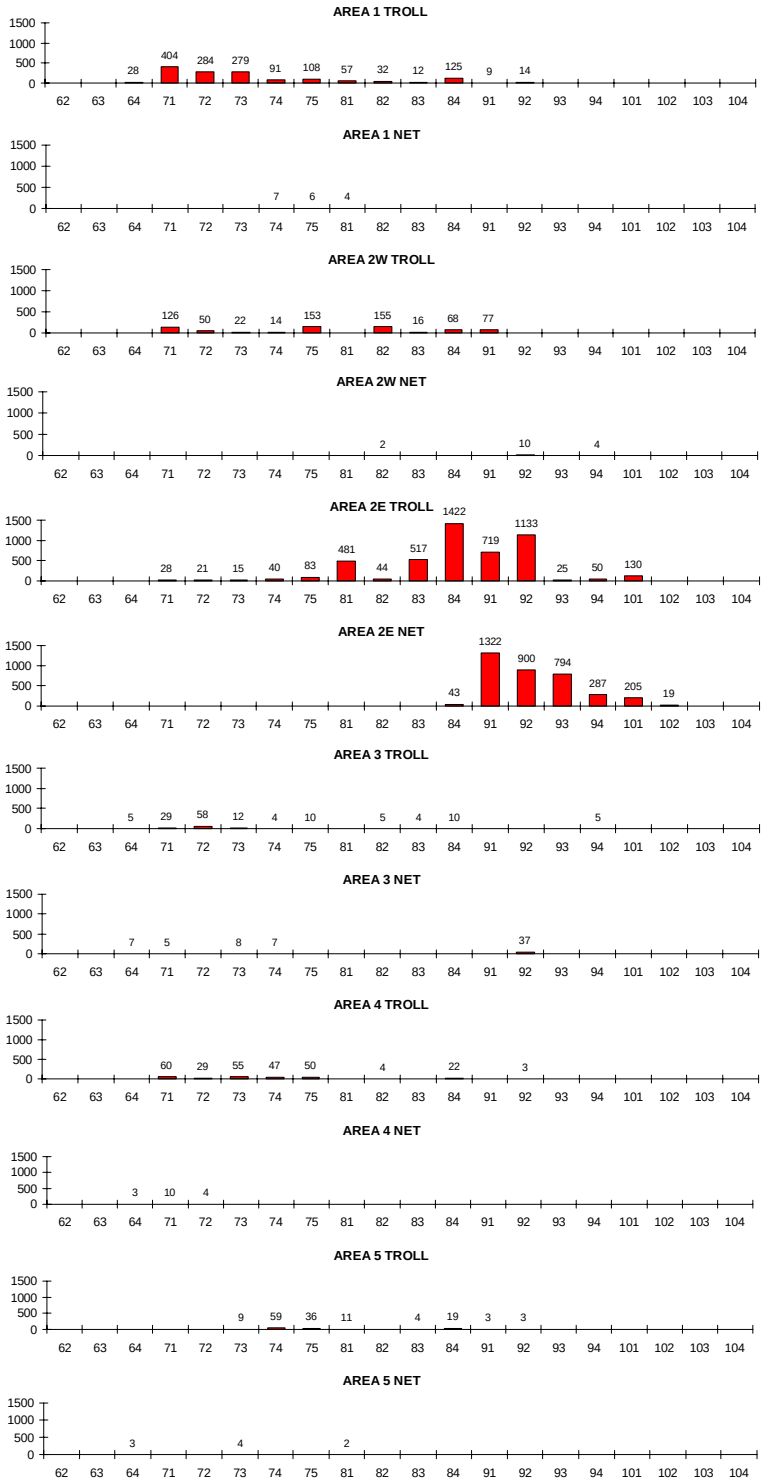


Figure C3. Estimated Adjusted CWT weekly recoveries of age-3 coho tagged in the Pallant Creek (Cumshewa Inlet) tag group. 1983 to 1989 brood years, 1986 to 1992 recovery years.

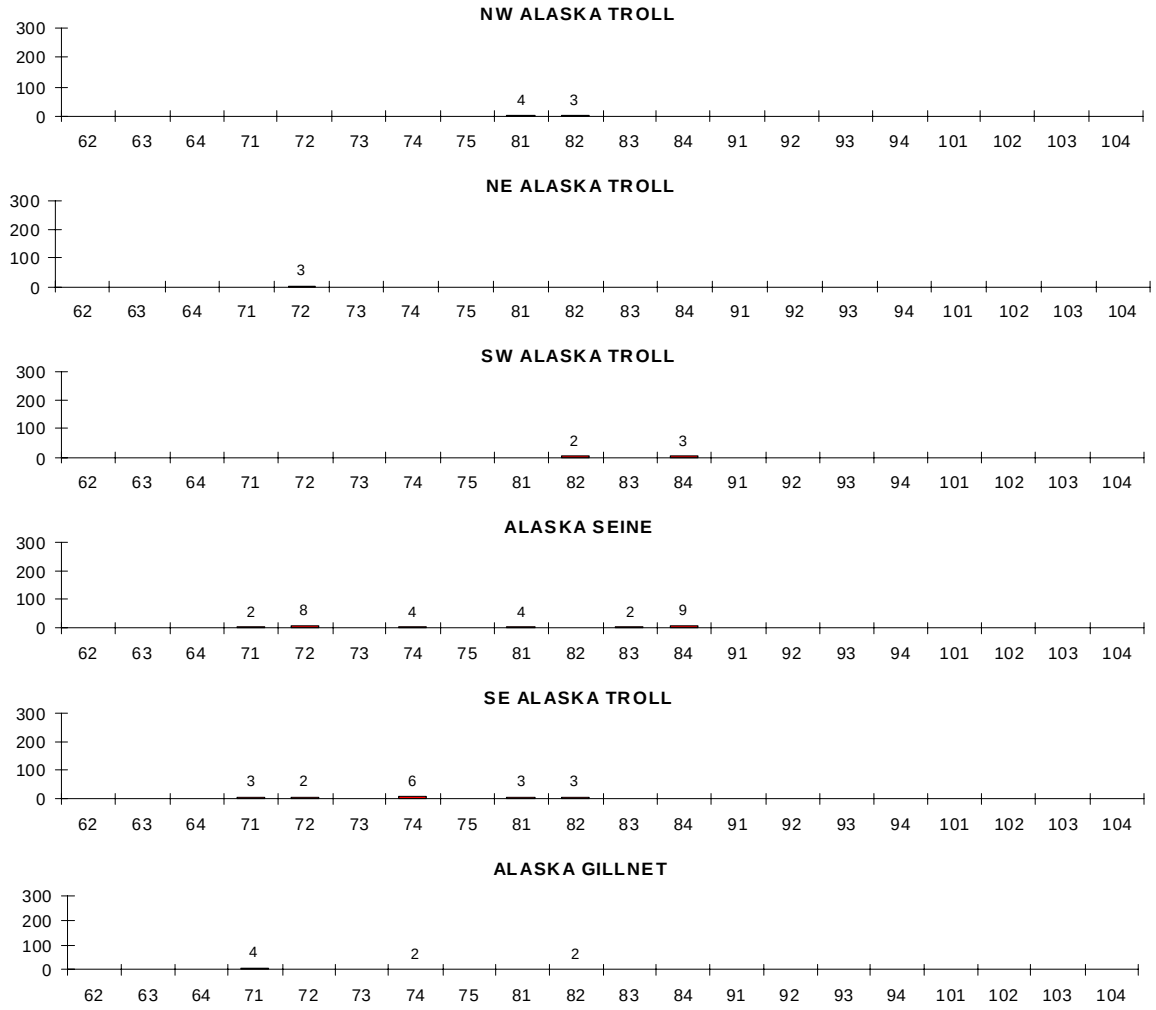


Figure C4. Estimated adjusted CWT weekly recoveries of age-3 coho tagged in the Yakoun River (Masset Inlet) tag group. 1986 to 1989 broody years, 1989 to 1992 recovery years.

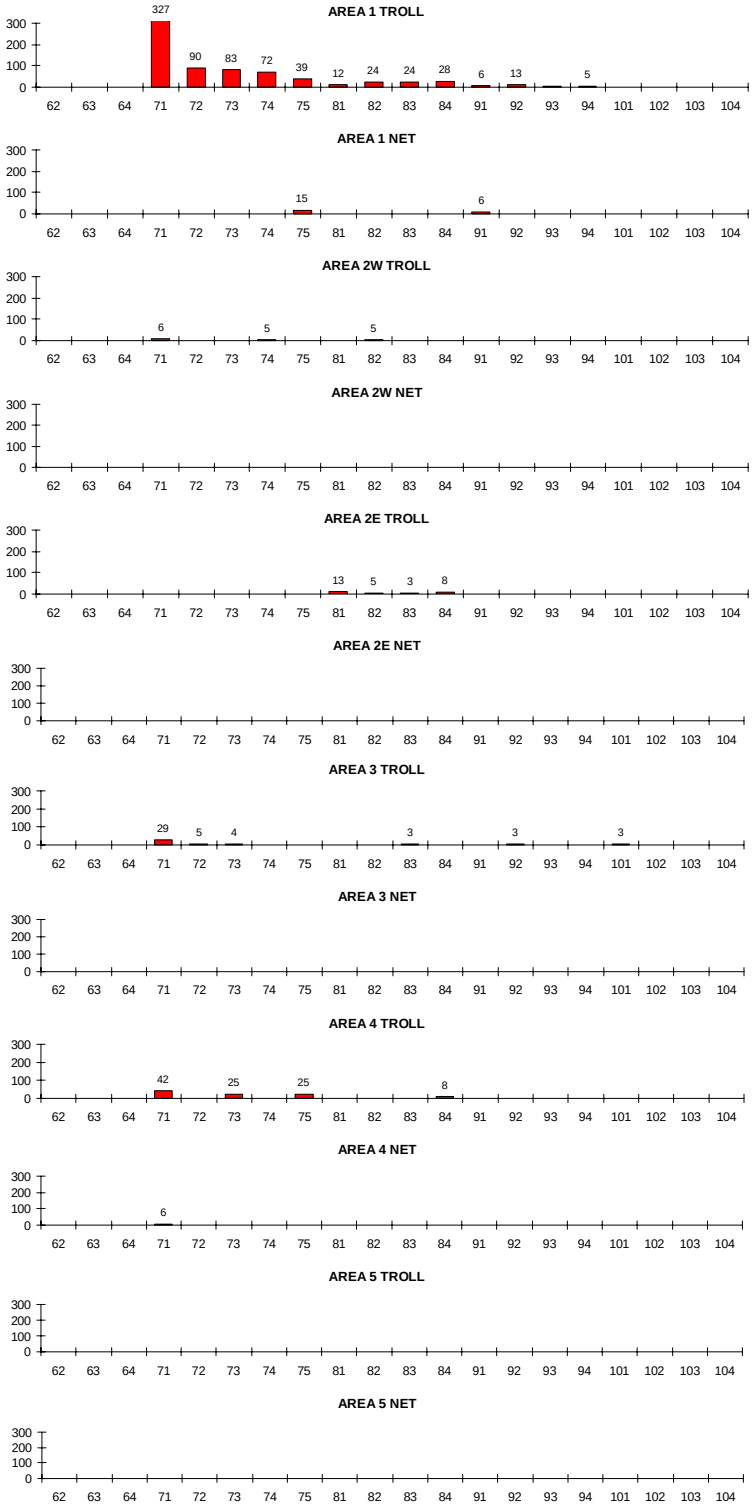


Figure C5. Estimated Adjusted CWT weekly recoveries of age-3 coho tagged in the Yakoun River (Masset Inlet) tag group. 1986 to 1989 brood years, 1989 to 1992 recovery years.

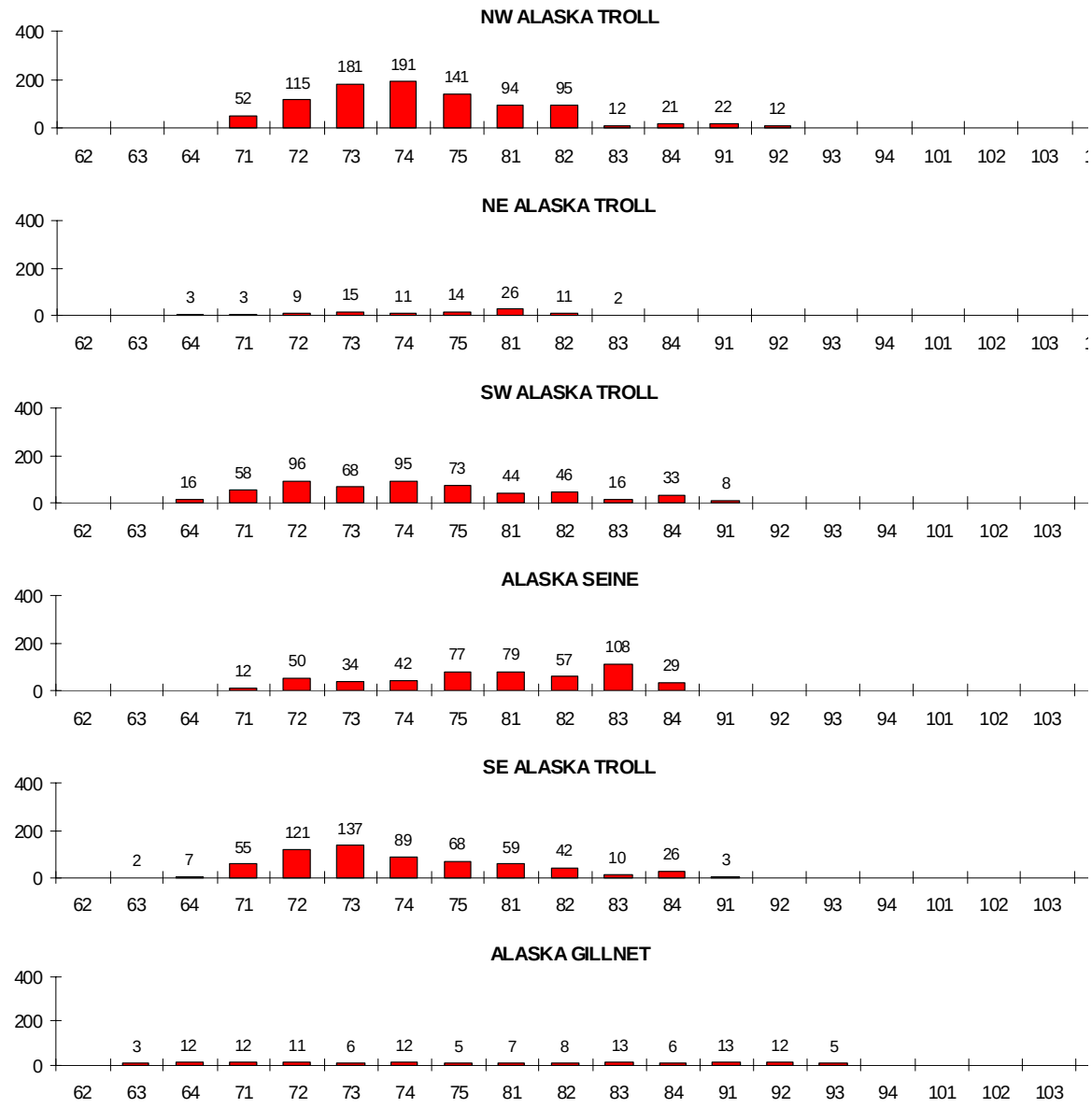


Figure C6. Estimated adjusted CWT weekly recoveries of age-3 coho tagged in the Kitimat River tag group. 1984 to 1989 brood years, 1987 to 1992 recovery years.

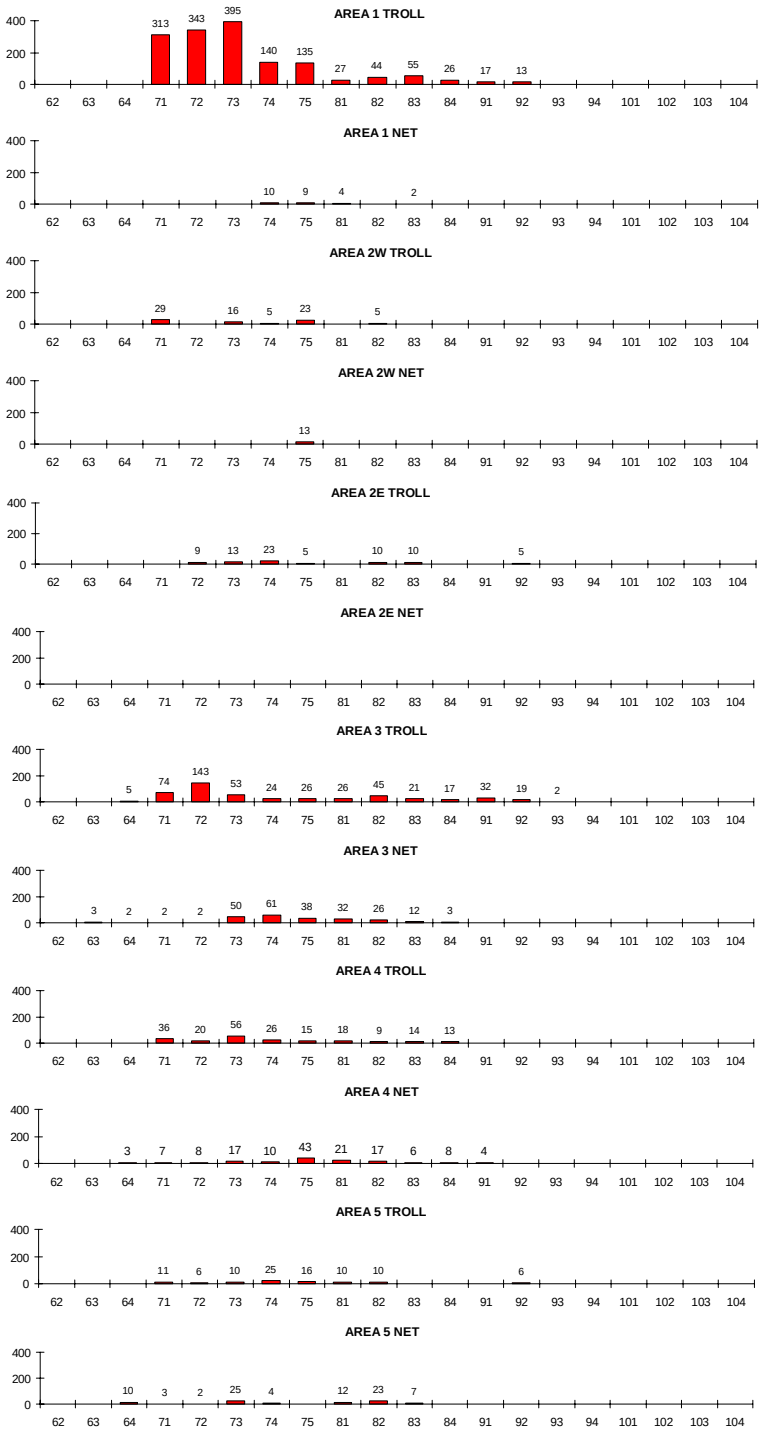


Figure C7. Estimated Adjusted CWT weekly recoveries of age-3 coho tagged in the Kitimat River tag group. 1984 to 1989 brood years, 1987 to 1992 recovery years.

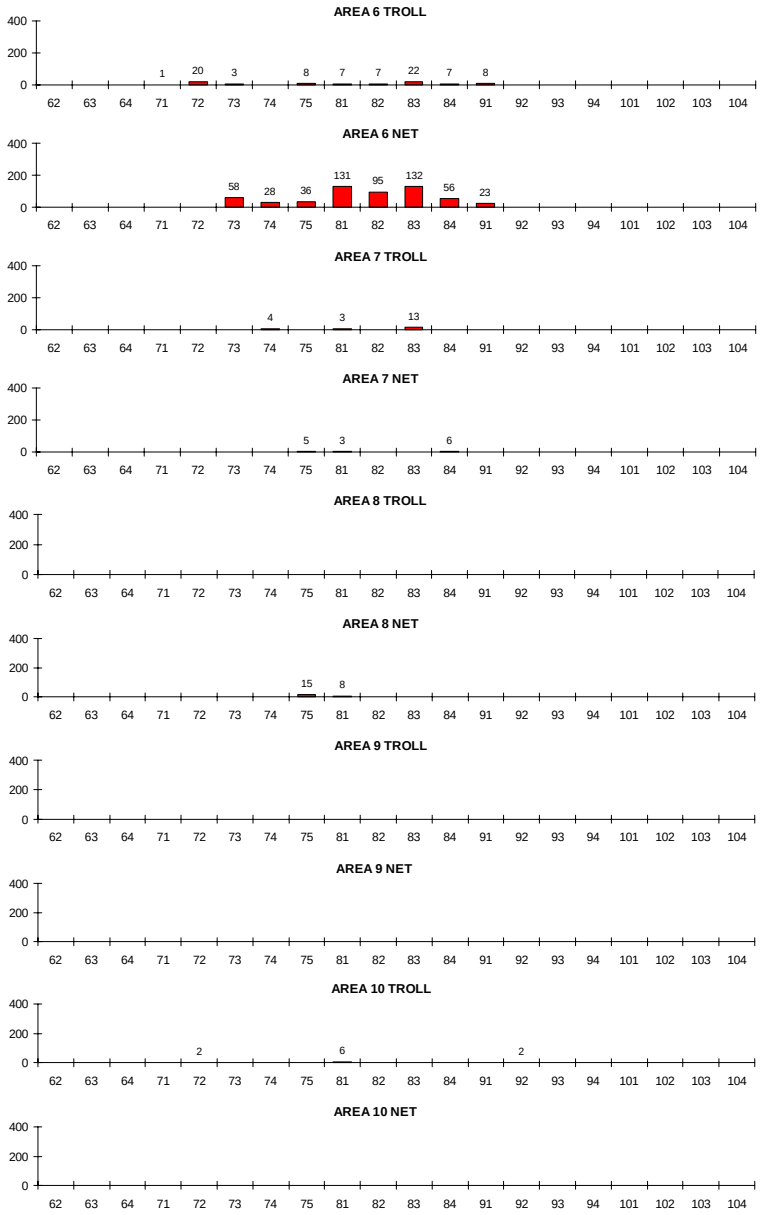


Figure C8. Estimated Adjusted CWT weekly recoveries of age-3 coho tagged in the Kitimat River tag group. 1984 to 1989 brood years, 1987 to 1992 recovery years.

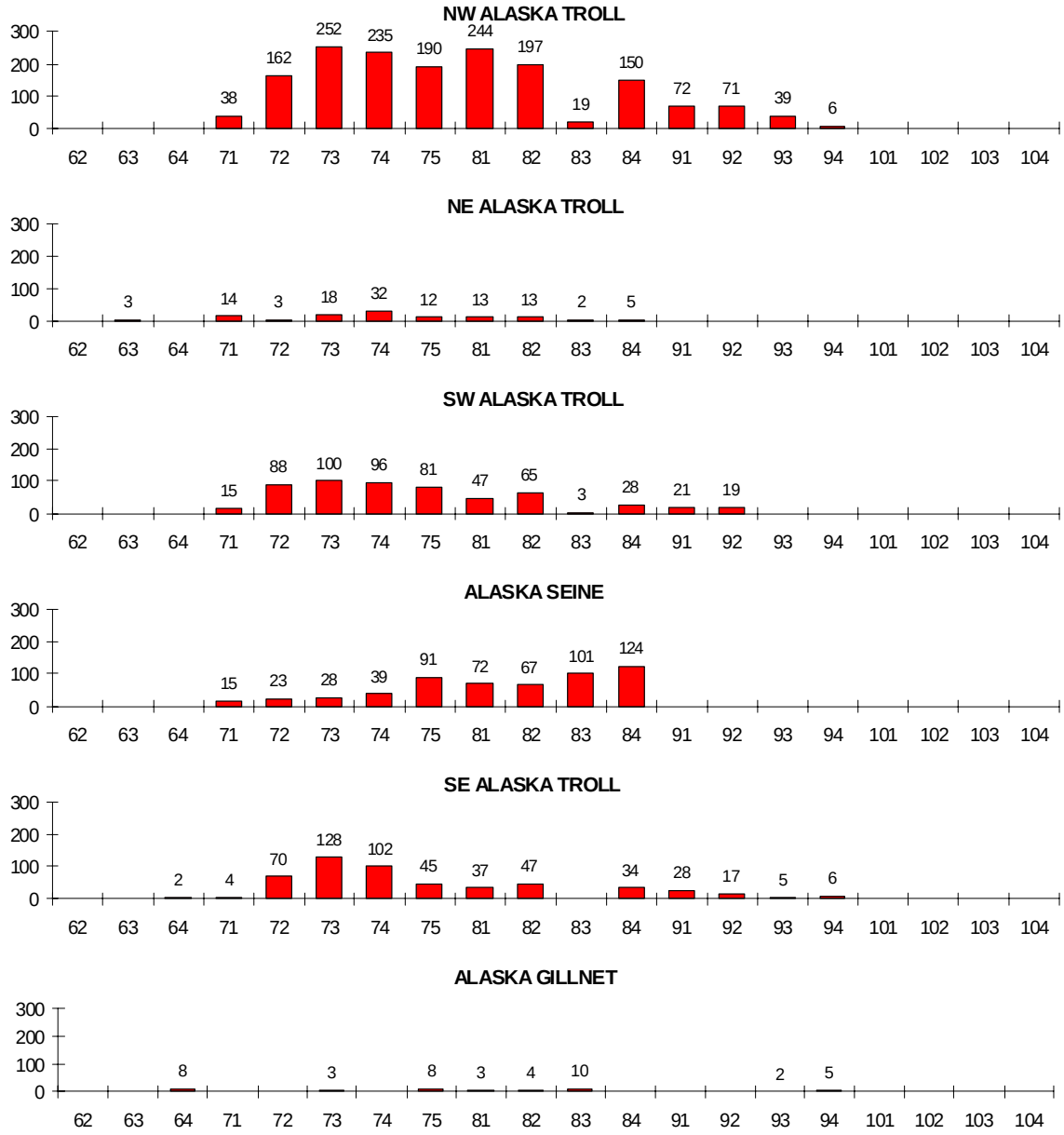


Figure C9. Estimated adjusted CWT weekly recoveries of age-3 coho tagged in years Snootli Hatchery tag group. 1985 to 1989 brood years, 1988 to 1992 recovery years.

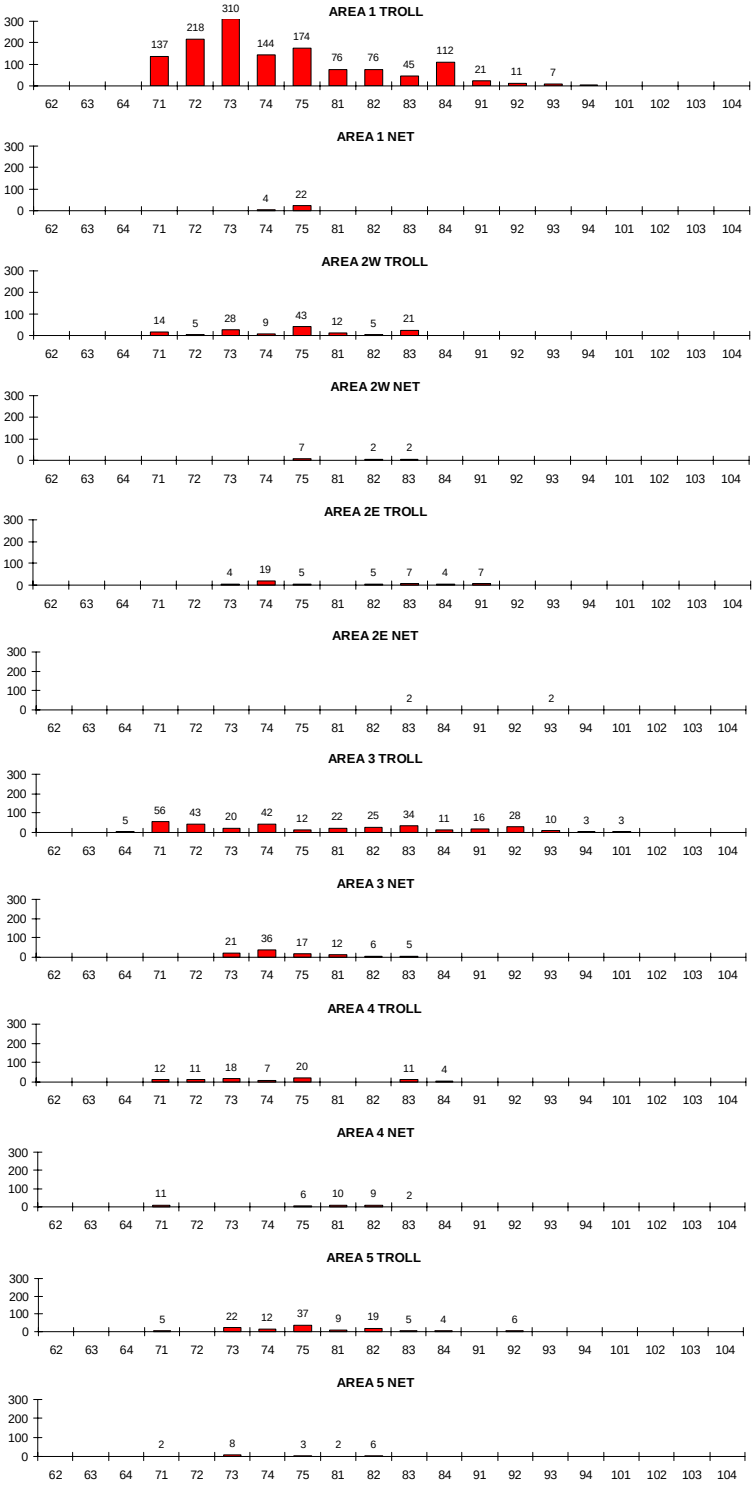


Figure C10. Estimated Adjusted CWT weekly recoveries of age-3 coho tagged in the Snootli Hatchery tag group. 1985 to 1989 brood years, 1988 to 1992 recovery years.

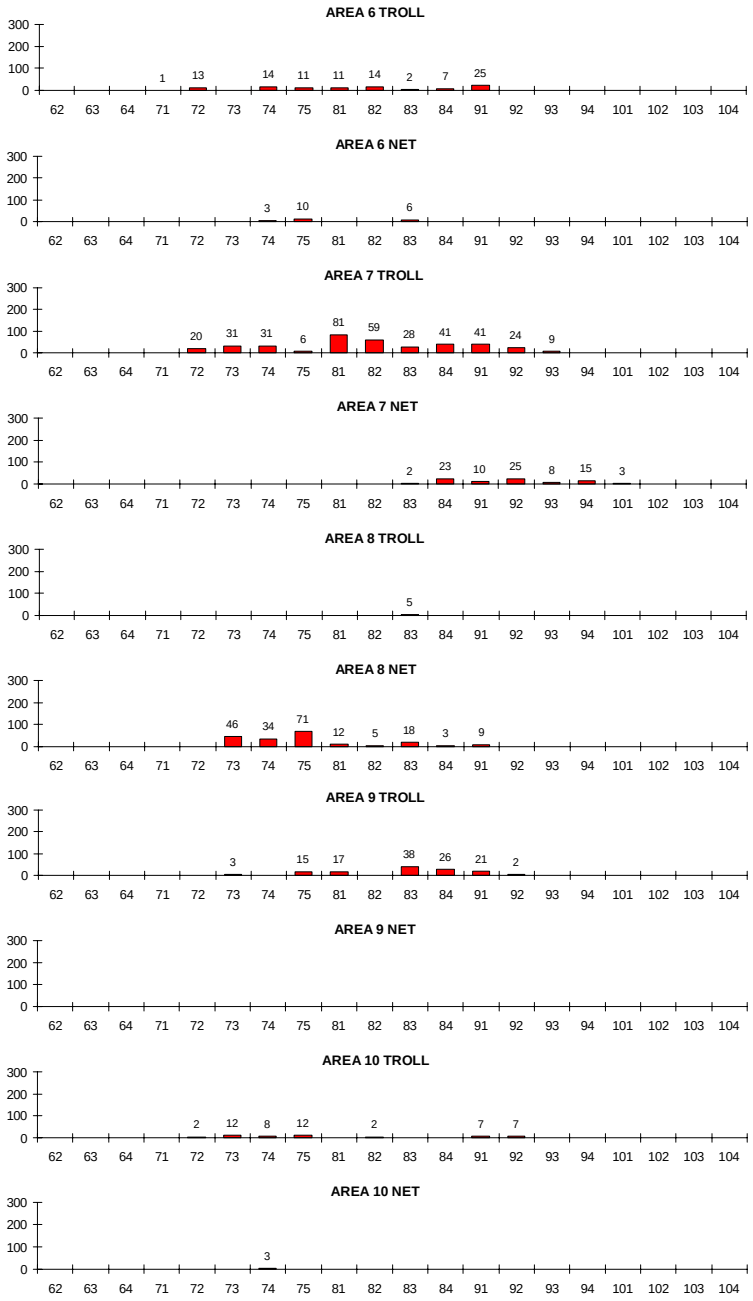


Figure C11. Estimated Adjusted CWT weekly recoveries of age-3 coho tagged in the Snootli Hatchery tag group. 1985 to 1989 brood years, 1988 to 1992 recovery years.

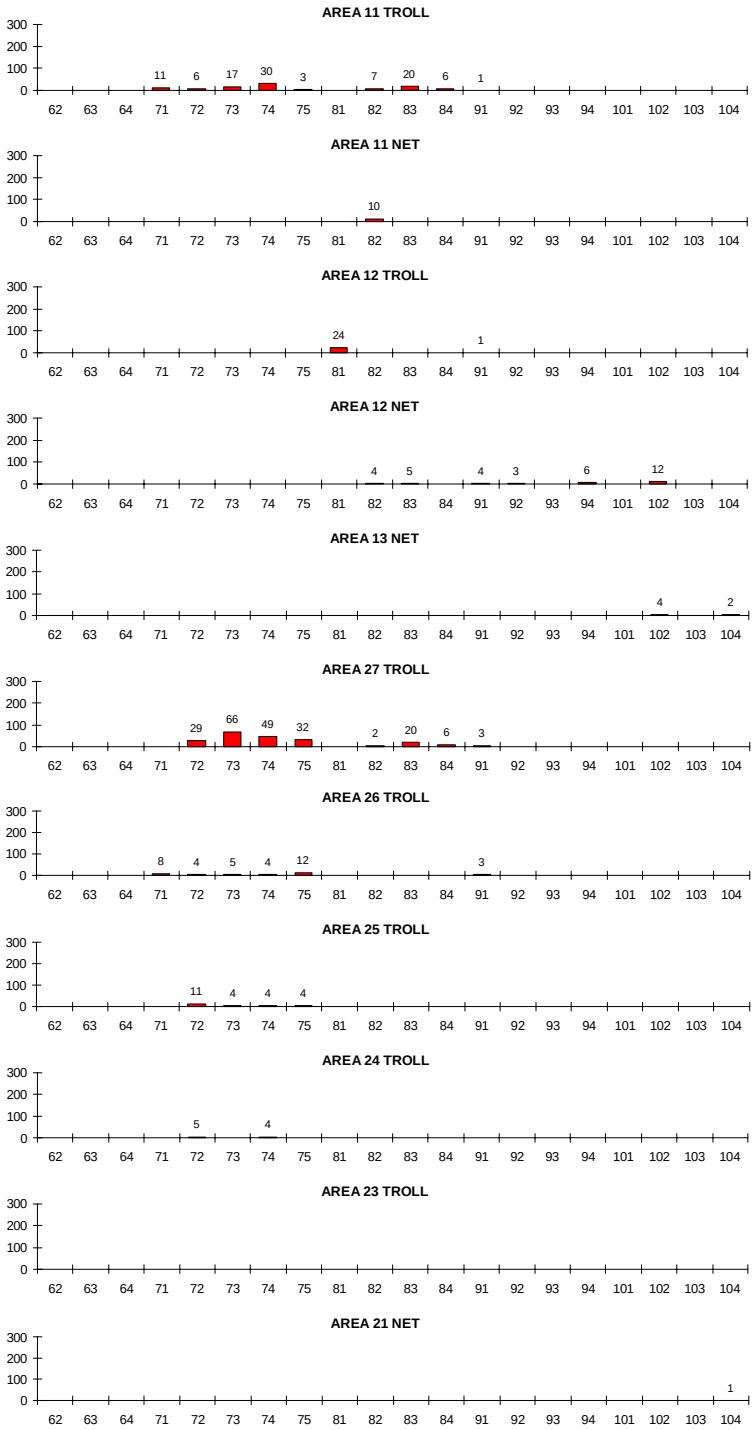


Figure C12. Estimated Adjusted CWT weekly recoveries of age-3 coho tagged in the Snootli Hatchery tag group. 1985 to 1989 brood years, 1988 to 1992 recovery years.

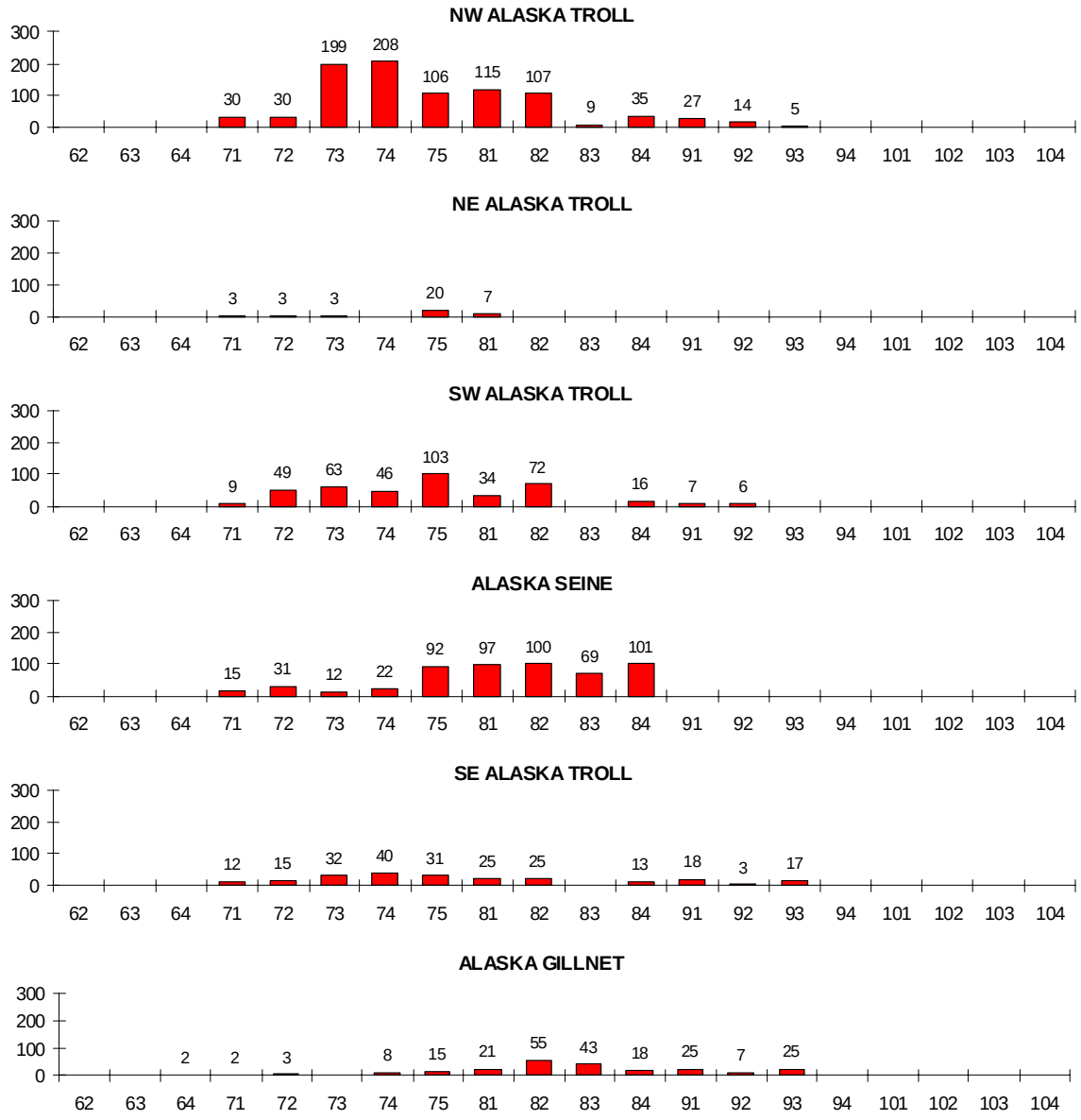


Figure C13. Estimated adjusted CWT weekly recoveries of age-4 coho tagged in the Lachmach River tag group. 1984 to 1989 brood years, 1988 to 1993 recovery years.

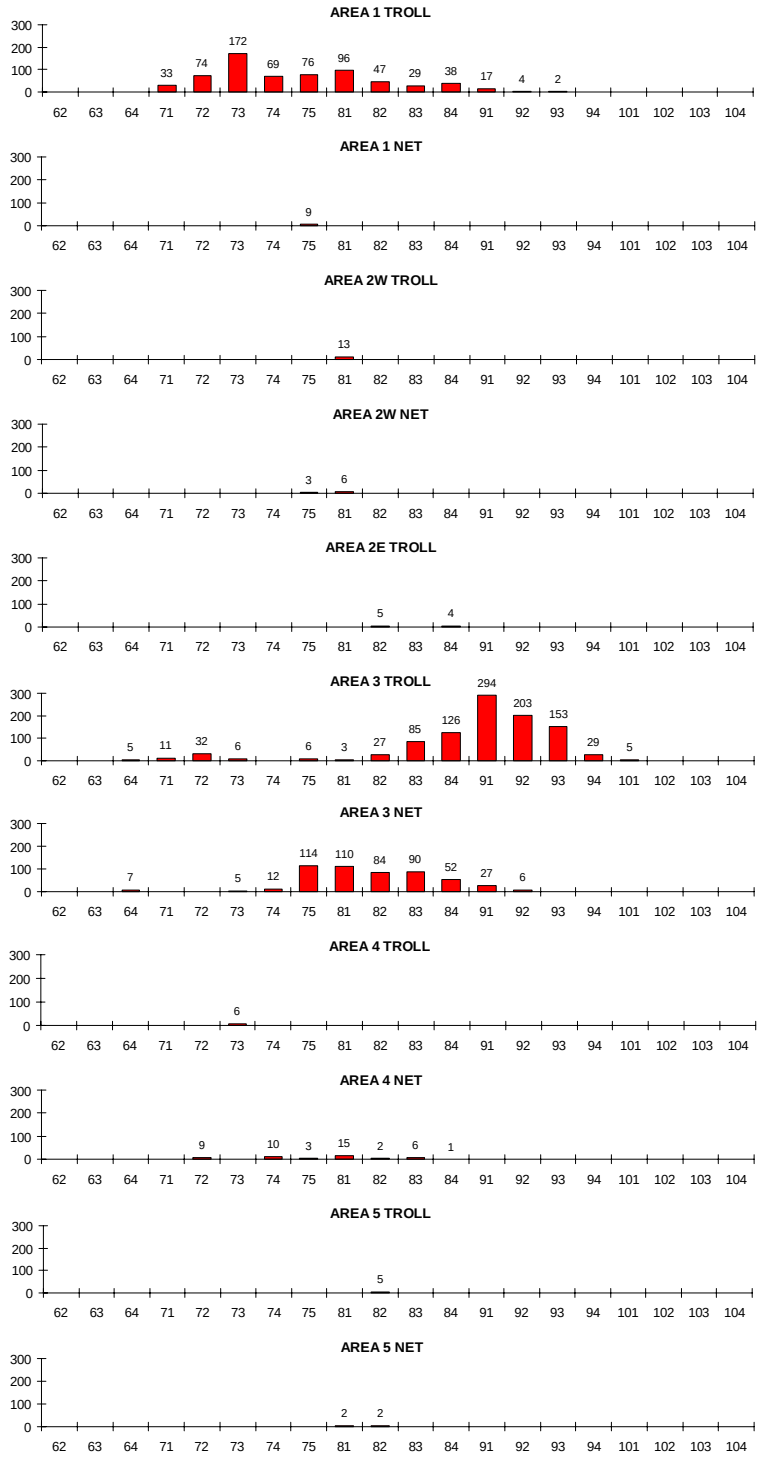


Figure C14. Estimated Adjusted CWT weekly recoveries of age-4 coho tagged in the Lachmach River tag group. 1984 to 1989 brood years, 1988 to 1993 recovery years.

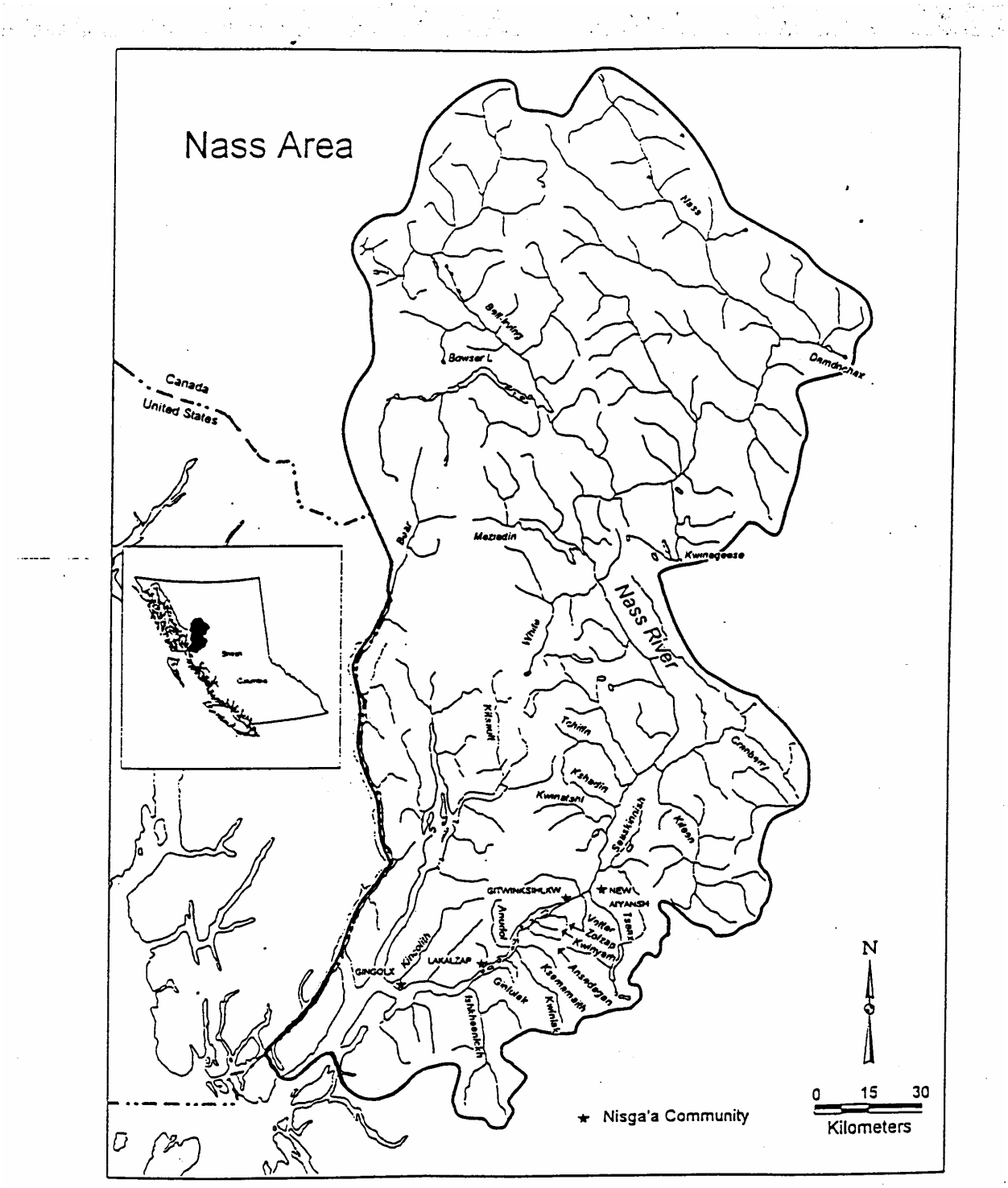


Figure C15. Map of the Nass River watershed.

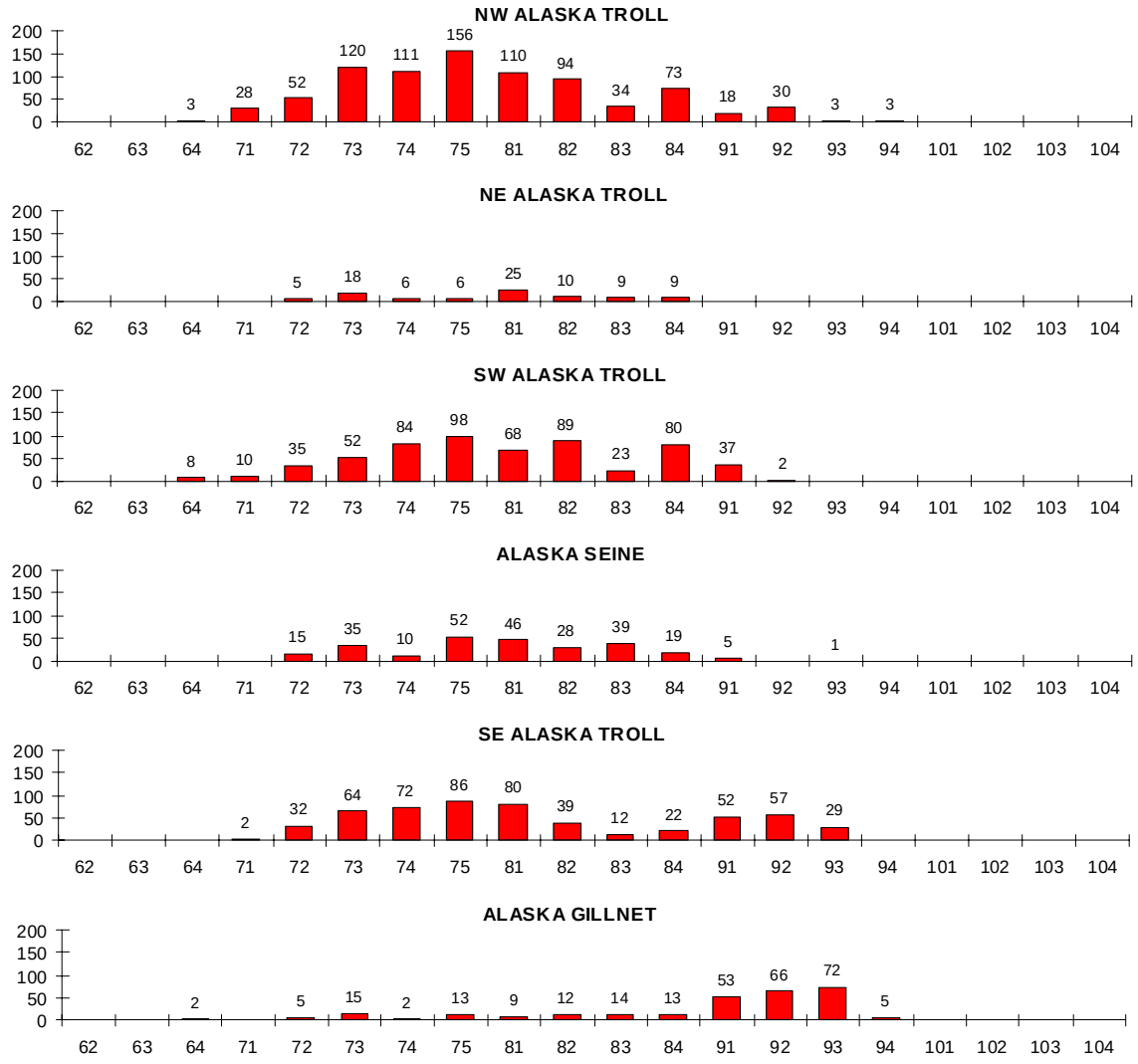


Figure C16. Estimated adjusted CWT weekly recoveries of age-3 coho tagged in the Kincolith River tag group. 1984 to 1988 brood years, 1987 to 1991 recovery years.

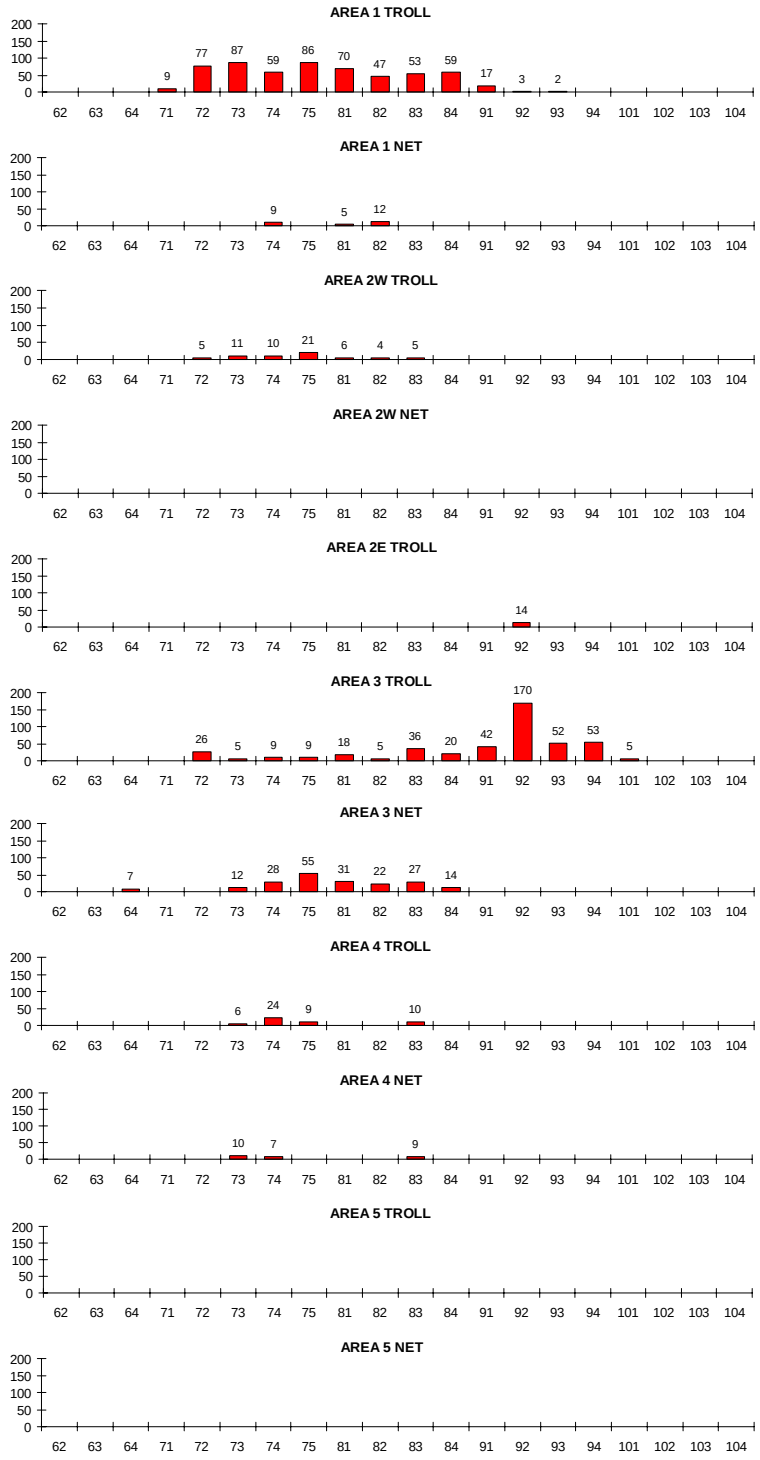


Figure C17. Estimated Adjusted CWT weekly recoveries of age-3 coho tagged in the Kincolith River tag group. 1984 to 1988 brood years, 1987 to 1991 recovery years.

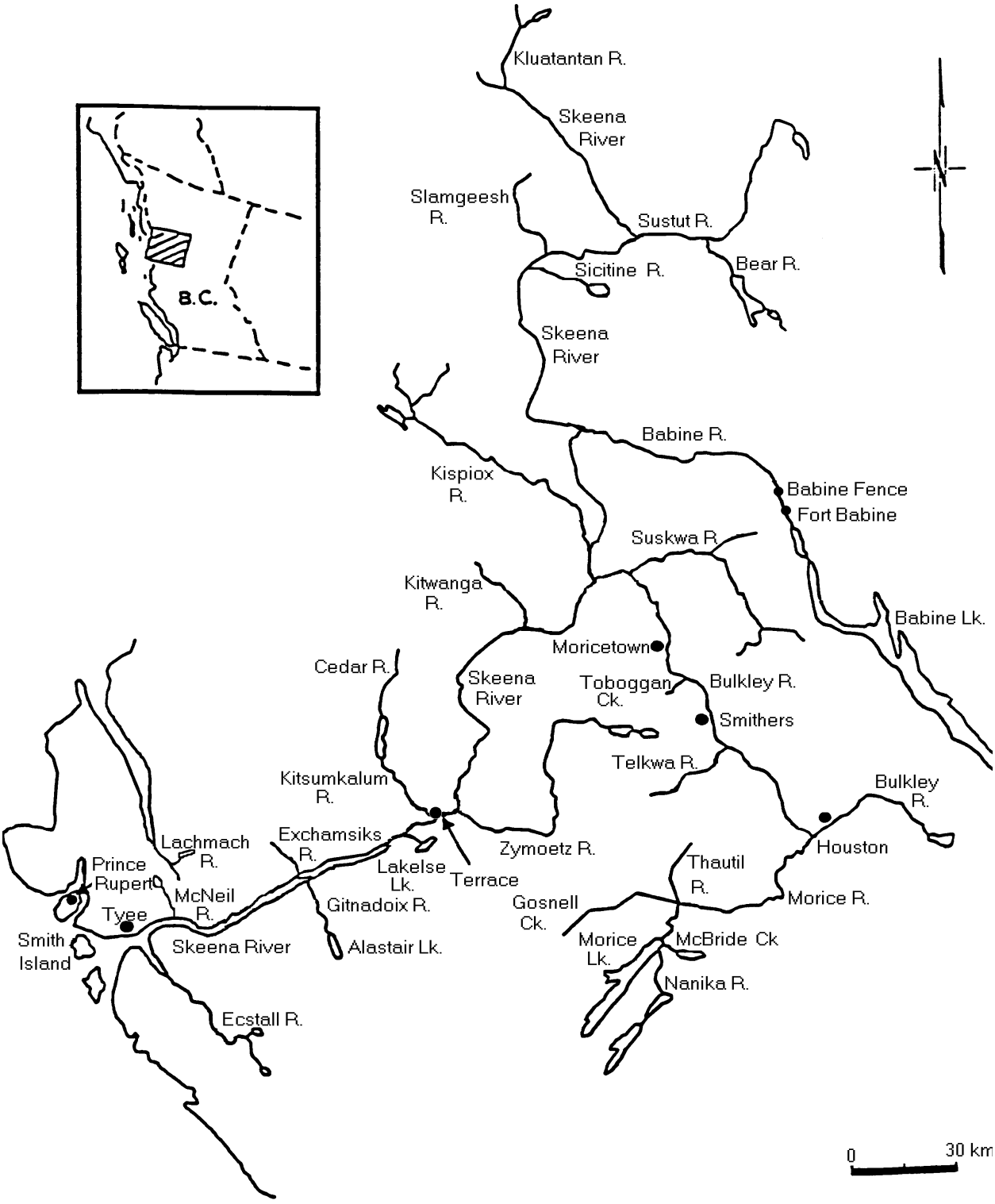


Figure C18. The Three Zones of the Skeena Watershed: Upper Skeena Interior Zone, Lower Skeena Coastal Zone, and intermediate Mid-River or Transition Zone.

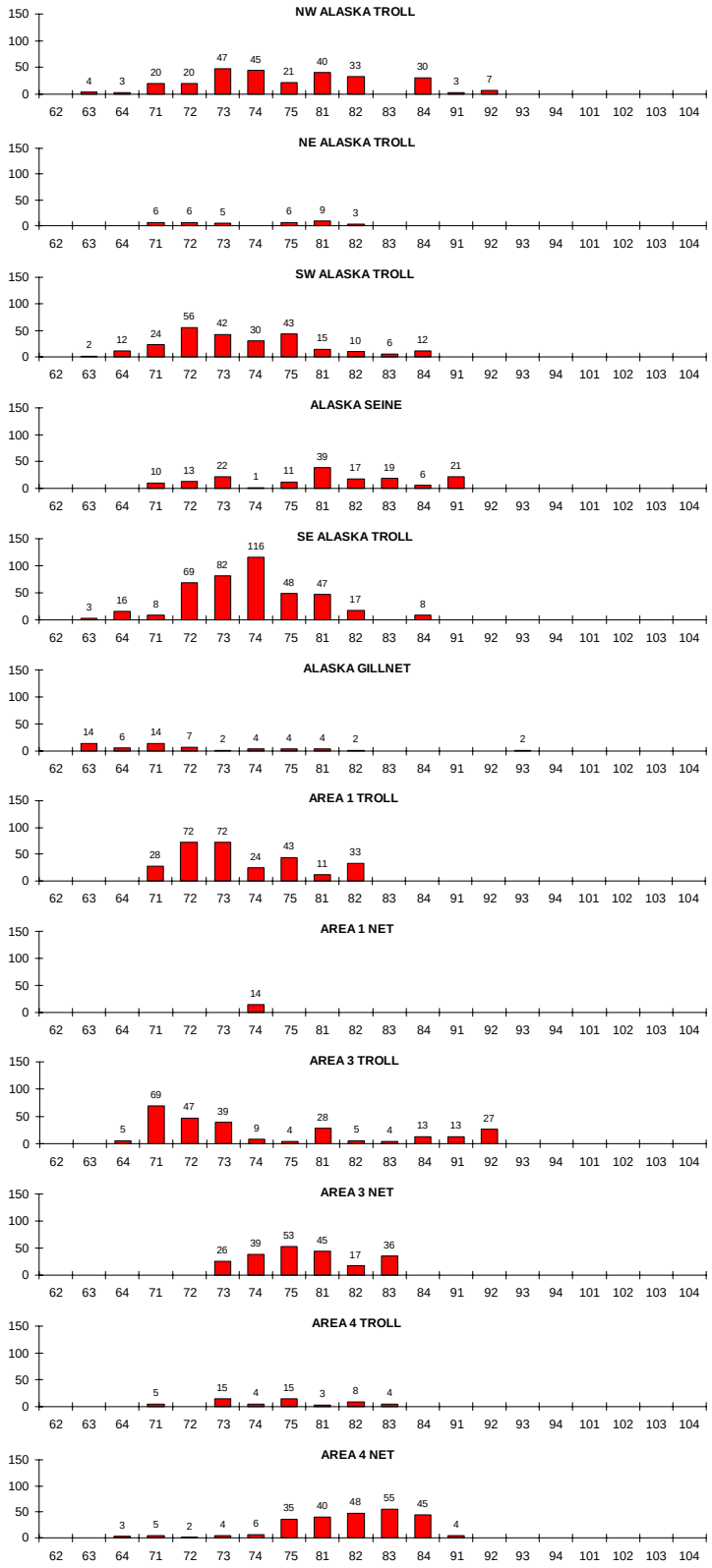


Figure C19. Estimated Adjusted CWT recoveries of age-3 coho of Kispiox River origin, Skeena River Watershed. 1987 to 1992 recovery years, 1984 to 1989 brood years.

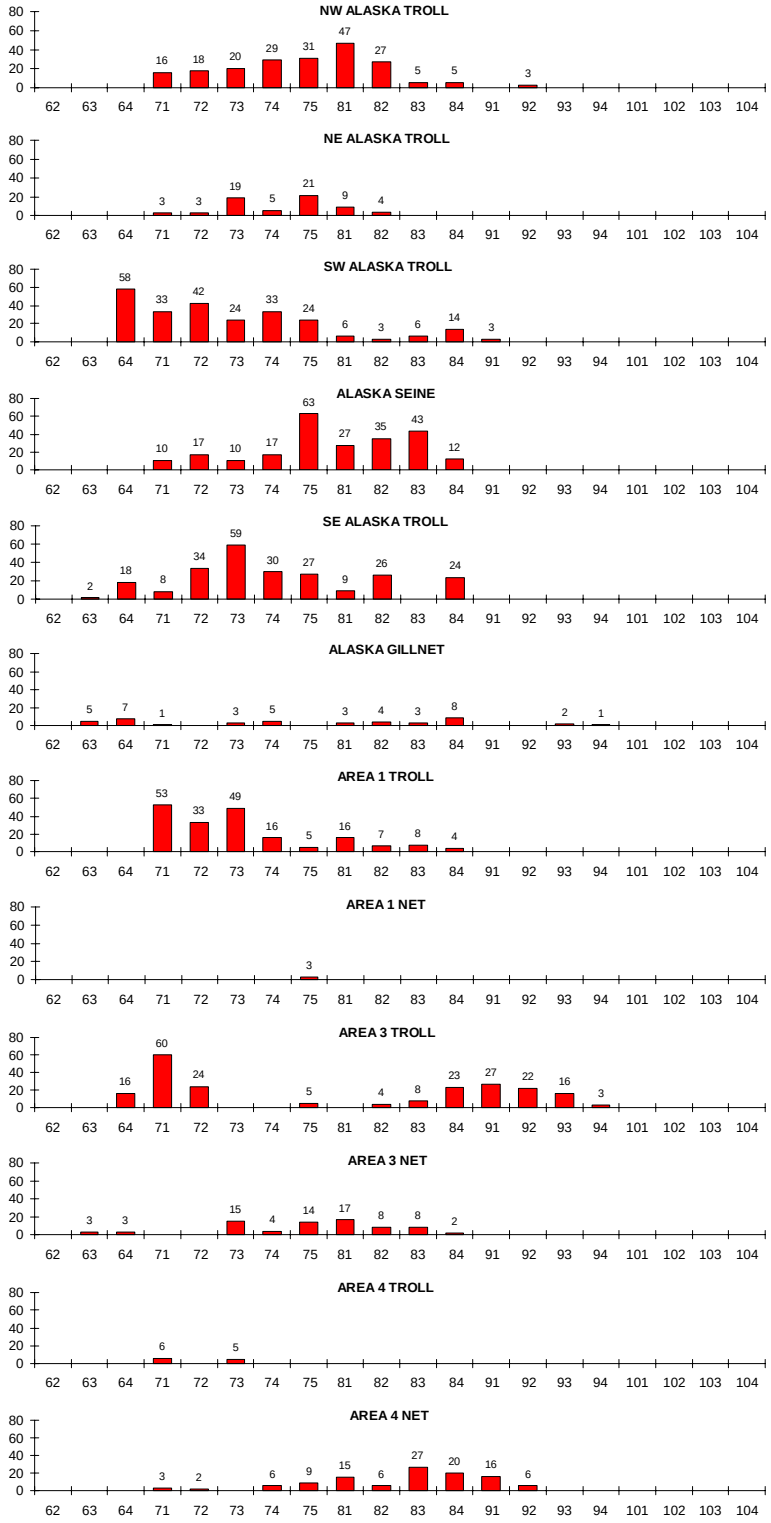


Figure C20. Estimated Adjusted CWT weekly recoveries of age-3 coho tagged in the lower Skeena, 1987 to 1989 brood years, 1990 to 1992 recovery years.

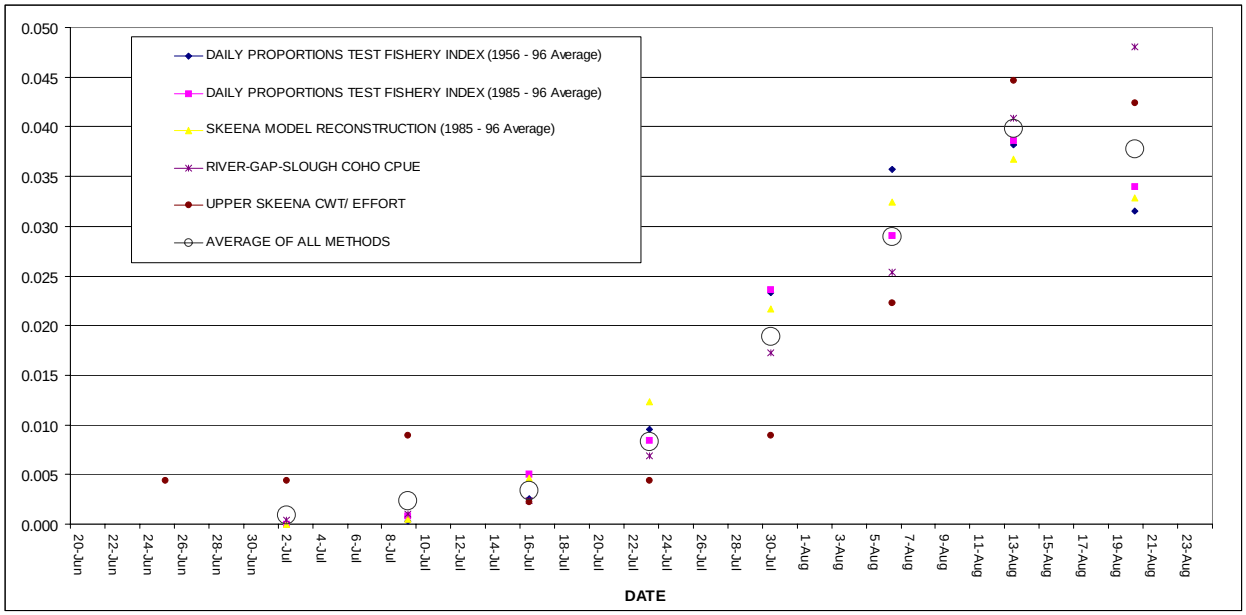


Figure C21. Estimated coho run timing to the Skeena River mouth.

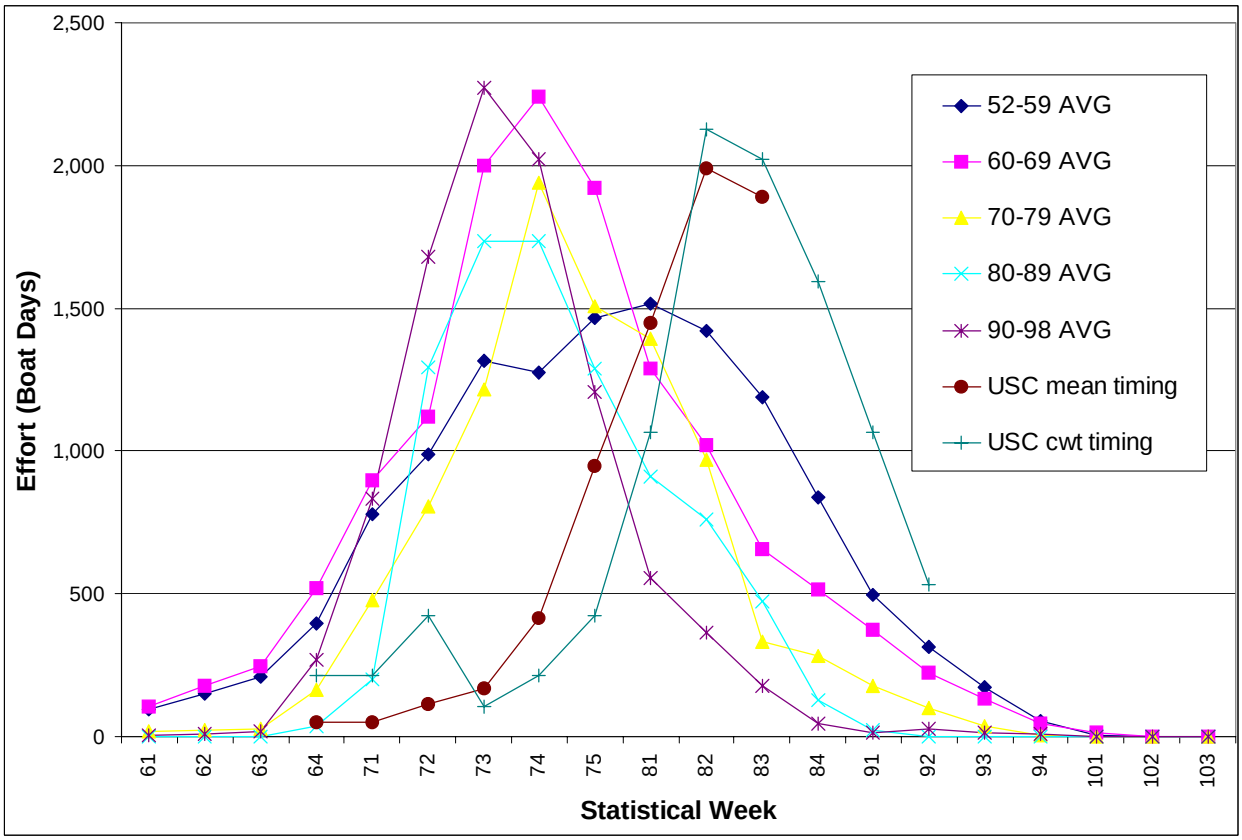


Figure C22. Comparison of Area 4 gillnet effort against upper Skeena Coho timing.

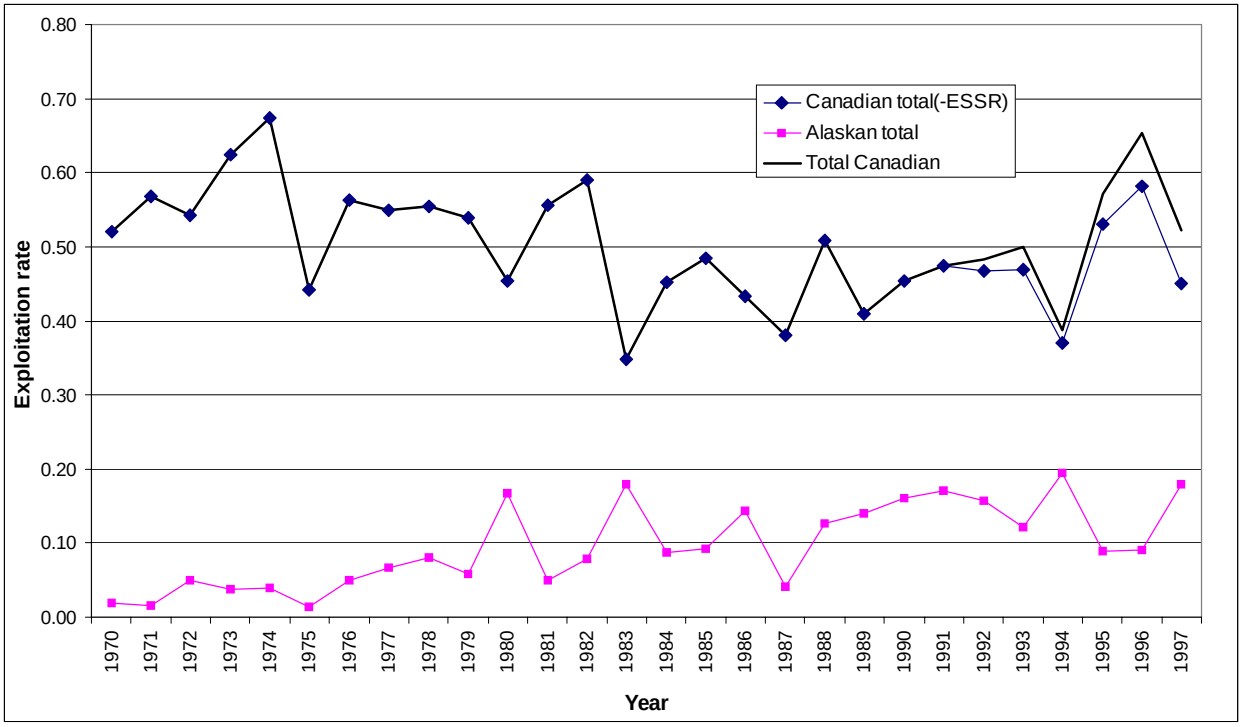


Figure C23. Skeena sockeye exploitation rate history.

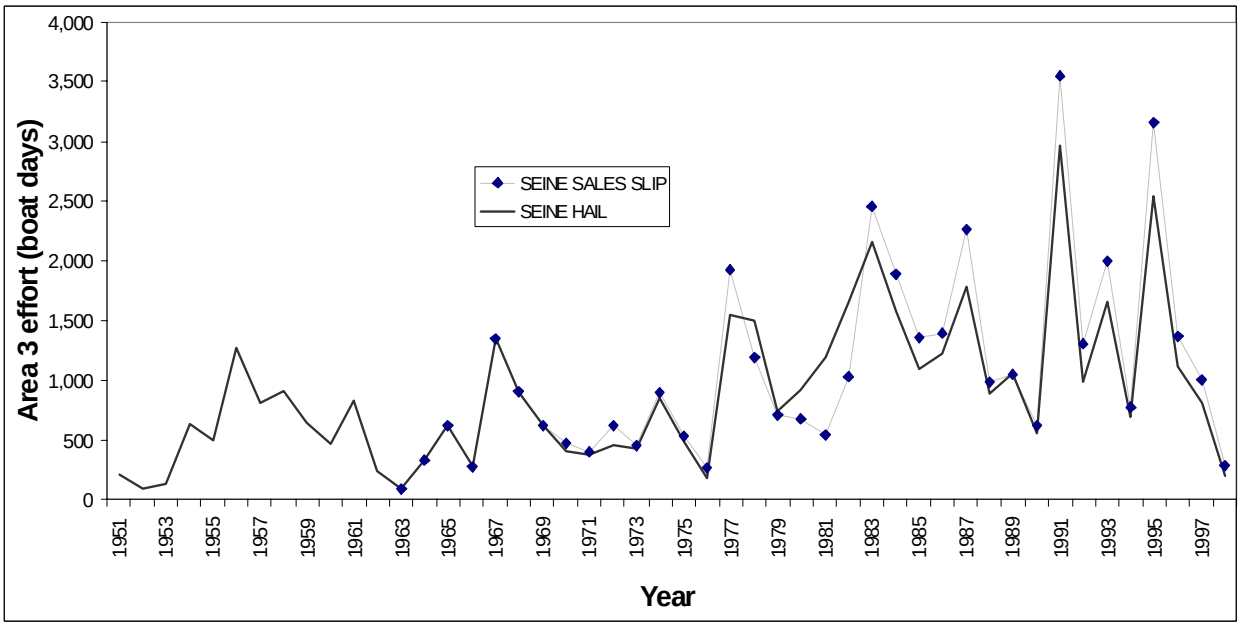


Figure C24. Comparison of Area 3 annual seine 'hail' and sales slip effort estimates.

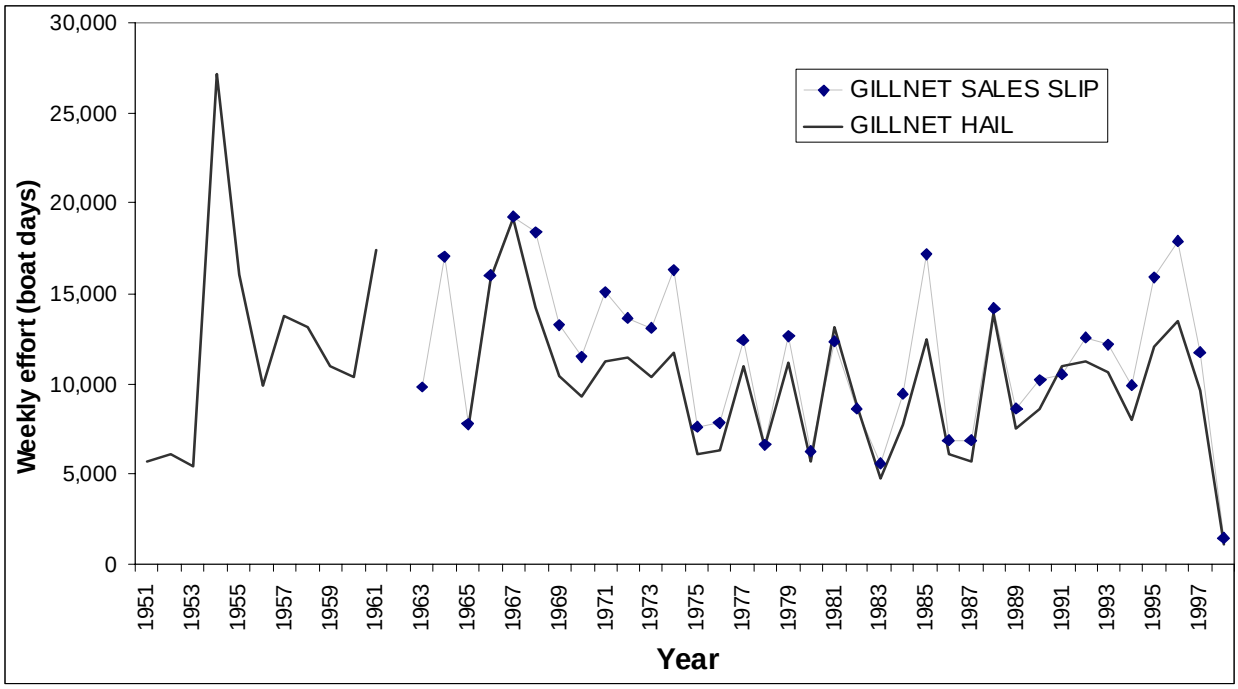


Figure C25. comparison of Area 4 annual gillnet 'hail' and sales slip effort estimates.

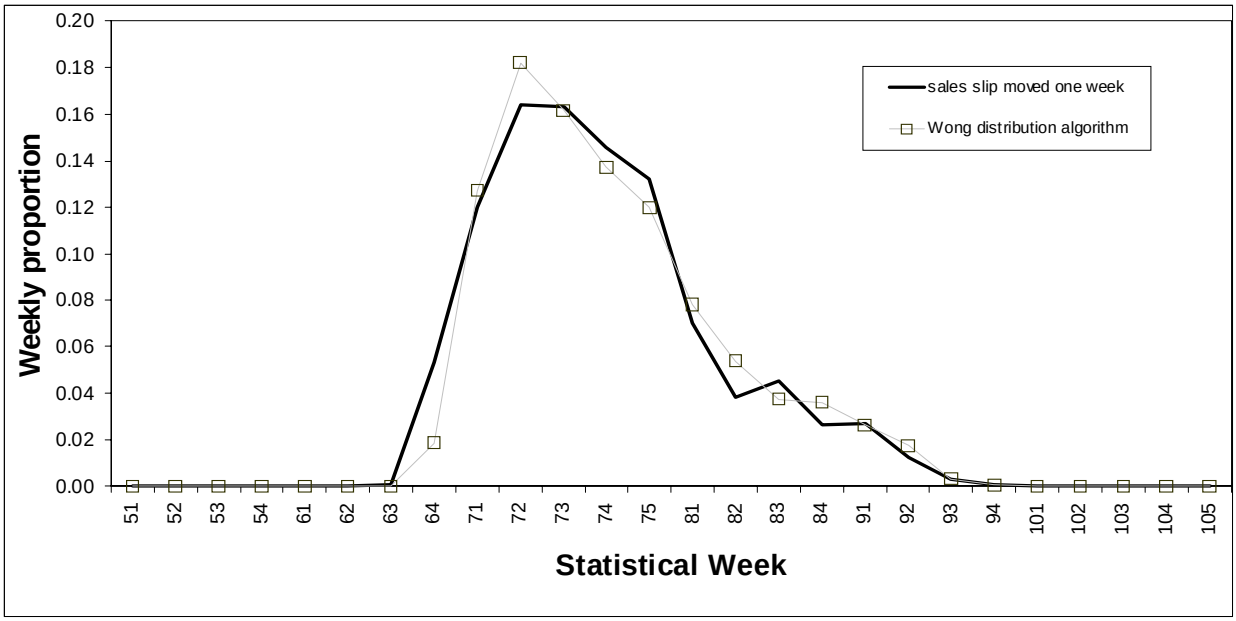


Figure C26. Comparison of two methods to assign Area 1 troll coho landings to catch date. (Average weekly proportions for the years 1988–1994).

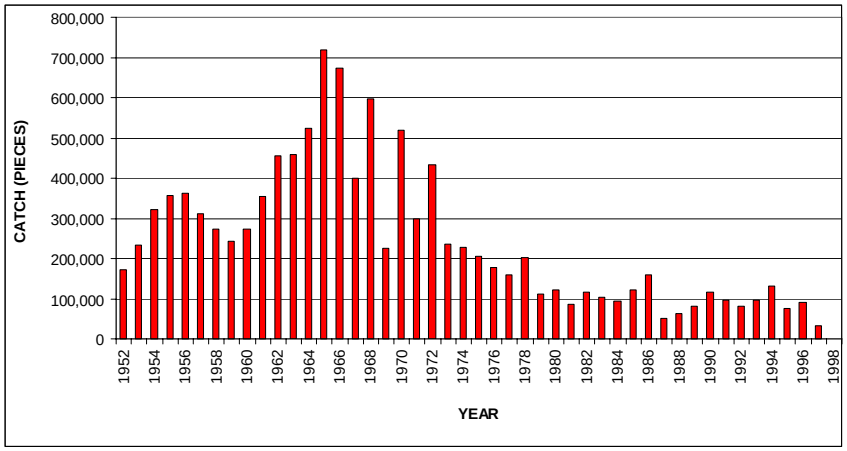


Figure C27. Canadian Areas 1 through 10 gillnet coho catch, 1952 to 1998.

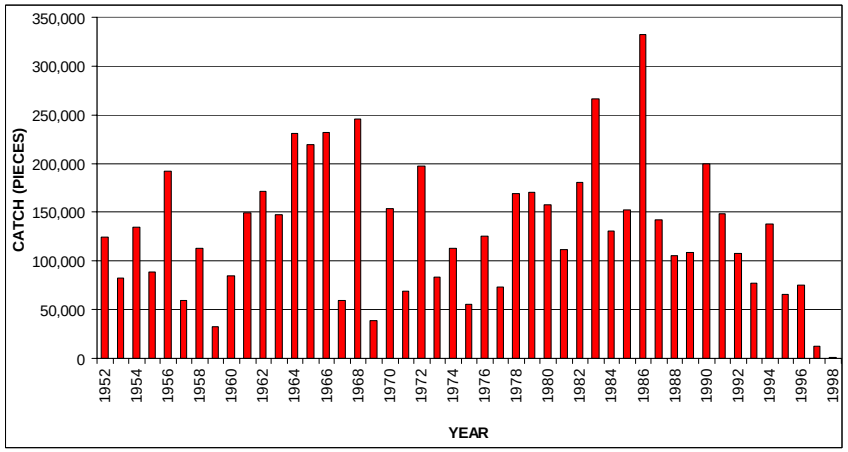


Figure C28. Canadian Areas 1 through 10 seine coho catch, 1952 to 1998.

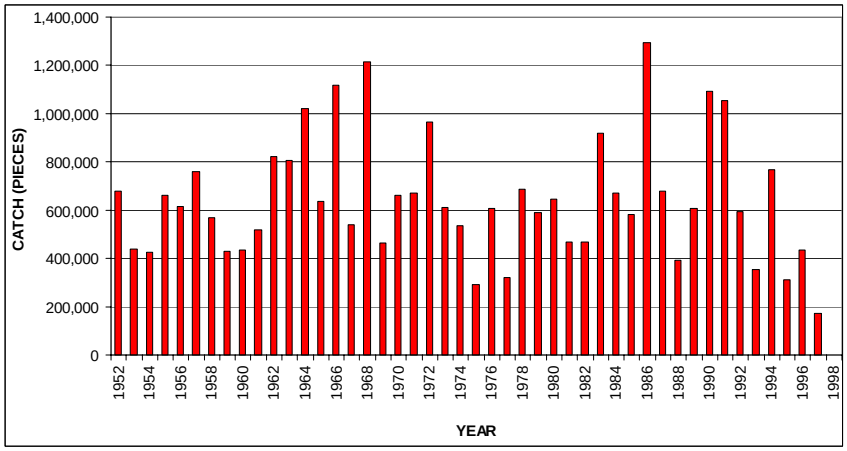


Figure C29. Canadian Areas 1 through 10 troll coho catch, 1952 to 1998.

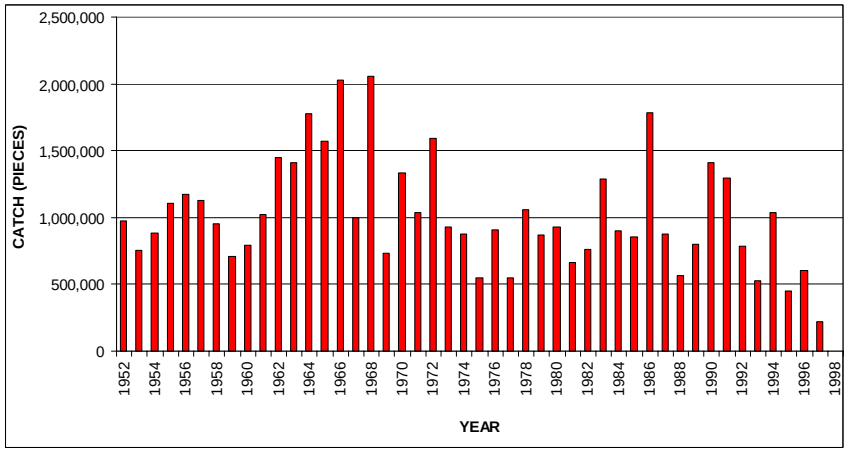


Figure C30. Canadian Areas 1 through 10 all gear coho catch, 1952 to 1998.

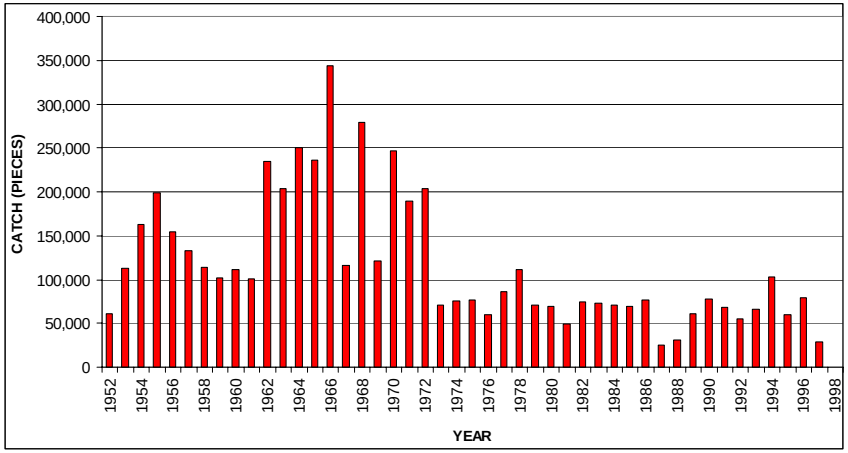


Figure C31. Canadian northern boundary area (1,3,4,5) gillnet coho catch, 1952–1998.

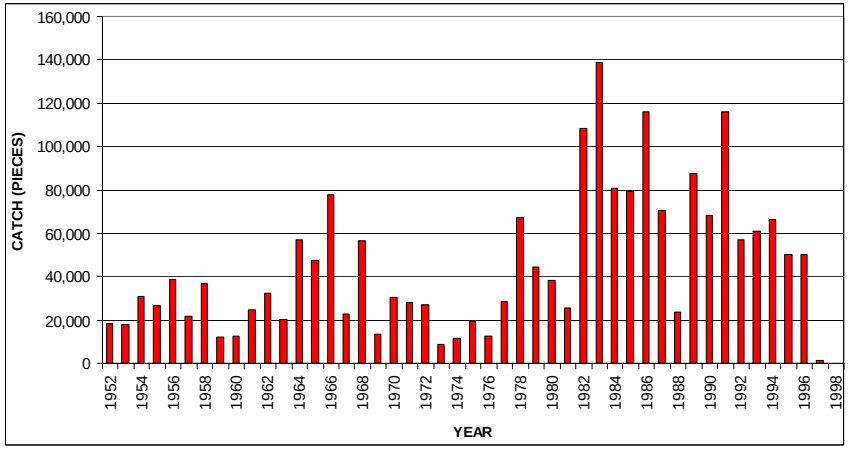


Figure C32. Canadian northern boundary area (1,3,4,5) seine coho catch, 1952–1998.

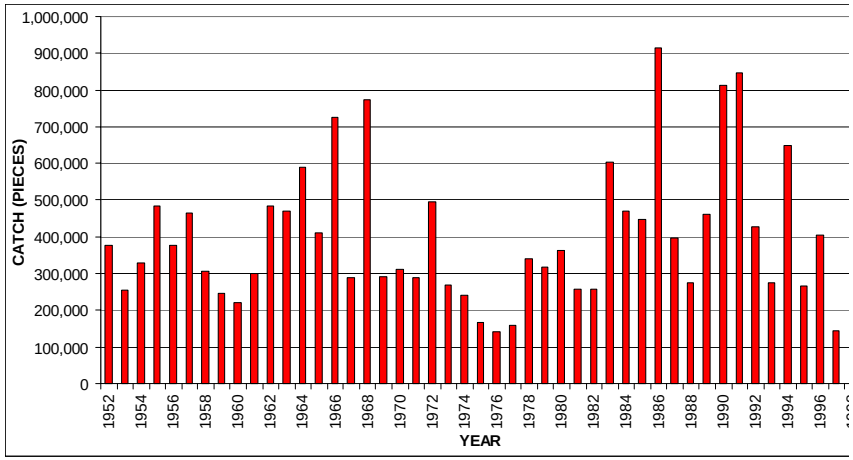


Figure C33. Canadian northern boundary area (1,3,4,5) troll coho catch, 1952–1998.

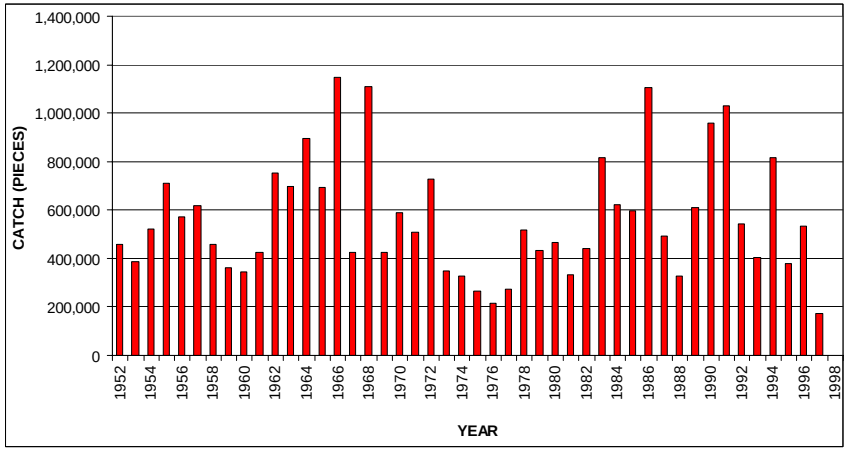


Figure C34. Canadian northern boundary area (1,3,4,5) all gear coho catch, 1952–1998.

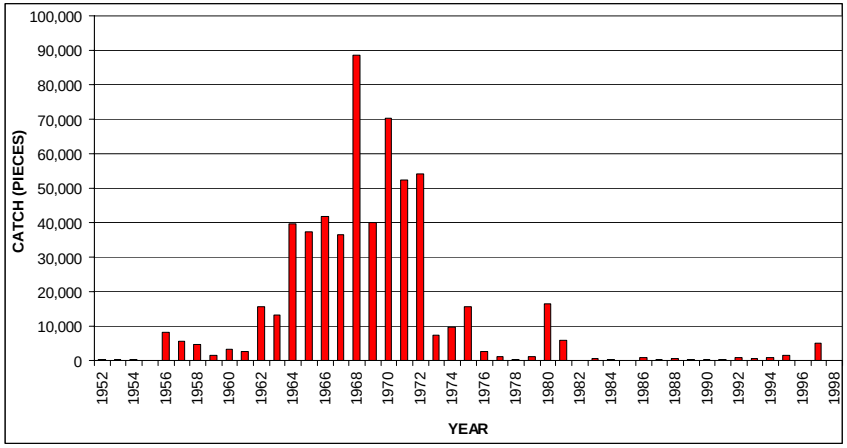


Figure C35. Canadian Area 1 gillnet coho catch, 1952 to 1998.

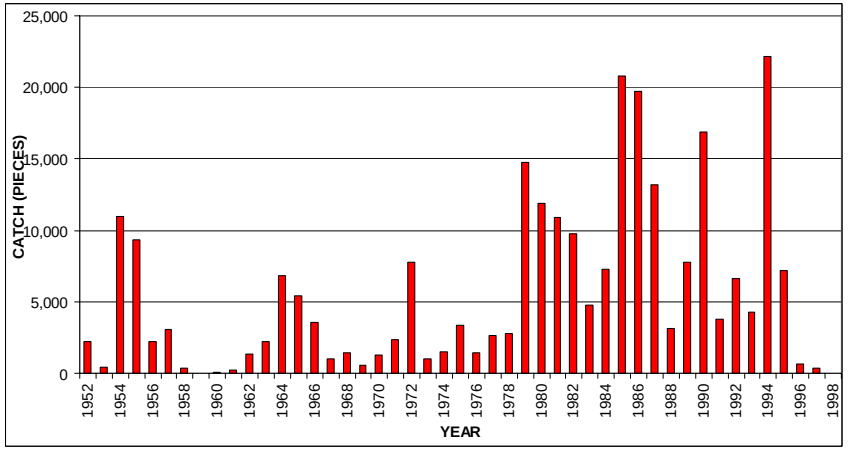


Figure C36. Canadian Area 1 seine coho catch, 1952 to 1998.

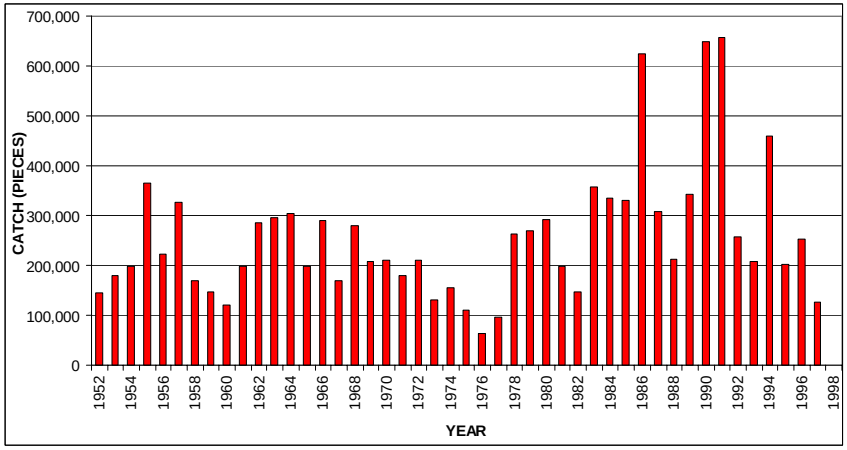


Figure C37. Canadian Area 1 troll coho catch, 1952 to 1998.

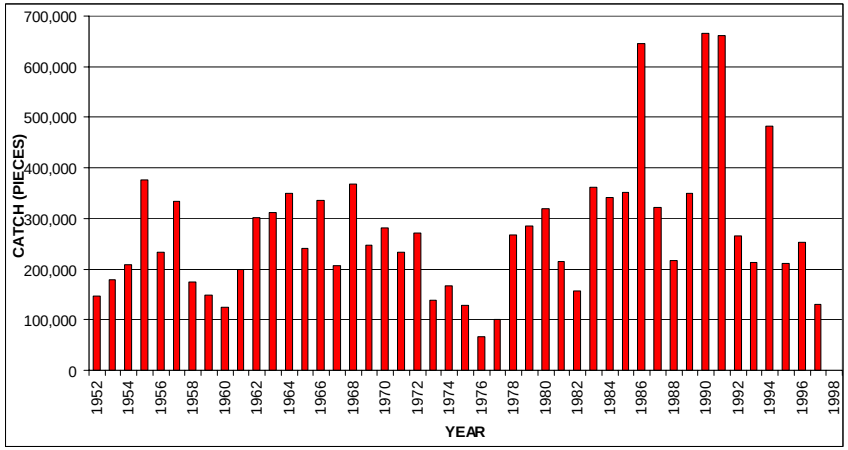


Figure C38. Canadian Area 1 all gear coho catch, 1952 to 1998.

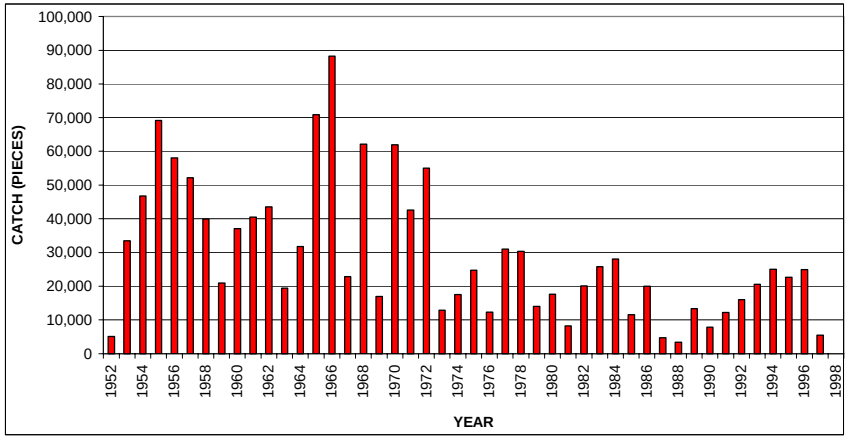


Figure C39. Canadian Area 3 gillnet coho catch, 1952 to 1998.

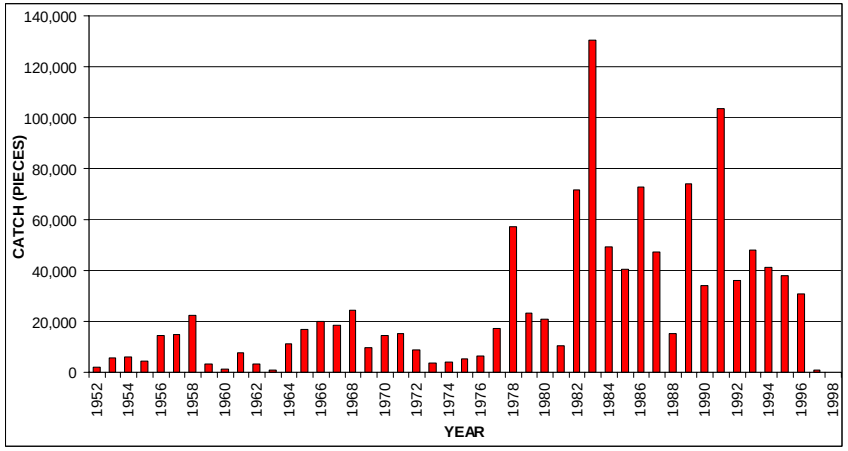


Figure C40. Canadian Area 3 seine coho catch, 1952 to 1998.

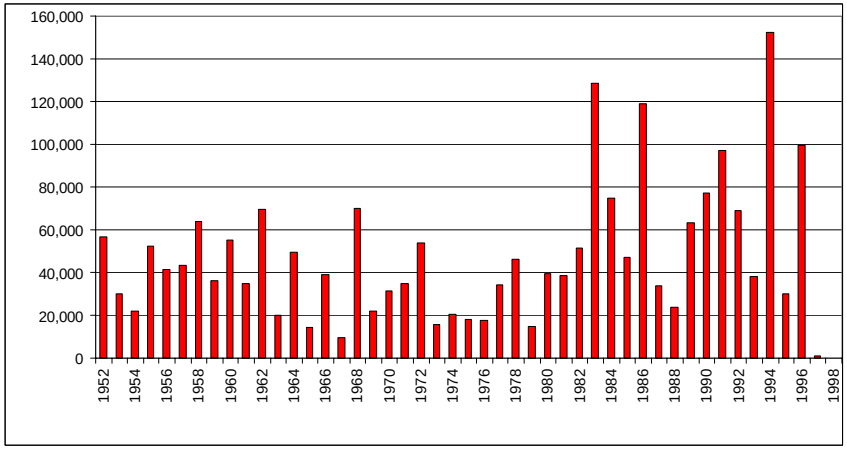


Figure C41. Canadian Area 3 troll coho catch, 1952 to 1998.

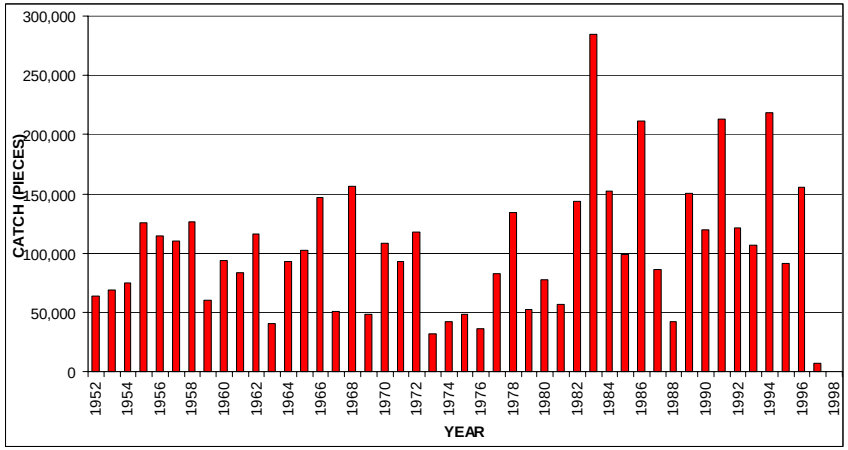


Figure C42. Canadian Area 3 all gear coho catch, 1952 to 1998.

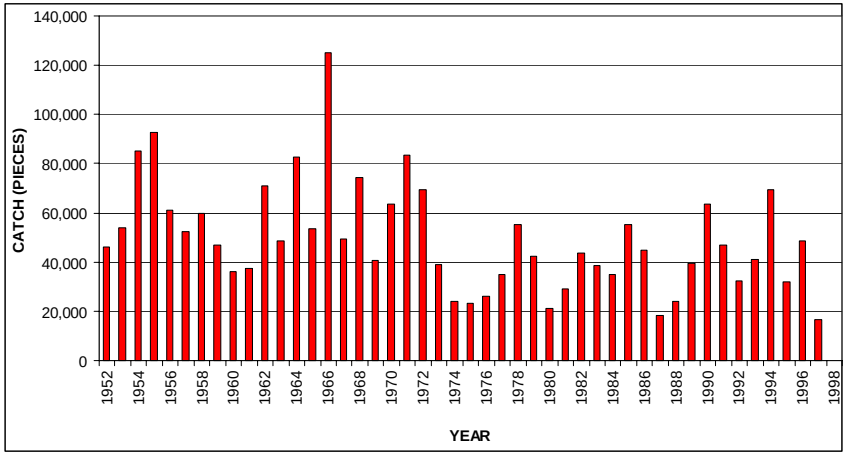


Figure C43. Canadian Area 4 gillnet coho catch, 1952 to 1998.

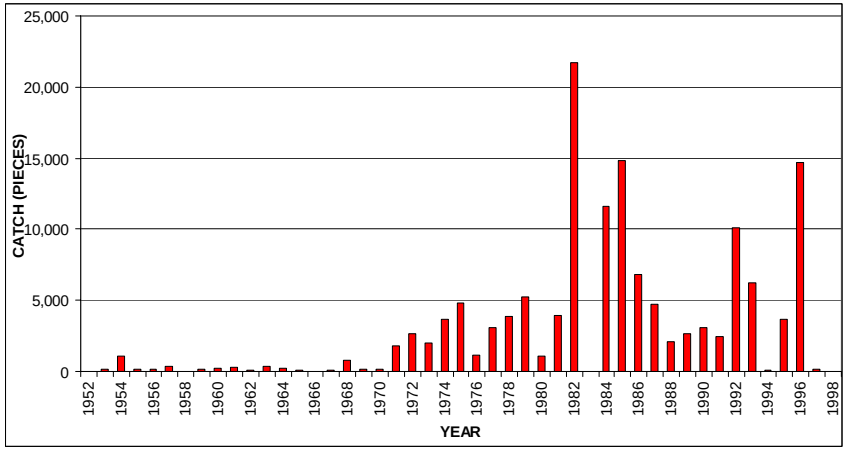


Figure C44. Canadian Area 4 seine coho catch, 1952 to 1998.

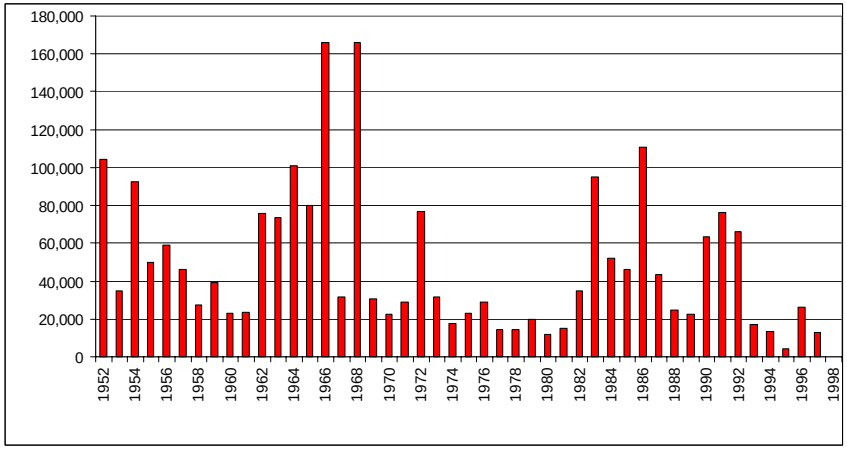


Figure C45. Canadian Area 4 troll coho catch, 1952 to 1998.

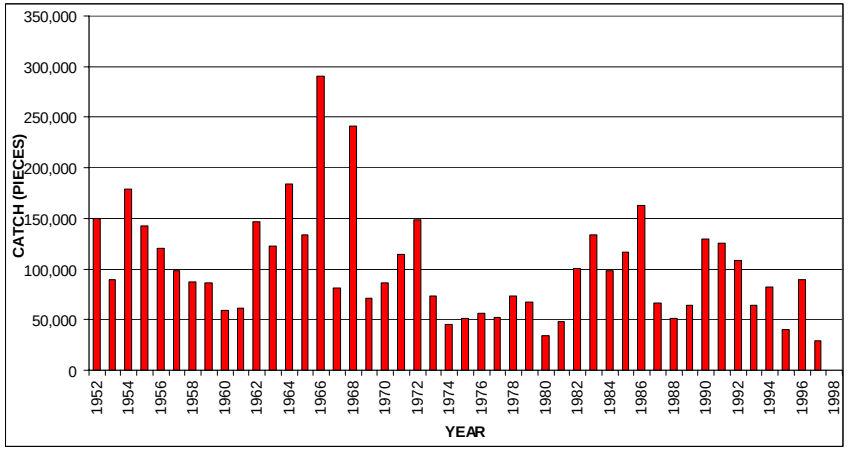


Figure C46. Canadian Area 4 all gear coho catch, 1952 to 1998.

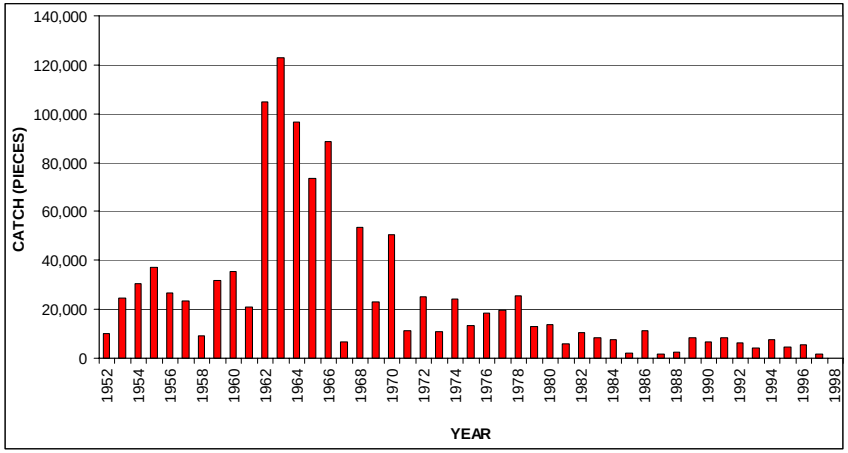


Figure C47. Canadian Area 5 gillnet coho catch, 1952 to 1998.

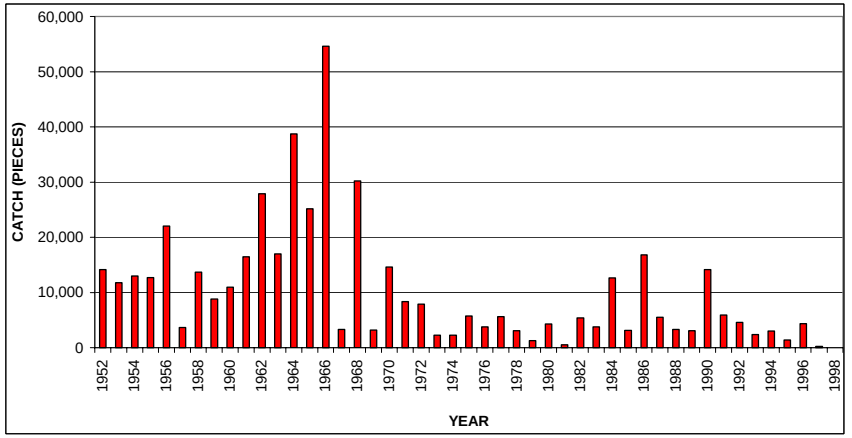


Figure C48. Canadian Area 5 seine coho catch, 1952 to 1998.

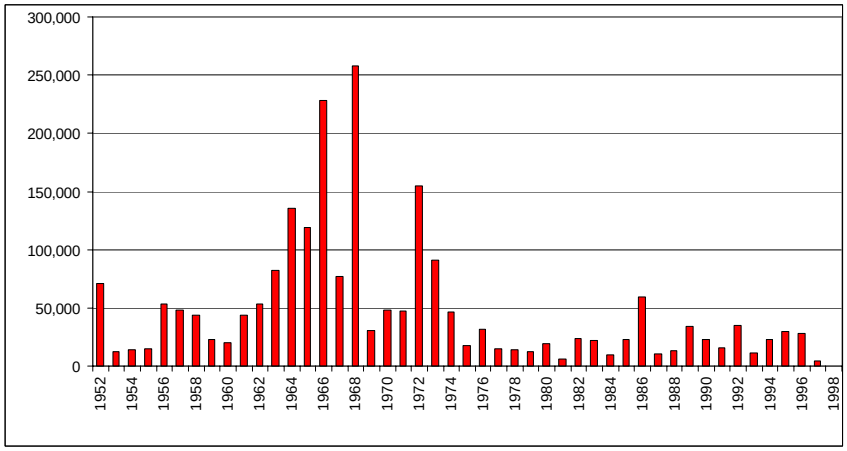


Figure C49. Canadian Area 5 troll coho catch, 1952 to 1998.

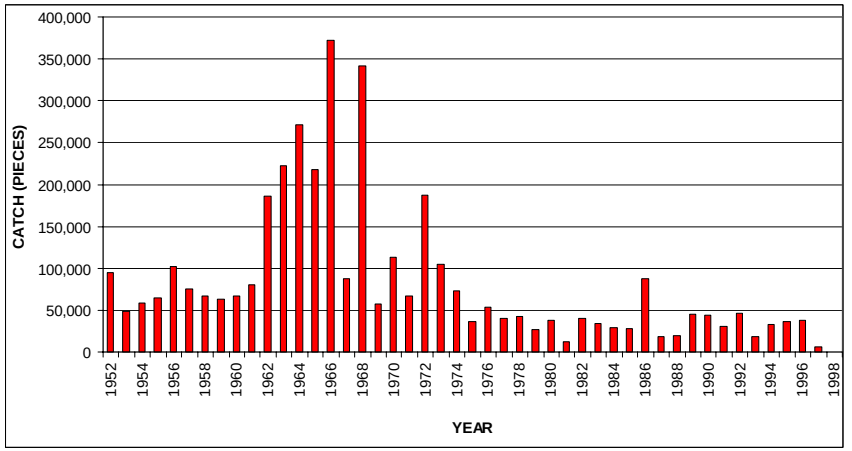


Figure C50. Canadian Area 5 all gear coho catch, 1952 to 1998.

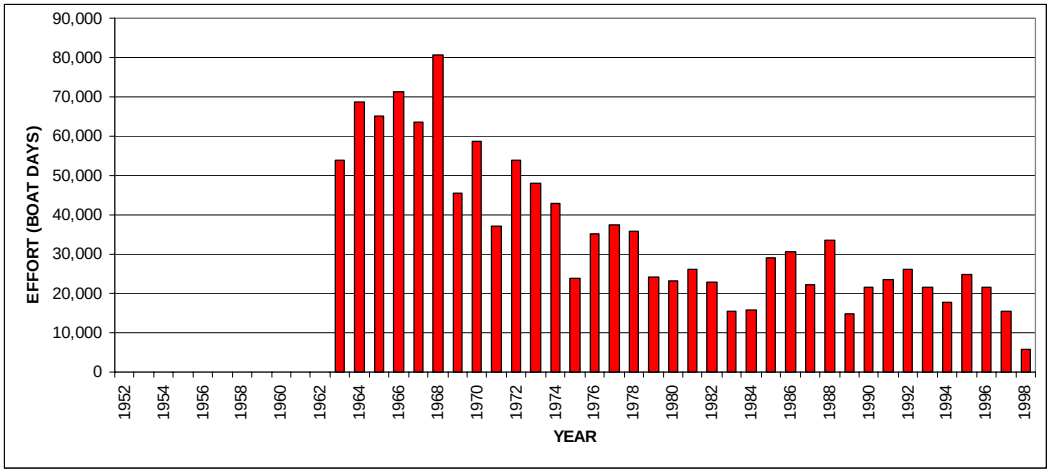


Figure C51. Canadian Areas 1 through 10 gillnet effort, 1952 to 1998.

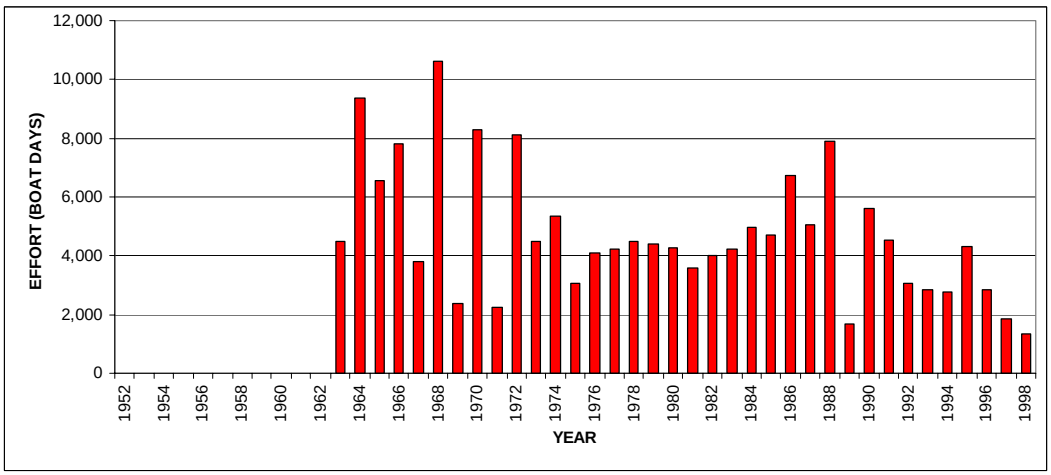


Figure C52. Canadian Areas 1 through 10 seine effort, 1952 to 1998.

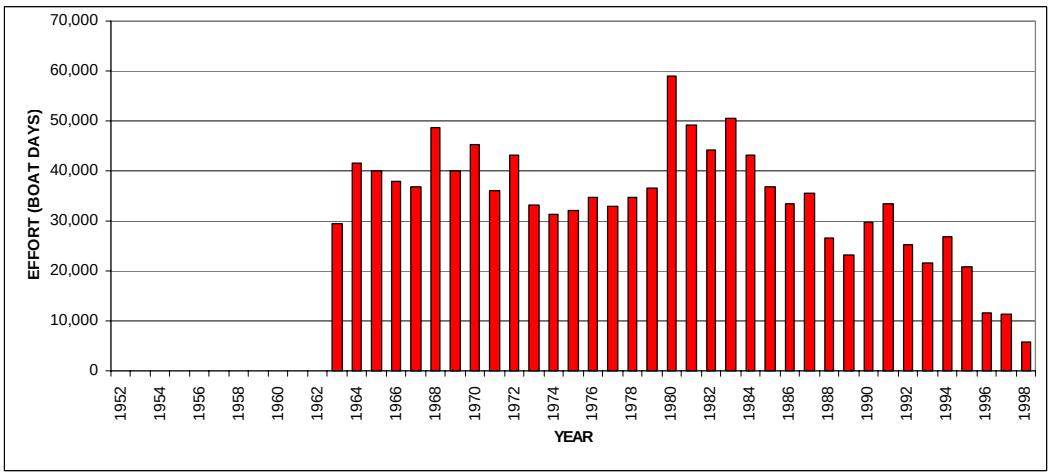


Figure C53. Canadian Areas 1 through 10 troll effort, 1963 to 1998.

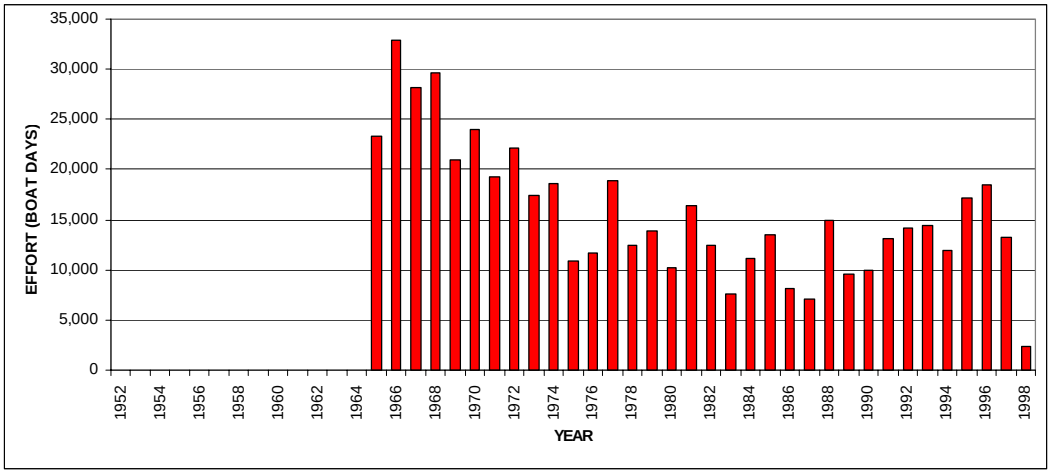


Figure C54. Canadian northern boundary areas (1, 3, 4, 5) gillnet effort, 1965 to 1998.

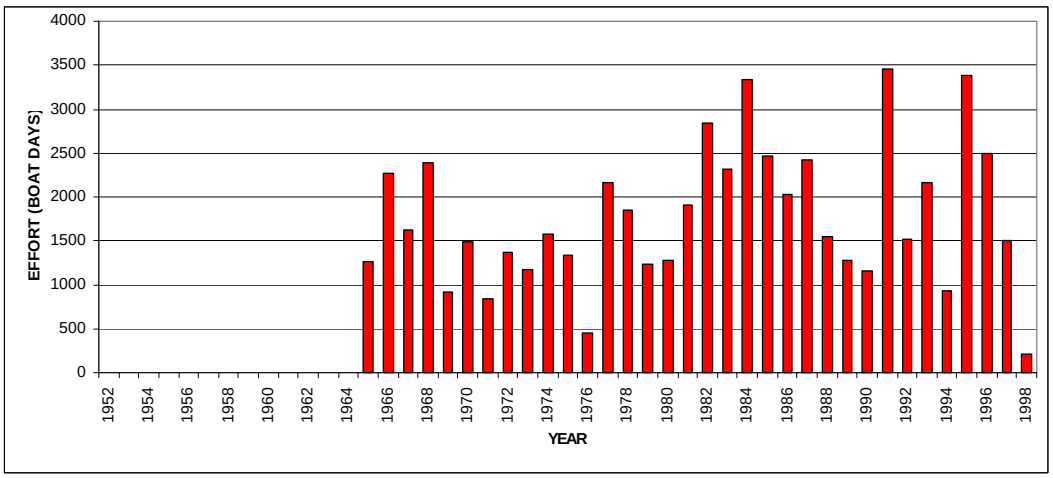


Figure C55. Canadian northern boundary areas (1, 3, 4, 5) seine effort, 1965 to 1998.

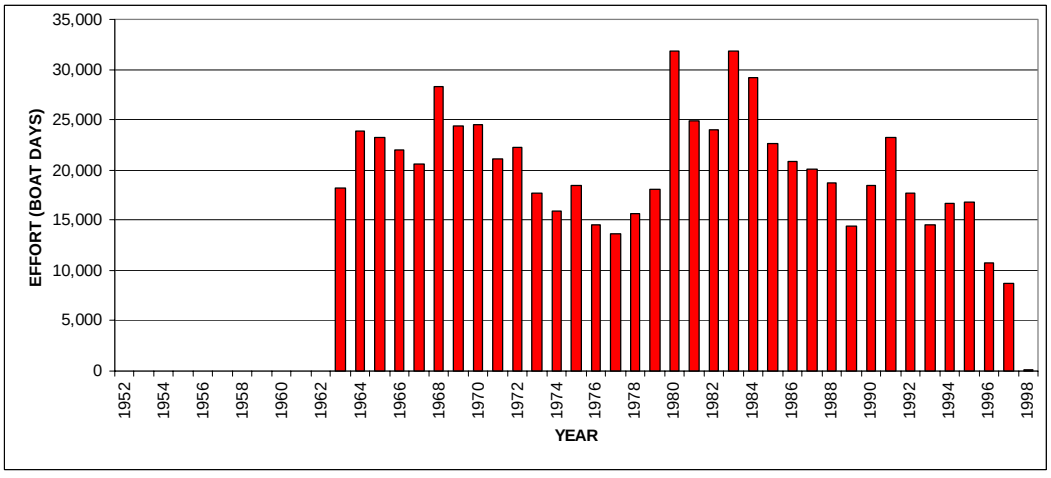


Figure C56. Canadian northern boundary areas (1, 3, 4, 5) troll effort, 1963 to 1998.

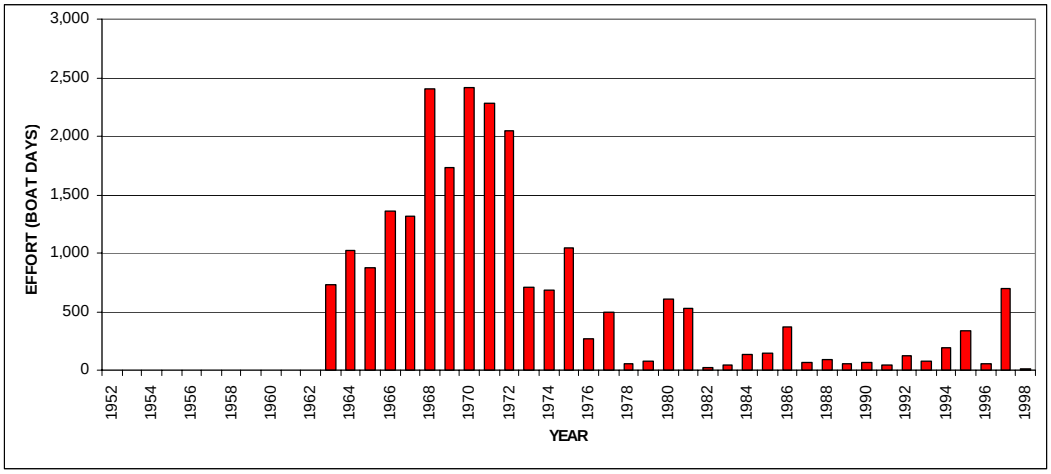


Figure C57. Canadian Area 1 gillnet effort, 1963 to 1998.

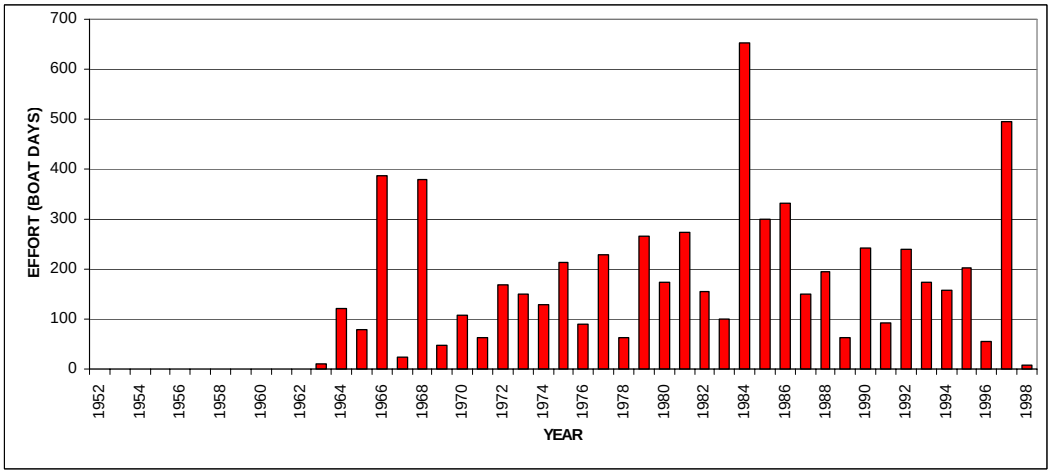


Figure C58. Canadian Area 1 seine effort, 1963 to 1998.

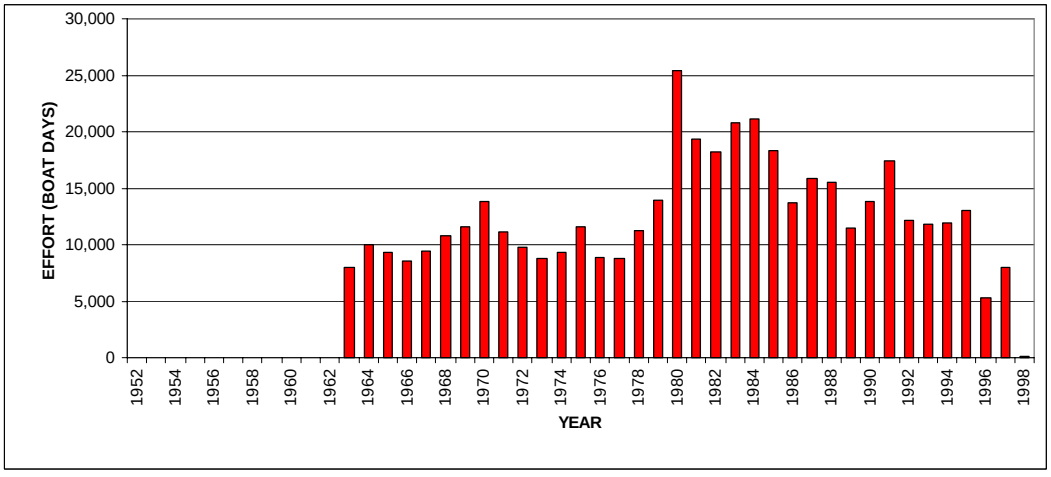


Figure C59. Canadian Area 1 troll effort, 1963 to 1998.

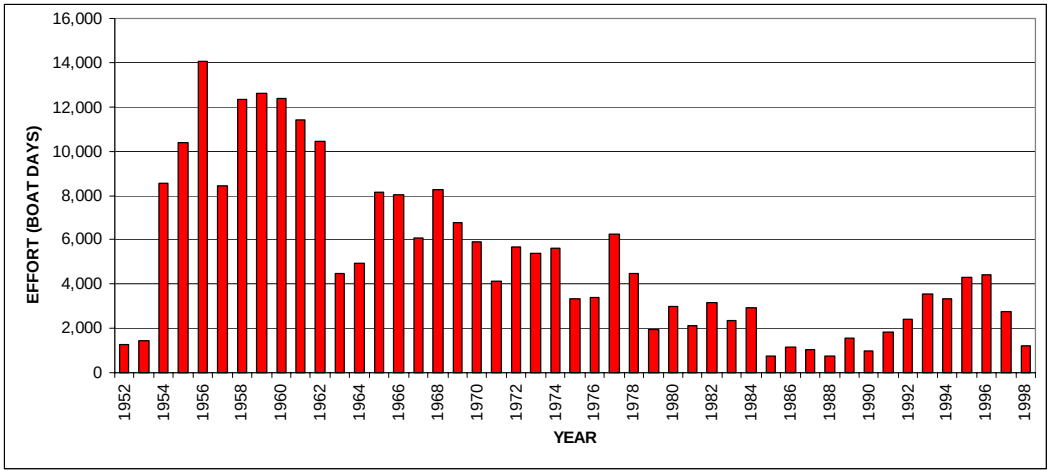


Figure C60. Canadian Area 3 gillnet effort, 1952 to 1998.

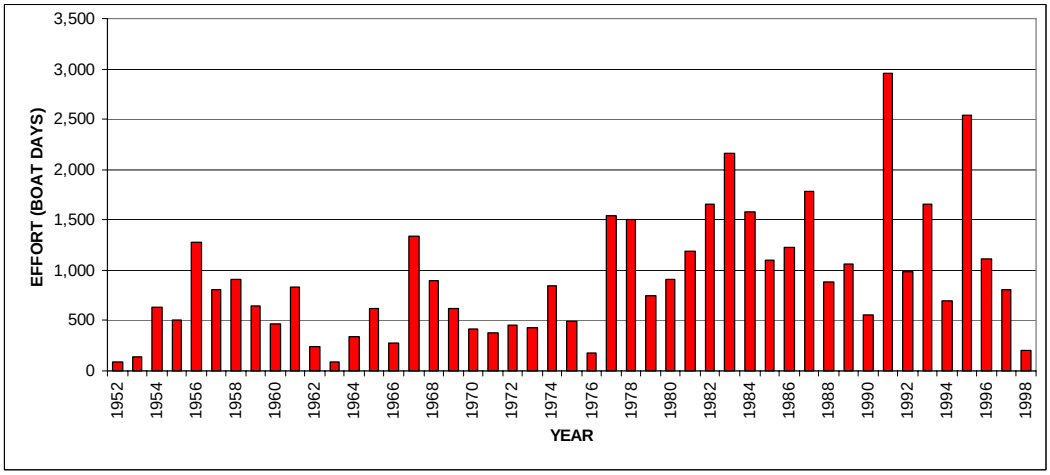


Figure C61. Canadian Area 3 seine effort, 1952 to 1998.

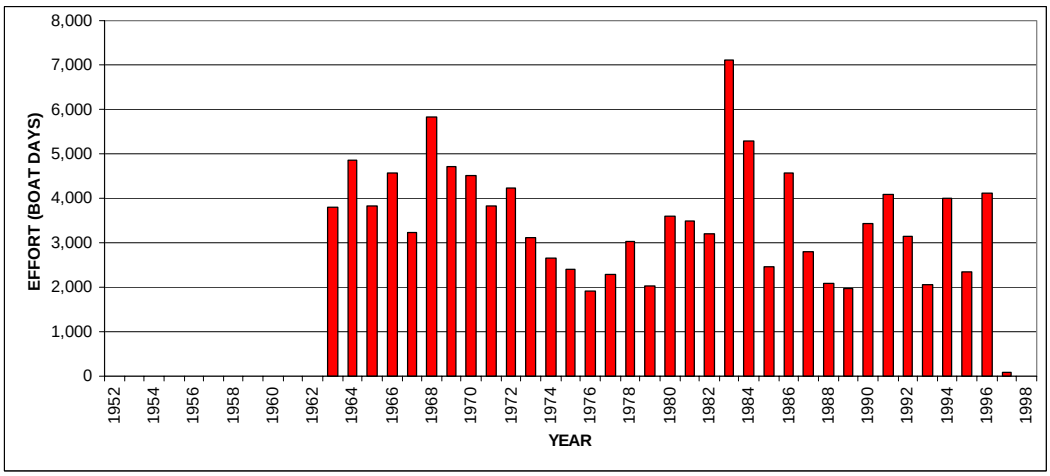


Figure C62. Canadian Area 3 troll effort, 1963 to 1998.

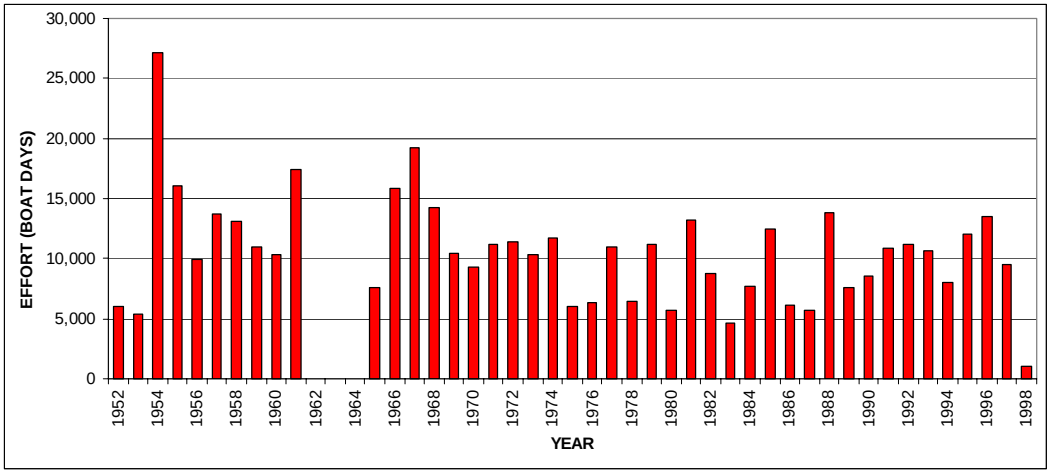


Figure C63. Canadian Area 4 gillnet effort, 1952 to 1998.

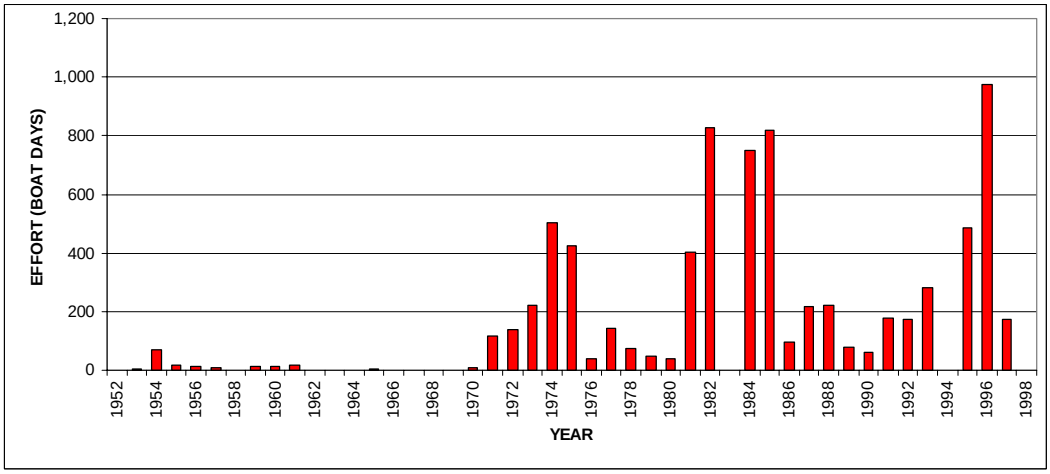


Figure C64. Canadian Area 4 seine effort, 1953 to 1998.

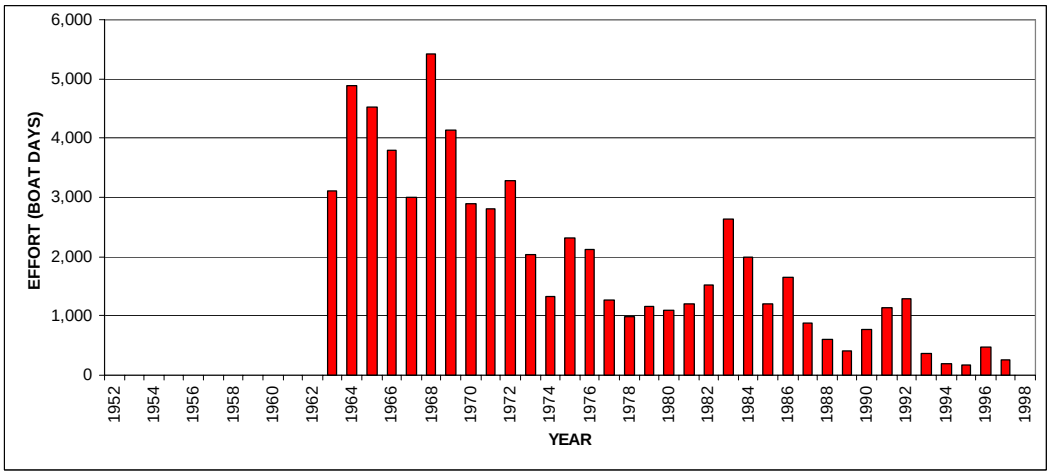


Figure C65. Canadian Area 4 troll effort, 1963 to 1998.

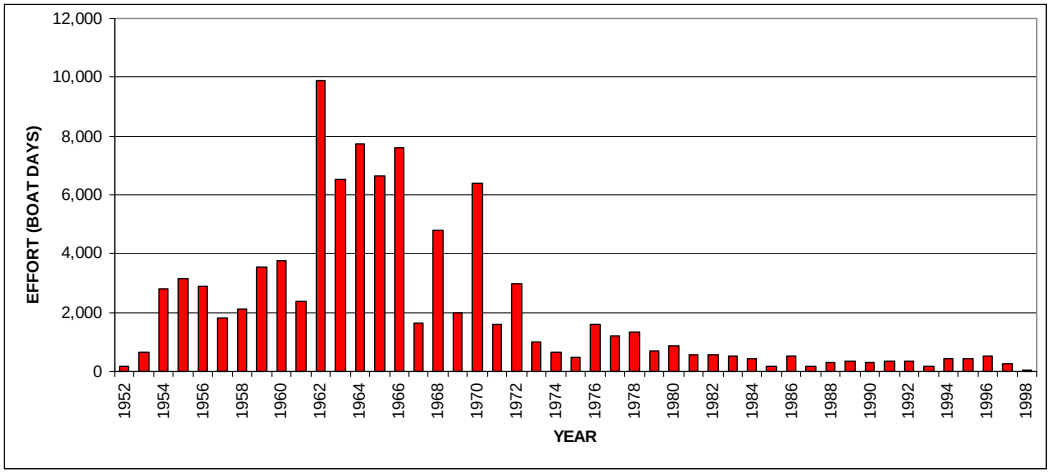


Figure C66. Canadian Area 5 gillnet effort, 1952 to 1998.

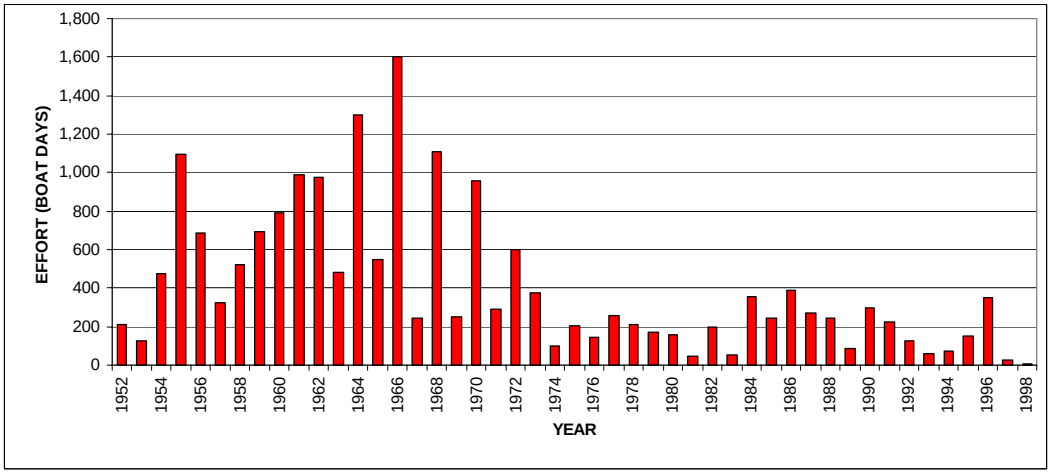


Figure C67. Canadian Area 5 seine effort, 1952 to 1998.

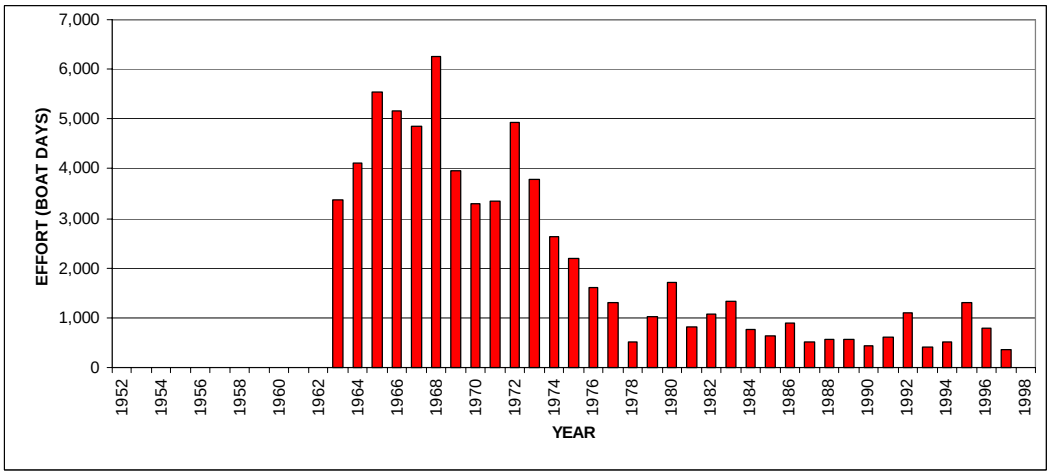


Figure C68. Canadian Area 5 troll effort, 1963 to 1998.

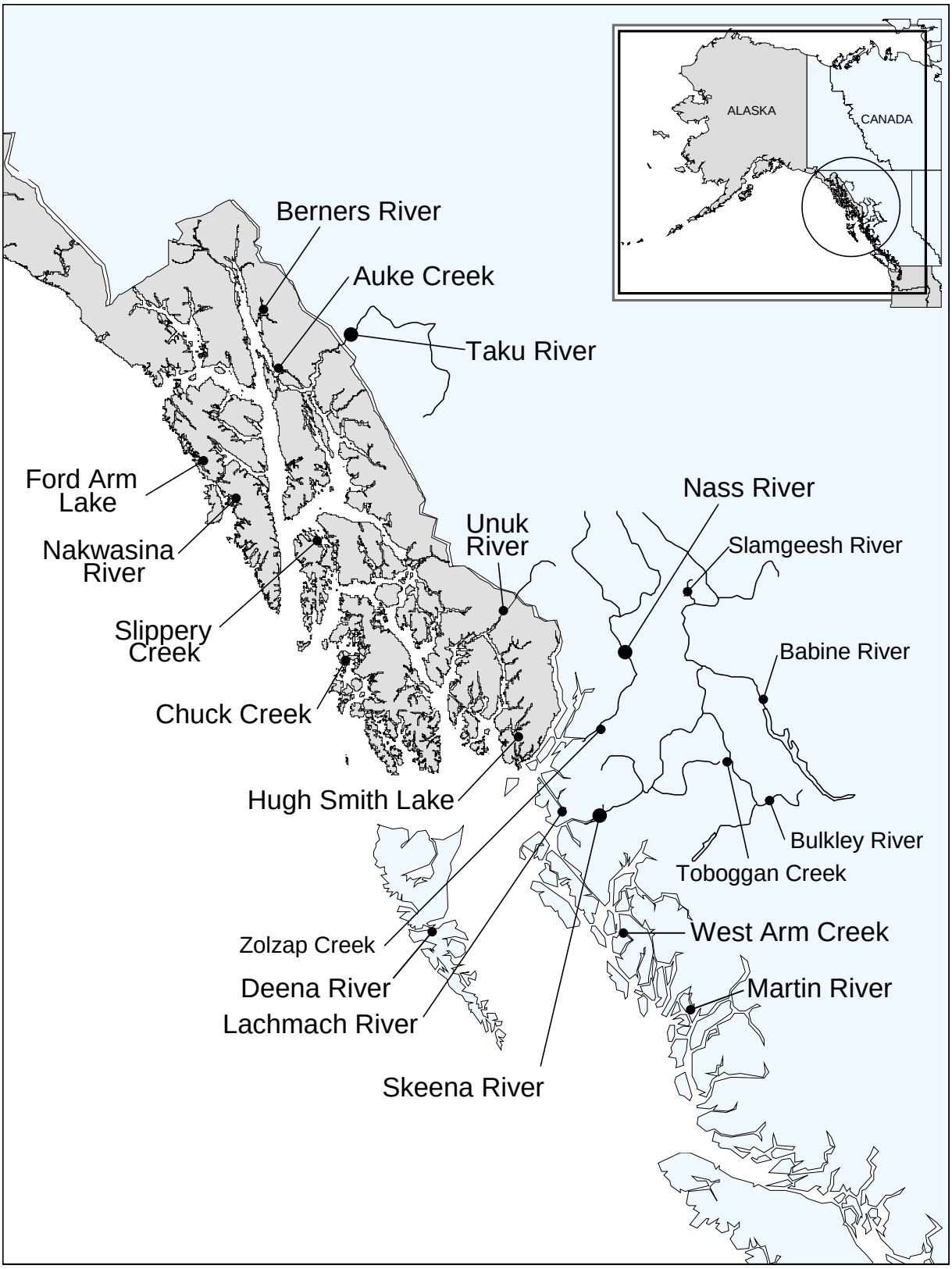


Figure J1. Map of Southeast Alaska and northern British Columbia, showing the locations of coho salmon stock assessment projects.

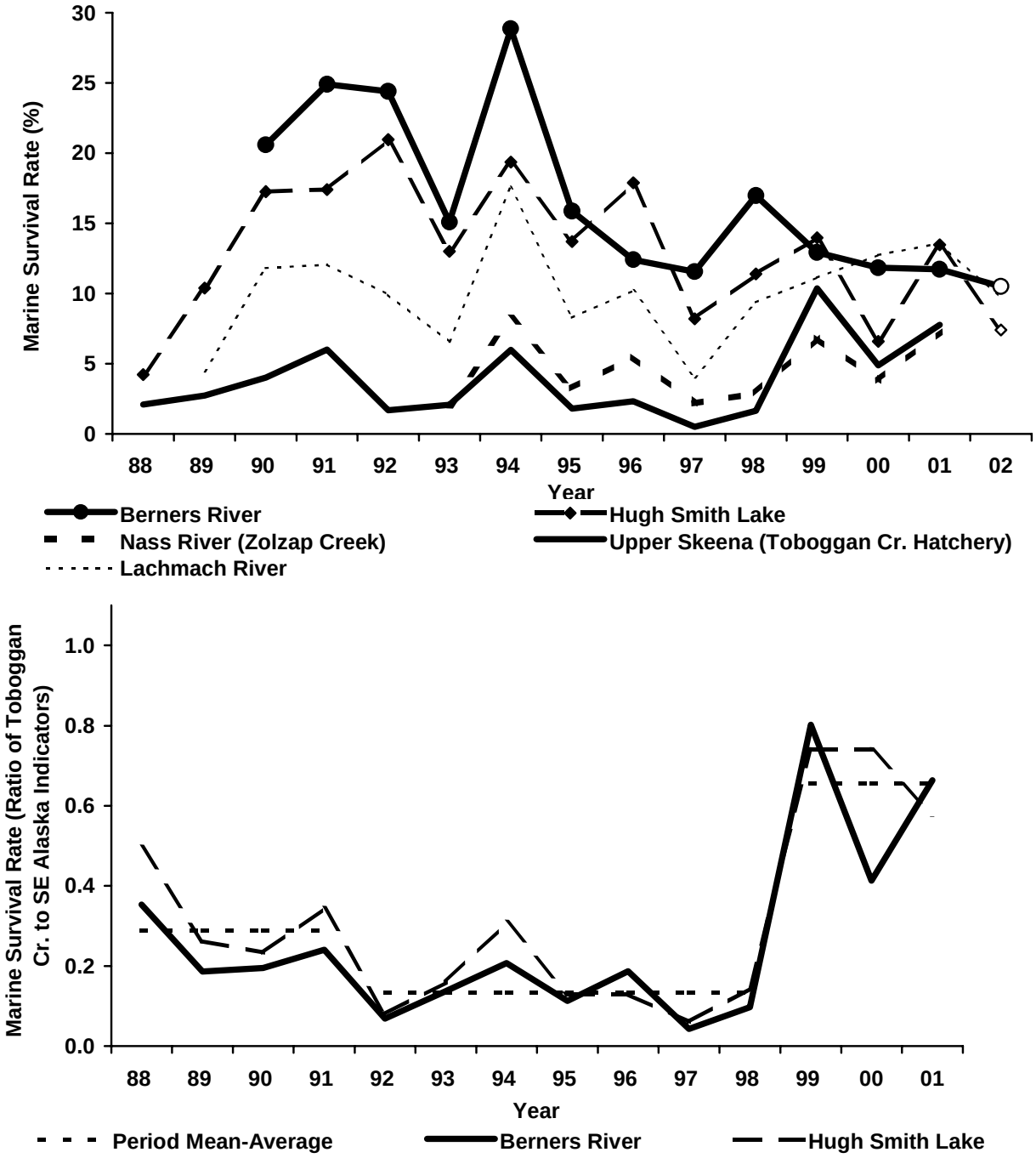


Figure J2. Estimated marine survival rate for the Berners and Taku Rivers (average) in northern Southeast Alaska, Hugh Smith Lake in southern Southeast Alaska, the Nass River (Portland Inlet) and the Skeena River (Canadian Area 4), 1988–2001 (top figure). Estimates for 2002 are preseason predictions from jack returns. The bottom figure shows the ratio of the marine survival rate for Toboggan Creek Hatchery in the upper Skeena River drainage to survival rates for the Berners and Hugh Smith Lake.

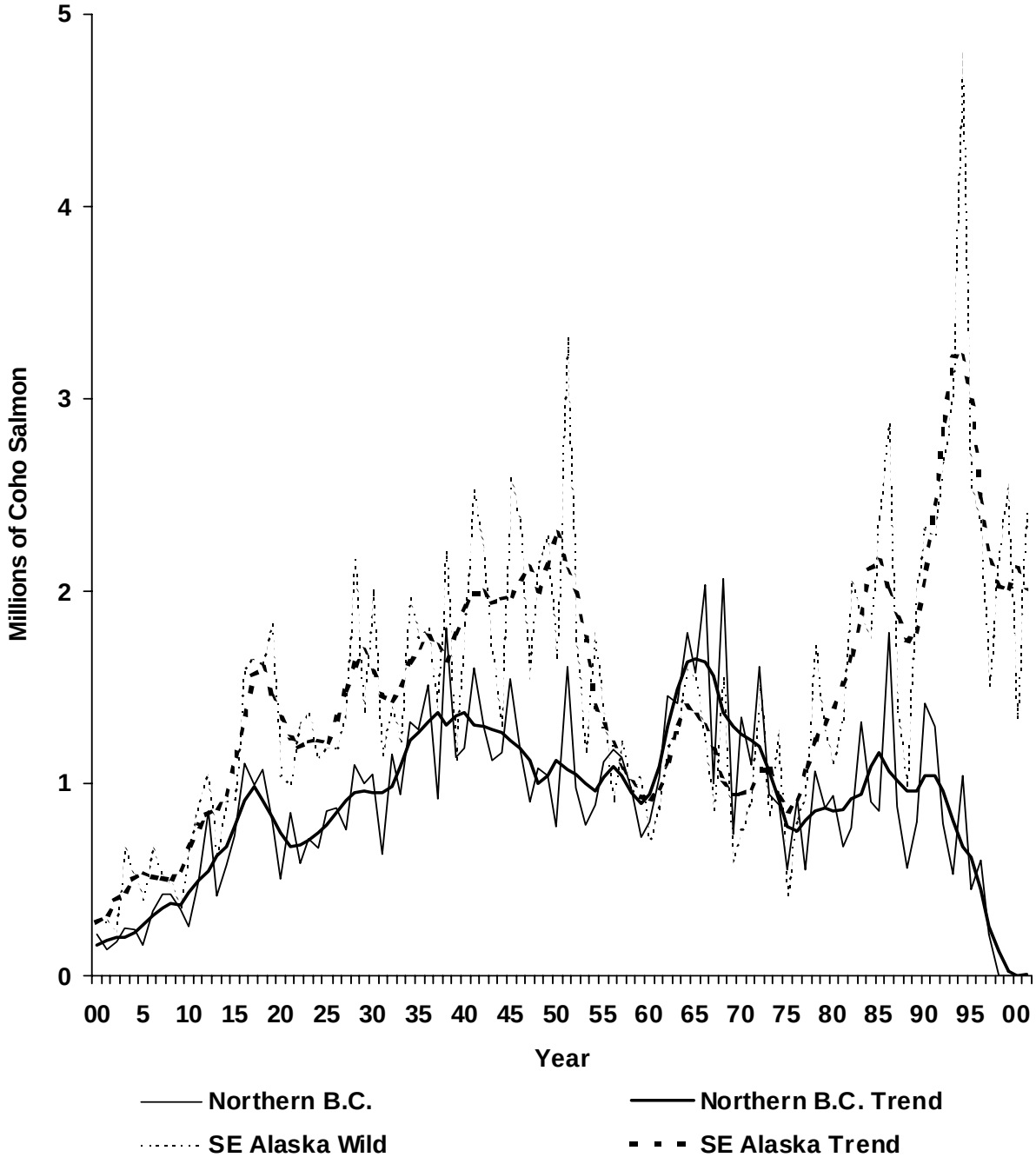


Figure J3. Catch of coho salmon (including a small hatchery component) in marine commercial fisheries in northern British Columbia and wild coho only in commercial fisheries in Southeast Alaska, 1900–2001. Trends are 4-year averages.

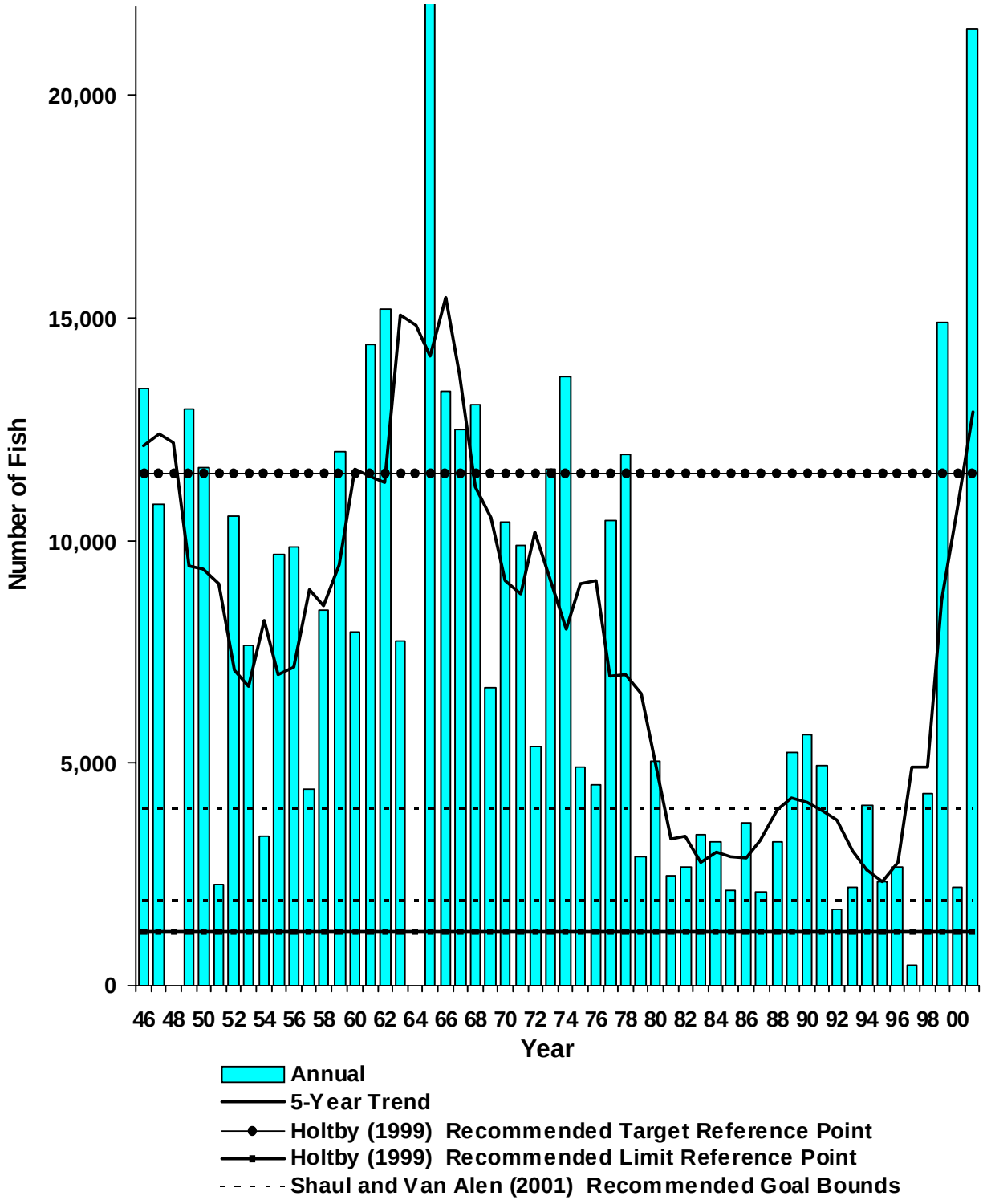


Figure J4. Estimated total coho salmon escapement above the Babine fence, 1946–2001, compared with escapement goals proposed by Holtby (1999) and Shaul and Van Alen (2001).

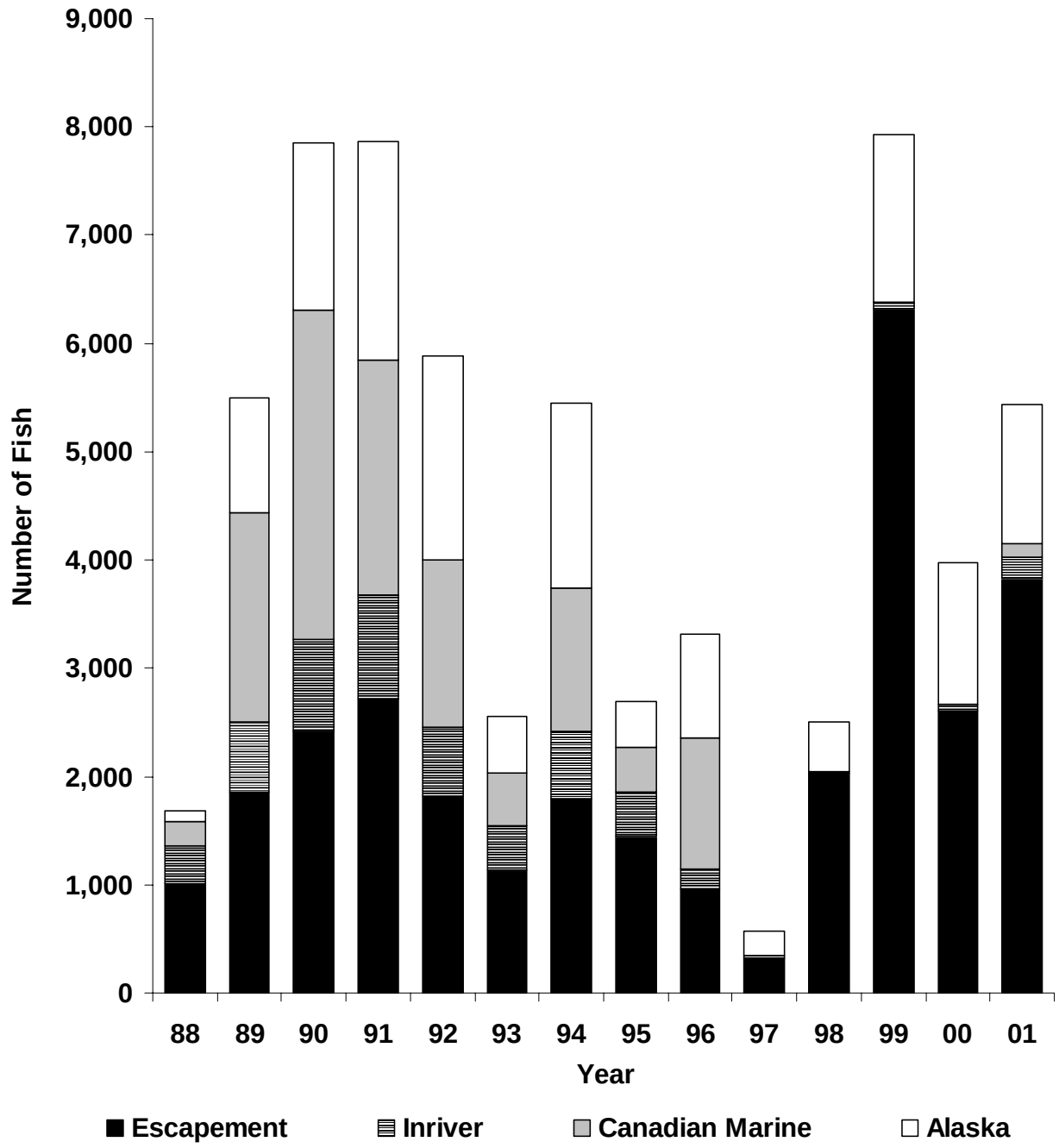


Figure J5. Total estimated harvest and escapement of wild coho salmon returning to Toboggan Creek, 1988–2001. Estimates for 2001 are very preliminary.

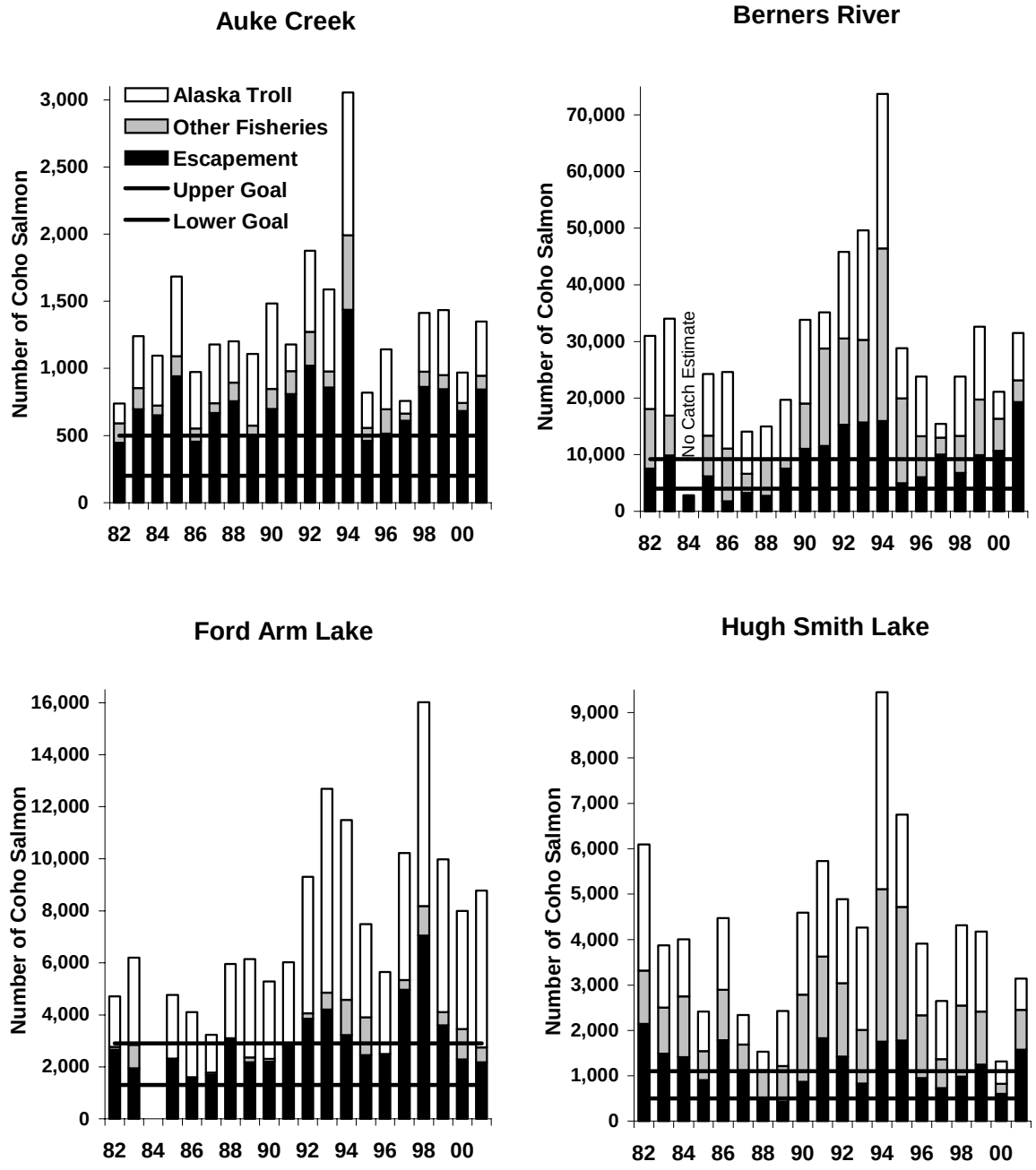


Figure J6. Total run size, catch, escapement and biological escapement goal range for four wild Southeast Alaska coho salmon indicator stocks, 1982–2001.

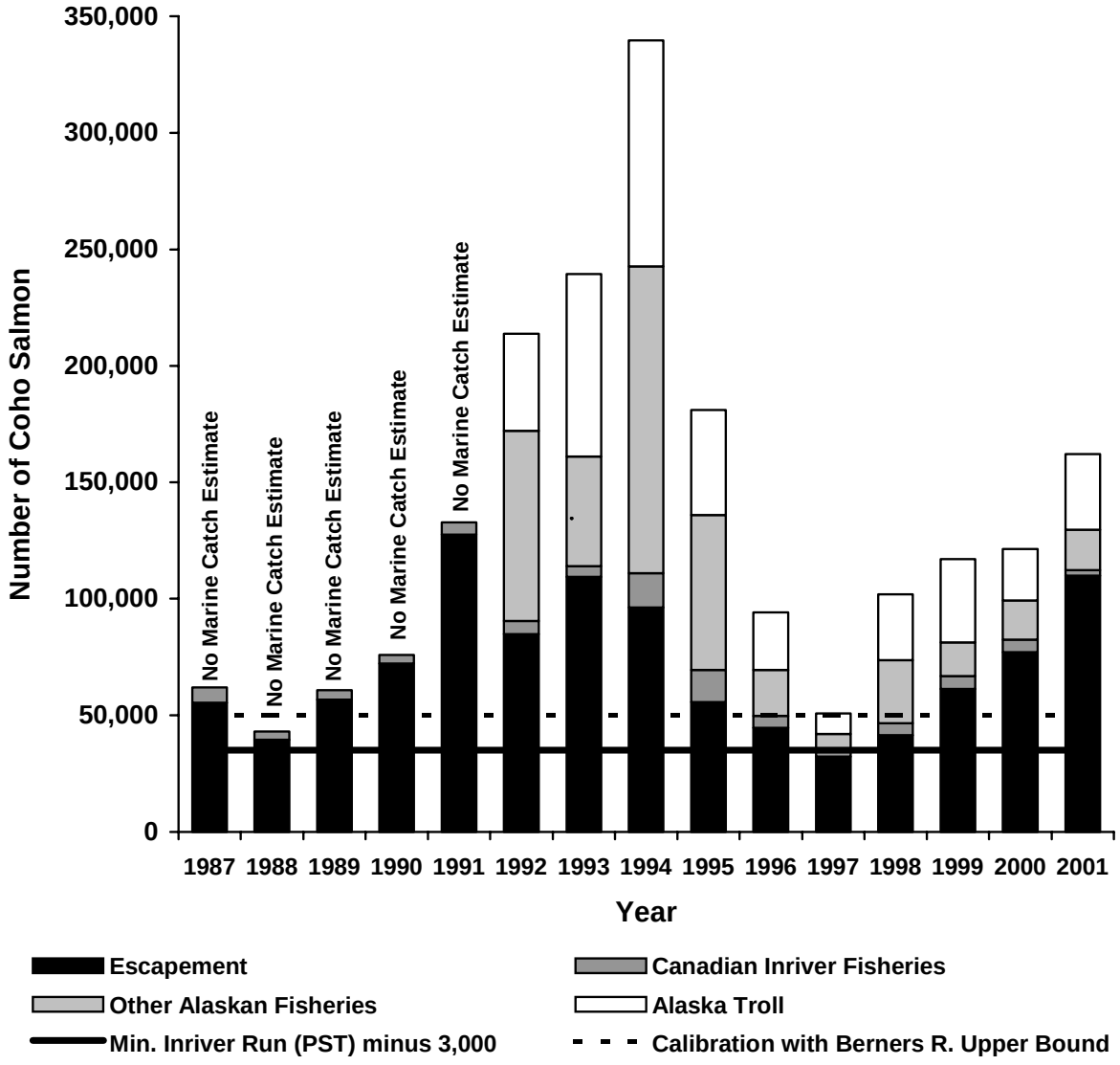


Figure J7. Total estimated run size, catch and escapement of coho salmon bound for the Taku River above Canyon Island, 1987–2001. There are no catch estimates for 1987–1991. Estimates for 2001 are very preliminary.

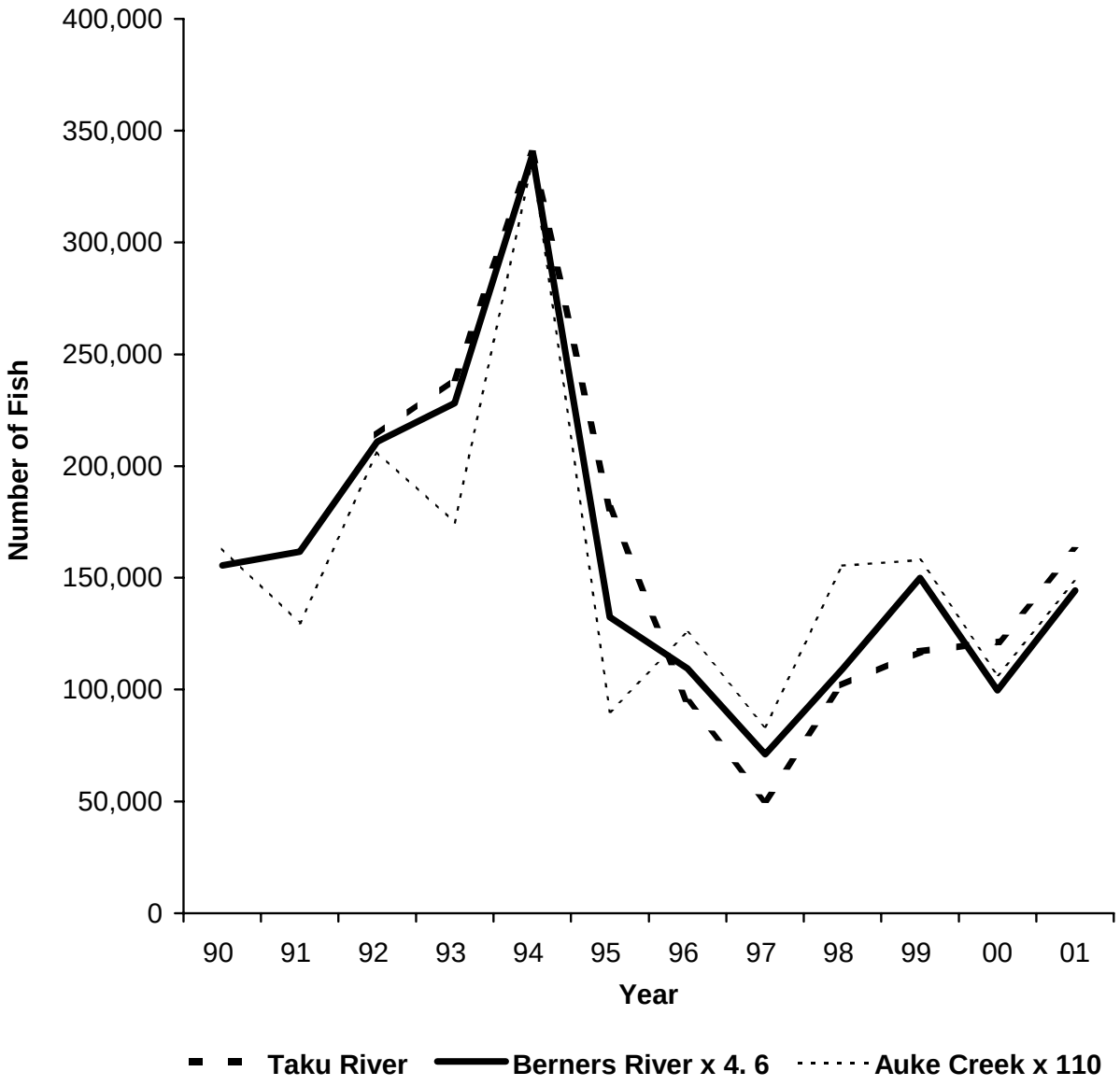


Figure J8. Total run size estimates for coho salmon returns to the Taku River (1992–2001) compared with returns to the Berners River and Auke Creek (multiplied by constant factors for similar scale with the Taku), 1990–2001.

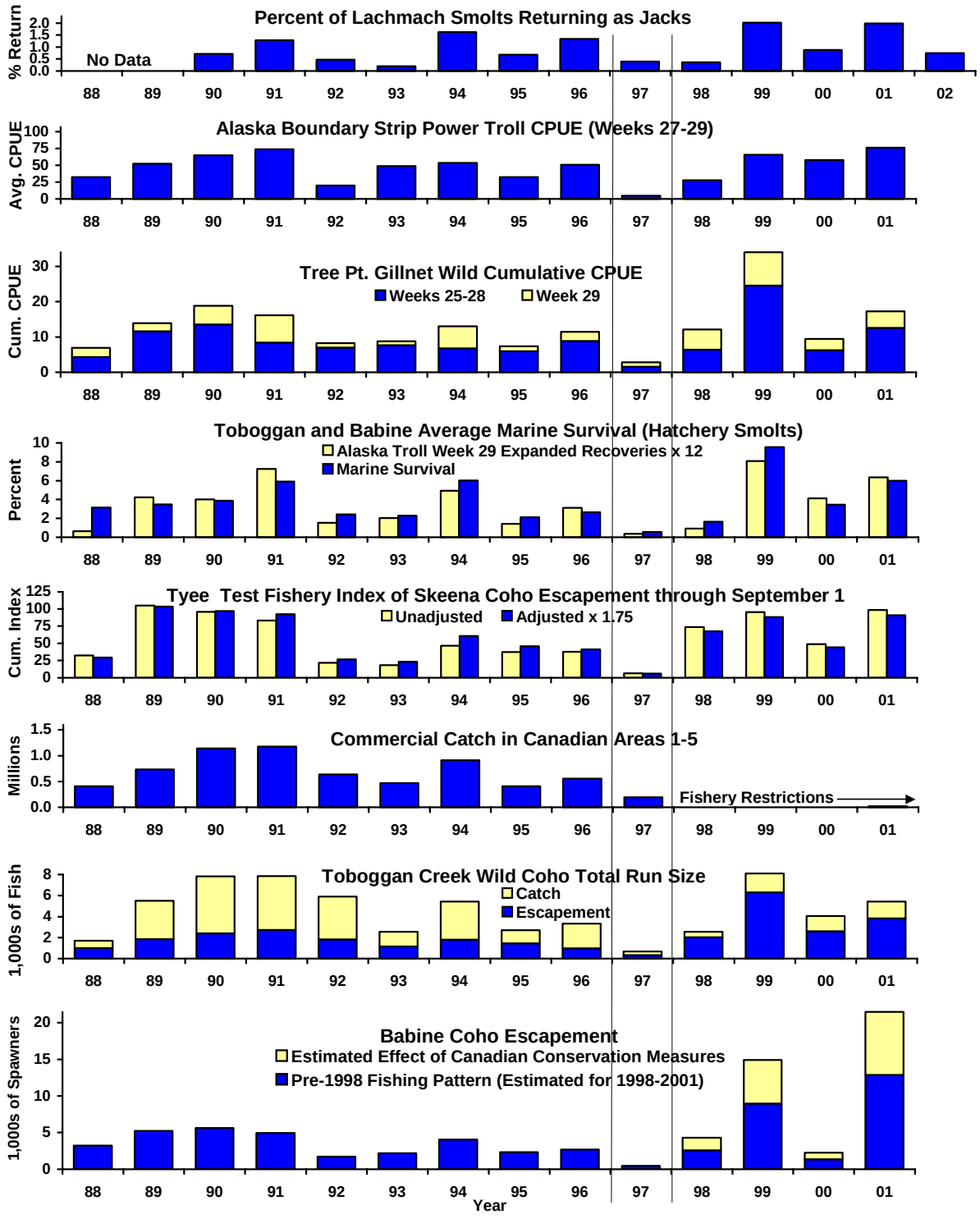


Figure J9. Preseason and inseason indicators of upper Skeena coho abundance (top five figures) compared with upper Skeena marine survival (middle figure) and the total return to Toboggan Creek and escapement to the Babine River (bottom two figures). The lines delineate the extremely weak 1997 return.

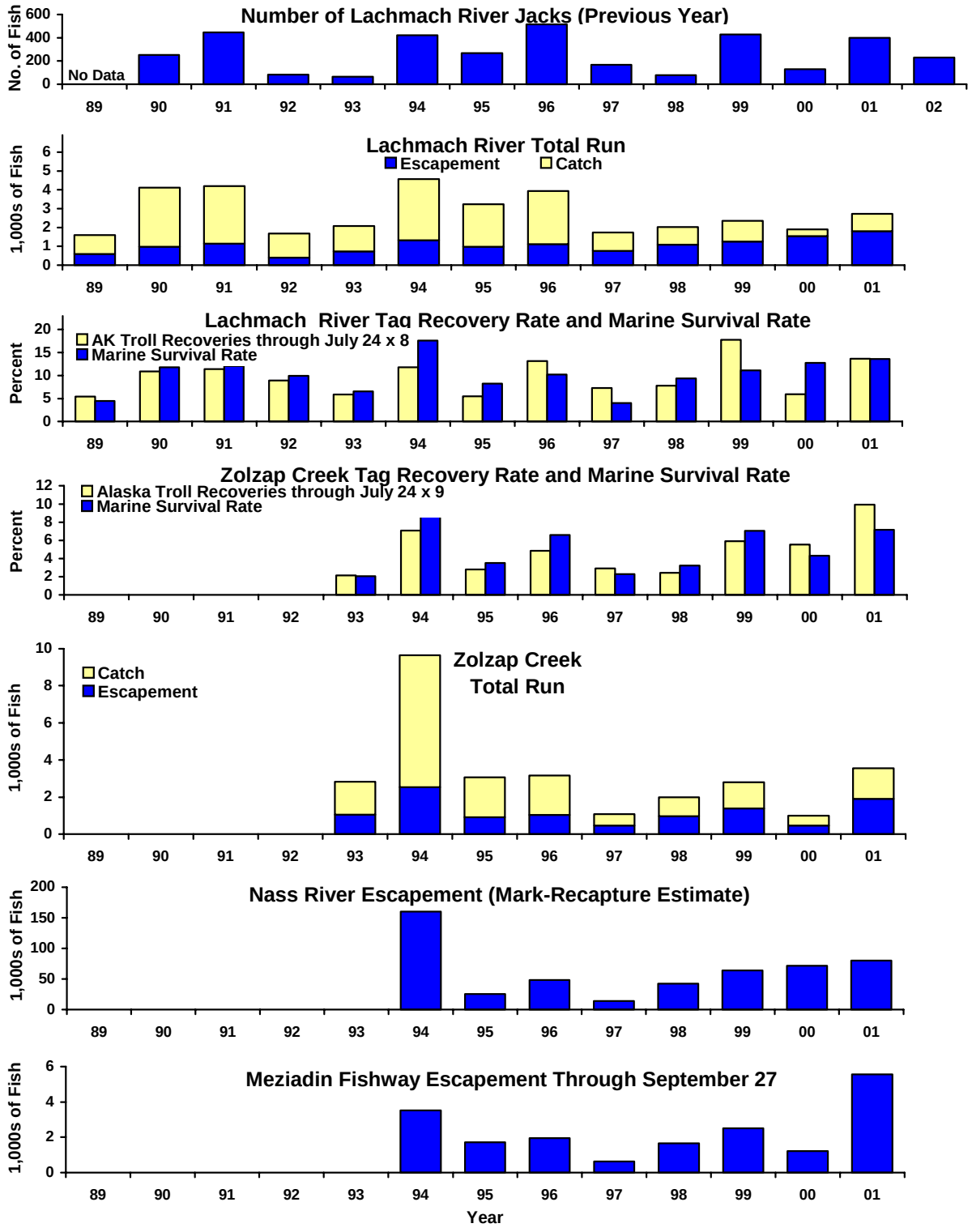


Figure J10. Preseason, inseason and post-season indicators of coho salmon abundance in Canadian Area 3. Estimates for 2001 are very preliminary.

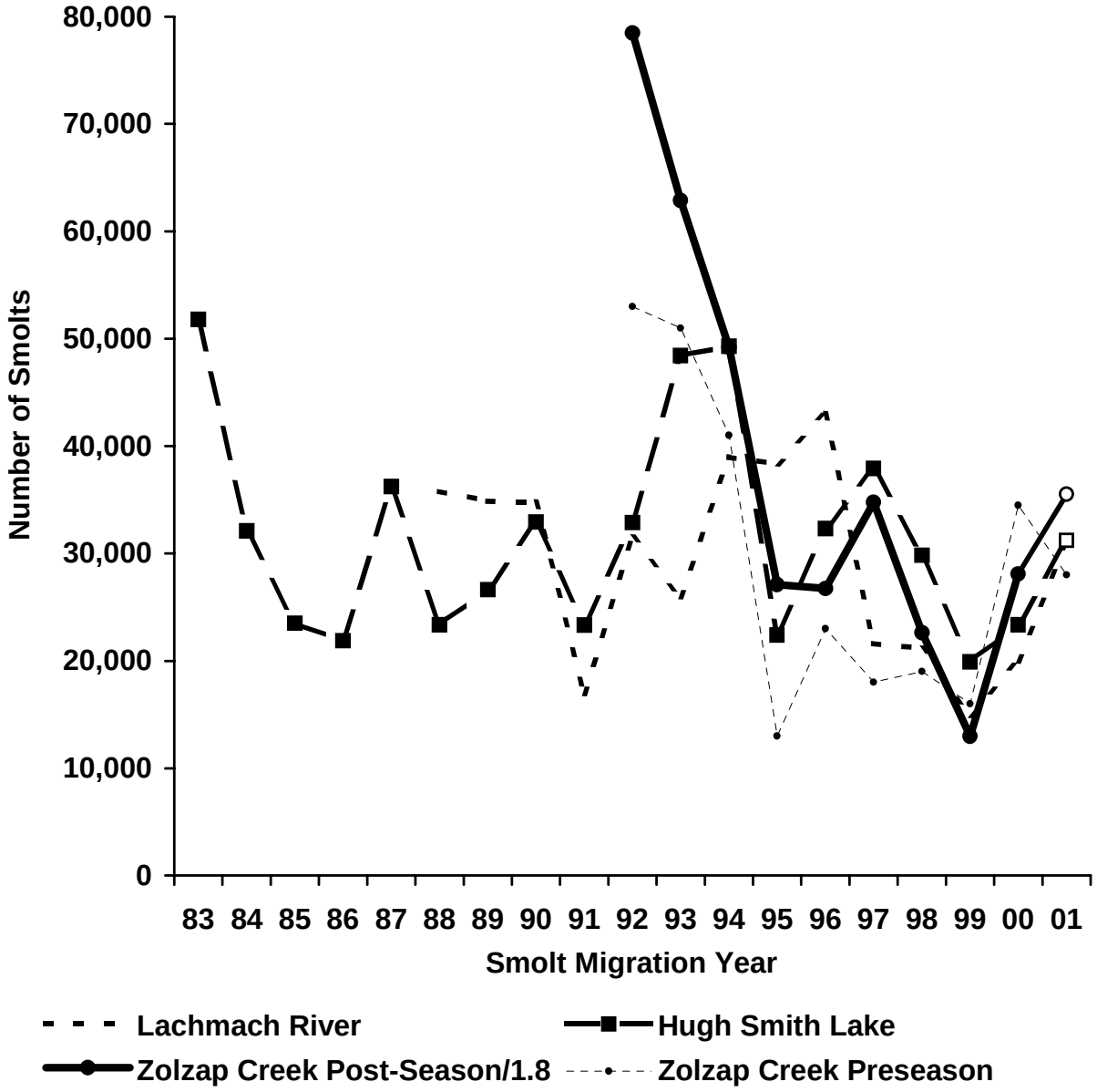


Figure J11. Estimated smolt production from three wild coho salmon stocks in the immediate northern boundary area (Lachmach River, Hugh Smith Lake and Zolzap Creek). The "preseason" estimates for Zolzap Creek (lower Nass River) are counts made at the smolt fence while the "post-season" numbers (scaled for comparability with Hugh Smith and Lachmach) are mark-recapture estimates based on the number of smolts tagged and the marked rate of returning adults (Bruce Baxter, LGL Ltd., pers. com.) Estimates for 2001 are very preliminary.