

**PACIFIC SALMON COMMISSION  
JOINT NORTHERN BOUNDARY TECHNICAL  
COMMITTEE**

**U.S./CANADA NORTHERN BOUNDARY AREA  
2012 SALMON FISHERIES MANAGEMENT REPORT  
AND 2013 PRELIMINARY EXPECTATIONS**

**REPORT TCNB (13)-1**

**September 2013**

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## LIST OF ACRONYMS WITH DEFINITIONS

<b>AAH</b>	Annual Allowable Harvest
<b>ADF&amp;G</b>	Alaska Department of Fish & Game
<b>CDFO</b>	Canadian Department of Fisheries and Oceans
<b>M</b>	Million
<b>NBC</b>	Northern British Columbia Dixon Entrance to Kitimat including Queen Charlotte Islands.
<b>NBTC</b>	Northern Boundary Technical Committee
<b>NMFS</b>	National Marine Fisheries Service
<b>PSC</b>	Pacific Salmon Commission
<b>PST</b>	Pacific Salmon Treaty
<b>QCI</b>	Queen Charlotte Islands
<b>SSEAK</b>	Southern Southeast Alaska Stikine River to Dixon Entrance

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# EXECUTIVE SUMMARY

This report reviews:

- 1) catch, effort, and management actions in the 2012 Northern Boundary Area troll and net fisheries of southern Southeast Alaska Districts 101 to 108 and northern British Columbia Areas 1, 3, 4, and 5;
- 2) management performance relative to Treaty requirements for pink salmon;
- 3) preliminary expectations and fishing plans for 2013.

## *2012 Fisheries*

The southern Southeast Alaska pink salmon harvest was 18.6 million (Districts 1-8, all harvest codes, all gear), which was below the 10-year average of 20.2 million. For all of Southeast Alaska, excluding the Yakutat area, the pink salmon harvest was 21.3 million, which was above the preseason forecast of 17 million but within the 10-29 million 80% confidence interval.

The total 2012 Southeast Alaska pink salmon escapement index of 11.0 million index fish ranked 18<sup>th</sup> since 1960, and was 75% of the recent 10-year average of 14.7 million. Biological escapement goals are in place for three sub-regions in Southeast Alaska and escapement goals were met in two of the three sub-regions in 2012 (Table 5). On a finer scale, escapements met or exceeded management targets for 10 of 15 districts in the region and for 31 of the 46 pink salmon stock groups in Southeast Alaska. Pink salmon returns were generally weak throughout much of the Northern Southeast Inside sub-region in 2012. The Southern Southeast sub-region includes all of the area from Sumner Strait south to Dixon Entrance (Districts 101–108). The pink salmon harvest of 18.6 million in the Southern Southeast sub-region was near the recent 10-year average of 20.2 million fish. The escapement index value of 6.5 million was well within the escapement goal range of 3.0 to 8.0 million index fish.

Sockeye salmon catches in traditional Alaska boundary area gillnet and purse seine fisheries, including treaty fisheries, were below average in all areas, except District 102 seine where catches were above average. The Hugh Smith Lake adult sockeye salmon escapement was 13,400, which was within the optimal escapement goal range of 8,000 to 18,000 adult sockeye salmon. The expanded peak survey count of 57,000 McDonald Lake sockeye salmon was slightly above the lower bound of the 55,000 to 120,000 sustainable escapement goal range.

Alaska boundary area gillnet and purse seine summer chum salmon catches were above average. The southern Southeast Alaska wild-stock escapement index, which has a sustainable escapement goal of an aggregate 54,000 index spawners to 13 summer run chum salmon streams, was 144,000, making 2012 the sixth highest in the time series.

Gillnet and purse seine coho salmon catches in the Alaska boundary area were above average and coho salmon escapement counts and estimates were within or above goal. The combined peak count of 11,950 spawners in the 14 surveyed streams in the Ketchikan survey index was

above the goal of 4,250-8,500 spawners. The total escapement of 1,908 spawners to Hugh Smith Lake was well-above the biological escapement goal range of 500-1,600 fish.

In Canadian Area 1 there are no longer commercial net interception fisheries on passing salmon stocks. No pink or chum surpluses were identified in-season therefore there were no terminal gillnet or seine fisheries in 2012. Catches in the Area 1 troll fishery were near the previous decadal average for sockeye (1,518 vs. 1,487), coho (145,676 vs. 103,690) and pink (57,013 vs. 62,588).

Sockeye catches were small in Area 3 with gillnets catching 92,118 compared to the previous decadal average of 255,093 and seines catching 5,366 compared to the previous decadal average of 70,724. Pink catches were also well below average in Area 3 with gillnets catching 58,528 compared to the previous decadal average of 212,947 and seines catching 339,239 compared to the previous decadal average of 1,238,669.

Sockeye catches were below average in Area 4 with gillnets catching 399,892 compared to the previous decadal average of 533,614 and seines catching 123,340 compared to the previous decadal average of 183,511. Pink catches were also well below average in Area 4 with gillnets catching 24,214 compared to the previous decadal average of 117,659 and seines catching 10,251 compared to the previous decadal average of 382,670.

Catch and effort in Area 5 was well below average for gillnets and no seine fishery occurred in Area 5 in 2012.

The preliminary Nass sockeye total return estimate of 477,000 was slightly above the pre-season forecast of 446,000 however, the Skeena sockeye preliminary total return estimate of 2.4 million was substantially higher than the 50% probability level pre-season sibling forecast of 1.4 million but within the 10% probability level of 2.7 million. Pink returns throughout the North Coast were low as expected. Chum escapements continued to be poor and retention of chum was not permitted by gillnet or seine in Areas 4 and 5. Chum retention was permitted in a small portion of Area 3 around Wales Island where and when hatchery origin chum were believed to be most prevalent.

### ***MANAGEMENT PERFORMANCE***

Pacific Salmon Treaty based harvest sharing agreements were renewed in 2009 for the Northern Boundary area fisheries – Alaska District 104 purse seine, Alaska District 101 drift gillnet, Canadian Area 3 net, and Canadian Area 1 troll. The agreements are “abundance based” where the allowable harvest is a percentage of the Annual Allowable Harvest (AAH). The AAH is the total return of applicable stocks minus the lesser of: 1) the actual escapement, or 2) the escapement goal. Catches over or under the AAH are summed over the period of the agreement to allow for annual variation.

The run size of Alaskan pink salmon returning to Districts 101-103 determines the allowable harvests of these stocks in Canada’s Area 3 (1-4) net and Area 1 troll fisheries.

In Alaska’s District 104 purse seine fishery, the Nass and Skeena sockeye salmon run size determines the AAH of these stocks prior to Statistical Week 31. In the District 104 purse seine



fishery the agreement specifies a harvest, from the beginning of the season through Statistical Week 30, of 2.45% of the combined AAH of both the Nass and Skeena River runs. The fishery opens the first Sunday in July; in 2012 the initial opening was July 1 (Week 27). The 2012 pre-Week 31 fishing plan for District 104 was based on returns of local Alaskan stocks as well as the Canadian Department of Fisheries and Oceans (DFO) preseason forecast returns of about 446,000 Nass River sockeye salmon and about 1.4 million Skeena River sockeye salmon. The preseason forecasts result in a total projected return of 1.84 million Nass and Skeena sockeye salmon which, minus an escapement goal of 1.1 million, would result in an AAH of about 746,000. Using this forecast, the 2012 pre-week 31 AAH was approximately 18,300 Nass and Skeena sockeye salmon.

In Alaska's District 101 gillnet fishery, the AAH is based solely on the run size of Nass River sockeye salmon. The AAH is calculated as the total run of Nass sockeye salmon minus either the escapement requirement of 200,000 or the actual in-river escapement, whichever is less. In the District 101 (Tree Point) drift gillnet fishery, the agreement specifies a harvest of 13.8 percent of the AAH of the Nass River sockeye salmon run. The return of Nass sockeye salmon was forecast at 446,000 in 2012 which, minus an escapement goal of 200,000, would result in an AAH of about 246,000. Using this forecast the 2012 allowable harvest in the District 101 gillnet fishery was about 34,000 Nass River sockeye salmon.

The District 101 drift gillnet fishery opens by regulation on the third Sunday in June which was June 17 (week 25) in 2012. During the early weeks of the fishery, management is based on the run strength of Alaska wild stock chum and sockeye salmon and on the strength of the Nass River sockeye salmon. Beginning in the third week of July, when pink salmon stocks begin to enter the fishery in large numbers, management emphasis shifts by regulation to that species. By regulation, the District 101 Pink Salmon Management Plan (PSMP) sets gillnet fishing time in this district in relation to the District 101 purse seine fishing time when both fleets are concurrently harvesting the same pink salmon stocks.

For the year 2012, Canada was to manage the 3-1 to 3-4 net fishery to achieve an annual catch share of 2.49 percent of the annual allowable harvest (AAH) of Alaskan Districts 101, 102 and 103 pink salmon. With a Total Return of approximately 31.10 million pink, the Alaskan Districts 101, 102 and 103 AAH was 20.35 million pink. The resulting Area 3-1 to 3-4 Canadian commercial net total allowable catch of this AAH was approximately 0.51 million pink of Alaskan Districts 101, 102 and 103 origin.

In the Canadian northern boundary area, pink salmon returns were anticipated to be poor for both Area 3 and Area 4 based on brood year escapements. Returns to Area 3 were slightly above expectations but Area 4 streams were at or below expectations in 2012. The 2012 Canadian pink salmon catch in Sub-areas 3-1 to 3-4 was 118,164 and a preliminary estimate of the Alaska stock component of this catch is estimated to be 96,658, or 0.47 % of the AAH, well below the annex agreement of 2.49 %.

For the year 2012, Canada was to manage the Area 1 troll fishery to achieve an annual catch share of 2.57 percent of the annual allowable harvest (AAH) of Alaskan Districts 101, 102 and 103 pink salmon. The resulting Area 1 Canadian commercial troll total allowable catch of this AAH was

approximately 523,056 pink of Alaskan Districts 101, 102 and 103 origin.

The Canadian commercial troll fishery targeting pink salmon was open in the northern portion of Area 1 (Dixon Entrance AB Line) from July 1<sup>st</sup> to September 30<sup>th</sup>. Pink retention was also permitted during the Chinook directed fishery in parts of Area 1 which was open from June 21<sup>st</sup> to September 30<sup>th</sup> with closed periods from July 16<sup>th</sup> to July 19<sup>th</sup> and August 12<sup>th</sup> to September 3<sup>rd</sup>. Area 1 pink salmon directed effort was very minimal and the fishery harvested a total of 57,013 pink salmon, with an estimated 52,143 being of Alaskan origin. This equates to 0.26 % of the Alaskan District 101, 102 and 103 pink AAH, well below the annex agreement of 2.57%.

### ***2013 Forecasts***

The Southeast Alaska pink salmon harvest in 2013 is predicted to be in the *excellent* range, with a point estimate of 54 million fish (80% confidence interval: 42–67 million fish). An actual harvest of 54 million pink salmon would be well above the recent 10-year average of 37 million pink salmon, but is close to the average harvest over the past five odd years. The 2013 forecast was produced in two steps: 1) a forecast of the trend in the harvest, and 2) the forecast trend adjusted using 2012 juvenile pink salmon abundance data provided by the NOAA Fisheries, Alaska Fisheries Science Center, Auke Bay Laboratories. Formal forecasts are not made for species other than pink salmon in Southeast Alaska.

The 2013 Nass sockeye total return is estimated to be 452,000 (with a 25% probability of the return exceeding 557,000 and a 75% probability the return will exceed 371,000) providing only modest marine net and Nisga'a in-river commercial opportunities. For the Skeena, the sibling model forecast predicts a 50% probability of approximately 0.7 million sockeye returning in 2013, with a 25% probability of the return exceeding 1.0 million and a 75% probability the return will exceed 0.5 million. The Nass and Skeena area pink return predictions are very poor based on brood year escapements. As a result, directed Skeena sockeye and Skeena/Nass pink salmon harvest opportunities are unlikely in 2013.

## **INTRODUCTION**

This report reviews the 2012 Boundary Area pink, chum, coho, and sockeye salmon gillnet and purse seine fisheries of southern Southeast (SSE) Alaska and Northern British Columbia and outlines preliminary expectations and fishing plans for 2013. The document is submitted to the Pacific Salmon Commission as required in Article IV of the Pacific Salmon Treaty. Weekly catch and effort data is provided by opening, district or area, gear, and species (sockeye, pink, chum, coho, and Chinook salmon) for Northern Boundary Area fisheries for 2012. Sub-area catch data is also presented for all salmon species for Canadian Area 3. Maps showing the statistical fishing districts or areas for southern Southeast Alaska and Northern British Columbia are provided in Figures 1 to 7.

## **SOUTHERN SOUTHEAST ALASKA**

### **2012 Salmon Forecast**

The 2012 pink salmon harvest in Southeast Alaska was expected to be weak, with a point estimate of 17 million fish, with a forecast range of 10-29 million fish. Formal forecasts were not made for sub-regions or for species other than pink salmon in Southeast Alaska.

### **Review of the 2012 Fishing Season**

Commercial fisheries harvested 24.7 million salmon in southern Southeast Alaska in 2012. This total includes Traditional, Hatchery Terminal Harvest Area, and Annette Island Reserve fisheries; purse seine, drift gillnet, and troll gear; in Districts 101 through 108, 150, and 152. The salmon harvest was comprised of 18.6 million (75%) pink, 4.9 million (20%) chum, 852,000 coho (3%), 303,000 (1%) sockeye, and 93,000 (0.4%) Chinook salmon. The 2012 catches are compared to the 1985-2011 average.

### **Districts 101 to 107 Purse Seine Fisheries**

The management of the southern Southeast Alaska inside purse seine fishery was based on in-season pink salmon returns to Districts 101 through 107. Exceptions to this management scheme were: 1) early season openings in lower District 102 to target Southern Southeast Regional Aquaculture Association's (SSRAA) Kendrick Bay summer chum salmon; and 2) District 102 fisheries directed on fall chum salmon. There was a purse seine Chinook salmon non-retention period in 2012 until Week 32.

#### *District 101 Purse Seine Fishery*

The Alaska District 101 purse seine fishery opened July 1, 2012 for the first of 13 fishing periods (Table 1). In the initial week (statistical week 27), 14 boats fished a 15-hour opening; catches were low but about average. Both the number of seine vessels fishing in the district and the number of hours open to fishing were below average in July but then rose to about average in the first three weeks of August. Sockeye salmon catches were below average throughout the season and chum catches were below average except for week 34 (August 22). In the first three weeks of the season catches of pink salmon were below average, rose to near average in late July and

early August, and fell off rapidly after mid-August. Catches of coho salmon were about average through week 34. A decline in the number of boats fishing and limited fishing time in the final week of the season (August 26) was in part responsible for low catches. The district closed to fishing relatively early at the end of August.

A total of 140 purse seine vessels fished in District 101 in 2012, 95% of the average of 147. The fishery was open for a total of 339 hours which was 94% of the average of 459.

The 2012 District 101 purse seine seasonal pink salmon catch of 3,380,000 was 59% of the average catch of 5,721,000 million. The District 101 purse seine sockeye salmon catch of 18,400 was 18% of the average catch of 100,800. The District 101 purse seine chum salmon catch of 188,400 was 60% of the average catch of 313,400. The District 101 purse seine coho salmon catch of 27,800 was 72% of the average catch of 38,400. The Chinook catch of 132 was 24% of the average catch of 550. There was a purse seine Chinook salmon non-retention period in 2012 until Week 32.

#### *District 102 Purse Seine*

Limited portions of District 102 near Kendrick Bay were opened weeks 25-28 (June 17-July 11) to access returns of SSRAA enhanced summer chum salmon returning to Kendrick Bay. The fishery was open for 87 hours in weeks 25 and 26, a 15 and an 87 hour opening in week 27, and a 15 and 63 hour opening in week 28. Between 21 and 98 seine vessels fished these openings harvesting 867,000 chum salmon (Table 2).

The traditional seine fishery in District 102 targeting local stocks of pink salmon opened Sunday July 15 (Week 29). During the traditional fishing period there were 15 openings ranging from 15 to 39 hours in duration. The number of boats fishing the district varied significantly from week to week with the greatest number of boats fishing in the late June and early July fishery directed on enhanced chum salmon; the total seasonal harvest of chum salmon was a treaty period (1985-2012) record 1.3 million, 67% of which were caught in the early season directed chum salmon openings. A total of 175 purse seine vessels fished District 102 at some time during the season, 117% of the average of 150 vessels. The district was open to fishing a total of 714 hours, 76% of the average of 787 hours.

Catches of pink salmon were about the treaty average early in the season, spiked to well above average in early August, dropping off to below average after mid-August with the total harvest of 5,873,000 pink salmon being 148% of the average harvest of 4.0 million. The sockeye salmon catch of 43,500 was 105% of the average catch. The coho salmon catch of 84,300 was 177% of the average catch. Catches of chum salmon were excellent and well above average, particularly in late June and the first three week of July (June 24-July 22); the chum salmon catch of 1.3 million was over 300% of the treaty average of 427,000. The number of boats fishing was above average while the number of hours open was below average.

#### *District 103 Purse Seine*

The 2012 District 103 purse seine fishery initially opened July 26 (Week 30; Table 3). There

were less than three seine vessels fishing in each of the first three openings so that catch and effort data is confidential and is included in the initial opening in week 32. The fishery closed on August 23, there was no directed fall chum salmon fishery in 2012. A total of 71 purse seine vessels fished in District 103, 57% of the average of 126 vessels. The district was open for 264 hours which is 68% below the treaty period average of 388.

The District 103 purse seine pink salmon catch of 1.1 million was 28% of the average catch of 4 million. Early in the season catches of coho and chum salmon rose to near average but dropped off rapidly as the season progressed. Sockeye and pink salmon harvests were below average throughout the season. The 2012 sockeye salmon catch of 3,300 was 15% of the average of 22,400; the coho catch of 14,000 was 40% of the average of 30,500; and the chum catch of 44,000 was 38% of the average of 115,000.

#### *District 104 Purse Seine Fishery*

The 2012 pre-Week 31 fishing plan was based on the DFO preseason forecast total returns of about 446,000 Nass River sockeye salmon and 1.4 million Skeena River sockeye salmon. The preseason forecasts resulted in a total projected return of about 1.85 million which, minus an escapement goal of 1.1 million, would result in a combined AAH of about 750,000. Using this forecast, the 2012 pre-Week 31 allowable catch (2.45% of the AAH) was about 18,000 Nass and Skeena sockeye salmon. The actual AAH will be calculated post-season after stock specific catch and escapement estimates are calculated.

In the 2012 treaty period (Alaska statistical weeks 27-30), a total of 18,300 sockeye salmon were harvested in the following: one 12-hour opening in Week 27; one 15-hour opening in Week 28; two 15-hour openings in Week 29; and two 15-hour openings in Week 30 (Table 4). A total of 30 purse seine vessels fished in the district during the treaty period. In past years 60% to 80% of treaty-period sockeye salmon have been of Nass and Skeena origin. Thus, we would anticipate that between 11,000 and 14,600 Nass and Skeena sockeye salmon may have been harvested in the District 104 purse seine fishery during the treaty period. The final number of Nass and Skeena sockeye salmon harvested, and the actual catch by stock, will not be available until catch, escapement, and stock composition estimates are finalized for the year.

There were a total of 14 open fishing periods in the 2012 District 104 purse seine fishery. In the post treaty period, beginning July 29, the initial and the final opening were for 15-hours, and the rest were for 39 hours. The total number of purse seine vessels that fished at some time in the district was 119, 74% of the average vessels of 160.

The catch of 5.8 million pink salmon in the 2012 District 104 purse seine fishery was 66% of the average catch of 8.6 million. Pink salmon catches were slightly below average except for week 33 (August 14) when they were slightly above average.

The total season sockeye salmon catch of 72,393 was 14% of the average treaty period catch of 5 million.

The catch of 93,000 coho salmon was 78% of the average catch of 120,000. Coho catches were

about average at the peak of the season from mid-July through mid-August. The catch of 258,000 chum salmon was 80% of the average catch of 321,000. The catch of 3,000 Chinook salmon was 44% of the average catch of 6,800. There was a purse seine Chinook salmon non-retention period in 2012 until Week 32 (August 6).

#### *Districts 105, 106, and 107 Purse Seine Fisheries*

For the 2012 season, the combined Districts 105, 106, and 107 traditional state managed purse seine fisheries harvested 1.03 million pink, 140,000 chum, 10,200 coho, 6,250 sockeye, and 106 Chinook salmon.

#### **District 101 Tree Point Drift Gillnet Fishery**

The PST agreement calls for abundance based management of the District 101 (Tree Point) drift gillnet fishery. The agreement specifies a harvest of 13.8 percent of the AAH of the Nass River sockeye salmon run. For the 2012 season, DFO forecast a total return of 446,000 Nass River sockeye salmon. The AAH is calculated as the total run of Nass sockeye salmon minus either the escapement requirement of 200,000 or the actual in-river escapement, whichever is less.

The District 101 drift gillnet fishery opens by regulation on the third Sunday in June. During the early weeks of the fishery, management is based on the run strength of Alaska wild stock chum and sockeye salmon and on the strength of the Nass River sockeye salmon. Beginning in the third week of July, when pink salmon stocks begin to enter the fishery in large numbers, management emphasis shifts by regulation to that species. By regulation, the District 101 Pink Salmon Management Plan sets gillnet fishing time in this district in relation to the District 101 purse seine fishing time when both fleets are concurrently harvesting the same pink salmon stocks. The final number of Nass River sockeye salmon harvested in the District 101 drift gillnet fishery will not be available until catch, escapement, and stock composition estimates are finalized for the 2012 season.

The District 101 drift gillnet fishery opened Sunday June 17 (week 25) in 2012. The number of hours fished was above the treaty period (1985-2011) average. A total of 85 gillnet boats fished in the district in 2012 which was 74% of the average of 114.

A total of 62,342 sockeye salmon were harvested in 2012 (Table 5). Sockeye salmon catches in the opening week of the season were well above average but subsequently fell to below average by the third week and remained below average for the season. The sockeye salmon harvest was 48% the average of 130,000. The cumulative sockeye salmon harvest prior to the initiation of the PSMP in Week 29 was 51,600 fish, or about 83% of the season's total sockeye salmon harvest. The final number of Nass River sockeye salmon harvested in the District 101 drift gillnet fishery will not be available until catch, escapement, and stock composition estimates are finalized for the 2012 season.

The pink salmon catch of 203,900 was 39% of the average of 519,000. Pink salmon catches were about average until week 28 (July 8) but after that were below average for the remainder of the season. The chum salmon catch of 314,900 was 103% of the average of 306,000. Chum salmon

catches were well above average until the end of July after which they fell to below average for the remainder of the season. Coho catches were average early in the season up to week 32 (August 5) after which they rose to well above average for the remainder of the season. The coho harvest of 62,500 was 135% of the treaty period average. The Chinook salmon harvest was average throughout the season and the catch of 1,404 was 94% of the treaty period average.

Beginning in week 35 (August 26) management was based on the strength of wild stock fall chum and coho salmon. Approximately 42,500 coho and 30,500 chum salmon were caught in the fall fishery. Catches of fall coho salmon were above average while fall chum catches were below average.

### **District 106 Drift Gillnet Fishery**

The 2012 harvest in the District 106 commercial gillnet fishery included 129,646 pink salmon, 121,418 coho, 104,307 chum, 45,446 sockeye, and 1,853 Chinook salmon (Table 6). The number of hours open to fishing was about average but the number of boats fishing was below average throughout the season and this lack of effort had some effect on the catch.

Chinook salmon catches were above average in the initial week but then fell to about average for the remainder of the season. Coho and chum catches were near average for the first few weeks but then fell to below average. Sockeye and pink salmon catches were below average throughout the season.

### **Annette Island Reserve Fisheries**

In 2012, the Annette Island purse seine fishery harvested approximately 498,900 pink, 126,500 chum, 5,400 sockeye, 4,700 coho, and 225 Chinook salmon. The 2012 Annette Island gillnet fishery harvested approximately 341,000 chum salmon, 309,000 pink, 16,700 sockeye, 37,700 coho, and 1,740 Chinook salmon (Tables 7-8).

### **Pink, Sockeye, and Chum Salmon Escapements**

The total 2012 Southeast Alaska pink salmon escapement index of 11.0 million index fish ranked 18<sup>th</sup> since 1960, and was 75% of the recent 10-year average of 14.7 million. Biological escapement goals are in place for three sub-regions in Southeast Alaska and escapement goals were met in two of the three sub-regions in 2012. On a finer scale, escapements met or exceeded management targets for 10 of 15 districts in the region and for 31 of the 46 pink salmon stock groups in Southeast Alaska. Pink salmon returns were generally weak throughout much of the Northern Southeast Inside sub-region in 2012 and the escapement index value of 2.1 million was below the escapement goal range of 2.5 to 6.0 million index fish. Returns to the Northern Southeast Outside sub-region were strong, and the escapement index value of 2.5 million was near the upper end of the escapement goal range of 0.75 to 2.5 million index fish. The Southern Southeast sub-region includes all of the area from Sumner Strait south to Dixon Entrance (Districts 101–108). The pink salmon harvest of 18.6 million in the Southern Southeast sub-region was near the recent 10-year average of 20.2 million fish. The escapement index value of 6.5 million was well within the escapement goal range of 3.0 to 8.0 million index fish.

Sockeye salmon returns throughout Southeast Alaska were generally strong in 2012. Escapement targets were met for 11 of the 13 sockeye salmon systems in Southeast Alaska with formal escapement goals. The Hugh Smith Lake adult sockeye salmon escapement was 13,400, which was within the optimal escapement goal range of 8,000 to 18,000 adult sockeye salmon. McDonald Lake sockeye salmon were de-listed as a “stock of management concern” at the 2012 Board of Fisheries meeting, based primarily on improved escapements since 2009. Based on the expanded peak foot survey count, the escapement of sockeye salmon into McDonald Lake was estimated to be 57,000 fish in 2012, which was near the lower bound of the sustainable escapement goal of 55,000 to 120,000 sockeye salmon.

For summer-run chum salmon, lower bound sustainable escapement goals were met for all three sub-regions in Southeast Alaska. In southern Southeast Alaska, runs are broken into summer and fall runs. The Southern Southeast chum salmon stock group is composed of an aggregate of 13 summer-run chum salmon streams on the inner islands and mainland of southern Southeast Alaska, from Sumner Strait south to Dixon entrance, with a sustainable escapement goal of 54,000 index spawners (based on the aggregate peak survey to all 13 streams). The index of 144,000 in 2012 was the sixth highest index value in the time series (Figure 15).

Fall chum salmon runs in Cholmondeley Sound, Prince of Wales Island, appeared to be strong overall and the escapement goal was easily met. Cholmondeley Sound is the only area in southern Southeast Alaska with a formal escapement goal for fall chum salmon. Fall chum salmon runs are monitored in Cholmondeley Sound through aerial surveys at Disappearance and Lagoon creeks. The escapement index of 54,000 was above the upper bound of the sustainable escapement goal range of 30,000 to 48,000 index spawners (based on the aggregate peak survey to both streams).

## **Management Performance Relative to Treaty Requirements**

### **District 104 Purse Seine Fishery**

The 2009 revision of the Pacific Salmon Treaty Agreement calls for the implementation of abundance based management in the District 104 purse seine fishery. The agreement allows the District 104 purse seine fishery to harvest 2.45 percent of the AAH of Nass and Skeena sockeye salmon prior to Statistical Week 31. The AAH is calculated as the total run of Nass and Skeena sockeye salmon minus either the escapement requirement of 1.1 million or the actual in-river escapement, whichever is less.

As background, this 2.45% AAH value was based on the weighted-average percent of the Nass and Skeena sockeye salmon AAH that would have been harvested in this fishery, during the 1985-1996 period, if the annual pre-Week 31 harvest had been exactly 120,000 sockeye salmon. Catches from 1997 were not included in the baseline calculation due to unusually high levels of sockeye salmon abundance in the fishery. The Alaska Department of Fish and Game’s (ADF&G) management intent is to harvest Nass and Skeena sockeye salmon at the allowable AAH percentage. The Treaty recognizes that overages and underages will occur and provides an overage/underage provision intended to hold the Parties accountable for their catch shares but



permit a reasonable degree of management flexibility.

The preliminary total return of Nass and Skeena river sockeye in 2012 is currently estimated at 2,880,000. This return would have allowed a treaty-period catch in the District 104 purse seine fishery of approximately 43,600 Nass and Skeena river sockeye salmon. The 2012 total catch of sockeye salmon from both nations during the District 104 treaty period was 18,300. Annual AAH fishery performance in the District 104 fishery is presented in Table 10 with bilaterally accepted numbers through 2009 and preliminary estimates based on average harvest rates through 2012. The final number of Nass and Skeena sockeye salmon harvested in the 2012 District 104 treaty-period will not be available until catch, escapement, stock composition and run reconstruction estimates are finalized for the year.

### **District 101 Tree Point Drift Gillnet Fishery**

The 2008 revision of the Pacific Salmon Treaty Agreement calls for abundance based management of the District 101 drift gillnet fishery. The agreement allows the District 101 gillnet fishery to harvest 13.8 percent of the AAH) of Nass River sockeye salmon run. The AAH is calculated as the total run of Nass sockeye salmon minus either the escapement requirement of 200 thousand, or the actual in-river escapement, whichever is less.

As background, this 13.8% AAH value was based on the weighted-average percent of the Nass sockeye salmon run that was harvested in this fishery during years 1985-1997. The ADF&G management intent is to harvest Nass sockeye salmon at the allowable AAH percentage. The Treaty recognizes that overages and underages will occur and provides an overage/underage provision intended to hold the Parties accountable for their harvest shares while permitting a reasonable degree of management flexibility.

The preliminary total return of Nass River sockeye salmon in 2012 is currently estimated at 480,000 sockeye salmon. This return would have allowed a catch in the District 101 gillnet fishery of 38,600 Nass River sockeye salmon. The 2012 total catch of sockeye salmon from both nations in the District 101 gillnet fishery was 62,300. Annual AAH fishery performance in the District 101 gillnet fishery is presented in Table 11 with bilaterally accepted numbers through 2009 and preliminary estimates based on average harvest rates through 2012. The final number of Nass sockeye salmon harvested in the 2012 District 101 gillnet fishery will not be available until catch, escapement, and stock composition estimates are finalized for the year.

## **NORTHERN BRITISH COLUMBIA**

### **2012 Salmon Forecast**

#### **Area 1 Expectations**

<i>Sockeye</i>	There are no significant local sockeye stocks in Area 1 and no directed commercial fisheries on passing stocks.
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*Pink* Potential for good returns.

*Chum* Fishing opportunities will be dependent on surpluses identified in-season.

*Fishing Plan* To identify and harvest surpluses found in-season.

### **Area 3 Expectations**

*Sockeye* A below average Nass sockeye total return of 446,000 (with a 25% probability of the return exceeding 553,000 and a 75% probability the return will exceed 363,000) is expected to provide modest commercial fishing opportunities.

*Pink* A poor return based on a slightly below average even year brood year is expected.

*Chum* Area 3 chum stocks remain below target levels. No targeted fishing is anticipated.

*Fishing Plan* To manage the Area 3 fisheries to Area 3 sockeye and pink abundances, in-season Skeena sockeye stock strength, and coho and chum conservation concerns.

### **Area 4 Expectations**

*Sockeye* The sibling model forecast predicts a 50% probability of approximately 1.4 million sockeye returning to the Skeena in 2012 with a 25% probability of the return exceeding 2.0 million and a 75% probability the return will exceed 1.0 million.

*Pink* A very poor return is expected based on a below average even year brood year.

*Chum* Skeena chum escapements are depressed and there will be no chum retention in Area 4.

*Fishing Plan* To manage the Area 4 fisheries in response to wild Skeena sockeye and chum conservation concerns.

### **Area 5 Expectations**

*Sockeye* Modest sockeye interception is anticipated in 2012.

*Pink* A very poor return is expected based on a below average even year brood year.

*Chum* Local chum stocks are depressed, and no surplus is anticipated.

*Fishing Plan* To manage the Area 5 fisheries in response to local in-season pink and sockeye abundance, Skeena wild sockeye conservation concerns, and below average returns of Skeena pink salmon.

## **Review of 2012 Fishing Season - Net and Troll Fisheries**

### **Area 1**

In Canadian Area 1 there no longer are commercial net interception fisheries on passing salmon stocks in Area 1, (Figure 3). No pink or chum surpluses were identified in-season therefore there were no terminal gillnet or seine fisheries in Area 1 (Tables 12 and 13).

The Area 1 troll fishery was managed considering domestic Chinook and chum stocks of concern, and the PST Chinook ceiling. An Individual Transferable Quota (ITQ) system governed the harvest of all Chinook. Directed fisheries were conducted for all species except chum and area and time restrictions were associated with each opening.

The preliminary catch estimate for the Area 1 portion (includes Area 101) of the 2012 troll fishery is 145,676 coho, 57,013 pink and 62,854 Chinook (Table 14).

See Table 31 for Area 1 escapements.

### **Area 3**

Management units (sub-areas) of Statistical Area 3 are outlined in Figure 4. In recent years, the Area 3 sockeye gillnet fishery has started mid-June to assess stock strength of returning Nass-bound sockeye, with the first exploratory fishery of 2012 taking place on 19 June. Since 1994, in-season escapement estimates have been provided by the Nisga'a fishwheel operations conducted in the lower Nass River approximately five miles upstream from the old Nass gillnet test fishery site. In 2012, fishwheel operations commenced May 31<sup>st</sup> and closed for the season September 15<sup>th</sup>. Nass River water levels in 2012 were ideal for most of the season with high fishwheel catchability conditions during the salmon migration period. In addition to the fishwheel estimates, catches in Canadian First Nation's food and commercial fisheries, and Canadian and Alaskan commercial fisheries are utilised in estimating Nass sockeye run size in-season. The 2012 Nass River fishwheel operation, along with the Nisga'a Fisheries Program, continue to be an example of quality stock assessment and effective fisheries co-management.

In general, the Area 3 net fishery is managed for Nass sockeye salmon until mid-July after which the outer Area 3 fishery is managed based on Nass and Skeena pink and Skeena sockeye stock abundance. The inside Area 3 (Sub-areas 3-7 to 17) net fishery is managed for Nass sockeye and local pink abundance from mid-July to late August or early September. In 2012, all Area 3 net fisheries operated with a non-retention/non-possession restriction for steelhead. In addition, all seine fisheries were also conducted with a non-retention/non-possession restriction for Chinook. Due to conservation concerns for Kwinageese Sockeye, gillnets were closed from July 12<sup>th</sup> to

July 27<sup>th</sup> and the seine fishery required mandatory release (non retention/ non possession) of sockeye during the July 16<sup>th</sup> and 17<sup>th</sup> openings.

The 2012 Area 3 gillnet fishery began 19 June (Week 25) with one 16-hour opening in portions of 3-7 and 3-12 to assess Nass River sockeye run strength. A less than average gillnet fleet size of 128 vessels (85 boat days effort) participated with 21,123 sockeye, and 235 Chinook being harvested (Tables 15 to 17). The sockeye catch and resulting CPUE was above average for this time of year and the high catch rates observed near the mouth of the Nass River were believed to be from sockeye that were delaying their entry to the Nass River. High water levels from an above average snowpack were thought to be a potential cause of this delay. During this opening harvesters were permitted to retain sockeye and pink and were requested to release all live Chinook.

During Week 26, two 16-hour gillnet openings were permitted to assess the incoming sockeye run. The sockeye catch for the week was slightly less than the one day opening the week before but consistent with the pre-season forecast for a below average Nass sockeye return. Catches in the marine commercial fishery and the Nass River fishwheels suggested that the sockeye were no longer delaying in the Nass estuary.

In Week 27, there were four 16-hour gillnet openings that resulted in 53,749 sockeye and 5,525 pink caught (Tables 15 to 17). Chum retention was permitted in a small area around Wales Island (portions of Sub-areas 3-3 and 3-7) where a high proportion are believed to be US hatchery origin chum. Otoliths were collected from these openings for thermal mark analysis to determine the hatchery contribution of the catch. A small fraction of the fleet fished in the chum retention area and the resulting catch was 7,509 chum (Tables 15 to 17). Chinook retention was not permitted from Week 27 to the end of the season due to poor Chinook returns to the Nass River and elsewhere. Additional fishing days were given in Week 27 in anticipation of the reduced openings for the following three weeks for Kwinageese sockeye rebuilding.

In 2011 a barrier from a rock fall in the Kwinageese River was confirmed that was preventing nearly all sockeye and Chinook from migrating upstream. Concrete blocks were placed downstream of the barrier to raise the water level below the falls to allow fish passage. The 2012 sockeye return was believed to be the first with a brood year impacted from the barrier consequently fishing opportunities for the peak Kwinageese migration period (July 8 to 28) were substantially reduced.

In Week 28 there was only one gillnet opening on July 11<sup>th</sup>. This opening had the peak fleet size for the season at 186 vessels operating with a catch of 11,426 sockeye, 5,910 pink and 6,686 chum (Tables 15 to 17). The first 16-hour seine openings in Area 3 occurred during Week 28 on July 9<sup>th</sup> and 10<sup>th</sup> with portions of sub-areas 3-3, 3-7 and 3-12 open. Chum retention was permitted in a portion of the open area around Wales Island. Most of the 6 to 8 vessels operating fished in the chum retention area. The total effort was small (9 boat-days) as this was an earlier than average start to the seine fishing season in Area 3 and only 447 sockeye, 1,904 pink and 5,823 chum were caught (Tables 18 to 20).

Week 29 was closed to gillnets as it is, on average, the peak migration period through Area 3 for Kwinageese sockeye based on DNA analysis of the Nass River fishwheels. During Week 29 there were two 16-hour seine openings in Area 3 for 16 hours with the same areas open as Week 28. Sockeye retention during this week was not permitted to protect Kwinageese sockeye. Most of the fleet fished in the area that permitted chum retention and a total of 18,676 pink and 20,170 chum were caught during the week (Tables 18 to 20).

There was one opening at the end of Week 30 (July 28) for gillnets with 6,025 sockeye and 37,746 pink caught (Tables 15 to 17). Chum retention was no longer permitted as it is believed, based on otolith analysis of Tree Point gillnet catches, that the wild chum proportion begins to increase at the end of July. Week 30 was closed to seines in Area 3 to reduce fishing impacts to Kwinageese sockeye and as the seines were opened in Area 4.

One 16-hour gillnet opening occurred on the first day of Week 31 (July 29) which had the smallest catch (1,431 sockeye and 8,369 pink) and smallest fleet size (95 vessels operating or 63 boat-days) of the season (Tables 15 to 17). This was the last opening of the season for gillnets in Area 3. Two 16-hour seine openings occurred in Week 31 with sockeye and pink retention but chum retention/possession no longer permitted. The area open was expanded to include sub-areas 3-9, 3-11 and 3-17. Peak seine effort for the season occurred on July 30<sup>th</sup> with 28 vessels operating and the total weekly catch was 3,314 sockeye and 192,565 pink (Tables 18 to 20). Catches of pink were better than expected and with some commercial sockeye allocation remaining a second opening was planned for Week 32.

During Week 32 there were 2 seine openings and sockeye and pink catches had decreased somewhat to 1,605 sockeye and 126,094 pink (Tables 18 to 20). Reduced pink catches and low in-season escapement indices resulted in seines being closed in Area 3 for the rest of the season.

Total gillnet fishing effort was 831 boat days, well below the 1990-1999 average effort of 2,845 boat days and the 2000-2009 decadal average effort of 2,283 boat days. The total Area 3 seine effort of 110 boat days is also well below the 1990-1999 average of 1,271 boat days and the 2000-2009 average of 266 boat days. For gillnets there was a total of 6 days (24 hour equivalent) fishing, while seines fished for 5 days, well below the 1990-1999 averages of 28 and 15 days fishing, respectively, and the 2000-2009 averages of 13 and 12 days, respectively (Table 32). The gillnet and seine sockeye delivered catches of 113,241 and 5,366 were near the pre-season expected harvest levels. The catch of pink salmon by gillnets (58,528) and seines (339,239) were better than anticipated.

Good in-season coho escapements through the Nass River fishwheels and catches in the Nisga'a in-river fisheries suggested a good Nass River coho return. Portions of Area 3 (sub-areas 3-7, 3-11, 3-12 and a portion of 3-3) were open for trolling with coho and pink retention from August 23<sup>rd</sup> to September 30<sup>th</sup> however Area 103 was included in the North Coast troll coho and pink directed fishery with sockeye by-catch retention permitted that opened July 18<sup>th</sup>. Total catch from troll in Areas 103 and 3 combined were 82 sockeye, 14,745 coho and 1,085 pink (Table 21).

Total Nisga'a Treaty and Harvest Agreement catches both in the Nass River and the marine approach areas included 68,759 sockeye, 3,547 Chinook, 12,082 coho, 20,224 pink and 316 chum. The Gitanyow First Nation harvested 9,725 sockeye, 111 Chinook and 187 coho as part of their food, social and ceremonial (FSC) fisheries in the Nass River. The Gitanyow First Nation harvested an additional 4,573 sockeye as part of a demonstration inland commercial fishery on the Meziadin River downstream of the fishway.

The end of season preliminary total return to Canada (TRTC) estimates for Nisga'a Treaty accounting were substantially lower than the pre-season estimates for Chinook (15,000 vs. 26,000), similar for coho (160,000 vs. 162,000) and somewhat higher for pink (631,000 vs. 510,000), chum (16,000 vs. 11,000), and sockeye (414,000 vs. 373,000).

The preliminary sockeye escapement estimate to the Nass was 217,845 and was somewhat higher than the escapement target of 200,000. The Meziadin River escapement of 144,923 was somewhat below the 2000-09 decadal average (163,686) and its desired escapement target (160,000). The Kwinageese River sockeye escapement was nearly average at 3,688 but much improved over the partial barrier escapement years of 2009 and 2010 with escapements of 107 and 48 respectively. It is suspected that the 2008 brood year was affected by the barrier so the 2012 return may be primarily from the 2007 brood year. Damdochax River escapements were similar to recent averages and Gingit Creek escapements continue to be near historical highs.

#### **Area 4**

The preseason 2012 sockeye management plan was developed around an abundance-based management scheme in an attempt to reduce the exploitation of less productive Skeena sockeye while allowing variable harvest opportunities based on aggregate sockeye abundance. As has been the case in recent years, the intent was to reduce the aggregate-stock exploitation rate on Skeena sockeye in North Coastal marine net fisheries relative to the 1982-2002 base period. In addition, management measures were in place to address concerns for Skeena coho, wild sockeye and chum stocks.

The pre-season forecast for Skeena sockeye was below average and a small harvestable surplus was anticipated. The pre-season forecast was 1.4 million (between 0.8 and 2.7 million at the 90% and 10% probability levels) and to conduct commercial fisheries the escapement should achieve 900,000 for spawning purposes and 150,000 for First Nation's harvests for food, social, and ceremonial (FSC) purposes. In addition to the relatively low sockeye forecast, the anticipated Skeena pink salmon return was expected to be very poor with no harvesting opportunities. In-season abundance indicators included the Tyee test fishery, various in-river fish counting facilities, harvest rate and CPUE models, First Nation's FSC fish catches and commercial catches in Area 4 and other fishing areas in Northern BC and Southern Southeast Alaska. The Tyee test fishery operated from May 23<sup>rd</sup> to September 24<sup>th</sup>. The earlier than normal start to the test fishery was to assess the early-timed Chinook return.

Area 4 gillnet and seine fisheries were to operate with a non-retention/non-possession restriction for chum, and steelhead while Chinook retention remained prohibited for the seine fleet. Further

management actions include mandatory operational revival boxes, daylight-only fisheries and time and area fishing restrictions.

The Area 4 Chinook-directed gillnet fishery took place with 1 opening of 30 hours commencing on June 15<sup>th</sup> which resulted in 49 boat days of effort and a catch of only 314 Chinook (Table 22). A second Chinook opening was not permitted because of the very low catch rate in the first opening and the relatively low Tyee test fishery index. Gillnets were not permitted to retain Chinook for the remainder of the season as the index remained consistently low.

Early in-season Skeena sockeye TRTC forecasts (1.9 million) led to an Area 4 gillnet fishery on July 13<sup>th</sup> (Week 28) in which an effort of 159 boat-days harvested 92,088 sockeye, and 7,067 pink. The very high catch rate resulted in a second consecutive opening where a further 68,781 sockeye and 4,093 pink were caught.

In season Skeena sockeye TRTC forecasts improved to 2.3 million and two consecutive gillnet openings occurred in Week 29. Although slightly lower than Week 28, sockeye catch rates remained quite high and the total gillnet catch for the week was 160,869 sockeye and 11,160 pink (Table 22). The first day of a 7 day (daylight hours only) seine Individual Transferable Quota (ITQ) fishery occurred in Week 29. The remaining 6 days occurred in Week 30 for a total Area 4 season seine catch of 123,340 sockeye and 9,733 pink (Table 23).

A one day gillnet opening also occurred in Week 30 with an effort of 185 boat days and a catch of 98,184 sockeye and 7,481 pink (Table 22). Declining in-season forecasts precluded any further Skeena sockeye directed fishing opportunities in 2012. Pink escapement indices from the Tyee test fishery indicated low escapements throughout the season and no pink directed fishing openings occurred in 2012.

Total gillnet fishing effort was 922 boat days, well below the 1990-1999 average effort of 8,705 boat days and the 2000-2009 decadal average effort of 2,892 boat days. The total Area 4 seine effort of 79 boat days is also well below the 1990-1999 average of 242 boat days and the 2000-2009 average of 256 boat days. For gillnets there was a total of 5 days (24 hour equivalent) fishing, while seines also fished for 5 days, well below the 1990-1999 averages of 20 and 8 days fishing, respectively, and the 2000-2009 averages of 10 and 10 days, respectively (Table 32). Gillnet and seine sockeye catches of 399,892 and 123,340 were above the pre-season expected harvest levels. The catch of pink salmon by gillnets (24,214) and seines (10,251) were low as anticipated.

The Skeena First Nations inland demonstration sockeye fishery was scheduled to continue in 2012 to provide economic benefit to up-river First Nations through the harvest and sale of Skeena sockeye. To protect non-target species, this fishery uses selective fishing techniques and harvests sockeye only. Harvesting locations include the Skeena mainstem as well as the Babine River. Sockeye allocations are acquired through the transfer of commercial gillnet and seine licences from the marine fishery and weekly allocations are based on average catch per licence from Area 4 gillnet and seine marine commercial fisheries occurring in previous weeks. A total of 115,556 sockeye were harvested in the Skeena inland demonstration fishery in 2012.

An Excess to Salmon Spawning Requirements (ESSR) fishery occurred in Babine Lake by the Lake Babine First Nation outside the Pinkut and Fulton spawning channels. The total sockeye catch in the ESSR fishery was 216,125. In addition, the total First Nations FSC catch of Skeena sockeye is estimated at 155,000.

Portions of Area 104 were open to troll for sockeye, coho and pink retention from July 18th to September 30<sup>th</sup>. The total hauled catch for the 2012 season from Area 104 was 65 sockeye, 69,067 coho, and 3,583 pink (Table 24).

The preliminary run reconstructed total Skeena sockeye return was estimated to be 2.4 million which is higher than the 50% probability level pre-season sibling forecast of 1.4 million but within the 10% probability level of 2.7 million. The Skeena sockeye reconstructed net escapement estimate of 1.2 million was slightly higher than the 2000 to 2009 average of 1.0 million. Estimated escapements of wild Skeena sockeye were mostly higher than recent averages except Morice/Nanika. The aggregate Area 4 pink escapement estimate of 241,029 (Table 30) was less than the brood year (325,404) but about what was anticipated (Table 35). The Area 4 chum escapement estimate was higher than recent years but is mostly the result of including the Ecstall River which had not been inspected for several years.

## **Area 5**

Management of the Area 5 fishery during July is based on Skeena sockeye abundance. From late July to early August, the fishery targets Skeena pink stocks which use Area 5 as a migration route. In mid to late August, fisheries are managed for harvest of local pink stocks.

Pre-season expectations were for limited gillnet and seine opportunities for Skeena sockeye, Skeena pink and local pink. All gillnet fishing openings in Area 5 were in conjunction with Area 4 sockeye directed openings (excluding the June Chinook directed fishery). This resulted in two openings in Week 28 and 29 and one opening in Week 30 (Table 25). Very little gillnet effort occurred in Area 5 with only 9 boat days estimated for the entire season which is well below average (Table 32). Catches were modest with only 2,730 sockeye and 85 pink estimated for Area 5 (Table 25). Seines were not open in Area 5 for the Skeena sockeye directed ITQ fishery (Table 26). Pink escapements were poor (Tables 28 and 34) and therefore no pink directed fishery was opened in Area 5 in 2012.

For troll portions of Area 105 were opened from July 18<sup>th</sup> to September 30<sup>th</sup>. A total of 3 boat days were reported in Area 105 with 78 coho and 32 pink harvested, (Table 27).

## **Management Performance Relative to Treaty Requirements**

### **Areas 3 (1-4) Pink Net Catch (Preliminary)**

For the year 2012, Canada was to manage the 3-1 to 3-4 net fishery to achieve an annual catch share of 2.49 percent of the annual allowable harvest (AAH) of Alaskan Districts 101, 102 and 103 pink salmon. With a Total Return of approximately 31.10 million pink, the Alaskan Districts 101,



102 and 103 AAH was 20.35 million pink. The resulting Area 3-1 to 3-4 Canadian commercial net total allowable catch of this AAH was approximately 0.51 million pink of Alaskan Districts 101, 102 and 103 origin (Table 28).

In the Canadian northern boundary area, pink salmon returns were anticipated to be poor for both Area 3 and Area 4 based on brood year escapements. Returns to Area 3 were slightly above expectations but Area 4 streams were at or below expectations in 2012. The 2012 Canadian pink salmon catch in Sub-areas 3-1 to 3-4 was 118,164 and a preliminary estimate of the Alaska stock component of this catch is estimated to be 96,658, or 0.47 % of the AAH, well below the annex agreement of 2.49 % (Table 28).

### **Area 1 Pink Troll Fishery (Preliminary)**

For the year 2012, Canada was to manage the Area 1 troll fishery to achieve an annual catch share of 2.57 percent of the annual allowable harvest (AAH) of Alaskan Districts 101, 102 and 103 pink salmon. The resulting Area 1 Canadian commercial troll total allowable catch of this AAH was approximately 523,056 pink of Alaskan Districts 101, 102 and 103 origin (Table 29).

The Canadian commercial troll fishery targeting pink salmon was open in the northern portion of Area 1 (Dixon Entrance AB Line) from July 1<sup>st</sup> to September 30<sup>th</sup>. Pink retention was also permitted during the Chinook directed fishery in parts of Area 1 which was open from June 21<sup>st</sup> to September 30<sup>th</sup> with closed periods from July 16<sup>th</sup> to July 19<sup>th</sup> and August 12<sup>th</sup> to September 3<sup>rd</sup>. Area 1 pink salmon directed effort was very minimal and the fishery harvested a total of 57,013 pink salmon, with an estimated 52,143 being of Alaskan origin. This equates to 0.26 % of the Alaskan District 101, 102 and 103 pink AAH, well below the annex agreement of 2.57%. (Table 29).

The pattern of total Area 1 weekly pink troll catch in 2012 is illustrated in Table 14.

## **2013 Salmon Forecast Northern British Columbia**

Expectations and fishing plans for 2013 are still preliminary. Specific opening dates and fishing patterns are determined through consultations with industry and since this process has not yet been completed it is too early to provide details. A summary of the forecasts for Areas 1, 3, 4 and 5 is provided in Table 31.

### **Area 1 Expectations**

*Sockeye* There are no significant local sockeye stocks in Area 1 and no directed commercial fisheries on passing stocks.

*Pink* The odd year is off-cycle for Haida Gwaii. No fisheries are anticipated.

*Chum* Fishing opportunities will be dependent on surpluses identified in-season

### **Area 3 Expectations**

*Sockeye* A below average Nass sockeye total return of 452,000 (with a 25% probability of the return exceeding 557,000 and a 75% probability the return will exceed 371,000) is expected to provide modest commercial fishing opportunities.

*Pink* A very poor return is expected based on very low brood year escapements.

*Chum* Area 3 chum stocks remain below target levels. Fishing opportunities will be constrained to reduce impacts to wild chum returning to Area 3 streams.

### **Area 4 Expectations**

*Sockeye* The sibling model forecast predicts a 50% probability of approximately 0.7 million sockeye returning to the Skeena in 2013 with a 25% probability of the return exceeding 1.0 million and a 75% probability the return will exceed 0.5 million. No Skeena sockeye directed commercial fisheries are anticipated in Area 4.

*Pink* A very poor return is expected based on very low brood year escapements.

*Chum* Skeena chum escapements are depressed and there will be no chum retention in Area 4.

### **Area 5 Expectations**

*Sockeye* The sibling model forecast predicts a 50% probability of approximately 0.7 million sockeye returning to the Skeena in 2013 with a 25% probability of the return exceeding 1.0 million and a 75% probability the return will exceed 0.5 million. No Skeena sockeye directed commercial fisheries are anticipated in Area 5.

*Pink* A very poor return is expected based on very low brood year escapements.

*Chum* Local chum stocks are depressed, and no surplus is anticipated.

## TABLES

Table 1. Weekly commercial catch and fishing effort by opening in the 2012 Alaska District 101 purse seine fishery (preliminary).

Week	Openings	Closures	Effort			Catch					
			Boats	Hours	Boat Hours	Chinook	Sockeye	Coho	Pink	Chum	Total
27	July 1, 2012	July 1, 2012	14	15	210	0	1,627	163	6,932	11,406	20,128
28	July 8, 2012	July 8, 2012	4	15	60	0	402	210	6,689	3,175	10,476
29	July 15, 2012	July 15, 2012	15	15	225	0	1,059	802	41,113	7,908	50,882
30	July 22, 2012	July 22, 2012	35	15	525	0	3,076	1,490	263,194	25,393	293,153
30B	July 26, 2012	July 26, 2012	47	15	705	0	2,592	2,001	196,291	15,438	216,322
31	July 29, 2012	July 29, 2012	55	15	825	3	2,144	1,903	369,377	24,484	397,911
31B	August 2, 2012	August 3, 2012	59	39	2,301	0	2,824	3,207	573,278	14,143	593,452
32	August 6, 2012	August 7, 2012	52	39	2,028	40	1,364	2,347	584,657	10,325	598,733
32B	August 10, 2012	August 11, 2012	54	39	2,106	31	1,418	2,725	492,354	9,237	505,765
33	August 14, 2012	August 15, 2012	34	39	1,326	36	1,050	2,696	327,780	12,796	344,358
33B	August 18, 2012	August 19, 2012	44	39	1,716	14	558	3,518	252,610	9,646	266,346
34	August 22, 2012	August 23, 2012	43	39	1,677	8	244	5,018	226,402	25,842	257,514
35	August 26, 2012	August 26, 2012	28	15	420	0	35	1,692	38,610	18,595	58,932
Season Total			140	339	14,124	132	18,393	27,772	3,379,287	188,388	3,613,972

Table 2. Weekly commercial catch and fishing effort by opening in the 2012 Alaska District 102 purse seine fishery (preliminary).

Week	Openings	Closures	Effort			Catch					
			Boats	Hours	Boat Hours	Chinook	Sockeye	Coho	Pink	Chum	Total
25	June 17, 2012	June 20, 2012	21	87	1827	497	2,320	1,350	2,731	39,468	46,366
26	June 24, 2012	June 27, 2012	41	87	3567	0	1,191	1,144	3,266	76,386	81,987
27	July 1, 2012	July 1, 2012	43	15	645	0	2,595	2,311	20,985	139,328	165,219
27B	July 2, 2012	July 5, 2012	95	87	8265	0	4,953	8,693	106,927	333,143	453,716
28	July 8, 2012	July 8, 2012	60	15	900	0	2,689	4,171	35,853	111,225	153,938
28B	July 9, 2012	July 11, 2012	88	63	5544	0	2,823	6,608	47,459	167,885	224,775
29	July 15, 2012	July 15, 2012	49	15	735	0	3,426	5,718	62,762	73,297	145,203
29B	July 19, 2012	July 19, 2012	27	15	405	0	1,395	1,907	14,986	52,770	71,058
30	July 22, 2012	July 22, 2012	32	15	480	0	2,107	5,111	37,193	46,446	90,857
30B	July 26, 2012	July 26, 2012	26	15	390	0	1,781	2,282	71,557	30,446	106,066
31	July 29, 2012	July 29, 2012	24	15	360	0	2,155	1,729	156,159	27,237	187,280
31B	August 2, 2012	August 3, 2012	58	39	2262	18	7,523	7,938	956,374	40,903	1,012,756
32	August 6, 2012	August 7, 2012	99	39	3861	34	4,411	9,978	1,789,668	37,035	1,841,126
32B	August 10, 2012	August 11, 2012	97	39	3783	97	1,861	9,112	1,284,717	23,388	1,319,175
33	August 14, 2012	August 15, 2012	55	39	2145	69	1,289	7,265	674,086	19,445	702,154
33B	August 18, 2012	August 19, 2012	45	39	1755	20	624	3,506	415,183	12,247	431,580
34	August 22, 2012	August 23, 2012	41	39	1599	4	340	2,759	157,118	10,831	171,052
35	August 26, 2012	August 26, 2012	12	15	180	0	51	695	30,558	4,033	35,337
36	September 8, 2012	September 8, 2012	34	12	408	0	17	1,296	4,807	21,767	27,887
37	September 13, 2012	September 13, 2012	31	12	372	0	8	196	329	22,010	22,543
38	September 20, 2012	September 20, 2012	25	12	300	0	3	540	15	2,764	3,322
Season Total			176	714	39,783	739	43,562	84,309	5,872,733	1,292,054	2,713,050

Table 3. Weekly commercial catch and fishing effort by opening in the 2012 Alaska District 103 purse seine fishery (preliminary).

Week	Openings	Closures	Effort			Catch					
			Boats	Hours	Boat Hours	Chinook	Sockeye	Coho	Pink	Chum	Total
30B	July 26, 2012	July 26, 2012		15		Confidential information, less than 3 boats fishing.					
31	July 29, 2012	July 29, 2012		15		Confidential information, less than 3 boats fishing.					
31B	August 2, 2012	August 3, 2012		39		Confidential information, less than 3 boats fishing.					
32 *	August 6, 2012	August 7, 2012	4	39	156	12	533	1,886	93,117	3,312	98,860
32B	August 10, 2012	August 11, 2012	21	39	819	25	1,088	3,342	311,245	10,568	326,268
33	August 14, 2012	August 15, 2012	48	39	1,872	56	1,191	4,496	432,004	15,103	452,850
33B	August 18, 2012	August 19, 2012	37	39	1,443	24	369	2,963	201,377	11,428	216,161
34	August 22, 2012	August 23, 2012	13	39	507	3	136	1,470	77,662	3,711	82,982
Season Total			71	264	4,797	120	3,317	14,157	1,115,405	44,122	1,177,121

\* Includes data from confidential openings.

Table 4. Weekly commercial catch and fishing effort by opening in the 2012 Alaska District 104 purse seine fishery (preliminary).

Week	Openings	Closures	Effort			Catch					
			Boats	Hours	Boat Hours	Chinook	Sockeye	Coho	Pink	Chum	Total
27	July 1, 2012	July 1, 2012	3	12	36	0	372	230	418	3,826	4,846
28	July 8, 2012	July 8, 2012	9	15	135	0	1,504	1,771	2,516	16,047	21,838
29	July 15, 2012	July 15, 2012	7	15	105	0	6,117	1,220	19,561	7,211	34,109
29B	July 19, 2012	July 19, 2012	19	15	285	0	2,371	1,650	9,365	5,335	18,721
30	July 22, 2012	July 22, 2012	17	15	255	0	4,951	5,484	56,540	13,301	80,276
30B	July 26, 2012	July 26, 2012	11	15	165	0	2,985	5,458	89,665	8,195	106,303
31	July 29, 2012	July 29, 2012	29	15	435	0	3,478	10,317	214,277	14,043	242,115
31B	August 2, 2012	August 3, 2012	41	39	1,599	0	4,706	10,926	410,996	23,318	449,946
32	August 6, 2012	August 7, 2012	31	39	1,209	706	9,970	7,614	842,167	19,503	879,960
32B	August 10, 2012	August 11, 2012	54	39	2,106	906	16,758	14,973	1,336,631	39,622	1,408,890
33	August 14, 2012	August 15, 2012	98	39	3,822	539	10,664	14,387	1,715,445	54,324	1,795,359
33B	August 18, 2012	August 19, 2012	77	39	3,003	724	6,600	13,550	893,161	43,742	957,777
34	August 22, 2012	August 23, 2012	31	39	1,209	79	1,318	2,372	172,737	6,806	183,312
35	August 26, 2012	August 26, 2012	13	15	195	73	599	3,073	29,974	2,770	36,489
Season Total			119	351	14,559	3,027	72,393	93,025	5,793,453	258,043	6,219,941

Table 5. Weekly commercial catch and fishing effort by opening in the 2012 Alaska District 101 drift gillnet fishery (preliminary).

Week	Openings	Closures	Effort			Catch					
			Boats	Hours	Boat Hours	Chinook	Sockeye	Coho	Pink	Chum	Total
25	June 17, 2012	June 21, 2012	51	96	4,895	442	21,695	346	70	14,473	37,026
26	June 24, 2012	June 28, 2012	59	96	5,663	324	13,083	130	239	35,209	48,985
27	July 1, 2012	July 5, 2012	54	96	5,183	197	9,305	595	4,536	48,579	63,212
28	July 8, 2012	July 12, 2012	55	96	5,279	154	7,553	1,864	33,904	54,775	98,250
29	July 15, 2012	July 17, 2012	48	48	2,303	86	2,475	1,001	9,474	42,268	55,304
30	July 22, 2012	July 26, 2012	38	96	3,647	85	2,643	1,853	26,027	40,701	71,309
31	July 29, 2012	August 3, 2012	46	120	5,519	42	2,826	2,154	34,931	23,628	63,581
32	August 5, 2012	August 10, 2012	40	120	4,799	20	1,517	2,828	33,946	7,313	45,624
33	August 12, 2012	August 17, 2012	33	120	3,959	24	642	4,467	18,261	5,741	29,135
34	August 19, 2012	August 24, 2012	34	120	4,079	12	262	5,665	28,391	10,943	45,273
35	August 26, 2012	August 30, 2012	34	96	3,263	15	212	9,298	12,277	11,533	33,335
36	September 2, 2012	September 6, 2012	38	96	3,647	2	118	12,350	1,728	10,534	24,732
37	September 9, 2012	September 13, 2012	31	96	2,975	1	7	7,975	62	4,579	12,624
38	September 16, 2012	September 20, 2012	32	96	3,071	0	4	7,765	12	2,485	10,266
39	September 23, 2012	September 27, 2012	10	96	960	0	0	4,208	0	1,341	5,549
Season Total			85	1,488	59,244	1,404	62,342	62,499	203,858	314,102	644,205

Table 6. Weekly commercial catch and fishing effort by opening in the 2012 Alaska District 106 drift gillnet fishery (preliminary).

Week	Openings	Closures	Effort			Catch					
			Boats	Hours	Boat Hours	Chinook	Sockeye	Coho	Pink	Chum	Total
25	June 18, 2012	June 20, 2012	49	48	2,352	596	3,655	3,211	172	2,980	10,614
26	June 24, 2012	June 26, 2012	50	48	2,399	269	3,989	4,642	170	6,908	15,978
27	July 1, 2012	July 4, 2012	47	72	3,383	250	7,341	7,428	2,629	18,393	36,041
28	July 8, 2012	July 11, 2012	33	72	2,375	147	5,767	5,156	3,855	17,139	32,064
29	July 15, 2012	July 18, 2012	29	72	2,087	191	9,178	6,868	3,268	13,035	32,540
30	July 22, 2012	July 25, 2012	41	72	2,951	157	9,539	12,584	16,272	16,620	55,172
31	July 29, 2012	August 1, 2012	42	72	3,023	55	2,805	7,173	14,243	5,747	30,023
32	August 5, 2012	August 8, 2012	51	72	3,671	26	1,718	5,432	45,187	6,891	59,254
33	August 12, 2012	August 15, 2012	58	72	4,175	33	973	6,907	30,271	3,922	42,106
34	August 19, 2012	August 21, 2012	40	48	1,919	36	340	4,338	6,524	2,191	13,429
35	August 26, 2012	August 28, 2012	56	48	2,687	27	96	8,065	5,464	3,614	17,266
36	September 2, 2012	September 5, 2012	70	72	5,039	40	30	18,109	1,472	3,740	23,391
37	September 9, 2012	September 12, 2012	66	72	4,751	13	13	11,786	105	1,590	13,507
38	September 16, 2012	September 19, 2012	57	72	4,103	11	21	16,892	14	1,310	18,248
39	September 23, 2012	September 25, 2012	29	48	1,391	2	1	2,827	0	227	3,057
Season Total			133	960	46,307	1,853	45,466	121,418	129,646	104,307	402,690



Table 7. Weekly commercial catch and fishing effort by opening in the 2012 Annette Island Reserve purse seine fishery (preliminary).

Week	Openings	Closures	Effort		Catch					
			Boats	Hours	Chinook	Sockeye	Coho	Pink	Chum	Total
26	June 29, 2012	June 30, 2012	1	39	39	637	86	1,305	25,730	27,797
27	July 1, 2012	July 2, 2012	1	39	13	1,343	145	4,578	10,536	16,615
27B	July 6, 2012	July 6, 2012	1	15	5	355	144	6305	2,782	9,591
27C	July 7, 2012	July 7, 2012	1	15	1	25	9	226	12,156	12,417
28	July 9, 2012	July 10, 2012	1	39	3	258	119	9,317	1,937	11,634
28B	July 13, 2012	July 13, 2012	1	15	15	185	66	7299	2,174	9,739
28C	July 14, 2012	July 14, 2012	1	15	10	88	37	3418	10,528	14,081
29	July 19, 2012	July 20, 2012	1	39	31	630	567	42,147	9,906	53,281
29B	July 21, 2012	July 21, 2012	1	15	2	14	22	172	13,278	13,488
30	July 23, 2012	July 23, 2012	1	15	18	190	226	8,427	1,428	10,289
30B	July 26, 2012	July 27, 2012	1	39	56	518	415	58103	4,614	63,706
30C	July 28, 2012	July 28, 2012	1	15	4	20	9	964	5,617	6,614
31	July 29, 2012	July 30, 2012	1	39	22	392	300	93,195	3,244	97,153
31B	August 3, 2012	August 3, 2012	1	15	0	74	48	9,381	190	9,693
31C	August 4, 2012	August 4, 2012	1	15	0	1	5	330	2,136	2,472
32	August 6, 2012	August 7, 2012	1	39	5	263	298	66,158	1,109	67,833
33	August 12, 2012	August 13, 2012	1	39	1	278	280	74,943	1,075	76,577
33B	August 15, 2012	August 16, 2012	1	39	0	48	314	45629	1,397	47,388
33C	August 18, 2012	August 18, 2012	0	15	0	0	0	0	0	0
34	August 20, 2012	August 21, 2012	1	39	0	45	344	27,088	741	28,218
34B	August 24, 2012	August 24, 2012	1	15	0	42	411	20220	1,013	21,686
34C	August 25, 2012	August 25, 2012	1	15	0	0	103	1039	10,439	11,581
35	August 26, 2012	August 27, 2012	1	39	0	9	519	18,258	990	19,776
35B	August 29, 2012	August 30, 2012	0	39	0	0	0	0	0	0
35C	September 1, 2012	September 1, 2012	1	15	0	0	35	380	3,218	3,633
36	September 7, 2012	September 7, 2012	1	15	0	0	14	0	274	288
37	September 13, 2012	September 13, 2012	0	14	0	0	0	0	0	0
38	September 16, 2012	September 16, 2012	0	14	0	0	0	0	0	0
39	September 23, 2012	September 23, 2012	1	14	0	0	174	0	9	183
40	September 30, 2012	September 30, 2012	0	14	0	0	0	0	0	0
Season Total				734	225	5,415	4,690	498,882	126,521	635,733

All landing under Annette Island fisheries are placed under one Commercial Fisheries Entry Commission license, therefore it is shown as one boat. Information is based solely on data given to the

department by Annette Island salmon processors and is not confirmed by ADFG managers as complete.

Table 8. Weekly commercial catch and fishing effort by opening in the 2012 Annette Island Reserve gillnet fishery (preliminary).

Week	Openings	Closures	Effort		Catch					
			Boats	Hours	Chinook	Sockeye	Coho	Pink	Chum	Total
24	June 10, 2012	June 14, 2012	1	96	30	297	29	18	681	1,055
25	June 17, 2012	June 21, 2012	1	96	337	1,819	107	359	8,844	11,466
26	June 24, 2012	June 29, 2012	1	120	282	4,436	311	5,283	39,898	50,210
27	July 1, 2012	July 6, 2012	1	120	163	2,353	276	27,111	37,098	67,001
28	July 8, 2012	July 13, 2012	1	120	265	2,732	959	41,301	48,479	93,736
29	July 15, 2012	July 20, 2012	1	120	165	1,314	592	25,458	68,538	96,067
30	July 22, 2012	July 27, 2012	1	120	86	2,240	1,123	38,702	48,596	90,747
31	July 29, 2012	August 2, 2012	1	96	54	1,096	1,753	63,065	25,102	91,070
31B	August 4, 2012	August 4, 2012	1	15	0	22	19	1,671	108	1,820
32	August 5, 2012	August 9, 2012	1	96	6	122	238	17,733	2,308	20,407
33	August 12, 2012	August 17, 2012	1	120	6	165	624	44,641	8,662	54,098
34	August 19, 2012	August 24, 2012	1	120	0	57	2,850	18,956	10,275	32,138
35	August 26, 2012	August 30, 2012	1	96	2	22	3,469	21,997	18,454	43,944
36	September 2, 2012	September 6, 2012	1	96	0	1	6,647	2,700	16,262	25,610
37	September 9, 2012	September 13, 2012	1	96	0	0	9,245	0	5,400	14,645
38	September 16, 2012	September 19, 2012	1	72	0	0	4,171	0	2,012	6,183
39	September 23, 2012	September 26, 2012	1	72	0	0	3,911	0	456	4,367
40	September 30, 2012	October 3, 2012	1	72	0	0	1,360	0	165	1,525
Season Total				1,743	1,396	16,676	37,684	308,995	341,338	706,089

All landing under Annette Island fisheries are placed under one Commercial Fisheries Entry Commission license, therefore it is shown as one boat. Information is based solely on data given to the department by Annette Island salmon processors and is not confirmed by ADFG managers as complete.

Table 9. Southern Southeast Alaska pink salmon escapement indices by stock group and district for 2012 (in millions).

Stock group	District	Total pink salmon index 2012	Management target lower	upper	Met minimum escapement	Recent 10-year average
E Behm	101	1.83	0.67	1.77	+	1.73
Portland	101	0.47	0.10	0.28	+	0.32
W Behm	101	0.61	0.25	0.66		0.56
Kasaan	102	0.77	0.24	0.64	+	0.86
Moirá	102	0.06	0.05	0.13		0.12
E Dall	103	0.26	0.13	0.36		0.32
Hetta	103	0.75	0.30	0.79		0.68
Klawock	103	0.51	0.42	1.11		1.14
Sea Otter Sound	103	0.19	0.10	0.28		0.21
Affleck Canal	105	0.21	0.14	0.38		0.32
Shipley Bay	105	0.08	0.11	0.28	–	0.24
Burnett	106	0.08	0.05	0.14		0.13
Ratz Harbor	106	0.09	0.04	0.12		0.14
Totem Bay	106	0.05	0.05	0.13	–	0.10
Whale Pass	106	0.07	0.07	0.18	–	0.14
Anan	107	0.33	0.21	0.57		0.43
Union Bay	107	0.10	0.05	0.12		0.12
Stikine	108	0.02	0.02	0.06		0.06
Total	101	2.90	1.02	2.71	+	2.61
Total	102	0.83	0.29	0.77	+	0.98
Total	103	1.72	0.95	2.54		2.35
Total	105	0.29	0.25	0.66		0.56
Total	106	0.28	0.21	0.57		0.51
Total	107	0.42	0.26	0.69		0.54
Total	108	0.02	0.02	0.06		0.06
Southern Southeast Alaska Total		6.46	3.00	8.00		7.6 million

Table 10. Preliminary annual allowable harvest (AAH) calculations for the Alaska District 104 Week 27-30 purse seine fishery, 1999-2012.

Year	Nass/Skeena Total Return	Nass/Skeena Escapement	Allowable Nass/ Skeena AAH	Allowable Dist. 104 Nass/Skeena Harvest (2.45%)	Total Pre- Week 31 Sockeye Harvest	Actual Nass/Skeena Harvest	Overage/ Underage Per Year	Cumulative: +overage / (-underage)
1999	1,771,048	936,705	834,343	20,441	7,664	3,232	-17,209	-17,209
2000	5,318,228	1,100,000	4,218,228	103,347	48,969	29,221	-74,126	-91,335
2001	4,965,291	1,100,000	3,865,291	94,700	203,090	167,854	73,154	-18,181
2002	2,776,502	1,051,333	1,725,169	42,267	26,554	18,627	-23,640	-41,820
2003	3,306,520	1,100,000	2,206,520	54,060	84,742	44,258	-9,802	-51,622
2004	2,621,000	1,100,000	1,521,000	37,265	30,758	19,233	-18,032	-69,653
2005	1,770,474	1,000,144	770,330	18,873	35,690	19,442	569	-69,085
2006	3,650,525	1,100,000	2,550,525	62,488	89,615	68,940	6,452	-62,632
2007	2,752,074	1,100,000	1,652,074	40,476	112,135	75,615	35,139	-27,493
2008	2,531,701	1,100,000	1,431,701	35,077	6,262	4,880	-30,197	-57,690
2009	1,602,959	1,053,858	549,101	13,453	15,971	10,128	-3,325	-61,015
2010 <sup>a</sup>	1,406,016	890,820	515,196	12,622	4,617	1,086	-11,536	-72,551
2011 <sup>a</sup>	2,490,000	1,100,000	1,390,000	34,055	25,280	16,250	-17,805	-90,356
2012 <sup>a</sup>	2,880,000	1,100,000	1,780,000	43,610	18,300	n/a	n/a	n/a

<sup>a</sup> Preliminary information pending completion of run reconstruction analyses.

Table 11. Preliminary annual allowable harvest (AAH) calculations for the Alaska District 101 gillnet fishery, 1999-2012.

Year	Nass River Total Return	Nass River Escapement	Allowable Nass River AAH	Allowable Alaska Harvest (13.8%)	Total District 101 Gillnet Seasonal Sockeye Harvest	Actual Nass River Alaska Harvest	Overage/ Underage Per Year	Cumulative: +overage / (-underage )
1999	842,806	200,000	642,806	88,707	160,028	129,794	41,087	41,087
2000	625,983	200,000	425,983	58,786	94,651	46,305	-12,481	28,606
2001	580,616	167,258	413,358	57,043	80,041	55,096	-1,947	26,659
2002	1,403,976	200,000	1,203,976	166,149	120,353	90,553	-75,596	-48,937
2003	1,177,472	200,000	977,472	134,891	105,263	72,942	-61,949	-110,886
2004	986,098	200,000	786,098	108,482	142,357	110,340	1,858	-109,028
2005	666,880	200,000	466,880	64,429	79,725	55,319	-9,110	-118,138
2006	775,110	200,000	575,110	79,365	62,770	47,948	-31,417	-149,555
2007	602,208	164,745	437,463	60,370	66,822	46,369	-14,001	-163,556
2008	380,397	200,000	180,397	24,895	34,113	24,359	-536	-164,092
2009	575,336	200,000	375,336	51,796	69,859	55,270	3,474	-160,618
2010 <sup>a</sup>	442,178	200,000	242,178	33,421	62,680	25,706	-7,715	-168,333
2011 <sup>a</sup>	571,000	200,000	371,000	51,198	88,618	54,545	3,347	-164,985
2012 <sup>a</sup>	480,000	200,000	280,000	38,640	62,342			

<sup>a</sup> Preliminary information pending completion of run reconstruction analyses.

Table 12. Weekly commercial catch and fishing effort in the 2012 Canadian Area 1 gillnet fishery (preliminary).

Julian Week	Stat Week	Ending Date	Sockeye	Coho	Pink	Chum	Chinook	Total	Boat Days*	Hours Open	Days Fishing**
FISHERY DID NOT OPEN			-	-	-	-	-	-	-	-	-
TOTAL			-	-	-	-	-	-	-	-	-

2012 Catch figures are based on Fisheries Management In-Season Hail Estimates

\* Boat Days are represented in 24-hour format.

\*\* Days Fishing are the sum of the daily fishery openings independent of hours open.

**Table 13.** Weekly commercial catch and fishing effort in the 2012 Canadian Area 1 seine fishery (preliminary).

Julian Week	Stat Week	Ending Date	Sockeye	Coho	Pink	Chum	Chinook	Total	Boat Days*	Hours Open	Days Fishing**
FISHERY DID NOT OPEN			-	-	-	-	-	-	-	-	-
TOTAL			-	-	-	-	-	-	-	-	-

2012 Catch figures are based on Fisheries Management In-Season Hail Estimates

\* Boat Days are represented in 24-hour format.

\*\* Days Fishing are the sum of the daily fishery openings independent of hours open.

**Table 14.** Weekly commercial catch and fishing effort in the 2012 Canadian Area 1 troll fishery (preliminary)

Julian Week	Stat Week	Ending Date	Sockeye	Coho	Pink	Chum	Chinook***	Total	Boat Days*	Hours Open	Days Fishing**
24	62	Jun.16	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	0
25	63	Jun. 23	CLOSED	CLOSED	727	CLOSED	11,684	12,411	290	72	3
26	64	Jun. 30	CLOSED	CLOSED	3,785	CLOSED	13,893	17,678	613	168	7
27	71	Jul. 07	73	3,425	9,624	CLOSED	12,612	25,734	617	168	7
28	72	Jul. 14	10	2,183	5,108	CLOSED	8,668	15,969	477	168	7
29	73	Jul. 21	657	54,609	1,809	CLOSED	2,444	59,519	349	168	7
30	74	Jul. 28	206	28,817	14,913	CLOSED	5,562	49,498	559	168	7
31	75	Aug. 04	327	27,083	10,454	CLOSED	3,087	40,951	421	168	7
32	81	Aug. 11	204	15,729	4,974	CLOSED	4,302	25,209	313	168	7
33	82	Aug. 18	28	6,736	3,522	CLOSED	CLOSED	10,286	131	168	7
34	83	Aug. 25	8	5,607	1,970	CLOSED	CLOSED	7,585	90	168	7
35	84	Sept. 01	0	696	77	CLOSED	CLOSED	773	23	168	7
36	91	Sept. 08	1	275	43	CLOSED	278	597	36	168	7
37	92	Sept. 15	2	205	6	CLOSED	130	343	15	168	7
38	93	Sept. 22	2	246	1	CLOSED	180	429	18	168	7
39	94	Sept. 29	0	65	0	CLOSED	14	79	7	168	7
40	101	Oct. 06	0	0	0	CLOSED	0	0	0	24	1
41	102	Oct. 13	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	0
42	103	Oct. 20	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	72	3
43	104	Oct. 27	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	168	7
44	105	Nov. 03	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	168	7
45	111	Nov. 10	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	168	7
46	112	Nov. 17	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	168	7
47	113	Nov. 24	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	168	7
48	114	Dec. 01	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	168	7
49	121	Dec. 08	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	168	7
50	122	Dec. 15	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	168	7
51	123	Dec. 22	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	168	7
52	124	Dec. 29	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	168	7
53	125	Dec. 31	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	48	2
<b>Totals</b>			<b>1,518</b>	<b>145,676</b>	<b>57,013</b>	<b>0</b>	<b>62,854</b>	<b>267,061</b>	<b>3,959</b>	<b>4,248</b>	<b>177</b>

2012 non-Chinook catch figures are based on fisheries management in-season hail estimates

\* Boat Days are represented in 24-hour format.

\*\* Days Fishing are the sum of the daily fishery openings independent of hours open.

\*\*\* Chinook Area hail catch pro-rated with validated Chinook landings.



**Table 15.** Weekly commercial catch and fishing effort in the 2012 Canadian Area 3 Entrance (subareas 1-4) gillnet fishery (preliminary).




<b>Julian Week</b>	<b>Stat Week</b>	<b>Ending Date</b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Chinook</b>	<b>Total</b>	<b>Boat Days*</b>	<b>Hours Open</b>	<b>Days Fishing**</b>
26	64	Jun. 30	Closed	Closed	Closed	Closed	Closed	0	0	0	0
27	71	Jul. 07	1372	Closed	960	2612	Closed	4,944	23	64	4
28	72	Jul. 14	561	Closed	531	1342	Closed	2,434	9	16	1
29	73	Jul. 21	Closed	Closed	Closed	Closed	Closed	0	0	0	0
<b>Totals</b>			<b>1,933</b>	<b>0</b>	<b>1,491</b>	<b>3,954</b>	<b>0</b>	<b>7,378</b>	<b>32</b>	<b>80</b>	<b>5</b>

2012 catch figures are based on Fisheries Management in-season hail estimates

\* Boat Days are represented in 24-hour format.

\*\* Days Fishing are the sum of the daily fishery openings independent of hours open.

**Table 16.** Weekly commercial catch and fishing effort in the 2012 Canadian Area 3 Inside (subareas 7-17) gillnet fishery (preliminary).




Julian Week	Stat Week	Ending Date	Sockeye	Coho	Pink	Chum	Chinook	Total	Boat Days*	Hours Open	Days Fishing**
24	62	Jun.16	Closed	Closed	Closed	Closed	Closed	0	0	0	0
25	63	Jun. 23	21,123	Closed	0	Closed	235	21,358	85	16	1
26	64	Jun. 30	18,115	Closed	18	Closed	231	18,364	178	32	2
27	71	Jul. 07	53,749	Closed	5,525	4,897	Closed	64,171	345	64	4
28	72	Jul. 14	10,865	Closed	5,379	5,344	Closed	21,588	115	16	1
29	73	Jul. 21	Closed	Closed	Closed	Closed	Closed	0	0	0	0
30	74	Jul. 28	6,025	Closed	37,746	Closed	Closed	43,771	97	16	1
31	75	Aug. 04	1,431	Closed	8,369	Closed	Closed	9,800	63	16	1
32	81	Aug. 11	Closed	Closed	Closed	Closed	Closed	0	0	0	0
<b>Totals</b>			<b>90,185</b>	<b>0</b>	<b>57,037</b>	<b>10,241</b>	<b>231</b>	<b>157,694</b> 	<b>798</b> 	<b>144</b> 	<b>9</b>

2012 catch figures are based on Fisheries Management in-season hail estimates

\* Boat Days are represented in 24-hour format.

\*\* Days Fishing are the sum of the daily fishery openings independent of hours open.

**Table 17.** Weekly commercial catch and fishing effort in the 2012 Canadian total Area 3 gillnet fishery (preliminary).




Julian Week	Stat Week	Ending Date	Sockeye	Coho	Pink	Chum	Chinook	Total	Boat Days*	Hours Open	Days Fishing**
24	62	Jun.16	Closed	Closed	Closed	Closed	Closed	0	0	0	0
25	63	Jun. 23	21,123	Closed	0	Closed	235	21,358	85	16	1
26	64	Jun. 30	18,115	Closed	18	Closed	231	18,364	178	32	2
27	71	Jul. 07	55,121	Closed	6,485	7,509	Closed	69,115	369	64	4
28	72	Jul. 14	11,426	Closed	5,910	6,686	Closed	24,022	124	16	1
29	73	Jul. 21	Closed	Closed	Closed	Closed	Closed	0	0	0	0
30	74	Jul. 28	6,025	Closed	37,746	Closed	Closed	43,771	97	16	1
31	75	Aug. 04	1,431	Closed	8,369	Closed	Closed	9,800	63	16	1
32	81	Aug. 11	Closed	Closed	Closed	Closed	Closed	0	0	0	0
<b>Totals</b>			<b>92,118</b>	<b>0</b>	<b>58,528</b>	<b>14,195</b>	<b>231</b>	<b>165,072</b> 	<b>831</b> 	<b>144</b> 	<b>9</b>

2012 catch figures are based on Fisheries Management in-season hail estimates

\* Boat Days are represented in 24-hour format.

\*\* Days Fishing are the sum of the daily fishery openings independent of hours open.

**Table 18.** Weekly commercial catch and fishing effort in the 2012 Canadian Area 3 Entrance (subareas 1-4) seine fishery (preliminary).




Julian Week	Stat Week	Ending Date	Sockeye	Coho	Pink	Chum	Chinook	Total	Boat Days*	Hours Open	Days Fishing**
27	71	Jul. 07	Closed	Closed	Closed	Closed	Closed	0	0	0	0
28	72	Jul. 14	137	Closed	1,366	5,823	Closed	7,326	8	32	2
29	73	Jul. 21	0	Closed	17,267	18,799	Closed	36,066	26	32	2
30	74	Jul. 28	Closed	Closed	Closed	Closed	Closed	0	0	0	0
31	75	Aug. 04	862	Closed	73,028	Closed	Closed	73,890	11	32	2
32	81	Aug. 11	416	Closed	25,012	Closed	Closed	25,428	11	32	2
33	82	Aug. 18	Closed	Closed	Closed	Closed	Closed	0	0	0	0
<b>Totals</b>			<b>1,415</b>	<b>0</b>	<b>116,673</b>	<b>24,622</b>	<b>0</b>	<b>142,710</b> 	<b>56</b> 	<b>128</b> 	<b>8</b>

2012 catch figures are based on Fisheries Management in-season hail estimates

\* Boat Days are represented in 24-hour format.

\*\* Days Fishing are the sum of the daily fishery openings independent of hours open.

**Table 19.** Weekly commercial catch and fishing effort in the 2012 Canadian Area 3 Inside (subareas 7-17) seine fishery (preliminary).




Julian Week	Stat Week	Ending Date	Sockeye	Coho	Pink	Chum	Chinook	Total	Boat Days*	Hours Open	Days Fishing**
27	71	Jul. 07	Closed	Closed	Closed	Closed	Closed	0	0	0	0
28	72	Jul. 14	310	Closed	538	0	Closed	848	1	32	2
29	73	Jul. 21	Closed	Closed	1,409	1,371	Closed	2,780	2	32	2
30	74	Jul. 28	Closed	Closed	Closed	Closed	Closed	0	0	0	0
31	75	Aug. 04	2,452	Closed	119,537	Closed	Closed	121,989	25	32	2
32	81	Aug. 11	1,189	Closed	101,082	Closed	Closed	102,271	25	32	2
33	82	Aug. 18	Closed	Closed	Closed	Closed	Closed	0	0	0	0
<b>Totals</b>			<b>3,951</b>	<b>0</b>	<b>222,566</b>	<b>1,371</b>	<b>0</b>	<b>227,888</b> 	<b>53</b> 	<b>128</b> 	<b>8</b>

2012 catch figures are based on Fisheries Management in-season hail estimates

\* Boat Days are represented in 24-hour format.

\*\* Days Fishing are the sum of the daily fishery openings independent of hours open.

**Table 20.** Weekly commercial catch and fishing effort in the 2012 Canadian total Area 3 seine fishery (preliminary).

Julian Week	Stat Week	Ending Date	Sockeye	Coho	Pink	Chum	Chinook	Total	Boat Days*	Hours Open	Days Fishing**
27	71	Jul. 07	Closed	Closed	Closed	Closed	Closed	0	0	0	0
28	72	Jul. 14	447	Closed	1,904	5,823	Closed	8,174	9	32	2
29	73	Jul. 21	Closed	Closed	18,676	20,170	Closed	38,846	28	32	2
30	74	Jul. 28	Closed	Closed	Closed	Closed	Closed	0	0	0	0
31	75	Aug. 04	3,314	Closed	192,565	Closed	Closed	195,879	37	32	2
32	81	Aug. 11	1,605	Closed	126,094	Closed	Closed	127,699	36	32	2
33	82	Aug. 18	Closed	Closed	Closed	Closed	Closed	0	0	0	0
<b>Totals</b>			<b>5,366</b>	<b>0</b>	<b>339,239</b>	<b>25,993</b>	<b>0</b>	<b>370,598</b> 	<b>110</b> 	<b>128</b> 	<b>8</b>

2012 catch figures are based on Fisheries Management in-season hail estimates

\* Boat Days are represented in 24-hour format.

\*\* Days Fishing are the sum of the daily fishery openings independent of hours open.

**Table 21.** Weekly commercial catch and fishing effort in the 2012 Canadian Area 3 troll fishery (preliminary).

Julian Week	Stat Week	Ending Date	Sockeye	Coho	Pink	Chum	Chinook	Total	Boat Days*	Hours Open	Days Fishing**
28	72	Jul. 14	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	0
29	73	Jul. 21	1	392	281	CLOSED	CLOSED	674	3	96	4
30	74	Jul. 28	3	953	233	CLOSED	CLOSED	1,189	8	168	7
31	75	Aug. 04	2	522	323	CLOSED	CLOSED	847	8	168	7
32	81	Aug. 11	0	309	95	CLOSED	CLOSED	404	4	168	7
33	82	Aug. 18	0	431	0	CLOSED	CLOSED	431	6	168	7
34	83	Aug. 25	0	1,750	64	CLOSED	CLOSED	1,814	42	168	7
35	84	Sept. 01	2	1,194	33	CLOSED	CLOSED	1,229	37	168	7
36	91	Sept. 08	4	3,165	46	CLOSED	CLOSED	3,215	63	168	7
37	92	Sept. 15	40	3,513	9	CLOSED	CLOSED	3,562	58	168	7
38	93	Sept. 22	30	1,372	1	CLOSED	CLOSED	1,403	48	168	7
39	94	Sept. 29	0	1,144	0	CLOSED	CLOSED	1,144	33	168	7
40	101	Oct. 06	0	0	0	CLOSED	CLOSED	0	0	24	1
41	102	Oct. 13	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	0
<b>Totals</b>			<b>82</b>	<b>14,745</b>	<b>1,085</b>	<b>0</b>	<b>0</b>	<b>15,912</b>	<b>310</b>	<b>1,800</b>	<b>75</b>

2012 non-Chinook catch figures are based on fisheries management in-season hail estimates

\* Boat Days are represented in 24-hour format.

\*\* Days Fishing are the sum of the daily fishery openings independent of hours open.

**Table 22.** Weekly commercial catch and fishing effort in the 2012 Canadian total Area 4 gillnet fishery (preliminary).

Julian Week	Stat Week	Ending Date	Sockeye	Coho	Pink	Chum	Chinook	Total	Boat Days*	Hours Open	Days Fishing**
23	61	Jun.09	Closed	Closed	Closed	Closed	Closed	0	0	0	0
24	62	Jun.16	Closed	Closed	Closed	Closed	314	314	49	30	2
25	63	Jun. 23	Closed	Closed	Closed	Closed	Closed	0	0	0	0
26	64	Jun. 30	Closed	Closed	Closed	Closed	Closed	0	0	0	0
27	71	Jul. 07	Closed	Closed	Closed	Closed	Closed	0	0	0	0
28	72	Jul. 14	160,869	Closed	11,160	Closed	Closed	172,029	319	16	2
29	73	Jul. 21	140,839	Closed	5,573	Closed	Closed	146,412	369	30	2
30	74	Jul. 28	98,184	Closed	7,481	Closed	Closed	105,665	185	30	1
31	75	Aug. 04	Closed	Closed	Closed	Closed	Closed	0	0	0	0
<b>Totals</b>			<b>399,892</b>	<b>0</b>	<b>24,214</b>	<b>0</b>	<b>314</b>	<b>424,420</b>	<b>922</b>	<b>106</b>	<b>7</b>

2012 catch figures are based on Fisheries Management in-season hail estimates

\* Boat Days are represented in 24-hour format.

\*\* Days Fishing are the sum of the daily fishery openings independent of hours open.



**Table 23.** Weekly commercial catch and fishing effort in the 2012 Canadian total Area 4 seine fishery (preliminary).

Julian Week	Stat Week	Ending Date	Sockeye***	Coho	Pink	Chum	Chinook	Total	Boat Days*	Hours Open	Days Fishing**
28	72	Jul. 14	Closed	Closed	Closed	Closed	Closed	0	0	0	0
29	73	Jul. 21	Confidential	Closed	Confidential	Closed	Closed	Confidential	Confidential	16	1
30	74	Jul. 28	Confidential	Closed	Confidential	Closed	Closed	Confidential	Confidential	96	6
31	75	Aug. 04	Closed	Closed	Closed	Closed	Closed	0	0	0	0
<b>Totals</b>			<b>123,340</b>	<b>0</b>	<b>10,251</b>	<b>0</b>	<b>0</b>	<b>133,591</b>	<b>79</b>	<b>112</b>	<b>7</b>

2012 catch figures are based on Fisheries Management in-season hail estimates

\* Boat Days are represented in 24-hour format.

\*\* Days Fishing are the sum of the daily fishery openings independent of hours open.

\*\*\* Sockeye catches were from validated landings as part of the ITQ fishery

**Table 24.** Weekly commercial catch and fishing effort in the 2012 Canadian Area 4 troll fishery (preliminary).

Julian Week	Stat Week	Ending Date	Sockeye	Coho	Pink	Chum	Chinook***	Total	Boat Days*	Hours Open	Days Fishing**
28	72	Jul. 14	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	0
29	73	Jul. 21	26	14,569	768	CLOSED	CLOSED	15,363	45	96	4
30	74	Jul. 28	24	6,680	866	CLOSED	CLOSED	7,570	33	168	7
31	75	Aug. 04	12	3,734	377	CLOSED	CLOSED	4,123	34	168	7
32	81	Aug. 11	3	2,254	481	CLOSED	CLOSED	2,738	21	168	7
33	82	Aug. 18	0	2,865	507	CLOSED	CLOSED	3,372	20	168	7
34	83	Aug. 25	0	7,529	438	CLOSED	CLOSED	7,967	63	168	7
35	84	Sept. 01	0	1,322	144	CLOSED	CLOSED	1,466	32	168	7
36	91	Sept. 08	Confidential	Confidential	Confidential	CLOSED	CLOSED	Confidential	Confidential	168	7
37	92	Sept. 15	0	0	0	CLOSED	CLOSED	0	0	168	7
38	93	Sept. 22	0	0	0	CLOSED	CLOSED	0	0	168	7
39	94	Sept. 29	Confidential	Confidential	Confidential	CLOSED	CLOSED	Confidential	Confidential	168	7
40	101	Oct. 06	0	0	0	CLOSED	CLOSED	0	0	24	1
41	102	Oct. 13	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	0
<b>Totals</b>			<b>65</b>	<b>69,067</b>	<b>3,583</b>	<b>0</b>	<b>0</b>	<b>72,715</b>	<b>252</b>	<b>1,800</b>	<b>75</b>

2012 non-Chinook catch figures are based on fisheries management in-season hail estimates

\* Boat Days are represented in 24-hour format.

\*\* Days Fishing are the sum of the daily fishery openings independent of hours open.

\*\*\* Chinook Area hail catch pro-rated with validated Chinook landings.

**Table 25.** Weekly commercial catch and fishing effort in the 2012 Canadian total Area 5 gillnet fishery (preliminary).

Julian Week	Stat Week	Ending Date	Sockeye	Coho	Pink	Chum	Chinook	Total	Boat Days*	Hours Open	Days Fishing**
27	71	Jul. 07	Closed	Closed	Closed	Closed	Closed	0	0	0	0
28	72	Jul. 14	Confidential	Closed	Confidential	Closed	Closed	Confidential	Confidential	16	2
29	73	Jul. 21	Confidential	Closed	Confidential	Closed	Closed	Confidential	Confidential	30	2
30	74	Jul. 28	Confidential	Closed	Confidential	Closed	Closed	Confidential	Confidential	30	1
31	75	Aug. 04	Closed	Closed	Closed	Closed	Closed	0	0	0	0
<b>Totals</b>			<b>2,730</b>	<b>0</b>	<b>85</b>	<b>0</b>	<b>0</b>	<b>2,815</b>	<b>9</b>	<b>76</b>	<b>5</b>

2012 catch figures are based on Fisheries Management in-season hail estimates

\* Boat Days are represented in 24-hour format.

\*\* Days Fishing are the sum of the daily fishery openings independent of hours open.

**Table 26.** Weekly commercial catch and fishing effort in the 2012 Canadian total Area 5 seine (preliminary).

Julian Week	Stat Week	Ending Date	Sockeye	Coho	Pink	Chum	Chinook	Total	Boat Days*	Hours Open	Days Fishing**
FISHERY DID NOT OPEN			-	-	-	-	-	-	-	-	-
Total			-	-	-	-	-	-	-	-	-

2012 Catch figures are based on Fisheries Management In-Season Hail Estimates

\* Boat Days are represented in 24-hour format.

\*\* Days Fishing are the sum of the daily fishery openings independent of hours open.

**Table 27.** Weekly commercial catch and fishing effort in the 2012 Canadian Area 5 troll fishery (preliminary).

Julian Week	Stat Week	Ending Date	Sockeye	Coho	Pink	Chum	Chinook	Total	Boat Days*	Hours Open	Days Fishing**
28	72	Jul. 14	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	0
29	73	Jul. 21	0	78	32	CLOSED	CLOSED	110	3	96	4
30	74	Jul. 28	0	0	0	CLOSED	CLOSED	0	0	168	7
31	75	Aug. 04	0	0	0	CLOSED	CLOSED	0	0	168	7
32	81	Aug. 11	0	0	0	CLOSED	CLOSED	0	0	168	7
33	82	Aug. 18	0	0	0	CLOSED	CLOSED	0	0	168	7
34	83	Aug. 25	0	0	0	CLOSED	CLOSED	0	0	168	7
35	84	Sept. 01	0	0	0	CLOSED	CLOSED	0	0	168	7
36	91	Sept. 08	0	0	0	CLOSED	CLOSED	0	0	168	7
37	92	Sept. 15	0	0	0	CLOSED	CLOSED	0	0	168	7
38	93	Sept. 22	0	0	0	CLOSED	CLOSED	0	0	168	7
39	94	Sept. 29	0	0	0	CLOSED	CLOSED	0	0	168	7
40	101	Oct. 06	0	0	0	CLOSED	CLOSED	0	0	24	1
41	102	Oct. 13	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	0	0	0	0
<b>Totals</b>			<b>0</b>	<b>78</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>110</b>	<b>3</b>	<b>1,800</b>	<b>75</b>

2012 non-Chinook catch figures are based on fisheries management in-season hail estimates

\* Boat Days are represented in 24-hour format.

\*\* Days Fishing are the sum of the daily fishery openings independent of hours open.

**Table 28.** Preliminary annual allowable harvest (AAH) calculations for Canadian Area 3 Entrance (1-4) net fishery, 2012.

	Year													
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Annual Allowable Harvest (AAH) of Alaska District 101, 102, and 103 Pink Salmon:</b>														
Total Run	53,011,083	22,935,854	62,126,912	43,056,270	42,771,456	34,999,070	43,651,072	11,524,695	52,342,831	25,728,121	38,891,939	23,621,861	20,770,059	31,102,358
Actual Escapement	19,900,203	11,936,450	21,903,643	20,178,163	20,047,003	16,769,261	17,519,566	8,532,450	23,578,584	13,669,062	16,095,463	12,113,776	11,519,923	14,216,273
Escapement Requirement	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000
Annual Allowable Harvest (AAH)	42,261,083	12,185,854	51,376,912	32,306,270	32,021,456	24,249,070	32,901,072	2,992,245	41,592,831	14,978,121	28,141,939	12,871,861	10,020,059	20,352,358
<b>Actual Number and %AAH of Alaska Pink Salmon Harvested in Canadian Area 3(1-4) Net Fishery:</b>														
Total Pink Harvest in Area 3(1-4) Net	2,224,180	89,980	1,155,691	1,163,645	924,183	559,034	894,890	143,733	1,740,271	12,082	432,861	36,334	201,754	118,164
Actual Number of Alaskan Pink Harvested	1,276,329	67,465	911,959	766,390	668,100	448,730	690,317	112,342	1,421,812	10,580	276,270	21,353	180,930	96,658
Actual %AAH	3.02%	0.55%	1.78%	2.37%	2.09%	1.85%	2.10%	3.75%	3.42%	0.07%	0.98%	0.17%	1.81%	0.47%
<b>Overage/Underage Based on the 2.49% AAH Stipulated in the Treaty:</b>														
Allowable % AAH	2.49%	2.49%	2.49%	2.49%	2.49%	2.49%	2.49%	2.49%	2.49%	2.49%	2.49%	2.49%	2.49%	2.49%
Allowable Harvest	1,052,301	303,428	1,279,285	804,426	797,334	603,802	819,237	74,507	1,035,661	372,955	700,734	320,509	249,499	506,774
Overage [Positive]/Underage (Negative)	224,028	(235,963)	(367,326)	(38,036)	(129,234)	(155,072)	(128,920)	37,836	386,150	(362,375)	(424,464)	(299,156)	(68,569)	(410,116)
Cumulative Overage/Underage	224,028	(11,934)	(379,260)	(417,296)	(546,530)	(701,602)	(830,522)	(792,687)	(406,536)	(768,912)	(1,193,376)	(1,492,532)	(1,561,101)	(1,971,217)

**Table 29.** Preliminary annual allowable harvest (AAH) calculations for Canadian Area 1 troll fishery, 2012.

	Year													
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Annual Allowable Harvest (AAH) of Alaska District 101, 102, and 103 Pink Salmon:</b>														
Total Run	53,011,083	22,935,854	62,126,912	43,056,270	42,771,456	34,999,070	43,651,072	11,524,695	52,342,831	25,728,121	38,891,939	23,621,861	20,770,059	31,102,358
Actual Escapement	19,900,203	11,936,450	21,903,643	20,178,163	20,047,003	16,769,261	17,519,566	8,532,450	23,578,584	13,669,062	16,095,463	12,113,776	11,519,923	14,216,273
Escapement Requirement	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000
Annual Allowable Harvest (AAH)	42,261,083	12,185,854	51,376,912	32,306,270	32,021,456	24,249,070	32,901,072	2,992,245	41,592,831	14,978,121	28,141,939	12,871,861	10,020,059	20,352,358
<b>Actual Number and %AAH of Alaska Pink Salmon Harvested in Canadian Area 1 Troll Fishery:</b>														
Total Pink Harvest in Area 1 Troll	31,013	73,358	132,709	22,918	74,160	22,198	27,768	34,854	61,276	23,243	61,522	17,950	44,193	57,013
Actual Number of Alaskan Pink Harvested	25,125	56,042	116,490	17,723	61,284	19,499	23,098	30,134	55,418	21,171	50,392	12,708	41,631	52,143
Actual %AAH	0.06%	0.46%	0.23%	0.05%	0.19%	0.08%	0.07%	1.01%	0.13%	0.14%	0.18%	0.10%	0.42%	0.26%
<b>Overage/Underage Based on the 2.57% AAH Stipulated in the Treaty:</b>														
Allowable %AAH	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%	2.57%
Allowable Harvest	1,086,110	313,176	1,320,387	830,271	822,951	623,201	845,558	76,901	1,068,936	384,938	723,248	330,807	257,516	523,056
Overage (Positive)/Underage (Negative)	-1,060,984	-257,134	-1,203,896	-812,548	-761,668	-603,702	-822,460	-46,767	-1,013,518	-363,766	-672,855	-318,099	-215,885	-470,913
Cumulative Overage/Underage	-1,060,984	-1,318,119	-2,522,015	-3,334,563	-4,096,231	-4,699,933	-5,522,393	-5,569,160	-6,582,678	-6,946,444	-7,619,300	-7,937,399	-8,153,283	-8,624,196

**Table 30.** Escapements to Canadian Areas 3, 4, and 5 in 2012 (preliminary).

<b>Area</b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Chinook</b>
3	159,112	9,295	351,131	16,886	2,483
4	1,100,573	29,771	241,029	2,254	34,213
5	3590	740	81,708	649	62
<b>Totals</b>	<b>1,263,275</b>	<b>39,806</b>	<b>673,868</b>	<b>19,789</b>	<b>36,758</b>



**Table 31.** Pre-season salmon forecast, for Canadian Areas 1, 3, 4, and 5 in 2013.

<b>Area</b>	<b>Species</b>	<b>Forecasted Return to Canada</b>
Area 1	Sockeye Pink	Unknown Poor
Area 3	Sockeye Pink	452,000 Very Poor
Area 4	Sockeye Pink	685,000 Very Poor
Area 5	Sockeye Pink	Unknown Very Poor

**Table 32.** Annual gillnet and seine effort for Canadian Areas 1, 3, 4, and 5.

YEAR	GEAR	AREA 1		AREA 3		AREA 4		AREA 5	
		BOAT DAYS	DAYS* FISHING	BOAT DAYS	DAYS FISHING	BOAT DAYS	DAYS FISHING	BOAT DAYS	DAYS FISHING
1980	GN	0	0	2,980	20	5,726	13	852	15
	SN	0	0	912	20	6	2	158	15
1981	GN	0	0	2,127	26	13,170	26	552	11
	SN	0	0	1,189	26	401	8	49	11
1982	GN	0	0	3,155	34	8,799	18	548	17
	SN	0	0	1,649	34	827	6	197	17
1983	GN	6	12	2,377	22	4,699	15	501	14
	SN	108	12	2,157	22	0	0	55	14
1984	GN	18	27	2,929	23	7,705	22	435	15
	SN	543	27	1,580	20	761	6	355	14
1985	GN	74	24	813	21	12,504	26	169	16
	SN	241	24	1,099	17	819	9	241	12
1986	GN	345	27	1,125	25	6,095	21	529	23
	SN	328	35	1,221	24	94	8	389	22
1987	GN	39	13	1,015	19	5,803	17	192	13
	SN	156	13	1,780	18	215	7	269	12
1988	GN	56	18	727	18	14,141	23	305	17
	SN	190	16	888	15	273	4	229	15
1989	GN	20	11	1,525	26	8,638	28	428	22
	SN	78	11	1,059	18	70	18	87	17
1990	GN	12	17	977	26	8,583	32	282	21
	SN	215	17	556	15	60	20	296	15
1991	GN	16	13	1,813	36	10,931	25	375	24
	SN	64	5	2,958	18	178	7	228	18
1992	GN	68	21	2,527	31	12,110	25	368	24
	SN	239	16	1,016	18	197	10	128	17
1993	GN	26	15	3,692	43	10,909	22	183	22
	SN	15	15	1,816	16	329	12	71	13
1994	GN	82	16	3,443	23	8,130	20	430	12
	SN	164	7	698	9	0	0	5	1
1995	GN	270	29	4,305	31	12,062	19	434	22
	SN	322	7	2,536	15	484	9	154	13
1996	GN	19	18	4,433	36	13,487	25	507	26
	SN	79	15	1,117	20	975	14	347	19
1997	GN	536	23	2,759	23	9,558	21	269	20
	SN	313	8	809	15	172	11	25	13
1998	GN	5	11	1,197	16	1,041	6	47	3
	SN	12	2	204	9	0	0	4	0
1999	GN	1	5	3,300	17	238	3	0	0
	SN	0	0	1,001	15	26	2	6	2
2000	GN	15	4	2,321	17	5,150	19	164	3
	SN	0	0	282	12	544	9	54	11
2001	GN	2	1	1,031	11	5,380	19	86	12
	SN	0	0	244	13	393	9	57	11
2002	GN	2	2	2,882	19	3,559	13	43	11
	SN	7	2	294	15	218	15	64	15
2003	GN	0	0	3,417	17	2,484	8	27	5
	SN	0	0	210	15	118	9	32	11
2004	GN	0	3	3,241	13	1,581	6	78	5
	SN	0	0	448	13	218	13	28	7
2005	GN	0	0	2,645	16	198	2	0	0
	SN	0	0	291	18	0	0	19	6
2006	GN	7	5	3,487	15	6,376	17	71	13
	SN	0	0	236	7	682	16	3	6
2007	GN	0	0	1,694	9	1,796	7	11	2
	SN	0	0	478	15	85	9	82	15
2008	GN	0	0	595	7	2,213	9	18	7
	SN	0	0	61	3	274	14	10	1
2009	GN	0	0	1,517	8	187	2	0	0
	SN	0	0	115	10	33	4	15	5
2010	GN	0	0	929	6	466	3	14	1
	SN	8	4	17	2	0	0	1	1
2011	GN	0	0	675	7	1,070	6	7	5
	SN	0	0	109	4	117	9	0	0
2012	GN	0	0	831	6	922	5	9	3
	SN	0	0	110	5	79	5	0	0
AVG 00-09	GN	3	1	2,283	13	2,892	10	50	6
	SN	1	0	266	12	256	10	36	9
TOTAL		3	2	2,549	25	3,149	20	86	15
AVG 90-99	GN	104	17	2,845	28	8,705	20	290	17
	SN	142	9	1,271	15	242	8	126	11
TOTAL		246	26	4,116	43	8,947	28	416	28
AVG 80-89	GN	56	13	1,877	23	8,728	21	451	16
	SN	164	14	1,353	21	347	7	203	15
TOTAL		220	27	3,231	45	9,075	28	654	31

\* BOAT DAYS are represented in 24-hour format.

\* DAYS FISHING are represented in 24-hour format.

Table 33. Annual salmon escapements for Canadian Area 1 (2012 is preliminary).

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK
1970	26,500	24,050	432,650	24,800	800
1971	16,500	14,335	6,050	44,500	500
1972	17,500	26,150	329,900	8,600	1,000
1973	38,000	58,350	4,000	50,000	900
1974	39,000	97,100	201,400	41,800	1,000
1975	16,500	47,000	3,950	53,050	1,500
1976	40,900	153,500	285,050	53,500	700
1977	36,750	55,400	4,900	60,300	800
1978	20,300	61,250	217,500	56,200	600
1979	20,650	34,750	3,250	32,450	400
1980	33,200	17,140	290,795	14,768	600
1981	23,000	18,000	3,650	26,100	750
1982	28,500	35,250	362,000	70,800	1,400
1983	19,500	20,600	2,130	35,225	600
1984	18,500	28,850	1,213,900	52,775	300
1985	43,200	23,700	1,875	63,800	1,500
1986	13,500	32,900	838,500	82,500	500
1987	9,100	32,650	4,500	51,100	2,000
1988	23,600	28,900	566,100	29,950	2,200
1989	11,200	16,550	1,300	18,975	2,800
1990	200	10,270	1,389,560	4,700	2,000
1991	4,400	11,350	600	1,000	1,900
1992	12,100	8,200	994,800	6,300	2,000
1993	500	2,500	350	50,060	1,000
1994	8,700	UNK	647,000	32,150	2,000
1995	7,100	UNK	1,000	19,855	1,500
1996	19,300	UNK	2,924,000	6,725	3,000
1997	12,000	UNK	UNK	31,050	2,500
1998	14,000	38,400	747,200	32,100	3,000
1999	15,550	28,000	2,700	33,000	3,200
2000	19,200	22,600	465,000	13,520	3,600
2001	3,900	6,674	1	3,804	UNK
2002	9,850	13,474	939,003	7,000	3,500
2003	7,500	2,538	UNK	34,081	4,000
2004	10,000	719	177,500	4,000	UNK
2005	5,000	1,500	UNK	1,650	5,000
2006	27,200	UNK	250,250	18,300	5,000
2007	8,500	UNK	UNK	1,950	5,000
2008	9,100	UNK	607,750	600	5,000
2009	7,500	UNK	UNK	35,520	UNK
2010	18,025	UNK	1,135,000	200	UNK
2011	7,000	UNK	UNK	25,400	UNK
2012	19,050	UNK	207,200	4,010	UNK
<b>AVG 70-79</b>	27,260	57,189	148,865	42,520	820
<b>AVG 80-89</b>	22,330	25,454	328,475	44,599	1,265
<b>AVG 90-99</b>	9,385	16,453	745,246	21,694	2,210
<b>AVG 00-09</b>	10,775	7,918	406,584	12,043	4,443

















**Table 34.** Annual escapements for Canadian Area 3 (2012 is preliminary).

YEAR	SOCKEYE	COHO	PINK	CHUM	CHINOOK
1970	115,503	43,300	224,750	35,400	18,250
1971	247,524	44,325	136,525	28,825	17,000
1972	178,716	20,850	244,250	81,125	19,800
1973	284,682	9,400	70,786	66,025	3,550
1974	193,703	16,435	84,915	121,570	3,775
1975	70,874	15,410	141,758	30,550	6,025
1976	143,405	32,700	158,175	64,650	5,590
1977	400,371	35,605	229,155	57,775	9,060
1978	147,718	33,100	401,445	75,970	10,190
1979	212,944	18,655	50,625	42,313	8,180
1980	155,515	22,405	130,777	54,794	9,072
1981	255,818	34,429	204,425	16,508	7,925
1982	306,070	31,055	427,135	29,476	6,575
1983	185,150	36,360	738,205	45,115	8,055
1984	182,450	67,650	531,035	67,425	12,620
1985	361,208	44,539	508,855	48,971	7,999
1986	187,261	34,910	375,245	34,900	17,375
1987	184,242	31,652	371,866	31,387	8,695
1988	136,760	10,551	185,065	47,050	7,370
1989	112,609	20,690	641,270	33,770	12,525
1990	155,472	38,510	154,968	30,980	12,103
1991	269,850	16,777	388,100	23,835	3,967
1992	645,964	16,118	196,808	15,684	16,415
1993	440,740	7,510	314,102	79,951	24,126
1994	179,262	15,329	155,356	33,199	2,440
1995	237,991	13,967	349,017	40,451	1,256
1996	219,825	11,613	344,860	22,990	2,619
1997	237,312	3,989	216,527	20,302	957
1998	193,810	9,781	151,940	138,490	1,268
1999	197,550	13,216	464,775	33,467	724
2000	138,042	17,339	322,990	20,718	1,111
2001	117,692	26,366	826,632	30,472	3,313
2002	338,879	30,224	598,264	17,813	4,367
2003	199,458	18,254	841,856	40,002	5,386
2004	141,913	15,062	542,500	54,033	4,393
2005	146,813	19,418	944,415	30,855	2,341
2006	149,598	15,644	129,050	43,975	7,512
2007	113,637	9,181	589,059	17,225	3,584
2008	155,860	12,383	58,676	14,593	7,632
2009	179,652	17,262	640,955	20,680	3,608
2010	163,317	14,958	256,789	10,885	2,210
2011	192,584	3,257	61,948	9,979	2,926
2012	159,112	9,295	351,131	16,886	2,483
<b>AVG 70-79</b>	199,544	26,978	174,238	60,420	10,142
<b>AVG 80-89</b>	206,708	33,424	411,388	40,940	9,821
<b>AVG 90-99</b>	277,778	14,681	273,645	43,935	6,588
<b>AVG 00-09</b>	168,154	18,113	549,440	29,037	4,325

**Table 35.** Annual escapements for Canadian Area 4 (2012 is preliminary).

<b>YEAR</b>	<b>SOCKEYE</b>	<b>COHO</b>	<b>PINK</b>	<b>CHUM</b>	<b>CHINOOK</b>
1970	678,652	84,725	971,800	10,890	21,150
1971	821,850	75,795	1,173,381	5,232	18,500
1972	697,237	57,514	1,765,154	36,920	20,651
1973	820,196	41,292	1,260,186	25,476	40,341
1974	723,898	38,798	367,605	14,102	31,576
1975	822,633	22,119	1,767,907	10,375	20,319
1976	575,590	32,891	693,850	11,071	13,053
1977	951,805	37,634	976,527	10,927	29,018
1978	424,075	49,963	724,597	8,153	22,676
1979	1,166,236	24,494	515,563	5,705	18,488
1980	542,164	31,587	745,367	25,007	23,400
1981	1,424,509	26,692	1,187,835	9,385	24,524
1982	1,140,737	24,521	739,247	4,626	16,990
1983	893,724	24,978	2,610,074	1,667	23,602
1984	1,055,215	50,409	1,037,698	29,764	35,864
1985	2,174,806	19,974	2,042,150	12,198	52,407
1986	716,312	54,587	2,323,944	12,780	59,719
1987	1,324,128	32,739	3,180,414	7,652	60,948
1988	1,417,543	11,293	828,090	108,921	68,307
1989	1,137,994	44,126	4,675,527	20,331	57,192
1990	989,566	76,662	2,611,520	6,343	55,541
1991	1,232,568	52,544	4,797,937	4,680	52,792
1992	1,550,109	34,703	821,950	11,290	67,118
1993	1,629,426	23,192	663,888	10,052	68,286
1994	1,026,816	33,830	242,285	7,967	22,611
1995	1,720,292	16,293	1,641,489	7,928	34,390
1996	1,727,147	14,759	2,025,648	8,404	73,684
1997	985,097	6,333	484,476	22,250	42,539
1998	521,417	39,044	272,871	14,664	46,774
1999	624,366	71,787	1,095,352	2,650	43,775
2000	1,394,177	29,922	260,481	4,650	51,804
2001	1,508,045	74,254	1,017,612	8,620	81,504
2002	610,851	46,129	232,451	3,060	44,771
2003	1,211,762	50,484	1,517,355	1,782	56,758
2004	923,187	32,303	653,350	2,020	39,552
2005	704,559	77,732	1,213,770	2,335	29,496
2006	1,172,699	50,332	116,367	685	36,682
2007	1,042,717	26,792	632,243	474	37,054
2008	867,676	33,145	69,898	510	34,615
2009	667,603	88,215	2,515,312	1,330	36,476
2010	662,755	44,956	325,404	1,117	42,339
2011	890,829	35,338	268,774	3,705	34,190
2012	1,100,573	29,771	241,029	2,254	34,213
<b>AVG 70-79</b>	768,217	46,523	1,021,657	13,885	23,577
<b>AVG 80-89</b>	1,182,713	32,091	1,937,035	23,233	42,295
<b>AVG 90-99</b>	1,200,680	36,915	1,465,742	9,623	50,751
<b>AVG 00-09</b>	1,010,328	50,931	822,884	2,547	44,871

**Table 36.** Annual escapements for Canadian Area 5 (2012 is preliminary).

<b>YEAR</b>	<b>SOCKEYE</b>	<b>COHO</b>	<b>PINK</b>	<b>CHUM</b>
1970	23,750	10,600	139,850	12,250
1971	55,225	9,975	80,761	25,625
1972	24,400	21,820	280,725	17,725
1973	32,425	18,000	56,375	18,975
1974	43,925	18,450	337,075	34,025
1975	50,000	33,000	170,375	10,075
1976	19,050	21,475	348,450	19,625
1977	11,400	25,410	110,275	32,170
1978	28,650	18,650	264,850	13,775
1979	16,000	17,275	43,000	13,950
1980	16,800	11,525	225,825	9,350
1981	16,000	18,025	121,850	3,120
1982	19,450	2,620	70,300	7,370
1983	12,450	4,300	81,025	4,596
1984	17,150	8,175	162,450	6,830
1985	37,250	4,350	177,075	11,765
1986	25,000	22,289	313,900	16,450
1987	26,550	6,000	127,950	10,175
1988	33,400	7,775	162,000	12,750
1989	21,900	1,000	178,500	4,750
1990	5,676	5,006	202,244	3,607
1991	32,035	2,981	70,160	4,113
1992	22,895	3,982	41,161	731
1993	33,150	1,925	39,475	1,795
1994	6,800	800	44,725	870
1995	8,700	UNK	90,900	3,880
1996	24,100	UNK	270,100	3,200
1997	28,400	500	68,750	2,260
1998	10,450	900	161,250	9,250
1999	23,500	1,150	313,450	900
2000	22,600	800	278,150	1,070
2001	21,500	323	395,650	3,080
2002	9,700	1,400	409,810	4,965
2003	42,850	1,010	233,825	4,110
2004	18,200	355	88,330	2,670
2005	14,000	770	277,400	2,600
2006	22,600	285	31,880	2,575
2007	14,150	215	114,700	1,125
2008	2,900	650	29,080	2,226
2009	35	544	164,350	3,998
2010	5,232	1,179	40,704	1,273
2011	1,760	1,330	41,975	732
2012	3,590	740	81,708	649
<b>AVG 70-79</b> 	30,483	 19,466	 183,174	 19,820
<b>AVG 80-89</b> 	22,595	 8,606	 162,088	 8,716
<b>AVG 90-99</b> 	19,571	 2,156	 130,222	 3,061
<b>AVG 00-09</b> 	16,854	 635	 202,318	 2,842

## FIGURES

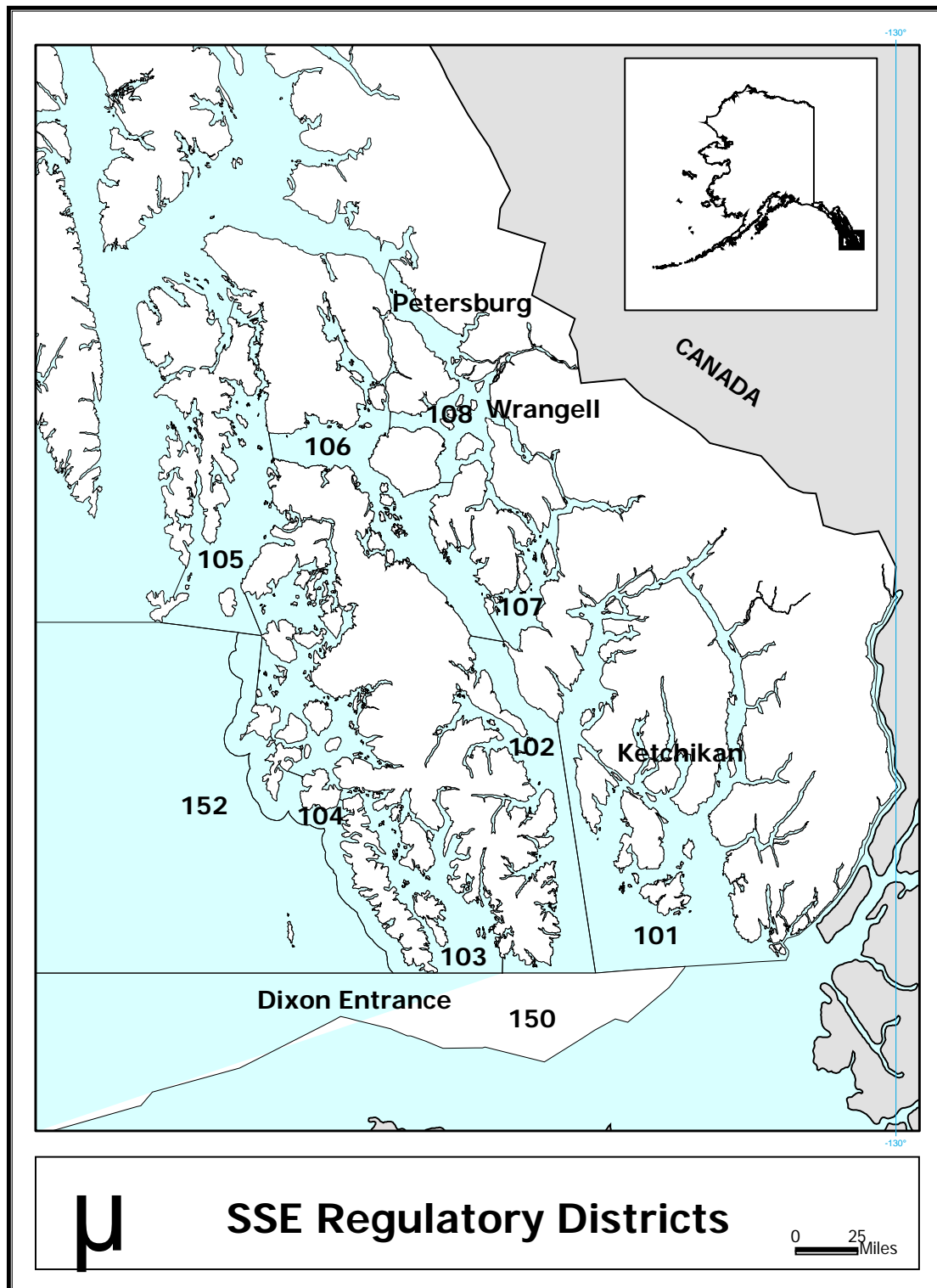


Figure 1. Alaska Department of Fish and Game Southern Southeast Alaska regulatory districts.



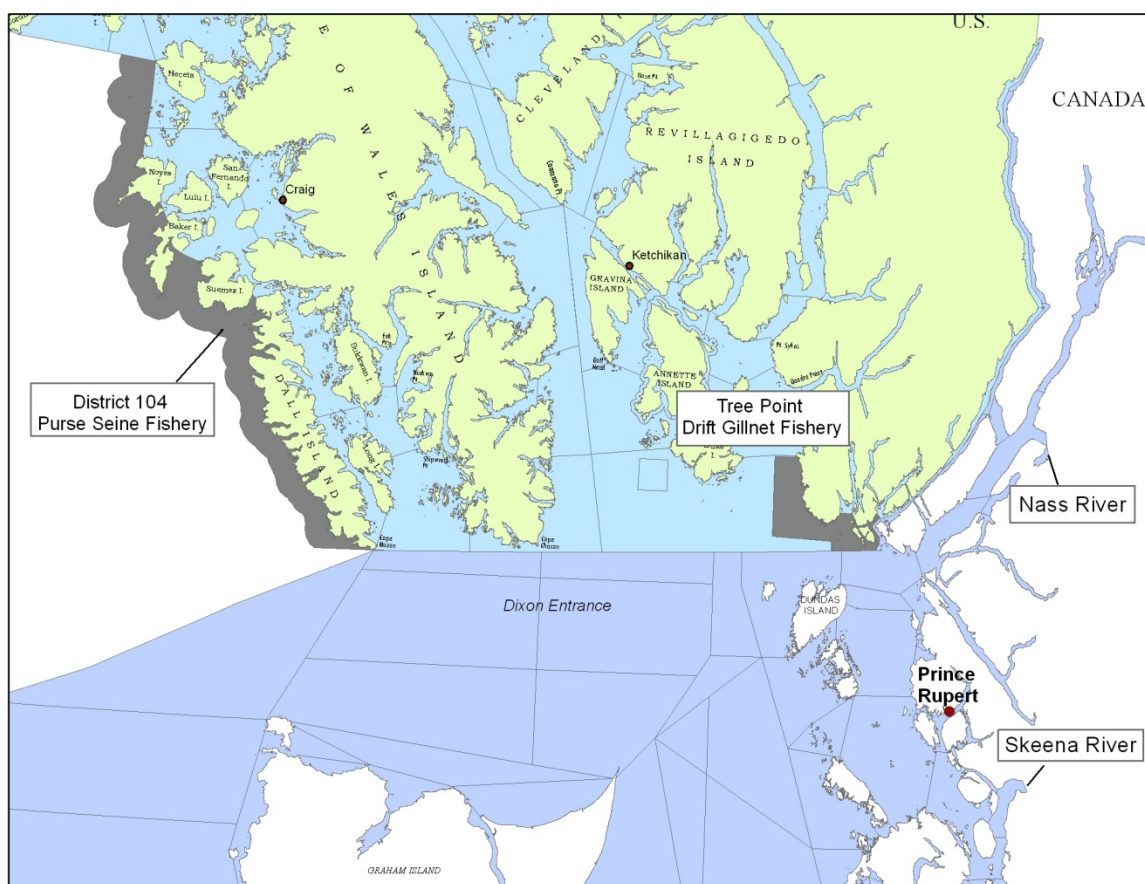
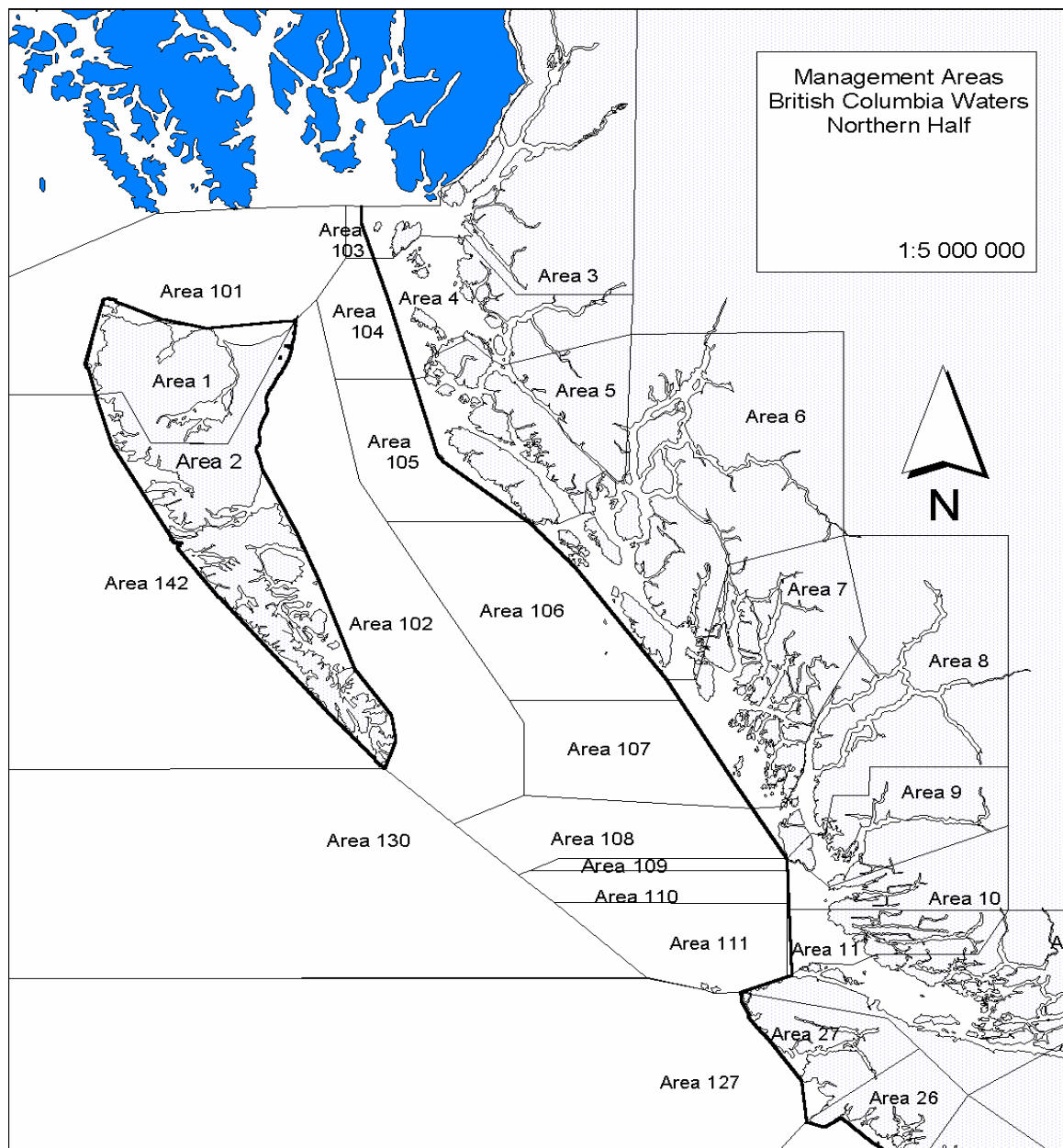


Figure 2. Alaska District 101 gillnet and District 104 treaty fisheries.



**Figure 3. Canadian Statistical Areas 1-10, Northern British Columbia.**

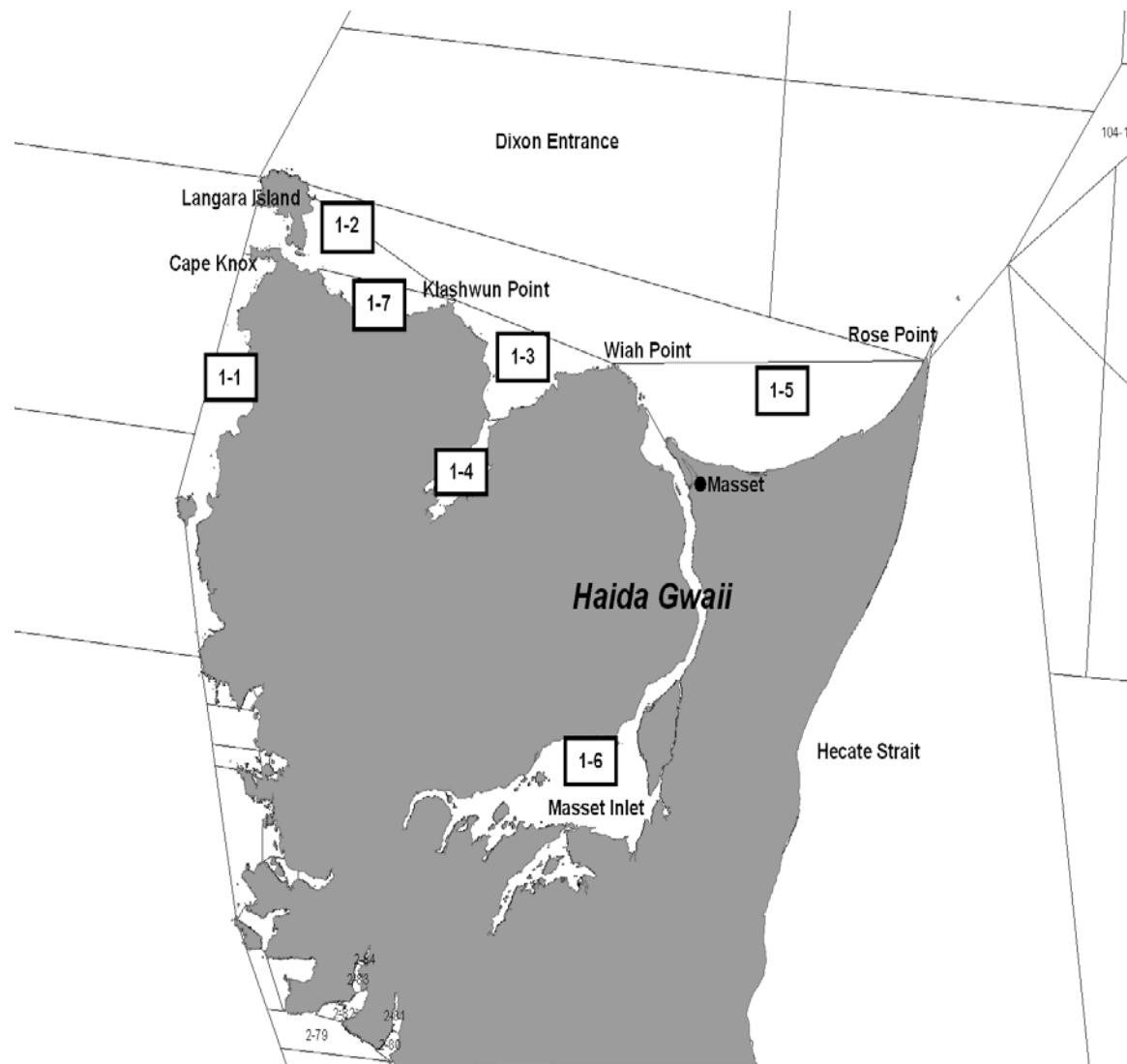


Figure 4. Canadian Statistical Area 1 management sub-areas.

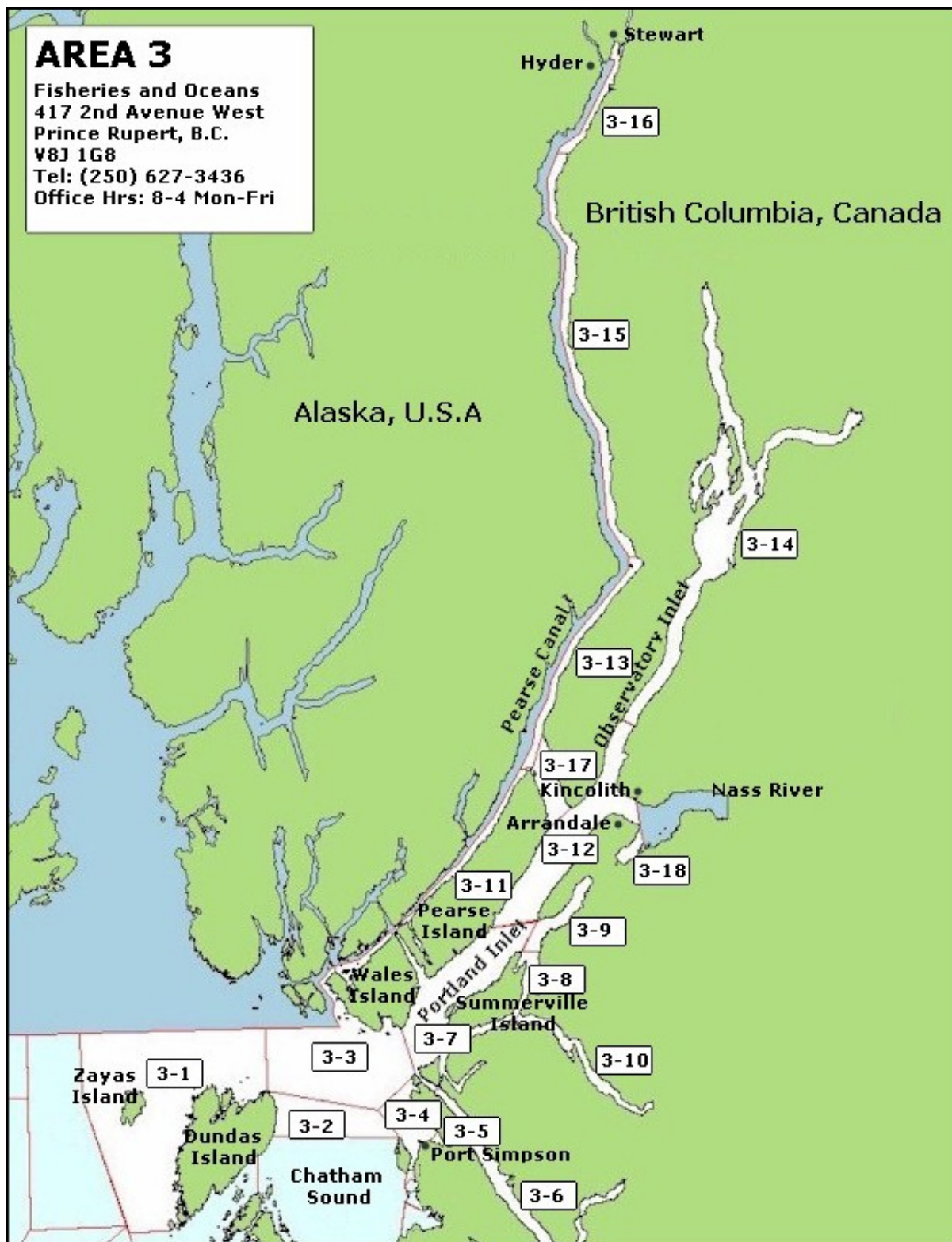


Figure 5. Canadian Statistical Area 3 management sub-areas.





Figure 6. Canadian Area 4 management sub-areas.



Figure 7. Canadian Statistical Area 5 management sub-areas.