**Regional Operational Plan CF.1J.2020.04**

# Operational Plan: Southeast Alaska and Yakutat Salmon Commercial Port Sampling 2020–2023

**by**

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**Alaska Department of Fish and Game** **Divisions of Sport Fish and Commercial Fisheries**

## Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the following reports by the Divisions of Sport Fish and of Commercial Fisheries: Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, and Special Publications. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figure or figure captions.

**Weights and measures (metric)**

| | |
|---|---|
| centimeter | cm |
| deciliter | dL |
| gram | g |
| hectare | ha |
| kilogram | kg |
| kilometer | km |
| liter | L |
| meter | m |
| milliliter | mL |
| millimeter | mm |

**Weights and measures (English)**

| | |
|---|---|
| cubic feet per second | $ft^3/s$ |
| foot | ft |
| gallon | gal |
| inch | in |
| mile | mi |
| nautical mile | nmi |
| ounce | oz |
| pound | lb |
| quart | qt |
| yard | yd |

**Time and temperature**

| | |
|---|---|
| day | d |
| degrees Celsius | °C |
| degrees Fahrenheit | °F |
| degrees kelvin | K |
| hour | h |
| minute | min |
| second | s |

**Physics and chemistry**

| | |
|---|---|
| all atomic symbols | |
| alternating current | AC |
| ampere | A |
| calorie | cal |
| direct current | DC |
| hertz | Hz |
| horsepower | hp |
| hydrogen ion activity (negative log of) | pH |
| parts per million | ppm |
| parts per thousand | ppt, ‰ |
| volts | V |
| watts | W |

**General**

| | |
|---|---|
| Alaska Administrative Code | AAC |
| all commonly accepted abbreviations | e.g., Mr., Mrs., AM, PM, etc. |
| all commonly accepted professional titles | e.g., Dr., Ph.D., R.N., etc. |
| at | @ |
| compass directions: | |
| east | E |
| north | N |
| south | S |
| west | W |
| copyright | © |
| corporate suffixes: | |
| Company | Co. |
| Corporation | Corp. |
| Incorporated | Inc. |
| Limited | Ltd. |
| District of Columbia | D.C. |
| et alii (and others) | et al. |
| et cetera (and so forth) | etc. |
| exempli gratia (for example) | e.g. |
| Federal Information Code | FIC |
| id est (that is) | i.e. |
| latitude or longitude | lat. or long. |
| monetary symbols (U.S.) | $, ¢ |
| months (tables and figures): first three letters | Jan,...,Dec |
| registered trademark | ® |
| trademark | ™ |
| United States (adjective) | U.S. |
| United States of America (noun) | USA |
| U.S.C. | United States Code |
| U.S. state | use two-letter abbreviations (e.g., AK, WA) |

**Mathematics, statistics**

| | |
|---|---|
| *all standard mathematical signs, symbols and abbreviations* | |
| alternate hypothesis | $H_A$ |
| base of natural logarithm | $e$ |
| catch per unit effort | CPUE |
| coefficient of variation | CV |
| common test statistics | (F, t, $\chi^2$, etc.) |
| confidence interval | CI |
| correlation coefficient (multiple) | R |
| correlation coefficient (simple) | r |
| covariance | cov |
| degree (angular ) | ° |
| degrees of freedom | df |
| expected value | $E$ |
| greater than | > |
| greater than or equal to | ≥ |
| harvest per unit effort | HPUE |
| less than | < |
| less than or equal to | ≤ |
| logarithm (natural) | ln |
| logarithm (base 10) | log |
| logarithm (specify base) | $\log_2$, etc. |
| minute (angular) | ' |
| not significant | NS |
| null hypothesis | $H_O$ |
| percent | % |
| probability | P |
| probability of a type I error (rejection of the null hypothesis when true) | α |
| probability of a type II error (acceptance of the null hypothesis when false) | β |
| second (angular) | " |
| standard deviation | SD |
| standard error | SE |
| variance | |
| population | Var |
| sample | var |

*REGIONAL OPERATIONAL PLAN CF.1J.2020.04*

# OPERATIONAL PLAN: SOUTHEAST ALASKA AND YAKUTAT SALMON COMMERCIAL PORT SAMPLING 2020–2023

by

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**Signature Page**

| | |
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# PURPOSE

The purpose of the commercial Port Sampling Program is to collect biological samples and fishery performance data from annual commercial salmon harvests in the Southeast Alaska (SEAK) Management Area. Salmon will be sampled for genetic stock identification, otolith marks, age, sex, and length data, coded wire tags, fishery performance data, pink salmon sex ratios, and average pink salmon weight. The program provides fishery managers and research biologists with information used to manage fisheries, create brood tables, generate run forecasts, determine migratory patterns and routes, determine size-at-age relationships, and analyze stock contributions to SEAK fisheries.

Key words: Southeast Alaska, port sampling, pink salmon, Oncorhynchus gorbuscha, chum salmon, Oncorhynchus keta, sockeye salmon, Oncorhynchus nerka, coho salmon, Oncorhynchus kisutch, Chinook salmon, Oncorhynchus tshawytscha, Atlantic salmon, Salmo salar, coded wire tag, GSI, otolith, fishery performance data, pink salmon sex ratio, commercial fishery, commercial harvest, catch sampling

# BACKGROUND

The Alaska Department of Fish and Game (ADF&G) Port Sampling Program is conducted annually to sample commercial fishery salmon landings in the Southeast Alaska/Yakutat (SEAK) Management Area (Region I). The Port Sampling Program employs samplers at 9 major ports and on tenders or buying stations throughout SEAK. These ports include Juneau, Petersburg, Sitka, Ketchikan, Craig, Wrangell, Excursion Inlet, Hoonah, and Pelican. Buying stations can include Elfin Cove and Dry Bay, in Yakutat. Port supervisors are located in Juneau, Sitka, Petersburg, and Ketchikan. Port supervisors participate in sampling and direct the day to day operations at their site and usually another smaller port within their local management area.

Information collected through the Port Sampling Program is used by fishery managers and research biologists to manage fisheries, analyze stock contributions, create brood tables, generate run forecasts, determine migratory patterns and routes, determine size-at-age relationships, and fulfill international harvest sharing agreements outlined in the Pacific Salmon Treaty. Commercial port samplers collect scale, otolith, and genetic stock identification (GSI) samples and coded wire tag (CWT) information, which are used to estimate stock composition and contribution. Fishery performance data are collected from troll permit holders to estimate catch-per-unit-effort (CPUE) inseason, and pink salmon (*Oncorhynchus gorbuscha*) sex ratios (PSR) are collected from purse seine landings for use in inseason harvest forecasts and to determine run timing. Sampling objectives for all salmon species and gear groups are reviewed for each fishery prior to the start of the season.

This operational plan provides an overview of program objectives and general description of sampling methods. Detailed information regarding sampling protocols (e.g., how samples and data are collected and recorded) is outlined and updated every year in the Southeast Alaska Salmon Port Sampling Manual, which is available from all port supervisors in the program.

# STUDY SITE

The Southeast Alaska/Yakutat Management Area (SEAK), Region I, includes waters from Cape Suckling south to Dixon Entrance (Appendix A1). Region I is divided into two salmon net registration areas: Southeast Alaska and Yakutat. The Southeast Alaska area extends from Dixon Entrance north to Cape Fairweather and the Yakutat area extends from Cape Fairweather west to Cape Suckling. Southeast Alaska is divided into 17 regulatory districts, districts 1 through 16 and the Dixon Entrance District. These districts are further divided into regulatory sections and statistical areas. The Yakutat area is divided into the Yakutat District, which extends from Cape Fairweather west to Icy Cape, and the Yakataga District, which extends westward from Icy Cape

to Cape Suckling (Kelley 2008). For management and administrative purposes, Region I is also divided into six management areas with area offices in Juneau, Ketchikan/Craig, Petersburg/Wrangell, Sitka, Haines, and Yakutat.

Purse seine fisheries are conducted in districts 101, 102, 103, 104, 105, 106, 107, 109, 110, 111, 112, 113, and 114 (Appendix A2). Pink salmon are the primary species targeted by the purse seine fishery and management decisions are based on inseason assessment of pink salmon abundance. Chum salmon (*O. keta*) are targeted by purse seiners early in the summer season in hatchery terminal harvest areas and in the fall at terminal areas near rivers with wild chum salmon runs. The majority of the purse seine harvests of sockeye (*O. nerka*), coho (*O. kisutch*), and Chinook (*O. tshawytscha*) salmon are taken incidentally during the pink salmon fishing season (Clark et al. 2006).

Drift gillnet fisheries take place in 5 traditional areas in Southeast Alaska (Gray et al. 2016). These areas include District 101 (Tree Point; Appendix A3), District 106 (Prince of Wales; Appendix A4), District 108 (Stikine; Appendix A4), District 111 (Taku-Stephens Passage; Appendix A5), and District 115 (Lynn Canal; Appendix A6). Drift gillnet fisheries are conducted weekly from June through September, and typically open on a Sunday at noon (see Statistical week calendar Appendix C1). The length of weekly openings is determined by fishery performance, run strength of targeted stocks, and harvest sharing agreements of the Pacific Salmon Treaty (except District 115). In District 101, fishing time is also dependent on time allotted to the purse seine fleet (Gray et al. 2016).

Set gillnet gear is only allowed in the Yakutat area, between Cape Fairweather and Cape Suckling. Set gillnet gear is confined primarily to intertidal areas and waters immediately adjacent to mouths of rivers, making this fishery unique in SEAK. Inseason management is based on fishery performance and escapement monitoring, which is accomplished though survey counts and a weir operated on the Situk River. Set gillnet fisheries primarily target sockeye salmon from mid-June through July and coho salmon in August and September (Zeiser 2016).

The troll fishery operates in SEAK but nowhere else in the state. Unique to trolling, fishing occurs in both state waters and in the federal waters of the Exclusive Economic Zone (EEZ), located between 3 and 200 mi offshore (Clark et al. 2006). Troll management is divided into four quadrants for tracking harvest and fishery effort: Northern Outside 171, Southern Outside 172, Northern Inside 173, and Southern Inside 174 (Appendix A7). Each quadrant is made up of a group of districts and subdistricts. Coho and Chinook salmon are the primary species harvested by trollers, but some targeted chum salmon fishing occurs outside hatchery terminal areas and in areas of high hatchery abundance. Troll fisheries are managed according to regulations and management plans developed by the Alaska Board of Fisheries, the North Pacific Fishery Management Council, the National Marine Fisheries Service, and the U.S.-Canada Pacific Salmon Commission in accordance with the Pacific Salmon Treaty (Clark et al. 2006; Hagerman et al. 2017).

# OBJECTIVES

1. Pink salmon: collect weekly district-specific pink salmon sex ratios and average weights from purse seine deliveries at seafood processing plants.

2. Chum salmon: collect fall-run chum salmon scale samples from the District 102-40 purse seine and District 115 drift gillnet fisheries.

3. Sockeye salmon: sample district-and subdistrict-specific purse seine and drift gillnet landings of sockeye salmon for matched GSI, scale, and otolith samples to meet weekly sampling objectives.

4. Coho salmon: sample a minimum of 20% of the total commercial harvest for coded wire tags, stratified by gear, fishing area, and statistical week. Interview troll permit holders for fishery performance data to meet port-specific weekly collection objectives.

5. Chinook salmon: collect matched GSI and scale samples during troll retention periods (Winter, Spring and Summer), and sample a minimum of 20% of the total commercial harvest for coded wire tags stratified by gear, fishing area, and statistical week. Interview troll permit holders for fishery performance data to meet port-specific weekly collection objectives.

# METHODS

## PINK SALMON

Wild pink salmon spawn in approximately 2,500 short, coastal streams in SEAK (Zadina et al. 2004) and are the target species in the purse seine fisheries. Understanding pink salmon run timing during the fishing season is vital for management biologists when determining fishery openings each week. Pink Sex Ratio (PSRs) data are used to help establish run timing. Male pink salmon migrate toward spawning grounds before females (Eniutina 1972), and a good indication that the run is at or near its peak is when the ratio of males in the harvest is 50% or less.

PSRs are collected from districts that support inseason harvest forecasts (districts 104 and 112) and specific areas of management interest (Table 1). Samples will be collected up to two times per week per area depending on the number of purse seine openings. A PSR is performed by collecting 300 pink salmon from a tender or 150 pink salmon from an individual fishing vessel that delivers fish harvested from a designated fishing area. The protocol for each sample is to collect fish throughout the delivery to help lessen the effects of size-sorting of fish in the hold of the vessel. Each fish will be cut open and the sampler will visually examine the gonads and determine if the salmon is male or female. Sample data will be recorded on a Pink Salmon Sex Composition Data Form (Appendix B1). Data will then be entered directly into the ADF&G Southeast Alaska Integrated Fishery Database by the port sampling supervisor or data coordinator immediately after it is received. Alternatively, the data are entered into a mobile PSR application and synchronized directly to the database through the State of Alaska domain server. In addition, the average weight of the sampled fish (total weight of sampled fish divided by number of fish) will also be determined and recorded whenever possible.

Table 1.–Pink Sex Ratio sampling objectives for purse seine fishing areas.

| Port | District | Focus Area |
|---|---|---|
| Ketchikan | 101 | Representative of the fishery |
| | 104 | Representative of the fishery |
| Petersburg | 104 | Representative of the fishery |
| | 105 | Representative of the fishery |
| | 107 | Representative of the fishery |
| | 109 | Representative of the fishery |
| | 110 | Representative of the fishery |
| | 113-51 | Peril Strait |
| Excursion Inlet | 112-14, 41, 42, 45 | Point Augusta/Tenakee Inlet |
| | 112-17,18,19 | Southwest Admiralty Island |
| | 113 | Representative of the fishery |
| | 114 | Representative of the fishery |
| Sitka | 113-41 | Sitka Sound |
| | 113-51 | Peril Strait |
| | 113-62 | Inner Salisbury Sound |
| | 113-73 | Slocum Arm |

## CHUM SALMON

Chum salmon are harvested in all commercial salmon fisheries in SEAK. Sampling of chum salmon landings is limited, however, to the collection of scales and length data from chum salmon harvested in the District 102 Cholmondeley Sound fall purse seine fishery and the District 115 Lynn Canal drift gillnet fishery (Table 2). District 102 samples will be collected specifically from fish harvested in statistical area 102-40, inside Cholmondeley Sound. Age data obtained from scales are used to estimate run strength in the following year. The District 115 Lynn Canal scale samples are used to estimate age of catch and are combined with estimated harvest and escapement data to reconstruct brood-year returns of Chilkat River fall-run chum salmon (Eggers and Heinl 2008).

Table 2.–Chum salmon scale sample collection objectives.

| Port | Gear | District | Statistical Weeks Sampled | Weekly Scale Objective | Weekly Length Objective |
|---|---|---|---|---|---|
| Ketchikan | Purse Seine | 102-40 | 36–40 | 80 | 20 |
| Juneau | Gillnet | 115 | 36–42 | 80 | 20 |
| Excursion Inlet | Gillnet | 115(A) | 26–35 | 80 | 20 |

## SOCKEYE SALMON

Sockeye salmon are harvested in all three commercial net fisheries in SEAK (purse seine, drift gillnet, set gillnet), but are rarely harvested in the troll fishery. In some SEAK fisheries, a fixed percentage of Canadian Nass, Skeena, Stikine, or Taku river sockeye salmon is allowed to be harvested as set forth in the Pacific Salmon Treaty. Treaty obligations affect management of the

purse seine fishery in District 104 and the drift gillnet fisheries in districts 101, 106, 108, and 111. Port sampling objectives for sockeye salmon harvested in the drift gillnet fisheries in districts 106, 108, and 111, and in the Alsek River set gillnet fishery are outlined in the Transboundary Technical Committee management plan, produced annually by the Pacific Salmon Commission (TTC 2019). Data collected from sockeye salmon harvested in these fisheries is used primarily to generate postseason abundance estimates of the stocks of interest in treaty-limited areas, but also to estimate age composition and contribution of hatchery fish.

Sockeye salmon will be sampled for biological data consisting of a scale, sex determination, and a matching axillary fin clip used for genetic stock identification (GSI). A subset of lengths (mid eye to tail fork in mm) will also be collected for each fishery area. This information will be recorded on an Age-Sex-Length (ASL) form (Appendix B2) or entered into a mobile computer application. GSI information will be used post season to estimate the contribution proportions of each major stock of sockeye salmon to the harvest of each fishery area sampled. In addition, otolith samples will be collected from sockeye salmon harvested in the district 106, 108, and 111 drift gillnet fisheries to estimate contribution of hatchery fish. The heads of otolith-sampled sockeye salmon will be marked with a Coordination Tag Number (CTN) cinch strap that links to the GSI sample and scale sample through a matched sample form (Appendix B3). The ASL data, CTN matched sample form, and scale cards will be reviewed and edited by the port supervisor, then sent to the ADF&G Scale Lab in Douglas each week to be reviewed and processed.

Port samplers at six different ports throughout SEAK will sample sockeye salmon delivered from individual purse seine, drift gillnet, and set gillnet vessels and tenders. Samplers will also be deployed on tenders to obtain samples on the fishing grounds in areas where it has historically been difficult to obtain samples sub-district-specific samples in port. Once a sampler determines the district where the fishing vessel harvested fish, sockeye salmon samples will be collected to meet weekly and seasonal sampling objectives (Tables 3–5). A total of 40 sockeye salmon from an individual vessel or up to 200 sockeye salmon from a tender can be sampled at one time. This helps ensure collected samples are representative of the weekly fishery harvest.

## Purse Seine Fishery

Sampling of sockeye salmon harvested in the purse seine fisheries is conducted primarily at the ports of Ketchikan and Petersburg. Sockeye salmon harvested in districts 101–104 will be sampled to meet weekly and seasonal matched ASL and GSI sampling objectives (Table 3). Sockeye salmon sampling objectives for the purse seine fisheries are district specific. Samplers should not sample mixed deliveries; that is, fish harvested in more than one district and mixed together onboard the vessel.

## Drift Gillnet Fishery

Sampling of sockeye salmon harvested in the drift gillnet fisheries is conducted in Ketchikan, Petersburg, Wrangell, Juneau, and Excursion Inlet. The bulk of the drift gillnet salmon harvest is delivered to these ports. Samplers will collect matched scale, otolith, and tissue samples and a subset of length data to meet weekly sampling objectives (Table 4). Drift gillnet fisheries are managed by statistical area (district and subdistrict). Samples will be collected from sockeye salmon harvested within a single district but not from landings that consist of harvest from mixed districts unless the fish have been separated in some manner onboard the vessel. Sampling objectives are also broken out by subdistrict for districts 106, 108, and 111.

The heads of sockeye salmon harvested in the District 106, 108, and 111 drift gillnet fisheries will be collected for later otolith extraction. The otolith samples will be matched to tissue, scale, and length data through the CTN. Heads of sampled fish will be collected and shipped immediately to the ADF&G Mark, Tag and Age (MTA) Laboratory in Juneau for otolith dissection and analysis. A subsample of otoliths from each area will be analyzed inseason for thermal marks that identify the fish by brood year and hatchery or release site. That information will be made immediately available to fishery managers and research staff through the MTA Laboratory's online Mark Summary Report. All other otolith samples will be processed postseason and analyzed a second time for mark validation and error checking.

Table 3.–Sockeye salmon scale, tissue, and length sampling objectives for the purse seine fisheries.

| Port | District | Weekly Matched Scale/Tissue Objective | Weekly Length Objective |
|---|---|---|---|
| Ketchikan | 101 | 260 | 80 |
| | 102 | 260 | 80 |
| | 103 | 260[a] | 80 |
| | 104 | 130 | 80 |
| Petersburg | 103 | 130[a] | 80 |
| | 104 | 130 | 80 |

[a] Seasonal Objective

Table 4.–Sockeye salmon scale, tissue, and length sampling objectives for the drift gillnet fisheries.

| Port | District | Weekly MatchedScale/Tissue Objective | Weekly Length Objective |
|---|---|---|---|
| Ketchikan | 101-11 | 260 | 60 |
| | 106-30 | 300[b] | 60 |
| Petersburg | 106-41[a] | 300[b] | 60 |
| | 108-30/40, 50/60[a] | 520[b] | 80 |
| | 111-31 | 200[b] | 60 |
| Juneau | 111-31 | 200[b] | 60 |
| | 111-32 | 400[b] | 120 |
| | 115 | 300 | 60 |
| Excursion Inlet | 115 | 300 | 60 |

[a] Objective shared between Petersburg and Wrangell.
[b] Matched with sockeye salmon heads for otolith collection.

## Set Gillnet Fishery

Yakutat Area management staff will collect matched tissue and scale samples from sockeye salmon harvested in the Dry Bay set gillnet fishery, at the mouth of the transboundary Alsek River, as outlined in the annual Transboundary Technical Committee Management plan (TTC 2019; Table 5). Scale samples will be used to generate postseason age composition estimates, and tissue samples will be used to estimate the proportion of Klukshu River sockeye salmon in the Alsek River commercial harvest. All ASL data will be sent to the Region 1 Scale Lab in Juneau on a weekly basis.

Table 5.–Sockeye salmon scale and length sampling objectives for the set gillnet fishery in Yakutat.

| Port | System | Annual Matched Scale/Tissue Objective | Annual Length Objective |
|---|---|---|---|
| Yakutat | Alsek River | 800 | 150 |

## COHO SALMON

Coho salmon are harvested throughout SEAK in the commercial troll, purse seine, drift gillnet, and set gillnet fisheries. Commercial trollers account for an average 60% of the annual coho salmon harvest, but this species is also important to other commercial gear groups (Shaul et al. 2011). Coded wire tagging (CWT) of wild coho salmon populations and port sampling for CWT recovery data and Fishery Performance Data (FPD), all of which started in the early 1980s, has provided long-term data sets on CPUE, harvests, harvest rates, age compositions, escapements, smolt abundance, and marine survival rates that facilitated development of wild coho salmon escapement goals and improved coho salmon management in SEAK (Shaul et al. 2011; Skannes and Hagerman 2013). Information from CWT recoveries is also used by hatchery programs to estimate commercial harvest contribution and distribution and to assess harvest and marine survival rates (Clark et al. 2006).

Coho salmon harvested in commercial troll, purse seine, and drift gillnet fisheries will be sampled for CWTs at the coastwide standard minimum rate of 20% of all harvested fish by statistical week, gear, and fishery area. Port samplers will examine landed fish for the absence of the adipose fin (indicating a tagged fish), enumerate the number of fish sampled (i.e., the number inspected for adipose fins), and record information on a CWT sampling form (Appendix B4) or enter data into a mobile computer application. Handheld electronic data recording devices are available in most ports and have largely eliminated the need for paper sampling except for those locations that do not have access to the State of Alaska network. When a coho salmon with a missing adipose fin is observed, the sampler will remove the fish from the processing line or grading table, obtain a length (mid eye to tail fork in mm), and apply a numbered CWT cinch strap to the fish's head. Heads will be recovered from the processor and shipped to the ADF&G MTA Laboratory in Juneau, where CWTs will be removed and decoded. Electronic data will be downloaded to a server within the State of Alaska network at the end of each sampling day. Data will then be made available through the MTA Laboratory website the following day, after samples are electronically validated.

### Purse Seine and Drift Gillnet Fisheries

Coho salmon harvested in purse seine and drift gillnet fisheries will be sampled for CWTs, stratified by week and district (drift gillnet) or by week and district or quadrant (purse seine; Appendix A8).

### Troll Fishery

Coho salmon are harvested by troll gear in SEAK from 1 June to 20 September. The troll fisheries management plan and regulations set by the Alaska Board of Fisheries and the Pacific Salmon Treaty contain provisions for triggering early or midseason closures and for potentially extending the season to 30 September, depending on fishery performance and inseason projections of wild coho salmon abundance. Fishery Performance Data (FPD) interviews (Appendix B5), collected by

port samplers during the fishery, provide CPUE data critical to these assessments of coho salmon run strength.

During the summer troll fishery, each port will be assigned a weekly number of FPD interviews to collect based on historical delivery rates (Table 6). FPD interviews will be conducted at the time of delivery, usually concurrently with CWT sampling. Permit holders will be asked to estimate the percent of each species of fish caught and the number of hours fished for each district and sub-district fished. Samplers will record this information on an electronic handheld tablet or on a paper FPD form. Tablets will be downloaded directly into the ADF&G database at the end of each sampling day. Paper forms will be scanned and emailed daily to the ADF&G Troll Management Biologists during Chinook salmon retention periods and weekly during Chinook salmon non-retention periods.

Table 6.–FPD interview objectives by port per week during the summer troll fishery.

| Port | Weekly FPD Interviews |
|---|---|
| Sitka | 50 |
| Sitka Tender Rider | 15 |
| Port Alexander | 20 |
| Pelican | 15 |
| Excursion Inlet | 5 |
| Hoonah | 10 |
| Petersburg | 10 |
| Wrangell | 5 |
| Ketchikan | 10 |
| Craig | 40 |
| Juneau | Opportunistically |

## CHINOOK SALMON

Chinook salmon are harvested in all commercial, sport, and subsistence fisheries in SEAK. Unlike other species of salmon, management of the annual harvest of Chinook salmon is based on a coast wide abundance index[1], calculated annually by the Chinook Technical Committee of the Pacific Salmon Commission as outlined in the Pacific Salmon Treaty. Each gear group in SEAK is allotted a percent of the total allowable catch (TAC) as determined from the abundance index: 4.3% to purse seine, 2.9% to drift gillnet, and 1,000 fish to set gillnet; 80% of the remaining TAC is allocated to the commercial troll fleet and 20% to the recreational fishery (Der Hovanisian et al. 2011).

Chinook salmon harvested in commercial fisheries will be sampled for CWTs at the coastwide standard minimum rate of 20% of all harvested fish by gear, fishing area, and statistical week,

[1] Except in the spring troll fishery, when Chinook salmon management is based on the contribution of Alaska hatchery fish.

except for drift gillnet fisheries in districts 108 and 111, where the objective will be to sample a minimum of 30% of the harvest in each statistical week. Hatcheries outside of Alaska mass mark Chinook salmon for Mark Select Fisheries by removing the adipose fin of all fish released. This has dramatically increased the number of Chinook salmon encountered in SEAK fisheries that have clipped adipose fins but are not tagged with a CWT. ADF&G port samplers will use an electronic tag detection wand to determine whether a CWT is actually present in the head of an adipose fin clipped Chinook salmon. If the wand returns a positive signal, the sampler will measure the length of the fish, note the flesh color, and attach a numbered CWT cinch strap to the fish's head so that it can be recovered later. If no CWT signal is detected, the sampler will simply record the "no signal" status, flesh color, and clip status.

## Purse Seine Fishery

Chinook salmon are harvested in both the traditional commercial purse seine fisheries and in terminal harvest areas that target hatchery fish. The traditional purse seine fisheries are carefully managed to achieve 4.3% of the Chinook salmon quota each season, and non-retention periods may be instituted when the TAC is small. Size limits have been adopted by the Alaska Board of Fisheries to reduce incidental mortality. Only Chinook salmon greater than 28 inches in length from the tip of the nose to the tip of the tail are counted towards the purse seine portion of the TAC. Chinook salmon harvested in purse seine fisheries that are greater than 21 inches and less than 28 inches in length may be retained but not sold, even during non-retention periods, and Chinook salmon less than 21 inches in length may be retained and sold (Gray et al. 2014b). Port samplers will collect CWT data from Chinook salmon delivered from discreet fishing districts or from mixed seine areas defined by the ADF&G MTA Laboratory. Chinook salmon between 21 and 28 inches in length that are retained but not sold are not sampled for CWTs.

## Drift Gillnet Fishery

Chinook salmon are primarily harvested incidentally to targeted species (e.g., sockeye salmon) in commercial drift gillnet fisheries, except for targeted Chinook salmon fisheries in districts 108 and 111 that may occur in spring (late May–June). These directed fisheries are only prosecuted in years when the preseason forecast of transboundary Taku or Stikine river Chinook salmon is large enough to support an allowable catch as outlined in the Pacific Salmon Treaty. In some years the preseason forecast may support a fishery; however, if the inseason forecast drops below the minimum threshold level to allow for directed fishing, the fishery will be closed (Gray et al. 2014a). In years when a directed Chinook salmon drift gillnet fishery opens, port samplers will collect matching GSI, scale, and length samples from harvested Chinook salmon (Table 7). In years when directed Chinook salmon fisheries do not occur in district 108 or 111, or they are closed part way through the season, Chinook salmon harvested incidentally during the sockeye salmon management periods in those districts will be sampled according to the objectives set for the directed fishery in the spring (Table 7). Chinook salmon harvested in other drift gillnet fishing districts will also be sampled for CWTs to meet the objective of sampling 20% of the harvest by district and statistical week. Sampling goals for Chinook salmon harvested in the district 106, 108, and 111 gillnet fisheries are outlined annually in the Transboundary Technical Committee management plan (TTC 2019).

Table 7.–Chinook salmon drift gillnet weekly sampling objectives.

| Port | District | Weekly Matched Scale/Tissue Objective | Weekly Length Objective |
|---|---|---|---|
| Petersburg | 108 | 20 | 140 |
| | 111 | Any | All |
| | 115 | Any | All |
| Wrangell | 108 | 60 | 160 |
| Juneau | 111 | Any | All |
| | 115 | Any | All |
| Excursion Inlet | 111 | Any | All |
| | 115 | Any | All |

## Set Gillnet Fishery

ADF&G Yakutat Area management staff will collect matched tissue and scale samples from Chinook salmon harvested in the Dry Bay set gillnet fishery, at the mouth of the transboundary Alsek River, as outlined in the annual Transboundary Technical Committee management plan (TTC 2019; Table 8). The tissue samples are used to estimate the proportion of Klukshu River Chinook salmon in the Alsek River commercial harvest. All ASL data will be sent to the Region 1 Scale Lab in Juneau on a weekly basis.

Table 8.–Seasonal Chinook salmon scale and length sampling objectives for the Yakutat set gillnet fishery.

| System | Annual Matched Scale/Tissue Objective | Annual Length Objective |
|---|---|---|
| Alsek River | 600 | 100 |

## Troll Fishery

Five Chinook salmon troll fishing periods may be conducted in SEAK each calendar year: early winter, late winter, spring, and 1st and 2nd summer retention periods. The annual SEAK troll accounting year begins with the commencement of the winter troll fishery on 11 October. The winter troll fishery continues through 30 April by regulation, or until the total allowable catch is reached, or otherwise mandated. The allowable catch is 45,000 Chinook salmon that are not of Alaska hatchery-origin ("treaty fish"), and the number of Alaska hatchery-produced Chinook salmon harvested that are added back in (Skannes et al. 2016). This means that all treaty fish harvested during the winter troll fishery count towards the accounting year troll fishery treaty allocation and the all-gear treaty allocation for that year. For example, the 2019 troll accounting year began 11 October 2018 and all treaty fish were counted towards the 2019 troll fishery treaty allocation and the 2019 all-gear treaty allocation. Any treaty Chinook salmon not harvested during the winter fishery are available for harvest in spring and summer troll fisheries.

The spring troll fishery is managed to harvest Alaska hatchery stocks of Chinook salmon in discreet statistical areas. These areas open during the spring fishery are restricted to smaller areas than what is allowed during the summer fishery and are concentrated around SEAK hatcheries and SEAK hatchery fish migration paths.

The 1st summer troll Chinook salmon retention period opens on 1 July to target 70% of the remaining troll quota, making it the largest SEAK fishery to harvest Chinook salmon. The 1st summer retention period can last as little as three days depending on the size of the quota, Chinook salmon abundance, weather, and fishing effort. Chinook salmon are managed by abundance rather than escapement, so management biologists need CPUE and harvest estimates updated daily to effectively manage the fishery while meeting treaty obligations. Port samplers collect interviews from troll permit holders offloading their catch for the CPUE information used for inseason management. The 2nd summer troll retention period is usually prosecuted in mid-August and is managed to harvest the remainder of the total troll quota.

During each troll fishing period, port samplers collect FPD, CWT, scales, tissues, and lengths to meet sampling objectives by quadrant (Table 9; Appendix B5). FPDs are collected for all Chinook salmon troll fisheries and are reviewed by port supervisors, lead samplers or data coordinators. FPDs are scanned and emailed to the ADF&G Troll Management Biologists or entered into a mobile computer and downloaded at the end of the sampling day. ADF&G port samplers attempt to sample each fishery area for CWTs at a rate of at least 20% each statistical week. Fish that are adipose fin clipped are checked for the presence of a CWT using an electronic tag detection wand. For those fish that have a positive signal; the head is labeled with uniquely numbered bar-coded cinch strap and the recovered heads are sent to the ADF&G MTA Laboratory at least once a week for tag recovery and decoding. Matched scale and tissue samples are collected throughout each week from each statistical area in each major port of call. Landings with fish from mixed quadrants that are not kept separate are not sampled.

Table 9.–SEAK Chinook salmon scale and tissue sampling objectives from the troll fishery. All fish sampled are measured for length. Objectives subject to change in-season.

| | | Quadrant | | | |
|---|---|---|---|---|---|
| | | 171 | 172 | 173 | 174 |
| Season | Port | Scales<br>Tissues | Scales<br>Tissues | Scales<br>Tissues | Scales<br>Tissues |
| Summer 1st Retention | Sitka Tender Rider | 160 | - | - | - |
| | Sitka | 500 | - | - | - |
| | Petersburg | - | - | 200 | 50 |
| | Ketchikan | - | 50 | - | 100 |
| | Craig | - | 450 | 100 | - |
| | Port Alexander | - | - | 100 | - |
| | Wrangell | - | - | - | 80 |
| Summer 2nd Retention | Sitka Tender Rider | 80 | - | - | - |
| | Sitka | 500 | - | - | - |
| | Petersburg | - | - | 130 | 50 |
| | Ketchikan | - | 50 | - | 150 |
| | Craig | - | 300 | 120 | - |
| | Port Alexander | - | - | 50 | - |
| | Wrangell | - | - | - | 120 |
| Early Winter | Sitka | 450 | - | - | - |
| | Juneau[a] | 50 | - | 40 | - |
| | Petersburg | - | - | 50 | 20 |
| | Ketchikan | - | 40 | - | 80 |
| | Craig | - | 60 | - | 40 |
| | Wrangell | - | - | - | 60 |
| Late Winter | Sitka | 350 | - | 80 | - |
| | Juneau[a] | 30 | - | 40 | - |
| | Petersburg[a] | - | - | 50 | 20 |
| | Ketchikan | - | 20 | - | 60 |
| | Craig | - | 60 | - | 40 |
| | Wrangell[a] | - | - | - | 40 |
| Spring | Sitka | 1,000 | - | 80 | - |
| | Juneau[a] | 200 | - | 200 | - |
| | Petersburg[a] | - | - | - | 100 |
| | Ketchikan | - | - | - | 400 |
| | Craig | - | 400 | - | - |
| | Wrangell[a] | - | - | 300 | 300 |

[a] Sample representatively from either quadrant to reach sampling objective

### ATLANTIC SALMON

The Atlantic salmon (*Salmo salar*) is not a commercially harvested species in SEAK and Yakutat; however, Atlantic salmon that have escaped from fish farms along the coasts of British Columbia and Washington State have been recovered in SEAK fisheries nearly annually since 1990 (ADF&G unpublished data). Atlantic salmon that are turned in to an ADF&G representative by a fisherman or recovered by a port sampler will be sampled for length, weight (if possible), scales, and tissues (for genetic analysis), and data will be recorded on an Atlantic salmon sampling form (Appendix B6). Samples and data will be sent to the ADF&G MTA Laboratory for further study.

## SCHEDULE AND DELIVERABLES

Port sampling of the commercial salmon harvest is conducted year-round at the ports of Juneau, Petersburg, and Sitka, and for 11 months of the year at Ketchikan. Outlying ports are staffed during periods of high salmon abundance or when local processing plants are buying fish, and when funding allows, usually during the months of April–November.

## RESPONSIBILITIES

Table 10.–Port sampling responsibilities, ports supervised and position titles.

| Name | Title | Job Class | Ports Supervised |
|---|---|---|---|
| Anne Reynolds Manney | Project Leader and Regional Port Sampling Supervisor | Fishery Biologist IV | Yakutat, Juneau, Excursion Inlet |
| Jill Walker | Port Sampling Supervisor | Fishery Biologist II | Ketchikan and Craig |
| Jason Jones | Port Sampling Supervisor | Fishery Biologist II | Sitka and Port Alexander |
| Jeff Rice | Port Sampling Supervisor | Fishery Biologist II | Petersburg and Wrangell |
| Iris Frank | Senior Scale Structure Analysist and Regional ASL Data Coordinator | Fish and Wildlife Tech V | Douglas |

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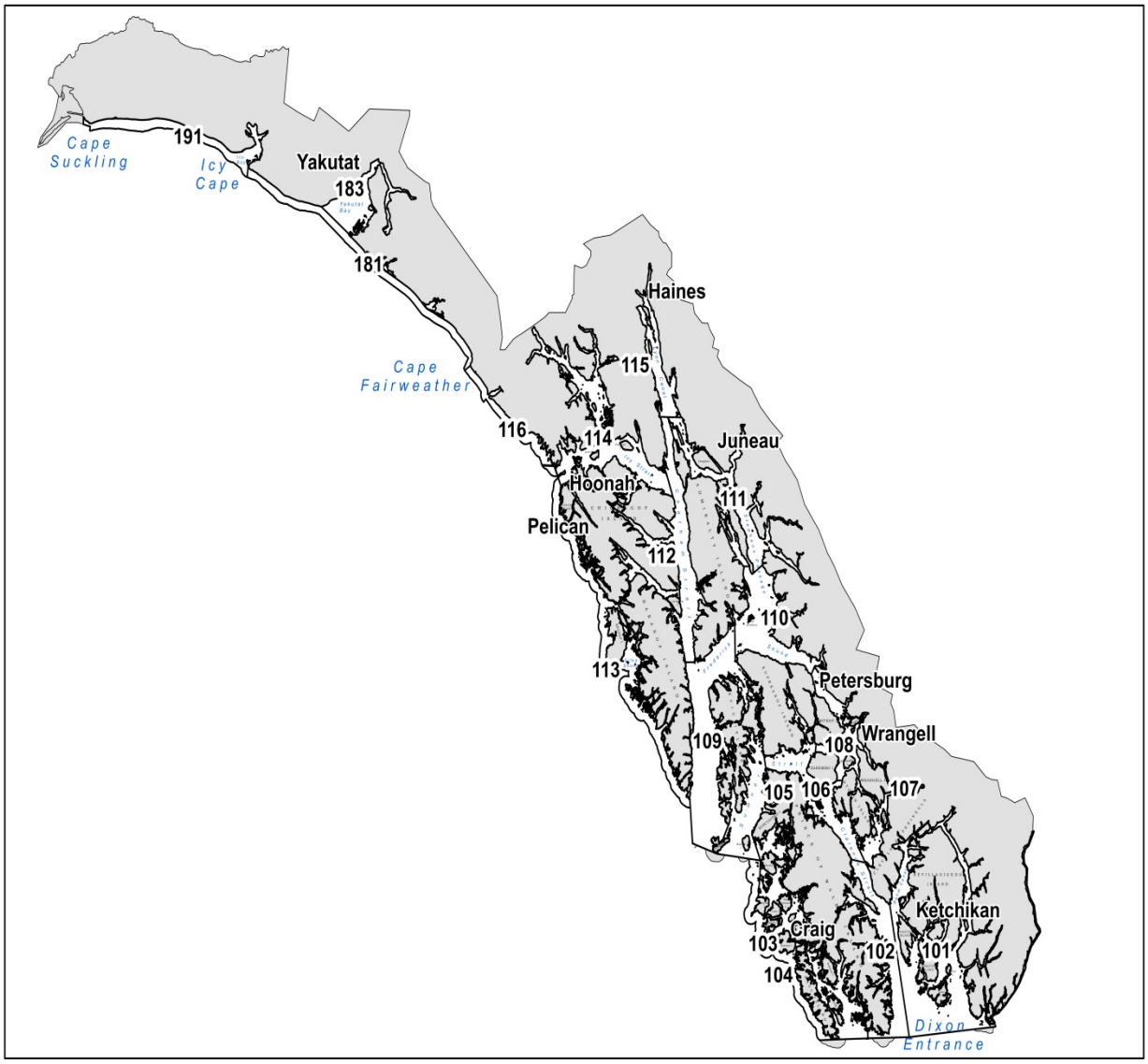
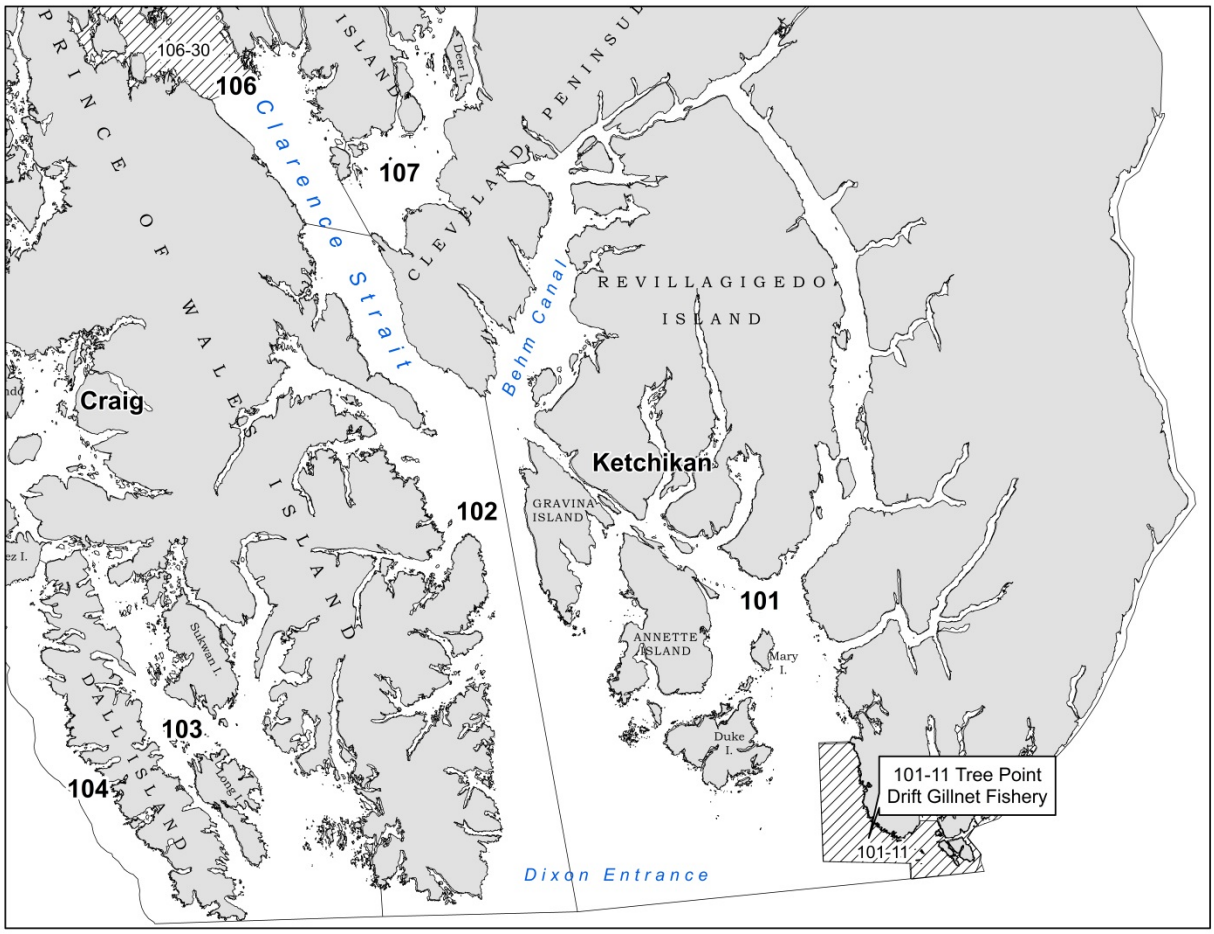
# APPENDIX A:
# REGION AND FISHERY AREA MAPS

Appendix A1.–Map of Southeast Alaska/Yakutat management area, Region 1.

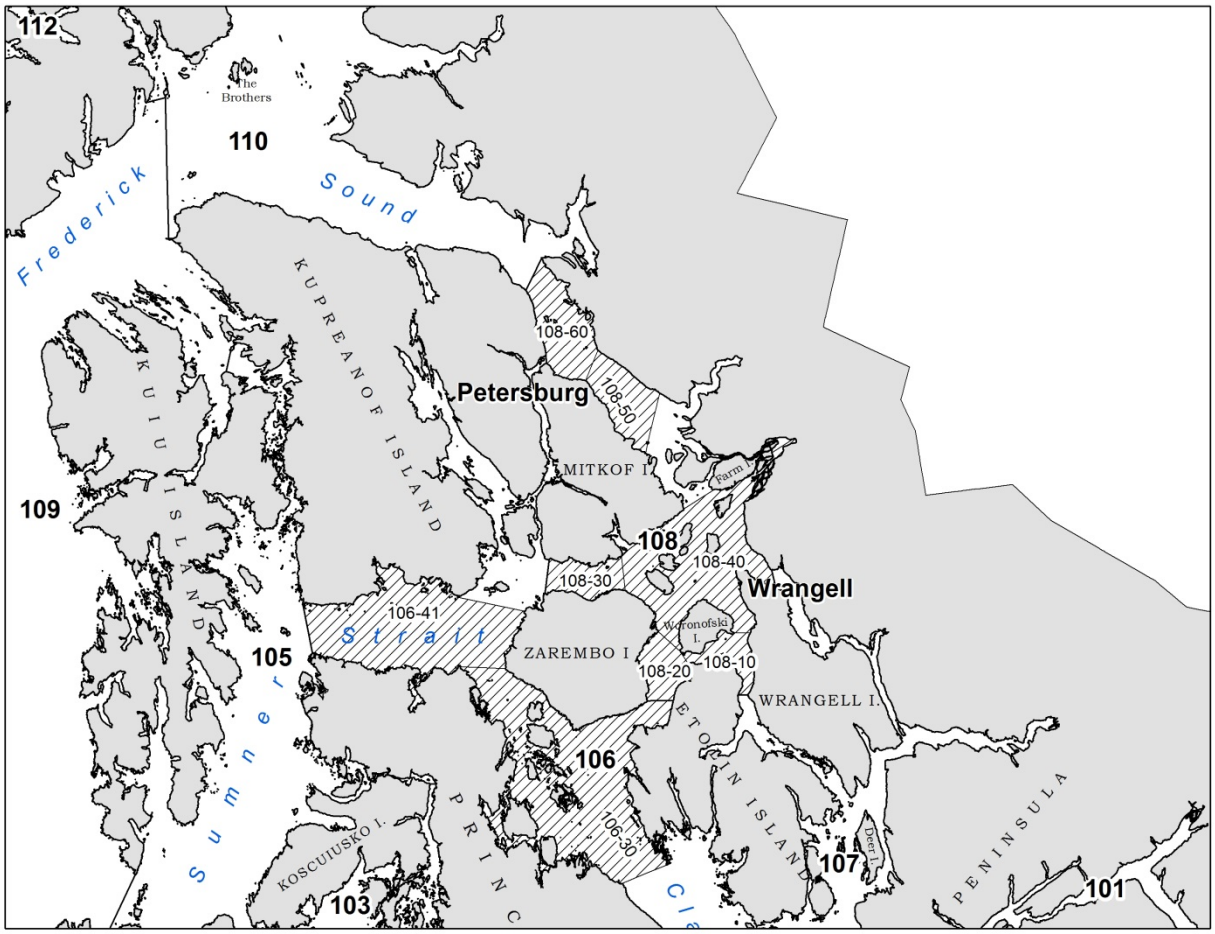


Appendix A2.–Map of the purse seine fishery districts in Southeast Alaska

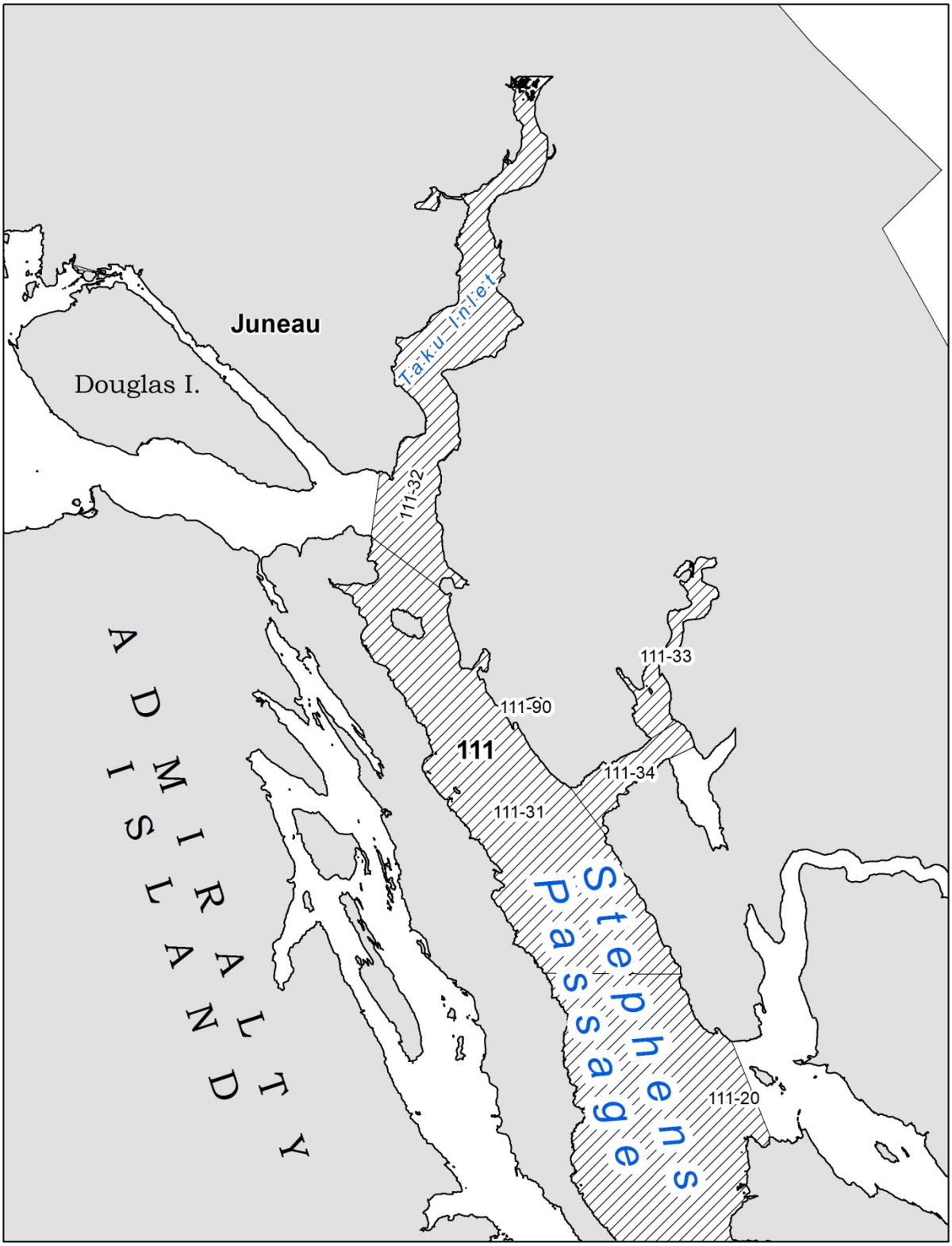
Appendix A3.–Map of the District 101-11 Tree Point drift gillnet fishery.



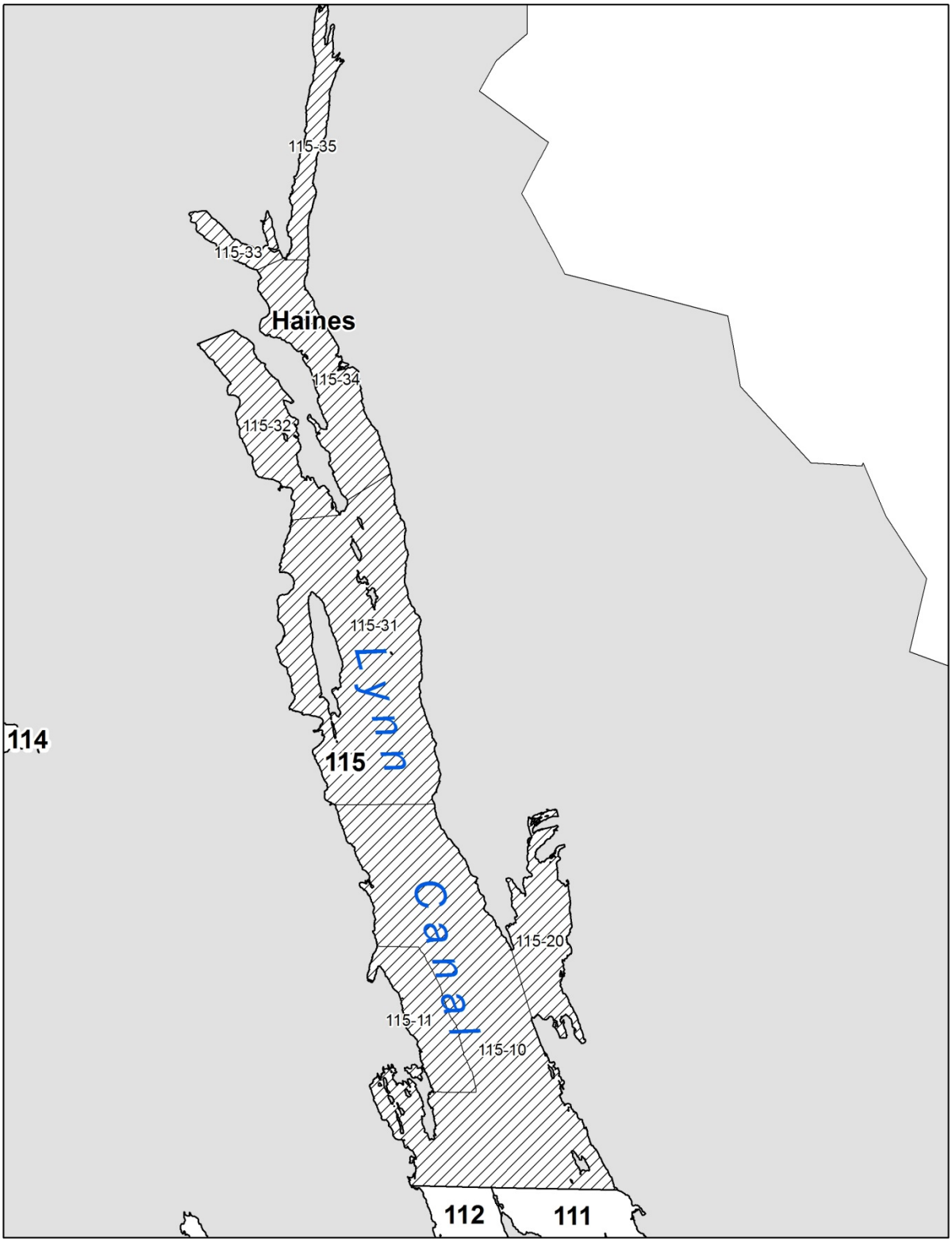
Appendix A4.–Map of the District 106 Price of Wales and District 108 Stikine drift gillnet fisheries.



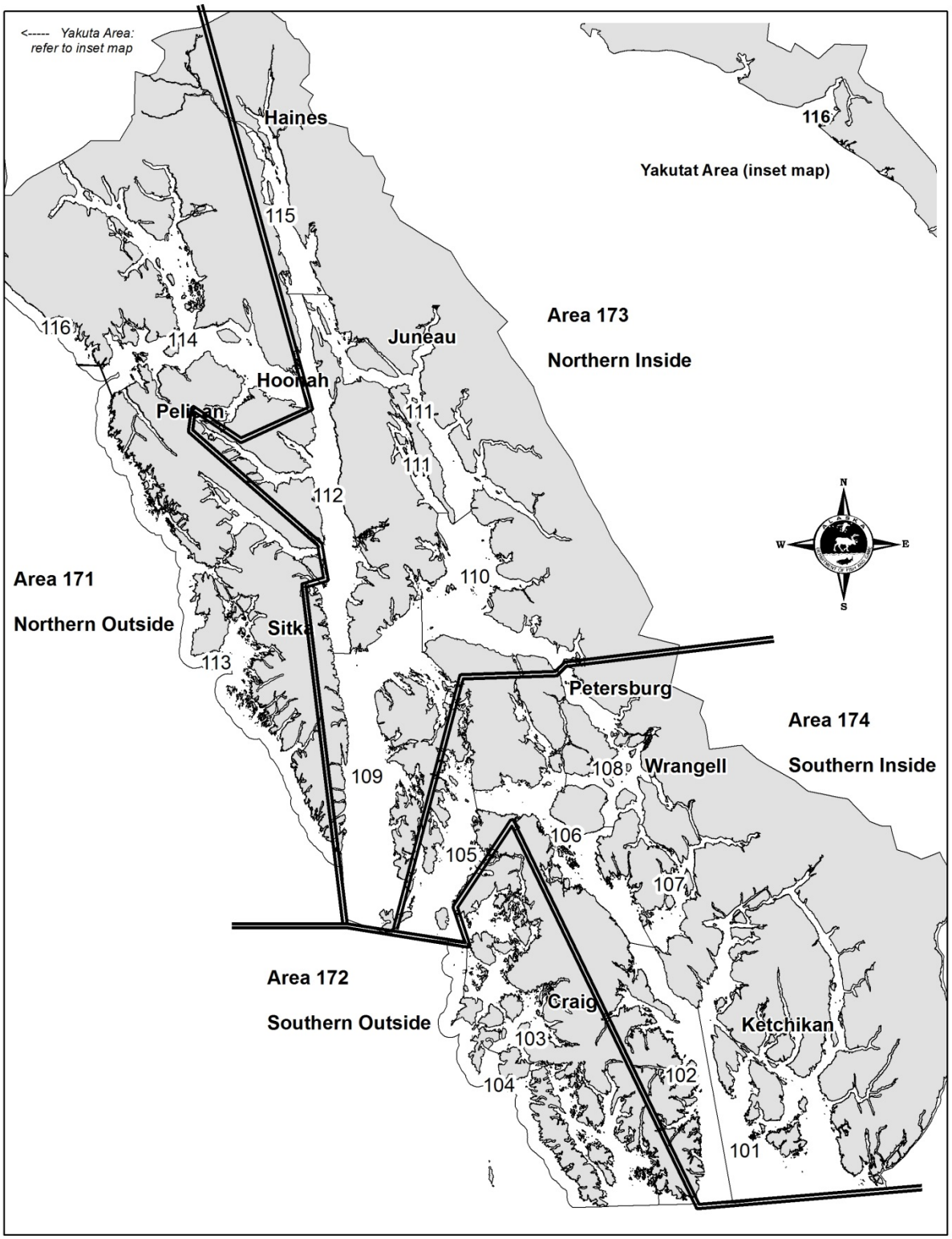
Appendix A5.–Map of the District 111 Taku-Stephens Passage drift gillnet fishery.



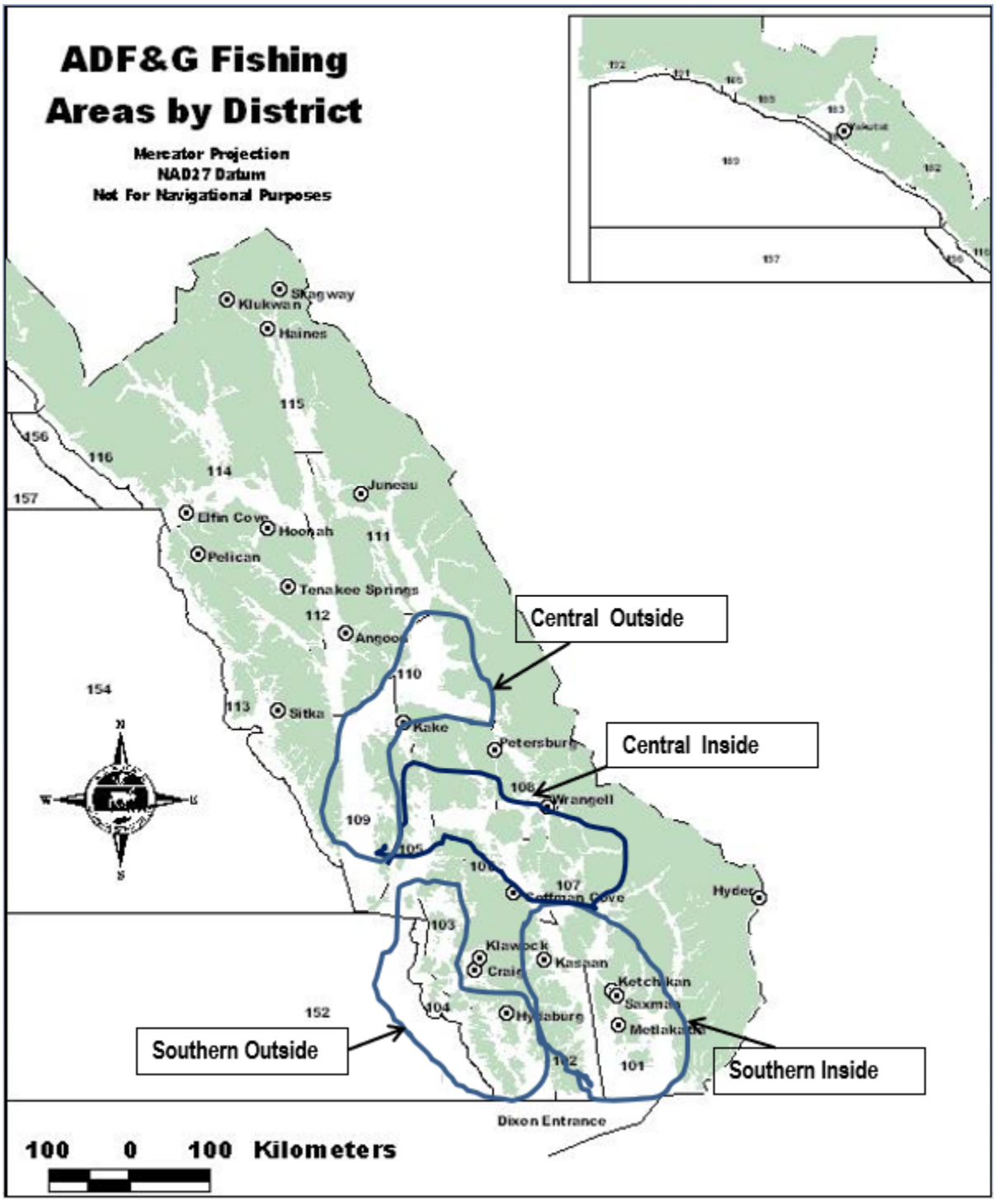
Appendix A6.–Map of the District 115 Lynn Canal drift gillnet fishery.



Appendix A7.–Map of the troll quadrants and districts.



Appendix A8.–Map of the purse seine quadrants and districts.



# APPENDIX B:
# SAMPLING FORMS

Appendix B1.–Pink salmon sex composition data form.

**Pink Salmon Sex Composition Data Form**

**Sample Number:** _____ **Project Type:** _____

**Gear Type:** _____ **Harvest Type:** _____

**Catch Date (mm/dd/yr):** _____ **Sample Date (mm/dd/yr):** _____

**Statistical Week:** _____ **Survey Site (Port):** _____

**ADFG Vessel Number:** _____ **Boat/Tender Name:** _____

**Sampled By:** _____

**Sample Quality:** **Good** **Questionable Data:** **Fish Sexed Externally**
**Questionable, other**
**Mixed Districts**
**Sampled After Grading**

| District/Sub-District | Stream | % of Catch | Catch Location (Place Fished) |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

| Observation | Number Males | Number Females | Sample Size | Percent Males |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| Total: | | | | |

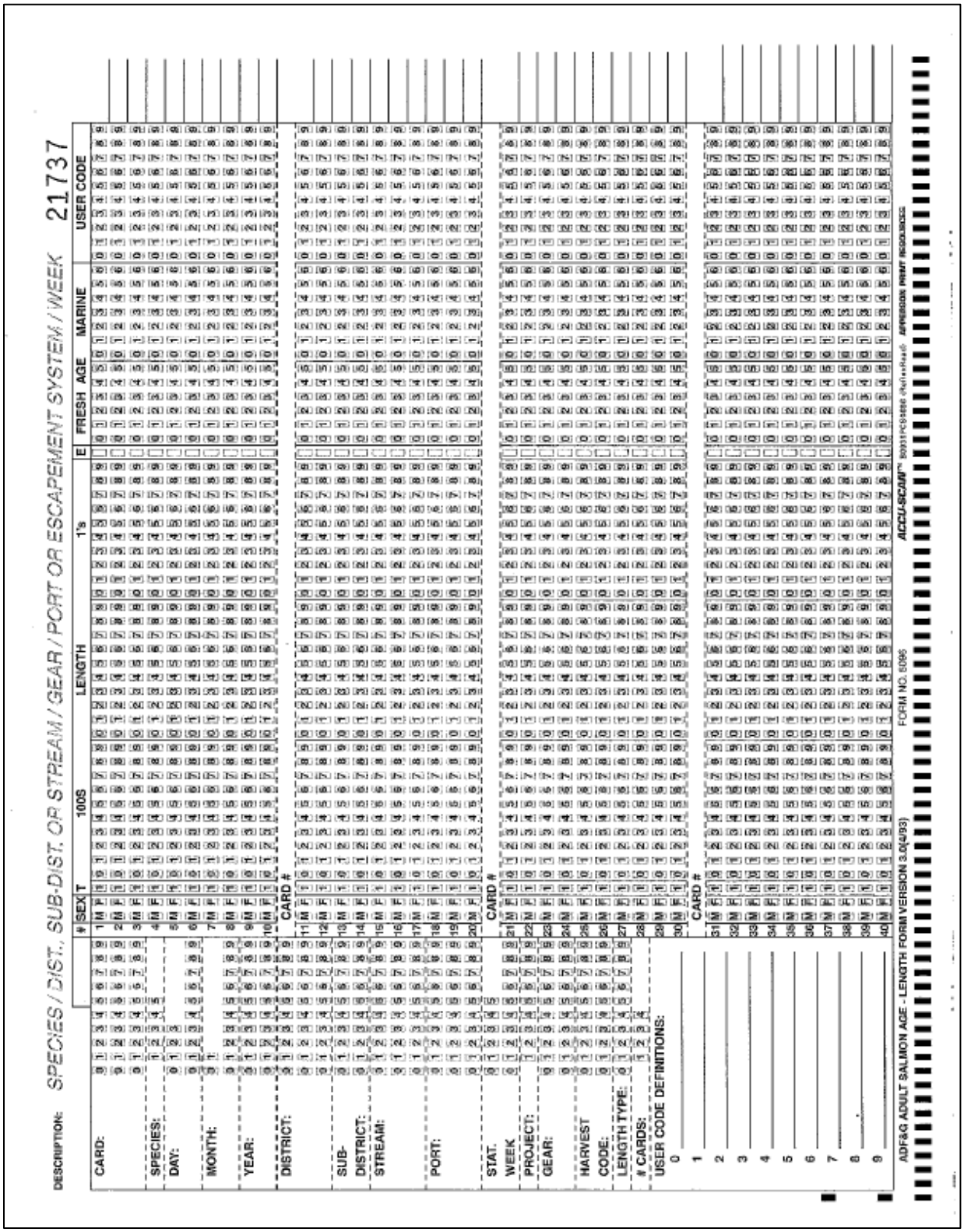
**Total Fish Count:** _____ **Total Wt. (lbs):** _____ **Avg. Wt.:** _____

**Comments:**

_____

_____

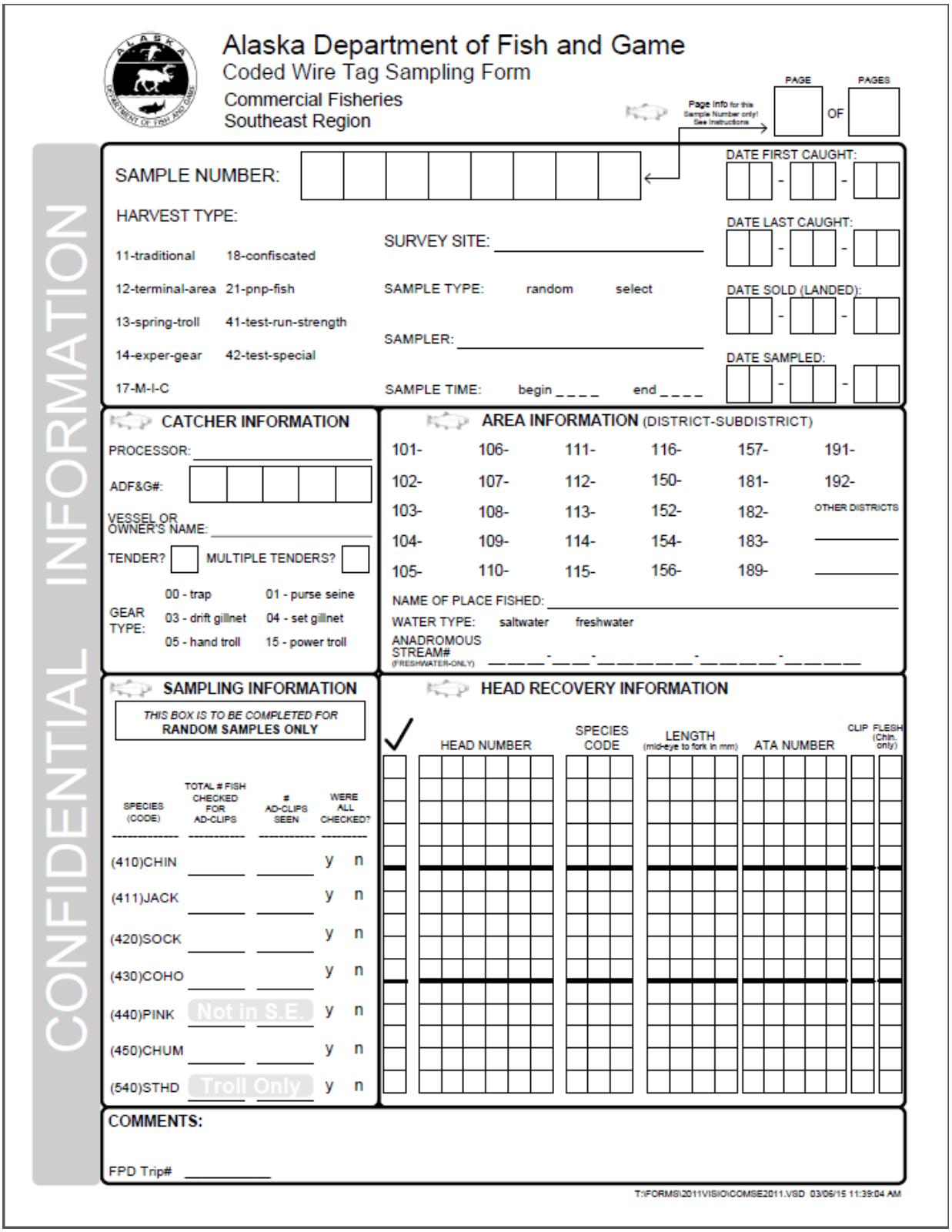
Appendix B2.–Age-sex-length (ASL) scale and tissue/otolith sampling form.



Appendix B3.–Sockeye salmon matched sample or coordination tag number (CTN) form.

| | | | | | |
|---|---|---|---|---|---|
| **Species:** | | | **Sampler:** | | |
| **Harvest:** | | | **Date:** | | |
| **Source:** | **Common Property** | | **Gear:** | | |
| **District:** | **Sub District:** | | **Stat Week:** | **ASL #:** | |
| Coordination Tag # | DNA sample # | | Coordination Tag # | DNA sample # | |
| | | 21 | | | |
| | | 22 | | | |
| | | 23 | | | |
| | | 24 | | | |
| | | 25 | | | |
| | | 26 | | | |
| | | 27 | | | |
| | | 28 | | | |
| | | 29 | | | |
| | | 30 | | | |
| | | 31 | | | |
| | | 32 | | | |
| | | 33 | | | |
| | | 34 | | | |
| | | 35 | | | |
| | | 36 | | | |
| | | 37 | | | |
| | | 38 | | | |
| | | 39 | | | |
| | | 40 | | | |

Appendix B4.–Paper coded wire tag (CWT) sampling form.



Alaska Department of Fish and Game
Coded Wire Tag Sampling Form
Commercial Fisheries
Southeast Region

PAGE ____ OF ____ PAGES

Page Info for this Sample Number only! See Instructions

CONFIDENTIAL INFORMATION

SAMPLE NUMBER: _____

DATE FIRST CAUGHT: __ - __ - __

DATE LAST CAUGHT: __ - __ - __

DATE SOLD (LANDED): __ - __ - __

DATE SAMPLED: __ - __ - __

HARVEST TYPE:

11-traditional
12-terminal-area
13-spring-troll
14-exper-gear
17-M-I-C
18-confiscated
21-pnp-fish
41-test-run-strength
42-test-special

SURVEY SITE: _____

SAMPLE TYPE: random select

SAMPLER: _____

SAMPLE TIME: begin ____ end ____

CATCHER INFORMATION

PROCESSOR: _____

ADF&G#: _____

VESSEL OR OWNER'S NAME: _____

TENDER? ☐ MULTIPLE TENDERS? ☐

GEAR TYPE:
00 - trap
01 - purse seine
03 - drift gillnet
04 - set gillnet
05 - hand troll
15 - power troll

AREA INFORMATION (DISTRICT-SUBDISTRICT)

| | | | | | |
|---|---|---|---|---|---|
| 101- | 106- | 111- | 116- | 157- | 191- |
| 102- | 107- | 112- | 150- | 181- | 192- |
| 103- | 108- | 113- | 152- | 182- | OTHER DISTRICTS |
| 104- | 109- | 114- | 154- | 183- | _____ |
| 105- | 110- | 115- | 156- | 189- | _____ |

NAME OF PLACE FISHED: _____

WATER TYPE: saltwater freshwater

ANADROMOUS STREAM# (FRESHWATER-ONLY) ___-___-___-___-___

SAMPLING INFORMATION

*THIS BOX IS TO BE COMPLETED FOR* **RANDOM SAMPLES ONLY**

| SPECIES (CODE) | TOTAL # FISH CHECKED FOR AD-CLIPS | # AD-CLIPS SEEN | WERE ALL CHECKED? |
|---|---|---|---|
| (410)CHIN | | | y n |
| (411)JACK | | | y n |
| (420)SOCK | | | y n |
| (430)COHO | | | y n |
| (440)PINK | Not in S.E. | | y n |
| (450)CHUM | | | y n |
| (540)STHD | Troll Only | | y n |

HEAD RECOVERY INFORMATION

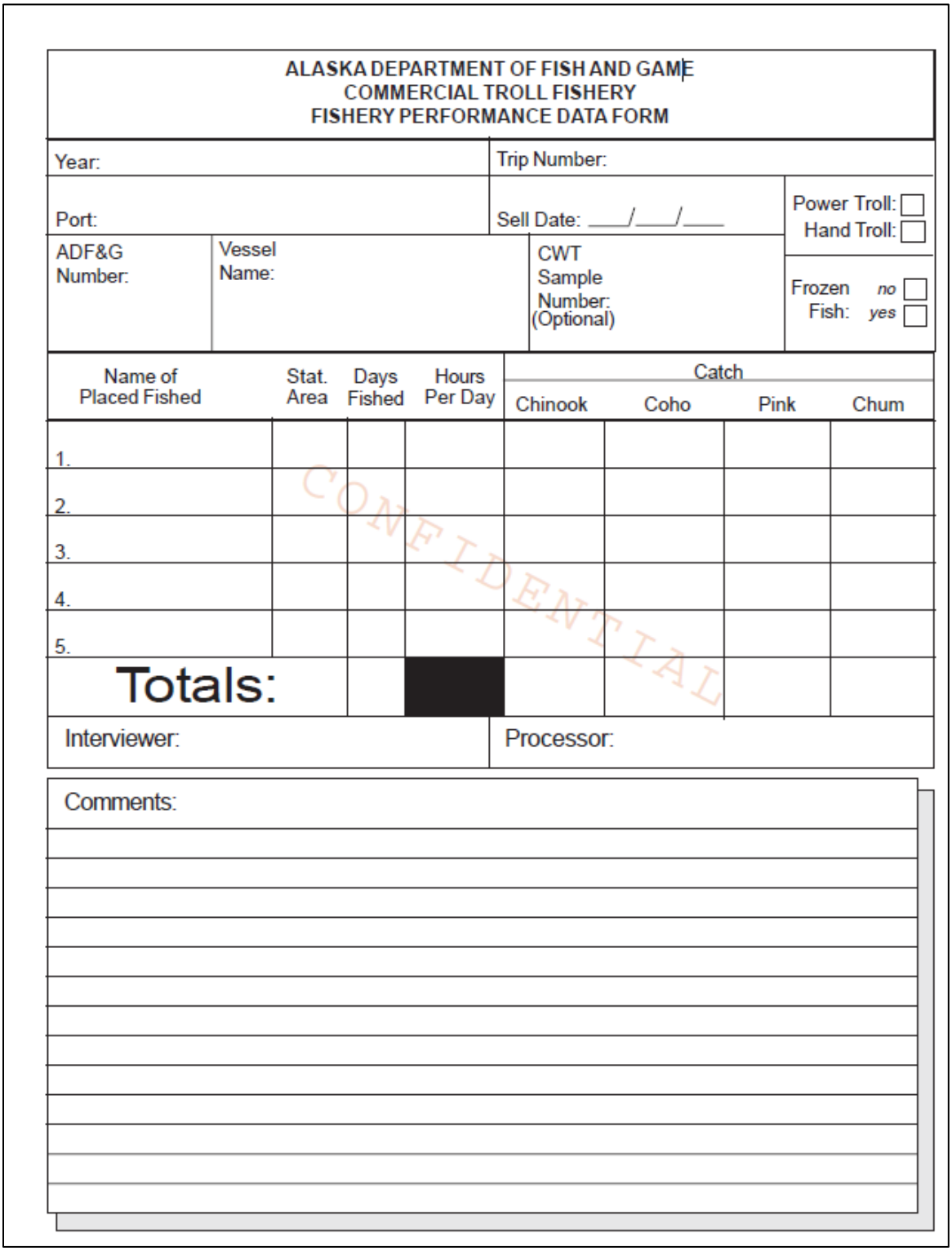
| ✓ | HEAD NUMBER | SPECIES CODE | LENGTH (mid-eye to fork in mm) | ATA NUMBER | CLIP | FLESH (Chin. only) |
|---|---|---|---|---|---|---|
| | | | | | | |

COMMENTS:

FPD Trip# _____

T:\FORMS\2011VISIO\COMSE2011.VSD 03/06/15 11:39:04 AM

Appendix B5.–Fishery performance data (FPD) form used for sampling coho and Chinook salmon troll landings.



ALASKA DEPARTMENT OF FISH AND GAME
COMMERCIAL TROLL FISHERY
FISHERY PERFORMANCE DATA FORM

Year: | Trip Number:

Port: | Sell Date: ____/____/____ | Power Troll: ☐ Hand Troll: ☐

ADF&G Number: | Vessel Name: | CWT Sample Number: (Optional) | Frozen Fish: no ☐ yes ☐

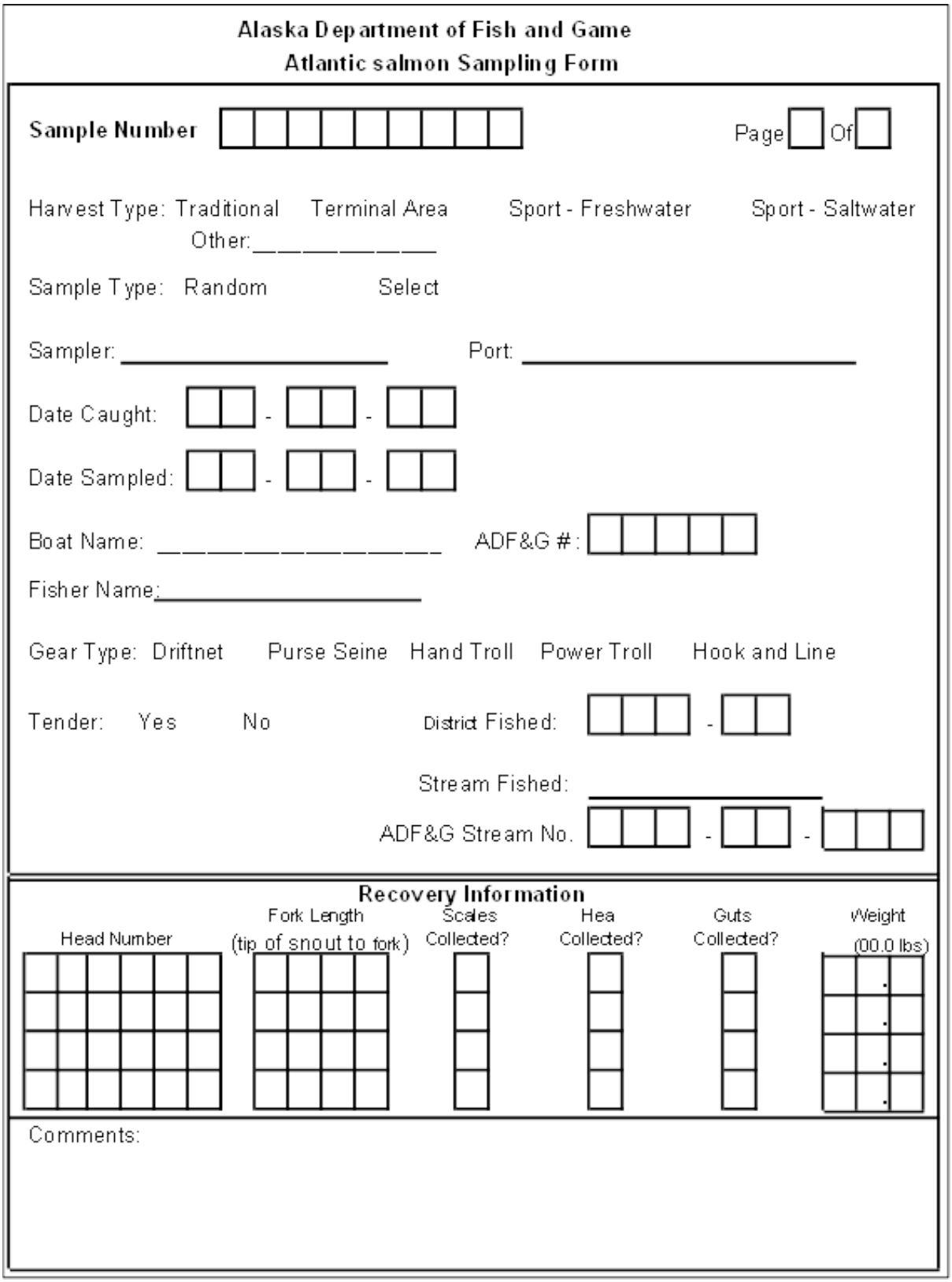
| Name of Placed Fished | Stat. Area | Days Fished | Hours Per Day | Catch: Chinook | Coho | Pink | Chum |
|---|---|---|---|---|---|---|---|
| 1. | | | | | | | |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |
| Totals: | | | | | | | |

Interviewer: | Processor:

Comments:

CONFIDENTIAL

Appendix B6.–Atlantic salmon sampling form.



**Alaska Department of Fish and Game**
**Atlantic salmon Sampling Form**

**Sample Number** ☐☐☐☐☐☐☐☐☐ Page ☐ Of ☐

Harvest Type: Traditional Terminal Area Sport - Freshwater Sport - Saltwater
Other:_____

Sample Type: Random Select

Sampler: _____ Port: _____

Date Caught: ☐☐ - ☐☐ - ☐☐

Date Sampled: ☐☐ - ☐☐ - ☐☐

Boat Name: _____ ADF&G #: ☐☐☐☐☐

Fisher Name:_____

Gear Type: Driftnet Purse Seine Hand Troll Power Troll Hook and Line

Tender: Yes No District Fished: ☐☐☐ - ☐☐

Stream Fished: _____

ADF&G Stream No. ☐☐☐ - ☐☐ - ☐☐☐

**Recovery Information**

| Head Number | Fork Length (tip of snout to fork) | Scales Collected? | Hea Collected? | Guts Collected? | Weight (00.0 lbs) |
|---|---|---|---|---|---|
| | | | | | |

Comments:

# APPENDIX C:
# STATISTICAL WEEK CALENDARS

Appendix C1.–ADF&G statistical week calendars, 2020–2023.

| | 2020 | | 2021 | | 2022 | | 2023 | |
|---|---|---|---|---|---|---|---|---|
| Week | Start | End | Start | End | Start | End | Start | End |
| 1 | 1-Jan | 4-Jan | 1-Jan | 2-Jan | 1-Jan | 1-Jan | 1-Jan | 7-Jan |
| 2 | 5-Jan | 11-Jan | 3-Jan | 9-Jan | 2-Jan | 8-Jan | 8-Jan | 14-Jan |
| 3 | 12-Jan | 18-Jan | 10-Jan | 16-Jan | 9-Jan | 15-Jan | 15-Jan | 21-Jan |
| 4 | 19-Jan | 25-Jan | 17-Jan | 23-Jan | 16-Jan | 22-Jan | 22-Jan | 28-Jan |
| 5 | 26-Jan | 1-Feb | 24-Jan | 30-Jan | 23-Jan | 29-Jan | 29-Jan | 4-Feb |
| 6 | 2-Feb | 8-Feb | 31-Jan | 6-Feb | 30-Jan | 5-Feb | 5-Feb | 11-Feb |
| 7 | 9-Feb | 15-Feb | 7-Feb | 13-Feb | 6-Feb | 12-Feb | 12-Feb | 18-Feb |
| 8 | 16-Feb | 22-Feb | 14-Feb | 20-Feb | 13-Feb | 19-Feb | 19-Feb | 25-Feb |
| 9 | 23-Feb | 29-Feb | 21-Feb | 27-Feb | 20-Feb | 26-Feb | 26-Feb | 4-Mar |
| 10 | 1-Mar | 7-Mar | 28-Feb | 6-Mar | 27-Feb | 5-Mar | 5-Mar | 11-Mar |
| 11 | 8-Mar | 14-Mar | 7-Mar | 13-Mar | 6-Mar | 12-Mar | 12-Mar | 18-Mar |
| 12 | 15-Mar | 21-Mar | 14-Mar | 20-Mar | 13-Mar | 19-Mar | 19-Mar | 25-Mar |
| 13 | 22-Mar | 28-Mar | 21-Mar | 27-Mar | 20-Mar | 26-Mar | 26-Mar | 1-Apr |
| 14 | 29-Mar | 4-Apr | 28-Mar | 3-Apr | 27-Mar | 2-Apr | 2-Apr | 8-Apr |
| 15 | 5-Apr | 11-Apr | 4-Apr | 10-Apr | 3-Apr | 9-Apr | 9-Apr | 15-Apr |
| 16 | 12-Apr | 18-Apr | 11-Apr | 17-Apr | 10-Apr | 16-Apr | 16-Apr | 22-Apr |
| 17 | 19-Apr | 25-Apr | 18-Apr | 24-Apr | 17-Apr | 23-Apr | 23-Apr | 29-Apr |
| 18 | 26-Apr | 2-May | 25-Apr | 1-May | 24-Apr | 30-Apr | 30-Apr | 6-May |
| 19 | 3-May | 9-May | 2-May | 8-May | 1-May | 7-May | 7-May | 13-May |
| 20 | 10-May | 16-May | 9-May | 15-May | 8-May | 14-May | 14-May | 20-May |
| 21 | 17-May | 23-May | 16-May | 22-May | 15-May | 21-May | 21-May | 27-May |
| 22 | 24-May | 30-May | 23-May | 29-May | 22-May | 28-May | 28-May | 3-Jun |
| 23 | 31-May | 6-Jun | 30-May | 5-Jun | 29-May | 4-Jun | 4-Jun | 10-Jun |
| 24 | 7-Jun | 13-Jun | 6-Jun | 12-Jun | 5-Jun | 11-Jun | 11-Jun | 17-Jun |
| 25 | 14-Jun | 20-Jun | 13-Jun | 19-Jun | 12-Jun | 18-Jun | 18-Jun | 24-Jun |
| 26 | 21-Jun | 27-Jun | 20-Jun | 26-Jun | 19-Jun | 25-Jun | 25-Jun | 1-Jul |
| 27 | 28-Jun | 4-Jul | 27-Jun | 3-Jul | 26-Jun | 2-Jul | 2-Jul | 8-Jul |
| 28 | 5-Jul | 11-Jul | 4-Jul | 10-Jul | 3-Jul | 9-Jul | 9-Jul | 15-Jul |
| 29 | 12-Jul | 18-Jul | 11-Jul | 17-Jul | 10-Jul | 16-Jul | 16-Jul | 22-Jul |
| 30 | 19-Jul | 25-Jul | 18-Jul | 24-Jul | 17-Jul | 23-Jul | 23-Jul | 29-Jul |
| 31 | 26-Jul | 1-Aug | 25-Jul | 31-Jul | 24-Jul | 30-Jul | 30-Jul | 5-Aug |
| 32 | 2-Aug | 8-Aug | 1-Aug | 7-Aug | 31-Jul | 6-Aug | 6-Aug | 12-Aug |
| 33 | 9-Aug | 15-Aug | 8-Aug | 14-Aug | 7-Aug | 13-Aug | 13-Aug | 19-Aug |
| 34 | 16-Aug | 22-Aug | 15-Aug | 21-Aug | 14-Aug | 20-Aug | 20-Aug | 26-Aug |
| 35 | 23-Aug | 29-Aug | 22-Aug | 28-Aug | 21-Aug | 27-Aug | 27-Aug | 2-Sep |
| 36 | 30-Aug | 5-Sep | 29-Aug | 4-Sep | 28-Aug | 3-Sep | 3-Sep | 9-Sep |
| 37 | 6-Sep | 12-Sep | 5-Sep | 11-Sep | 4-Sep | 10-Sep | 10-Sep | 16-Sep |
| 38 | 13-Sep | 19-Sep | 12-Sep | 18-Sep | 11-Sep | 17-Sep | 17-Sep | 23-Sep |
| 39 | 20-Sep | 26-Sep | 19-Sep | 25-Sep | 18-Sep | 24-Sep | 24-Sep | 30-Sep |
| 40 | 27-Sep | 3-Oct | 26-Sep | 2-Oct | 25-Sep | 1-Oct | 1-Oct | 7-Oct |
| 41 | 4-Oct | 10-Oct | 3-Oct | 9-Oct | 2-Oct | 8-Oct | 8-Oct | 14-Oct |
| 42 | 11-Oct | 17-Oct | 10-Oct | 16-Oct | 9-Oct | 15-Oct | 15-Oct | 21-Oct |
| 43 | 18-Oct | 24-Oct | 17-Oct | 23-Oct | 16-Oct | 22-Oct | 22-Oct | 28-Oct |
| 44 | 25-Oct | 31-Oct | 24-Oct | 30-Oct | 23-Oct | 29-Oct | 29-Oct | 4-Nov |
| 45 | 1-Nov | 7-Nov | 31-Oct | 6-Nov | 30-Oct | 5-Nov | 5-Nov | 11-Nov |
| 46 | 8-Nov | 14-Nov | 7-Nov | 13-Nov | 6-Nov | 12-Nov | 12-Nov | 18-Nov |
| 47 | 15-Nov | 21-Nov | 14-Nov | 20-Nov | 13-Nov | 19-Nov | 19-Nov | 25-Nov |
| 48 | 22-Nov | 28-Nov | 21-Nov | 27-Nov | 20-Nov | 26-Nov | 26-Nov | 2-Dec |
| 49 | 29-Nov | 5-Dec | 28-Nov | 4-Dec | 27-Nov | 3-Dec | 3-Dec | 9-Dec |
| 50 | 6-Dec | 12-Dec | 5-Dec | 11-Dec | 4-Dec | 10-Dec | 10-Dec | 16-Dec |
| 51 | 13-Dec | 19-Dec | 12-Dec | 18-Dec | 11-Dec | 17-Dec | 17-Dec | 23-Dec |
| 52 | 20-Dec | 26-Dec | 19-Dec | 25-Dec | 18-Dec | 24-Dec | 24-Dec | 30-Dec |
| 53 | 27-Dec | 31-Dec | 26-Dec | 31-Dec | 25-Dec | 31-Dec | 31-Dec | 31-Dec |