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LOWER YUKON RIVER SONAR PROJECT REPORT

1995

by

Suzanne L. Maxwell

Daniel C. Huttunen

and

Paul A. Skvorc, II

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AUTHORS

Suzanne L. Maxwell is the Yukon River Sonar Project Leader for the Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, 333 Raspberry Road, Anchorage, Alaska 99518.

Daniel C. Huttunen is an Arctic-Yukon-Kuskokwim Regional Sonar Biologist for the Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, 333 Raspberry Road, Anchorage, Alaska 99518.

Paul A. Skvorc, II was head of the statewide Sonar and Technical Services (STS) group for the Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, 333 Raspberry Road, Anchorage, Alaska 99518.

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ABSTRACT

The lower Yukon River sonar project has provided daily estimates of upstream passage of chinook salmon *Oncorhynchus tshawytscha*, and summer and fall chum salmon *O. keta* since 1986. The project was operational in 1995 from 7 June through 3 September. Fish passage for each species was estimated through a two component process: (1) estimation of total fish passage with 120 kHz single-beam sonar, and (2) estimation of species proportions by sampling with gillnets of seven different mesh sizes. An estimated 5,874,739 ± 57,522 (s.e.) fish passed upstream through the sonar beams in 1995, 19.4% along the right bank and 80.6% along the left bank. Included were an estimated 203,282 ± 28,402 large chinook salmon (>700 mm long), 36,938 ± 4,976 small chinook salmon (<700 mm), 3,638,180 ± 58,731 summer chum salmon, and 1,247,540 ± 28,859 fall chum salmon.

KEY WORDS: salmon, sonar, hydroacoustic, Yukon River, escapement, species apportionment, net selectivity

INTRODUCTION

Commercial and subsistence fisheries harvest salmon *Oncorhynchus* over more than 1,600 km of the Yukon River in Alaska and Canada. These salmon fisheries are critical to the lifestyle and economy of people in dozens of communities along the river, in many instances providing the largest single source of food and/or income to local residents. Management of these fisheries is complex and difficult due to the number, diversity, and geographic range of fish stocks and user groups.

Information upon which to base management decisions comes from several sources, each of which has unique strengths and weaknesses. Assessment of spawning salmon in tributaries obtained through aerial surveys, mark-recapture, weirs, towers, or sonar techniques provide stock-specific estimates or indices of escapement. However, most of this information is obtained after the majority of the fisheries have been conducted. Gillnet test fisheries near the river mouth provide in-season indices of run-strength, but interpretation of these data is confounded by gillnet selectivity, changes in net site characteristics, and varying fish migration routes through the multi-channel river mouth. Also, the functional relationship between test-fishery catches and abundance is unknown.

Hydroacoustic (sonar) estimates of fish passage from this project complement information obtained from other sources. The project uses single-beam sonar to estimate daily upstream passage of fish. Gillnets of up to seven different mesh sizes are drifted to apportion the passage estimates to species, including chinook *Oncorhynchus tshawytscha*, and chum salmon *O. keta*. The project is located at river km 197 near Pilot Station, far enough upriver to avoid the wide, multiple channels of the Yukon River Delta. Because salmon migrate from the river mouth to the sonar site in two to three days, the project provides timely information to managers of fisheries downstream of the sonar site. There is only one major spawning tributary (the Andreafsky River) downstream from the sonar site.

The lower Yukon River sonar project has been operational since 1986. The main challenges faced by the project have been to use sonar technology to detect and count as large a proportion of migrating fish as possible and develop viable methods for estimating the relative abundance of each species detected. Major progress has been made in several areas. In particular, the project acquired hydroacoustic equipment in 1993 that operates at a lower frequency (120 kHz) than the old equipment (420 kHz), and is capable of detecting fish at longer ranges. In addition, species apportionment methodology has been streamlined, and net selectivity has been estimated more accurately (Mesiar et al. 1991, Fleischman et al. 1992, 1993, 1995). Project objectives in 1995 were to provide daily and seasonal passage estimates for chinook, and chum salmon; estimate the precision of these estimates; and set up a system of quality control and equipment checks to ensure accurate data collection and provide early detection of any problems which might arise.

METHODS

Hydroacoustic Data Acquisition

Equipment

Sonar equipment for the right bank (relative to a downstream perspective) of the Yukon River included: 1) a Biosonics[1] Model 101 (SN 83-036) 120/420 kHz echosounder configured to transmit and receive at 120 kHz; 2) an International Transducer Co. (I.T.C.) Model 5398 120 kHz transducer (SN 003) configured for dual-beam use as Case II (3.6°x9.2° narrow, 12.3°x22° wide elliptical beams); 3) two 304.8 m (1000 ft) Carol Model 1302 microphone conductor cables connecting sounder to transducer; 4) a Hydroacoustic Technology, Inc. (H.T.I.) Model 401 chart recorder interface coupled with a Panasonic KXP1624 dot matrix printer; and 5) a Hewlett-Packard Model 54501A digital storage oscilloscope (DSO).

Left-bank sonar equipment included: 1) a Biosonics Model 101 (SN 83-039) 120/420 kHz echosounder configured to operate at 120 kHz; 2) an I.T.C. Model 5398 120 kHz transducer (SN 005) configured for dual-beam use, Case I (2.1°x4.9° narrow, 3.8°x9.7° wide elliptical beam) for left-bank offshore; an I.T.C. Model 5398 120 kHz transducer (SN 004) configured for dual-beam use, Case I (2.0°x4.6° narrow, 3.9°x9.2° wide elliptical beam) for left-bank nearshore through 8 July; and after 8 July an I.T.C. Model 5398 120 kHz transducer (SN 010), configured for Case I was used on the left-bank nearshore; 3) two 304.8 m (1000 ft) Belden Model 8412 microphone conductor cables connecting sounder to transducers; 4) an H.T.I. Model 401 chart recorder interface coupled with a Panasonic KXP1624 dot matrix printer; and 5) a Hewlett-Packard Model 54501A DSO.

A Biosonics Model 105 echosounder configured for 120 kHz and an Acoustic Transducers International (A.T.I.) Model TC2090 circular dual-beam 4°x10° 120 kHz transducer were available for backup. Precision Acoustic Systems of Seattle, Washington fully calibrated all sonar systems in May 1995. Dual-beam data were digitized, processed, and electronically stored with a Biosonics Model 281 echo signal processor installed in a Compaq 386 20e personal computer. Tests of the radio telemetry system were performed using a Stanford Research Systems (SRS) Model DS345 synthesized function generator.

We used a radio telemetry system designed by the electronics shop at the Geophysical Institute of the University of Alaska, Fairbanks to transmit raw acoustic data from the right bank to the left bank, start-up and shut-down the generator, and control the right bank rotator.

[1] Mention of a company's name does not constitute endorsement.

Transducers were mounted on metal tripods and remotely aimed with Remote Ocean Systems (ROS) PT-25 dual-axis rotators. Rotator movements were controlled with a ROS PTC-1 controller with position feedback to the nearest 0.1°. Gasoline generators (650 W to 3500 W) supplied 110 VAC power.

Sampling Procedures

The right (north) bank has a stable, rocky bottom that drops off steeply to the thalweg (Figure 1). We deployed the right-bank transducer approximately 3.5 m from shore, and later moved it out to 10 m from the original shoreline as the water level dropped. The right-bank transducer was aimed along the bottom, sampling a single stratum to a range of 90-100 m. Occasionally during the field season, the transducer was aimed higher in the water column to test the feasibility of extending the right-bank range. Strong bottom reflections prevented good viewing in this outer stratum.

The left-bank river bottom drops off gradually, with a slightly steeper slope nearshore than offshore (Figure 2). This bottom profile required the deployment of two transducers to ensonify the entire fish migration corridor. One transducer was deployed within 10 m of shore to sample both a nearshore stratum (0-40 m) with a low aim and a midshore stratum (40-250 m) with a slightly higher aim. Changing water levels required the occasional relocation of this transducer during the field season. A second transducer was deployed near the break in the bottom slope 60-70 m out from the first transducer, creating a third stratum and extending the sampling range on the left bank to 315 m. This transducer was raised to the surface and repositioned every other day to avoid becoming buried in the silty river bottom. After 1 August, the nearshore transducer was used for sampling all three left-bank strata. The area from 250 m to 300 m offshore was sampled by increasing the gain 3 dB.

Left- and right-bank tripods were across the river from each other at a point approximately 1030 m wide (Figure 3). This river width was measured on 30 June with a laser range-finder.The width varies considerably as water level fluctuates.

Each acoustic sampling stratum was subdivided into five equal sectors. Hydroacoustic fish detections were tallied by sector at 15-minute intervals during daily sample periods from 0530 to 0830, 1330 to 1630, and 2130 to 0030. The right-bank stratum was sampled continuously during all sampling periods. Sampling on the left-bank alternated every 1/2-hour between the three left-bank strata in the following sequence: nearshore, midshore, offshore, midshore, nearshore, and offshore.

We counted echoes as fish if at least one ping in the cluster passed the second threshold level (threshold levels documented below), and the targets did not resemble inert downstream objects. Multiple fish tracings were marked if there was a discontinuity in the tracing, and the second mark indicated movement in a direction different from the first. For consistency, all personnel were trained early in the season to distinguish between fish tracings and non-target echoes. Fish tracings were tallied on field data forms, then entered into an R:Base database. The data were checked daily for errors in data entry or tallying using newly developed error-checking procedures and R:Base cross-tabulating functions. The data were processed using commercial statistical data processing (SAS) software.

A quality control procedure was implemented during the 1995 field season to increase the accuracy of the data collection. Chart printouts were carefully reviewed each day by either the project leader, crew leader, or a trained technician to check the accuracy of the counting personnel in defining fish tracings, reducing biases that might develop from individual differences in marking. The quality of the chart image was checked for indications of signal problems, changes in bottom conditions, or aiming problems.

Twenty-four hour continuous sampling sessions were scheduled four times (30 June, 15 July, 31 July, and 17 August) to allow examination of the sampling uncertainty, and to satisfy requests from the public. On the right bank, the single stratum was sampled continuously with counts recorded at 15-minute intervals. Left-bank sampling was divided among the three strata in proportions consistent with the regular sampling schedule.

Equipment Settings, Thresholds

We used a 40 log(R) time-varied gain (TVG), 5 kHz bandwidth, and 0.4 ms transmit pulse duration during all sampling activities. Transmit intervals were chosen to maximize the clarity of the tracings without overloading printer buffers; most strata were set at transmit intervals of 0.4 s.

Four printer thresholds, corresponding to degrees of gray-line, were set for both banks. Right-bank thresholds (-44.61, -38.59, -35.07, and -32.57 dB), left-bank nearshore and midshore thresholds (-46.05, -42.53, -40.03, -36.50dB), and left-bank offshore thresholds (-44.76, -41.24, -38.74, and -35.21dB) were set low enough to detect salmon-sized targets and high enough to eliminate unwanted background noise. Echosounder transmission and gain settings were adjusted after 8 July to compensate for environmental variables. Threshold levels (in mV) were logged onto a data sheet and converted to target strength, TS_{dB}, as follows:

$$TS_{dB} = 20 \bullet \log\left(\frac{T_{mV}}{1000}\right) - \left(SL + G_S + G_R\right) \qquad (1)$$

where

T_{mV} = chart recorder threshold in milliVolts,
SL = transmitted source level in dB,
G_S = through-system gain,
G_R = receiver gain.

Aiming

In previous years (Mesiar et al. 1991, Fleischman et al. 1992, 1993, 1995) it was intended that the transducer beams be oriented 15°-30° upstream or downstream in an attempt to classify targets as

upstream or downstream moving. In 1995, the strategy for aiming was to maximize fish detection. Horizontally, the beam was oriented roughly perpendicular to fish movement so the majority of fish would present the strongest possible aspect; all fish tracings were counted as upstream targets. Since most fish travel along the river bottom, each transducer beam was aimed vertically to produce the best bottom signals throughout the range (in effect skimming the beam along the bottom).

The right-bank transducer rarely required re-aiming because of the stable bottom. The project leader and crew leader frequently re-aimed both the left-bank nearshore and offshore transducers to compensate for the dynamic bottom conditions on that side of the river. Rotator settings for each new aim were documented on a log sheet and chart printouts of the new aim were marked and dated. Because of the 0.3° absolute precision in the rotator pan and tilt position feedback, returning to the same settings did not guarantee a return to exactly the same aim. All personnel were trained to first reset pan and tilt settings, and then carefully match bottom striations on the current chart printout with those of the marked charts when changing between sampling strata.

Hydroacoustic Equipment Checks

The performance of both echosounders was checked twice a week from 2 July through the end of the field season by measuring the amplitude of internally generated calibration signals amplified by the 40 log (R) TVG circuitry and displayed on a DSO. Measured values from the DSO were compared to theoretical values. The TVG amplitude values were measured at four echosounder ranges (25 m, 50 m, 100 m, and 250 m).

Target strength estimates of a 4.5 kg, 10.2 cm diameter, lead downrigger weight (approximate salmon-size target) were also used to verify consistent echosounder performance. Dual-beam data were collected with a Biosonics Model 281 echo signal processor. The target was suspended from the side of a skiff anchored offshore from the left bank. The transducer was aimed to maximize the amplitude of received echoes. Dual-beam data were collected at two ranges.

We tested the accuracy of the print threshold levels by sending a calibration tone generated by the echosounder through the digital chart recorder to the printer. Threshold levels displayed at range on the chart recordings were compared with time-dependent signal measurements on a DSO.

Radio Telemetry

Right-bank data were transmitted across the river to the left-bank control tent. We tested the radio telemetry equipment on six occasions to confirm that the amplitude of the acoustic signals was not changed during transmission. An SRS synthesized function generator was used to generate a series of 0.1-10.0 $Volts_{p-p}$ signals. The signals were inserted into both channels of the radio equipment, transmitted to the left bank, and measured with the left-bank DSO, after a

sufficient warm-up period. To obtain a baseline measurement, the SRS synthesized function generator was transported to the left-bank, and the signals were measured directly with the same DSO.

Bottom Profiles

Numerous bottom profiles were recorded along both the left and right banks using a Lowrance X-15 fathometer prior to choosing deployment sites. Inseason, the fathometer was used regularly to monitor changing bottom conditions and to watch for the formation of sand bars capable of re-routing fish to unensonified areas. We created a bathymetric map of the sampling area (Figure 4) and updated the map three times during the season to provide documentation of bottom conditions and sand bar formation.

Visual bottom images of the study area along both banks were made on five occasions using an Imagenex Model 001 sidescanning sonar unit and digital tape recorder. These data were recorded while motoring parallel to each shore in five minute segments and across the river between the two transducers.

Bank-to-Bank Transects

Both the fathometer and sidescanning sonar unit were used for bank-to-bank transects. The primary purpose of the transects was to monitor river bottom topography and look for fish in the unensonified regions of the river. Previously, bank-to-bank transect data were used to estimate the passage of fish beyond the range of the shore-based sonar (Mesiar et al 1991; Fleischman et al. 1992, 1993). Since the effective sampling ranges were extended by the conversion to 120 kHz hydroacoustic equipment (Fleischman et al. 1995), transects have not revealed significant numbers of fish beyond the sonar range. No estimates of offshore passage were made using these transect data.

Hydrologic Measurements

Hydrologic measurements were recorded twice a day from 13 July through 3 September. Water level was measured using a staff gauge located offshore from the field camp on the right bank. Conductivity, air temperature and water temperature measurements were taken offshore along both banks.

Species Composition Data Acquisition

Equipment and Procedures

Gillnets were drifted through or near the sonar sampling range on each bank to estimate species composition. Seven different mesh sizes were fished to effectively capture all size classes of fish present and detectable by the hydroacoustic equipment. During the summer season (prior to 19 July), gillnets of mesh sizes 216 mm (8.5 in), 43 meshes deep (MD); 191 mm (7.5 in), 48 MD; 165 mm (6.5 in), 55 MD; 127 mm (5 in), 72 MD; 102 mm (4 in), 90 MD; and 70 mm (2.75 in), 131 MD, were drifted along the left-bank nearshore, left-bank offshore, and right bank. Large mesh gear, 216 mm (8.5 in) and 191 mm (7.5 in), was discontinued during the fall season (19 July to 3 September) and a 140 mm (5.5 in, 65 MD) mesh was added. All nets were 45.7 m (25 fathoms, 52.5 stretch fathoms) long and 7.6 m (25 ft) deep. Nets were constructed out of Momoi MTC-50 or MT-50, shade 11 or 3, double knot multifilament nylon twine and hung using a 2:1 hanging ratio.

Gillnetting took place between sonar periods twice daily from 0915 to 1215 and 1715 to 2015. During each gillnet sampling period four nets were drifted three times each, once on the right bank and twice on the left bank, for a total of 24 drifts per day. The first left-bank drift was very close to shore (shoreward end 5 to 10 m from shore). The second left-bank drift originated further offshore so as not to overlap with the first drift (shoreward end 55 to 70 m from shore). All drifts with one net were completed before switching to the next net. The two left-bank drifts with a given net were not done consecutively (i.e., drifts were done on alternate banks: left-right-left), so that there was a minimum of 20 minutes between the drifts on the same bank. "Beachwalks" (Fleischman et al. 1995) were not conducted during the 1995 field season due to the low numbers of pink salmon returning during odd-numbered years.

Four times were recorded onto field data sheets for each drift: net start out (net starting out of boat, SO), net full out (FO), net start in (SI), and net full in (FI). Fishing time (t), in minutes, for each drift was approximated as

$$t = SI - FO - \frac{FO - SO}{2} + \frac{FI - SI}{2}. \qquad \textbf{(2)}$$

Drifts were generally 8-10 minutes in duration but were shortened when necessary to avoid snags and limit catches during times of very high fish passage.

Captured fish were identified to species and measured to the nearest 5 mm length. Salmon species were measured from mid-eye to tail fork; non-salmon species were measured from snout to tail fork. Fish species, length and sex were entered onto field data sheets. Each drift record included the date, sampling period, mesh size, length of net, and captain's initials. Data were transferred from field data sheets into an R:Base database and processed using SAS software.

Captured fish were distributed to local villagers or sold to local processors whenever possible.

Species Proportions

Species proportions were estimated from relative gillnet sampling catch-per-unit-effort (CPUE) data, after first adjusting for gillnet size-selectivity. Gillnet selectivity curves were estimated using indirect methods (Regier and Robson, 1966) based upon relative CPUE among a range of mesh sizes within length categories observed from 1990 to 1994 (Jeff Bromaghin, ADF&G, CFMD Division, Anchorage, personal communication). CPUE data were sufficient to estimate gillnet selectivity curves for chinook salmon, summer chum salmon, fall chum salmon, coho salmon (*O. kisutch*), pink salmon *(Oncorhynchus gorbuscha)*, whitefish *(Coregonus)*, and cisco *(C. sardinella, C. laurettae)*. Data from all other species were combined, and a gillnet selectivity curve was established for the pooled species group. Gillnet selectivity curves are graphically presented in Figures 5-8.

Analytical Methods

Fish Passage

Daily fish passage was estimated by summing the counts over all sectors, converting this number to an hourly passage rate, averaging the passage rate from each sampling period, and expanding the final count temporally to obtain the daily estimate.

Total fish (y) passing through stratum s of bank b during sample q of sonar period p of day d was calculated by summing net upstream targets over all sectors c,

$$y_{dbpsq} = \sum_{c} y_{dbpsqc}. \tag{3}$$

The passage rate (r) in fish per hour, for stratum s of bank b during sonar period p of day d, was computed as

$$r_{dbps} = \frac{\sum_{q} y_{dbpsq}}{\sum_{q} h_{dbpsq}}, \tag{4}$$

where h_{dbpsq} is the duration, in hours, of sample q of sonar period p of day d for stratum s of bank b. The passage rate for bank b during sonar period p of day d was computed as the sum of passage rates for stratum associated with that bank,

$$r_{dbp} = \sum_{s} r_{dbps} \ . \tag{5}$$

The passage rate for bank b during day d was estimated by the average sonar period passage rate,

$$\hat{r}_{db} = \frac{\sum_{p=1}^{n_{Sdb}} r_{dbp}}{n_{Sdb}} \ , \tag{6}$$

where n_{Sdb} is the number of sonar periods during day d on bank b. Finally, the total passage of fish past zone z during day d was estimated as

$$\hat{y}_{db} = 24 \ \hat{r}_{db} \ . \tag{7}$$

Sonar sampling periods, each three hours long, were obtained at regular (systematic) intervals of eight hours. Treating the systematically sampled sonar counts as a simple random sample would over-estimate the variance of the total, since sonar counts were highly autocorrelated (Wolter 1985). To accommodate these characteristics of the data, a variance estimator based on the squared differences of successive observations, recommended by Brannian (1986) and modified from Wolter (1985), was employed;

$$\hat{V}ar(\hat{y}_{db}) = 24^2 \ \frac{1-f_{db}}{n_{Sdb}} \ \frac{\sum_{p=2}^{n_{Sdb}} (\hat{r}_{dbp} - \hat{r}_{db,p-1})^2}{2(n_{Sdb}-1)} \ , \tag{8}$$

where f_{db} denotes the first-stage sampling fraction, 8 hrs/24 hrs = 0.33.

Missing Data.

Equipment malfunctions and other uncontrollable events occasionally result in missing sonar data. When individual subsamples within a sonar period were missed, fish passage was estimated based on existing subsamples for that period. Data missing from a single stratum for an entire period or more was estimated from the average relative distribution (proportions) of passage rates among strata in the temporal neighborhood of the missing data. When data from an entire bank was missing, a simple linear regression model was fit to the data, using the opposite bank's passage rate as the predictor variable.

Species Composition

The catch (c) of species i and length l during drift j of mesh m during gillnet sampling period f on bank b on day d was first adjusted for gillnet selectivity (s) of species i and length l in mesh m. Adjusted catch (a) was calculated as

$$a_{ildbfmj} = \frac{c_{ildbfmj}}{s_{ilm}}, \tag{9}$$

if selectivity was at least 0.10. If selectivity was less than 0.10, adjusted catch was set to zero.

Total effort (e), in fathom hours, of drift j with mesh size m during gillnet sampling period f on bank b on day d was calculated as

$$e_{dbfmj} = \frac{25 \bullet t_{dbfmj}}{60}, \tag{10}$$

since all nets were 45.7 m (25 fathoms) long. CPUE (C) for length l of species i in drifts of mesh m during gillnet sampling period f on bank b on day d was computed as the total adjusted catch divided by total effort,

$$C = \frac{\sum_j a_{ildbfmj}}{\sum_j e_{dbfmj}}. \tag{11}$$

The proportion (p) of species i during gillnet sampling period f on bank b on day d was estimated by the ratio of the sum of the mean CPUE of all lengths of species i having non-zero CPUE to the total of the same quantity summed over all species, i.e.,

$$\hat{p}_{idbf} = \frac{\sum_l \frac{1}{n_{mildbf}} \sum_m C_{ildbfm}}{\sum_i \sum_l \frac{1}{n_{mildbf}} \sum_m C_{ildbfm}}, \tag{12}$$

where n_{mildbf} is the number of meshes having adjusted catches of length l of species I greater than 0 during gillnet sampling period f of day d on bank b. For bank b on day d, the proportion of species i was estimated as

$$\hat{p}_{idb} = \frac{\sum_{f=1}^{2} C_{idbf}}{\sum_{i}\sum_{f=1}^{2} C_{idbf}}, \tag{13}$$

which is equivalent to the mean of the two gillnet-sampling period proportions, weighted by the total CPUE for all species in each gillnet sampling period.

The estimator of the variance of p_{idb} was adapted from Cochran (1977:64), weighting each replicate by total (all species) CPUE:

$$\hat{V}ar(\hat{p}_{idb}) = \frac{1}{n_{Tdb}} \sum_{f=1}^{n_{Tdb}} \left(\frac{\sum_{i}\sum_{l}\sum_{m} C_{ildbfm}}{\frac{1}{n_{Tdb}} \sum_{f}\sum_{i}\sum_{l}\sum_{m} C_{ildbfm}} \right)^2 \frac{(\hat{p}_{idbf} - \hat{p}_{idb})^2}{n_{Tdb} - 1} \tag{14}$$

where:

n_{Tdb} = number of gillnet sampling periods on bank b during day d.

Fish Passage by Species

The passage of species i on bank b during day d was estimated by

$$\hat{y}_{idb} = \hat{y}_{db} \bullet \hat{p}_{idb}. \tag{15}$$

Finally, passage estimates were summed over both banks and all days to obtain a seasonal estimate for species Y_i,

$$\hat{Y}_i = \sum_{d}\sum_{b=1}^{2} \hat{y}_{idb} . \tag{16}$$

Except for the timing of sonar and gillnet sampling periods, sonar-derived estimates of total fish passage were independent of gillnet-derived estimates of species proportions. Therefore the variance of their product (daily species passage estimates y_{idb}) was estimated as the variance of the product of two independent random variables (Goodman, 1960),

$$\hat{V}ar(\hat{y}_{idb}) = \hat{y}_{db}^2 \, \hat{V}ar(\hat{p}_{idb}) + \hat{p}_{idb}^2 \, \hat{V}ar(\hat{y}_{db}) - \hat{V}ar(\hat{y}_{db}) \, \hat{V}ar(\hat{p}_{idb}) . \tag{17}$$

Finally, passage estimates (equation **16**) are assumed independent between banks and among days, so the variance of their sum (equation **17**) was estimated by the sum of their variances,

$$\hat{V}ar(\hat{Y}_i) = \sum_d \sum_{b=1}^{2} \hat{V}ar(\hat{y}_{idb}) \ . \qquad \textbf{(18)}$$

Assuming normally distributed errors, 90% confidence intervals were calculated as

$$\hat{Y}_i \pm 1.645\sqrt{\hat{V}ar(\hat{Y}_i)}. \qquad \textbf{(19)}$$

SAS program code (Appendix A) was used to calculate passage estimates and estimates of variance.

Missing Data.

Equipment malfunctions and commercial fishery openings occasionally conflict with gillnet sampling objectives. When insufficient gillnet sampling data is available for a given day, the data are pooled with data from an adjacent day with adequate data, and the pooled data are then applied to the corresponding day(s) of sonar passage estimates lacking sufficient gillnet sampling data.

RESULTS

The sonar project operated from 7 June through 3 September in 1995. Passage estimates were available to fishery managers in Emmonak by 8:00 am daily and were rarely amended. Very little sampling time was lost during the field season. A total of seven sonar sampling periods were missed on the left bank due to cables damaged by wild animals. The left-bank offshore transducer was inoperable for an additional fourteen sampling periods: 7 June, period 3; and 8 June, periods 1 and 2 (offshore transducer was not yet deployed for the season); 5 July, period 2 (re-aiming interfered with sampling); and 9 July, period 3 through 12 July, period 2 (transducer problems). No sampling periods were missed on the right bank. Scheduled sampling periods were occasionally abbreviated or delayed due to chart recorder/printer malfunctions, generator problems, technician error, or transducer aiming.

Complete sonar data between 5 July and 14 July were used to obtain the linear regression model,

$$L = 12.764 + 2.608R\,. \qquad \textbf{(20)}$$

Data for 8 July were estimated from this model. Data for the remaining missed sampling periods on the left bank were estimated from the average relative distribution of passage rates among strata in the temporal neighborhood of the missing data (Appendix B).

A total of 6,669 fish were captured during 2,119 drifts totaling 12,405 minutes. The catch included 5,167 chum salmon, 330 chinook salmon, 435 coho salmon, 43 pink salmon, 367 whitefish, 231 cisco, and 96 other fish (Appendix C). Gillnet sampling was not conducted during commercial fishery openings to avoid competition with commercial fishermen. On two occasions (19 June and 6 August) gillnet sampling periods were scheduled around commercial openings. For the remainder of the commercial fishing days (11, 14, 18, and 20 June; and 1, 10, 14, 17, and 21 August) it was necessary to drift all sizes of gillnets during a single period. One-half of one gillnet sampling period was lost because of mechanical difficulties. Data from missed or partial gillnet sampling periods were pooled with those of an adjacent day to obtain species proportions.

During the field season, gillnet sampling results were used to apportion species to sonar passage estimates by bank (i.e., all fish caught off the left bank were used to apportion left-bank passage estimates). There was a concern that the higher numbers of whitefish caught nearshore on the left bank apportioned more of the midshore and offshore passage estimates to whitefish rather than to chum salmon. Post-season, the left bank was divided into two zones for species apportionment, coupling the nearshore gillnet sampling results with the nearshore passage estimates, and the offshore gillnet sampling results with the combined midshore and offshore passage estimates. The three gillnet sampling zones (right bank, left-bank nearshore, and left-bank offshore) correspond closely with the ranges of the sonar sampling strata.

An estimated 5,874,739 $\pm$ 57,522 (s.e.) fish passed through the sonar beams during the 1995 field season; 1,141,087 $\pm$ 13,525 (19.4 %) along the right bank, 1,279,564 $\pm$ 28,126 (21.8 %) along the left

bank nearshore, and 3,454,088 ± 48,319 (58.8 %) along the left bank midshore and offshore. Tables 1 and 2 provide daily records of passage estimates by zone, standard errors, and the total passage coefficients of variation.

Passage estimates of target species included 240,220 chinook salmon and 4,885,720 chum salmon (Table 3). Chinook salmon were comprised of 203,282 ± 28,402 fish greater than 700 mm in length, and 36,938 ± 4,976 "jacks" shorter than 700 mm. Most (3,638,180 ± 58,731) of the chum salmon passed during the summer season from 7 June through 18 July; the remainder (1,247,540 ± 28,859) passed during the fall season from 19 July through 3 September. Remaining passage estimates included 154,464 ± 14,897 coho salmon, 46,488 ± 7,617 pink salmon, 302,392 ± 20,606 whitefish, 167,605 ± 15,702 cisco, and 77,850 ± 12,728 other species. Daily passage estimates by species are listed in Tables 4 and 5 with totals and standard errors for the summer and fall seasons. Daily passage estimates for summer chum, fall chum, small chinook, large chinook, and coho salmon are plotted in Figure 9. The 25%, 50% and 75% passage dates are marked on the charts for chinook and chum salmon. The coefficient of variation and 90% confidence limits were generated for cumulative point estimates of fish passage by species (Table 3).

Chum salmon made up the largest proportion of fish caught in both the summer (Figure 10) and fall season (Figure 11). The chinook salmon run declined as the summer season ended with a few additional fish caught early in the fall season. The coho salmon run began in late July and was dropping off markedly toward the end of the project operating period. It was not the intent of the project to document the complete coho salmon run. Pink salmon were grouped with the non-salmon species on both Figures 10 and 11 because of their small numbers during the 1995 field season.

Comparisons of daily passage estimates with mean CPUE by zone and by season (summer and fall) reveal a significant relationship between these data sets (Figures 12, 13, and 14). Left-bank nearshore and left-bank offshore data collected during the summer season show the highest correlation between CPUE and daily passage ($R=0.82$ and $R=0.76$; $p<.001$). The lowest correlation ($R = 0.40$; $p<.001$) is found in data collected from left-bank offshore during the fall season.

The percent of summer and fall passage was plotted in 20 m range increments by bank and by season to illustrate the horizontal distribution of fish in the sampling area (Figures 15 and 16). Passage levels declined sharply as a function of the distance offshore. During the summer and fall seasons, 99% of the detected passage on the left-bank occurred within 280 m of the left-bank nearshore transducer. On the right-bank, 99% of the detected passage occurred within 80 m of the right-bank transducer.

A total of 293,154 fish was counted during the four 24-hour sampling periods compared with summed passage estimates totalling 276,656 over the same time frame (Table 6). The largest difference was observed on 30 June when the 24-hour count was 12.3 % higher than the passage estimate. One 24-hour count (17 August) was lower (3.6%) than the passage estimate for the same day.

Bank-to-bank down-looking transects revealed a total of 32 fish detected outside the acoustic sampling area over the course of 84 transects. No offshore passage estimates were made using these transect data.

Bottom profiles conducted along left and right banks at the transducer locations revealed smoothly sloping areas suitable for sonar deployment (Figures 1 and 2). No changes were noted in the steeply sloping, rocky bottom along the right bank during the field season. The sandy, gently sloping left-bank bottom changed from a smooth slope during the summer season to an undulating pattern of low sand dunes running perpendicular to the shoreline later in the season. Due to the perpendicular aspect of the dunes, fish detection was not compromised.

The fathometer disclosed the formation of two sand bars during the field season. One large sand bar extended downstream from the Atchuelinguk River. Its maximum extension remained approximately 1000 m upstream from the right-bank sampling area (Figure 4). On 12 June, a sand bar was detected upstream of the left-bank ensonified region at a point just below the large river bend. The sand bar remained in the region of the river bend most of the field season. In the fall season, it gradually extended downstream to a point approximately 300 m offshore from the left-bank transducer (Figure 4). Both bars were closely monitored; neither interfered with fish migration or detection within the sampling area during the field season.

In Situ conductivity measurements from the left side of the river were more stable and averaged 17 µS higher than similar measurements from the right side (Figure 17). Water level dropped rapidly during the summer season, then fluctuated during the fall season ending about 1.5 m lower than at the onset. A comparison of water level and conductivity demonstrated a significant inverse relationship for both the right and left sides of the river ($R= -0.55$ and $R= -0.57$; $p<.001$).

TVG plots (Figure 18) depict the uniform performance of echosounders from both banks. Small deviations in the 25 m range tests are likely the result of measurement resolution. Despite difficulties encountered in measuring target strength in the riverine environment, mean target strength of the downrigger weight (approximately salmon-size target) collected from dual-beam data fell within the range of theoretical values indicating that echosounder performance was consistent with pre-season calibrations.

Radio telemetry equipment successfully transmitted unaltered data from the right to the left side of the river throughout the 1995 field season. One person tallied data from both banks once the summer chum salmon passage rate slowed. Tests of the radio telemetry system indicated that the signal was not significantly altered between the right-bank echosounder output and the left-bank chart recorder ($R=0.9998$ for channel A and $R=0.996$ for channel B), although a small positive through-system gain was noted (Figure 19). On many occasions (often during early morning shifts), the generator start/stop and rotator control modem failed to link up. We typically started up the right-bank generator prior to crossing the river rather than relying on the radio control. The loss of the rotator control prevented us from obtaining a readout on the pan and tilt displays, but did not change the aim of the transducer which was verified by the bottom echo signature on that bank.

Chart recorder print thresholds were tested regularly using calibration tones from the echosounder. Printed gray-lines agreed with DSO measurements. The threshold settings used in 1995 produced echograms with higher signal to noise ratios making fish tracings easier to interpret (Figures 20 and 21).

DISCUSSION

The lower Yukon River sonar project ran smoothly during the 1995 field season. Surpluses of chinook and chum salmon were accurately detected early in both the summer and fall seasons. The bottom profiles remained satisfactory, and there was no evidence that sand bars altered fish migration routes. Higher threshold settings than those used during previous years reduced noise problems and produced clean charts with easily identifiable fish tracings. The higher threshold settings also eliminated the possibility of detecting small fish (such as smolt) which are too small to catch in the smallest mesh sizes used during gillnet sampling.

The bathymetric map created to monitor sand bar progress provided an extremely useful, though somewhat inaccurate tool. To increase the accuracy of the map, it is necessary to be able to measure distances both along the shore and out into the river. A cost-effective laser range-finder would enhance this process markedly.

The Atcheulinguk River sand bar was not a concern this field season. It remained well upstream of the sampling area so that fish migration was unaffected. The sand bar that formed off the left bank was a greater concern and was monitored frequently. A potential alternative downriver deployment site (Fleischman and Mesiar 1993) was profiled to determine the feasibility of moving the sonar site if the left-bank sand bar began altering fish behavior. This area was not deemed suitable for deployment this field season. Although the river is narrower and the bottom declines more sharply at this downriver site, a large sand bar formed early and remained throughout the field season offshore from this site. A small, but deep channel ran between the sand bar and shore. Complete coverage of the high density fish passage areas at this site would have been impossible. Range plots (Figures 15 and 16) indicate that left-bank fish passage did not increase in the outermost ranges during the field season so sampling continued at the original deployment site. A bathymetric map, updated every other week, would provide an early alert to the formation of sand bars.

On 6 July, we began experiencing diminished signal levels in the furthest sampling ranges along the left bank. Both left-bank transducers were down for 1-1/2 days while we performed equipment diagnostics. We discovered damaged cables and a problem with the internal wiring in one of the transducers. After mending the cables and replacing the broken transducer, it was necessary to increase transmit power and compensate for absorption to obtain signal levels similar to those observed prior to this date. Accurate threshold levels are difficult to determine after this point because the replaced transducer, although calibrated with a Bisonics 101 echosounder, was not calibrated with the equipment used at Pilot Station. Chart recordings were less clear after the equipment change. Fish tracings were easily detected, but background noise levels increased at the longest sampling ranges.

During this same time period, the weather also changed. Heavy rains up river created high water levels and flood-like conditions. Once the equipment problems were resolved, the signal to noise ratios were still lower than they had been earlier in the season. Because changes in conductivity are known to have an effect on underwater sound transmission (MacLennan and Simmonds 1992), hydrological

measurements were begun soon after the signal loss was noted. The lower and more variable conductivity values measured on the right bank are likely caused by the diluting effect of the Atcheulinguk River located upstream from the sampling area. It is not known if there was a significant change in the conductivity on the left-bank during this time period. It is possible that there is a correlation between conductivity changes and detectable transmission loss on the Yukon River. Hydrologic measurements should be recorded daily during future field sampling activities to explore this possibility.

Few fish were detected beyond the listening ranges with either the down-looking or side-scanning sonar. The sharp drop in fish passage shown in the fish distribution plots (Figures 15 and 16) indicate that few fish are found outside of the sampling range; however, a better method of determining fish passage in this area is needed. The fathometer used to check for fish in the unensonified region does not compensate properly for spherical spreading loss (Fleischman et al. 1995) which is considerable in the deeper channels of the river. The data obtained from the sidescanner also addresses only the general question of presence/absence since the absolute strength of the echoes is not precisely known. Thus, it cannot be determined that all target fish present are being observed. Boat avoidance may cause fish to be missed using either method, although the depth of the river in the unensonified regions lessens the likelihood of this problem.

Problems were experienced with the rotators, printers, and chart recorders during the field season. Although most difficulties were resolved with only a small loss in sampling time, some of the problems are worthy of mention so that more permanent solutions can be found.

Three rotators are used for this project, the right-bank rotator has a gear ratio of 1551:1. The gear ratio of the two left-bank rotators is 80:1. Because of the rapid speed of the left-bank rotators, small movements in the pan and tilt control create large movements in the transducer's position even though the feedback display often remains the same. During re-aiming, we maintained the quality of the aim by matching up bottom striations with previous chart pictures rather than relying on pan and tilt feedback; however, sampling time was lost during this time-consuming process. The "slow" rotator is necessary on the right bank because of the delay induced by the radio telemetry system. Less sampling time would be lost and a high quality aim would be easier to maintain if a "slow" rotator was used to control each transducer.

Numerous printer problems were encountered and solved early in the season. Okidata Model 590 printers were tried then replaced. The printers either lack the buffer capacity to handle the number of targets in the Yukon River or are not compatible with the H.T.I. Model 401 chart recorders. The Panasonic Model KXP 1624 printers are more reliable, but are still affected by paper jams, tangled ribbons, buffer overloads, and electronic problems. The availability of back-up printers kept the loss in sampling time to a minimum. Since the field season, the HTI Model 401 chart recorders have been reconfigured to work with newer Panasonic 2624 printers (although this model is already obsolete). We recommend using only Panasonic printers for this project. Old and new models of Panasonic printers should be brought to the field in the event that one or the other does not work well with this new configuration under field conditions.

The H.T.I. Model 401 chart recorders worked well as long as the hand-held terminals continued to function. The hand-held terminals are particularly susceptible to the poor electronic operating conditions found in the field. The H.T.I. Model 401 chart recorder is now out-dated and replacements are no longer available. The H.T.I. Model 403 chart recorder was field-tested at Pilot Station with poor results. The electronic noise produced by the chart recorder masked the signal from the echosounder. H.T.I. has run this chart recorder through a series of tests, but has not been able to duplicate the problem. If we upgrade to this model, it will be necessary to take time to diagnose the problem before operations begin. Back-up hand-held terminals and a back-up chart recorder are necessary to keep the loss in sampling time to a minimum. Obtaining a back-up chart recorder is a concern that must be addressed.

Twenty-four hour counts compared favorably with daily passage estimates. The small differences between the two measures are most likely caused by a combination of sampling uncertainty and environmental variables. Of necessity, 24-hour counts run through gillnet sampling periods. Gillnet fishing activity can interfere with fish behavior. This is especially a problem on the shallower left bank. Other environmental variables include changes in weather and water conditions.

Preliminary analysis indicates that passage estimates from the Yukon River sonar project agree well with daily fall chum salmon CPUE from the lower Yukon River test fishery near Emmonak (RM 20). Salmon are believed to travel from the test-fishery near Emmonak to the sonar site at Pilot Station in approximately three days. Bromaghin (1995) constructed a model utilizing a distribution of travel time over 2-4 days rather than a fixed three-day lag period. The proportions of salmon traveling between the sites in two, three, and four days were chosen to maximize the Pearson correlation between "lagged CPUE" and sonar passage estimates of abundance. A strong correlation exists between these two measures of abundance for chum salmon and chinook salmon (Figures 22 and 23). A second model, accounting for commercial harvests downstream from the sonar project was also constructed. This model also indicates a strong correlation between the two measures of abundance (Figure 24).

Estimating fish passage in the Yukon River continues to present a major challenge. The width of the river and dynamic nature of bottom sediments, hydrology, and fish behavior create a difficult sampling environment. Successful estimation of fish passage is dependent upon many factors, the most important of which are the existence of an evenly-sloped bottom profile enabling a clear view of fish at long ranges, a good aim which optimizes fish detection, and constant attention to the frequent changes of the assessment environment of this large river, which requires dilligent re-checking of all parameters involved in the estimation process. Although the bottom conditions along the left bank of the Yukon River were constantly changing, a good sampling profile remained throughout the 1995 field season.

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Table 1. Daily estimates of fish passage by zone from 7 June to 18 July, lower Yukon River sonar project, 1995.

REPORT PERIOD	DATE	RIGHT BANK PASSAGE	STD ERROR	LEFT BANK NEARSHORE[a] PASSAGE	STD ERROR	LEFT BANK OFFSHORE[b] PASSAGE	STD ERROR	TOTAL PASSAGE	STD ERROR	TOTAL PASSAGE COEFFICIENT OF VARIATION
1	6/7/95	4,646	340	6,673	1,592	20,244	728	31,563	1,783	0.056
1	6/8/95	5,310	389	10,676	2,547	19,717	709	35,703	2,672	0.075
2	6/9/95	6,241	1,553	8,347	1,253	15,234	2,161	29,822	2,942	0.099
3	6/10/95	4,522	525	5,516	1,958	9,716	967	19,755	2,246	0.114
3	6/11/95	13,003	1,509	10,632	3,774	21,671	2,157	45,305	4,602	0.102
4	6/12/95	10,866	1,073	24,077	4,426	38,226	1,805	73,168	4,899	0.067
5	6/13/95	10,671	545	22,205	4,120	26,393	3,075	59,269	5,169	0.087
5	6/14/95	12,064	616	20,757	3,851	46,820	5,455	79,641	6,705	0.084
6	6/15/95	11,018	1,179	21,696	412	37,701	4,026	70,416	4,216	0.06
7	6/16/95	15,158	2,034	24,472	3,038	33,172	1,508	72,801	3,955	0.054
8	6/17/95	12,757	1,245	15,973	3,463	23,067	3,362	51,797	4,984	0.096
8	6/18/95	28,776	2,809	28,165	6,106	67,836	9,886	124,777	11,955	0.096
9	6/19/95	37,507	1,707	80,168	10,382	119,529	12,734	237,204	16,518	0.07
9	6/20/95	35,570	1,619	32,953	4,267	84,711	9,025	153,234	10,113	0.066
10	6/21/95	35,960	1,551	19,846	8,069	93,211	24,771	149,017	26,098	0.175
11	6/22/95	30,292	2,521	24,547	4,077	81,038	931	135,877	4,883	0.036
12	6/23/95	28,638	1,681	29,169	1,983	66,262	7,232	124,068	7,685	0.062
13	6/24/95	39,548	3,163	43,534	3,818	82,856	10,355	165,938	11,480	0.069
14	6/25/95	38,779	2,979	42,588	4,565	102,210	6,190	183,578	8,248	0.045
15	6/26/95	47,779	3,029	58,283	7,018	103,713	3,553	209,775	8,429	0.04
16	6/27/95	42,567	649	59,000	1,948	162,741	13,112	264,308	13,272	0.05
17	6/28/95	41,369	8,027	40,949	12,695	120,951	4,581	203,269	15,703	0.077
18	6/29/95	43,403	2,327	42,693	4,751	114,948	4,926	201,043	7,229	0.036
19	6/30/95	25,341	1,176	28,902	5,782	85,811	2,967	140,054	6,605	0.047
20	7/1/95	17,992	429	10,556	3,159	52,771	2,558	81,319	4,087	0.05
21	7/2/95	18,404	681	5,791	292	30,862	1,093	55,057	1,320	0.024
22	7/3/95	24,816	2,621	27,336	5,123	53,516	6,732	105,668	8,857	0.084
23	7/4/95	33,933	1,728	40,204	4,686	70,044	7,678	144,181	9,159	0.064
24	7/5/95	33,365	1,225	28,890	4,052	59,677	1,258	121,932	4,416	0.036
25	7/6/95	32,744	2,211	27,202	2,586	62,042	8,020	121,988	8,712	0.071
25	7/7/95	24,084	1,626	19,738	1,876	31,308	4,047	75,130	4,748	0.063
26	7/8/95	22,419	1,022	18,088	1,298	40,680	2,898	81,187	3,336	0.041
27	7/9/95	12,454	924	8,912	1,137	19,883	1,579	41,250	2,154	0.052
27	7/10/95	12,760	947	12,174	1,554	17,677	1,404	42,612	2,298	0.054
28	7/11/95	27,960	1,075	21,528	1,564	32,500	1,824	81,988	2,632	0.032
29	7/12/95	19,907	2,033	17,472	987	31,611	405	68,990	2,296	0.033
30	7/13/95	10,864	940	7,225	797	19,462	1,603	37,551	2,022	0.054
31	7/14/95	7,124	549	5,832	1,292	13,887	466	26,842	1,479	0.055
32	7/15/95	5,493	126	4,519	129	7,756	390	17,768	430	0.024
33	7/16/95	6,751	799	5,734	663	14,770	2,302	27,255	2,525	0.093
34	7/17/95	7,829	358	6,160	432	17,718	1,649	31,707	1,742	0.055
35	7/18/95	7,422	460	7,404	750	11,706	2,981	26,533	3,108	0.117
		======		========		========		=======		
TOTALS		908,105		976,585		2,165,646		4,050,336		

[a]Left Bank Nearshore Range: 0-40 meters.
[b]Left Bank Offshore Range: 40-300 meters.

Table 2. Daily estimates of fish passage by zone from 19 July to 3 September, lower Yukon River sonar project, 1995.

REPORT PERIOD	DATE	RIGHT BANK PASSAGE	STD ERROR	LEFT BANK NEARSHORE[a] PASSAGE	STD ERROR	LEFT BANK OFFSHORE[b] PASSAGE	STD ERROR	TOTAL PASSAGE	STD ERROR	TOTAL PASSAGE COEFFICIENT OF VARIATION
36	7/19/95	12,067	351	9,025	516	25,544	2,356	46,636	2,438	0.052
37	7/20/95	12,498	864	6,610	411	21,664	1,951	40,772	2,173	0.053
38	7/21/95	12,160	1,090	8,540	253	28,688	4,070	49,388	4,221	0.085
39	7/22/95	9,091	837	8,210	67	30,216	1,698	47,517	1,894	0.04
40	7/23/95	5,880	557	9,098	196	22,602	950	37,581	1,118	0.03
41	7/24/95	4,179	399	8,148	906	11,696	830	24,022	1,292	0.054
42	7/25/95	5,432	296	9,368	532	20,409	1,125	35,208	1,279	0.036
43	7/26/95	6,085	202	9,553	71	23,937	926	39,575	951	0.024
44	7/27/95	7,337	454	11,235	207	42,609	716	61,182	873	0.014
45	7/28/95	9,182	1,127	15,271	2,180	53,489	5,904	77,942	6,394	0.082
46	7/29/95	8,533	659	19,585	1,690	65,581	1,548	93,699	2,385	0.025
47	7/30/95	5,731	110	11,031	1,745	37,714	3,035	54,476	3,503	0.064
48	7/31/95	3,494	289	8,443	846	17,566	1,703	29,504	1,923	0.065
48	8/1/95	3,043	251	5,797	581	9,881	958	18,721	1,148	0.061
49	8/2/95	2,613	231	4,853	697	9,402	817	16,867	1,098	0.065
50	8/3/95	2,304	142	5,014	701	10,840	644	18,157	963	0.053
51	8/4/95	2,052	163	5,018	219	10,188	876	17,258	917	0.053
52	8/5/95	1,696	115	4,125	117	8,091	351	13,912	388	0.028
53	8/6/95	4,467	736	3,739	1,014	17,489	7,599	25,694	7,702	0.3
54	8/7/95	5,883	714	9,743	682	85,323	5,597	100,949	5,684	0.056
55	8/8/95	5,332	158	7,125	305	57,050	5,650	69,507	5,661	0.081
56	8/9/95	4,570	223	5,156	662	23,533	3,881	33,259	3,943	0.119
56	8/10/95	5,149	251	4,330	556	19,566	3,227	29,045	3,284	0.113
57	8/11/95	4,428	254	5,106	297	26,431	1,101	35,964	1,169	0.032
58	8/12/95	4,481	21	9,644	1,446	37,140	1,993	51,265	2,462	0.048
59	8/13/95	4,891	330	6,200	374	28,535	5,005	39,627	5,030	0.127
59	8/14/95	5,516	372	4,176	252	23,154	4,061	32,846	4,086	0.124
60	8/15/95	3,425	148	4,099	431	32,955	3,607	40,478	3,636	0.09
61	8/16/95	9,185	1,347	8,471	1,105	80,288	8,483	97,944	8,660	0.088
61	8/17/95	7,439	1,091	7,564	986	74,328	7,854	89,330	7,990	0.089
62	8/18/95	3,867	936	3,252	451	21,899	1,950	29,018	2,209	0.076
63	8/19/95	2,608	189	2,140	181	9,933	497	14,681	561	0.038
64	8/20/95	3,844	403	3,863	986	28,456	4,132	36,163	4,267	0.118
64	8/21/95	8,429	884	9,182	2,344	55,048	7,992	72,659	8,376	0.115
65	8/22/95	4,897	482	5,477	249	37,021	1,677	47,394	1,762	0.037
66	8/23/95	4,328	594	3,229	395	15,242	1,071	22,798	1,287	0.056
67	8/24/95	5,005	681	6,396	2,422	29,234	8,406	40,634	8,774	0.216
68	8/25/95	5,328	921	12,137	1,352	56,897	4,874	74,362	5,142	0.069
69	8/26/95	2,533	576	4,156	654	21,036	2,932	27,725	3,059	0.11
70	8/27/95	2,186	216	2,622	282	10,062	972	14,871	1,035	0.07
71	8/28/95	1,882	51	1,577	71	4,752	465	8,212	473	0.058
72	8/29/95	1,255	96	2,296	562	3,172	492	6,723	753	0.112
73	8/30/95	1,213	128	2,052	262	3,990	577	7,255	646	0.089
74	8/31/95	1,424	101	2,183	364	4,366	495	7,973	623	0.078
75	9/1/95	1,719	82	2,554	369	7,871	2,527	12,144	2,555	0.21
76	9/2/95	1,987	49	2,753	603	12,837	1,084	17,577	1,241	0.071
77	9/3/95	2,334	161	2,833	366	10,717	1,352	15,885	1,410	0.089
		=========	=======	==========	=======	=========	======	========		
TOTALS		232,982		302,979		1,288,442		1,824,403		
SEASON TOTALS		1,141,087	13,525	1,279,564	28,126	3,454,088	48,319	5,874,739	57,522	

[a]Left Bank Nearshore Range: 0-40 meters.
[b]Left Bank Offshore Range: 40-300 meters.

Table 3. Confidence intervals for cumulative passage estimates by species for the lower Yukon River sonar project, 1995.

SPECIES	CUMULATIVE ESTIMATED PASSAGE	STANDARD ERROR	COEFFICIENT OF VARIATION	LOWER 90% CONFIDENCE INTERVAL	UPPER 90% CONFIDENCE INTERVAL
Target Species					
Large Chinook Salmon	203,282	28,402	0.14	156,561	250,003
Small Chinook Salmon	36,938	4,976	0.135	28,753	45,123
	=========				
Total Chinook Salmon	240,220				
Summer Chum	3,638,180	58,731	0.016	3,541,568	3,734,792
Fall Chum	1,247,540	28,859	0.023	1,200,067	1,295,014
	=========				
Total Chum	4,885,720				
Non-target Species*					
Coho Salmon	154,464	14,897	0.096	129,958	178,970
Pink Salmon	46,488	7,617	0.164	33,959	59,018
Whitefish	302,392	20,606	0.068	268,495	336,289
Cisco	167,605	15,702	0.094	144,776	193,435
Other species	77,850	12,728	0.163	56,912	98,788
	=========	========			
TOTAL	5,874,739	57,522			

*Estimates used in the process of apportioning target species, not for estimating passage rates of non-target species.

Table 4. Daily estimates of fish passage by species from 7 June to 18 July, lower Yukon River sonar project, 1995.

REPORT PERIOD	DATE	LARGE CHINOOK	SMALL CHINOOK	SUMMER CHUM	PINK	FALL CHUM	COHO	WHITEFISH SPECIES	CISCO SPECIES	OTHER SPECIES	TOTAL ALL SPECIES
1	6/7/95	3,746	491	23,579	0	0	0	1,393	1,449	905	31,563
1	6/8/95	3,816	507	26,744	0	0	0	2,033	1,606	998	35,704
2	6/9/95	1,774	0	25,534	0	0	0	1,856	477	182	29,823
3	6/10/95	5,632	1,235	12,010	0	0	0	289	0	588	19,754
3	6/11/95	13,643	3,240	26,442	0	0	0	680	0	1,300	45,305
4	6/12/95	6,926	1,627	64,100	0	0	0	0	0	516	73,169
5	6/13/95	11,326	1,927	45,124	0	0	0	90	195	606	59,268
5	6/14/95	14,754	1,991	61,700	0	0	0	102	200	895	79,642
6	6/15/95	946	2,045	65,628	0	0	0	1,217	0	581	70,417
7	6/16/95	3,484	3,282	64,660	0	0	0	0	917	459	72,802
8	6/17/95	2,823	634	47,474	0	0	0	207	0	659	51,797
8	6/18/95	6,213	1,430	115,457	0	0	0	466	0	1,211	124,777
9	6/19/95	18,738	3,722	214,500	0	0	0	0	0	244	237,204
9	6/20/95	13,036	1,972	137,994	0	0	0	0	0	231	153,233
10	6/21/95	231	0	148,787	0	0	0	0	0	0	149,018
11	6/22/95	82	1,280	131,700	0	0	0	0	1,096	1,720	135,878
12	6/23/95	287	2,617	120,527	0	0	0	637	0	0	124,068
13	6/24/95	3,150	886	159,055	0	0	0	0	1,128	1,717	165,936
14	6/25/95	2,720	1,496	179,064	0	0	0	0	298	0	183,578
15	6/26/95	25,185	3,262	181,328	0	0	0	0	0	0	209,775
16	6/27/95	25,716	818	228,934	2,671	0	0	5,887	0	282	264,308
17	6/28/95	0	0	193,647	2,164	0	0	3,473	1,424	2,561	203,269
18	6/29/95	8,173	0	183,270	0	0	0	8,579	0	1,021	201,043
19	6/30/95	2,752	1,293	130,542	0	0	0	5,087	379	0	140,053
20	7/1/95	650	360	74,505	0	0	0	4,717	1,087	0	81,319
21	7/2/95	2,592	0	47,087	0	0	0	2,716	2,661	0	55,056
22	7/3/95	1,809	0	88,262	0	0	0	0	7,559	8,039	105,669
23	7/4/95	4,482	0	135,810	0	0	0	2,563	1,326	0	144,181
24	7/5/95	988	0	117,806	0	0	0	270	1,417	1,451	121,932
25	7/6/95	545	0	116,863	756	0	0	695	3,129	0	121,988
25	7/7/95	275	0	71,557	556	0	0	504	2,238	0	75,130
26	7/8/95	1,067	0	71,715	0	0	0	6,538	1,866	0	81,186
27	7/9/95	2,805	278	33,438	328	0	0	2,149	2,251	0	41,249
27	7/10/95	2,570	285	34,006	448	0	0	2,503	2,798	0	42,610
28	7/11/95	947	0	75,448	0	0	0	2,074	3,519	0	81,988
29	7/12/95	1,274	0	60,569	1,339	0	0	5,011	797	0	68,990
30	7/13/95	0	0	29,699	1,449	0	0	3,707	2,696	0	37,551
31	7/14/95	0	0	24,447	618	0	0	1,022	283	472	26,842
32	7/15/95	532	0	10,671	1,076	0	0	2,002	3,218	267	17,766
33	7/16/95	0	0	18,604	4,470	0	0	2,344	731	1,107	27,256
34	7/17/95	489	0	22,841	0	0	0	2,272	6,104	0	31,706
35	7/18/95	1,716	0	17,052	0	0	0	6,660	1,104	0	26,532
SUMMER TOTALS		197,895	36,678	3,638,180	15,875	0	0	79,743	53,953	28,012	4,050,336

Table 5. Daily estimates of fish passage by species from 19 July to 3 September, lower Yukon River sonar project, 1995.

REPORT PERIOD	DATE	LARGE CHINOOK	SMALL CHINOOK	SUMMER CHUM	PINK	FALL CHUM	COHO	WHITEFISH SPECIES	CISCO SPECIES	OTHER SPECIES	TOTAL ALL SPECIES
36	7/19/95	0	0	0	439	35,146	0	5,322	5,089	639	46,635
37	7/20/95	2,265	0	0	0	32,618	0	2,210	1,454	2,225	40,772
38	7/21/95	0	0	0	751	40,406	0	7,431	799	0	49,387
39	7/22/95	0	0	0	2,880	37,424	0	6,734	480	0	47,518
40	7/23/95	0	259	0	668	26,348	0	8,773	1,532	0	37,580
41	7/24/95	0	0	0	598	7,432	0	9,877	4,772	1,344	24,023
42	7/25/95	0	0	0	3,148	19,044	0	6,631	5,262	1,124	35,209
43	7/26/95	0	0	0	0	23,605	0	14,494	1,476	0	39,575
44	7/27/95	0	0	0	6,404	42,379	0	7,654	4,250	494	61,181
45	7/28/95	0	0	0	3,280	62,277	0	4,032	8,353	0	77,942
46	7/29/95	3,121	0	0	0	71,501	1,276	15,100	1,742	958	93,698
47	7/30/95	0	0	0	2,656	39,726	1,125	9,489	1,481	0	54,477
48	7/31/95	0	0	0	1,402	13,601	152	9,285	3,608	1,454	29,502
48	8/1/95	0	0	0	963	8,267	132	5,678	2,415	1,267	18,722
49	8/2/95	0	0	0	1,211	5,485	0	8,715	1,456	0	16,867
50	8/3/95	0	0	0	2,108	7,197	0	6,456	1,259	1,138	18,158
51	8/4/95	0	0	0	1,263	5,734	1,139	3,329	2,995	2,796	17,256
52	8/5/95	0	0	0	0	2,278	2,009	857	8,769	0	13,913
53	8/6/95	0	0	0	548	17,777	127	3,763	2,890	590	25,695
54	8/7/95	0	0	0	0	83,969	231	8,857	808	7,085	100,950
55	8/8/95	0	0	0	1,295	53,507	727	9,126	3,375	1,477	69,507
56	8/9/95	0	0	0	0	15,783	1,635	11,638	4,202	0	33,258
56	8/10/95	0	0	0	0	14,058	1,712	9,702	3,573	0	29,045
57	8/11/95	0	0	0	0	22,445	967	2,828	7,845	1,879	35,964
58	8/12/95	0	0	0	0	48,394	2,180	457	0	234	51,265
59	8/13/95	0	0	0	0	28,007	3,531	2,063	5,923	103	39,627
59	8/14/95	0	0	0	0	23,745	2,869	1,781	4,334	116	32,845
60	8/15/95	0	0	0	0	30,047	4,127	643	2,792	2,869	40,478
61	8/16/95	0	0	0	0	74,325	9,969	3,773	5,085	4,792	97,944
61	8/17/95	0	0	0	0	67,975	8,971	3,398	4,567	4,419	89,330
62	8/18/95	0	0	0	0	8,619	18,571	1,562	0	265	29,017
63	8/19/95	0	0	0	914	10,503	2,657	386	0	221	14,681
64	8/20/95	0	0	0	0	28,484	4,578	2,305	613	183	36,163
64	8/21/95	0	0	0	0	56,183	9,840	4,744	1,457	436	72,660
65	8/22/95	0	0	0	0	36,187	10,527	570	110	0	47,394
66	8/23/95	0	0	0	0	3,023	13,036	6,740	0	0	22,799
67	8/24/95	0	0	0	0	31,738	5,467	0	3,430	0	40,635
68	8/25/95	0	0	0	0	56,360	12,174	680	996	4,152	74,362
69	8/26/95	0	0	0	0	17,817	8,518	1,102	126	163	27,726
70	8/27/95	0	0	0	0	5,737	6,278	2,086	598	171	14,870
71	8/28/95	0	0	0	0	2,210	4,502	1,275	225	0	8,212
72	8/29/95	0	0	0	84	3,160	1,641	930	907	0	6,722
73	8/30/95	0	0	0	0	1,047	3,228	919	826	1,235	7,255
74	8/31/95	0	0	0	0	1,503	3,793	2,481	195	0	7,972
75	9/1/95	0	0	0	0	7,760	1,018	2,030	1,336	0	12,144
76	9/2/95	0	0	0	0	7,085	3,469	1,037	244	5,742	17,577
77	9/3/95	0	0	0	0	9,625	2,286	3,707	0	266	15,884
FALL TOTALS		5,387	260	0	30,613	1,247,540	154,464	222,649	113,652	49,838	1,824,403
SEASON TOTALS		203,282	36,938	3,638,180	46,488	1,247,540	154,464	302,392	167,605	77,850	5,874,739
STD ERRORS		28,402	4,976	58,731	7,617	28,859	14,897	20,606	15,702	12,728	57,522

Table 6. Twenty-four hour counts compared with daily estimates for the lower Yukon River sonar project, 1995. Daily estimates are obtained from the regular sampling schedule.

DATE	SAMPLING METHOD	RIGHT BANK PASSAGE	LEFT BANK NEARSHORE PASSAGE	LEFT BANK OFFSHORE PASSAGE	TOTAL PASSAGE
6/30/95	24 Hour Count	27,099	35,505	94,672	157,276
	Daily Estimate	25,341	28,902	85,811	140,054
7/15/95	24 Hour Count	5,419	4,712	9,592	19,723
	Daily Estimate	5,493	4,519	7,756	17,768
7/31/95	24 Hour Count	3,841	7,020	19,153	30,014
	Daily Estimate	3,494	8,443	17,566	29,504
8/17/95	24 Hour Count	9,322	7,234	69,585	86,141
	Daily Estimate	7,439	7,564	74,328	89,330
		=======	=======	=======	=======
TOTAL	24 Hour Count	45,681	54,471	193,002	293,154
	Daily Estimate	41,767	49,428	185,461	276,656

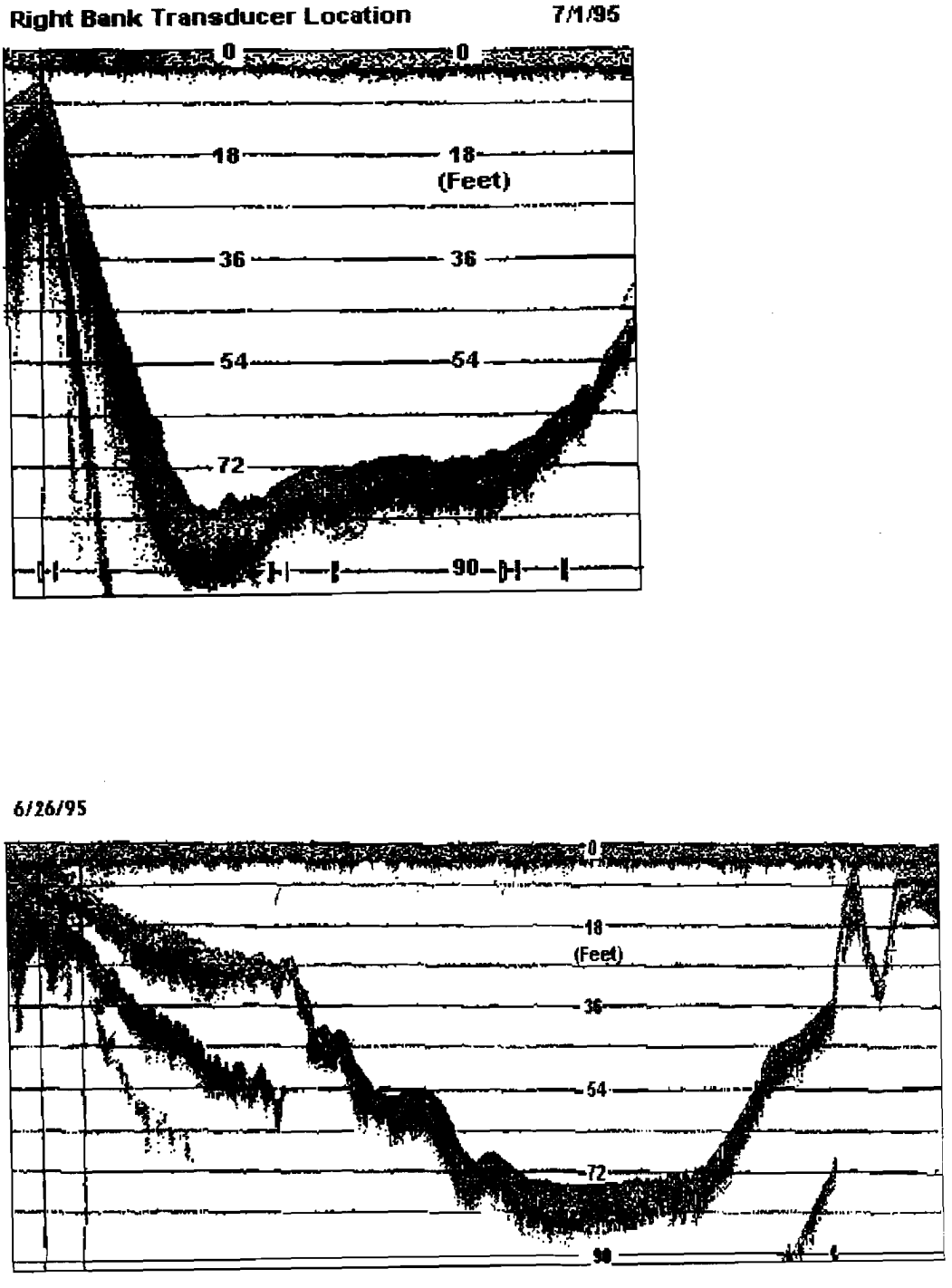


Figure 1. Right-bank profile at the transducer location (top); transriver profile from the left-bank transducer to the First Slough (bottom), approximately 1000 meters upstream of the right-bank transducer, lower Yukon River sonar project, 1995.

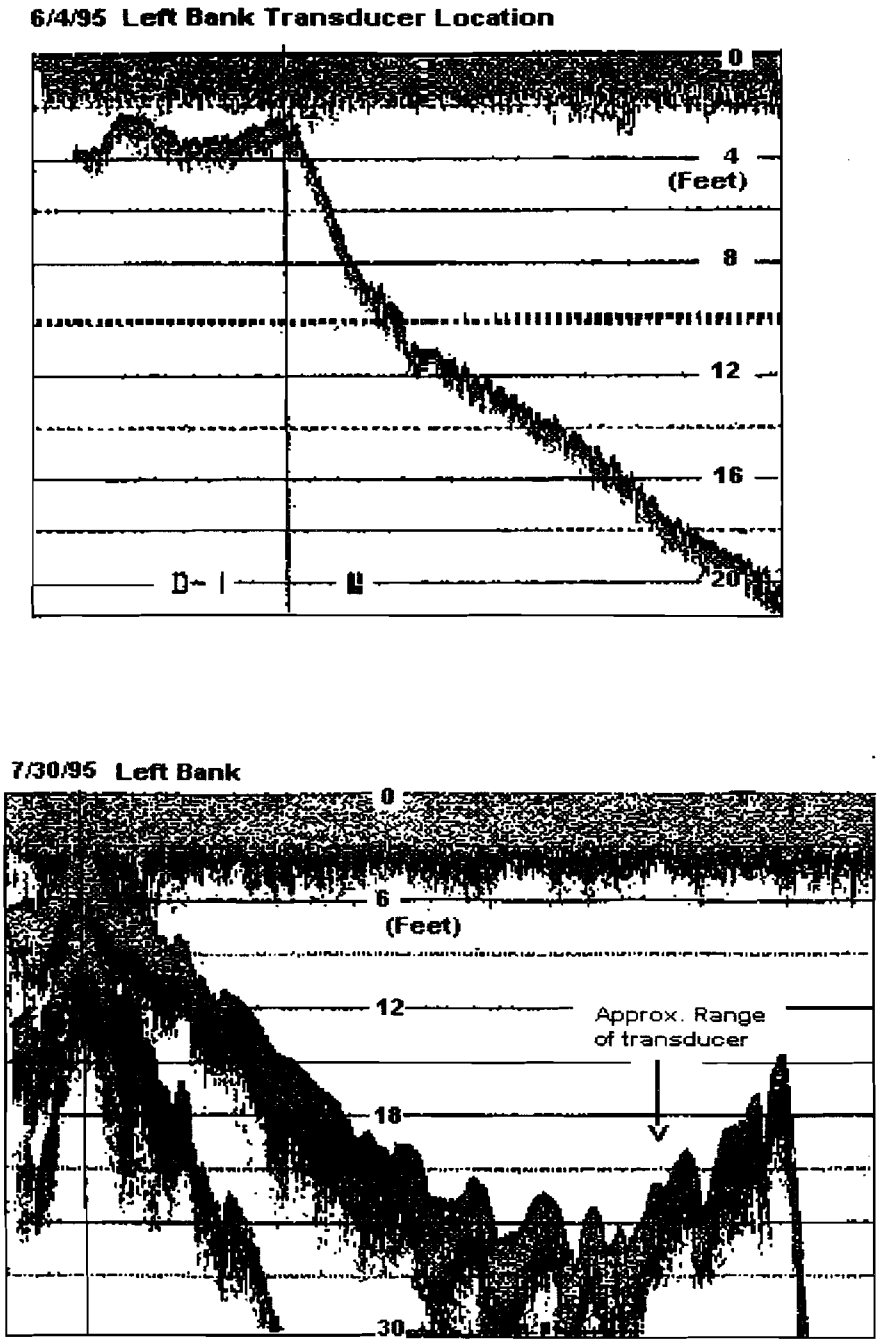


Figure 2. Left-bank profiles early in the season (top) and later in the season (bottom), lower Yukon River sonar project; the upward slope in the latter is due to the build-up of a sand bar at the edge of the ensonified range.

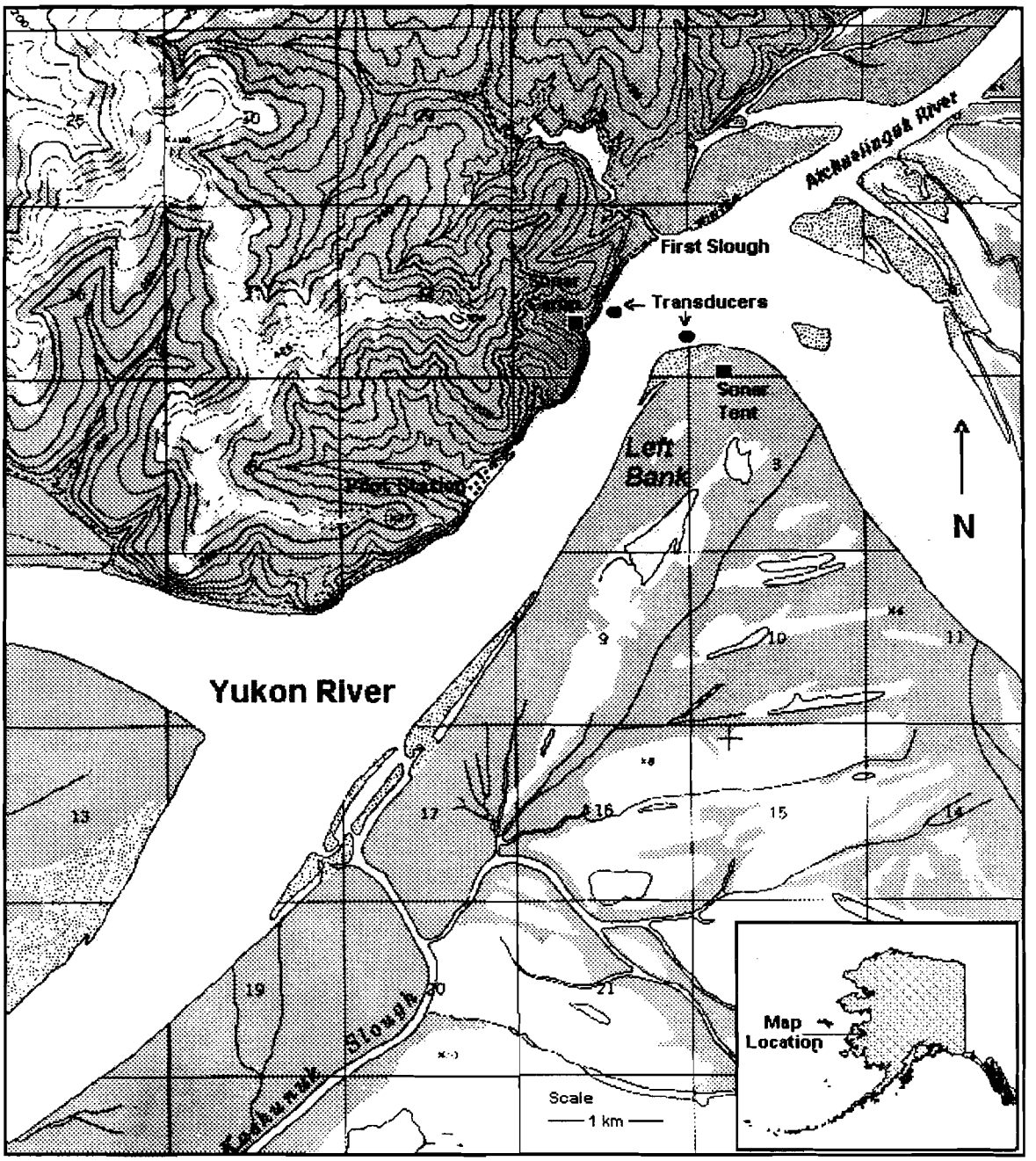


Figure 3. Yukon River in the vicinity of the sonar site, 1995.

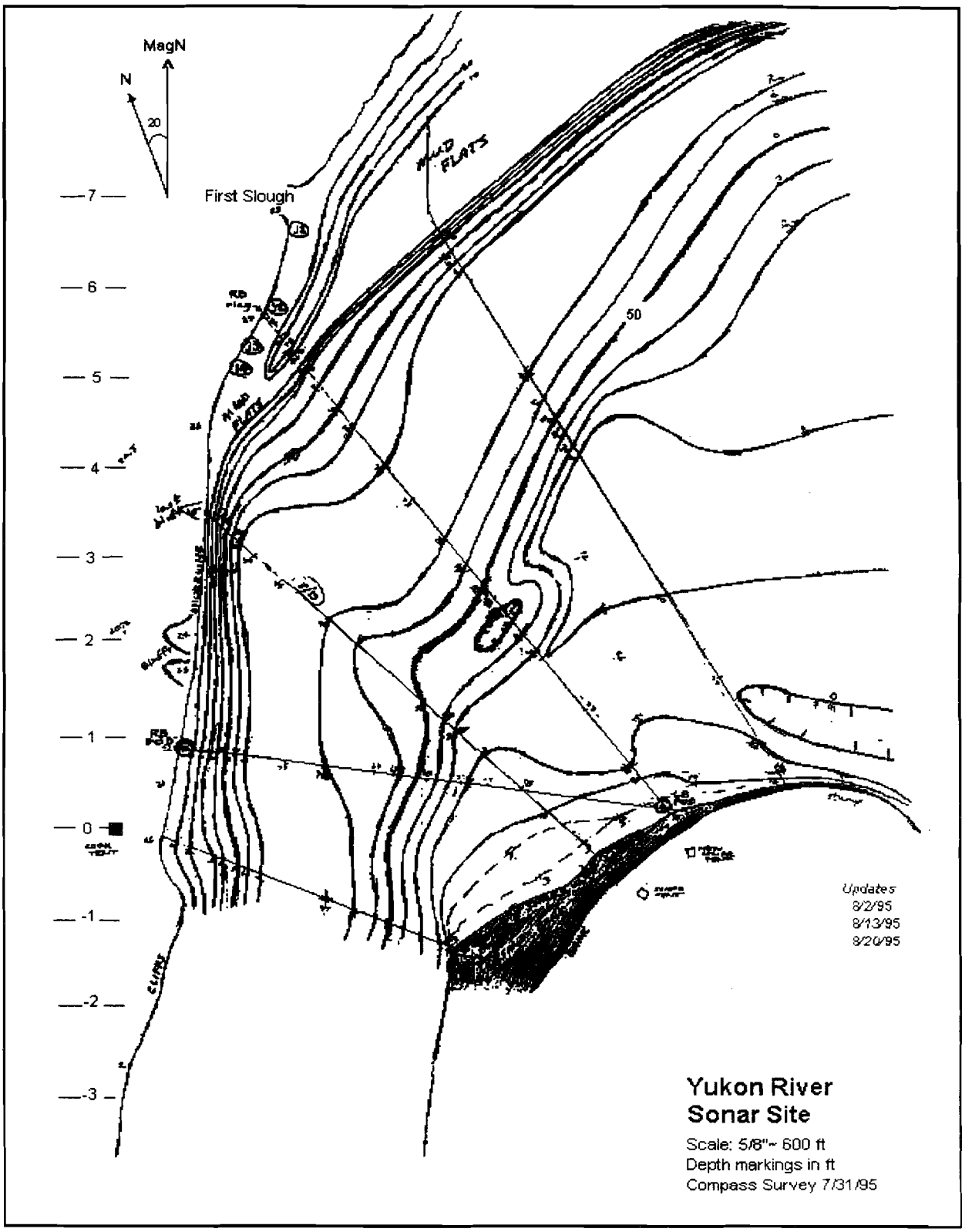
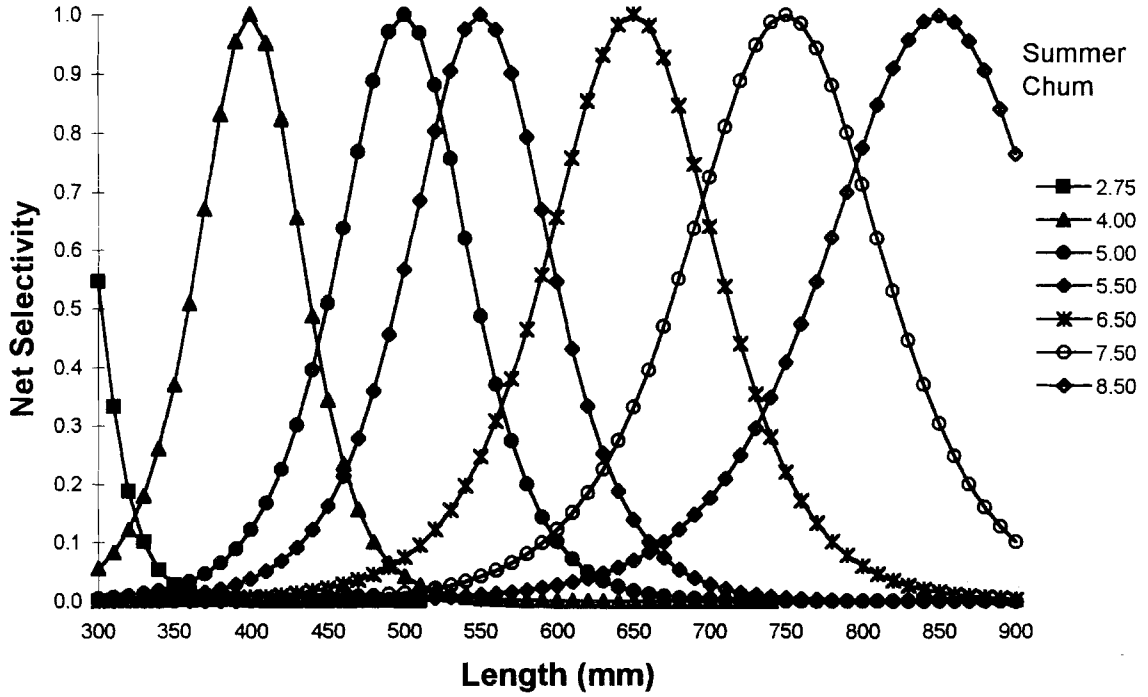


Figure 4. Bathymetric map of the sampling area, lower Yukon River sonar project, 1995.



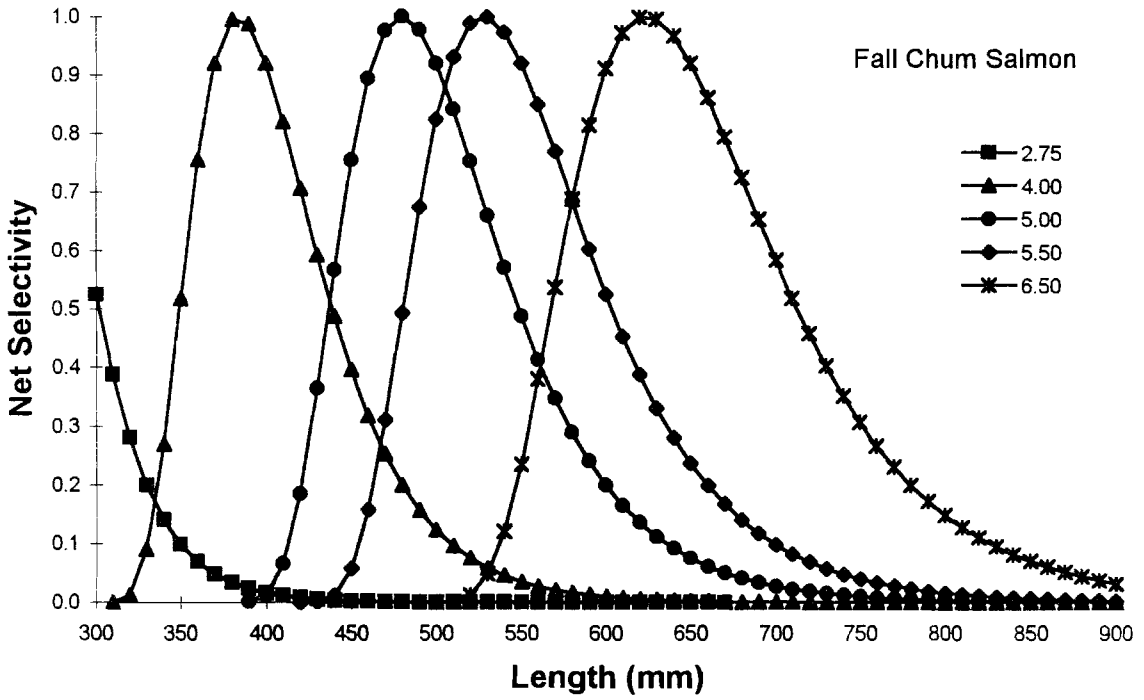
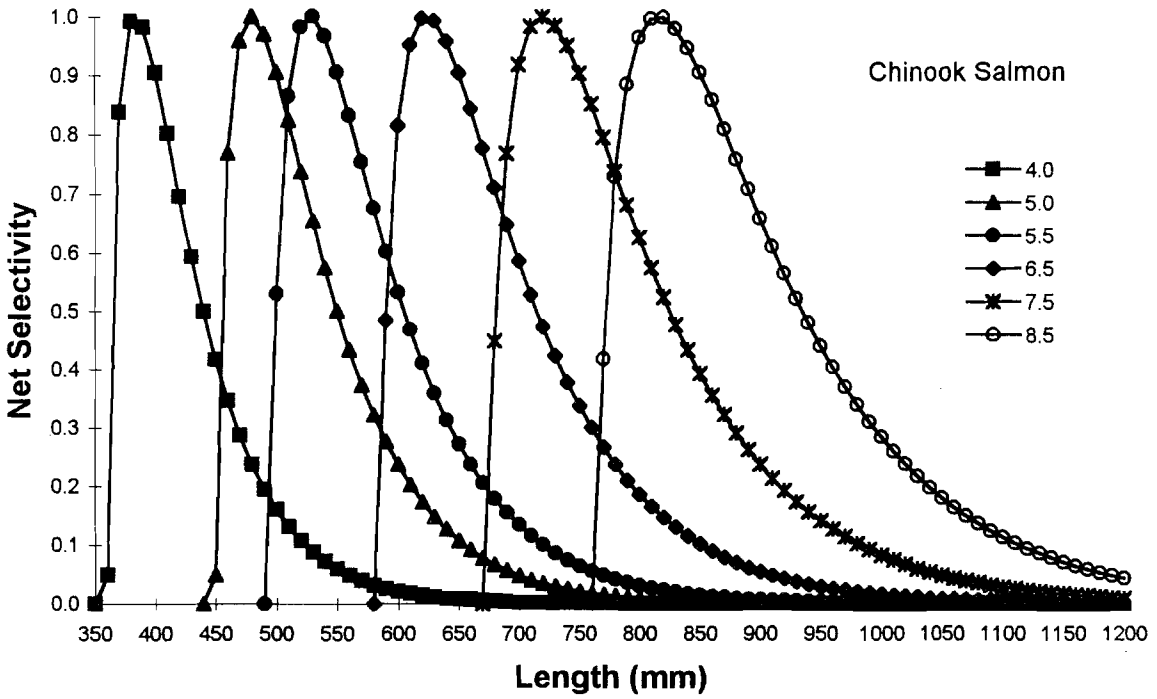


Figure 5. Gillnet selectivity curves for summer and fall chum salmon, lower Yukon River sonar project, 1995.



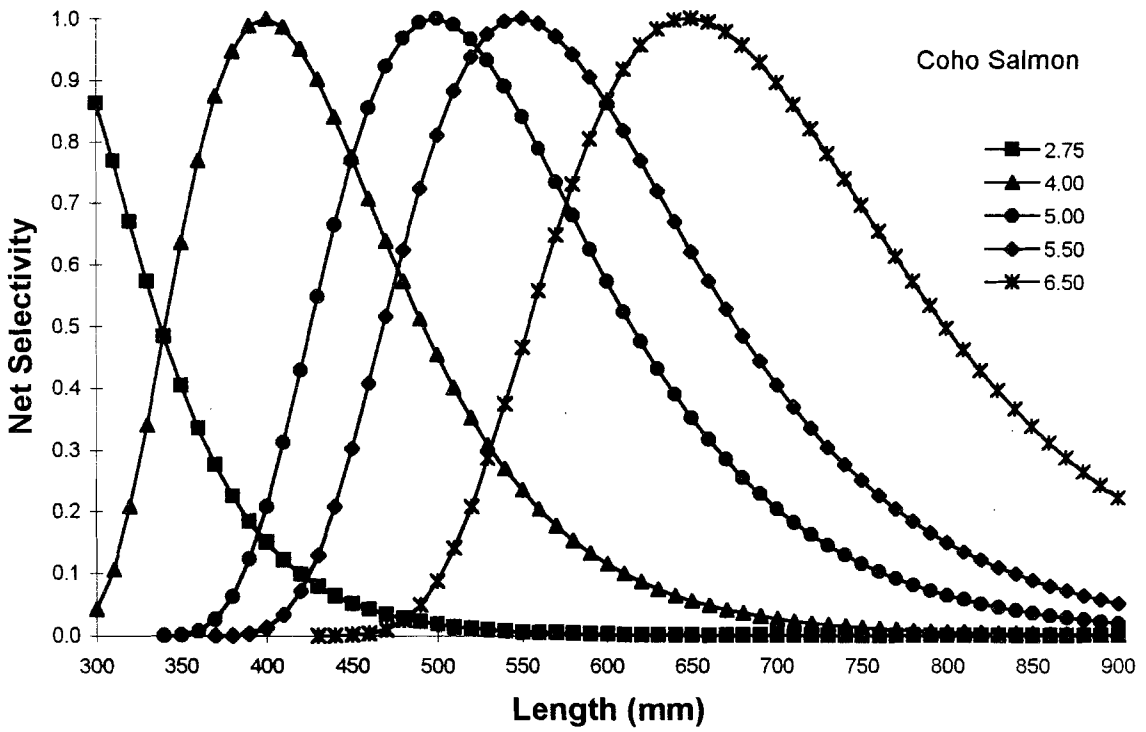


Figure 6. Gillnet selectivity curves for chinook and coho salmon, lower Yukon River sonar project, 1995.

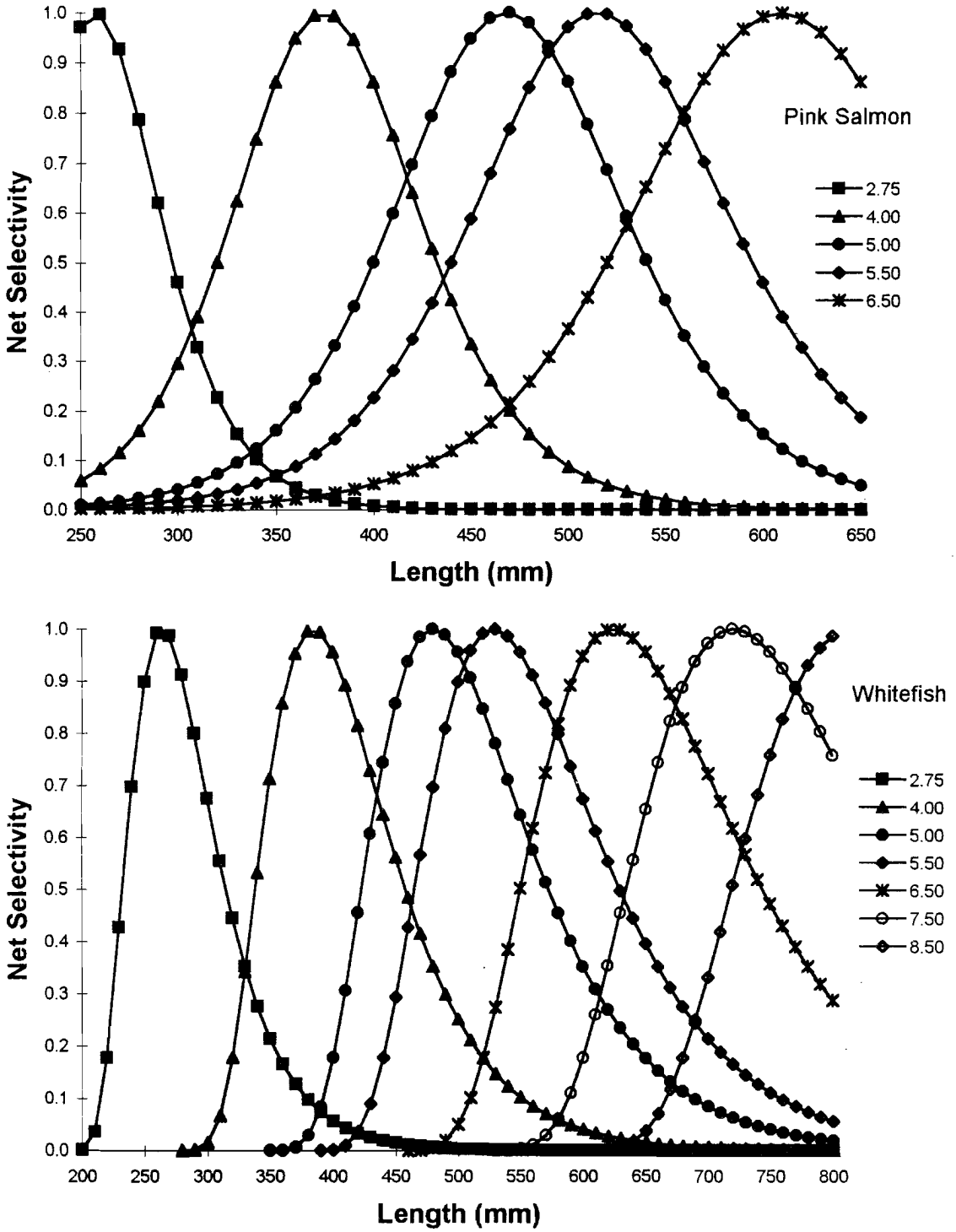
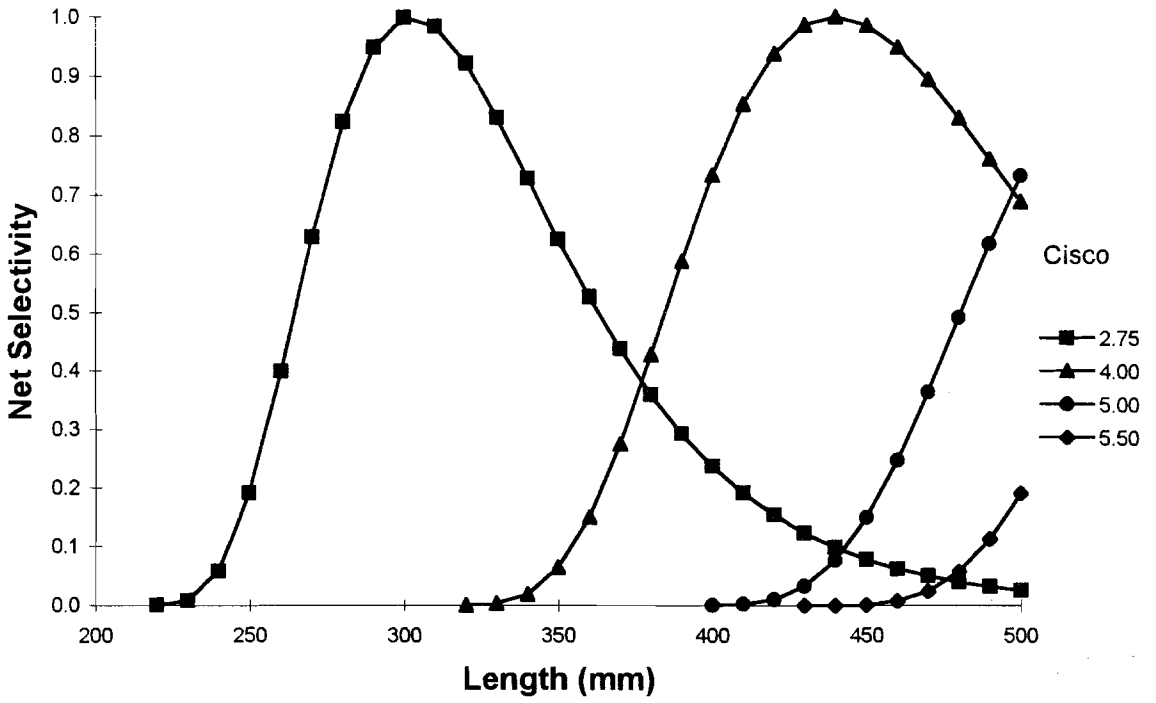


Figure 7. Gillnet selectivity curves for pink salmon and whitefish, lower Yukon River sonar project, 1995.



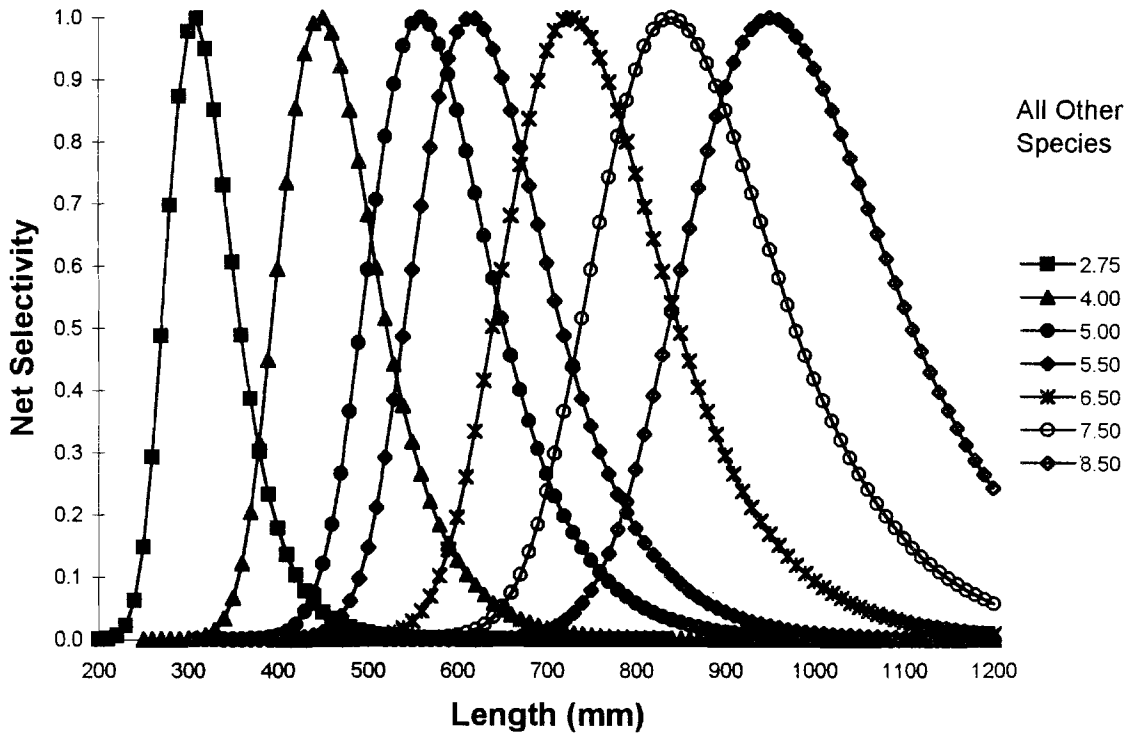


Figure 8. Gillnet selectivity curves for cisco and all other species not addressed by specific selectivity curves, lower Yukon River sonar project, 1995.

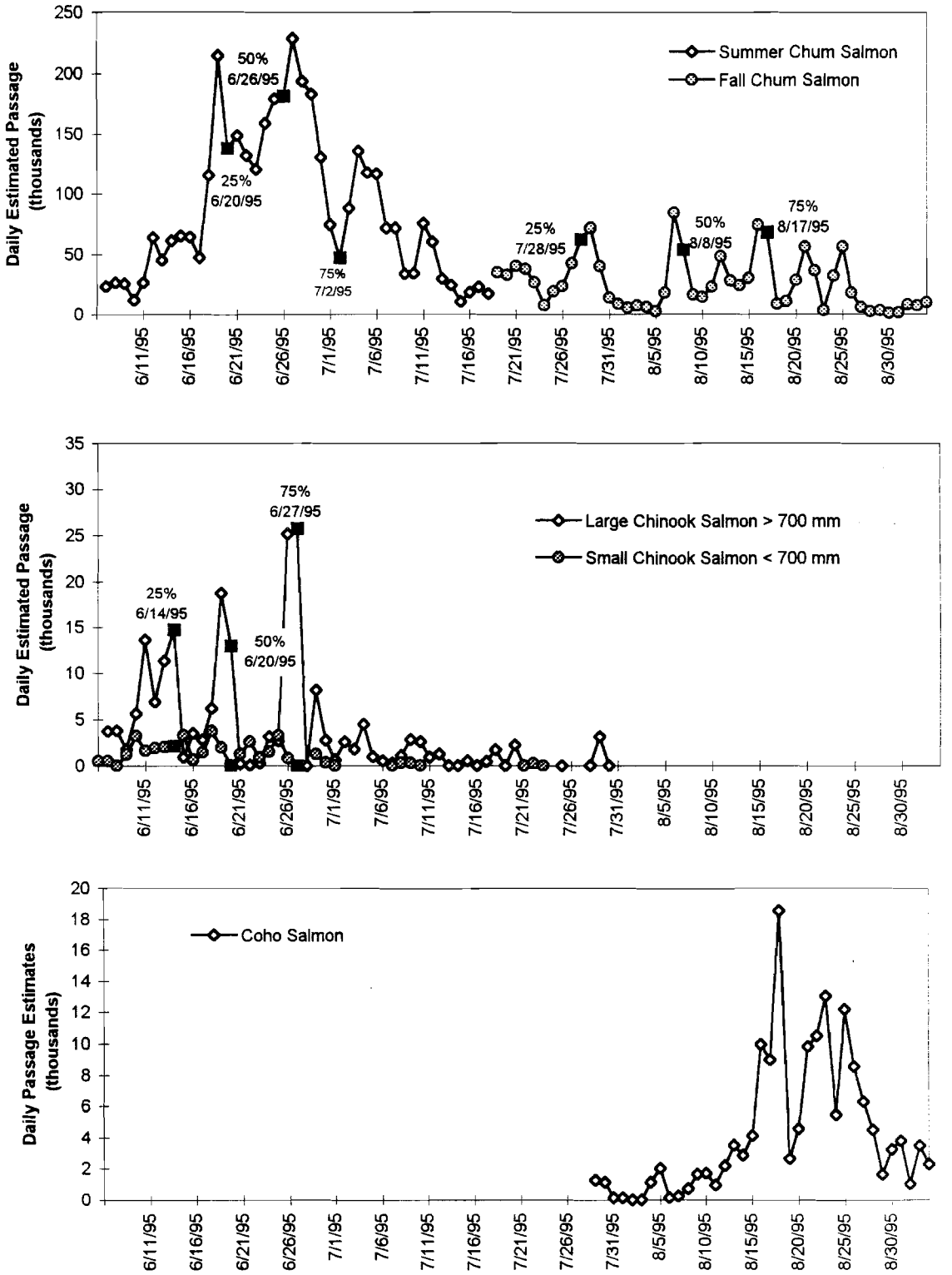


Figure 9. Daily estimated passage of chum, chinook, and coho salmon, lower Yukon River sonar project, 1995. Solid black rectangles identify 25%, 50%, and 75% passage dates.

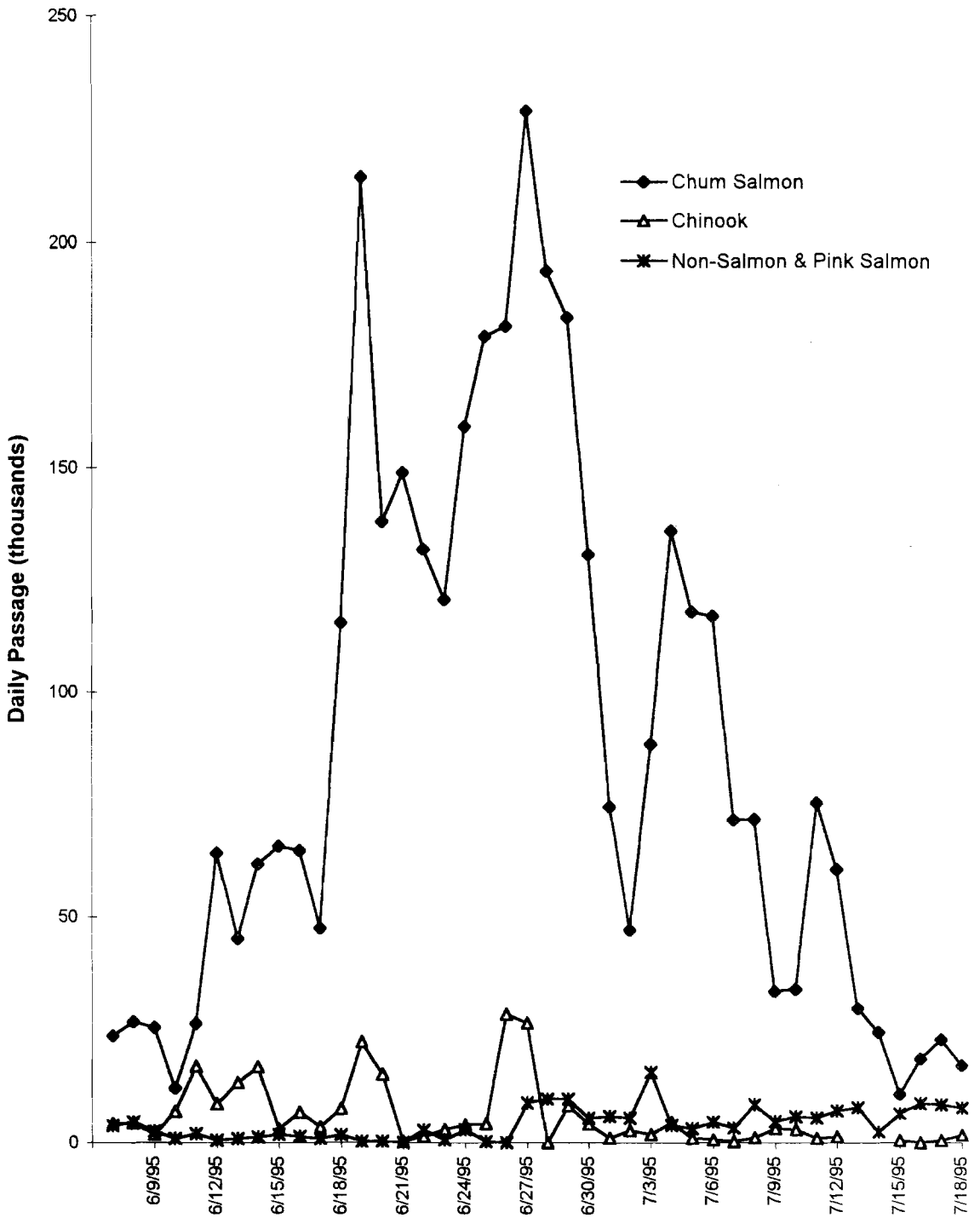


Figure 10. Daily proportions of fish passage by species, 7 June to 18 July, lower Yukon River sonar project, 1995.

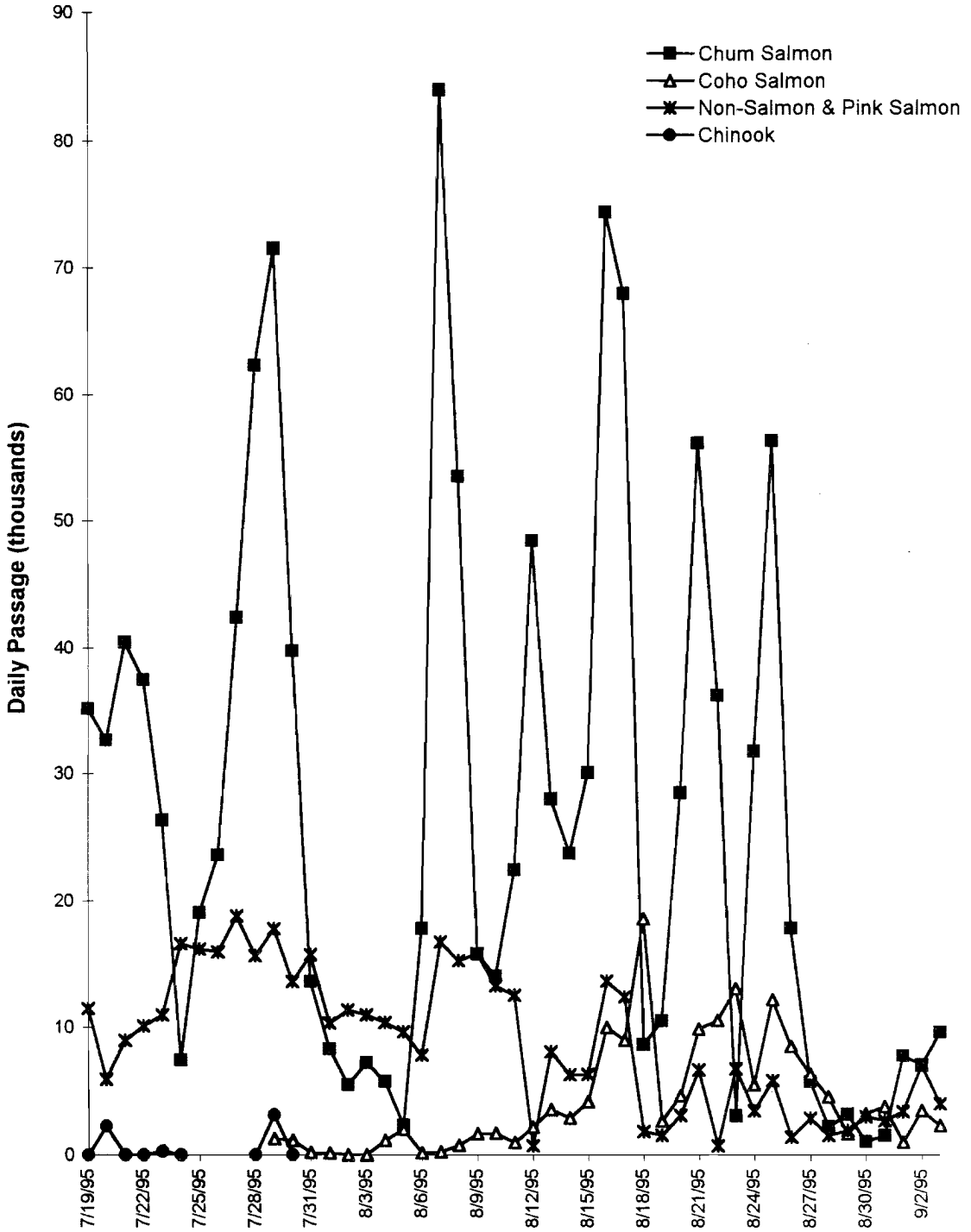
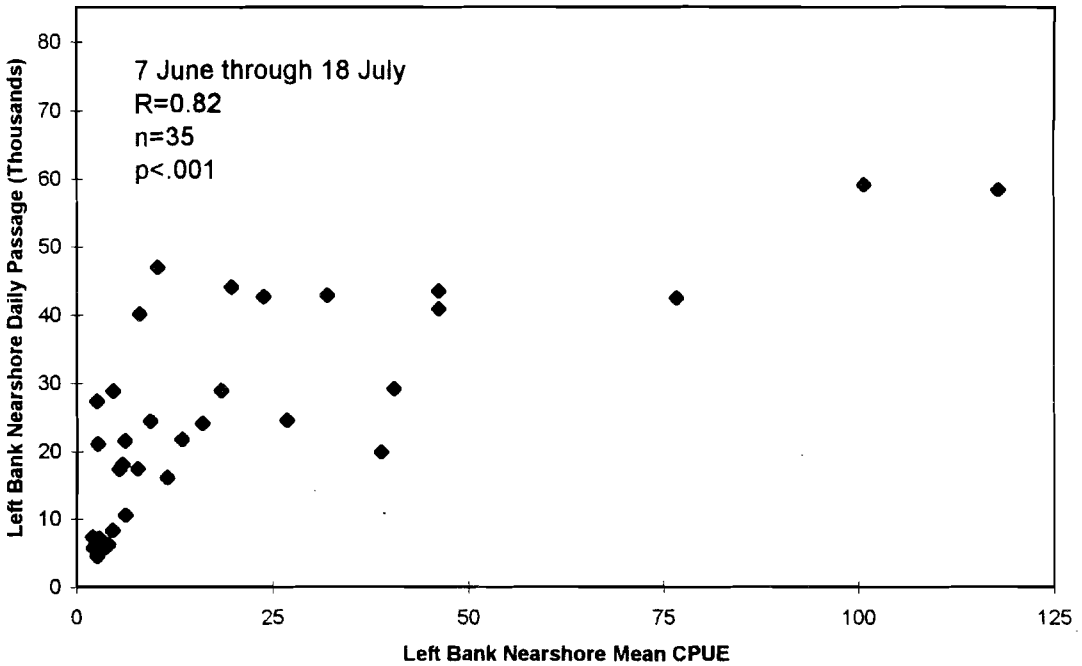


Figure 11. Daily proportions of fish passage by species, 19 July to 3 September, lower Yukon River sonar project, 1995.



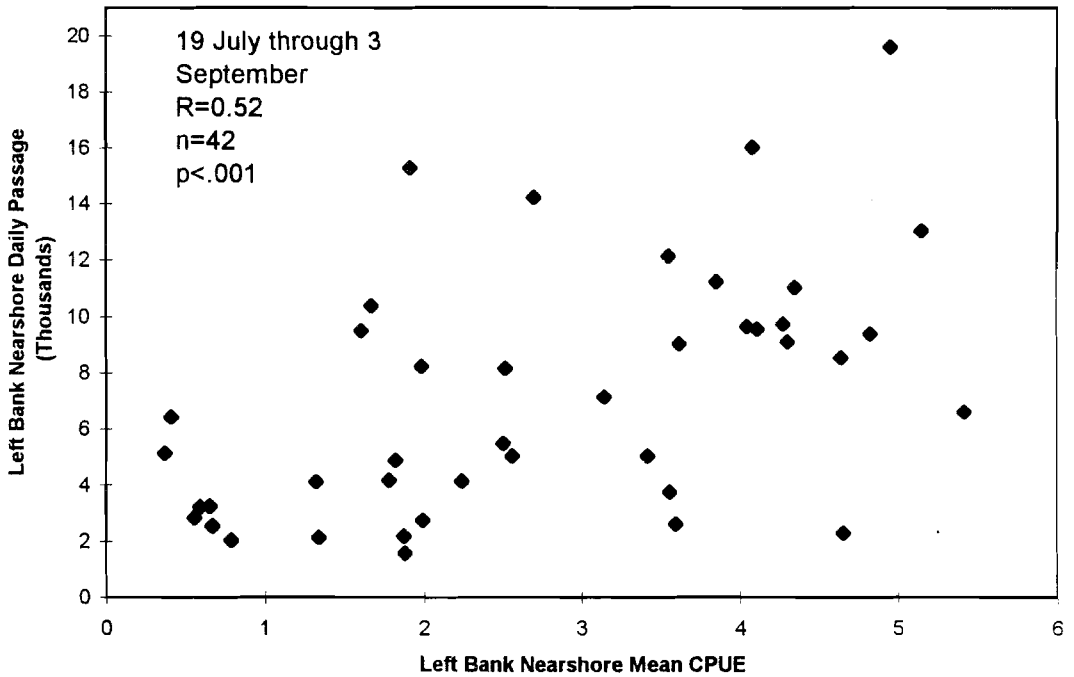
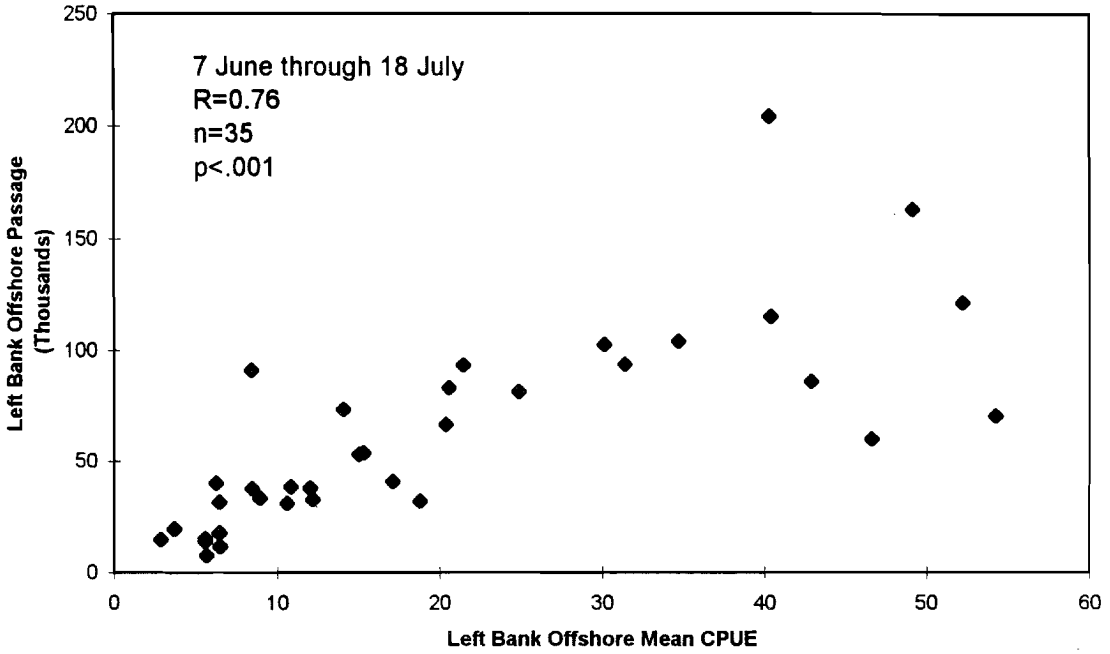


Figure 12. Mean CPUE species apportionment sampling versus daily sonar passage estimates for the left-bank nearshore zone by season, lower Yukon River sonar project, 1995.



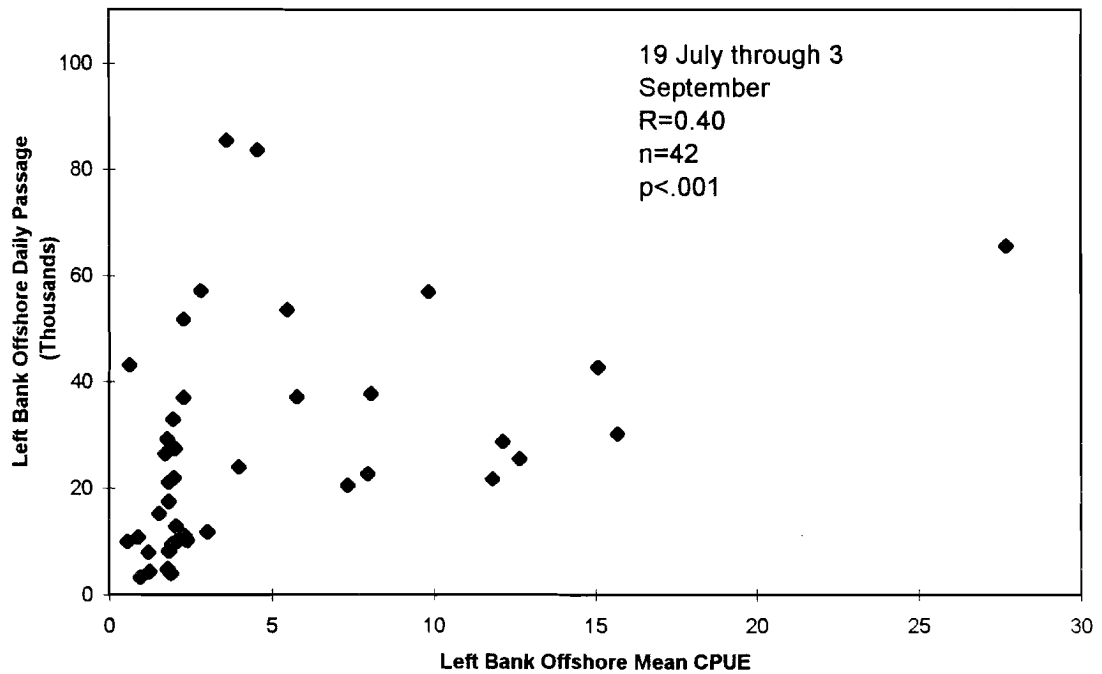
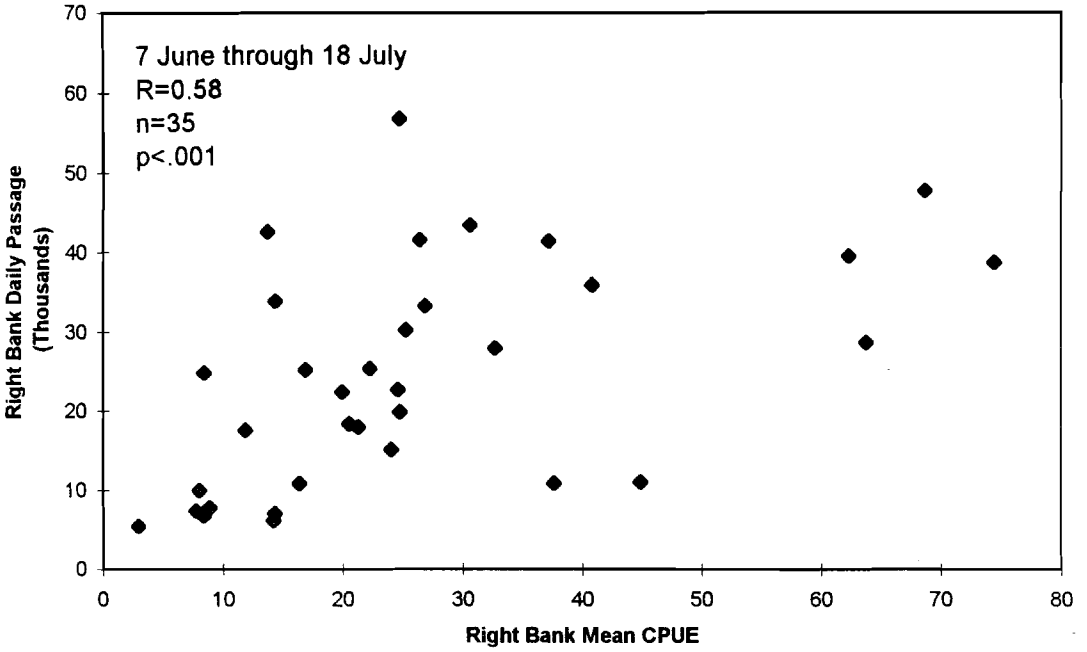


Figure 13. Mean CPUE species apportionment sampling versus daily sonar passage estimates for the left-bank offshore zone by season, lower Yukon River sonar project, 1995.



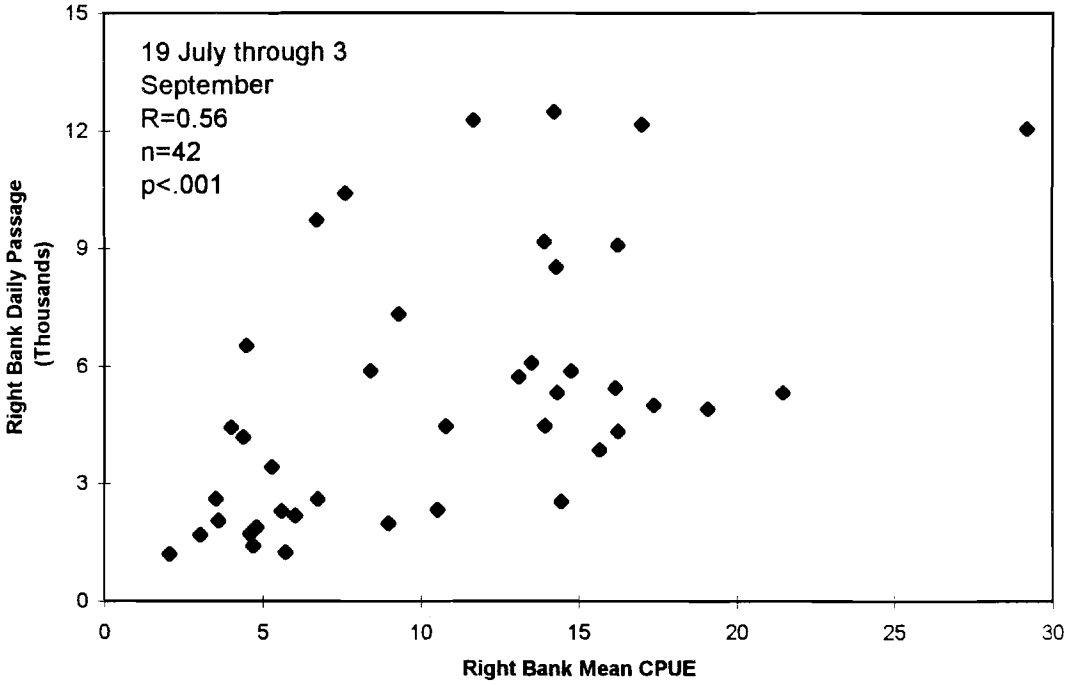
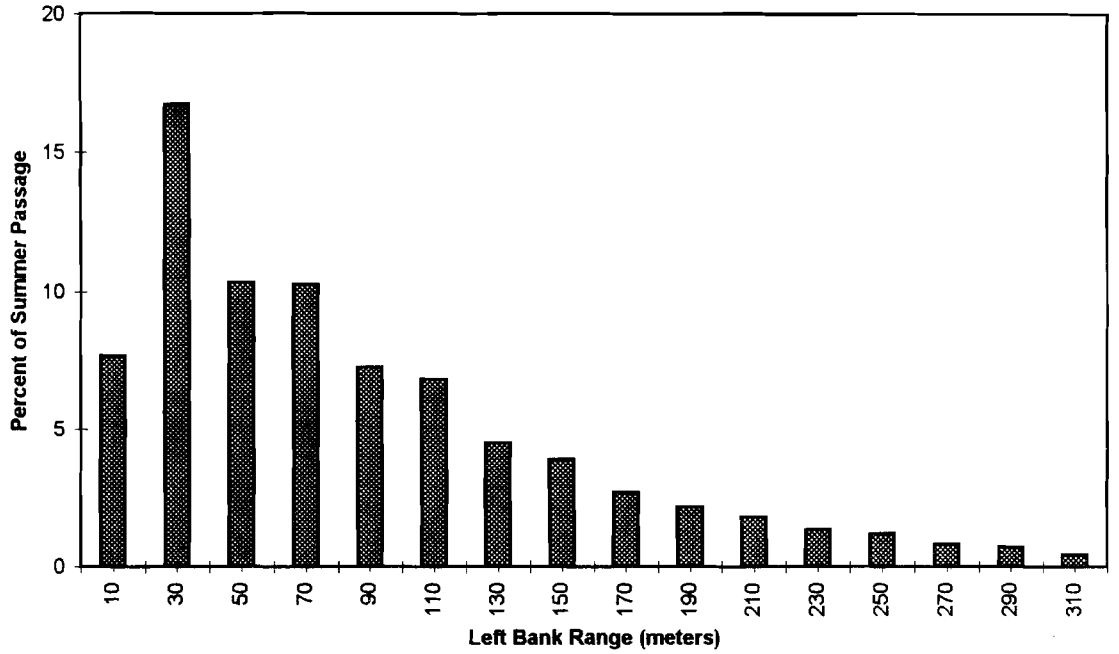


Figure 14. Mean CPUE species apportionment sampling versus daily sonar passage estimates for the right bank by season, lower Yukon River sonar project, 1995.



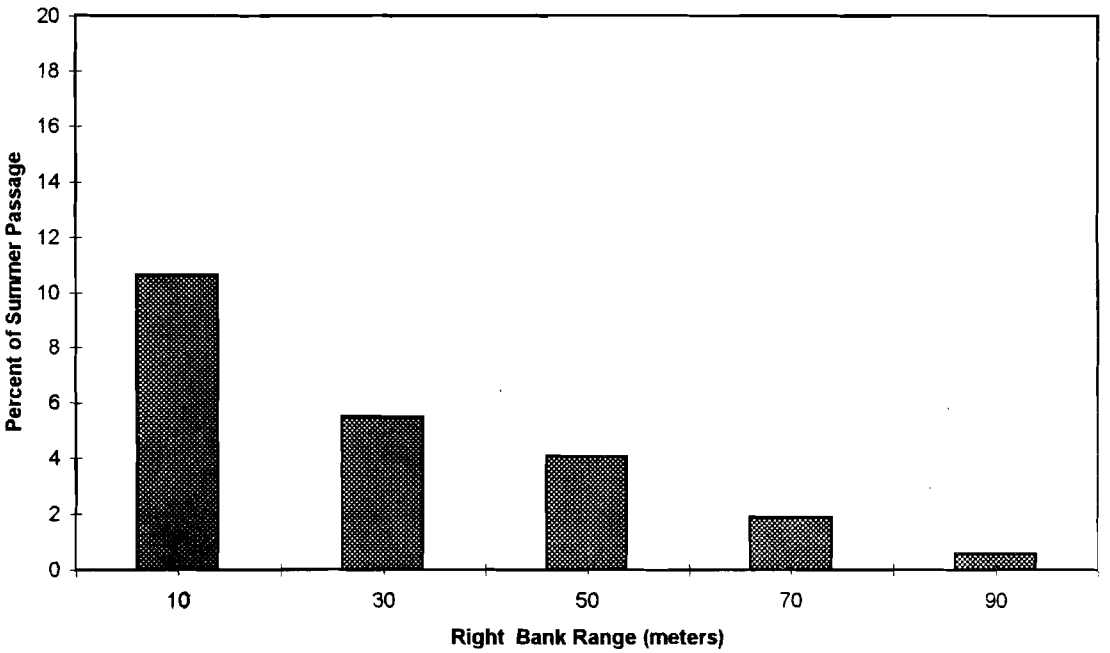
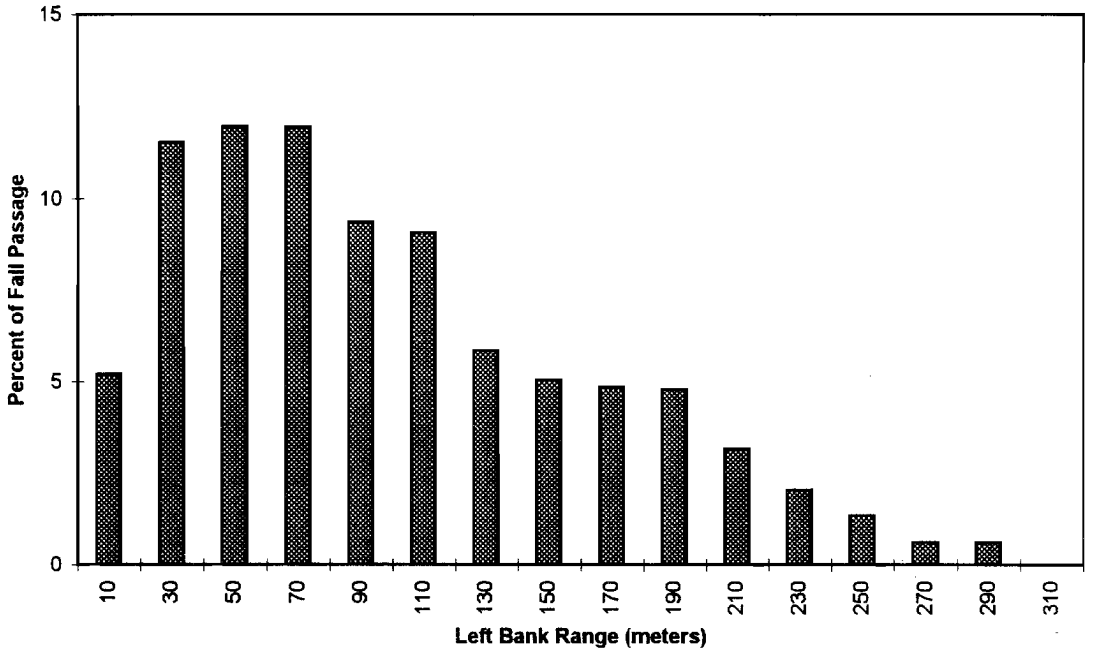


Figure 15. Horizontal distribution of fish on the left and right banks, lower Yukon River sonar project, 7 June through 18 July,1995.



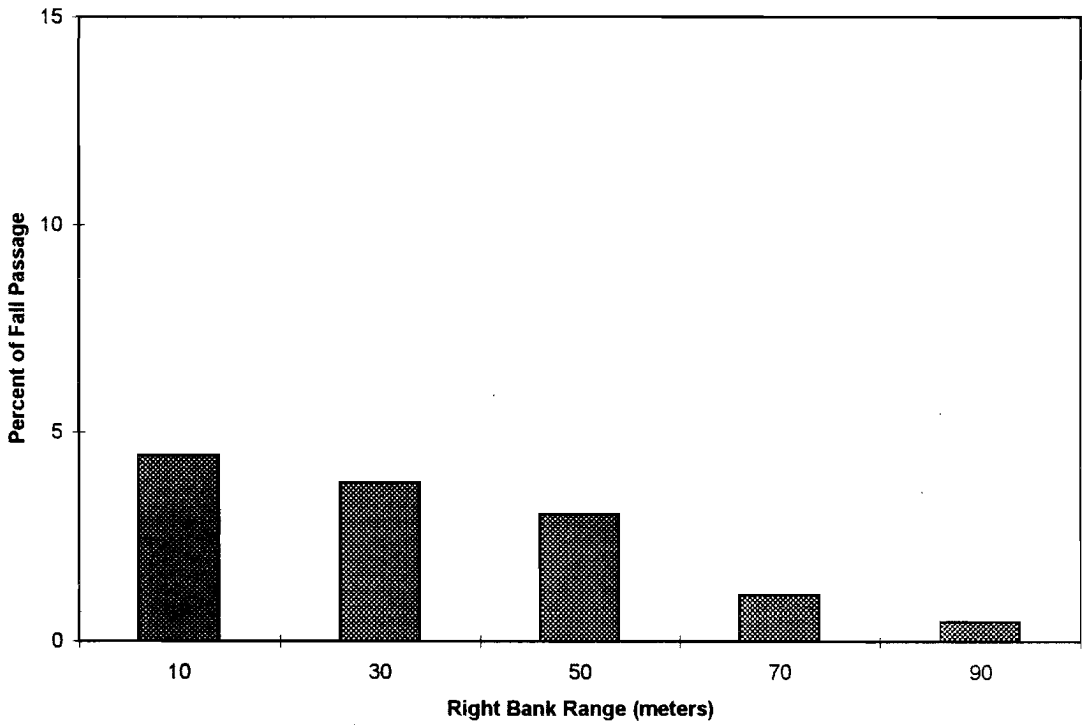


Figure 16. Horizontal distribution of fish on the left and right banks, lower Yukon River sonar project, 19 July through 3 September, 1995.

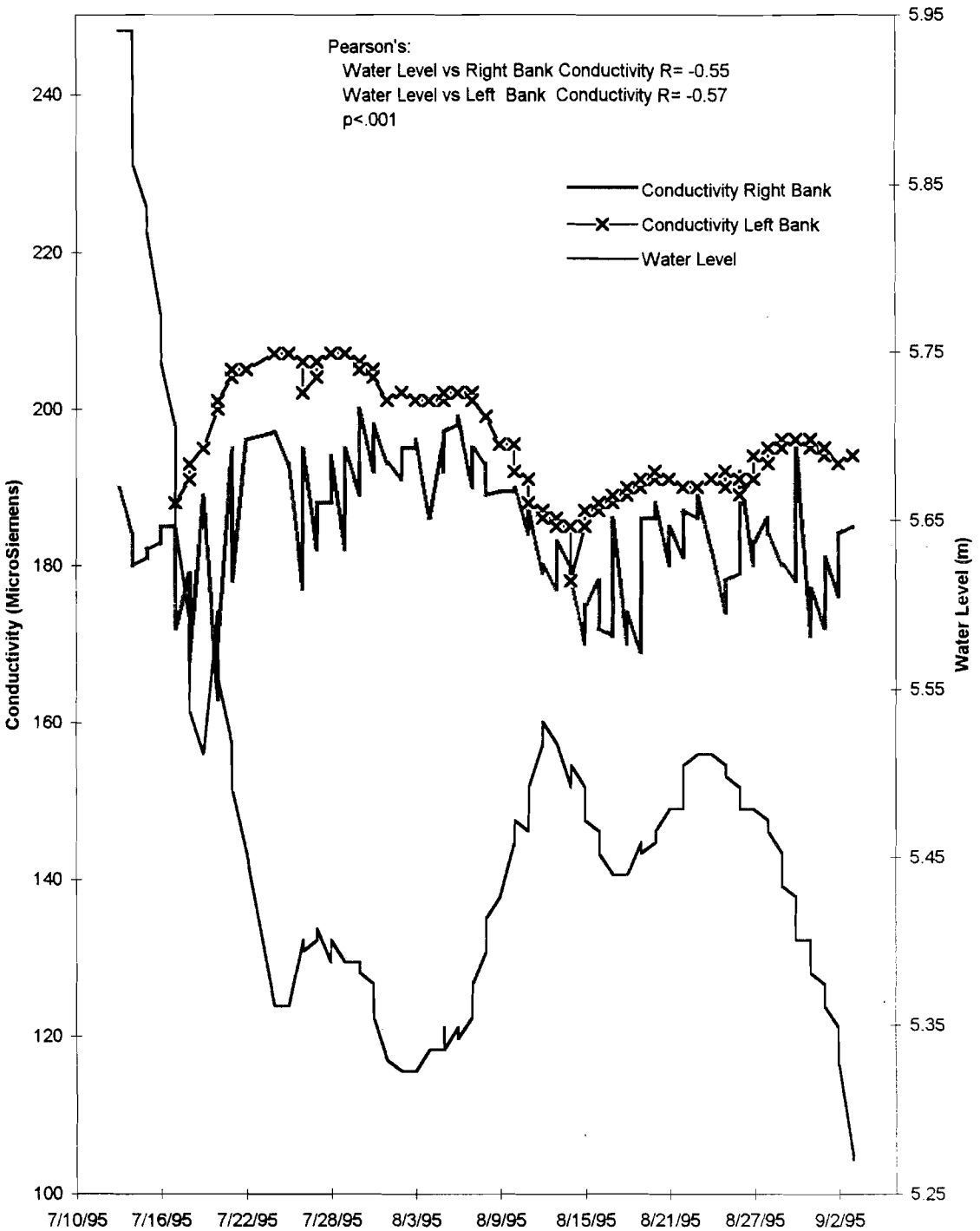


Figure 17. Conductivity and water level, lower Yukon River sonar project, 1995.

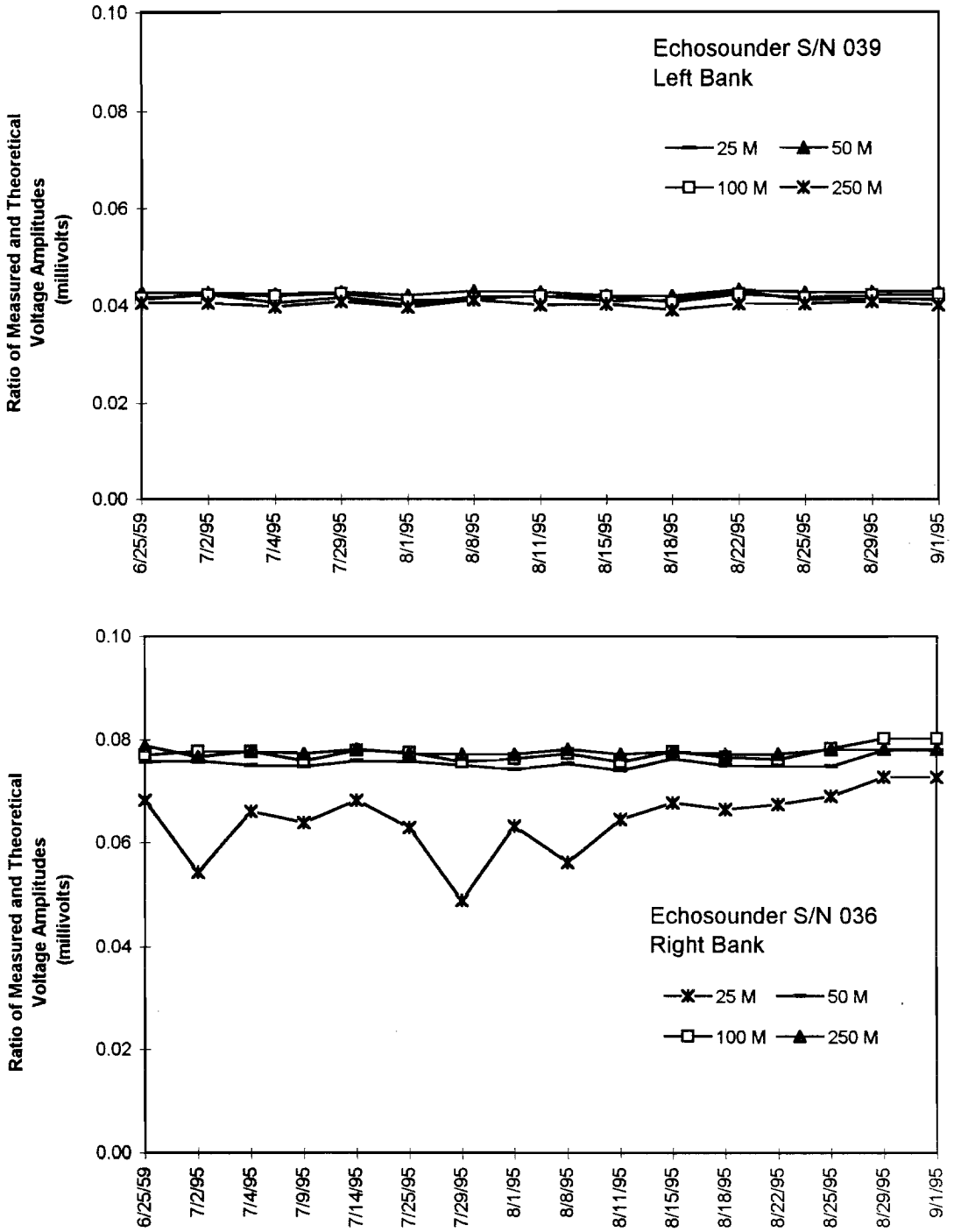


Figure 18. TVG verification of echosounder performance for the right and left banks, lower Yukon River sonar project, 1995.

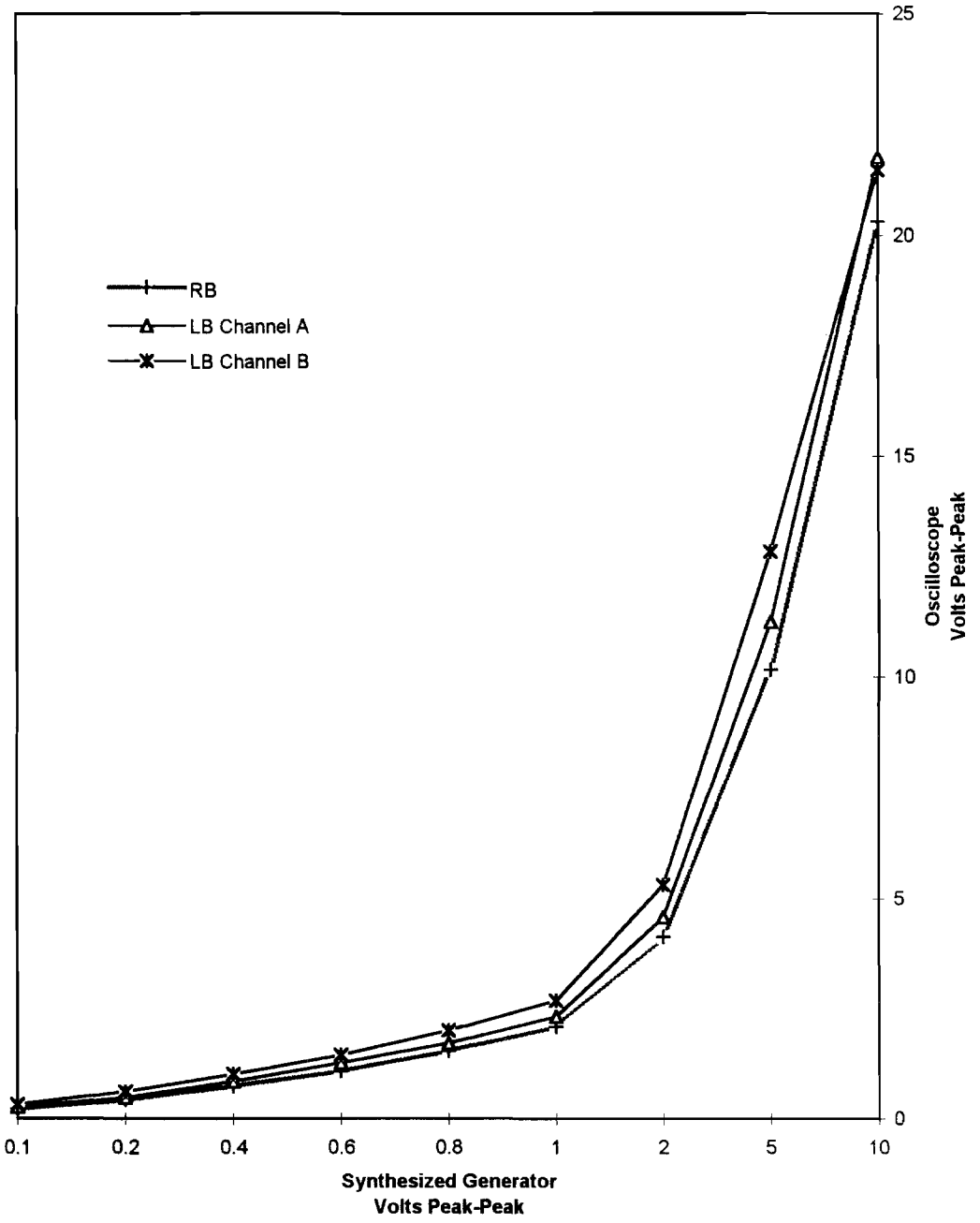


Figure 19. A comparison of a series of signals measured on the right bank with the same signals transmitted across the river and measured on the left bank, lower Yukon River sonar project, 1995.

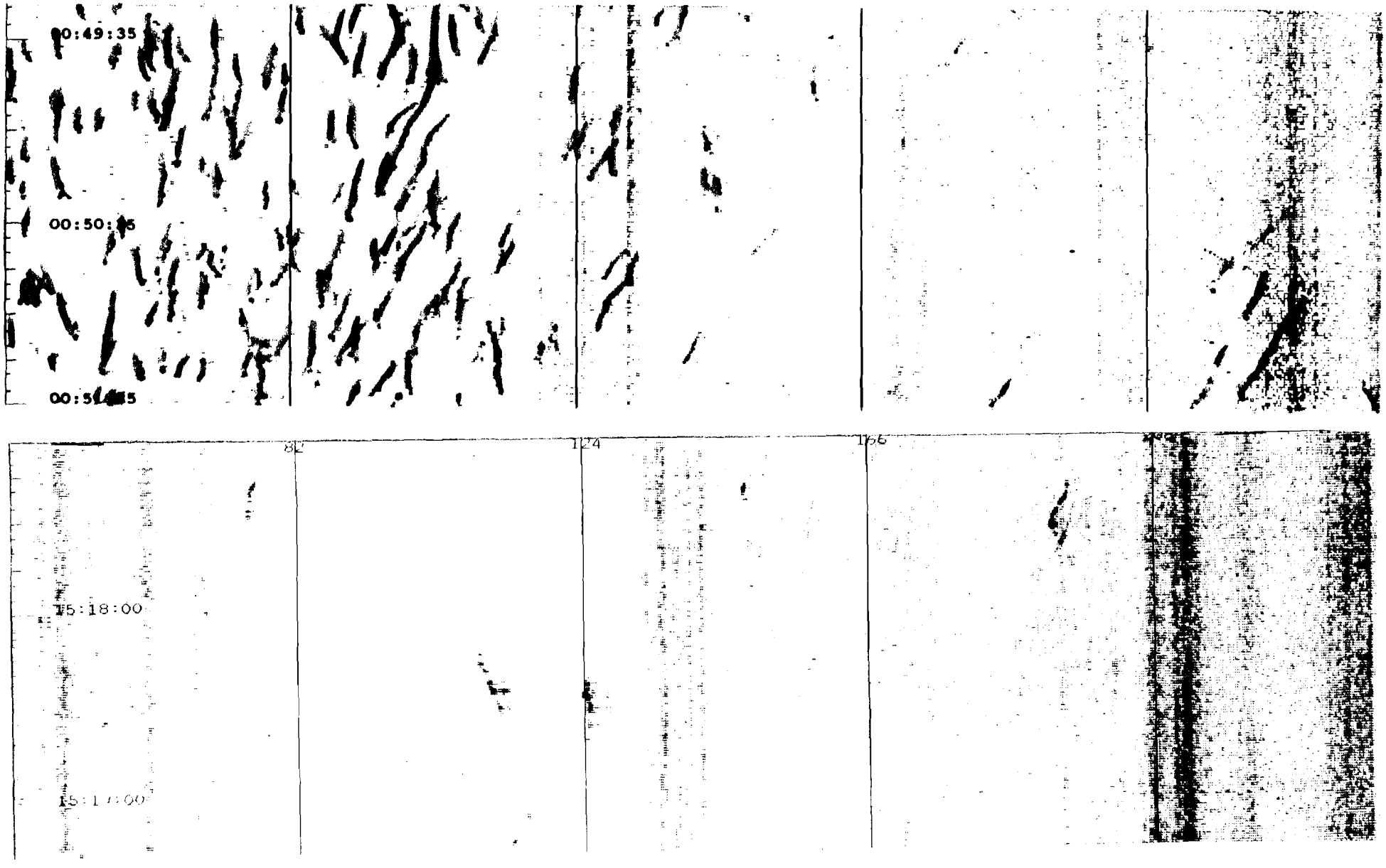


Figure 20. Sample chart segments (reduced to 80%) showing fish tracings from stratum 4 (left-bank nearshore) from a high passage period (top) and a period of slower passage (bottom), lower Yukon River sonar project, 1995.

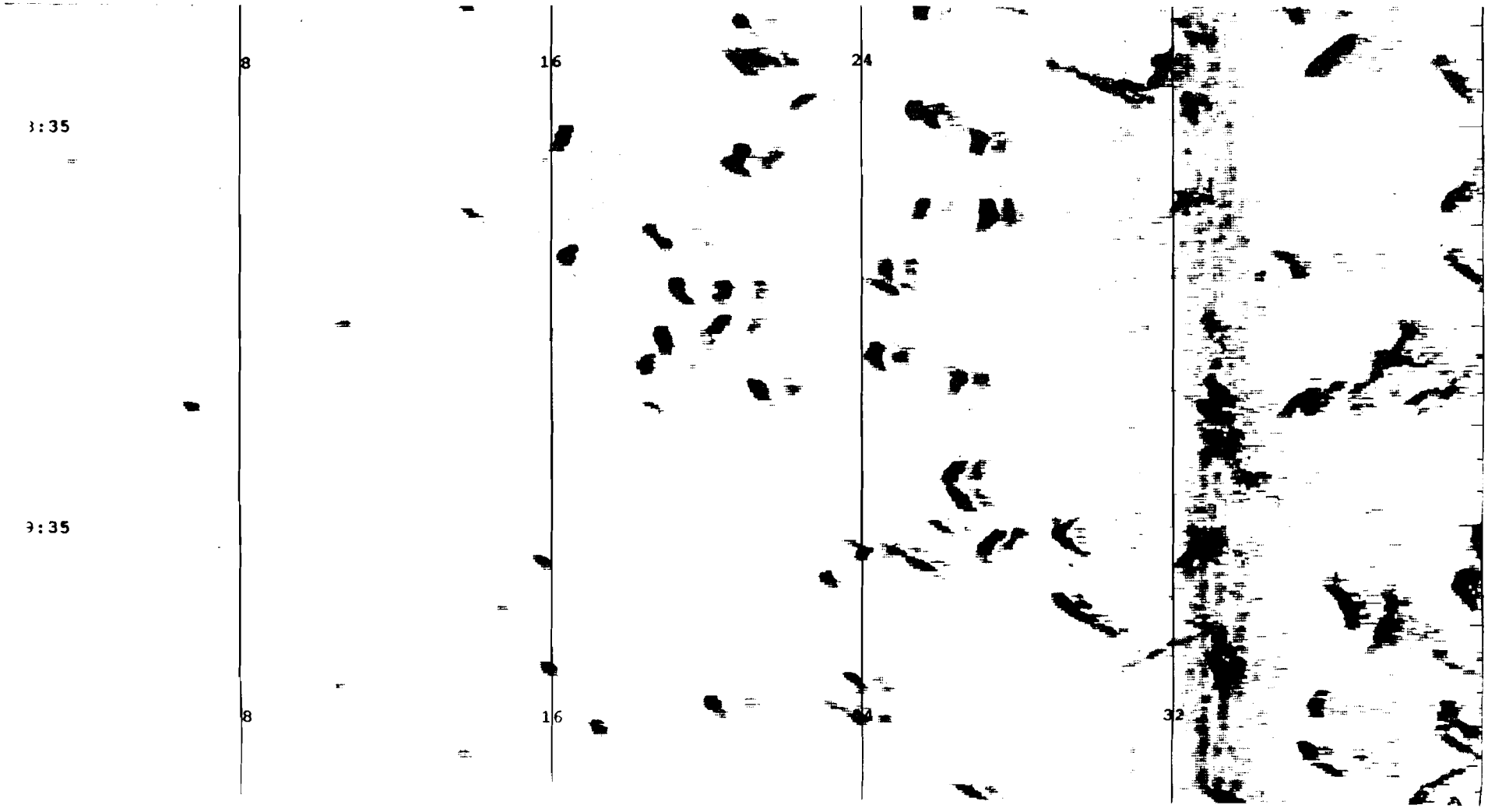
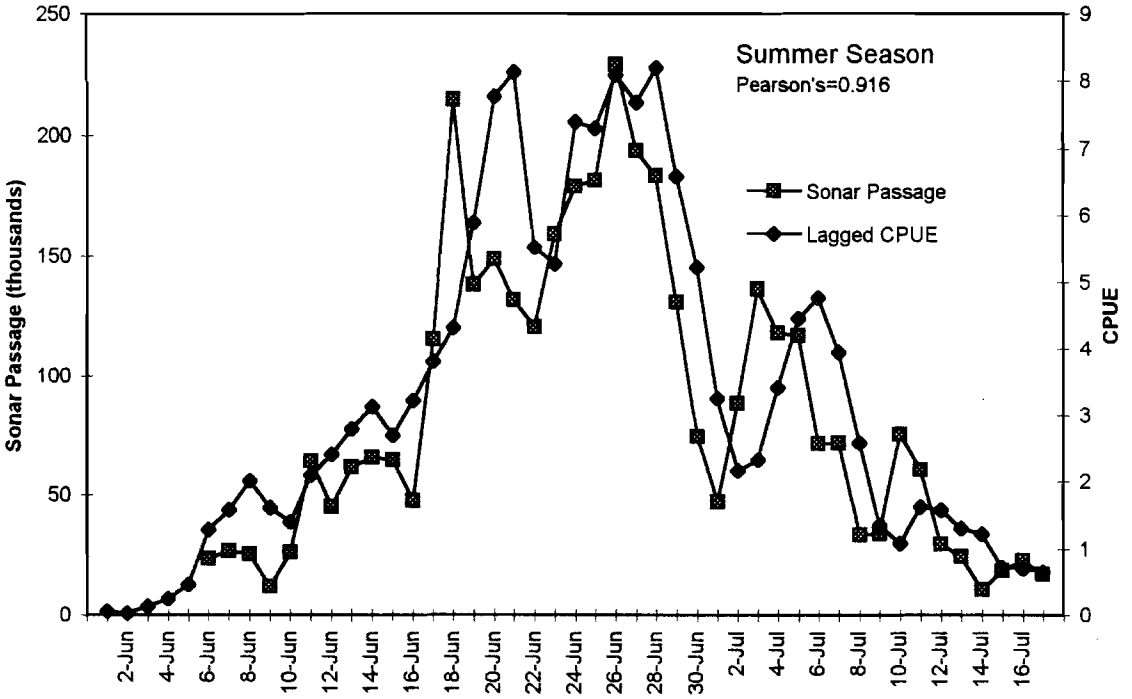


Figure 21. Sample chart (reduced to 80%) made on 30 June showing fish tracings from stratum 3 (left-bank nearshore), lower Yukon River sonar project, 1995.



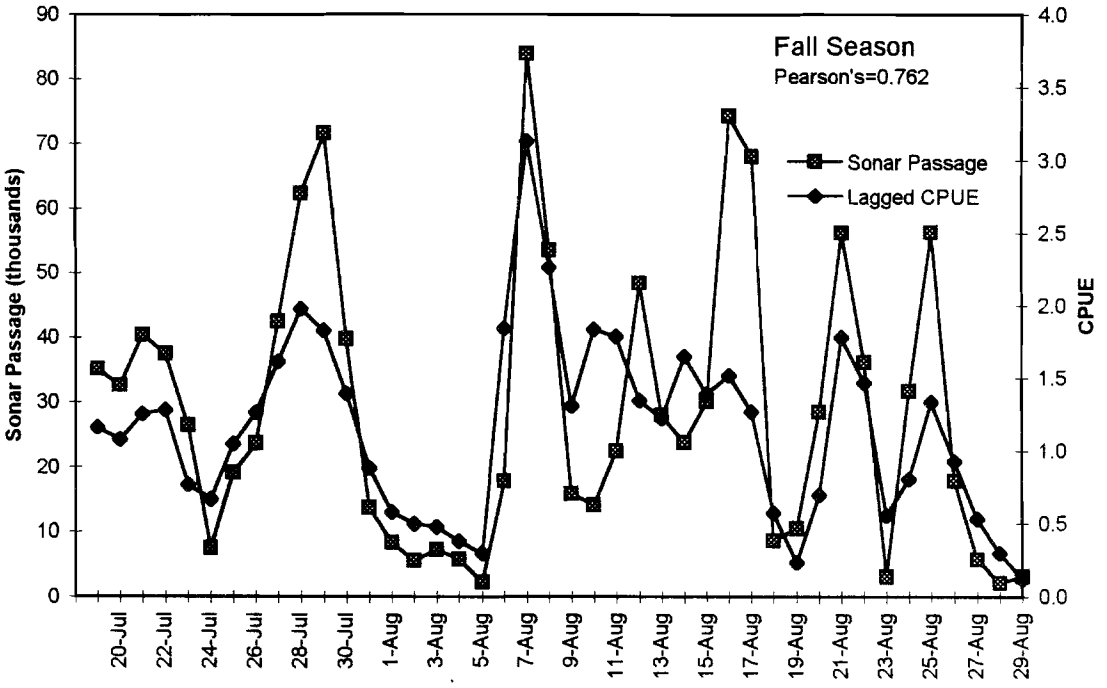


Figure 22. Sonar passage estimates, lower Yukon River sonar project, versus lagged CPUE, lower Yukon River test fishery, for Yukon River chum salmon, summer (top) and fall (bottom) seasons, 1995.

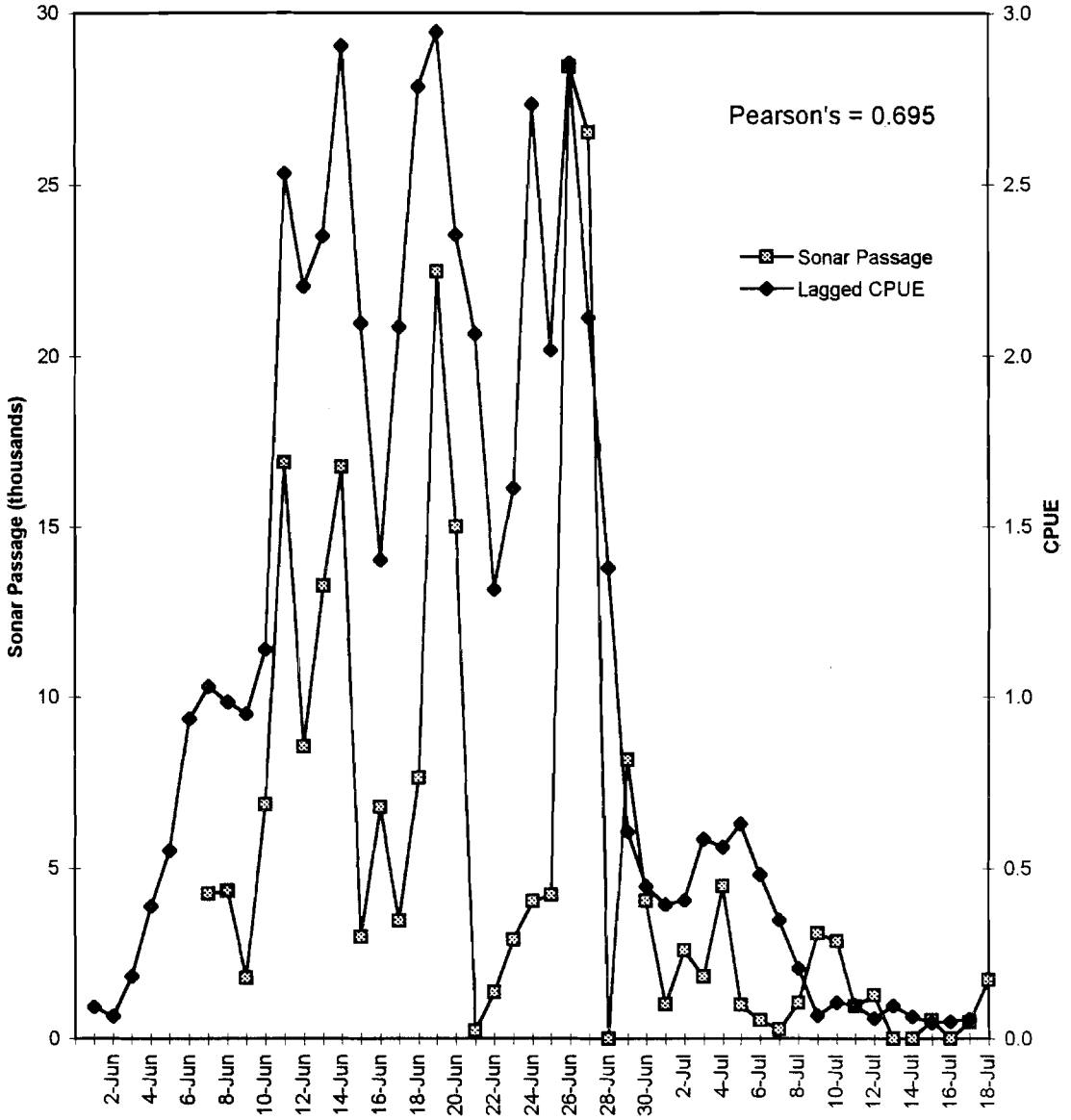


Figure 23. Sonar passage estimates, lower Yukon River sonar project, versus lagged CPUE, lower Yukon River test fishery, for Yukon River chinook salmon, 1995.

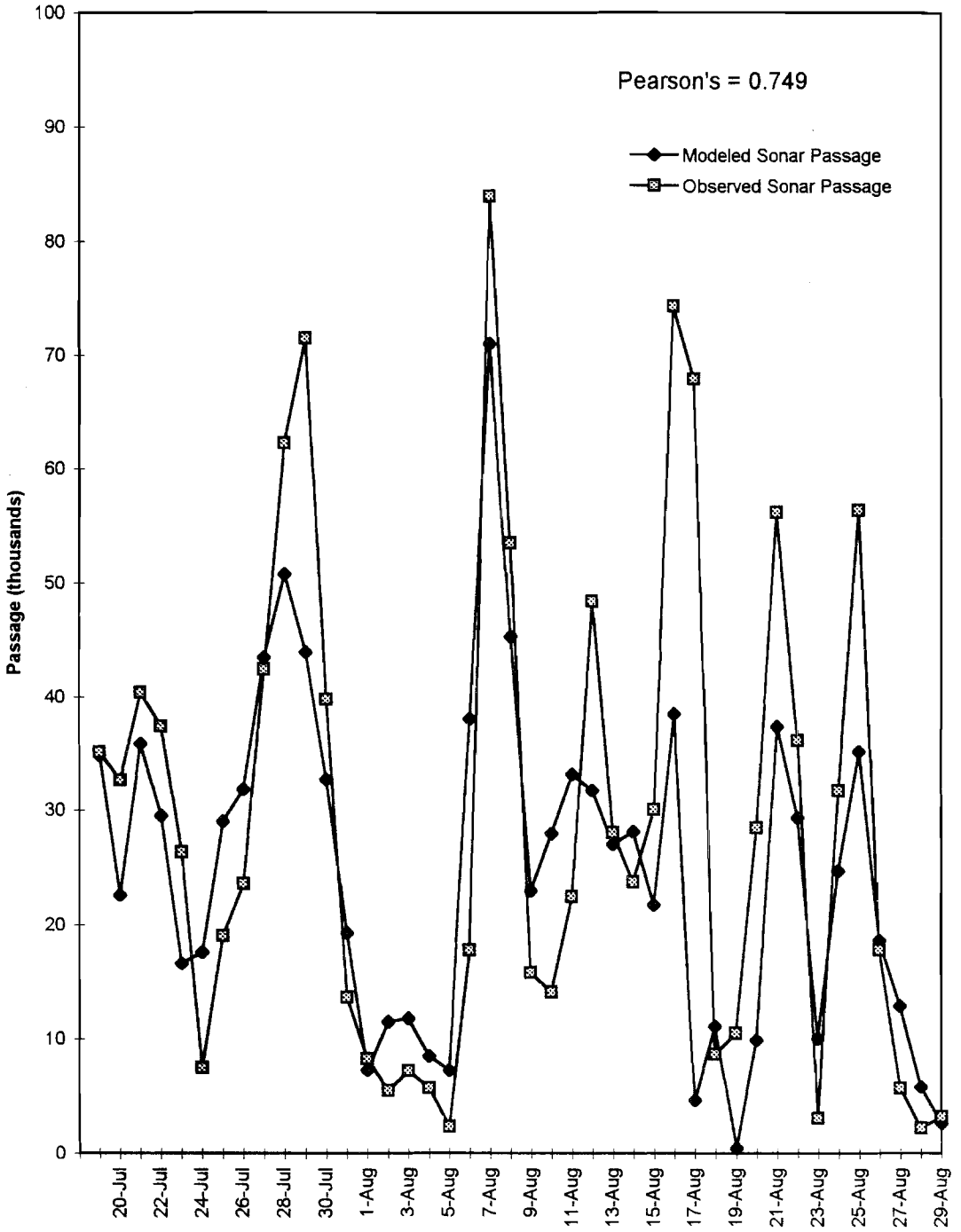


Figure 24. Sonar passage estimates of Yukon River fall chum salmon, lower Yukon River sonar project, versus lower Yukon River test fishery CPUE-modeled passage, 1995.

APPENDICES

Appendix A. SAS program code used to generate passage estimates and variances, lower Yukon River sonar project, 1995.

```
FILE: d:\ydata\y95\yuk95v3.sas
TITLE: 1995 Yukon River Sonar Data Processing Program
PLATFORM: SAS 6.10
DATE: 4 March, 1996

1.0 SET TITLE AND PAGE LENGTH AND WIDTH FOR OUTPUT.
title1 'YUKON RIVER SONAR - 1995 DATA PROCESSING PROGRAM - v030496';
options linesize=132 pagesize=50;

2.0 INPUT SONAR DATA AND CONSTRUCT BASIC DATA SETS.

2.1 READ SONAR DATA FROM ASCII FILE UNLOADED FROM RBASE DATABASE.
data sonarct;
 infile 'd:\ydata\y95\sonarcnt.dat' delimiter=',';
 informat day mmddyy8. startime endtime time8.;
 input day speriod stratum startime endtime sector secwidth strtrang
     upcount dwncount operator$ minutes;

 * DEFINE ZONE VARIABLE BASED ON STRATA;
 if stratum le 2 then
  zone = 1;
 else if stratum eq 3 then
  zone = 2;
 else if stratum gt 3 then
  zone = 3;
 else
  delete;

 * COMPUTE DURATION OF COUNTS IN HOURS, ADJUSTING FOR COUNTING TIMES
 WHICH SPAN MIDNIGHT;
 counthrs = (endtime - startime)/3600;
 if counthrs lt 0 then
  counthrs = counthrs + 24;

 * DEFINE VARIABLE NEEDED IN SECTION 4.1;
 _type_ = 0;

 * FORMAT VARIABLES;
 format day date7. startime endtime time5.;
 label day='DATE';

 * DROP UNNEEDED VARIABLES;
 drop operator minutes;
run;
```

2.2 DETERMINE 24 HOUR COUNT DAYS.

```
proc summary data=sonarct nway;
 class day;
 var speriod;
 output out=days24 min=;
run;
data days24;
 set days24;
 if speriod eq 0;
 drop _type_ _freq_ speriod;
run;
```

2.3 CONSTRUCT DATA SET CONSISTING ONLY OF DATA FROM 24 HOUR COUNT DAYS.

```
proc sort data=sonarct;
 by day;
run;

proc sort data=days24;
 by day;
run;

data sonar24;
 merge sonarct days24(in=a);
 by day;
 if a;
run;
```

2.4 CONSTRUCT DATA SET CONSISTING ONLY OF DATA COLLECTED DURING THE NORMAL SONAR PERIODS.

```
data sonarct;
 set sonarct;
 if speriod ge 1 and speriod le 3;
run;
```

2.5 DETERMINE MOST RECENT DAY IN SONAR DATA AND SAVE.

```
proc summary data=sonarct;
 var day;
 output out=maxsday max=maxsday;
run;
```

3.0 INPUT REPORTING PERIOD DEFINITIONS.

3.1 READ REPORTING PERIODS FROM AN EXTERNAL ASCII FILE.

```
data rptdays;
 infile 'd:\ydata\y95\rptdays.y95' firstobs=8;
 informat day mmddyy8.;
 format day date7.;
 input report day plotchar $;
 label report='REPORT PERIOD'
     plotchar='PLOTTING CHARACTER';
run;
```

3.2 COMPUTE NUMBER OF DAYS IN EACH REPORT PERIOD.

```
proc summary data=rptdays nway;
 class report;
 var day;
 output out=temp1 n=ndays;
run;
```

3.3 MERGE REPORT DEFINITION DATA WITH NUMBER OF DAYS IN EACH REPORT PERIOD.

```
data rptdays;
 merge rptdays temp1(drop= _type_ _freq_);
 by report;
run;
```

4.0 PLOT UPSTREAM TARGETS PER HOUR FOR EACH BANK AND SONAR PERIOD ON THE MOST RECENT DAY.

4.1 COMPUTE UPSTREAM TARGETS PER METER OF RANGE DURING EACH PERIOD FOR THE MOST RECENT DAY.

```
data rangdist;
 merge sonarct maxsday;
 by _type_;

 * ONLY KEEP DATA FROM MOST RECENT DAY;
 if day eq maxsday;

 * COMPUTE STARTING AND ENDING RANGE OF EACH STRATUM;
 range1 = round(strtrang+(sector-1)*secwidth,1);
 range2 = round(strtrang+sector*secwidth,1);

 * COMPUTE NUMBER OF TARGETS PER METER;
 upcntpm = upcount/secwidth;

 * INSERT ROW IN DATASET FOR EACH 1 METER RANGE INTERVAL, AND DEFINE
  MIDPOINT OF RANGE INTERVAL;
 binsize = 10;
 do range = range1 to (range2-1);
  rangebin = range - mod(range,binsize) + binsize/2;
  output;
 end;

 * DROP UNNEEDED VARIABLES;
 drop _type_ _freq_ maxsday;
run;
```

4.2 SUM TARGETS PER METER AND COUNTING TIME OVER UNIQUE STARTING TIMES FOR EACH METER OF RANGE AND EACH SONAR PERIOD.

```
proc summary data=rangdist nway;
 class day zone speriod range;
 var upcntpm counthrs;
 id rangebin binsize startime;
 output out=passrate sum(upcntpm)=
              sum(counthrs)=;
run;
```

4.3 CALCULATE UPSTREAM PASSAGE RATE PER HOUR FOR EACH BIN.

```
data passrate;
 set passrate (drop= _type_ _freq_);

 * DEFINE BANK VARIABLE;
 if zone eq 1 then
  bank = 'RIGHT';
 else if zone eq 2 or zone eq 3 then
  bank = 'LEFT';

 * CALCULATE PASSAGE RATE;
 psperbin = binsize*upcntpm/counthrs;
 label psperbin = 'TARGETS PER HOUR:'
     rangebin = 'RANGE (METERS)';
run;
```

4.4 SORT PASSAGE RATE DATA BY BANK AND SONAR PERIOD.

```
proc sort data=passrate;
 by bank speriod;
run;
```

4.5 CHART DISTRIBUTION OF UPSTREAM PASSAGE RATE BY BANK AND SONAR PERIOD.

```
title2 'MEAN UPSTREAM PASSAGE RATE (TARGETS PER HOUR) AT RANGE';
title3 'BY SONAR PERIOD AND ZONE';
proc chart data=passrate;
 by day bank speriod;
 vbar rangebin/type=mean sumvar=psperbin discrete;
run;
```

5.0 PROCESS SONAR DATA.

5.1 SUM UPSTREAM COUNTS ACROSS SECTORS.

```
proc summary data=sonarct nway;
 class day speriod zone stratum startime;
 id endtime counthrs;
 var upcount;
 output out=sumsctrs sum=;
run;
```

5.2.0 COMPUTE INTERMEDIATE QUANTITIES NECESSARY TO DETERMINE THE DURATION OF SONAR PERIODS, THIS IS NECESSITATED BY SONAR PERIODS EXTENDING PAST MIDNIGHT.

5.2.1 CREATE NEW STARTING AND ENDING TIME VARIABLES, ADJUSTING FOR SAMPLING INTERVALS WHICH EXTEND PAST MIDNIGHT.

```
data sumsctrs;
 set sumsctrs (drop = _type_ _freq_);

 * DEFINE newend TO EQUAL endtime UNLESS endtime EQUALS MIDNIGHT;
 if endtime eq 0 then
  newend = 86400;
 else
  newend = endtime;

 * DEFINE newstart TO EQUAL startime UNLESS SAMPLING INTERVAL EXTENDS
```

```
  ACROSS MIDNIGHT, IN WHICH CASE THE INTERVAL IS SHIFTED TO START AT
  TIME 0;
 newstart = startime;
 if startime gt newend then do
  newstart = 0;
  newend = newend + (86400 - startime);
 end;

 * SPLIT SONAR PERIODS CONTAINING MIDNIGHT INTO TWO;
 if newstart le 43200 then
  s1 = newstart;
 else
  s2 = newstart;
 if newend le 43200 then
  e1 = newend;
 else
  e2 = newend;
 format startime time5.;
 drop newstart newend;
run;
```

5.2.2 COMPUTE MINIMUM AND MAXIMUM VALUES OF NEW TIME VARIABLES.

```
proc summary data=sumsctrs nway;
 class day speriod zone stratum;
 var s1 s2 e1 e2;
 output out=temp1 min(s1) = mins1
            max(e1) = maxe1
            min(s2) = mins2
            max(e2) = maxe2;
run;
```

5.2.3 MERGE DATA WITH INTERMEDIATE TIME STATISTICS.

```
data sumsctrs;
 merge sumsctrs(in=a) temp1(drop = _type_ _freq_);
 by day speriod zone stratum;
 if a;
 drop endtime s1 s2 e1 e2;
run;
```

5.3 SUM UPSTREAM COUNT AND COUNTING TIME ACROSS ALL SAMPLE TIMES WITHIN A SONAR PERIOD AND STRATUM.

```
proc summary data=sumsctrs nway;
 class day speriod zone stratum;
 var upcount counthrs startime mins1 mins2 maxe1 maxe2;
 output out=strathpr n(upcount)=ncounts
              sum(upcount)=
              sum(counthrs)=
              min(startime)=
              min(mins1)=
              min(mins2)=
              max(maxe1)=
              max(maxe2)=;
run;
```

5.4 MERGE DATA WITH REPORT PERIOD DEFINITIONS AND COMPUTE HOURLY PASSAGE RATE WITHIN STRATA.

```
data strathpr;
 merge strathpr(in=a) rptdays(keep=report day);
 by day;
 if a;
 strathpr = upcount/counthrs;
 format strathpr 7.1;
 drop _type_ _freq_;
run;
```

5.5.0 OPTIONAL
TRANSPOSE AND PRINT STRATUM MEANS DATA IN A FORMAT WHICH FACILITATES INTERPOLATION. THIS MAY BE NEEDED TO ESTIMATE COUNTS IN MISSED SONAR PERIODS.

5.5.1 TRANSPOSE HOURLY PASSAGE RATE DATA TO GET ONE VARIABLE FOR EACH STRATUM.

```
proc transpose data=strathpr out=strahprw;
 by report day speriod;
 var strathpr;
 id stratum;
run;
```

5.5.2 FORMAT DATASET FOR OUTPUT.

```
data strahprw;
 set strahprw (drop= _name_);
 format _1-_5 8.1;
 label _1='1: RIGHT BANK #1'
       _2='2: RIGHT BANK #2'
       _3='3: LEFT BANK NEARSHORE'
       _4='4: LEFT BANK MIDSHORE'
       _5='5: LEFT BANK OFFSHORE'
       speriod = 'SONAR PERIOD';
run;
```

5.5.3 PRINT HOURLY PASSAGE.

```
title2 'HOURLY PASSAGE RATE BY STRATUM';
title3 'USED FOR ESTIMATING COUNTS IN MISSED SONAR PERIODS';
title4 'OPTIONAL OUPUT';
proc print data=strahprw label noobs;
 var report day speriod _1 _2 _3 _4 _5;
run;
```

5.6 SUM HOURLY PASSAGE RATES ACROSS STRATA WITHIN EACH ZONE AND SONAR PERIOD.

```
proc summary data=strathpr nway;
 class zone report day speriod;
 var strathpr startime mins1 mins2 maxe1 maxe2;
 output out=perhpr sum(strathpr)=perhpr
              min(startime)=
              min(mins1)=
              min(mins2)=
              max(maxe1)=
```

```
            max(maxe2)=;
run;
```

5.7 COMPUTE DURATION OF SONAR PERIODS AND REDEFINE startime WHERE NECESSARY.

```
data perhpr;
 set perhpr;

 * COMPUTE TIME FROM FIRST TO LAST SAMPLE WITHIN EACH
  SONAR PERIOD;
 if mins1 eq "." and maxe1 eq "." then
  hoursdur = (maxe2 - mins2)/3600;
 else if mins2 eq "." and maxe2 eq "." then
  hoursdur = (maxe1 - mins1)/3600;
 else
  hoursdur = (maxe1 + 86400 - mins2)/3600;

 * REDEFINE startime WHERE NECESSARY;
 if mins1 ne "." and mins2 ne "." then
  startime = mins2;

 * DROP UNNEEDED VARIABLES;
 drop _type_ _freq_ mins1 mins2 maxe1 maxe2;
run;
```

5.8.0: OPTIONAL
PLOT SONAR PERIOD HOURLY PASSAGE RATES OVER TIME.

5.8.1 FORMAT DATASET FOR OUTPUT.

```
data hprplot;
 set perhpr;
 datetime=dhms(day,hour(startime),minute(startime),second(startime));
 label datetime='STARTING TIME OF SONAR PERIOD'
      perhpr='HOURLY PASSAGE RATE';
 format datetime datetime7.;
run;
```

5.8.2 PLOT SONAR PERIOD HOURLY PASSAGE RATES.

```
title2 'HOURLY PASSAGE RATE WITHIN SONAR PERIODS';
title3 'OPTIONAL OUTPUT';
proc plot data=hprplot;
 plot perhpr*datetime=zone;
run;
```

5.9 COMPUTE SQUARED DIFFERENCES BETWEEN CONSECUTIVE HOURLY PASSAGE RATES WITHIN EACH REPORTING PERIOD.

```
data varcnt1;
 set perhpr;

 * LAG DATA FOR COMPUTATION OF CONSECUTIVE SQUARED
  DIFFERENCES;
 lzone=lag(zone);
 lreport=lag(report);
 lperhpr=lag(perhpr);
```

```
 * COMPUTE SQUARED DIFFERENCES;
 if report eq lreport and zone eq lzone then
   sqdiff = (perhpr-lperhpr)**2;
 else
   sqdiff = 0;

 * DROP UNNEEDED VARIABLES;
 drop lzone lreport lperhpr;
run;
```

5.10 FOR EACH REPORT PERIOD AND ZONE, COMPUTE MEAN HOURLY PASSAGE RATE, SUM OF THE SQUARED DIFFERENCES BETWEEN CONSECUTIVE PASSAGE RATES, NUMBER OF SONAR PERIODS, AND DEGREES OF FREEDOM ACROSS SONAR PERIODS FOR PURPOSES OF VARIANCE ESTIMATION.

```
proc summary data=varcnt1 nway;
 class report zone;
 id day;
 var perhpr sqdiff hoursdur;
 output out=varcnt2 mean(perhpr)=perhprmn
              sum(sqdiff)=ssqdiff
              n=n
              sum(hoursdur)=sumdur;
run;
```

5.11.0 FOR EACH REPORT PERIOD AND ZONE, ESTIMATE THE VARIANCE AND CV OF THE MEAN SONAR PERIOD HOURLY PASSAGE RATE.

5.11.1 MERGE DATA FILES.

```
data varcnt2;
 merge varcnt2(drop= _type_ _freq_)
      rptdays(keep=report ndays);
 by report;
run;
```

5.11.2 REMOVE DUPLICATE ROWS CAUSED BY MERGE.

```
proc summary data=varcnt2 nway;
 class report day zone;
 var perhprmn ssqdiff n sumdur ndays;
 output out=varcnt2 min(perhprmn)=
              min(ssqdiff)=
              min(n)=
              min(sumdur)=
              min(ndays)=;
run;
```

5.11.3 COMPUTE VARIANCE AND CV.

```
data varcnt2;
 set varcnt2(drop=_type_ _freq_);
 if n gt 1 then
   varzps=((24*ndays)**2)*(1-sumdur/(24*ndays))*(ssqdiff/(2*n*(n-1)));
 else
   varzps = 0;
 cvzps=sqrt(varzps)/(24*ndays*perhprmn);
run;
```

5.12 FOR EACH DAY AND ZONE, COMPUTE MEAN HOURLY PASSAGE RATE ACROSS SONAR PERIODS.

```
proc summary data=varcnt1 nway;
 class day zone;
 id report;
 var perhpr;
 output out=daycnt mean=perhprmn;
run;
```

5.13 SORT DATA BY REPORT PERIOD AND ZONE, AND APPLY REPORT PERIOD BASED CV ESTIMATES TO DAY-BASED HOURLY PASSAGE RATE ESTIMATES AND COMPUTE DAILY PASSAGE ESTIMATE AND VARIANCE.

```
proc sort data=daycnt;
 by report zone;
run;

data daycnt;
 merge daycnt (drop= _type_ _freq_)
     varcnt2(drop= day perhprmn ssqdiff n sumdur ndays);
 by report zone;
 daypass = 24*perhprmn;
 vdaypass = (cvzps*daypass)**2;
 drop perhprmn varzps cvzps;
run;
```

5.14.0 PRINT DAILY SONAR PASSAGE ESTIMATED AND ESTIMATED STANDARD ERRORS.

5.14.1 SORT DATA BY REPORT PERIOD AND DAY.

```
proc sort data=daycnt;
 by report day;
run;
```

5.14.2 TRANSPOSE PASSAGE ESTIMATES TO GET ZONE-SPECIFIC ESTIMATES INTO SEPARATE VARIABLES.

```
proc transpose data=daycnt out=daycntw1;
 by report day;
 id zone;
 var daypass;
run;
```

5.14.3 TRANSPOSE VARIANCE ESTIMATES TO GET ZONE-SPECIFIC ESTIMATES INTO SEPARATE VARIABLES.

```
proc transpose data=daycnt out=daycntw2;
 by report day;
 id zone;
 var vdaypass;
run;
```

5.14.4 COMBINE DATASETS, COMPUTE TOTAL DAILY PASSAGE AND STANDARD ERRORS OF ALL ESTIMATES.

```
data daycntw;

 * COMBINE DATASETS WITH PASSAGE AND VARIANCE ESTIMATES.
```

```
  DATASET rptdays IS NEEDED FOR PLOTTING CHARACTERS;
 merge daycntw1 (drop=_name_ rename=(_1=pass1 _2=pass2 _3=pass3))
     daycntw2 (drop=_name_ rename=(_1=var1 _2=var2 _3=var3))
     rptdays;
 by report day;

 * REPLACE MISSING VALUES WITH ZEROS.  MISSING VALUES
  SHOULD BE REMOVED BY USING OPTIONAL OUTPUT IN SECTION
  6.5 AND ESTIMATING DATA FOR MISSED PERIODS.;
 if pass1 eq . then
  pass1 = 0;
 if pass2 eq . then
  pass2 = 0;
 if pass3 eq . then
  pass3 = 0;
 if var1 eq . then
  var1 = 0;
 if var2 eq . then
  var2 = 0;
 if var3 eq . then
  var3 = 0;

 * COMPUTE TOTAL PASSAGE AND STANDARD ERRORS;
 se1 = sqrt(var1);
 se2 = sqrt(var2);
 se3 = sqrt(var3);
 total = pass1 + pass2 + pass3;
 setotal = sqrt(var1 + var2 + var3);
 if total gt 0 then
  cvtotal = setotal/total;
 else
  cvtotal = 0;

 * FORMAT VARIABLES FOR OUTPUT;
 format pass1 pass2 pass3 total comma9.0
      se1 se2 se3 setotal 7.0
      cvtotal 5.3;
 label pass1 = 'RIGHT BANK PASSAGE'
     pass2 = 'LEFT BANK NEARSHORE PASSAGE'
     pass3 = 'LEFT BANK OFFSHORE PASSAGE'
     total = 'TOTAL PASSAGE'
     se1 = 'RIGHT BANK SE'
     se2 = 'LEFT BANK NEARSHORE SE'
     se3 = 'LEFT BANK OFFSHORE SE'
     setotal = 'TOTAL PASSAGE SE'
     cvtotal = 'TOTAL PASSAGE CV';

 * DROP UNNEEDED VARIABLES;
 drop var1 var2 var3;
run;

 5.14.5 PRINT PASSAGE ESTIMATES AND ESTIMATED STANDARD ERRORS.
title2 'DAILY PASSAGE ESTIMATES - BY ZONE';
proc print data=daycntw noobs label;
```

```
 var report day pass1 se1 pass2 se2 pass3 se3 total setotal cvtotal;
 sum pass1 pass2 pass3 total;
run;
```

5.14.6 PLOT ESTIMATED DAILY TOTAL PASSAGE OVER TIME.

```
title2 'DAILY PASSAGE ESTIMATES';
proc chart data=daycntw;
 vbar day/sumvar=total discrete;
run;
```

6.0 PROCESS 24 HOUR SONAR DATA.

6.1 SUM UPSTREAM COUNTS ACROSS SECTORS.

```
proc summary data=sonar24 nway;
 class day speriod stratum startime;
 id zone counthrs;
 var upcount;
 output out=sonar24 sum=;
run;
```

6.2 SUM UPSTREAM COUNTS AND COUNTING TIME ACROSS ALL SAMPLE TIMES WITHIN EACH STRATA.

```
proc summary data=sonar24 nway;
 class day stratum;
 id zone;
 var upcount counthrs;
 output out=sonar24 sum(upcount)=
              sum(counthrs)=;
run;
```

6.3 ESTIMATE DAILY PASSAGE RATE WITHIN EACH STRATA.

```
data sonar24;
 set sonar24(drop=_type_ _freq_);
 passage = 24*upcount/counthrs;
run;
```

6.4 ESTIMATE DAILY PASSAGE BY DAY AND BANK.

```
proc summary data=sonar24 nway;
 class day zone;
 var passage;
 output out=sonar24 sum=;
run;
```

6.5 TRANSPOSE DATA.

```
proc transpose data=sonar24 out=sonar24w;
 var passage;
 id zone;
 by day;
run;
```

6.6 PREPARE DATA FOR OUTPUT.

```
data sonar24w;
 set sonar24w (drop=_name_);
 total = _1 + _2 + _3;
```

```
 format _1 _2 _3 total comma10.0;
 label _1 = 'RIGHT BANK PASSAGE'
      _2 = 'LEFT BANK NEARSHORE PASSAGE'
      _3 = 'LEFT BANK OFFSHORE PASSAGE'
      total = 'TOTAL PASSAGE';
run;

6.7 PRINT 24 HOUR PASSAGE ESTIMATES.
title2 'DAILY PASSAGE ESTIMATES - BY ZONE';
title3 'FOR 24-HOUR COUNT DAYS';
proc print data=sonar24w label noobs;
 var day _1 _2 _3 total;
run;

7.0 INPUT TESTFISH DATA.

7.1 READ TESTFISH DATA FROM ASCII FILE UNLOADED FROM RBASE.
data testfish;
 infile 'd:\ydata\y95\testfish.dat' delimiter=',';
 informat day mmddyy. startout fullout startin fullin time8.;
 input day tfperiod qlbzone$ qbank$ mesh fathoms startout fullout
      startin fullin qmethod$ refno$ captain$ spcode length sex$;

 * STRIP DATA FROM RBASE STRINGS AND CONVERT TEXT TO UPPER CASE;
 bank = upcase(substr(qbank,2,1));
 lbzone = upcase(substr(qlbzone,2,1));
 method = upcase(substr(qmethod,2,1));

 * DEFINE ZONE VARIABLE;
 if bank eq 'R' then
  zone = 1;
 else if bank eq 'L' and lbzone eq 'N' then
  zone = 2;
 else if bank = 'L' and lbzone eq 'F' then
  zone = 3;
 else
  zone = .;

 * DEFINE SEASON VARIABLE AND CORRECT ANY CHUM SPECIATION ERRORS;
 if month(day) le 6 or (month(day) eq 7 and day(day) le 18) then
  season = 'early';
 else
  season = 'late';
 if season eq 'early' and spcode eq 6 then
  spcode = 5;
 if season eq 'late' and spcode eq 5 then
  spcode = 6;

 * COMPUTE DRIFT TIME IN MINUTES AND EFFORT IN FATHOM HOURS;
 if fullout lt startout then
  do;
   t1 = startout;
   t2 = fullout + 86400;
   t3 = startin + 86400;
```

```
    t4 = fullin + 86400;
  end;
else if startin lt fullout then
  do;
    t1 = startout;
    t2 = fullout;
    t3 = startin + 86400;
    t4 = fullin + 86400;
  end;
else if fullin lt startin then
  do;
    t1 = startout;
    t2 = fullout;
    t3 = startin;
    t4 = fullin;
  end;
else
  do;
    t1 = startout;
    t2 = fullout;
    t3 = startin;
    t4 = fullin;
  end;
driftmin = (t3 + t4 - t1 - t2)/120;
fathhrs = fathoms*driftmin/60;

* DEFINE SPECIES NAMES;
length species $ 8;
if spcode eq 0 or spcode = . then
  species = 'NONE';
else if spcode eq 1 and length ge 700 then
  species = 'CHINOOK';
else if spcode eq 1 then
  species = 'JACK';
else if spcode eq 3 then
  species = 'COHO';
else if spcode eq 4 then
  species = 'PINK';
else if spcode eq 5 then
  species = 'SCHUM';
else if spcode eq 6 then
  species = 'FCHUM';
else if spcode eq 7 then
  species = 'CISCO';
else if spcode ge 8 and spcode le 9 then
  species = 'WHITE';
else
  species = 'OTHER';

* DEFINE VARIABLE NEEDED IN SECTION 8.1;
_type_ = 0;

* FORMAT VARIABLES;
format day date7. startout time5.;
```

```
 label day='DATE';

 * DROP UNNEEDED VARIABLES;
 drop t1 t2 t3 t4 spcode fullout startin fullin qlbzone bank qbank
     qmethod refno captain sex season lbzone;
run;
```

7.2 DETERMINE MOST RECENT TESTFISH DAY AND SAVE.

```
proc summary data=testfish;
 var day;
 output out=maxtfday max=maxtfday;
run;
```

8.0 COMPUTE NET SELECTIVITY.

8.1 READ NET SELECTIVITY PARAMETERS.

```
data netsel;
 infile 'd:\ydata\y95\netsel.dat' firstobs=5;
 input species$ a b t;
run;
```

8.2 SORT DATA AND COMBINE TESTFISH DATA WITH NET SELECTIVITY PARAMETERS.

```
proc sort data=testfish;
 by species;
run;

proc sort data=netsel;
 by species;
run;

data testfish;
 merge testfish(in=y) netsel;
 by species;
 if y;
run;
```

8.3 COMPUTE NET SELECTIVITY.

```
data testfish;
 set testfish;
 if length le 0 or length eq . or mesh le 0 or mesh eq . or
     method eq 'B' then
   errcheck = 1;
 else
   do;
     lpr = length/(mesh*50.8);
     errcheck = b*exp(-a*(lpr-t));
   end;
 if species eq 'NONE' or errcheck ge 1 then
   select = 0;
 else
   select = ((1-b)**(1-1/b))*exp(-a*(lpr-t))*((1-errcheck)**(1/b-1));
 drop lpr errcheck a b t;
run;
```

9.0 PRINT SUMMARY TESTFISH RESULTS FOR MOST RECENT DAY.

9.1 MERGE TESTFISH DATA WITH LAST TESTFISH DAY, AND DISCARD ALL BUT MOST RECENT DAY'S DATA. NOTE: TO OBTAIN MORE THAN 1 DAY'S DATA, MODIFY THE IF STATEMENT.

```
data tfrecnt;
 merge testfish maxtfday;
 by _type_;
 if day ge maxtfday - 0;
 drop maxtfday _type_ _freq_;
run;
```

9.2 COMPUTE THE NUMBER OF FISH OF EACH SPECIES CAUGHT IN EACH DRIFT.

```
proc summary data=tfrecnt nway;
 class day zone tfperiod mesh method startout species;
 id fathoms driftmin fathhrs;
 var length;
 output out=tfrecnt n=ncatch;
run;
```

9.3 TRANSPOSE DATA TO GET ONE LINE PER DRIFT, EACH SPECIES IN A SEPARATE VARIABLE.

```
proc transpose data=tfrecnt out=tfrecntw;
 var ncatch;
 id species;
 by day zone tfperiod mesh method startout fathoms driftmin;
run;
```

9.4 CREATE DUMMY DATASET CONTAINING ALL SPECIES. IN SUBSEQUENT PRINTS THIS ENSURES ALL SPECIES ARE LISTED, EVEN IF NONE WERE CAUGHT.

```
data spplist;
 chinook = 0;
 jack = 0;
 schum = 0;
 fchum = 0;
 coho = 0;
 pink = 0;
 white = 0;
 cisco = 0;
 other=0;
run;
```

9.5 MERGE TESTFISH DRIFT DATA WITH SPECIES LIST.

```
data tfrecntw;
 set tfrecntw(in=a drop=_name_) spplist;
 if a;
run;
```

9.6 TRANSPOSE DATA BACK TO GET NUMBER CAUGHT INTO A SINGLE COLUMN.

```
proc transpose data=tfrecntw name=species out=temp1;
 var chinook jack schum pink fchum coho white cisco other;
 by day zone tfperiod mesh method startout fathoms driftmin;
run;
```

9.7 SET MISSING VALUES TO 0.

```
data temp1;
 set temp1;
 if coll eq . then
   coll = 0;
 rename coll = ncatch;
run;
```

9.8 COMPUTE NUMBER OF FISH CAUGHT IN EACH DRIFT.

```
proc summary data=temp1 nway;
 class day zone tfperiod mesh method startout fathoms driftmin;
 var ncatch;
 output out=temp2 sum(ncatch)=sumcatch;
run;
```

9.9 TRANSPOSE DATA TO GET ONE LINE PER DRIFT, EACH SPECIES IN A SEPARATE VARIABLE.

```
proc transpose data=temp1 out=tfrecntw;
 var ncatch;
 id species;
 by day zone tfperiod mesh method startout fathoms driftmin;
run;
```

9.10 MERGE CATCH BY SPECIES WITH TOTAL CATCH.

```
data tfrecntw;

 * MERGE DATA;
 merge tfrecntw(drop=_name_) temp2(drop= _type_ _freq_);
 by day zone tfperiod mesh method startout fathoms driftmin;

 * FORMAT VARIABLES FOR OUTPUT;
 format driftmin 6.2;
 label driftmin = 'FISHING TIME: MINUTES'
      schum = 'SUMMER CHUM'
      fchum = 'FALL CHUM'
      white = 'WHITEFISH'
      cisco = 'CISCO SPECIES'
      other = 'OTHER SPECIES'
      startout = 'TIME DRIFT BEGAN'
      tfperiod = 'TESTFISH PERIOD'
      sumcatch = 'TOTAL CATCH';
run;
```

9.11 PRINT TESTFISH HARVESTS ON MOST RECENT DAY, BY DRIFT.

```
title2 'SUMMARY OF MOST RECENT TESTFISH HARVESTS - BY DRIFT';
proc print data=tfrecntw noobs label;
 var day zone tfperiod mesh startout method;
 sum driftmin chinook jack schum fchum coho pink white cisco other
    sumcatch;
run;
```

9.12.1 OPTIONAL

COMPUTE TESTFISH CPUE ON MOST RECENT DAY, BY DRIFT.

```
data cpuercnt;
```

```
 set tfrecntw;
 effort = fathoms*driftmin/60;
 chinook = chinook/effort;
 jack = jack/effort;
 schum = schum/effort;
 fchum = fchum/effort;
 coho = coho/effort;
 pink = pink/effort;
 white = white/effort;
 cisco = cisco/effort;
 other = other/effort;
 sumcpue = sumcatch/effort;
 drop effort sumcatch;
run;
```

9.12.2 PRINT TESTFISH CPUE ON MOST RECENT DAY, BY DRIFT.

```
title2 'SUMMARY OF MOST RECENT TESTFISH CPUE - BY DRIFT';
title3 'CPUE IS REPORTED IN UNITS OF CATCH PER FATHOM*HOUR';
title4 'OPTIONAL OUTPUT';
proc print data=cpuercnt noobs label;
 format chinook jack schum fchum coho pink white cisco other
      sumcpue 6.2;
 var day zone tfperiod mesh startout method;
 sum driftmin chinook jack schum fchum coho pink white cisco other
    sumcpue;
run;
```

10.0 COMPUTE TRADITIONAL CPUE FOR FISHERY MANAGERS.

10.1 DELETE DATA FROM LEFT BANK BEACHWALKS AND MESH SIZES NOT OF INTEREST, AND DEAL WITH MISSING DATA.

```
data tradcpue;
 set tfrecntw;

 * DISCARD BEACHWALK DATA;
 if method eq 'D';

 * DEFINE MESH GROUPS FOR POOLING;
 if mesh lt 5.0 then
   delete;
 else if mesh le 6.5 then
   meshgrp = 1;
 else
   meshgrp = 2;

 * ADD SUMMER+FALL CHUM AND CHINOOK+JACK;
 chum = fchum + schum;
 chinook = chinook + jack;

 * COMPUTE FATHOM HOURS;
 fathhrs = fathoms*driftmin/60;

 * KEEP NECESSARY VARIABLES;
 keep day zone meshgrp fathhrs chinook chum coho;
```

```
run;

10.2 SUM CATCH AND EFFORT BY BANK AND SPECIES.
proc summary data=tradcpue nway;
 class day zone meshgrp;
 var fathhrs chinook chum coho;
 output out=tradcpue sum(fathhrs)=
              sum(chinook)=
              sum(chum) =
              sum(coho)=;
run;

10.3 TRANSPOSE DATA TO GET SPECIES CATCH DATA IN A SINGLE COLUMN.
proc transpose data=tradcpue(drop= _type_ _freq_)
          name=species out=tradcpue;
 by day zone meshgrp fathhrs;
run;

10.4 DELETE CATCHES IN WRONG MESH SIZES AND COMPUTE CPUE.
data tradcpue;
 set tradcpue;

 * COMPUTE CPUE;
 catch = coll;
 cpue = catch/fathhrs;

 * DELETE UNWANTED MESH*SPECIES COMBINATIONS;
 if species eq 'CHINOOK' and meshgrp eq 1 then
  delete;
 else if species ne 'CHINOOK' and meshgrp eq 2 then
  delete;

 format fathhrs cpue 7.2;
 drop coll;
run;

10.5 PRINT CPUE DATA.
title2 'TRADITIONAL CPUE BY DAY AND BANK';
title3 'Meshes used: Chum & Coho - 5.0, 5.5, 6.5';
title4 'Meshes used: Chinook - 7.5, 8.5';
proc print data=tradcpue label;
 by day zone;
 label species = 'SPECIES'
     fathhrs = 'FATHOM HOURS';
 var species catch fathhrs cpue;
run;

11.0 PROCESS TESTFISH DATA.

11.1 DISCARD BEACHWALK DATA AND COMPUTE ADJUSTED CATCH.
data tfadjcat;
 set testfish;

 * DISCARD BEACHWALK DATA;
```

```
 if method eq 'D';

 * COMPUTE ADJUSTED CATCH;
 catch = 1;
 if select ge 0.10 then
   adjcat = catch/select;
 else
   adjcat = 0;

 _type_ = 0;
run;
```

11.2.0 OPTIONAL
PRINT DETAILS OF EACH FISH CAUGHT ON MOST RECENT DAY.

11.2.1 RESTRICT ATTENTION TO ADJUSTED CATCH DATA FOR FISH CAUGHT ON MOST RECENT DAY.

```
data tfrecnt2;
 merge tfadjcat maxtfday;
 by _type_;

 * RESTRICT DATA TO FISH CAUGHT ON MOST RECENT DAY;
 if day ge maxtfday - 0;
 if species ne 'NONE';

 * PREPARE VARIABLES FOR OUTPUT;
 format catch adjcat 7.3
      driftmin 5.2;
 label tfperiod = 'TESTFISH PERIOD'
      startout = 'TIME DRIFT BEGAN'
      driftmin = 'FISHING TIME: MINUTES'
      select = 'NET SELECTIVITY'
      adjcat = 'ADJUSTED CATCH';

 * DROP UNNEEDED VARIABLES;
 drop method fathhrs fathoms maxtfday _type_ _freq_;
run;
```

11.2.2 PRINT DETAILS OF EACH FISH CAUGHT ON MOST RECENT DAY, BY DRIFT.

```
proc sort data=tfrecnt2;
 by day tfperiod zone mesh startout driftmin species length select;
run;

title2 'DETAILS OF FISH CAUGHT ON MOST RECENT DAY';
title3 'EXCLUDES FISH CAUGHT DURING BEACHWALKS';
title4 'OPTIONAL OUTPUT';
proc print data=tfrecnt2 noobs label;
 var day tfperiod zone mesh startout driftmin species length select
    catch adjcat;
 sum catch adjcat;
run;
```

11.3 SUM ADJUSTED CATCH OVER DRIFTS WITH THE SAME MESH SIZE WITHIN EACH DAY, ZONE, TESTFISH PERIOD, SPECIES, AND LENGTH CATEGORY.

```
proc summary data=tfadjcat nway;
 class day zone tfperiod mesh species length;
 var catch adjcat;
 output out=dbpslcat sum(catch)=rawcatch
              sum(adjcat)=dbpslcat;
run;
```

11.4 ISOLATE UNIQUE DRIFTS.

```
proc summary data=tfadjcat nway;
 class day zone tfperiod mesh startout;
 var fathhrs;
 output out=temp min=;
run;
```

11.5 SUM EFFORT FOR ALL DRIFTS WITH THE SAME MESH BY DAY, ZONE, AND TESTFISH PERIOD.

```
proc summary data=temp nway;
 class day zone tfperiod mesh;
 var fathhrs;
 output out=effort sum=meffort;
run;
```

11.6 MERGE CATCH AND EFFORT DATA, DROPPING ADJUSTED CATCHES LESS THAN 0, AND COMPUTE CPUE.

```
data cpue;
 merge dbpslcat effort;
 by day zone tfperiod mesh;
 if dbpslcat gt 0;

 * COMPUTE CPUE;
 cpue = dbpslcat/meffort;

 * DROP UNNEEDED VARIABLES AND ROWS;
 drop dbpslcat meffort _type_ _freq_;
 if species eq 'NONE' then
  delete;
run;
```

11.7 COMPUTE MEAN CPUE OVER MESH SIZES WITHIN DAY, ZONE, TESTFISH PERIOD, SPECIES, AND LENGTH.

```
proc summary data=cpue nway;
 class day zone tfperiod species length;
 var cpue rawcatch;
 output out=meancpue mean(cpue)=
              sum(rawcatch)=;
run;
```

11.8 SUM MEAN CPUE OVER LENGTH FOR EACH DAY, ZONE, TESTFISH PERIOD AND SPECIES.

```
proc summary data=meancpue nway;
 class day zone tfperiod species;
 var cpue rawcatch;
 output out=spcpue sum(cpue)=
             sum(rawcatch)=;
```

```
run;
```

11.9 SUM CPUE OVER SPECIES FOR EACH DAY, ZONE, AND TESTISH PERIOD.

```
proc summary data=spcpue nway;
 class day zone tfperiod;
 var cpue rawcatch;
 output out=tfpcpue sum(cpue)=tfpcpue
            sum(rawcatch)=tfprcat;
run;
```

11.10 TRANSPOSE SPECIES CPUE DATA, WHICH CREATES A SEPARATE CPUE VARIABLE FOR EACH SPECIES.

```
proc transpose data=spcpue out=spcpuew;
 by day zone tfperiod;
 id species;
 var cpue;
run;
```

11.11 MERGE SPECIES CPUE WITH TOTAL CPUE FOR ALL SPECIES WITHIN A TESTFISH PERIOD, AND SET MISSING VALUES TO ZERO. THIS OPERATION ALSO CREATES A VARIABLE FOR EACH SPECIES, EVEN IF NONE HAVE BEEN CAUGHT.

```
data spcpuew;
 merge spcpuew(drop= _name_) tfpcpue(drop= _type_ _freq_);
 by day zone tfperiod;
 if jack eq . then
  jack = 0;
 if chinook eq . then
  chinook = 0;
 if schum eq . then
  schum = 0;
 if fchum eq . then
  fchum = 0;
 if coho eq . then
  coho = 0;
 if pink eq . then
  pink = 0;
 if white eq . then
  white = 0;
 if cisco eq . then
  cisco = 0;
 if other eq . then
  other = 0;
 if tfpcpue eq . then
  tfpcpue = 0;
 if tfprcat eq . then
  tfprcat = 0;
run;
```

11.12 TRANSPOSE DATA BACK TO GET SPECIES CPUE IN SINGLE VARIABLE.

```
proc transpose data=spcpuew out=spcpue
        name=species;
 by day zone tfperiod tfpcpue tfprcat;
run;
```

11.13 COMPUTE SPECIES PROPORTIONS FOR EACH TESTFISH PERIOD.

```
data spcpue;
 set spcpue;
 cpue=coll;
 if tfpcpue gt 0 then
   tfpprop = cpue/tfpcpue;
 else
   tfpprop = 0;
 drop coll;
run;
```

11.14 OPTIONAL
PLOT MEAN CPUE, ACROSS TESTFISH PERIODS WITHIN A DAY, BY ZONE AND SPECIES.

```
proc sort data=spcpue;
 by zone;
run;

title2 'MEAN TESTFISH PERIOD CPUE - BY DAY';
title3 'OPTIONAL OUTPUT';
proc chart data=spcpue;
 by zone;
 vbar day / type=mean sumvar=cpue subgroup=species discrete;
run;
```

11.15 ASSIGN REPORT PERIOD DESIGNATIONS TO DAYS.

```
proc sort data=spcpue;
 by day;
run;

proc sort data=rptdays;
 by day;
run;

data spcpue;
 merge rptdays(keep= report day) spcpue(in=a);
 by day;
 if a;
run;
```

11.16.0 ESTIMATE VARIANCE OF SPECIES PROPORTIONS.

11.16.1 ISOLATE TOTAL CPUE BY TESTFISH PERIOD.

```
proc summary data=spcpue nway;
 class report day zone tfperiod;
 var tfpcpue;
 output out=temp min=;
run;
```

11.16.2 COMPUTE MEAN TOTAL CPUE OVER ALL TESTFISH PERIODS IN EACH REPORT PERIOD, BY ZONE.

```
proc summary data=temp nway;
 class report zone;
 id day;
 var tfpcpue;
```

```
 output out=temp mean=mtfpcpue;
run;
```

11.16.3 MERGE MEAN TOTAL CPUE WITH OTHER TESTFISH PERIOD CPUE DATA.

```
proc sort data=spcpue;
 by report zone species;
run;

data spcpue;
 merge spcpue(in=a) temp(keep=report zone mtfpcpue);
 by report zone;
 if a;
run;
```

11.16.4 SUM CPUE OVER TESTFISH PERIODS BY REPORT PERIOD, BANK, AND SPECIES.

```
proc summary data=spcpue nway;
 class report zone species;
 var cpue tfprcat;
 output out=rptcpue sum(cpue)=rptcpue
            sum(tfprcat)=rptrcat
            n=ntfp;
run;
```

11.16.5 SUM CPUE OVER SPECIES BY REPORT PERIOD AND ZONE.

```
proc summary data=rptcpue nway;
 class report zone;
 var rptcpue rptrcat;
 output out=temp sum(rptcpue)=rptscpue
          min(rptrcat)=;
run;
```

11.16.6 MERGE REPORT PERIOD SPECIES CPUE WITH REPORT PERIOD TOTAL CPUE AND COMPUTE SPECIES PROPORTIONS FOR EACH REPORT PERIOD.

```
data rptcpue;
 merge rptcpue(in=a) temp(keep=report zone rptscpue rptrcat);
 by report zone;
 if a;
 if rptscpue gt 0 then
  rptprop = rptcpue/rptscpue;
 else
  rptprop = 0;
run;
```

11.16.7 MERGE TESTFISH PERIOD AND REPORT PERIOD ESTIMATES OF SPECIES PROPORTIONS AND COMPUTE COMPONENTS OF REPORT PERIOD SPECIES PROPORTION VARIANCES.

```
data spprop;
 merge spcpue(in=a drop=tfprcat cpue)
     rptcpue(drop= _type_ _freq_ rptcpue rptscpue);
 by report zone species;
 if a;

 if mtfpcpue eq 0 or ntfp le 1 then
  propvar1 = 0;
```

```
 else
  propvar1 = ((tfpcpue*(tfpprop-rptprop)/mtfpcpue)**2)/(ntfp-1);
run;
```

11.16.8 COMPUTE ESTIMATES OF VARIANCE OF SPECIES PROPORTION ESTIMATES.

```
proc summary data=spprop nway;
 class report zone species;
 var propvar1;
 output out=temp mean=propvar;
run;
```

11.16.9 MERGE VARIANCE ESTIMATE WITH SPECIES PROPORTION ESTIMATES.

```
data spprop;
 merge spprop(in=a drop=tfperiod tfpcpue tfpprop mtfpcpue propvar1)
      temp(keep=report zone species propvar);
 by report zone species;
 if a;
run;
```

11.16.10 ISOLATE SPECIES PROPORTIONS DATA FOR EACH REPORT PERIOD, DAY, AND ZONE.

```
proc summary data=spprop nway;
 class report day zone species;
 id propvar rptrcat ntfp;
 var rptprop day;
 output out=spprop min(rptprop)=;
run;
```

11.17.0 PRINT SPECIES PROPORTIONS BY REPORT PERIOD AND ZONE.

11.17.1 ISOLATE SPECIES PROPORTIONS DATA FOR EACH REPORT PERIOD AND ZONE.

```
proc summary data=spprop nway;
 class report zone species;
 id rptrcat ntfp;
 var rptprop day;
 output out=rptprop min(rptprop)=
              min(day)=fday
              max(day)=lday;
run;
```

11.17.2 TRANSPOSE DATA TO GET A VARIABLE FOR EACH SPECIES.

```
proc transpose data=rptprop out=rptpropw;
 by report fday lday zone rptrcat ntfp;
 id species;
 var rptprop;
run;
```

11.17.3 PRINT REPORT PERIOD SPECIES PROPORTIONS DATA.

```
title2 'SPECIES PROPORTIONS BY REPORT PERIOD AND ZONE';
proc print data=rptpropw noobs label;
 label report = 'REPORT NUMBER'
      fday = 'FIRST DAY'
      lday = 'LAST DAY'
      ntfp = 'NUMBER TESTFISH PERIODS'
```

```
      rptrcat = 'NUMBER FISH CAUGHT'
      schum='SUMMER CHUM'
      fchum='FALL CHUM'
      white='WHITEFISH';
 format chinook jack schum pink fchum coho white cisco other 6.4
       fday lday date7.;
 var report fday lday zone ntfp rptrcat chinook jack schum pink fchum
    coho white cisco other;
run;
```

12.0 COMBINE SONAR AND TESTFISH DATA.

12.1 SORT SONAR PASSAGE ESTIMATES.

```
proc sort data=daycnt;
 by report zone;
run;
```

12.2 MERGE SONAR PASSAGE ESTIMATES WITH SPECIES PROPORTION ESTIMATES.

```
data combined;
 merge daycnt rptpropw(drop=fday lday rptrcat ntfp);
 by report zone;
run;
```

12.3 TRANSPOSE DATA TO GET PROPORTIONS IN A SINGLE VARIABLE.

```
proc sort data=combined;
 by report day zone;
run;

proc transpose data=combined out=combined name=species;
 by report day zone daypass vdaypass;
 var chinook jack schum pink fchum coho white cisco other;
run;
```

12.4 ISOLATE VARIANCE OF SPECIES PROPORTIONS.

```
proc summary data=spprop nway;
 class report zone species rptprop;
 var propvar;
 output out=temp min=;
run;
```

12.5 INCORPORATE ESTIMATED VARIANCE OF SPECIES PROPORTIONS.

```
proc sort data=combined;
 by report zone species rptprop;
run;

data combined;
 merge combined temp(drop=_type_ _freq_);
 by report zone species rptprop;
 if report ge 1;

 passest = rptprop*daypass;
 passvar = (daypass**2)*propvar + (rptprop**2)*vdaypass -
        vdaypass*propvar;
 drop vdaypass rptprop propvar;
```

```
run;

13.0 PRINT AND PLOT TESTFISH CPUE VERSUS PASSAGE.

13.1 ISOLATE TOTAL REPORT PERIOD CPUE.
proc summary data=rptcpue nway;
 class report zone;
 var rptscpue;
 output out=temp1 min(rptscpue)=rptcpue;
run;

13.2 ISOLATE DAILY PASSAGE ESTIMATES BY ZONE.
proc summary data=combined nway;
 class report day zone;
 var daypass;
 output out=temp2 min=;
run;

13.3 SUM PASSAGE OVER DAYS WITH REPORT PERIOD, BY ZONE.
proc summary data=temp2 nway;
 class report zone;
 var day daypass;
 output out=temp2 min(day)=
            sum(daypass)=rptpass;
run;

13.4 MERGE REPORT PERIOD TESTFISH CPUE AND PASSAGE SUMS.
data cpuepass;
 merge temp1(drop=_type_ _freq_) temp2(drop=_type_ _freq_);
 by report zone;
run;

13.5 ADD PLOTTING CHARACTERS TO DATA AND PREPARE DATA FOR PRINTING.
data cpuepass;
 merge cpuepass(in=a) rptdays(keep=report day plotchar);
 by day;
 if rptcpue ne .;

 label report = 'REPORT PERIOD'
     day = 'DAY PERIOD BEGAN'
     plotchar = 'PLOTTING CHARACTER'
     rptcpue = 'TOTAL PERIOD CPUE'
     rptpass = 'TOTAL PERIOD PASSAGE';

 format rptcpue 8.2 day date7. rptpass comma9.;
run;

13.6 PRINT REPORT PERIOD CPUE AND PASSAGE ESTIMATES.
title2 'COMPARISON OF PASSAGE ESTIMATES AND TESTFISH CPUE';
title3 'BY REPORT PERIOD AND ZONE';
proc print data=cpuepass label;
 var report day zone plotchar rptcpue rptpass;
 sum rptcpue rptpass;
run;
```

13.7 PLOT PASSAGE ESTIMATES VERSUS TESTFISH CPUE BY ZONE.

```
proc sort data=cpuepass;
 by zone;
run;

proc plot data=cpuepass;
 plot rptcpue*rptpass=plotchar;
 by zone;
run;
```

14.0 COMPUTE AND PRINT PASSAGE ESTIMATES BY DAY AND SPECIES.

14.1 RETRIEVE NEEDED VARIABLES.

```
data final;
 set combined (keep= report day zone species passest passvar);
run;
```

14.2 SUM ESTIMATES ACROSS ZONES.

```
proc summary data=final nway;
 class report day species;
 var passest passvar;
 output out=final sum(passest)=total
            sum(passvar)=vartotal;
run;
```

14.3 TRANSPOSE DAILY SPECIES PASSAGE ESTIMATES TO GET A SEPARATE COLUMN FOR EACH SPECIES.

```
proc transpose data=final out=finalw;
 by report day;
 id species;
 var total;
run;
```

14.4 SUM PASSAGE ESTIMATES OVER SPECIES.

```
proc summary data=final nway;
 by report day;
 var total;
 output out=temp sum(total)=allspp;
run;
```

14.5 COMBINE SPECIES AND TOTAL ESTIMATES, AND COMPUTE TOTAL SALMON AND TOTAL NON-SALMON ESTIMATES.

```
data finalw;
 merge finalw(drop=_name_) temp(drop= _type_ _freq_);
 by report day;

 * FORMAT VARIABLES FOR OUTPUT;
 format chinook jack coho white cisco other comma7.
      schum fchum pink allspp comma9.;
 label chinook = 'LARGE CHINOOK'
      jack = 'SMALL CHINOOK'
      schum = 'SUMMER CHUM'
      fchum = 'FALL CHUM'
```

```
      white = 'WHITEFISH SPECIES'
      cisco = 'CISCO SPECIES'
      other = 'OTHER SPECIES'
      allspp = 'TOTAL ALL SPECIES';
run;
```

14.6 PRINT DAILY PASSAGE ESTIMATES BY SPECIES.

```
title2 'ESTIMATED DAILY PASSAGE - BY SPECIES';
proc print data=finalw noobs label;
 var report day;
 sum chinook jack schum pink fchum coho white cisco other allspp;
run;
```

15.0 COMPUTE CUMULATIVE PASSAGE TO DATE, BY SPECIES, WITH CONFIDENCE INTERVALS.

15.1 SUM PASSAGE ESTIMATES BY SPECIES OVER ALL DAYS.

```
proc summary data=final nway;
 class species;
 var day total vartotal;
 output out=final max(day)=
            sum(total)=
            sum(vartotal)=;
run;
```

15.2 COMPUTE STANDARD ERRORS AND CONFIDENCE LIMITS.

```
data final;
 set final (drop= _type_ _freq_);

 * COMPUTE STANDARDS ERRORS AND CV'S;
 setotal = sqrt(vartotal);
 if total gt 0 then
  cvtotal = setotal/total;
 else
  cvtotal = 0;

 * COMPUTE CONFIDENCE LIMITS;
 lower = total - 1.645*setotal;
 if lower lt 0 then
  lower = 0;
 upper = total + 1.645*setotal;

 * FORMAT VARIABLES FOR OUTPUT;
 format total setotal lower upper comma9. cvtotal 5.3;
 label total = 'ESTIMATED PASSAGE TO DATE'
      setotal = 'ESTIMATED STANDARD ERROR'
      cvtotal = 'COEFFICIENT OF VARIATION'
      lower = 'LOWER LIMIT 90% CI'
      upper = 'UPPER LIMIT 90% CI';

 * DEFINE VARIABLE TO CONTROL PRINT ORDER IN FOLLOWING
  PRINT;
 if species eq 'CHINOOK' then
    order = 1;
```

```
 else if species eq 'JACK' then
   order = 2;
 else if species eq 'SCHUM' then
   order = 3;
 else if species eq 'FCHUM' then
   order = 4;
 else if species eq 'COHO' then
   order = 5;
 else if species eq 'PINK' then
   order = 6;
 else if species eq 'WHITE' then
   order = 7;
 else if species eq 'CISCO' then
   order = 8;
 else
   order = 9;
run;
```

15.3 SORT PASSAGE ESTIMATES AND PRINT.

```
proc sort data=final;
 by order;
run;

title2 'CUMULATIVE ESTIMATED PASSAGE TO DATE - BY SPECIES';
title3 'WITH ASSOCIATED MEASURES OF PRECISION';
proc print data=final label;
 label species = 'SPECIES';
 var day species total setotal cvtotal lower upper;
 sum total;

run;
```

Appendix B. Hourly passage rate by stratum used for estimating missing counts, lower Yukon River sonar project, 1995.

REPORT PERIOD	DATE	SONAR PERIOD	STRATUM 1 RIGHT BANK	STRATUM 2 RIGHT BANK	STRATUM 3 LEFT BANK NEARSHORE	STRATUM 4 LEFT BANK MIDSHORE	STRATUM 5 LEFT BANK OFFSHORE
1	6/7/95	3	193.6	.	278	765.5	**78**[a]
1	6/8/95	1	260.3	.	302.9	660.6	**72**
1	6/8/95	2	205.2	.	259.5	737.9	**74.7**
1	6/8/95	3	198.3	.	772.1	799.4	120
2	6/9/95	1	189.3	.	308.8	814.7	28
2	6/9/95	2	392.6	.	450.6	417.5	60
2	6/9/95	3	198.2	.	284	498	86
3	6/10/95	1	149.1	.	357.6	413.1	28.3
3	6/10/95	2	211.8	.	133	236.5	28.6
3	6/10/95	3	204.3	.	198.8	474.1	34
3	*6/11/95	1	238.7	.	237.6	490.4	7.4
3	6/11/95	2	584.7	.	962	830	156
3	6/11/95	3	802	.	129.3	1138.9	86.2
4	6/12/95	1	419.3	.	939.6	1193.8	**159.3**
4	6/12/95	2	543.5	.	1352.1	1381.1	308.9
4	6/12/95	3	395.5	0	717.9	1331.1	403.9
5	6/13/95	1	428.7	6.2	512	531.6	130.9
5	6/13/95	2	483.3	.	1144.3	1361.9	171.7
5	6/13/95	3	415.6	.	1119.3	911.3	191.8
5	*6/14/95	1	536.7	.	998.1	1280	241.2
5	6/14/95	2	415.5	.	1449.2	1245.6	275.5
5	6/14/95	3	555.8	.	147.5	1578.6	1231.6
6	6/15/95	1	451.6	.	885.3	1391.2	377.6
6	6/15/95	2	364.4	.	877.6	817.2	438.6
6	6/15/95	3	561.3	.	949	1341.1	346.9
7	6/16/95	1	585.6	.	1067.6	1027.1	192.9
7	6/16/95	2	802.6	.	778.9	1024.4	454.6
7	6/16/95	3	506.5	.	1212.4	1184.4	263.2
8	6/17/95	1	462.7	.	1024.2	775.8	86.7
8	6/17/95	2	599	.	366.2	677.6	208.9
8	6/17/95	3	532.9	.	606.2	979.6	154.7
8	*6/18/95	1	594.9	.	1169.5	1013.6	120
8	6/18/95	2	1316.5	.	1893.7	2613.6	82.8
8	6/18/95	3	1685.7	.	457.5	4143.5	506
9	*6/19/95	1	1275.2	.	2973.1	3038.6	183.3
9	6/19/95	2	1765.1	.	4467.9	5752.9	467.4
9	6/19/95	3	1648	.	2580	5021.1	477.9
9	*6/20/95	1	1511.9	.	1870.7	3602.1	62.3
9	6/20/95	2	1668	.	1774.6	4438.9	60
9	6/20/95	3	1266.3	.	473.8	2282.1	143.6
10	6/21/95	1	1487.3	.	921.4	3019.1	68
10	6/21/95	2	1,375.1	.	1,433.0	5,551.5	356.8
10	6/21/95	3	1,632.6	.	126.4	2,260.3	395.6
11	6/22/95	1	962.0	.	848.9	3,252.2	170.8
11	6/22/95	2	1,421.8	.	1,361.5	3,357.7	75.0
11	6/22/95	3	1,402.7	.	858.0	3,108.0	166.0
12	6/23/95	1	1,038.5	.	1,062.3	2,088.0	65.5
12	6/23/95	2	1,324.8	.	1,123.4	2,370.5	87.9
12	6/23/95	3	1,216.4	.	1,460.4	3,494.5	176.4
13	6/24/95	1	1,381.7	.	2,009.0	2,486.3	616.7
13	6/24/95	2	1,502.3	.	2,029.6	3,528.0	771.7

[a]Interpolated data is printed in bold text.

*Dates of commercial fishery openings.

-Continued-

Appendix B. (Continued)

REPORT PERIOD	DATE	SONAR PERIOD	STRATUM 1 RIGHT BANK	STRATUM 2 RIGHT BANK	STRATUM 3 LEFT BANK NEARSHORE	STRATUM 4 LEFT BANK MIDSHORE	STRATUM 5 LEFT BANK OFFSHORE
10	6/21/95	2	1,375.1	.	1,433.0	5,551.5	356.8
10	6/21/95	3	1,632.6	.	126.4	2,260.3	395.6
11	6/22/95	1	962.0	.	848.9	3,252.2	170.8
11	6/22/95	2	1,421.8	.	1,361.5	3,357.7	75.0
11	6/22/95	3	1,402.7	.	858.0	3,108.0	166.0
12	6/23/95	1	1,038.5	.	1,062.3	2,088.0	65.5
12	6/23/95	2	1,324.8	.	1,123.4	2,370.5	87.9
12	6/23/95	3	1,216.4	.	1,460.4	3,494.5	176.4
13	6/24/95	1	1,381.7	.	2,009.0	2,486.3	616.7
13	6/24/95	2	1,502.3	.	2,029.6	3,528.0	771.7
13	6/24/95	3	2,059.5	.	1,403.2	2,088.2	866.0
14	6/25/95	1	1,610.8	.	1,718.9	3,415.9	687.9
14	6/25/95	2	1,374.5	.	1,432.4	2,989.6	827.8
14	6/25/95	3	1,862.1	.	2,172.2	3,970.3	884.7
15	6/26/95	1	1,692.6	.	1,898.9	3,183.1	685.3
15	6/26/95	2	2,217.3	.	2,976.4	3,256.8	1,204.3
15	6/26/95	3	2,062.6	.	2,410.0	3,438.9	1,195.6
16	6/27/95	1	1,844.9	.	2,712.0	4,821.2	1,108.0
16	6/27/95	2	1,790.7	.	2,408.4	6,138.3	1,694.7
16	6/27/95	3	1,685.3	.	2,254.6	5,607.9	972.4
17	6/28/95	1	1,280.7	.	1,907.6	4,556.8	781.2
17	6/28/95	2	2,411.4	.	684.0	3,850.3	822.4
17	6/28/95	3	1,479.1	.	2,527.0	4,578.1	530.0
18	6/29/95	1	1,492.7	.	1,916.9	3,637.1	544.4
18	6/29/95	2	1,857.0	.	1,393.2	4,450.5	573.7
18	6/29/95	3	2,075.7	.	2,026.5	4,234.8	928.0
19	6/30/95	1	959.7	.	1,936.6	3,288.9	63.3
19	6/30/95	2	1,147.0	.	1,008.2	3,801.2	8.4
19	6/30/95	3	1,061.0	.	667.9	3,504.6	60.0
20	7/1/95	1	795.0	.	810.0	2,212.2	276.4
20	7/1/95	2	719.0	.	261.4	1,718.6	517.4
20	7/1/95	3	735.0	.	248.1	1,457.1	414.7
21	7/2/95	1	674.7	.	204.4	1,018.0	302.8
21	7/2/95	2	789.5	.	252.6	1,112.2	246.4
21	7/2/95	3	836.3	.	266.8	912.6	265.7
22	7/3/95	1	800.0	.	695.6	1,280.0	149.5
22	7/3/95	2	919.3	.	927.0	2,009.0	173.0
22	7/3/95	3	1,382.7	.	1,794.4	2,850.5	227.5
23	7/4/95	1	1,373.0	.	2,056.0	1,915.7	306.3
23	7/4/95	2	1,284.4	.	1,883.4	3,143.8	339.7

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Appendix B. (Continued)

REPORT PERIOD	DATE	SONAR PERIOD	STRATUM 1 RIGHT BANK	STRATUM 2 RIGHT BANK	STRATUM 3 LEFT BANK NEARSHORE	STRATUM 4 LEFT BANK MIDSHORE	STRATUM 5 LEFT BANK OFFSHORE
23	7/4/95	3	1,584.3	.	1,086.1	2,778.9	271.1
24	7/5/95	1	1,446.4	.	1,406.6	2,295.6	24.9
24	7/5/95	2	1,284.9	.	872.5	2,531.2	30.4
24	7/5/95	3	1,439.3	.	1,332.2	2,521.3	56.3
25	7/6/95	1	1,373.0	.	1,218.9	2,208.2	25.9
25	7/6/95	2	1,630.0	.	1,357.6	3,100.0	28.4
25	7/6/95	3	1,090.0	.	823.6	2,362.8	30.0
25	7/7/95	1	1,091.0	.	822.4	1,298.3	6.2
25	7/7/95	2	916.0	.	.	.	.
26	7/8/95	1	1,012.9	.	754.0	1,695.0	.
26	7/8/95	2	986.9	.	664.0	1,495.0	.
26	7/8/95	3	802.5	.	843.0	1,895.0	.
27	7/9/95	1	612.7	.	.	.	.
27	7/9/95	2	525.2	.	.	.	.
27	7/9/95	3	418.9	.	371.4	817.9	10.6
27	7/10/95	1	360.7	.	645.2	569.1	10.8
27	7/10/95	2	448.3	.	467.7	755.0	11.0
27	7/10/95	3	786.0	.	408.8	852.4	11.3
28	7/11/95	1	1,018.7	.	971.7	1,058.7	18.0
28	7/11/95	2	1,198.3	.	991.0	1,552.8	23.0
28	7/11/95	3	1,278.0	.	728.3	1,391.0	19.0
29	7/12/95	1	1,104.7	.	787.9	1,252.5	18.0
29	7/12/95	2	757.7	.	784.0	1,288.8	18.5
29	7/12/95	3	626.0	.	612.2	1,363.2	10.4
30	7/13/95	1	543.3	.	387.9	878.3	24.4
30	7/13/95	2	488.7	.	250.2	883.3	20.7
30	7/13/95	3	326.0	.	265.0	626.0	0.0
31	7/14/95	1	357.9	.	365.0	565.4	10.7
31	7/14/95	2	259.2	.	150.0	540.0	4.3
31	7/14/95	3	273.3	.	214.0	608.6	6.8
32	7/15/95	1	215.0	.	205.0	286.0	3.2
32	7/15/95	2	237.7	.	184.0	301.0	6.4
32	7/15/95	3	234.0	.	175.9	340.7	32.1
33	7/16/95	1	179.0	.	187.5	330.5	7.4
33	7/16/95	2	324.0	.	208.6	599.0	7.2
33	7/16/95	3	340.9	.	320.7	896.7	5.5
34	7/17/95	1	350.0	.	311.0	711.0	5.4
34	7/17/95	2	347.0	.	238.9	593.7	21.4
34	7/17/95	3	281.7	.	220.0	867.4	16.0
35	7/18/95	1	248.4	.	282.1	462.1	12.0
35	7/18/95	2	313.3	.	258.0	246.4	19.0

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Appendix B. (Continued)

REPORT PERIOD	DATE	SONAR PERIOD	STRATUM 1 RIGHT BANK	STRATUM 2 RIGHT BANK	STRATUM 3 LEFT BANK NEARSHORE	STRATUM 4 LEFT BANK MIDSHORE	STRATUM 5 LEFT BANK OFFSHORE
35	7/18/95	3	366.0	.	385.4	705.8	18.0
36	7/19/95	1	455.3	.	405.0	838.0	6.1
36	7/19/95	2	508.7	.	334.3	966.1	17.1
36	7/19/95	3	544.3	.	388.9	1,349.0	16.7
37	7/20/95	1	569.3	.	310.0	980.0	4.5
37	7/20/95	2	575.3	.	292.9	1,025.4	4.3
37	7/20/95	3	417.6	.	223.3	685.3	8.6
38	7/21/95	1	423.0	.	337.7	632.6	70.4
38	7/21/95	2	595.1	.	343.3	1,070.1	100.7
38	7/21/95	3	502.0	.	386.4	1,472.1	240.0
39	7/22/95	1	460.7	.	338.9	1,203.1	135.4
39	7/22/95	2	406.7	.	345.2	934.6	245.0
39	7/22/95	3	269.0	.	.	.	.
40	7/23/95	1	320.6	.	404.4	997.1	8.7
40	7/23/95	2	230.5	.	375.0	979.0	13.0
40	7/23/95	3	184.0	.	357.9	821.9	5.6
41	7/24/95	1	146.3	.	369.2	517.6	5.1
41	7/24/95	2	207.7	.	264.4	414.8	5.6
41	7/24/95	3	168.3	.	384.9	514.7	4.1
42	7/25/95	1	186.8	.	383.4	775.0	0.0
42	7/25/95	2	229.7	.	350.8	792.5	0.0
42	7/25/95	3	262.5	.	436.7	981.5	2.1
43	7/26/95	1	234.3	.	394.1	883.4	0.0
43	7/26/95	2	245.8	.	403.7	1,042.8	0.0
43	7/26/95	3	280.5	.	396.3	1,056.7	9.3
44	7/27/95	1	248.0	.	472.9	1,708.4	9.2
44	7/27/95	2	330.5	.	483.1	1,738.3	5.3
44	7/27/95	3	338.7	.	448.5	1,862.1	3.0
45	7/28/95	1	279.7	.	568.0	1,555.9	3.1
45	7/28/95	2	335.1	.	482.6	2,156.8	0.0
45	7/28/95	3	533.0	.	858.3	2,956.5	13.8
46	7/29/95	1	268.3	.	929.0	2,847.0	2.2
46	7/29/95	2	360.3	.	681.1	2,807.0	0.0
46	7/29/95	3	438.0	.	838.0	2,515.6	25.7
47	7/30/95	1	227.7	.	670.0	1,867.6	0.0
47	7/30/95	2	247.0	.	367.2	1,342.1	14.7
47	7/30/95	3	241.7	.	341.7	1,481.4	8.4
48	7/31/95	1	147.7	.	360.0	818.9	2.1
48	7/31/95	2	139.4	.	458.7	619.1	1.0
48	7/31/95	3	149.7	.	236.7	753.6	1.0

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Appendix B. (Continued)

REPORT PERIOD	DATE	SONAR PERIOD	STRATUM 1 RIGHT BANK	STRATUM 2 RIGHT BANK	STRATUM 3 LEFT BANK NEARSHORE	STRATUM 4 LEFT BANK MIDSHORE	STRATUM 5 LEFT BANK OFFSHORE
48	*8/1/95	1	100.3	.	298.0	673.0	11.0
48	8/1/95	2	173.0	.	271.1	236.9	3.1
48	8/1/95	3	107.0	.	155.6	308.1	3.1
49	8/2/95	1	114.9	.	161.3	411.6	0.0
49	8/2/95	2	89.3	.	258.3	323.4	2.0
49	8/2/95	3	122.3	.	187.0	418.9	19.3
50	8/3/95	1	113.3	.	200.0	524.3	9.1
50	8/3/95	2	87.3	.	265.0	424.1	1.0
50	8/3/95	3	87.3	.	161.7	388.9	7.6
51	8/4/95	1	72.5	.	235.8	445.3	12.3
51	8/4/95	2	77.3	.	209.5	347.6	6.2
51	8/4/95	3	106.7	.	182.0	450.5	11.6
52	8/5/95	1	85.0	.	178.0	344.0	2.0
52	8/5/95	2	64.0	.	179.0	300.0	8.6
52	8/5/95	3	63.0	.	158.6	352.8	4.1
53	*8/6/95	1	87.0	.	142.0	469.0	9.0
53	8/6/95	2	197.3	.	80.0	200.0	7.0
53	8/6/95	3	274.0	.	245.4	1,450.3	50.8
54	8/7/95	1	241.7	.	387.0	2,950.4	44.0
54	8/7/95	2	187.7	.	460.7	3,863.2	80.3
54	8/7/95	3	306.0	.	370.2	3,645.5	82.0
55	8/8/95	1	235.8	.	301.0	2,991.0	33.1
55	8/8/95	2	210.0	.	319.6	2,440.0	13.1
55	8/8/95	3	220.7	.	270.0	1,613.3	40.7
56	8/9/95	1	228.5	.	239.0	1,344.8	29.5
56	8/9/95	2	150.3	.	211.5	849.5	26.3
56	8/9/95	3	192.3	.	194.0	671.6	20.0
56	*8/10/95	1	192.3	.	265.0	1,184.7	21.1
56	8/10/95	2	208.0	.	77.3	247.2	23.6
56	8/10/95	3	243.4	.	199.0	931.0	38.1
57	8/11/95	1	209.1	.	213.8	1,125.0	13.0
57	8/11/95	2	194.0	.	189.5	997.2	14.0
57	8/11/95	3	150.3	.	234.9	1,127.8	26.9
58	8/12/95	1	184.0	.	296.0	1,357.0	6.0
58	8/12/95	2	186.7	.	516.0	1,668.0	24.8
58	8/12/95	3	189.4	.	393.6	1,563.1	23.6
59	8/13/95	1	245.0	.	333.6	1,495.9	19.4
59	8/13/95	2	171.7	.	232.0	1,243.7	16.0
59	8/13/95	3	194.7	.	209.5	776.7	15.3
59	*8/14/95	1	214.3	.	200.0	961.3	15.0

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Appendix B. (Continued)

REPORT PERIOD	DATE	SONAR PERIOD	STRATUM 1 RIGHT BANK	STRATUM 2 RIGHT BANK	STRATUM 3 LEFT BANK NEARSHORE	STRATUM 4 LEFT BANK MIDSHORE	STRATUM 5 LEFT BANK OFFSHORE
59	8/14/95	2	285.5	.	144.0	216.2	6.0
59	8/14/95	3	189.7	.	178.0	1,676.7	19.0
60	8/15/95	1	126.1	.	205.6	1,719.7	29.0
60	8/15/95	2	152.0	.	140.0	1,109.3	39.3
60	8/15/95	3	150.0	.	166.8	1,183.4	38.6
61	8/16/95	1	198.9	.	202.5	1,429.0	42.5
61	8/16/95	2	281.8	.	477.0	3,668.0	129.0
61	8/16/95	3	667.4	.	379.3	4,636.6	130.9
61	*8/17/95	1	411.9	.	502.4	4,247.3	117.9
61	8/17/95	2	316.7	.	261.0	3,083.0	134.0
61	8/17/95	3	201.2	.	182.1	1,633.2	75.6
62	8/18/95	1	272.3	.	194.0	1,083.0	80.0
62	8/18/95	2	101.7	.	125.1	813.5	28.5
62	8/18/95	3	109.3	.	87.5	701.4	31.0
63	8/19/95	1	128.7	.	82.0	456.0	18.0
63	8/19/95	2	95.0	.	104.0	364.0	24.0
63	8/19/95	3	102.3	.	81.5	359.0	20.7
64	8/20/95	1	99.7	.	58.0	298.0	4.2
64	8/20/95	2	176.3	.	130.0	947.0	51.0
64	8/20/95	3	204.5	.	294.8	2,171.4	85.4
64	*8/21/95	1	430.3	.	669.0	2,944.0	95.0
64	8/21/95	2	329.7	.	183.9	1,432.8	98.8
64	8/21/95	3	293.7	.	294.9	2,242.4	68.0
65	8/22/95	1	264.2	.	259.4	1,589.0	67.2
65	8/22/95	2	176.3	.	226.9	1,578.9	51.7
65	8/22/95	3	171.6	.	198.3	1,275.5	65.2
66	8/23/95	1	208.8	.	172.9	735.0	26.0
66	8/23/95	2	219.7	.	106.6	620.0	25.1
66	8/23/95	3	112.5	.	124.1	469.7	29.5
67	8/24/95	1	130.3	.	90.0	304.8	24.8
67	8/24/95	2	195.3	.	151.4	998.0	36.8
67	8/24/95	3	300.0	.	558.1	2,191.5	98.2
68	8/25/95	1	331.7	.	675.0	2,280.0	66.0
68	8/25/95	2	163.7	.	447.5	2,684.5	68.4
68	8/25/95	3	170.6	.	394.7	1,942.6	70.5
69	8/26/95	1	145.0	.	253.0	1,224.0	32.1
69	8/26/95	2	57.0	.	140.0	776.0	38.2
69	8/26/95	3	114.7	.	126.5	533.8	25.4
70	8/27/95	1	94.3	.	120.0	380.0	24.0
70	8/27/95	2	72.9	.	128.1	469.0	28.4

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Appendix B. (Continued)

REPORT PERIOD	DATE	SONAR PERIOD	STRATUM 1 RIGHT BANK	STRATUM 2 RIGHT BANK	STRATUM 3 LEFT BANK NEARSHORE	STRATUM 4 LEFT BANK MIDSHORE	STRATUM 5 LEFT BANK OFFSHORE
70	8/27/95	3	106.0	.	79.7	331.0	25.4
71	8/28/95	1	84.3	.	70.0	240.0	18.0
71	8/28/95	2	79.4	.	60.0	176.0	14.0
71	8/28/95	3	71.5	.	67.1	137.8	8.3
72	8/29/95	1	47.7	.	73.0	114.0	5.0
72	8/29/95	2	45.8	.	141.8	93.2	4.1
72	8/29/95	3	63.3	.	72.2	171.0	9.2
73	8/30/95	1	48.3	.	58.0	126.2	6.2
73	8/30/95	2	61.3	.	103.0	125.0	8.0
73	8/30/95	3	42.0	.	95.6	226.3	7.0
74	8/31/95	1	72.7	.	65.9	219.7	16.6
74	8/31/95	2	58.3	.	120.0	147.5	3.2
74	8/31/95	3	46.9	.	87.0	156.8	2.1
75	9/1/95	1	79.6	.	99.0	131.0	7.0
75	9/1/95	2	65.3	.	136.3	203.8	2.1
75	9/1/95	3	70.0	.	84.0	617.6	22.4
76	9/2/95	1	84.1	.	105.0	588.2	14.5
76	9/2/95	2	78.7	.	163.3	582.7	12.4
76	9/2/95	3	85.7	.	75.8	393.1	13.7
77	9/3/95	1	110.0	.	118.0	590.5	18.9
77	9/3/95	2	84.0	.	146.7	415.9	36.4
77	9/3/95	3	97.8	.	89.5	268.4	9.5

Appendix C. Species apportionment sampling results, lower Yukon River sonar project, 1995, one-line per drift.

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
6/3/95	1	1	2.75	12:13	5.96	0	0	0	0	0	0	0	1	0	1
6/3/95	1	1	4	11:38	4.26	0	0	0	0	0	0	0	0	0	0
6/3/95	1	1	5.5	9:29	6.1	0	0	0	0	0	0	0	0	1	1
6/3/95	1	1	7.5	10:50	5.27	0	0	0	0	0	0	0	0	0	0
6/3/95	1	2	2.75	17:32	6.93	0	0	0	0	0	0	2	5	0	7
6/3/95	1	2	5	18:11	6.69	0	0	0	0	0	0	0	0	0	0
6/3/95	1	2	6.5	19:10	4.25	0	0	0	0	0	0	0	0	0	0
6/3/95	1	2	8.5	19:46	4.68	0	0	0	0	0	0	0	0	0	0
6/3/95	2	1	2.75	12:02	6.65	0	0	0	0	0	0	0	1	0	1
6/3/95	2	1	4	11:27	6.78	0	0	0	0	0	0	0	0	0	0
6/3/95	2	1	5.5	9:18	6.1	0	0	0	0	0	0	0	0	0	0
6/3/95	2	1	7.5	10:31	7.46	0	0	0	0	0	0	0	0	2	2
6/3/95	2	2	2.75	17:21	7.73	0	0	0	0	0	0	0	0	0	0
6/3/95	2	2	5	18:00	7.9	0	0	0	0	0	0	0	0	0	0
6/3/95	2	2	6.5	18:57	7.97	0	0	0	0	0	0	0	0	1	1
6/3/95	2	2	8.5	19:31	8.27	2	0	0	0	0	0	0	0	0	2
6/3/95	3	1	2.75	12:23	11.18	0	0	0	0	0	0	0	0	0	0
6/3/95	3	1	4	11:46	11.16	0	0	0	0	0	0	2	0	0	2
6/3/95	3	1	5.5	9:38	12.88	0	0	0	0	0	0	0	0	0	0
6/3/95	3	1	7.5	10:59	8.98	0	0	0	0	0	0	0	0	0	0
6/3/95	3	2	2.75	17:47	8.17	0	0	0	0	0	0	1	0	0	1
6/3/95	3	2	5	18:23	9.38	0	0	0	0	0	0	0	0	0	0
6/3/95	3	2	6.5	19:18	10.18	0	0	0	0	0	0	0	0	0	0
6/3/95	3	2	8.5	19:54	7.89	0	0	0	0	0	0	0	0	0	0
6/4/95	1	1	2.75	11:33	4.7	0	0	0	0	0	0	0	0	0	0
6/4/95	1	1	5	10:58	3.94	0	0	0	0	0	0	0	0	0	0
6/4/95	1	1	6.5	10:07	3.86	0	0	0	0	0	0	0	0	0	0
6/4/95	1	1	8.5	9:32	4.01	0	0	0	0	0	0	0	0	0	0
6/4/95	1	2	2.75	17:32	4.67	0	0	0	0	0	0	0	0	1	1
6/4/95	1	2	7.5	18:10	4.28	0	0	0	0	0	0	0	0	0	0
6/4/95	2	1	2.75	11:18	8.94	0	0	0	0	0	0	0	1	0	1
6/4/95	2	1	5	10:44	7.73	0	0	1	0	0	0	0	0	0	1
6/4/95	2	1	6.5	9:53	8.51	0	0	0	0	0	0	0	0	0	0
6/4/95	2	1	8.5	9:17	8.8	2	0	0	0	0	0	0	0	0	2
6/4/95	2	2	2.75	17:21	6.52	0	0	0	0	0	0	0	0	0	0
6/4/95	2	2	7.5	17:53	7.67	1	0	0	0	0	0	0	0	1	2
6/4/95	3	1	2.75	11:42	10.82	0	0	0	0	0	0	0	0	0	0
6/4/95	3	1	5	11:07	8.37	1	0	0	0	0	0	0	0	0	1
6/4/95	3	1	6.5	10:14	8.17	0	0	0	0	0	0	0	0	0	0
6/4/95	3	1	8.5	9:41	8.12	0	0	0	0	0	0	0	0	0	0
6/4/95	3	2	2.75	17:42	7.84	0	0	0	0	0	0	0	0	0	0
6/4/95	3	2	7.5	18:18	6.92	0	0	0	0	0	0	0	0	0	0
6/5/95	1	1	2.75	18:41	6.88	0	0	0	0	0	0	0	3	0	3
6/5/95	1	1	5.5	18:02	3.43	0	0	0	0	0	0	0	0	0	0
6/5/95	1	1	7.5	19:23	3.61	0	0	0	0	0	0	0	0	0	0
6/5/95	1	2	4	17:26	4.06	0	0	0	0	0	0	0	1	0	1
6/5/95	2	1	2.75	18:34	7.15	0	0	0	0	0	0	0	0	0	0
6/5/95	2	1	5.5	17:48	8.06	1	0	1	0	0	0	0	0	0	2
6/5/95	2	1	7.5	19:09	7.72	2	0	0	0	0	0	0	0	1	3

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

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Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
6/5/95	2	2	4	17:17	6.23	0	0	0	0	0	0	0	0	0	0
6/5/95	3	1	2.75	18:53	9.21	0	0	0	0	0	0	0	0	0	0
6/5/95	3	1	5.5	18:09	10.51	0	0	2	0	0	0	0	0	0	2
6/5/95	3	1	7.5	19:30	10.33	0	0	1	0	0	0	0	0	0	1
6/5/95	3	2	4	17:34	10.95	0	0	0	0	0	0	0	0	0	0
6/6/95	1	1	2.75	10:08	5.16	0	0	0	0	0	0	0	0	0	0
6/6/95	1	1	4	11:43	5.38	0	0	0	0	0	0	0	0	0	0
6/6/95	1	1	5.5	11:04	4.38	0	0	4	0	0	0	0	0	0	4
6/6/95	1	1	7.5	9:35	3.66	0	0	0	0	0	0	0	0	0	0
6/6/95	1	2	6.5	19:09	4.31	0	0	2	0	0	0	0	0	0	2
6/6/95	1	2	7.5	19:34	4.24	0	1	0	0	0	0	0	0	0	1
6/6/95	2	1	2.75	9:56	8.18	0	0	0	0	0	0	0	0	0	0
6/6/95	2	1	4	11:31	8.47	0	0	0	0	0	0	0	0	0	0
6/6/95	2	1	5.5	10:48	10.28	1	0	3	0	0	0	0	0	0	4
6/6/95	2	1	7.5	9:19	9.97	0	0	1	0	0	0	0	0	0	1
6/6/95	3	1	2.75	10:17	8.53	0	0	0	0	0	0	0	0	0	0
6/6/95	3	1	4	11:53	11.13	0	0	0	0	0	0	0	0	0	0
6/6/95	3	1	5.5	11:17	9.36	1	0	2	0	0	0	0	0	0	3
6/6/95	3	1	7.5	9:42	8.42	0	0	0	0	0	0	0	0	0	0
6/6/95	3	2	6.5	18:58	8.07	0	0	0	0	0	0	0	0	0	0
6/6/95	3	2	7.5	19:20	8.12	1	0	0	0	0	0	1	0	0	2
6/7/95	1	1	2.75	10:52	4.38	0	0	0	0	0	0	0	0	0	0
6/7/95	1	1	5	11:27	4.35	1	0	2	0	0	0	0	0	0	3
6/7/95	1	1	6.5	10:07	3.28	0	0	0	0	0	0	0	0	0	0
6/7/95	1	1	8.5	9:32	3.33	0	0	0	0	0	0	0	0	0	0
6/7/95	1	2	2.75	18:05	5.54	1	0	0	0	0	0	0	1	0	2
6/7/95	1	2	4	19:26	4.46	0	0	0	0	0	0	0	1	0	1
6/7/95	1	2	5	17:30	7.35	0	0	0	0	0	0	0	0	0	0
6/7/95	1	2	7.5	18:53	4.74	0	0	1	0	0	0	0	0	0	1
6/7/95	2	1	2.75	10:44	3.93	0	0	0	0	0	0	3	1	0	4
6/7/95	2	1	5	11:18	5.28	0	0	0	0	0	0	0	0	0	0
6/7/95	2	1	6.5	9:54	5.96	0	0	2	0	0	0	0	0	1	3
6/7/95	2	1	8.5	9:22	5.58	1	0	0	0	0	0	0	0	0	1
6/7/95	2	2	2.75	17:56	5.08	0	0	0	0	0	0	0	0	0	0
6/7/95	2	2	4	19:17	5.18	0	0	0	0	0	0	0	0	0	0
6/7/95	2	2	5	17:18	5.7	0	0	5	0	0	0	0	0	0	5
6/7/95	2	2	7.5	18:44	5.68	0	0	0	0	0	0	0	0	0	0
6/7/95	3	1	2.75	11:00	9.33	0	0	2	0	0	0	0	1	0	3
6/7/95	3	1	5	11:37	8.22	0	0	0	0	0	0	0	0	0	0
6/7/95	3	1	6.5	10:14	8.08	2	0	1	0	0	0	0	0	0	3
6/7/95	3	1	8.5	9:39	6.9	2	0	0	0	0	0	0	0	0	2
6/7/95	3	2	2.75	18:16	8.37	0	0	0	0	0	0	1	1	0	2
6/7/95	3	2	4	19:35	8.62	2	0	0	0	0	0	0	0	0	2
6/7/95	3	2	5	17:42	9.76	0	0	2	0	0	0	0	0	0	2
6/7/95	3	2	7.5	19:03	7.88	1	1	0	0	0	0	0	0	0	2
6/8/95	1	1	2.75	11:32	6.2	0	0	0	0	0	0	0	0	0	0
6/8/95	1	1	4	9:25	3.47	0	0	0	0	0	0	0	0	0	0
6/8/95	1	1	5	10:45	5.42	0	0	4	0	0	0	0	0	0	4
6/8/95	1	1	7.5	9:55	5.48	2	1	1	0	0	0	0	0	1	5
6/8/95	1	2	2.75	17:26	4.49	0	0	0	0	0	0	0	0	1	1

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
6/8/95	1	2	5	17:59	4.68	1	1	4	0	0	0	0	0	0	6
6/8/95	1	2	6.5	19:31	3.73	0	0	2	0	0	0	0	0	0	2
6/8/95	1	2	8.5	18:58	4.47	0	0	0	0	0	0	0	0	0	0
6/8/95	2	1	2.75	11:16	7.64	0	0	0	0	0	0	0	0	0	0
6/8/95	2	1	4	9:16	4.64	0	0	0	0	0	0	1	0	0	1
6/8/95	2	1	5	10:38	2.6	0	0	1	0	0	0	0	0	0	1
6/8/95	2	1	7.5	9:44	5.87	1	1	1	0	0	0	0	0	0	3
6/8/95	2	2	2.75	17:17	5.71	0	0	0	0	0	0	0	0	0	0
6/8/95	2	2	5	17:48	5.84	0	0	4	0	0	0	0	0	0	4
6/8/95	2	2	6.5	19:21	5.54	0	0	4	0	0	0	0	0	0	4
6/8/95	2	2	8.5	18:50	4.78	0	0	0	0	0	0	0	0	0	0
6/8/95	3	1	2.75	11:43	10.62	0	0	1	0	0	0	0	0	0	1
6/8/95	3	1	4	9:32	8.38	0	0	0	0	0	0	0	0	0	0
6/8/95	3	1	5	10:56	10.02	0	0	8	0	0	0	0	0	0	8
6/8/95	3	1	7.5	10:08	8.28	0	0	0	0	0	0	0	0	1	1
6/8/95	3	2	2.75	17:34	10.28	0	0	0	0	0	0	0	2	0	2
6/8/95	3	2	5	18:10	10.57	0	0	10	0	0	0	0	0	0	10
6/8/95	3	2	6.5	19:41	10.45	0	0	8	0	0	0	0	0	0	8
6/8/95	3	2	8.5	19:07	10.4	0	0	1	0	0	0	0	0	0	1
6/9/95	1	1	2.75	11:59	6.17	0	0	1	0	0	0	0	0	0	1
6/9/95	1	1	5	11:21	5.98	0	0	13	0	0	0	0	0	1	14
6/9/95	1	1	6.5	9:35	5.79	0	0	12	0	0	0	0	0	0	12
6/9/95	1	1	8.5	10:15	4.55	0	0	2	0	0	0	0	0	0	2
6/9/95	1	2	2.75	17:31	4.51	0	0	1	0	0	0	0	0	0	1
6/9/95	1	2	4	18:53	3.98	0	0	0	0	0	0	0	0	0	0
6/9/95	1	2	5	18:04	4.09	0	0	3	0	0	0	0	0	0	3
6/9/95	1	2	7.5	19:25	4.63	0	1	2	0	0	0	0	0	0	3
6/9/95	2	1	2.75	11:50	4.68	0	0	0	0	0	0	1	1	0	2
6/9/95	2	1	5	11:08	7.38	0	0	1	0	0	0	0	0	0	1
6/9/95	2	1	6.5	9:21	6.54	0	0	8	0	0	0	0	0	0	8
6/9/95	2	1	8.5	10:05	6.61	0	0	2	0	0	0	0	0	0	2
6/9/95	2	2	2.75	17:23	5.15	0	0	0	0	0	0	0	0	0	0
6/9/95	2	2	4	18:41	7.63	0	0	0	0	0	0	0	0	0	0
6/9/95	2	2	5	17:53	5.95	0	0	2	0	0	0	0	0	0	2
6/9/95	2	2	7.5	19:15	6.52	0	0	2	0	0	0	0	0	0	2
6/9/95	3	1	2.75	12:10	7.64	1	0	0	0	0	0	0	0	0	1
6/9/95	3	1	5	11:36	10.7	1	0	6	0	0	0	0	0	0	7
6/9/95	3	1	6.5	9:51	8.62	0	0	5	0	0	0	1	0	0	6
6/9/95	3	1	8.5	10:24	8.32	1	0	1	0	0	0	0	0	0	2
6/9/95	3	2	2.75	17:39	10.31	0	0	0	0	0	0	0	0	0	0
6/9/95	3	2	4	19:00	11.33	0	0	0	0	0	0	0	0	0	0
6/9/95	3	2	5	18:13	9.99	0	0	0	0	0	0	0	0	0	0
6/9/95	3	2	7.5	19:35	10.25	2	0	1	0	0	0	0	0	0	3
6/10/95	1	1	2.75	10:49	5.03	0	0	0	0	0	0	0	0	0	0
6/10/95	1	1	4	10:04	4.93	0	0	0	0	0	0	0	0	0	0
6/10/95	1	1	5	11:32	5.04	0	0	1	0	0	0	0	0	0	1
6/10/95	1	1	6.5	18:19	4.35	0	0	0	0	0	0	0	0	0	0
6/10/95	1	1	7.5	9:32	4.35	0	0	0	0	0	0	0	0	0	0
6/10/95	1	2	2.75	18:47	3.98	0	0	0	0	0	0	0	0	0	0
6/10/95	1	2	5	19:53	3.59	0	0	3	0	0	0	0	0	0	3

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore
[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
6/10/95	1	2	8.5	19:24	4.01	0	0	0	0	0	0	0	0	0	0
6/10/95	2	1	2.75	10:40	5.15	0	0	0	0	0	0	1	0	0	1
6/10/95	2	1	4	9:54	5.89	0	0	0	0	0	0	1	0	0	1
6/10/95	2	1	4	10:13	8.33	0	0	0	0	0	0	0	0	0	0
6/10/95	2	1	5	11:16	5.5	0	0	5	0	0	0	1	0	0	6
6/10/95	2	1	6.5	18:11	4.83	0	0	1	0	0	0	0	0	0	1
6/10/95	2	1	7.5	9:22	5.88	0	0	1	0	0	0	0	0	0	1
6/10/95	2	2	2.75	18:39	4.55	0	0	0	0	0	0	0	0	0	0
6/10/95	2	2	5	19:46	5.19	0	0	0	0	0	0	0	0	0	0
6/10/95	2	2	8.5	19:14	4.79	0	0	3	0	0	0	0	0	1	4
6/10/95	3	1	2.75	10:58	10.26	0	0	0	0	0	0	0	0	0	0
6/10/95	3	1	5	11:41	8.39	0	0	4	0	0	0	0	0	0	4
6/10/95	3	1	6.5	18:26	8.29	1	0	4	0	0	0	0	0	0	5
6/10/95	3	1	7.5	9:40	8.33	2	0	1	0	0	0	0	0	0	3
6/10/95	3	2	2.75	18:56	6.73	0	0	0	0	0	0	0	0	0	0
6/10/95	3	2	5	20:01	7.34	0	0	0	0	0	0	0	0	0	0
6/10/95	3	2	8.5	19:32	7.19	1	0	1	0	0	0	0	0	0	2
6/11/95	1	1	2.75	11:20	5.33	0	0	1	0	0	0	1	0	0	2
6/11/95	1	1	4	13:04	4.48	0	0	1	0	0	0	0	0	0	1
6/11/95	1	1	5	9:36	5.26	1	2	6	0	0	0	0	0	0	9
6/11/95	1	1	6.5	13:39	4.31	5	3	3	0	0	0	0	0	1	12
6/11/95	1	1	7.5	12:28	4.66	0	0	0	0	0	0	0	0	0	0
6/11/95	1	1	8.5	10:25	4.36	4	0	0	0	0	0	0	0	0	4
6/11/95	2	1	2.75	11:11	5.84	0	0	0	0	0	0	0	0	0	0
6/11/95	2	1	4	12:52	6.54	0	0	1	0	0	0	0	0	1	2
6/11/95	2	1	5	9:21	5.8	1	0	11	0	0	0	0	0	0	12
6/11/95	2	1	6.5	13:30	4.65	0	1	5	0	0	0	0	0	0	6
6/11/95	2	1	7.5	12:16	5.81	3	3	2	0	0	0	0	0	0	8
6/11/95	2	1	8.5	10:15	5.2	1	1	0	0	0	0	0	0	0	2
6/11/95	3	1	2.75	11:30	9.03	0	0	0	0	0	0	0	0	0	0
6/11/95	3	1	4	13:12	8.74	2	0	1	0	0	0	0	0	0	3
6/11/95	3	1	5	9:51	8.63	3	1	2	0	0	0	0	0	0	6
6/11/95	3	1	6.5	13:52	4.38	2	0	5	0	0	0	0	0	0	7
6/11/95	3	1	7.5	12:38	8.54	2	0	0	0	0	0	0	0	0	2
6/11/95	3	1	8.5	10:38	8.49	0	0	1	0	0	0	0	0	0	1
6/12/95	1	1	4	11:05	4.99	0	0	3	0	0	0	0	0	0	3
6/12/95	1	1	5	11:36	4.26	0	0	7	0	0	0	0	0	0	7
6/12/95	1	1	6.5	9:35	4.93	0	1	10	0	0	0	0	0	1	12
6/12/95	1	1	7.5	10:19	4.31	1	0	5	0	0	0	0	0	0	6
6/12/95	1	2	2.75	17:42	4.48	0	0	2	0	0	0	0	0	0	2
6/12/95	1	2	5	19:11	3.92	0	0	25	0	0	0	0	0	1	26
6/12/95	1	2	6.5	18:17	3.36	0	0	8	0	0	0	0	0	0	8
6/12/95	1	2	8.5	19:53	3.56	0	0	1	0	0	0	0	0	0	1
6/12/95	2	1	4	10:52	5.08	0	1	2	0	0	0	0	0	0	3
6/12/95	2	1	5	11:23	4.93	0	0	8	0	0	0	0	0	0	8
6/12/95	2	1	6.5	9:21	5.62	0	1	13	0	0	0	0	0	0	14
6/12/95	2	1	7.5	10:09	5.49	0	1	1	0	0	0	0	0	0	2
6/12/95	2	2	2.75	17:33	5.82	0	0	0	0	0	0	0	0	0	0
6/12/95	2	2	5	19:00	4.39	0	0	5	0	0	0	0	0	0	5
6/12/95	2	2	6.5	18:03	5.52	3	0	4	0	0	0	0	0	1	8

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
6/12/95	2	2	8.5	19:44	5.68	1	0	3	0	0	0	0	0	0	4
6/12/95	3	1	4	11:13	8.52	0	0	0	0	0	0	0	0	0	0
6/12/95	3	1	5	11:46	7.07	0	0	6	0	0	0	0	0	0	6
6/12/95	3	1	6.5	9:54	8.63	0	2	6	0	0	0	0	0	0	8
6/12/95	3	1	7.5	10:28	6.38	0	0	0	0	0	0	0	0	0	0
6/12/95	3	2	2.75	17:50	8.39	1	0	1	0	0	0	0	0	0	2
6/12/95	3	2	5	19:33	7.13	0	0	8	0	0	0	0	0	0	8
6/12/95	3	2	6.5	18:28	7.99	2	1	3	0	0	0	0	0	0	6
6/12/95	3	2	8.5	20:00	4.83	1	0	0	0	0	0	0	0	0	1
6/13/95	1	1	2.75	11:13	4.63	0	0	1	0	0	0	0	0	0	1
6/13/95	1	1	5	10:12	3.98	0	0	7	0	0	0	0	0	0	7
6/13/95	1	1	6.5	11:43	4.56	3	0	11	0	0	0	0	0	0	14
6/13/95	1	1	8.5	9:35	4.28	1	0	0	0	0	0	0	0	0	1
6/13/95	1	2	4	18:08	4.58	0	0	1	0	0	0	0	0	0	1
6/13/95	1	2	5	18:41	5.83	2	1	9	0	0	0	0	0	0	12
6/13/95	1	2	6.5	17:41	4.48	0	0	4	0	0	0	0	0	0	4
6/13/95	1	2	7.5	18:15	4.56	2	1	2	0	0	0	0	0	0	5
6/13/95	2	1	2.75	11:03	6.43	0	0	0	0	0	0	0	0	0	0
6/13/95	2	1	5	10:00	6.24	0	0	5	0	0	0	0	0	0	5
6/13/95	2	1	6.5	11:30	6.41	1	0	8	0	0	0	0	0	1	10
6/13/95	2	1	8.5	9:21	7.28	1	1	6	0	0	0	0	0	0	8
6/13/95	2	2	4	18:58	6.23	0	0	1	0	0	0	0	0	0	1
6/13/95	2	2	5	18:31	5.92	0	1	2	0	0	0	0	0	0	3
6/13/95	2	2	6.5	17:26	5.47	4	3	9	0	0	0	0	0	0	16
6/13/95	2	2	7.5	18:05	4.68	2	0	1	0	0	0	0	0	0	3
6/13/95	3	1	2.75	11:21	8.55	0	0	1	0	0	0	0	0	0	1
6/13/95	3	1	5	10:23	8.15	2	0	14	0	0	0	0	0	0	16
6/13/95	3	1	6.5	12:00	8.17	0	1	1	0	0	0	0	0	0	2
6/13/95	3	1	8.5	9:47	8.42	1	0	3	0	0	0	0	0	0	4
6/13/95	3	2	4	18:17	9.03	0	1	1	0	0	0	0	0	0	2
6/13/95	3	2	5	18:54	8.7	1	0	8	0	0	0	0	0	0	9
6/13/95	3	2	6.5	17:51	8.53	3	0	3	0	0	0	0	0	0	6
6/13/95	3	2	7.5	18:27	8.4	3	0	0	0	0	0	0	0	0	3
6/14/95	1	1	2.75	12:39	4.5	0	1	1	0	0	0	1	1	0	4
6/14/95	1	1	4	10:16	4.95	1	2	7	0	0	0	0	0	0	10
6/14/95	1	1	5	9:43	2.55	0	0	1	0	0	0	0	0	0	1
6/14/95	1	1	6.5	13:09	4.34	3	0	16	0	0	0	0	0	0	19
6/14/95	1	1	7.5	11:11	3.51	0	0	2	0	0	0	0	0	1	3
6/14/95	1	1	8.5	14:05	3.23	1	0	2	0	0	0	0	0	0	3
6/14/95	2	1	2.75	12:29	5.69	0	0	3	0	0	0	0	1	0	4
6/14/95	2	1	4	10:05	5.85	0	1	1	0	0	0	0	0	0	2
6/14/95	2	1	5	9:24	3.73	2	1	19	0	0	0	0	0	1	23
6/14/95	2	1	6.5	13:00	4.92	0	1	4	0	0	0	0	0	0	5
6/14/95	2	1	7.5	10:59	4.3	2	1	8	0	0	0	0	0	0	11
6/14/95	2	1	8.5	13:53	6.83	1	1	6	0	0	0	0	0	0	8
6/14/95	3	1	2.75	12:48	8.03	0	0	1	0	0	0	0	0	0	1
6/14/95	3	1	4	10:36	8.46	0	0	0	0	0	0	0	0	0	0
6/14/95	3	1	5	9:50	8.46	0	0	4	0	0	0	0	0	1	5
6/14/95	3	1	6.5	13:39	5.97	2	0	6	0	0	0	0	0	0	8
6/14/95	3	1	7.5	11:21	7.35	0	0	1	0	0	0	0	0	0	1

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
6/14/95	3	1	8.5	14:16	7.58	2	0	1	0	0	0	0	0	0	3
6/15/95	1	1	2.75	11:04	5.18	0	0	3	0	0	0	0	0	0	3
6/15/95	1	1	5	11:43	5.84	1	3	38	0	0	0	0	0	0	42
6/15/95	1	1	6.5	10:12	4.23	0	1	4	0	0	0	0	0	1	6
6/15/95	1	1	8.5	9:38	4.01	0	0	1	0	0	0	0	0	0	1
6/15/95	1	2	4	17:43	3.78	0	0	6	0	0	0	0	0	0	6
6/15/95	1	2	5	18:54	3.15	0	1	17	0	0	0	0	0	0	18
6/15/95	1	2	6.5	18:14	2.94	0	0	4	0	0	0	0	0	0	4
6/15/95	1	2	7.5	19:24	4.05	0	0	0	0	0	0	0	0	0	0
6/15/95	2	1	2.75	10:54	5.9	0	1	1	0	0	0	0	0	0	2
6/15/95	2	1	5	11:30	4.38	0	1	11	0	0	0	0	0	1	13
6/15/95	2	1	6.5	10:01	5.51	0	0	5	0	0	0	0	0	0	5
6/15/95	2	1	8.5	9:27	5.14	0	0	6	0	0	0	0	0	0	6
6/15/95	2	2	4	17:34	4.12	0	1	2	0	0	0	1	0	0	4
6/15/95	2	2	5	18:44	4.3	0	1	1	0	0	0	0	0	0	2
6/15/95	2	2	6.5	18:04	4.22	0	2	7	0	0	0	1	0	0	10
6/15/95	2	2	7.5	19:17	4.59	0	0	0	0	0	0	0	0	0	0
6/15/95	3	1	2.75	11:14	9.16	0	0	1	0	0	0	0	0	0	1
6/15/95	3	1	5	12:19	6.89	0	0	14	0	0	0	0	0	0	14
6/15/95	3	1	6.5	10:23	8.31	0	0	10	0	0	0	0	0	0	10
6/15/95	3	1	8.5	9:46	8.41	2	0	1	0	0	0	0	0	0	3
6/15/95	3	2	4	17:54	6.86	0	0	0	0	0	0	0	0	0	0
6/15/95	3	2	5	19:07	6.4	1	0	1	0	0	0	0	0	0	2
6/15/95	3	2	6.5	18:22	5.73	0	0	6	0	0	0	0	0	0	6
6/15/95	3	2	7.5	19:31	6.72	0	0	2	0	0	0	0	0	0	2
6/16/95	1	1	4	11:10	5	0	1	1	0	0	0	0	0	1	3
6/16/95	1	1	5	10:14	3.53	0	0	9	0	0	0	0	0	0	9
6/16/95	1	1	6.5	11:40	5.08	0	0	9	0	0	0	0	0	1	10
6/16/95	1	1	7.5	9:38	3.73	0	0	1	0	0	0	0	0	0	1
6/16/95	1	2	2.75	18:55	3.83	0	0	0	0	0	0	0	0	0	0
6/16/95	1	2	5	18:06	3.08	0	0	8	0	0	0	0	0	0	8
6/16/95	1	2	6.5	17:39	3.43	0	0	4	0	0	0	0	0	0	4
6/16/95	1	2	8.5	19:28	4.72	0	0	1	0	0	0	0	0	0	1
6/16/95	2	1	5	9:59	5.48	0	0	6	0	0	0	0	0	1	7
6/16/95	2	1	6.5	11:30	5.86	1	1	3	0	0	0	0	0	0	5
6/16/95	2	1	7.5	9:24	5.42	2	1	7	0	0	0	0	0	0	10
6/16/95	2	2	2.75	18:42	8.58	0	0	1	0	0	0	0	1	0	2
6/16/95	2	2	5	17:58	4.78	0	0	1	0	0	0	0	0	0	1
6/16/95	2	2	6.5	17:29	5.95	0	0	3	0	0	0	0	0	0	3
6/16/95	2	2	8.5	19:18	5.99	0	0	3	0	0	0	0	0	0	3
6/16/95	3	1	4	10:56	6.8	0	2	2	0	0	0	0	0	1	5
6/16/95	3	1	4	11:19	8.91	0	0	0	0	0	0	0	0	0	0
6/16/95	3	1	5	10:25	8.61	0	0	7	0	0	0	0	0	0	7
6/16/95	3	1	6.5	11:54	9.54	0	0	5	0	0	0	0	0	0	5
6/16/95	3	1	7.5	9:46	8.3	1	1	0	0	0	0	0	0	0	2
6/16/95	3	2	2.75	19:03	11.39	0	1	1	0	0	0	0	1	0	3
6/16/95	3	2	5	18:16	8.43	0	0	4	0	0	0	0	0	0	4
6/16/95	3	2	6.5	17:47	7.08	0	0	7	0	0	0	0	0	0	7
6/16/95	3	2	8.5	19:35	9.65	1	0	2	0	0	0	0	0	0	3
6/17/95	1	1	2.75	9:57	4.15	0	0	0	0	0	0	0	0	0	0

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
6/17/95	1	1	5	10:53	4.96	0	0	10	0	0	0	0	0	0	10
6/17/95	1	1	6.5	11:30	3.96	0	0	0	0	0	0	0	0	1	1
6/17/95	1	1	8.5	9:27	5.48	0	0	1	0	0	0	0	0	0	1
6/17/95	1	2	4	18:48	3.52	0	0	3	0	0	0	0	0	0	3
6/17/95	1	2	5	18:09	3.81	0	0	7	0	0	0	0	0	0	7
6/17/95	1	2	6.5	17:36	3.75	0	0	13	0	0	0	0	0	0	13
6/17/95	1	2	7.5	19:15	2.61	1	0	0	0	0	0	0	0	0	1
6/17/95	2	1	2.75	9:47	5.6	0	0	1	0	0	0	0	0	0	1
6/17/95	2	1	5	10:32	6.1	0	1	16	0	0	0	0	0	1	18
6/17/95	2	1	6.5	11:20	6.33	0	0	3	0	0	0	0	0	0	3
6/17/95	2	1	8.5	9:17	6.15	0	0	4	0	0	0	0	0	0	4
6/17/95	2	2	4	18:38	6.22	0	0	0	0	0	0	0	0	0	0
6/17/95	2	2	5	18:01	4.35	0	0	4	0	0	0	0	0	0	4
6/17/95	2	2	6.5	17:26	5.95	0	0	2	0	0	0	0	0	0	2
6/17/95	2	2	7.5	19:08	4.4	0	0	0	0	0	0	0	0	0	0
6/17/95	3	1	2.75	10:06	8.33	0	0	0	0	0	0	0	0	0	0
6/17/95	3	1	5	11:11	8.57	0	0	2	0	0	0	0	0	0	2
6/17/95	3	1	6.5	11:39	7.83	0	0	2	0	0	0	0	0	0	2
6/17/95	3	1	8.5	9:36	8.41	0	0	0	0	0	0	0	0	0	0
6/17/95	3	2	4	18:55	10.38	0	0	1	0	0	0	0	0	0	1
6/17/95	3	2	5	18:18	9.53	0	0	3	0	0	0	0	0	0	3
6/17/95	3	2	6.5	17:50	7.28	0	0	3	0	0	0	0	0	0	3
6/17/95	3	2	7.5	19:22	10.28	0	0	4	0	0	0	0	0	0	4
6/18/95	1	1	2.75	12:41	3.96	0	0	6	0	0	0	2	0	0	8
6/18/95	1	1	4	10:23	4.87	0	0	7	0	0	0	0	0	0	7
6/18/95	1	1	5	13:11	3.3	0	3	16	0	0	0	0	0	0	19
6/18/95	1	1	6.5	11:15	3.67	0	0	8	0	0	0	0	0	0	8
6/18/95	1	1	7.5	9:45	4.68	0	0	4	0	0	0	0	0	0	4
6/18/95	1	1	8.5	13:57	3.06	0	0	1	0	0	0	0	0	0	1
6/18/95	2	1	2.75	12:29	8.14	0	1	1	0	0	0	0	0	0	2
6/18/95	2	1	4	10:12	6.83	0	0	1	0	0	0	0	0	1	2
6/18/95	2	1	5	13:02	4.5	0	0	4	0	0	0	0	0	0	4
6/18/95	2	1	6.5	10:59	5.49	2	1	15	0	0	0	0	0	0	18
6/18/95	2	1	7.5	9:29	5.15	1	0	6	0	0	0	0	0	0	7
6/18/95	2	1	8.5	13:46	5.32	1	0	4	0	0	0	0	0	0	5
6/18/95	3	1	2.75	12:50	9.12	1	0	0	0	0	0	0	0	0	1
6/18/95	3	1	4	10:34	9.39	0	0	5	0	0	0	0	0	0	5
6/18/95	3	1	5	13:33	5.77	1	0	10	0	0	0	0	0	0	11
6/18/95	3	1	6.5	11:26	8.4	0	0	8	0	0	0	0	0	0	8
6/18/95	3	1	7.5	9:55	8.42	1	0	2	0	0	0	0	0	0	3
6/18/95	3	1	8.5	14:03	7.18	1	0	3	0	0	0	0	0	0	4
6/19/95	1	1	2.75	11:29	3.12	0	0	5	0	0	0	0	0	0	5
6/19/95	1	1	5	10:05	2.22	0	1	17	0	0	0	0	0	0	18
6/19/95	1	1	6.5	11:05	2.21	1	0	8	0	0	0	0	0	1	10
6/19/95	1	1	8.5	11:58	2.15	0	0	7	0	0	0	0	0	0	7
6/19/95	1	2	4	18:53	3.14	0	0	2	0	0	0	0	0	0	2
6/19/95	1	2	5	17:48	2.53	1	0	11	0	0	0	0	0	0	12
6/19/95	1	2	6.5	18:17	2.89	0	1	14	0	0	0	0	0	0	15
6/19/95	1	2	7.5	19:14	3.02	1	1	8	0	0	0	0	0	0	10
6/19/95	2	1	2.75	11:24	2.31	0	0	0	0	0	0	0	0	0	0

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
6/19/95	2	1	5	9:27	2.65	2	3	65	0	0	0	0	0	0	70
6/19/95	2	1	6.5	10:47	1.8	2	0	19	0	0	0	0	0	0	21
6/19/95	2	1	8.5	11:51	2.2	2	0	7	0	0	0	0	0	0	9
6/19/95	2	2	4	18:46	4.92	0	0	0	0	0	0	0	0	0	0
6/19/95	2	2	5	17:40	1.61	0	0	7	0	0	0	0	0	0	7
6/19/95	2	2	6.5	18:07	2.13	1	0	11	0	0	0	0	0	0	12
6/19/95	2	2	7.5	19:07	3.2	0	0	1	0	0	0	0	0	0	1
6/19/95	3	1	2.75	11:42	3.25	0	0	5	0	0	0	0	0	0	5
6/19/95	3	1	5	10:17	3.68	0	0	26	0	0	0	0	0	0	26
6/19/95	3	1	6.5	11:18	2.17	1	0	2	0	0	0	0	0	0	3
6/19/95	3	1	8.5	12:06	3.01	1	0	1	0	0	0	0	0	0	2
6/19/95	3	2	4	18:59	4.7	0	0	1	0	0	0	0	0	0	1
6/19/95	3	2	5	17:57	2.53	0	0	15	0	0	0	0	0	0	15
6/19/95	3	2	6.5	18:28	3.53	0	1	3	0	0	0	0	0	0	4
6/19/95	3	2	7.5	19:24	6.81	1	0	1	0	0	0	0	0	0	2
6/20/95	1	1	2.75	11:57	4.01	0	0	4	0	0	0	0	0	0	4
6/20/95	1	1	4	10:12	4.13	0	0	3	0	0	0	0	0	0	3
6/20/95	1	1	5	12:24	3.31	0	0	10	0	0	0	0	0	0	10
6/20/95	1	1	6.5	11:11	2.39	0	0	2	0	0	0	0	0	0	2
6/20/95	1	1	7.5	9:40	2.65	0	0	1	0	0	0	0	0	0	1
6/20/95	1	1	8.5	13:12	3.68	3	0	4	0	0	0	0	0	0	7
6/20/95	2	1	2.75	11:48	5.17	0	0	1	0	0	0	0	0	0	1
6/20/95	2	1	4	10:01	5.42	0	1	1	0	0	0	0	0	0	2
6/20/95	2	1	5	12:18	1.99	0	0	2	0	0	0	0	0	0	2
6/20/95	2	1	6.5	10:47	1.98	0	0	46	0	0	0	0	0	0	46
6/20/95	2	1	7.5	9:26	3.24	3	0	17	0	0	0	0	0	0	20
6/20/95	2	1	8.5	13:01	5.3	0	1	5	0	0	0	0	0	0	6
6/20/95	3	1	2.75	12:06	8.37	0	0	0	0	0	0	0	0	0	0
6/20/95	3	1	4	10:24	8.26	0	0	1	0	0	0	0	0	0	1
6/20/95	3	1	5	12:35	3.3	0	0	12	0	0	0	0	0	0	12
6/20/95	3	1	6.5	11:19	8.43	0	0	6	0	0	0	0	0	0	6
6/20/95	3	1	7.5	9:46	8.48	1	0	7	0	0	0	0	0	0	8
6/20/95	3	1	8.5	13:22	7.29	0	0	3	0	0	0	0	0	0	3
6/21/95	1	1	2.75	10:15	3.82	1	0	1	0	0	0	0	0	0	2
6/21/95	1	1	5	10:58	2.03	0	0	26	0	0	0	0	0	0	26
6/21/95	1	1	8.5	9:38	3.98	0	0	0	0	0	0	0	0	0	0
6/21/95	1	2	4	13:06	2.71	0	0	5	0	0	0	0	0	0	5
6/21/95	1	2	6.5	12:29	2.78	1	0	11	0	0	0	0	0	0	12
6/21/95	1	2	7.5	13:29	2.92	0	0	3	0	0	0	0	0	0	3
6/21/95	2	1	2.75	10:06	5.38	0	0	0	0	0	0	0	0	0	0
6/21/95	2	1	5	10:35	2.68	0	0	5	0	0	0	0	0	0	5
6/21/95	2	1	8.5	9:25	5.63	0	0	11	0	0	0	0	0	0	11
6/21/95	2	2	4	12:59	3.43	0	0	0	0	0	0	0	0	0	0
6/21/95	2	2	6.5	12:12	3.17	0	0	26	0	0	0	0	0	0	26
6/21/95	2	2	7.5	13:22	2.86	1	0	3	0	0	0	0	0	0	4
6/21/95	3	1	2.75	10:23	8.34	0	0	0	0	0	0	0	0	0	0
6/21/95	3	1	5	11:07	4.06	0	0	19	0	0	0	0	0	0	19
6/21/95	3	1	8.5	9:45	8.34	0	0	0	0	0	0	0	0	0	0
6/21/95	3	2	4	13:13	3.86	0	0	3	0	0	0	0	0	0	3
6/21/95	3	2	6.5	12:40	3.58	0	0	5	0	0	0	0	0	0	5

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
6/21/95	3	2	7.5	13:37	4.48	0	0	1	0	0	0	0	0	0	1
6/22/95	1	1	4	10:07	4.52	0	0	2	0	0	0	0	0	0	2
6/22/95	1	1	5	10:52	2.58	0	0	3	0	0	0	0	0	0	3
6/22/95	1	1	6.5	11:19	2.83	0	0	4	0	0	0	0	0	1	5
6/22/95	1	1	7.5	9:35	3.68	0	0	0	0	0	0	0	0	0	0
6/22/95	1	2	2.75	19:08	3.06	0	0	4	0	0	0	0	0	0	4
6/22/95	1	2	5	18:00	2.07	0	0	7	0	0	0	0	0	0	7
6/22/95	1	2	6.5	17:30	2.39	0	1	9	0	0	0	0	0	0	10
6/22/95	1	2	8.5	18:41	2.93	0	0	2	0	0	0	0	0	0	2
6/22/95	2	1	4	9:57	5.29	0	1	0	0	0	0	0	0	0	1
6/22/95	2	1	5	10:40	3.13	0	1	13	0	0	0	0	0	0	14
6/22/95	2	1	6.5	11:12	2.57	0	0	0	0	0	0	0	0	0	0
6/22/95	2	1	7.5	9:24	5.21	1	0	8	0	0	0	0	0	0	9
6/22/95	2	1	7.5	9:42	8.28	0	0	6	0	0	0	0	0	0	6
6/22/95	2	2	2.75	18:59	5.65	0	0	0	0	0	0	0	0	0	0
6/22/95	2	2	5	17:51	3.47	0	0	5	0	0	0	0	0	0	5
6/22/95	2	2	6.5	17:22	3.08	0	0	4	0	0	0	0	0	0	4
6/22/95	2	2	8.5	18:32	4.28	0	0	4	0	0	0	0	0	0	4
6/22/95	3	1	4	10:16	8.2	0	0	0	0	0	0	0	0	0	0
6/22/95	3	1	5	11:01	2.33	0	0	9	0	0	0	0	0	0	9
6/22/95	3	1	6.5	11:27	3.36	0	0	9	0	0	0	0	0	0	9
6/22/95	3	2	2.75	19:18	8.99	0	0	0	0	0	0	0	1	0	1
6/22/95	3	2	5	18:09	3.98	0	0	11	0	0	0	0	0	0	11
6/22/95	3	2	6.5	17:39	5.81	0	0	10	0	0	0	0	0	0	10
6/22/95	3	2	8.5	18:48	6.66	0	0	2	0	0	0	0	0	0	2
6/23/95	1	1	2.75	9:28	4.13	0	0	2	0	0	0	1	0	0	3
6/23/95	1	1	5	11:15	1.9	0	0	13	0	0	0	0	0	0	13
6/23/95	1	1	6.5	10:40	3.1	0	0	4	0	0	0	0	0	0	4
6/23/95	1	1	8.5	10:00	4.18	0	0	2	0	0	0	0	0	0	2
6/23/95	1	2	4	19:07	2.93	0	0	2	0	0	0	0	0	0	2
6/23/95	1	2	5	17:38	1.75	0	0	13	0	0	0	0	0	0	13
6/23/95	1	2	6.5	18:09	2.44	0	0	16	0	0	0	0	0	0	16
6/23/95	1	2	7.5	18:48	1.91	1	0	2	0	0	0	0	0	0	3
6/23/95	2	1	2.75	9:20	5.44	0	0	1	0	0	0	0	0	0	1
6/23/95	2	1	5	11:04	3.52	0	0	4	0	0	0	0	0	0	4
6/23/95	2	1	6.5	10:32	3.12	0	0	5	0	0	0	0	0	0	5
6/23/95	2	1	8.5	9:51	5.38	0	0	1	0	0	0	0	0	0	1
6/23/95	2	2	4	19:01	3.37	0	0	0	0	0	0	0	0	0	0
6/23/95	2	2	5	17:26	2.57	1	0	20	0	0	0	0	0	0	21
6/23/95	2	2	6.5	18:01	4.16	0	0	1	0	0	0	0	0	0	1
6/23/95	2	2	7.5	18:42	2.41	0	0	1	0	0	0	0	0	0	1
6/23/95	3	1	2.75	9:38	8.68	0	0	1	0	0	0	0	0	0	1
6/23/95	3	1	5	11:27	3.58	0	0	4	0	0	0	0	0	0	4
6/23/95	3	1	6.5	10:48	6.31	1	0	8	0	0	0	0	0	0	9
6/23/95	3	1	8.5	10:10	8.3	0	0	2	0	0	0	0	0	0	2
6/23/95	3	2	4	19:14	10.3	0	1	0	0	0	0	1	0	0	2
6/23/95	3	2	5	17:49	5.26	1	0	13	0	0	0	0	0	0	14
6/23/95	3	2	6.5	18:22	4.46	1	0	6	0	0	0	0	0	0	7
6/23/95	3	2	7.5	18:55	3.47	0	0	1	0	0	0	0	0	0	1
6/24/95	1	1	4	9:32	4.13	0	0	5	0	0	0	0	0	0	5

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
6/24/95	1	1	5	11:39	1.95	0	0	6	0	0	0	0	0	0	6
6/24/95	1	1	6.5	10:58	3.04	0	0	18	0	0	0	0	0	1	19
6/24/95	1	1	7.5	10:05	4.25	0	0	10	0	0	0	0	0	0	10
6/24/95	1	2	2.75	18:41	2.98	0	0	3	0	0	0	0	0	0	3
6/24/95	1	2	5	18:05	1.93	0	0	8	0	0	0	0	0	0	8
6/24/95	1	2	6.5	17:36	1.78	0	1	10	0	0	0	0	0	0	11
6/24/95	1	2	8.5	19:06	3.29	0	0	4	0	0	0	0	0	0	4
6/24/95	2	1	4	9:21	6.38	0	0	6	0	0	0	0	0	0	6
6/24/95	2	1	5	11:20	1.94	0	0	8	0	0	0	0	0	0	8
6/24/95	2	1	6.5	10:45	3.25	0	0	17	0	0	0	0	0	0	17
6/24/95	2	1	7.5	9:55	5.19	0	0	0	0	0	0	0	0	0	0
6/24/95	2	2	2.75	18:33	4.7	0	0	2	0	0	0	0	0	0	2
6/24/95	2	2	5	17:54	1.9	0	0	17	0	0	0	0	0	0	17
6/24/95	2	2	6.5	17:29	2.58	0	0	8	0	0	0	0	0	0	8
6/24/95	2	2	8.5	18:58	3.52	0	0	1	0	0	0	0	0	0	1
6/24/95	3	1	4	9:42	9.28	0	0	0	0	0	0	0	0	0	0
6/24/95	3	1	5	11:48	2.56	0	0	4	0	0	0	0	0	0	4
6/24/95	3	1	6.5	11:12	2.38	0	0	6	0	0	0	0	0	0	6
6/24/95	3	1	7.5	10:15	8.21	3	0	4	0	0	0	0	0	0	7
6/24/95	3	2	2.75	18:48	5.15	0	0	3	0	0	0	0	1	0	4
6/24/95	3	2	5	18:15	3.16	0	0	4	0	0	0	0	0	0	4
6/24/95	3	2	6.5	17:45	3.48	0	0	9	0	0	0	0	0	1	10
6/24/95	3	2	8.5	19:12	9.54	1	0	1	0	0	0	0	0	0	2
6/25/95	1	1	2.75	9:41	3.6	0	0	1	0	0	0	0	0	0	1
6/25/95	1	1	5	10:46	2.01	0	0	12	0	0	0	0	0	0	12
6/25/95	1	1	6.5	10:05	1.91	0	0	0	0	0	0	0	0	0	0
6/25/95	1	1	8.5	11:17	2.98	0	0	12	0	0	0	0	0	0	12
6/25/95	1	2	4	19:01	1.75	0	0	5	0	0	0	0	0	0	5
6/25/95	1	2	5	18:13	1.78	0	0	21	0	0	0	0	0	0	21
6/25/95	1	2	6.5	17:46	2.03	0	0	6	0	0	0	0	0	0	6
6/25/95	1	2	7.5	19:28	2.17	1	0	7	0	0	0	0	0	0	8
6/25/95	2	1	2.75	9:33	4.43	0	0	0	0	0	0	0	0	0	0
6/25/95	2	1	5	10:33	2.37	0	0	18	0	0	0	0	0	0	18
6/25/95	2	1	6.5	9:57	1.98	0	0	3	0	0	0	0	0	0	3
6/25/95	2	1	8.5	11:09	5.1	0	0	2	0	0	0	0	0	0	2
6/25/95	2	2	4	18:53	3.05	0	0	1	0	0	0	0	1	0	2
6/25/95	2	2	5	18:05	1.69	0	0	6	0	0	0	0	0	0	6
6/25/95	2	2	6.5	17:30	2.13	1	0	24	0	0	0	0	0	0	25
6/25/95	2	2	7.5	19:21	3.73	0	0	1	0	0	0	0	0	0	1
6/25/95	3	1	2.75	9:49	5.55	0	0	1	0	0	0	0	0	0	1
6/25/95	3	1	5	10:57	2.89	1	0	10	0	0	0	0	0	0	11
6/25/95	3	1	6.5	10:10	2.41	0	0	9	0	0	0	0	0	0	9
6/25/95	3	1	8.5	11:27	5.55	0	0	1	0	0	0	0	0	0	1
6/25/95	3	2	4	19:10	2.95	0	0	2	0	0	0	0	0	0	2
6/25/95	3	2	5	18:30	2.24	0	0	8	0	0	0	0	0	0	8
6/25/95	3	2	6.5	17:55	2.77	0	1	9	0	0	0	0	0	0	10
6/25/95	3	2	7.5	19:38	4.85	0	0	7	0	0	0	0	0	0	7
6/26/95	1	1	4	10:03	2.61	0	3	19	0	0	0	0	0	0	22
6/26/95	1	1	5	10:54	1.98	0	0	15	0	0	0	0	0	0	15
6/26/95	1	1	6.5	11:28	1.88	0	1	2	0	0	0	0	0	0	3

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore
[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
6/26/95	1	1	7.5	9:35	2.32	1	0	7	0	0	0	0	0	0	8
6/26/95	1	2	2.75	18:39	2.16	0	0	3	0	0	0	0	0	0	3
6/26/95	1	2	5	18:05	1.44	0	0	7	0	0	0	0	0	0	7
6/26/95	1	2	6.5	17:39	1.38	0	1	12	0	0	0	0	0	0	13
6/26/95	1	2	8.5	18:58	3.79	1	0	7	0	0	0	0	0	0	8
6/26/95	2	1	4	9:55	3.93	0	0	6	0	0	0	0	0	0	6
6/26/95	2	1	5	10:39	1.3	0	0	21	0	0	0	0	0	0	21
6/26/95	2	1	6.5	11:18	1.44	1	0	16	0	0	0	0	0	0	17
6/26/95	2	1	7.5	9:25	2.76	2	0	4	0	0	0	0	0	0	6
6/26/95	2	2	2.75	18:32	3.11	0	0	4	0	0	0	0	0	0	4
6/26/95	2	2	5	17:58	1.38	0	0	7	0	0	0	0	0	0	7
6/26/95	2	2	6.5	17:26	1.34	4	1	17	0	0	0	0	0	0	22
6/26/95	2	2	8.5	18:51	2.94	0	0	0	0	0	0	0	0	0	0
6/26/95	3	1	4	10:19	2.63	0	0	3	0	0	0	0	0	0	3
6/26/95	3	1	5	11:10	2.21	0	0	4	0	0	0	0	0	0	4
6/26/95	3	1	6.5	11:36	2.71	1	0	5	0	0	0	0	0	0	6
6/26/95	3	1	7.5	9:45	4.86	2	0	3	0	0	0	0	0	0	5
6/26/95	3	2	2.75	18:45	3.44	0	0	3	0	0	0	0	0	0	3
6/26/95	3	2	5	18:12	1.7	0	0	8	0	0	0	0	0	0	8
6/26/95	3	2	6.5	17:50	1.46	0	0	8	0	0	0	0	0	0	8
6/26/95	3	2	8.5	19:07	10.23	1	0	1	0	0	0	0	0	0	2
6/27/95	1	1	2.75	10:13	3.75	0	0	2	0	0	0	0	0	0	2
6/27/95	1	1	5	11:17	2.08	0	0	0	0	0	0	0	0	0	0
6/27/95	1	1	6.5	10:52	1.63	0	0	2	0	0	0	0	0	0	2
6/27/95	1	1	8.5	9:45	3.13	0	0	10	0	0	0	0	0	0	10
6/27/95	1	2	4	19:17	2.6	1	1	13	0	0	0	2	0	0	17
6/27/95	1	2	5	17:54	1.54	0	0	2	0	0	0	0	0	0	2
6/27/95	1	2	6.5	18:14	2.74	0	0	5	0	0	0	0	0	0	5
6/27/95	1	2	7.5	18:47	3.68	3	1	5	0	0	0	0	0	0	9
6/27/95	2	1	2.75	10:04	5.21	0	0	2	0	0	0	0	0	2	4
6/27/95	2	1	5	11:09	1.22	0	0	4	0	0	0	0	0	0	4
6/27/95	2	1	6.5	10:42	1.81	1	0	11	0	0	1	0	0	0	13
6/27/95	2	1	8.5	9:36	3.35	0	1	3	0	0	0	0	0	0	4
6/27/95	2	2	4	19:10	2.92	0	1	1	0	0	0	0	0	0	2
6/27/95	2	2	5	17:36	1.32	1	1	35	0	0	0	0	0	0	37
6/27/95	2	2	6.5	18:08	1.48	1	1	2	0	0	0	0	0	0	4
6/27/95	2	2	7.5	18:40	2.14	0	0	7	0	0	0	0	0	0	7
6/27/95	3	1	2.75	10:20	7.73	0	0	2	0	0	0	1	0	0	3
6/27/95	3	1	5	11:24	1.58	0	0	9	0	0	0	0	0	0	9
6/27/95	3	1	6.5	10:59	1.64	1	0	9	0	0	0	0	0	0	10
6/27/95	3	1	8.5	9:54	5.22	0	0	2	0	0	0	0	0	0	2
6/27/95	3	2	4	19:31	8.12	0	0	1	0	0	0	0	0	0	1
6/27/95	3	2	5	17:59	1.5	0	0	9	0	0	0	0	0	0	9
6/27/95	3	2	6.5	18:22	1.78	0	0	6	0	0	0	0	0	0	6
6/27/95	3	2	7.5	18:59	4.73	2	0	7	0	0	0	0	0	0	9
6/28/95	1	1	4	9:31	4.04	0	0	5	0	0	1	0	0	0	6
6/28/95	1	1	5	11:03	1.78	0	0	5	0	0	0	0	0	0	5
6/28/95	1	1	6.5	10:39	1.48	0	0	2	0	0	0	0	0	0	2
6/28/95	1	1	7.5	10:00	4.5	0	0	2	0	0	0	0	0	0	2
6/28/95	1	2	2.75	18:36	3.04	0	0	5	0	0	0	1	0	0	6

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
6/28/95	1	2	5	17:37	1.45	0	0	11	0	0	0	0	0	1	12
6/28/95	1	2	6.5	18:04	1.55	0	0	7	0	0	0	0	0	0	7
6/28/95	1	2	8.5	18:59	3.11	1	0	1	0	0	0	0	0	0	2
6/28/95	2	1	4	9:23	3.58	0	0	4	0	0	0	0	0	0	4
6/28/95	2	1	5	10:55	2.08	0	0	6	0	0	0	0	0	0	6
6/28/95	2	1	6.5	10:32	1.38	0	1	4	0	0	0	0	0	0	5
6/28/95	2	1	7.5	9:53	4.36	0	0	2	0	0	0	0	0	0	2
6/28/95	2	2	2.75	18:29	4.37	0	0	1	0	0	0	0	1	0	2
6/28/95	2	2	5	17:28	1.43	0	0	14	0	0	0	0	0	0	14
6/28/95	2	2	6.5	17:59	2.23	0	0	2	0	0	0	0	0	0	2
6/28/95	2	2	8.5	18:53	2.66	0	0	3	0	0	0	0	0	0	3
6/28/95	3	1	4	9:42	6	0	0	3	0	0	0	0	0	0	3
6/28/95	3	1	5	11:10	2.03	0	0	12	0	0	0	0	0	0	12
6/28/95	3	1	6.5	10:45	1.78	0	0	12	0	0	0	0	0	1	13
6/28/95	3	1	7.5	10:09	6.73	0	0	5	0	0	0	0	0	0	5
6/28/95	3	2	2.75	18:43	5.32	0	0	2	0	0	0	0	1	0	3
6/28/95	3	2	5	17:50	2.78	0	0	10	0	0	0	0	0	0	10
6/28/95	3	2	6.5	18:11	2.8	0	0	8	0	0	0	0	0	0	8
6/28/95	3	2	8.5	19:07	8.43	0	0	1	0	0	0	0	0	0	1
6/29/95	1	1	2.75	10:11	4.83	0	0	5	0	0	0	3	0	0	8
6/29/95	1	1	5	11:13	2.45	1	0	10	0	0	0	0	0	1	12
6/29/95	1	1	6.5	10:50	2.33	0	0	1	0	0	0	0	0	0	1
6/29/95	1	1	8.5	9:34	4.31	1	0	3	0	0	0	0	0	0	4
6/29/95	1	2	4	19:24	2.42	0	0	2	0	0	0	0	0	0	2
6/29/95	1	2	5	17:35	2.84	0	0	4	0	0	0	0	0	0	4
6/29/95	1	2	6.5	18:21	2.48	0	0	3	0	0	0	0	0	0	3
6/29/95	1	2	7.5	18:58	4.09	0	1	3	0	0	0	0	0	0	4
6/29/95	2	1	2.75	9:58	7.5	0	0	0	0	0	0	1	0	1	2
6/29/95	2	1	5	11:04	2.19	0	0	8	0	0	0	0	0	0	8
6/29/95	2	1	6.5	10:42	1.86	0	0	5	0	0	0	0	0	0	5
6/29/95	2	1	8.5	9:24	5.45	0	0	8	0	0	0	0	0	0	8
6/29/95	2	2	4	19:18	2.53	0	0	0	0	0	0	1	0	0	1
6/29/95	2	2	5	17:30	1.58	0	0	0	0	0	0	0	0	0	0
6/29/95	2	2	6.5	18:14	2.76	0	0	0	0	0	0	0	0	0	0
6/29/95	2	2	7.5	18:48	3.98	0	0	4	0	0	0	0	0	0	4
6/29/95	3	1	2.75	10:22	8.32	0	0	5	0	0	0	2	0	0	7
6/29/95	3	1	5	11:26	2.36	0	0	17	0	0	0	0	0	0	17
6/29/95	3	1	6.5	10:56	2.56	1	0	8	0	0	0	0	0	0	9
6/29/95	3	1	8.5	9:44	8.38	1	0	4	0	0	0	0	0	0	5
6/29/95	3	2	4	19:33	6.67	0	0	3	0	0	0	0	0	0	3
6/29/95	3	2	5	17:44	3.96	0	0	8	0	0	0	0	0	0	8
6/29/95	3	2	6.5	18:29	3.14	0	0	13	0	0	0	0	0	0	13
6/29/95	3	2	7.5	19:07	6.01	0	0	4	0	0	0	0	0	0	4
6/30/95	1	1	4	9:31	3.72	0	0	2	0	0	0	1	0	0	3
6/30/95	1	1	5	11:39	2.48	0	0	5	0	0	0	0	0	0	5
6/30/95	1	1	6.5	11:13	2.92	0	0	7	0	0	0	0	0	0	7
6/30/95	1	1	7.5	10:26	4.03	2	0	1	0	0	0	0	0	0	3
6/30/95	1	2	2.75	18:34	4.82	0	0	2	0	0	0	2	0	0	4
6/30/95	1	2	5	17:36	2.25	0	1	1	0	0	0	0	0	0	2
6/30/95	1	2	6.5	17:58	2.63	0	0	3	0	0	0	0	0	0	3

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
6/30/95	1	2	8.5	19:06	3.48	2	0	1	0	0	0	0	0	0	3
6/30/95	2	1	4	9:23	4.28	0	0	5	0	0	0	0	0	0	5
6/30/95	2	1	5	11:31	3.27	0	0	5	0	0	0	0	0	0	5
6/30/95	2	1	6.5	11:04	2.29	0	0	1	0	0	0	0	0	0	1
6/30/95	2	1	7.5	9:55	4.74	0	0	1	0	0	0	0	0	0	1
6/30/95	2	2	2.75	18:24	7.33	0	0	0	0	0	0	0	1	0	1
6/30/95	2	2	5	17:25	2.22	0	0	15	0	0	0	0	0	0	15
6/30/95	2	2	6.5	17:52	2.17	0	0	0	0	0	0	0	0	0	0
6/30/95	2	2	8.5	18:56	7.07	0	0	1	0	0	0	0	0	0	1
6/30/95	3	1	4	9:43	6.79	0	0	2	0	0	0	0	0	0	2
6/30/95	3	1	5	11:46	3.36	0	0	12	0	0	0	0	0	0	12
6/30/95	3	1	6.5	11:22	2.37	0	0	10	0	0	0	0	0	0	10
6/30/95	3	1	7.5	10:35	8.86	1	0	7	0	0	0	0	0	0	8
6/30/95	3	2	2.75	18:44	8.07	0	0	0	0	0	0	0	0	0	0
6/30/95	3	2	5	17:43	1.3	0	0	13	0	0	0	1	0	0	14
6/30/95	3	2	6.5	18:05	4.28	0	0	2	0	0	0	0	0	0	2
6/30/95	3	2	8.5	19:20	9.9	0	0	4	0	0	0	0	0	0	4
7/1/95	1	1	2.75	10:16	4.53	0	0	1	0	0	0	0	0	0	1
7/1/95	1	1	5	11:30	3.63	0	1	20	0	0	0	0	0	0	21
7/1/95	1	1	6.5	11:03	3.78	0	0	4	0	0	0	0	0	0	4
7/1/95	1	1	8.5	9:35	4.89	2	0	3	0	0	0	0	0	0	5
7/1/95	1	2	4	18:43	4.23	0	0	2	0	0	0	1	1	0	4
7/1/95	1	2	5	17:35	2.41	0	0	1	0	0	0	0	0	0	1
7/1/95	1	2	6.5	18:01	3.68	0	0	2	0	0	0	0	0	0	2
7/1/95	1	2	7.5	19:17	3.85	0	0	2	0	0	0	0	0	0	2
7/1/95	2	1	2.75	10:02	6.02	0	0	0	0	0	0	1	0	0	1
7/1/95	2	1	5	11:19	5.07	0	0	4	0	0	0	0	0	0	4
7/1/95	2	1	6.5	10:54	4.38	0	0	1	0	0	0	1	0	0	2
7/1/95	2	1	8.5	9:24	6.58	0	0	0	0	0	0	0	0	0	0
7/1/95	2	2	4	18:32	6.63	0	0	0	0	0	0	1	0	0	1
7/1/95	2	2	5	17:22	3.58	0	0	2	0	0	0	0	0	0	2
7/1/95	2	2	6.5	17:52	5.06	0	0	1	0	0	0	0	0	0	1
7/1/95	2	2	7.5	19:08	5.3	0	0	0	0	0	0	0	0	0	0
7/1/95	3	1	2.75	10:24	8.89	0	0	0	0	0	0	1	2	0	3
7/1/95	3	1	5	11:45	2.41	0	0	5	0	0	0	0	0	0	5
7/1/95	3	1	6.5	11:11	3.84	0	0	2	0	0	0	0	0	0	2
7/1/95	3	1	8.5	9:50	7.9	0	0	1	0	0	0	0	0	0	1
7/1/95	3	2	4	18:53	8.38	0	0	2	0	0	0	0	0	0	2
7/1/95	3	2	5	17:39	4.96	0	0	18	0	0	0	0	0	0	18
7/1/95	3	2	6.5	18:09	7.55	0	0	1	0	0	0	0	0	0	1
7/1/95	3	2	7.5	19:25	8.54	0	0	0	0	0	0	0	0	0	0
7/2/95	1	1	4	10:07	5.31	0	0	4	0	0	0	1	0	0	5
7/2/95	1	1	5	11:20	3.41	0	0	6	0	0	0	0	0	0	6
7/2/95	1	1	6.5	10:51	3.56	0	0	1	0	0	0	0	0	0	1
7/2/95	1	1	7.5	9:31	4.25	0	0	0	0	0	0	0	0	0	0
7/2/95	1	2	2.75	19:17	3.41	0	0	2	0	0	0	1	3	0	6
7/2/95	1	2	5	17:37	3.6	0	0	4	0	0	0	0	0	0	4
7/2/95	1	2	6.5	18:10	3.68	0	0	13	0	0	0	0	0	0	13
7/2/95	1	2	8.5	18:50	3.52	0	0	1	0	0	0	0	0	0	1
7/2/95	2	1	4	9:57	6.58	0	0	0	0	0	0	0	0	0	0

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore
[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
7/2/95	2	1	5	11:10	5.45	0	0	0	0	0	0	0	0	0	0
7/2/95	2	1	6.5	10:41	5.45	0	0	2	0	0	0	0	0	0	2
7/2/95	2	1	7.5	9:22	5.36	1	0	0	0	0	0	0	0	0	1
7/2/95	2	2	2.75	19:08	4.74	0	0	0	0	0	0	1	1	0	2
7/2/95	2	2	5	17:28	5.59	0	0	0	0	0	0	0	0	0	0
7/2/95	2	2	6.5	18:02	4.79	0	0	0	0	0	0	0	0	0	0
7/2/95	2	2	8.5	18:41	5.43	0	0	0	0	0	0	0	0	0	0
7/2/95	3	1	4	10:20	8.38	0	0	0	0	0	0	0	0	0	0
7/2/95	3	1	5	11:30	8.7	0	0	7	0	0	0	0	0	0	7
7/2/95	3	1	6.5	10:58	8.45	0	0	4	0	0	0	0	0	0	4
7/2/95	3	1	7.5	9:39	9.52	2	1	3	0	0	0	0	0	0	6
7/2/95	3	2	2.75	19:26	8.17	0	0	0	0	0	0	0	1	0	1
7/2/95	3	2	5	17:45	8.93	0	0	15	0	0	0	1	0	0	16
7/2/95	3	2	6.5	18:22	7.58	0	0	2	0	0	0	0	0	0	2
7/2/95	3	2	8.5	18:57	8.15	0	0	0	0	0	0	0	0	0	0
7/3/95	1	1	2.75	9:34	4.54	0	0	1	0	0	0	0	1	0	2
7/3/95	1	1	5	10:55	3.75	0	0	12	0	0	0	0	0	0	12
7/3/95	1	1	6.5	11:41	2.94	0	0	3	0	0	0	0	0	0	3
7/3/95	1	1	8.5	10:12	3.63	0	0	1	0	0	0	0	0	0	1
7/3/95	1	2	4	18:15	3.66	0	0	2	0	0	0	0	0	0	2
7/3/95	1	2	7.5	18:41	3.48	0	0	0	0	0	0	0	0	0	0
7/3/95	2	1	2.75	9:24	6.05	0	0	0	0	0	0	0	2	1	3
7/3/95	2	1	5	10:46	5.21	0	0	0	0	0	0	0	0	0	0
7/3/95	2	1	6.5	11:31	4.79	0	0	1	0	0	0	0	0	1	2
7/3/95	2	1	8.5	9:56	6.29	0	0	1	0	0	0	0	0	0	1
7/3/95	2	2	4	18:06	6.21	0	0	0	0	0	0	0	0	0	0
7/3/95	2	2	7.5	18:32	5.43	0	0	2	0	0	0	0	0	0	2
7/3/95	3	1	2.75	9:43	8.58	0	0	2	0	0	0	0	0	0	2
7/3/95	3	1	5	11:07	6.71	0	0	32	0	0	0	0	0	0	32
7/3/95	3	1	6.5	11:53	3.59	0	0	4	0	0	0	0	0	0	4
7/3/95	3	1	8.5	10:20	9.63	0	0	2	0	0	0	0	0	0	2
7/3/95	3	2	4	18:22	7.43	0	0	1	0	0	0	0	0	0	1
7/3/95	3	2	7.5	18:48	10.32	1	0	4	0	0	0	0	0	0	5
7/4/95	1	1	4	10:03	4.13	0	0	8	0	0	0	0	0	0	8
7/4/95	1	1	5	10:42	1.93	0	0	1	0	0	0	0	0	0	1
7/4/95	1	1	6.5	11:11	2.6	0	0	4	0	0	0	0	0	0	4
7/4/95	1	1	7.5	9:32	3.01	0	0	5	0	0	0	0	0	0	5
7/4/95	1	2	2.75	18:41	4.18	0	0	1	0	0	0	0	2	0	3
7/4/95	1	2	5	18:04	2.76	1	0	1	0	0	0	0	0	0	2
7/4/95	1	2	6.5	17:32	3.27	0	0	8	0	0	0	0	0	0	8
7/4/95	1	2	8.5	19:10	3.82	1	0	2	0	0	0	0	0	0	3
7/4/95	2	1	4	9:51	4.91	0	0	1	0	0	0	2	0	0	3
7/4/95	2	1	5	10:33	4.38	0	0	5	0	0	0	0	0	0	5
7/4/95	2	1	6.5	11:02	5.38	0	0	1	0	0	0	0	0	0	1
7/4/95	2	1	7.5	9:23	5.64	0	0	2	0	0	0	0	0	0	2
7/4/95	2	2	2.75	18:29	7.73	0	0	0	0	0	0	0	0	0	0
7/4/95	2	2	5	17:53	5.36	0	0	2	0	0	0	0	0	0	2
7/4/95	2	2	6.5	17:23	1.78	0	0	2	0	0	0	0	0	0	2
7/4/95	2	2	8.5	19:02	4.37	0	0	3	0	0	0	0	0	0	3
7/4/95	3	1	4	10:14	7.42	0	0	2	0	0	0	0	0	0	2

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
7/4/95	3	1	5	10:47	2.42	0	0	25	0	0	0	0	0	0	25
7/4/95	3	1	6.5	11:20	1.83	1	0	4	0	0	0	0	0	0	5
7/4/95	3	1	7.5	9:40	6.38	1	0	3	0	0	0	0	0	0	4
7/4/95	3	2	2.75	18:50	8.68	0	0	1	0	0	0	0	0	0	1
7/4/95	3	2	5	18:11	1.36	0	0	4	0	0	0	0	0	0	4
7/4/95	3	2	6.5	17:44	2.4	0	0	12	0	0	0	0	0	0	12
7/4/95	3	2	8.5	19:19	5.24	0	0	0	0	0	0	0	0	0	0
7/5/95	1	1	2.75	10:04	3.86	0	0	0	0	0	0	0	2	0	2
7/5/95	1	1	5	11:11	2.67	1	0	7	0	0	0	0	0	0	8
7/5/95	1	1	6.5	10:47	2.83	0	0	4	0	0	0	0	0	0	4
7/5/95	1	1	8.5	9:35	4.02	0	0	0	0	0	0	0	0	0	0
7/5/95	1	2	4	18:41	2.93	0	0	4	0	0	0	0	0	0	4
7/5/95	1	2	5	17:30	2.63	0	0	8	0	0	0	0	0	0	8
7/5/95	1	2	6.5	18:02	2.62	0	0	10	0	0	0	0	0	1	11
7/5/95	1	2	7.5	19:09	2.71	0	0	5	0	0	0	0	0	0	5
7/5/95	2	1	2.75	9:55	6.03	0	0	0	0	0	0	0	0	0	0
7/5/95	2	1	5	11:00	5.6	0	0	5	0	0	0	0	0	0	5
7/5/95	2	1	6.5	10:36	5.28	0	0	2	0	0	0	0	0	0	2
7/5/95	2	1	8.5	9:25	6.23	0	0	1	0	0	0	0	0	0	1
7/5/95	2	2	4	18:32	5.27	0	0	0	0	0	0	0	0	1	1
7/5/95	2	2	5	17:21	4.77	0	0	3	0	0	0	1	0	0	4
7/5/95	2	2	6.5	17:51	6.8	0	0	1	0	0	0	0	0	0	1
7/5/95	2	2	7.5	19:00	5.87	0	0	1	0	0	0	0	0	0	1
7/5/95	3	1	2.75	10:11	8.43	0	0	1	0	0	0	1	0	0	2
7/5/95	3	1	5	11:22	1.88	0	0	5	0	0	0	0	0	0	5
7/5/95	3	1	6.5	10:54	1.75	0	0	4	0	0	0	0	0	0	4
7/5/95	3	1	8.5	9:42	8.5	0	0	4	0	0	0	0	0	0	4
7/5/95	3	2	4	18:49	7.38	0	0	1	0	0	0	0	0	0	1
7/5/95	3	2	5	17:39	2.52	0	0	19	0	0	0	0	0	0	19
7/5/95	3	2	6.5	18:15	3.51	0	0	3	0	0	0	0	0	0	3
7/5/95	3	2	7.5	19:18	6.57	1	0	2	0	0	0	0	0	0	3
7/6/95	1	1	4	10:07	3.91	0	0	1	0	0	0	0	0	0	1
7/6/95	1	1	5	11:13	2.06	0	0	8	0	0	0	0	0	0	8
7/6/95	1	1	6.5	10:49	2.5	0	0	1	0	0	0	0	0	0	1
7/6/95	1	1	7.5	9:36	3.82	0	0	2	0	0	0	0	0	0	2
7/6/95	1	2	2.75	19:08	2.65	0	0	2	0	0	0	0	0	0	2
7/6/95	1	2	5	17:36	2.43	0	1	14	0	0	0	0	0	0	15
7/6/95	1	2	6.5	18:06	2.18	0	0	5	0	0	0	0	0	0	5
7/6/95	1	2	8.5	18:42	3.35	0	0	0	0	0	0	0	0	0	0
7/6/95	2	1	4	9:57	6.59	0	0	0	0	0	0	0	0	0	0
7/6/95	2	1	5	11:03	5.53	0	0	2	0	0	0	1	0	0	3
7/6/95	2	1	6.5	10:39	5.5	0	0	3	0	0	0	0	0	0	3
7/6/95	2	1	7.5	9:25	6.43	0	0	3	0	0	0	0	0	0	3
7/6/95	2	2	2.75	18:59	5.88	0	0	0	0	0	0	0	2	0	2
7/6/95	2	2	5	17:26	4.43	0	0	9	0	0	0	0	0	0	9
7/6/95	2	2	6.5	17:59	3.51	0	0	3	0	0	0	0	0	0	3
7/6/95	2	2	8.5	18:33	4.72	0	0	1	0	0	0	0	0	0	1
7/6/95	3	1	4	10:16	8.63	0	0	4	0	0	0	0	0	0	4
7/6/95	3	1	5	11:23	1.73	0	0	5	0	0	0	0	0	0	5
7/6/95	3	1	6.5	10:56	2	0	0	5	0	0	0	0	0	0	5

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
7/6/95	3	1	7.5	9:44	8.38	0	0	6	0	0	0	0	0	0	6
7/6/95	3	2	2.75	19:14	9.56	0	0	1	0	0	0	0	0	0	1
7/6/95	3	2	5	17:47	2.33	0	0	13	0	0	0	0	0	0	13
7/6/95	3	2	6.5	18:14	4.09	0	0	2	0	0	0	0	0	0	2
7/6/95	3	2	8.5	18:50	7.38	0	0	0	0	0	0	0	0	0	0
7/7/95	1	1	2.75	9:37	3.78	0	0	2	0	0	0	0	1	0	3
7/7/95	1	1	5	11:31	1.78	0	0	4	0	0	0	0	0	0	4
7/7/95	1	1	6.5	10:58	2.95	0	0	1	0	0	0	0	0	0	1
7/7/95	1	1	8.5	10:11	3.42	0	0	1	0	0	0	0	0	0	1
7/7/95	1	2	4	19:05	2.79	0	0	1	0	0	1	0	0	0	2
7/7/95	1	2	5	17:37	2.03	0	0	4	0	0	0	0	0	0	4
7/7/95	1	2	6.5	18:08	2.42	0	0	0	0	0	0	0	0	0	0
7/7/95	1	2	7.5	18:39	3.3	0	0	0	0	0	0	0	0	0	0
7/7/95	2	1	2.75	9:27	6.32	0	0	2	0	0	0	1	3	0	6
7/7/95	2	1	5	11:21	5.4	0	0	4	0	0	0	1	0	0	5
7/7/95	2	1	6.5	10:49	5.21	0	0	1	0	0	0	0	0	0	1
7/7/95	2	1	8.5	9:59	5.49	0	0	1	0	0	0	0	0	0	1
7/7/95	2	2	4	18:57	5.38	0	0	1	0	0	0	0	0	0	1
7/7/95	2	2	5	17:27	4.52	0	0	6	0	0	0	0	0	0	6
7/7/95	2	2	6.5	18:00	4.8	0	0	3	0	0	0	0	0	0	3
7/7/95	2	2	7.5	18:31	5.46	0	0	1	0	0	0	0	0	0	1
7/7/95	3	1	2.75	9:47	8.48	0	0	0	0	0	0	0	1	0	1
7/7/95	3	1	5	11:43	3.38	0	0	4	0	0	0	0	0	0	4
7/7/95	3	1	6.5	11:10	2.53	0	0	4	0	0	0	0	0	0	4
7/7/95	3	1	8.5	10:20	8.89	1	0	2	0	0	0	0	0	0	3
7/7/95	3	2	4	19:13	8.49	0	0	5	0	0	0	0	0	0	5
7/7/95	3	2	5	17:45	2.85	0	0	19	0	0	0	0	0	0	19
7/7/95	3	2	6.5	18:13	2.78	0	0	3	0	0	0	0	0	0	3
7/7/95	3	2	7.5	18:47	7.43	1	0	1	0	0	0	0	0	0	2
7/8/95	1	1	4	9:37	2.9	0	0	7	0	0	0	0	0	0	7
7/8/95	1	1	5	10:55	1.73	0	0	5	0	0	0	0	0	0	5
7/8/95	1	1	6.5	10:33	2.44	0	0	1	0	0	0	0	0	0	1
7/8/95	1	1	7.5	10:02	3.33	0	0	3	0	0	0	0	0	0	3
7/8/95	1	2	2.75	18:41	3.72	0	0	0	0	0	0	1	0	0	1
7/8/95	1	2	5	17:26	2.67	0	0	11	0	0	0	0	0	0	11
7/8/95	1	2	6.5	17:55	2	0	0	3	0	0	0	0	0	0	3
7/8/95	1	2	8.5	19:10	3.49	0	0	0	0	0	0	0	0	0	0
7/8/95	2	1	4	9:27	5.78	0	0	2	0	0	0	1	0	0	3
7/8/95	2	1	5	10:45	5.65	0	0	3	0	0	0	0	0	0	3
7/8/95	2	1	6.5	10:25	5.31	0	0	0	0	0	0	0	0	0	0
7/8/95	2	1	7.5	9:53	5.26	0	0	0	0	0	0	0	0	0	0
7/8/95	2	2	2.75	18:29	5.71	0	0	1	0	0	0	1	2	0	4
7/8/95	2	2	5	17:18	3.67	0	0	3	0	0	0	1	0	0	4
7/8/95	2	2	6.5	17:47	4.28	0	0	2	0	0	0	0	0	0	2
7/8/95	2	2	8.5	19:00	5.68	1	0	1	0	0	0	0	0	0	2
7/8/95	3	1	4	9:44	6.43	0	0	4	0	0	0	0	0	0	4
7/8/95	3	1	5	11:02	2.52	0	0	2	0	0	0	0	0	0	2
7/8/95	3	1	6.5	10:40	1.72	0	0	3	0	0	0	0	0	0	3
7/8/95	3	1	7.5	10:09	8.37	0	0	1	0	0	0	0	0	0	1
7/8/95	3	2	2.75	18:49	8.35	0	0	1	0	0	0	1	0	0	2

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
7/8/95	3	2	5	17:36	3.14	0	0	7	0	0	0	0	0	0	7
7/8/95	3	2	6.5	18:06	2.63	0	0	5	0	0	0	0	0	0	5
7/8/95	3	2	8.5	19:17	8.56	1	0	3	0	0	0	0	0	0	4
7/9/95	1	1	2.75	10:16	6.38	0	0	3	0	0	0	1	1	0	5
7/9/95	1	1	5	11:27	3.94	0	0	9	0	0	0	0	0	0	9
7/9/95	1	1	6.5	10:56	4.11	0	0	3	0	0	0	0	0	0	3
7/9/95	1	1	8.5	9:40	5.09	1	0	0	0	0	0	0	0	0	1
7/9/95	1	2	4	19:30	4.65	0	0	2	0	0	0	0	0	0	2
7/9/95	1	2	5	17:36	3.99	0	0	20	0	0	0	0	0	0	20
7/9/95	1	2	6.5	18:13	6	1	0	8	0	0	0	0	0	0	9
7/9/95	1	2	7.5	18:56	4.93	0	0	1	0	0	0	0	0	0	1
7/9/95	2	1	2.75	10:07	5.79	0	0	0	0	0	0	0	2	0	2
7/9/95	2	1	5	11:16	6.14	0	0	4	0	0	1	0	0	0	5
7/9/95	2	1	6.5	10:46	5.47	0	0	1	0	0	0	0	0	0	1
7/9/95	2	1	8.5	9:29	6.33	0	0	2	0	0	0	0	0	0	2
7/9/95	2	2	4	19:16	7.37	0	0	0	0	0	0	0	1	0	1
7/9/95	2	2	5	17:26	6.39	0	0	1	0	0	0	0	0	0	1
7/9/95	2	2	6.5	18:04	5.11	0	0	0	0	0	0	0	0	0	0
7/9/95	2	2	7.5	18:47	5.8	0	0	0	0	0	0	0	0	0	0
7/9/95	3	1	2.75	10:27	9.88	0	0	1	0	0	0	0	0	0	1
7/9/95	3	1	5	11:38	6.61	0	0	8	0	0	0	0	0	0	8
7/9/95	3	1	6.5	11:05	6.45	0	0	1	0	0	0	0	0	0	1
7/9/95	3	1	8.5	9:49	10.3	0	0	0	0	0	0	0	0	0	0
7/9/95	3	2	4	19:40	11.38	0	0	1	0	0	0	0	1	0	2
7/9/95	3	2	5	17:51	9.3	0	0	3	0	0	0	0	0	0	3
7/9/95	3	2	6.5	18:26	8.68	1	0	4	0	0	0	0	0	0	5
7/9/95	3	2	7.5	19:05	7.27	0	0	0	0	0	0	0	0	0	0
7/10/95	1	1	4	9:40	3.4	0	0	0	0	0	0	0	0	0	0
7/10/95	1	1	5	11:28	4.03	0	0	8	0	0	0	2	0	0	10
7/10/95	1	1	6.5	10:51	4.13	0	0	4	0	0	0	0	0	0	4
7/10/95	1	1	7.5	10:09	3.78	1	0	0	0	0	0	0	0	0	1
7/10/95	1	2	2.75	18:50	3.43	0	0	1	0	0	0	0	1	0	2
7/10/95	1	2	5	17:37	3.68	0	1	4	0	0	0	0	0	0	5
7/10/95	1	2	6.5	18:11	3.2	0	0	0	0	0	0	0	0	0	0
7/10/95	1	2	8.5	19:22	3.89	0	0	0	0	0	0	0	0	0	0
7/10/95	2	1	4	9:31	5.24	0	0	0	0	0	0	0	0	0	0
7/10/95	2	1	5	11:17	5.19	0	0	1	0	0	0	1	0	0	2
7/10/95	2	1	6.5	10:40	5.2	0	0	1	0	0	0	0	0	0	1
7/10/95	2	1	7.5	9:59	5.06	0	0	0	0	0	0	0	0	0	0
7/10/95	2	2	2.75	18:39	5.95	0	0	0	0	0	0	1	1	0	2
7/10/95	2	2	5	17:27	5.36	0	0	1	0	0	0	0	0	0	1
7/10/95	2	2	6.5	18:02	5.26	0	0	0	0	0	0	0	0	0	0
7/10/95	2	2	8.5	19:12	6.21	0	0	0	0	0	0	0	0	0	0
7/10/95	3	1	4	9:47	8.18	0	0	0	0	0	0	0	0	0	0
7/10/95	3	1	5	11:42	7.5	0	0	6	0	0	0	1	0	0	7
7/10/95	3	1	6.5	11:01	6.1	1	0	4	0	0	0	0	0	0	5
7/10/95	3	1	7.5	10:18	8.43	0	0	2	0	0	0	0	0	0	2
7/10/95	3	2	2.75	18:58	9.39	0	0	0	0	0	0	0	2	0	2
7/10/95	3	2	5	17:51	5.61	0	0	6	0	0	0	0	0	0	6
7/10/95	3	2	6.5	18:17	6.42	0	0	0	0	0	0	0	0	0	0

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore
[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
7/10/95	3	2	8.5	19:30	9.08	0	0	1	0	0	0	0	0	0	1
7/11/95	1	1	2.75	10:27	4.14	0	0	4	0	0	0	0	2	0	6
7/11/95	1	1	5	11:52	3.63	0	0	8	0	0	0	0	0	0	8
7/11/95	1	1	6.5	11:18	4.14	0	0	10	0	0	0	0	0	0	10
7/11/95	1	1	8.5	9:43	4.83	1	0	6	0	0	0	0	0	0	7
7/11/95	1	2	4	19:18	4.61	0	0	2	0	0	0	1	0	0	3
7/11/95	1	2	5	17:46	3.35	0	0	18	0	0	0	0	0	0	18
7/11/95	1	2	6.5	18:36	3.92	0	0	3	0	0	0	0	0	0	3
7/11/95	1	2	7.5	19:52	3.08	0	1	7	0	0	0	0	0	0	8
7/11/95	2	1	2.75	10:15	5.3	0	0	0	0	0	1	0	2	0	3
7/11/95	2	1	5	11:40	5.56	0	0	6	0	0	0	1	0	0	7
7/11/95	2	1	6.5	11:09	5.29	0	0	0	0	0	0	0	0	0	0
7/11/95	2	1	8.5	9:33	5.73	0	0	0	0	0	0	0	0	0	0
7/11/95	2	2	4	19:08	5.83	0	0	1	0	0	0	0	0	0	1
7/11/95	2	2	5	17:32	6.31	0	0	6	0	0	0	0	0	0	6
7/11/95	2	2	6.5	18:26	5.67	0	0	2	0	0	0	0	0	0	2
7/11/95	2	2	7.5	19:41	6.33	0	0	0	0	0	0	0	0	0	0
7/11/95	3	1	2.75	10:38	8.56	0	0	1	0	0	0	0	1	0	2
7/11/95	3	1	5	12:04	5.68	0	0	6	0	0	0	1	0	0	7
7/11/95	3	1	6.5	11:31	5.89	0	0	1	0	0	0	0	0	0	1
7/11/95	3	1	8.5	9:57	8.28	0	0	7	0	0	0	0	0	0	7
7/11/95	3	2	4	19:29	7.83	0	0	1	0	0	0	0	0	0	1
7/11/95	3	2	5	18:02	6.76	0	0	25	0	0	0	0	0	0	25
7/11/95	3	2	6.5	18:45	4.24	0	0	5	0	0	0	0	0	0	5
7/11/95	3	2	7.5	20:04	7.68	1	0	1	0	0	0	0	0	0	2
7/12/95	1	1	4	10:16	4.43	0	0	4	0	0	0	0	1	0	5
7/12/95	1	1	5	11:44	2.73	0	0	14	0	0	0	0	0	0	14
7/12/95	1	1	6.5	10:59	4.32	0	0	12	0	0	0	0	0	0	12
7/12/95	1	1	7.5	9:39	4.24	0	0	2	0	0	0	0	0	0	2
7/12/95	1	2	2.75	18:09	4.1	0	0	1	0	0	0	0	0	0	1
7/12/95	1	2	5	19:35	3.27	0	0	7	0	0	0	0	0	0	7
7/12/95	1	2	6.5	20:10	2.78	0	0	3	0	0	0	0	0	0	3
7/12/95	1	2	8.5	18:43	5.24	0	0	1	0	0	0	0	0	0	1
7/12/95	2	1	4	10:03	5.79	0	0	0	0	0	0	3	1	0	4
7/12/95	2	1	5	11:34	3.98	0	0	1	0	0	0	0	0	0	1
7/12/95	2	1	6.5	10:50	5.95	0	0	1	0	0	0	0	0	0	1
7/12/95	2	1	7.5	9:26	5.68	1	0	1	0	0	0	0	0	0	2
7/12/95	2	2	2.75	17:59	6.17	0	0	0	0	0	0	0	0	0	0
7/12/95	2	2	5	19:25	4.93	0	0	1	0	0	1	2	0	0	4
7/12/95	2	2	6.5	20:01	5.46	0	0	1	0	0	0	0	0	0	1
7/12/95	2	2	8.5	18:32	6.53	0	0	0	0	0	0	0	0	0	0
7/12/95	3	1	4	10:27	9.03	0	0	1	0	0	0	1	0	0	2
7/12/95	3	1	5	11:59	4.23	0	0	9	0	0	0	0	0	0	9
7/12/95	3	1	6.5	11:16	7.87	0	0	14	0	0	0	0	0	0	14
7/12/95	3	1	7.5	9:48	8.57	0	0	4	0	0	0	0	0	0	4
7/12/95	3	2	2.75	18:19	8.97	0	0	1	0	0	0	0	0	0	1
7/12/95	3	2	5	19:48	4.58	0	0	7	0	0	0	0	0	0	7
7/12/95	3	2	6.5	20:18	5.42	0	0	2	0	0	0	0	0	0	2
7/12/95	3	2	8.5	18:54	10.03	0	0	1	0	0	0	0	0	0	1
7/13/95	1	1	2.75	10:48	4.64	0	0	0	0	0	0	0	2	0	2

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore
[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
7/13/95	1	1	5	10:06	4.62	0	0	8	0	0	0	0	0	0	8
7/13/95	1	1	6.5	9:36	4.51	0	0	3	0	0	0	0	0	0	3
7/13/95	1	1	8.5	11:20	4.16	1	0	2	0	0	0	0	0	0	3
7/13/95	1	2	4	18:53	4.45	0	0	0	0	0	0	0	1	0	1
7/13/95	1	2	5	17:57	6.03	0	0	9	0	0	1	0	0	0	10
7/13/95	1	2	6.5	17:30	4.32	0	0	1	0	0	0	0	0	0	1
7/13/95	1	2	7.5	19:21	5.23	0	0	1	0	0	0	0	0	0	1
7/13/95	2	1	2.75	10:38	5.96	0	0	1	0	0	0	0	1	0	2
7/13/95	2	1	5	9:55	5.43	0	0	2	0	0	0	0	0	0	2
7/13/95	2	1	6.5	9:27	5.4	0	0	1	0	0	0	0	0	0	1
7/13/95	2	1	8.5	11:10	5.89	0	0	0	0	0	0	0	0	0	0
7/13/95	2	2	4	18:43	4.06	0	0	0	0	0	0	1	1	0	2
7/13/95	2	2	5	17:49	5.39	0	0	0	0	0	0	0	0	0	0
7/13/95	2	2	6.5	17:20	5.37	0	0	2	0	0	0	0	0	0	2
7/13/95	2	2	7.5	19:13	4.58	0	0	0	0	0	0	0	0	0	0
7/13/95	3	1	2.75	10:57	8.28	0	0	1	0	0	0	0	0	0	1
7/13/95	3	1	5	10:17	5.32	0	0	4	0	0	0	0	0	0	4
7/13/95	3	1	6.5	9:46	5.24	0	0	0	0	0	0	0	0	0	0
7/13/95	3	1	8.5	11:29	8.52	0	0	1	0	0	0	0	0	0	1
7/13/95	3	2	4	19:02	6.57	0	0	1	0	0	0	0	0	0	1
7/13/95	3	2	5	18:13	5.43	0	0	4	0	0	1	1	0	0	6
7/13/95	3	2	6.5	17:39	5.38	0	0	3	0	0	0	0	0	0	3
7/13/95	3	2	7.5	19:29	7.36	0	0	0	0	0	0	0	0	0	0
7/14/95	1	1	4	10:07	4.52	0	0	0	0	0	0	0	0	0	0
7/14/95	1	1	5	10:56	3.83	0	0	8	0	0	0	0	0	0	8
7/14/95	1	1	6.5	11:38	4.38	0	0	3	0	0	0	0	0	0	3
7/14/95	1	1	7.5	9:37	3.6	0	0	1	0	0	0	0	0	0	1
7/14/95	1	2	2.75	19:00	4.27	0	0	0	0	0	0	0	2	0	2
7/14/95	1	2	5	17:38	4.81	0	0	6	0	0	0	0	0	0	6
7/14/95	1	2	6.5	18:17	3.82	0	0	1	0	0	0	0	0	0	1
7/14/95	1	2	8.5	19:28	3.3	0	0	0	0	0	0	0	0	0	0
7/14/95	2	1	4	9:58	5.79	0	0	1	0	0	0	0	0	0	1
7/14/95	2	1	5	10:44	6.05	0	0	1	0	0	1	1	0	0	3
7/14/95	2	1	6.5	11:26	5.92	0	0	1	0	0	0	0	0	0	1
7/14/95	2	1	7.5	9:27	6.49	0	0	0	0	0	0	0	0	0	0
7/14/95	2	2	2.75	18:52	4.33	0	0	0	0	0	0	0	0	0	0
7/14/95	2	2	5	17:29	5.88	0	0	0	0	0	0	0	0	0	0
7/14/95	2	2	6.5	18:08	4.95	0	0	2	0	0	0	0	0	0	2
7/14/95	2	2	8.5	19:20	4.49	0	0	0	0	0	0	0	0	0	0
7/14/95	3	1	4	10:16	10.4	0	0	3	0	0	1	0	0	0	4
7/14/95	3	1	5	11:11	5.91	0	0	6	0	0	0	0	0	0	6
7/14/95	3	1	6.5	11:48	7.52	0	0	0	0	0	0	0	0	1	1
7/14/95	3	1	7.5	9:45	9.85	0	0	0	0	0	0	0	0	0	0
7/14/95	3	2	2.75	19:09	6.28	0	0	0	0	0	0	1	0	0	1
7/14/95	3	2	5	17:51	8.44	0	0	6	0	0	0	0	0	0	6
7/14/95	3	2	6.5	18:25	8.42	0	0	0	0	0	0	0	0	0	0
7/14/95	3	2	8.5	19:35	6.43	0	0	1	0	0	0	0	0	0	1
7/15/95	1	1	2.75	10:12	3.43	0	0	0	0	0	0	0	0	0	0
7/15/95	1	1	5	11:26	4.13	0	0	0	0	0	0	0	0	0	0
7/15/95	1	1	6.5	10:50	4.55	0	0	1	0	0	0	0	0	0	1

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
7/15/95	1	1	8.5	9:38	5.38	0	0	2	0	0	0	0	0	0	2
7/15/95	1	2	2.75	19:27	4.36	0	0	0	0	0	0	0	2	0	2
7/15/95	1	2	5	17:31	4.48	0	0	1	0	0	0	0	0	0	1
7/15/95	1	2	6.5	18:14	4.05	0	0	1	0	0	0	0	0	0	1
7/15/95	1	2	8.5	18:56	4.58	0	0	1	0	0	0	0	0	0	1
7/15/95	2	1	2.75	10:03	5.08	0	0	0	0	0	0	0	0	0	0
7/15/95	2	1	5	11:13	5.68	0	0	0	0	0	1	3	0	0	4
7/15/95	2	1	6.5	10:41	5.55	0	0	0	0	0	0	0	0	0	0
7/15/95	2	1	8.5	9:29	5.63	0	0	0	0	0	0	0	0	0	0
7/15/95	2	2	2.75	19:17	4.51	0	0	1	0	0	0	1	2	0	4
7/15/95	2	2	5	17:23	4.18	0	0	0	0	0	0	1	0	0	1
7/15/95	2	2	6.5	17:53	4.15	0	0	1	0	0	1	0	0	0	2
7/15/95	2	2	8.5	18:48	4.39	0	0	0	0	0	0	0	0	0	0
7/15/95	3	1	2.75	10:19	8.85	0	0	0	0	0	0	0	1	0	1
7/15/95	3	1	5	11:34	8.69	0	0	4	0	0	0	0	0	1	5
7/15/95	3	1	6.5	10:59	8.76	1	0	2	0	0	0	0	0	0	3
7/15/95	3	1	8.5	9:49	8.93	1	0	1	0	0	0	0	0	0	2
7/15/95	3	2	2.75	19:36	6.25	0	0	1	0	0	0	0	0	0	1
7/15/95	3	2	5	17:40	6.29	0	0	3	0	0	1	1	0	0	5
7/15/95	3	2	6.5	18:23	6.23	0	0	2	0	0	0	0	0	0	2
7/15/95	3	2	8.5	19:05	6.47	1	0	0	0	0	0	0	0	0	1
7/16/95	1	1	2.75	9:36	4.23	0	0	1	0	0	0	1	1	1	4
7/16/95	1	1	5	11:30	5.68	0	0	4	0	0	0	0	0	0	4
7/16/95	1	1	6.5	10:54	5.48	0	0	1	0	0	0	0	0	0	1
7/16/95	1	1	8.5	10:12	5.35	0	0	1	0	0	0	0	0	0	1
7/16/95	1	2	4	18:59	4.82	0	0	5	0	0	0	1	0	0	6
7/16/95	1	2	5	17:41	3.24	0	0	3	0	0	2	0	0	1	6
7/16/95	1	2	6.5	18:14	3.93	0	0	1	0	0	0	0	0	0	1
7/16/95	1	2	7.5	19:35	4.36	0	0	1	0	0	0	0	0	0	1
7/16/95	2	1	2.75	9:26	6.25	0	0	0	0	0	0	0	2	0	2
7/16/95	2	1	2.75	9:46	6.34	0	0	0	0	0	0	1	0	0	1
7/16/95	2	1	5	11:18	5.74	0	0	2	0	0	0	1	0	0	3
7/16/95	2	1	6.5	10:44	6.13	0	0	0	0	0	1	0	0	0	1
7/16/95	2	1	8.5	10:03	5.55	0	0	0	0	0	0	0	0	0	0
7/16/95	2	2	4	18:50	5.43	0	0	0	0	0	0	0	0	0	0
7/16/95	2	2	5	17:28	8	0	0	0	0	0	1	0	0	0	1
7/16/95	2	2	6.5	18:04	5.57	0	0	0	0	0	0	0	0	0	0
7/16/95	2	2	7.5	19:26	5.33	0	0	0	0	0	0	0	0	0	0
7/16/95	3	1	5	11:42	8.68	0	0	7	0	0	0	0	0	1	8
7/16/95	3	1	6.5	11:06	8.74	0	0	1	0	0	0	0	0	0	1
7/16/95	3	1	8.5	10:23	8.72	0	0	1	0	0	0	0	0	0	1
7/16/95	3	2	4	19:13	8.93	0	0	1	0	0	0	0	0	0	1
7/16/95	3	2	5	17:50	9.52	0	0	0	0	0	0	1	0	0	1
7/16/95	3	2	6.5	18:21	8.47	0	0	1	0	0	0	0	0	0	1
7/16/95	3	2	7.5	19:43	10.12	0	0	0	0	0	0	0	0	0	0
7/17/95	1	1	4	10:09	5.09	0	0	4	0	0	0	1	0	0	5
7/17/95	1	1	5	11:36	4.63	0	0	3	0	0	0	0	0	0	3
7/17/95	1	1	6.5	10:56	4.31	0	0	2	0	0	0	0	0	0	2
7/17/95	1	1	7.5	9:35	4.32	1	0	2	0	0	0	0	0	0	3
7/17/95	1	2	2.75	18:56	3.66	0	0	0	0	0	0	0	4	0	4

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore
[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
7/17/95	1	2	5	17:41	3.94	0	0	3	0	0	0	0	0	0	3
7/17/95	1	2	6.5	18:14	3.93	0	0	2	0	0	0	0	0	0	2
7/17/95	1	2	8.5	19:21	3.86	0	0	0	0	0	0	0	0	0	0
7/17/95	2	1	4	9:58	5.5	0	0	0	0	0	0	3	0	0	3
7/17/95	2	1	5	11:25	5.23	0	0	1	0	0	0	1	0	0	2
7/17/95	2	1	6.5	10:47	5.5	0	0	0	0	0	0	0	0	0	0
7/17/95	2	1	7.5	9:25	5.88	0	0	0	0	0	0	0	0	0	0
7/17/95	2	2	2.75	18:44	5.91	0	0	0	0	0	0	1	6	0	7
7/17/95	2	2	5	17:31	5.6	0	0	1	0	0	0	0	0	0	1
7/17/95	2	2	6.5	18:05	5.94	0	0	0	0	0	0	0	0	0	0
7/17/95	2	2	8.5	19:13	5.33	0	0	0	0	0	0	0	0	0	0
7/17/95	3	1	4	10:21	8.52	0	0	1	0	0	0	0	0	0	1
7/17/95	3	1	5	11:50	8.3	0	0	7	0	0	0	0	0	0	7
7/17/95	3	1	6.5	11:07	10.38	0	0	6	0	0	0	0	0	0	6
7/17/95	3	1	7.5	9:45	8.78	0	0	2	0	0	0	0	0	0	2
7/17/95	3	2	2.75	19:03	6.61	0	0	0	0	0	0	0	0	0	0
7/17/95	3	2	5	17:50	8.8	0	0	7	0	0	0	0	0	0	7
7/17/95	3	2	6.5	18:23	8.44	0	0	0	0	0	0	0	0	0	0
7/17/95	3	2	8.5	19:28	10.38	0	0	0	0	0	0	0	0	0	0
7/18/95	1	1	2.75	10:03	4.6	0	0	0	0	0	0	1	0	0	1
7/18/95	1	1	5	11:33	6.51	0	0	6	0	0	0	2	0	0	8
7/18/95	1	1	6.5	10:57	6.51	0	0	2	0	0	0	0	0	0	2
7/18/95	1	1	8.5	9:34	5.36	0	0	0	0	0	0	0	0	0	0
7/18/95	1	2	4	19:33	3.33	0	0	0	0	0	0	0	0	0	0
7/18/95	1	2	5	17:41	4.34	0	0	4	0	0	0	0	0	0	4
7/18/95	1	2	6.5	18:18	4.02	0	0	1	0	0	0	0	0	0	1
7/18/95	1	2	7.5	19:06	3.75	0	0	0	0	0	0	0	0	0	0
7/18/95	2	1	2.75	9:53	6.13	0	0	0	0	0	0	1	1	0	2
7/18/95	2	1	5	11:22	6.48	0	0	1	0	0	0	0	0	0	1
7/18/95	2	1	6.5	10:46	6.41	0	0	1	0	0	0	0	0	0	1
7/18/95	2	1	8.5	9:25	5.31	0	0	1	0	0	0	0	0	0	1
7/18/95	2	2	4	19:24	5.31	0	0	0	0	0	0	0	0	0	0
7/18/95	2	2	5	17:30	6.51	1	0	1	0	0	0	0	0	0	2
7/18/95	2	2	6.5	18:07	7.66	0	0	0	0	0	0	0	0	0	0
7/18/95	2	2	7.5	18:57	5.66	0	0	0	0	0	0	0	0	0	0
7/18/95	3	1	2.75	10:13	8.43	0	0	1	0	0	0	0	0	0	1
7/18/95	3	1	5	11:47	9.48	0	0	5	0	0	0	0	0	0	5
7/18/95	3	1	6.5	11:09	9.25	0	0	2	0	0	0	0	0	0	2
7/18/95	3	1	8.5	9:42	8.27	0	0	0	0	0	0	0	0	0	0
7/18/95	3	2	4	19:40	11.29	0	0	2	0	0	0	1	0	0	3
7/18/95	3	2	5	17:52	8.55	0	0	6	0	0	0	1	0	0	7
7/18/95	3	2	6.5	18:29	8.13	1	0	5	0	0	0	0	0	0	6
7/18/95	3	2	7.5	19:13	7.24	0	0	0	0	0	0	0	0	0	0
7/19/95	1	1	4	9:42	4.4	0	0	0	0	0	0	0	0	0	0
7/19/95	1	1	5	11:48	4.71	0	0	0	2	0	0	1	0	0	3
7/19/95	1	1	5.5	10:15	5.22	0	0	0	7	0	0	0	0	0	7
7/19/95	1	1	6.5	11:14	4.47	0	0	0	1	0	0	0	0	0	1
7/19/95	1	2	2.75	18:53	3.73	0	0	0	0	0	0	4	5	0	9
7/19/95	1	2	5	17:34	3.75	0	0	0	21	0	0	2	0	0	23
7/19/95	1	2	5.5	19:26	2.26	0	0	0	4	0	1	1	0	0	6

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
7/19/95	1	2	6.5	18:15	2.71	0	0	0	4	0	0	0	0	0	4
7/19/95	2	1	4	9:31	5.32	0	0	0	1	0	0	2	0	0	3
7/19/95	2	1	5	12:00	7.79	0	0	0	2	0	0	0	0	0	2
7/19/95	2	1	5.5	10:05	6.04	0	0	0	0	0	0	0	0	0	0
7/19/95	2	1	6.5	11:04	6.03	0	0	0	1	0	0	0	0	0	1
7/19/95	2	2	2.75	18:43	5.68	0	0	0	0	0	0	1	6	0	7
7/19/95	2	2	5	17:25	5.46	0	0	0	0	0	0	0	0	0	0
7/19/95	2	2	5.5	19:17	4.98	0	0	0	1	0	0	0	0	0	1
7/19/95	2	2	6.5	18:06	5.55	0	0	0	0	0	0	0	0	0	0
7/19/95	3	1	4	9:51	8.75	0	0	0	0	0	0	1	0	0	1
7/19/95	3	1	5	11:37	6.74	0	0	0	0	0	0	1	0	0	1
7/19/95	3	1	5.5	10:32	7.17	0	0	0	12	0	0	0	0	0	12
7/19/95	3	1	6.5	11:23	7.16	0	0	0	10	0	0	0	0	0	10
7/19/95	3	2	2.75	19:03	8.69	0	0	0	0	0	0	0	0	1	1
7/19/95	3	2	5	17:56	2.94	0	0	0	9	0	0	0	0	0	9
7/19/95	3	2	5.5	19:34	5.46	0	0	0	5	0	0	0	0	0	5
7/19/95	3	2	6.5	18:23	3.62	0	0	0	2	0	0	0	0	0	2
7/20/95	1	1	2.75	10:19	4.43	0	0	0	0	0	0	0	0	0	0
7/20/95	1	1	5	11:26	3.48	0	0	0	2	0	0	0	0	0	2
7/20/95	1	1	5.5	9:38	4.27	0	0	0	9	0	0	0	0	0	9
7/20/95	1	1	6.5	11:02	3.51	0	0	0	0	0	0	0	0	0	0
7/20/95	1	2	4	19:10	4.37	0	0	0	1	0	0	1	0	1	3
7/20/95	1	2	5	17:34	2.27	0	0	0	2	0	0	0	0	1	3
7/20/95	1	2	5.5	18:36	3.01	0	0	0	9	0	0	0	0	0	9
7/20/95	1	2	6.5	17:59	3.17	0	0	0	3	0	0	0	0	0	3
7/20/95	2	1	2.75	10:09	6.08	0	0	0	0	0	0	1	2	0	3
7/20/95	2	1	5	11:17	5.3	0	0	0	0	0	0	1	0	0	1
7/20/95	2	1	5.5	9:27	5.63	0	0	0	2	0	0	0	0	0	2
7/20/95	2	1	6.5	10:53	5.31	0	0	0	2	0	0	0	0	0	2
7/20/95	2	2	4	19:01	5.58	0	0	0	0	0	0	1	0	0	1
7/20/95	2	2	5	17:26	5.32	0	0	0	0	0	0	0	0	0	0
7/20/95	2	2	5.5	18:27	5.62	0	0	0	0	0	0	0	0	0	0
7/20/95	2	2	6.5	17:50	5.02	1	0	0	1	0	0	0	0	0	2
7/20/95	3	1	2.75	10:27	8.11	0	0	0	0	0	0	0	1	0	1
7/20/95	3	1	5	11:35	5.6	0	0	0	6	0	0	0	0	0	6
7/20/95	3	1	5.5	9:50	4.8	0	0	0	14	0	0	0	0	0	14
7/20/95	3	1	6.5	11:08	4.65	0	0	0	3	0	0	0	0	0	3
7/20/95	3	2	4	19:21	10.53	0	0	0	0	0	0	0	0	1	1
7/20/95	3	2	5	17:41	3.98	0	0	0	4	0	0	0	0	0	4
7/20/95	3	2	5.5	18:51	4.19	0	0	0	3	0	0	0	0	0	3
7/20/95	3	2	6.5	18:08	7.51	0	0	0	2	0	0	0	0	0	2
7/21/95	1	1	4	9:39	3.52	0	0	0	1	0	0	0	0	0	1
7/21/95	1	1	5	10:55	4.61	0	0	0	8	0	0	1	0	0	9
7/21/95	1	1	5.5	10:11	4.25	0	0	0	7	0	0	0	0	0	7
7/21/95	1	1	6.5	11:32	4.08	0	0	0	0	0	0	0	0	0	0
7/21/95	1	2	2.75	19:26	3.76	0	0	0	0	0	0	0	0	0	0
7/21/95	1	2	5	18:05	2.61	0	0	0	5	0	0	0	0	0	5
7/21/95	1	2	5.5	18:50	3.35	0	0	0	3	0	0	0	0	0	3
7/21/95	1	2	6.5	17:37	2.82	0	0	0	3	0	0	0	0	0	3
7/21/95	2	1	4	9:27	4.59	0	0	0	0	0	1	1	0	0	2

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
7/21/95	2	1	5	10:46	6.15	0	0	0	0	0	0	0	0	0	0
7/21/95	2	1	5.5	10:00	6.53	0	0	0	1	0	0	0	0	0	1
7/21/95	2	1	6.5	11:24	3.7	0	0	0	1	0	0	0	0	0	1
7/21/95	2	2	2.75	19:12	8.46	0	0	0	0	0	0	2	2	0	4
7/21/95	2	2	5	17:56	5.37	0	0	0	0	0	0	1	0	0	1
7/21/95	2	2	5.5	18:36	9.76	0	0	0	0	0	0	2	0	0	2
7/21/95	2	2	6.5	17:27	5.71	0	0	0	0	0	0	1	0	0	1
7/21/95	3	1	4	9:46	8.42	0	0	0	2	0	0	0	0	0	2
7/21/95	3	1	5	11:08	8.43	0	0	0	8	0	0	1	0	0	9
7/21/95	3	1	5.5	10:23	4.2	0	0	0	6	0	0	0	0	0	6
7/21/95	3	1	6.5	11:41	6.12	0	0	0	10	0	0	0	0	0	10
7/21/95	3	2	2.75	19:34	10.43	0	0	0	1	0	0	0	0	0	1
7/21/95	3	2	5	18:15	3.86	0	0	0	2	0	0	1	0	0	3
7/21/95	3	2	5.5	18:58	5.14	0	0	0	11	0	0	0	0	0	11
7/21/95	3	2	6.5	17:45	6.32	0	0	0	6	0	0	0	0	0	6
7/22/95	1	1	2.75	9:39	3.51	0	0	0	0	0	0	0	1	0	1
7/22/95	1	1	5	10:44	3.28	0	0	0	4	0	0	0	0	0	4
7/22/95	1	1	5.5	10:06	3.41	0	0	0	8	0	0	0	0	0	8
7/22/95	1	1	6.5	11:14	3.38	0	0	0	0	0	0	0	0	0	0
7/22/95	1	2	4	19:45	4.12	0	0	0	1	0	0	0	0	0	1
7/22/95	1	2	5	18:18	4.57	0	0	0	9	0	0	0	0	0	9
7/22/95	1	2	5.5	19:05	4.58	0	0	0	11	0	0	0	0	0	11
7/22/95	1	2	6.5	17:36	4.68	0	0	0	5	0	0	0	0	0	5
7/22/95	2	1	2.75	9:27	8.19	0	0	0	0	0	0	1	0	0	1
7/22/95	2	1	5	10:36	4.93	0	0	0	0	0	0	1	0	0	1
7/22/95	2	1	5.5	9:57	5.53	0	0	0	0	0	1	1	0	0	2
7/22/95	2	1	6.5	11:02	6.76	0	0	0	1	0	0	0	0	0	1
7/22/95	2	2	4	19:35	6.01	0	0	0	0	0	0	0	0	0	0
7/22/95	2	2	5	18:07	7.73	0	0	0	0	0	1	0	0	0	1
7/22/95	2	2	5.5	18:54	7.34	0	0	0	0	0	0	0	0	0	0
7/22/95	2	2	6.5	17:26	6.98	0	0	0	0	0	0	0	0	0	0
7/22/95	3	1	2.75	9:46	8.51	0	0	0	0	0	0	0	0	0	0
7/22/95	3	1	5	10:53	4.43	0	0	0	4	0	0	1	0	0	5
7/22/95	3	1	5.5	10:17	4.31	0	0	0	5	0	0	2	0	0	7
7/22/95	3	1	6.5	11:21	4.72	0	0	0	3	0	0	0	0	0	3
7/22/95	3	2	4	19:54	6.09	0	0	0	2	0	0	1	0	0	3
7/22/95	3	2	5	18:30	4.23	0	0	0	9	0	0	0	0	0	9
7/22/95	3	2	5.5	19:18	6.49	0	0	0	15	0	0	0	0	0	15
7/22/95	3	2	6.5	17:49	6.32	0	0	0	18	0	0	0	0	0	18
7/23/95	1	1	4	9:37	5.49	0	0	0	2	0	0	1	0	0	3
7/23/95	1	1	5	11:10	3.93	0	1	0	4	0	0	0	0	0	5
7/23/95	1	1	5.5	10:08	3.25	0	0	0	2	0	0	0	0	0	2
7/23/95	1	1	6.5	10:45	3.38	0	0	0	1	0	0	0	0	0	1
7/23/95	1	2	2.75	19:13	3.59	0	0	0	0	0	0	3	0	0	3
7/23/95	1	2	5	17:39	2.88	0	0	0	1	0	0	0	0	0	1
7/23/95	1	2	5.5	18:45	3.46	0	0	0	2	0	0	0	0	0	2
7/23/95	1	2	6.5	18:04	3.18	0	0	0	2	0	0	0	0	0	2
7/23/95	2	1	4	9:27	5.03	0	0	0	0	0	1	3	0	0	4
7/23/95	2	1	5	11:00	5.51	0	0	0	0	0	0	3	0	0	3
7/23/95	2	1	5.5	9:58	6.88	0	0	0	0	0	0	0	0	0	0

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
7/23/95	2	1	6.5	10:35	5.42	0	0	0	1	0	0	0	0	0	1
7/23/95	2	2	2.75	19:04	5.77	0	0	0	0	0	0	0	2	0	2
7/23/95	2	2	5	17:28	5.4	0	0	0	0	0	0	3	0	0	3
7/23/95	2	2	5.5	18:34	8.24	0	0	0	0	0	0	0	0	0	0
7/23/95	2	2	6.5	17:56	4.56	0	0	0	0	0	0	0	0	0	0
7/23/95	3	1	4	9:47	6.97	0	0	0	0	0	0	0	0	0	0
7/23/95	3	1	5	11:21	3.58	0	0	0	5	0	0	0	0	0	5
7/23/95	3	1	5.5	10:16	3.38	0	0	0	3	0	0	0	0	0	3
7/23/95	3	1	6.5	10:52	4.34	0	0	0	1	0	0	0	0	0	1
7/23/95	3	2	2.75	19:21	10.6	0	0	0	0	0	0	0	1	0	1
7/23/95	3	2	5	17:45	5.18	0	0	0	3	0	0	1	0	0	4
7/23/95	3	2	5.5	18:53	6.81	0	0	0	3	0	0	0	0	0	3
7/23/95	3	2	6.5	18:11	5.27	0	0	0	1	0	0	0	0	0	1
7/24/95	1	1	2.75	9:38	4.83	0	0	0	0	0	0	0	2	0	2
7/24/95	1	1	5	11:24	4.31	0	0	0	0	0	0	1	0	0	1
7/24/95	1	1	5.5	10:13	4.41	0	0	0	1	0	0	0	0	1	2
7/24/95	1	1	6.5	10:55	3.86	0	0	0	0	0	0	0	0	0	0
7/24/95	1	2	4	19:08	3.93	0	0	0	0	0	0	0	0	0	0
7/24/95	1	2	5	17:31	2.89	0	0	0	0	0	0	0	0	0	0
7/24/95	1	2	5.5	18:31	4.63	0	0	0	6	0	0	1	0	0	7
7/24/95	1	2	6.5	17:53	3.73	0	0	0	1	0	0	0	0	0	1
7/24/95	2	1	2.75	9:27	7.53	0	0	0	0	0	0	1	1	0	2
7/24/95	2	1	5	11:13	6.85	0	0	0	0	0	1	1	0	0	2
7/24/95	2	1	5.5	10:03	7.06	0	0	0	0	0	0	0	0	0	0
7/24/95	2	1	6.5	10:45	5.74	0	0	0	0	0	0	0	0	0	0
7/24/95	2	2	4	18:59	5.46	0	0	0	0	0	0	0	1	0	1
7/24/95	2	2	5	17:22	5.39	0	0	0	0	0	0	2	0	0	2
7/24/95	2	2	5.5	18:22	5.72	0	0	0	0	0	0	0	0	0	0
7/24/95	2	2	6.5	17:46	4.94	0	0	0	0	0	0	0	0	0	0
7/24/95	3	1	2.75	9:47	9.57	0	0	0	0	0	0	2	3	0	5
7/24/95	3	1	5	11:34	6.82	0	0	0	0	0	0	1	0	1	2
7/24/95	3	1	5.5	10:24	8.44	0	0	0	1	0	0	1	0	0	2
7/24/95	3	1	6.5	11:02	7.41	0	0	0	2	0	0	1	0	0	3
7/24/95	3	2	4	19:15	11	0	0	0	0	0	0	0	0	0	0
7/24/95	3	2	5	17:37	6.57	0	0	0	1	0	0	0	0	0	1
7/24/95	3	2	5.5	18:42	8.38	0	0	0	1	0	0	0	0	0	1
7/24/95	3	2	6.5	18:00	8.76	0	0	0	1	0	0	0	0	0	1
7/25/95	1	1	4	9:39	6.3	0	0	0	0	0	0	0	1	0	1
7/25/95	1	1	5	11:46	4.8	0	0	0	4	0	0	0	0	1	5
7/25/95	1	1	5.5	10:21	5.88	0	0	0	6	0	0	0	0	2	8
7/25/95	1	1	6.5	11:11	5.4	0	0	0	4	0	0	0	0	0	4
7/25/95	1	2	2.75	19:35	4.43	0	0	0	0	0	0	2	0	0	2
7/25/95	1	2	5	17:33	3.86	0	0	0	3	0	0	1	0	0	4
7/25/95	1	2	5.5	18:57	5.03	1	0	0	3	0	0	1	0	0	5
7/25/95	1	2	6.5	18:07	3.76	0	0	0	0	0	0	0	0	0	0
7/25/95	2	1	4	9:27	7.13	0	0	0	0	0	0	4	0	0	4
7/25/95	2	1	5	11:38	5.27	0	0	0	0	0	0	0	0	0	0
7/25/95	2	1	5.5	10:10	6.75	0	0	0	0	0	0	0	0	0	0
7/25/95	2	1	6.5	11:03	5.27	0	0	0	0	0	0	0	0	0	0
7/25/95	2	2	2.75	19:24	6.43	0	0	0	0	0	0	0	3	0	3

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore
[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
7/25/95	2	2	5	17:23	6.53	0	0	0	0	0	0	0	0	0	0
7/25/95	2	2	5.5	18:45	8.3	0	0	0	0	0	0	0	0	0	0
7/25/95	2	2	6.5	17:56	5.08	0	0	0	0	0	1	0	0	0	1
7/25/95	3	1	4	9:55	9.43	0	0	0	0	0	0	2	1	0	3
7/25/95	3	1	5	11:57	6.45	0	0	0	2	0	0	3	0	0	5
7/25/95	3	1	5.5	10:36	9.44	0	0	0	3	0	0	0	0	0	3
7/25/95	3	1	6.5	11:22	8.64	0	0	0	8	0	0	0	0	0	8
7/25/95	3	2	2.75	19:44	9.32	0	0	0	0	0	0	0	1	1	2
7/25/95	3	2	5	17:44	7.73	0	0	0	0	0	0	0	0	0	0
7/25/95	3	2	5.5	19:09	10.08	0	0	0	4	0	0	0	0	0	4
7/25/95	3	2	6.5	18:16	8.84	0	0	0	7	0	0	0	0	0	7
7/26/95	1	1	2.75	9:37	4.27	0	0	0	0	0	0	0	0	0	0
7/26/95	1	1	5	11:25	4.09	0	0	0	5	0	0	2	0	0	7
7/26/95	1	1	5.5	10:06	5.28	0	0	0	5	0	0	0	0	0	5
7/26/95	1	1	6.5	10:58	3.73	0	0	0	1	0	0	0	0	0	1
7/26/95	1	2	4	19:19	5.53	0	0	0	0	0	0	1	0	0	1
7/26/95	1	2	5	17:35	4.71	0	0	0	4	0	0	0	0	0	4
7/26/95	1	2	5.5	18:45	4.43	0	0	0	3	0	0	1	0	0	4
7/26/95	1	2	6.5	18:04	3.43	0	0	0	2	0	0	0	0	0	2
7/26/95	2	1	2.75	9:27	6.29	0	0	0	0	0	1	0	1	0	2
7/26/95	2	1	5	11:16	5.78	0	0	0	0	0	0	1	0	0	1
7/26/95	2	1	5.5	9:57	5.16	0	0	0	0	0	0	0	0	0	0
7/26/95	2	1	6.5	10:48	5.88	0	0	0	0	0	0	0	0	0	0
7/26/95	2	2	4	19:06	7.64	0	0	0	0	0	0	1	0	0	1
7/26/95	2	2	5	17:25	4.38	0	0	0	0	0	0	4	0	0	4
7/26/95	2	2	5.5	18:35	5.96	0	0	0	0	0	0	0	0	0	0
7/26/95	2	2	6.5	17:56	5.28	0	0	0	1	0	0	0	0	0	1
7/26/95	3	1	2.75	9:45	8.19	0	0	0	0	0	0	0	1	0	1
7/26/95	3	1	5	11:38	7.56	0	0	0	1	0	0	2	0	0	3
7/26/95	3	1	5.5	10:19	9.19	0	0	0	8	0	0	1	0	0	9
7/26/95	3	1	6.5	11:06	6.45	0	0	0	1	0	0	0	0	0	1
7/26/95	3	2	4	19:30	9.38	0	0	0	0	0	0	1	0	0	1
7/26/95	3	2	5	17:45	7.34	0	0	0	1	0	0	2	0	0	3
7/26/95	3	2	5.5	18:56	6.97	0	0	0	2	0	0	0	0	0	2
7/26/95	3	2	6.5	18:11	8.05	0	0	0	3	0	0	0	0	0	3
7/27/95	1	1	4	9:42	4.8	0	0	0	1	0	0	0	0	1	2
7/27/95	1	1	5	11:00	4.22	0	0	0	2	0	0	0	0	0	2
7/27/95	1	1	5.5	10:14	4.22	0	0	0	7	0	0	0	0	0	7
7/27/95	1	1	6.5	11:33	4.98	0	0	0	3	0	0	0	0	0	3
7/27/95	1	2	2.75	18:54	4.38	0	0	0	0	0	0	1	1	0	2
7/27/95	1	2	5	17:59	3.97	0	0	0	0	0	0	0	0	0	0
7/27/95	1	2	5.5	19:26	4.73	0	0	0	6	0	0	0	0	1	7
7/27/95	1	2	6.5	17:30	3.41	0	0	0	0	0	0	0	0	0	0
7/27/95	2	1	4	9:31	5.36	0	0	0	0	0	0	3	0	0	3
7/27/95	2	1	5	10:51	5.18	0	0	0	0	0	0	0	0	0	0
7/27/95	2	1	5.5	10:04	4.62	0	0	0	1	0	1	0	0	0	2
7/27/95	2	1	6.5	11:23	5.49	0	0	0	0	0	0	0	0	0	0
7/27/95	2	2	2.75	18:45	5.68	0	0	0	0	0	0	0	0	0	0
7/27/95	2	2	5	17:50	4.79	0	0	0	0	0	0	1	0	0	1
7/27/95	2	2	5.5	19:16	6.04	0	0	0	0	0	2	0	0	0	2

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore
[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
7/27/95	2	2	6.5	17:22	4.8	0	0	0	0	0	0	0	0	0	0
7/27/95	3	1	4	9:52	7.4	0	0	0	2	0	0	1	0	0	3
7/27/95	3	1	5	11:09	8.92	0	0	0	2	0	1	0	0	0	3
7/27/95	3	1	5.5	10:26	3.1	0	0	0	11	0	0	0	0	0	11
7/27/95	3	1	6.5	11:43	9.74	0	0	0	2	0	0	1	0	0	3
7/27/95	3	2	2.75	19:03	8.01	0	0	0	0	0	0	1	1	0	2
7/27/95	3	2	5	18:07	9.5	0	0	0	1	0	0	1	0	0	2
7/27/95	3	2	5.5	19:39	8.78	0	0	0	11	0	0	0	0	0	11
7/27/95	3	2	6.5	17:36	7.88	0	0	0	5	0	0	0	0	0	5
7/28/95	1	1	2.75	10:14	3.33	0	0	0	0	0	0	0	0	0	0
7/28/95	1	1	5	10:54	3.83	0	0	0	4	0	0	0	0	0	4
7/28/95	1	1	5.5	9:35	4.34	0	0	0	5	0	0	0	0	0	5
7/28/95	1	1	6.5	11:28	3.17	0	0	0	2	0	0	0	0	0	2
7/28/95	1	2	4	19:20	4.11	0	0	0	2	0	0	0	0	0	2
7/28/95	1	2	5	18:02	3.7	0	0	0	5	0	0	0	0	0	5
7/28/95	1	2	5.5	18:42	5.2	0	0	0	10	0	0	0	0	0	10
7/28/95	1	2	6.5	17:37	3.47	0	0	0	2	0	0	0	0	0	2
7/28/95	2	1	2.75	10:04	5.16	0	0	0	0	0	0	1	2	0	3
7/28/95	2	1	5	10:47	4.26	0	0	0	0	0	0	0	0	0	0
7/28/95	2	1	5.5	9:27	5.04	0	0	0	0	0	0	0	0	0	0
7/28/95	2	1	6.5	11:17	6.54	0	0	0	0	0	0	0	0	0	0
7/28/95	2	2	4	19:08	8.63	0	0	0	0	0	0	1	1	0	2
7/28/95	2	2	5	17:51	5.78	0	0	0	0	0	1	0	0	0	1
7/28/95	2	2	5.5	18:31	7.4	0	0	0	0	0	0	0	0	0	0
7/28/95	2	2	6.5	17:25	7.64	0	0	0	2	0	0	0	0	0	2
7/28/95	3	1	2.75	10:21	7.33	0	0	0	0	0	0	0	0	0	0
7/28/95	3	1	5	11:04	7.63	0	0	0	4	0	0	0	0	0	4
7/28/95	3	1	5.5	9:50	7.9	0	0	0	2	0	0	0	0	0	2
7/28/95	3	1	6.5	11:36	8.21	0	0	0	8	0	0	0	0	0	8
7/28/95	3	2	4	19:28	8.64	0	0	0	0	0	1	1	0	0	2
7/28/95	3	2	5	18:14	7.82	0	0	0	1	0	0	0	0	0	1
7/28/95	3	2	5.5	18:56	7.46	0	0	0	4	0	0	0	0	0	4
7/28/95	3	2	6.5	17:44	4.03	0	0	0	2	0	0	0	0	0	2
7/29/95	1	1	4	9:38	4.38	0	0	0	3	0	0	0	0	0	3
7/29/95	1	1	5	10:47	3.1	0	0	0	5	0	0	0	0	0	5
7/29/95	1	1	5.5	10:08	2.88	0	0	0	1	0	0	0	0	0	1
7/29/95	1	1	6.5	11:13	3.15	0	0	0	1	0	0	0	0	0	1
7/29/95	1	2	2.75	19:14	4.99	0	0	0	1	0	0	1	1	2	5
7/29/95	1	2	5	18:20	4.59	0	0	0	0	0	0	0	0	0	0
7/29/95	1	2	5.5	19:47	5.73	0	0	0	21	0	0	0	0	0	21
7/29/95	1	2	6.5	17:36	4.36	0	0	0	1	0	0	0	0	0	1
7/29/95	2	1	4	9:26	4.56	0	0	0	0	0	0	4	0	0	4
7/29/95	2	1	5	10:37	5.63	0	0	0	0	0	0	1	1	0	2
7/29/95	2	1	5.5	9:59	5.94	0	0	0	1	0	0	0	0	0	1
7/29/95	2	1	6.5	11:06	3.63	0	0	0	0	0	0	0	0	0	0
7/29/95	2	2	2.75	19:02	7.44	0	0	0	0	0	1	0	1	0	2
7/29/95	2	2	5	18:09	5.27	0	0	0	1	1	0	2	0	0	4
7/29/95	2	2	5.5	19:38	6.18	0	0	0	0	0	0	0	0	0	0
7/29/95	2	2	6.5	17:26	7.23	0	0	0	0	0	0	0	0	0	0
7/29/95	3	1	4	9:47	6.57	0	0	0	2	0	0	2	0	0	4

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
7/29/95	3	1	5	10:56	5.41	0	0	0	1	0	0	0	0	0	1
7/29/95	3	1	5.5	10:15	4.37	0	0	0	6	0	0	0	0	0	6
7/29/95	3	1	6.5	11:21	4.93	0	0	0	1	0	0	0	0	0	1
7/29/95	3	2	2.75	19:25	9.25	0	0	0	0	0	0	0	2	0	2
7/29/95	3	2	5	18:28	4.24	0	0	0	15	0	0	1	0	0	16
7/29/95	3	2	5.5	20:11	2.29	0	0	0	18	0	0	0	0	0	18
7/29/95	3	2	6.5	17:46	4.89	1	0	0	21	0	0	0	0	0	22
7/30/95	1	1	2.75	10:18	4.56	0	0	0	0	0	0	1	1	0	2
7/30/95	1	1	5	11:27	4.73	0	0	0	3	0	0	0	0	0	3
7/30/95	1	1	5.5	9:40	4.86	0	0	0	16	0	0	0	0	0	16
7/30/95	1	1	6.5	11:03	2.99	0	0	0	1	0	0	0	0	0	1
7/30/95	1	2	4	19:06	4	0	0	0	0	0	0	0	0	0	0
7/30/95	1	2	5	17:27	3.49	0	0	0	0	0	0	0	0	0	0
7/30/95	1	2	5.5	18:36	3.63	0	0	0	4	0	0	0	1	0	5
7/30/95	1	2	6.5	17:53	4.16	0	0	0	5	0	1	0	0	0	6
7/30/95	2	1	2.75	10:08	5.77	0	0	0	0	0	0	0	1	0	1
7/30/95	2	1	5	11:18	5.05	0	0	0	0	0	0	0	0	0	0
7/30/95	2	1	5.5	9:27	6.27	0	0	0	0	1	1	0	0	0	2
7/30/95	2	1	6.5	10:53	5.08	0	0	0	1	0	0	1	0	0	2
7/30/95	2	2	4	18:57	5.44	0	0	0	0	0	0	0	0	0	0
7/30/95	2	2	5	17:19	5.47	0	0	0	0	0	0	0	0	0	0
7/30/95	2	2	5.5	18:27	5.98	0	0	0	0	0	0	0	0	0	0
7/30/95	2	2	6.5	17:42	5.65	0	0	0	0	0	0	0	0	0	0
7/30/95	3	1	2.75	10:27	7.55	0	0	0	0	0	0	1	0	0	1
7/30/95	3	1	5	11:36	7.81	0	0	0	1	0	0	1	0	0	2
7/30/95	3	1	5.5	9:56	2.35	0	0	0	7	0	0	0	0	0	7
7/30/95	3	1	6.5	11:10	5.72	0	0	0	2	0	0	0	0	0	2
7/30/95	3	2	4	19:13	10.45	0	0	0	1	0	0	1	0	0	2
7/30/95	3	2	5	17:33	6.38	0	0	0	0	0	0	0	0	0	0
7/30/95	3	2	5.5	18:46	8.39	0	0	0	0	0	0	0	0	0	0
7/30/95	3	2	6.5	18:05	8.43	0	0	0	3	0	0	0	0	0	3
7/31/95	1	1	4	9:37	3.73	0	0	0	1	0	0	0	0	1	2
7/31/95	1	1	5	10:50	3.78	0	0	0	0	0	0	0	0	0	0
7/31/95	1	1	5.5	10:10	3.02	0	0	0	3	0	0	0	0	0	3
7/31/95	1	1	6.5	11:15	3.62	0	0	0	0	0	0	0	0	0	0
7/31/95	1	2	2.75	19:10	4.12	0	0	0	0	0	0	0	1	0	1
7/31/95	1	2	5	18:00	3.68	0	0	0	0	0	0	0	0	0	0
7/31/95	1	2	5.5	18:38	4.01	0	0	0	2	0	0	0	0	0	2
7/31/95	1	2	6.5	17:34	4.52	0	0	0	0	0	0	0	0	0	0
7/31/95	2	1	4	9:25	6.05	0	0	0	0	0	1	1	0	0	2
7/31/95	2	1	5	10:39	7.69	0	0	0	0	0	0	1	0	0	1
7/31/95	2	1	5.5	10:00	6.93	0	0	0	0	0	0	0	0	0	0
7/31/95	2	1	6.5	11:08	4.37	0	0	0	0	0	0	0	0	0	0
7/31/95	2	2	2.75	19:00	5.92	0	0	0	0	0	0	0	1	0	1
7/31/95	2	2	5	17:52	5.41	0	0	0	0	0	0	2	0	0	2
7/31/95	2	2	5.5	18:28	5.64	0	0	0	1	0	0	1	0	0	2
7/31/95	2	2	6.5	17:25	5.53	0	0	0	0	0	0	0	0	0	0
7/31/95	3	1	4	9:46	9.55	0	0	0	0	0	0	0	0	0	0
7/31/95	3	1	5	10:58	7.74	0	0	0	1	0	0	0	0	0	1
7/31/95	3	1	5.5	10:20	7.38	0	0	0	2	0	0	0	0	0	2

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
7/31/95	3	1	6.5	11:22	8.41	0	0	0	0	0	0	0	0	0	0
7/31/95	3	2	2.75	19:18	9.63	0	0	0	0	0	0	1	1	0	2
7/31/95	3	2	5	18:09	8.54	0	0	0	0	0	0	0	0	0	0
7/31/95	3	2	5.5	18:49	7.96	0	0	0	0	0	0	1	0	0	1
7/31/95	3	2	6.5	17:41	7.51	0	0	0	3	0	0	0	0	0	3
8/1/95	1	1	2.75	17:01	4.82	0	0	0	0	0	0	0	0	0	0
8/1/95	1	1	4	19:37	3.72	0	0	0	0	0	0	0	0	0	0
8/1/95	1	1	5	18:55	3.2	0	0	0	0	0	0	0	0	0	0
8/1/95	1	1	5.5	17:32	4.63	0	0	0	2	1	0	0	0	0	3
8/1/95	1	1	6.5	18:23	4.04	0	0	0	0	0	0	0	0	0	0
8/1/95	2	1	2.75	16:47	8.69	0	0	0	0	0	0	1	3	0	4
8/1/95	2	1	4	19:27	6.59	0	0	0	0	0	0	1	0	0	1
8/1/95	2	1	5	18:46	6.29	0	0	0	0	0	0	0	0	0	0
8/1/95	2	1	5.5	17:22	6.4	0	0	0	0	0	0	0	0	0	0
8/1/95	2	1	6.5	18:10	10.35	0	0	0	0	0	0	0	0	0	0
8/1/95	3	1	2.75	17:10	8.64	0	0	0	0	0	0	2	0	0	2
8/1/95	3	1	4	19:45	10.02	0	0	0	0	0	0	1	0	0	1
8/1/95	3	1	5	19:02	9.33	0	0	0	1	0	0	2	0	0	3
8/1/95	3	1	5.5	17:43	8.18	0	0	0	2	0	0	0	0	0	2
8/1/95	3	1	6.5	18:31	10.53	0	0	0	0	0	0	0	0	0	0
8/2/95	1	1	4	9:40	4.5	0	0	0	0	0	0	1	0	0	1
8/2/95	1	1	5	11:33	4.6	0	0	0	2	0	0	0	0	0	2
8/2/95	1	1	5.5	10:17	4.14	0	0	0	1	0	0	0	0	0	1
8/2/95	1	1	6.5	11:02	4.62	0	0	0	0	0	0	0	0	0	0
8/2/95	1	2	2.75	19:13	4.67	0	0	0	0	0	0	1	2	0	3
8/2/95	1	2	5	17:33	3.93	0	0	0	1	0	0	0	0	0	1
8/2/95	1	2	5.5	18:43	4.14	0	0	0	1	0	0	0	0	0	1
8/2/95	1	2	6.5	18:04	3.37	0	0	0	0	0	0	0	0	0	0
8/2/95	2	1	4	9:29	5.35	0	0	0	0	0	0	1	1	0	2
8/2/95	2	1	5	11:22	6.42	0	0	0	0	0	0	1	0	0	1
8/2/95	2	1	5.5	10:03	6.97	0	0	0	0	0	1	1	0	0	2
8/2/95	2	1	6.5	10:46	6.48	0	0	0	0	0	0	0	0	0	0
8/2/95	2	2	2.75	19:06	4.73	0	0	0	0	0	0	0	0	0	0
8/2/95	2	2	5	17:25	4.88	0	0	0	0	0	0	0	0	0	0
8/2/95	2	2	5.5	18:34	5.56	0	0	0	0	0	0	1	0	0	1
8/2/95	2	2	6.5	17:56	4.38	0	0	0	0	0	0	0	0	0	0
8/2/95	3	1	4	9:49	8.83	0	0	0	0	0	0	2	0	0	2
8/2/95	3	1	5	11:42	8.56	0	0	0	1	0	0	2	0	0	3
8/2/95	3	1	5.5	10:26	7.38	0	0	0	0	0	0	0	0	0	0
8/2/95	3	1	6.5	11:11	8.46	0	0	0	0	0	0	0	0	0	0
8/2/95	3	2	2.75	19:22	11.63	0	0	0	0	0	0	0	0	0	0
8/2/95	3	2	5	17:43	8.19	0	0	0	1	0	0	0	0	0	1
8/2/95	3	2	5.5	18:52	8.31	0	0	0	0	0	0	1	0	0	1
8/2/95	3	2	6.5	18:11	8.49	0	0	0	0	0	0	0	0	0	0
8/3/95	1	1	2.75	9:38	4.24	0	0	0	0	0	0	0	0	1	1
8/3/95	1	1	5	11:22	4.4	0	0	0	0	0	0	2	0	0	2
8/3/95	1	1	5.5	10:10	4.53	0	0	0	1	0	0	1	0	0	2
8/3/95	1	1	6.5	10:51	4.24	0	0	0	0	0	0	0	0	0	0
8/3/95	1	2	4	19:16	3.7	0	0	0	0	0	0	0	0	0	0
8/3/95	1	2	5	17:34	4.32	0	0	0	1	0	0	1	0	0	2

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
8/3/95	1	2	5.5	18:44	2.88	0	0	0	1	0	0	0	0	0	1
8/3/95	1	2	6.5	18:04	3.58	0	0	0	0	0	0	0	0	0	0
8/3/95	2	1	2.75	9:29	6.4	0	0	0	0	0	0	0	1	0	1
8/3/95	2	1	5	11:09	6.32	0	0	0	0	0	0	3	0	0	3
8/3/95	2	1	5.5	10:00	6.14	0	0	0	0	0	0	0	0	0	0
8/3/95	2	1	6.5	10:42	6.12	0	0	0	0	0	0	0	0	0	0
8/3/95	2	2	4	19:07	6.11	0	0	0	0	0	0	0	0	0	0
8/3/95	2	2	5	17:25	6.12	0	0	0	0	0	1	2	0	0	3
8/3/95	2	2	5.5	18:34	6.15	0	0	0	0	0	0	0	0	0	0
8/3/95	2	2	6.5	17:54	5.52	0	0	0	0	0	0	0	0	0	0
8/3/95	3	1	2.75	9:48	8.46	0	0	0	0	0	0	0	1	0	1
8/3/95	3	1	5	11:31	8.33	0	0	0	1	0	0	1	0	0	2
8/3/95	3	1	5.5	10:20	8.4	0	0	0	2	0	0	0	0	0	2
8/3/95	3	1	6.5	10:59	8.33	0	0	0	0	0	0	0	0	0	0
8/3/95	3	2	4	19:24	9.29	0	0	0	0	0	0	1	0	0	1
8/3/95	3	2	5	17:42	8.99	0	0	0	0	0	0	0	0	0	0
8/3/95	3	2	5.5	18:55	8.67	0	0	0	1	0	0	0	0	0	1
8/3/95	3	2	6.5	18:11	9.05	0	0	0	0	0	0	0	0	0	0
8/4/95	1	1	4	10:05	4.7	0	0	0	0	0	0	0	0	0	0
8/4/95	1	1	5	10:43	4.48	0	0	0	0	0	0	0	0	0	0
8/4/95	1	1	5.5	9:37	4.37	0	0	0	0	1	0	0	0	0	1
8/4/95	1	1	6.5	11:13	4.55	0	0	0	1	0	0	0	0	0	1
8/4/95	1	2	2.75	19:19	4.04	0	0	0	0	0	0	0	0	0	0
8/4/95	1	2	5	18:01	4.13	0	0	0	1	1	0	0	0	0	2
8/4/95	1	2	5.5	18:46	4.47	0	0	0	2	0	0	0	0	0	2
8/4/95	1	2	6.5	17:30	4.3	0	0	0	1	0	0	0	0	0	1
8/4/95	2	1	4	9:56	5.5	0	0	0	0	0	0	0	1	1	2
8/4/95	2	1	5	10:34	5.66	0	0	0	0	0	0	1	0	0	1
8/4/95	2	1	5.5	9:28	5.62	0	0	0	0	0	0	2	1	0	3
8/4/95	2	1	6.5	11:04	5.51	0	0	0	0	0	0	0	0	0	0
8/4/95	2	2	2.75	19:09	6.22	0	0	0	0	0	0	0	0	0	0
8/4/95	2	2	5	17:51	6.68	0	0	0	0	0	0	0	0	0	0
8/4/95	2	2	5.5	18:35	6.19	0	0	0	0	0	1	0	0	0	1
8/4/95	2	2	6.5	17:21	6.2	0	0	0	0	0	0	0	0	0	0
8/4/95	3	1	4	10:14	9.73	0	0	0	0	0	0	0	1	0	1
8/4/95	3	1	5	10:51	10.51	0	0	0	1	0	0	0	0	0	1
8/4/95	3	1	5.5	9:45	8.34	0	0	0	0	0	0	0	0	0	0
8/4/95	3	1	6.5	11:21	10.47	0	0	0	0	0	0	0	0	0	0
8/4/95	3	2	2.75	19:27	9.5	0	0	0	0	0	0	0	2	0	2
8/4/95	3	2	5	18:10	8.08	0	0	0	1	0	0	2	0	0	3
8/4/95	3	2	5.5	18:54	9.03	0	0	0	2	1	0	1	0	0	4
8/4/95	3	2	6.5	17:39	8.27	0	0	0	0	0	0	0	0	0	0
8/5/95	1	1	2.75	9:36	4.28	0	0	0	0	0	0	0	1	0	1
8/5/95	1	1	5	11:12	4.84	0	0	0	0	0	0	0	0	0	0
8/5/95	1	1	5.5	10:05	4.56	0	0	0	2	0	0	0	0	0	2
8/5/95	1	1	6.5	10:44	4.34	0	0	0	0	0	0	0	0	0	0
8/5/95	1	2	4	18:51	5.79	0	0	0	0	0	0	2	1	0	3
8/5/95	1	2	5	17:34	4.38	0	0	0	1	0	0	0	0	0	1
8/5/95	1	2	5.5	19:29	5.42	0	0	0	1	1	0	0	0	0	2
8/5/95	1	2	6.5	18:08	5.02	0	0	0	1	0	0	0	0	0	1

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
8/5/95	2	1	2.75	9:28	4.78	0	0	0	0	0	0	0	2	0	2
8/5/95	2	1	5	11:03	5.26	0	0	0	0	0	0	0	0	0	0
8/5/95	2	1	5.5	9:56	5.39	0	0	0	0	0	0	0	0	0	0
8/5/95	2	1	6.5	10:34	6.35	0	0	0	0	0	0	0	0	0	0
8/5/95	2	2	4	18:42	6.27	0	0	0	0	0	0	0	0	0	0
8/5/95	2	2	5	17:26	5.71	0	0	0	0	0	0	0	0	0	0
8/5/95	2	2	5.5	19:18	7.07	0	0	0	0	0	0	0	0	0	0
8/5/95	2	2	6.5	17:58	5.99	0	0	0	0	0	0	0	0	0	0
8/5/95	3	1	2.75	9:44	7.62	0	0	0	0	0	0	0	3	0	3
8/5/95	3	1	5	11:25	8.2	0	0	0	0	0	0	0	0	0	0
8/5/95	3	1	5.5	10:15	8.68	0	0	0	0	0	0	0	0	0	0
8/5/95	3	1	6.5	10:52	8.34	0	0	0	0	0	0	0	0	0	0
8/5/95	3	2	4	19:02	9.38	0	0	0	0	1	0	1	1	0	3
8/5/95	3	2	5	17:43	10.08	0	0	0	0	1	0	0	0	0	1
8/5/95	3	2	5.5	19:40	9.17	0	0	0	1	0	0	0	0	0	1
8/5/95	3	2	6.5	18:17	7.98	0	0	0	1	0	0	0	0	0	1
8/6/95	1	1	4	10:02	5.26	0	0	0	1	0	0	1	0	1	3
8/6/95	1	1	5	11:21	3.98	0	0	0	0	0	0	0	0	0	0
8/6/95	1	1	5.5	9:32	4.73	0	0	0	0	0	0	0	0	0	0
8/6/95	1	1	6.5	10:46	4.31	0	0	0	5	0	0	0	0	0	5
8/6/95	1	2	2.75	19:31	4.75	0	0	0	0	0	0	0	3	0	3
8/6/95	1	2	5	18:16	4.82	0	0	0	2	1	0	0	0	0	3
8/6/95	1	2	5.5	20:01	4.49	0	0	0	7	0	1	0	0	0	8
8/6/95	1	2	6.5	18:49	4.09	0	0	0	4	0	0	0	0	0	4
8/6/95	2	1	4	9:53	4.99	0	0	0	0	0	0	2	0	0	2
8/6/95	2	1	5	11:11	5.41	0	0	0	0	0	0	2	0	0	2
8/6/95	2	1	5.5	9:23	5.25	0	0	0	1	0	0	0	1	0	2
8/6/95	2	1	6.5	10:36	5.49	0	0	0	1	0	0	0	0	0	1
8/6/95	2	2	2.75	19:21	5.67	0	0	0	0	0	0	1	1	0	2
8/6/95	2	2	5	18:06	6.28	0	0	0	1	0	0	0	0	0	1
8/6/95	2	2	5.5	19:52	5.25	0	0	0	0	0	0	0	0	1	1
8/6/95	2	2	6.5	18:40	5.48	0	0	0	0	0	0	0	0	0	0
8/6/95	3	1	4	10:12	8.68	0	0	0	1	0	0	1	0	0	2
8/6/95	3	1	5	11:32	8.53	0	0	0	1	0	0	1	0	0	2
8/6/95	3	1	5.5	9:41	8.58	0	0	0	1	0	0	0	0	0	1
8/6/95	3	1	6.5	10:57	8.43	0	0	0	4	0	0	0	0	0	4
8/6/95	3	2	2.75	19:40	8.44	0	0	0	0	0	0	0	1	0	1
8/6/95	3	2	5	18:28	8.65	0	0	0	0	0	0	0	0	0	0
8/6/95	3	2	5.5	20:14	9.51	0	0	0	0	0	0	0	0	0	0
8/6/95	3	2	6.5	19:00	8.73	0	0	0	1	0	0	0	0	0	1
8/7/95	1	1	2.75	10:03	4.02	0	0	0	1	0	0	1	1	1	4
8/7/95	1	1	5	11:27	4.68	0	0	0	4	0	0	1	0	0	5
8/7/95	1	1	5.5	9:35	3.72	0	0	0	4	0	0	0	0	0	4
8/7/95	1	1	6.5	12:00	4.28	0	0	0	6	0	0	0	0	1	7
8/7/95	1	2	4	19:23	4.19	0	0	0	0	0	0	0	0	1	1
8/7/95	1	2	5	18:03	3.68	0	0	0	4	0	0	0	1	0	5
8/7/95	1	2	5.5	18:47	3.95	0	0	0	8	0	0	0	0	0	8
8/7/95	1	2	6.5	17:32	3.72	0	0	0	3	1	0	0	0	0	4
8/7/95	2	1	2.75	9:55	5.63	0	0	0	0	0	0	1	1	0	2
8/7/95	2	1	5	10:33	6.29	0	0	0	2	0	0	1	0	0	3

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore
[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
8/7/95	2	1	5.5	9:26	5.38	0	0	0	0	0	0	1	0	0	1
8/7/95	2	1	6.5	11:52	4.6	0	0	0	0	0	0	0	0	0	0
8/7/95	2	2	4	19:14	5.33	0	0	0	0	0	0	1	0	0	1
8/7/95	2	2	5	17:55	5.66	0	0	0	0	0	0	0	0	0	0
8/7/95	2	2	5.5	18:37	5.84	0	0	0	0	0	0	0	0	0	0
8/7/95	2	2	6.5	17:21	7.38	0	0	0	0	0	0	0	0	0	0
8/7/95	3	1	2.75	10:12	8.5	0	0	0	0	0	0	0	0	1	1
8/7/95	3	1	5	11:40	7.45	0	0	0	3	0	0	0	0	0	3
8/7/95	3	1	5.5	9:45	6.57	0	0	0	1	0	0	0	0	0	1
8/7/95	3	1	6.5	12:13	8.87	0	0	0	2	0	0	0	0	0	2
8/7/95	3	2	4	19:32	8.59	0	0	0	0	0	0	0	0	0	0
8/7/95	3	2	5	18:12	8.21	0	0	0	1	0	0	1	0	0	2
8/7/95	3	2	5.5	18:58	7.98	0	0	0	4	0	0	0	0	0	4
8/7/95	3	2	6.5	17:41	8.57	0	0	0	3	0	0	0	0	0	3
8/8/95	1	1	4	9:41	4.1	0	0	0	2	0	0	0	0	0	2
8/8/95	1	1	5	11:35	4.68	0	0	0	4	1	0	1	0	0	6
8/8/95	1	1	5.5	10:12	3.88	0	0	0	12	3	0	0	0	0	15
8/8/95	1	1	6.5	11:06	4.4	0	0	0	6	0	0	0	0	0	6
8/8/95	1	2	2.75	19:30	4.26	0	0	0	0	0	0	0	0	0	0
8/8/95	1	2	5	17:33	4.67	0	0	0	2	2	0	0	0	0	4
8/8/95	1	2	5.5	18:54	4.35	0	0	0	0	0	0	0	0	0	0
8/8/95	1	2	6.5	18:08	4.36	0	0	0	2	1	0	0	0	0	3
8/8/95	2	1	4	9:30	5.82	0	0	0	0	0	0	3	0	1	4
8/8/95	2	1	5	11:27	5.22	0	0	0	0	0	0	0	0	0	0
8/8/95	2	1	5.5	10:02	6.67	0	0	0	0	0	0	0	0	0	0
8/8/95	2	1	6.5	10:56	5.17	0	0	0	1	0	0	0	0	0	1
8/8/95	2	2	2.75	19:17	6.53	0	0	0	0	0	0	0	1	0	1
8/8/95	2	2	5	17:24	5.79	0	0	0	0	0	0	0	0	0	0
8/8/95	2	2	5.5	18:43	6.11	0	0	0	0	0	1	0	0	0	1
8/8/95	2	2	6.5	17:58	6.42	0	0	0	0	0	0	0	0	0	0
8/8/95	3	1	4	9:50	8.43	0	0	0	1	0	0	1	0	0	2
8/8/95	3	1	5	11:45	8.38	0	0	0	2	0	0	1	0	0	3
8/8/95	3	1	5.5	10:27	8.48	0	0	0	3	0	0	0	0	0	3
8/8/95	3	1	6.5	11:16	7.28	0	0	0	0	0	0	0	0	0	0
8/8/95	3	2	2.75	19:38	8.46	0	0	0	0	0	0	0	1	0	1
8/8/95	3	2	5	17:45	9.06	0	0	0	3	0	0	0	0	0	3
8/8/95	3	2	5.5	19:01	9.25	0	0	0	5	0	0	0	0	0	5
8/8/95	3	2	6.5	19:19	9.39	0	0	0	2	0	0	0	0	0	2
8/9/95	1	1	2.75	9:32	5.65	0	0	0	0	0	0	0	0	0	0
8/9/95	1	1	5	11:31	5.95	0	0	0	0	0	0	0	0	0	0
8/9/95	1	1	5.5	10:03	5.67	0	0	0	2	3	0	0	0	0	5
8/9/95	1	1	6.5	10:55	4.7	0	0	0	9	1	0	0	0	0	10
8/9/95	1	2	4	18:50	4.52	0	0	0	0	0	0	0	0	0	0
8/9/95	1	2	5	17:31	3.98	0	0	0	1	1	0	0	0	0	2
8/9/95	1	2	5.5	19:20	3.51	0	0	0	1	1	0	0	0	0	2
8/9/95	1	2	6.5	17:59	5.12	0	0	0	3	0	0	0	0	0	3
8/9/95	2	1	2.75	9:22	5.71	0	0	0	0	0	0	1	0	0	1
8/9/95	2	1	5	11:22	5.43	0	0	0	0	0	0	0	0	0	0
8/9/95	2	1	5.5	9:53	5.68	0	0	0	0	1	0	0	0	0	1
8/9/95	2	1	6.5	10:47	4.91	0	0	0	0	0	0	0	0	0	0

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore
[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
8/9/95	2	2	4	18:35	6.64	0	0	0	1	0	0	1	0	0	2
8/9/95	2	2	5	17:21	5.75	0	0	0	0	0	0	1	0	0	1
8/9/95	2	2	5.5	19:10	6.08	0	0	0	0	0	0	0	0	0	0
8/9/95	2	2	6.5	17:50	5.78	0	0	0	0	0	0	0	0	0	0
8/9/95	3	1	2.75	9:41	8.62	0	0	0	0	0	0	0	0	0	0
8/9/95	3	1	5	11:45	8.54	0	0	0	0	0	0	1	0	0	1
8/9/95	3	1	5.5	10:16	8.52	0	0	0	0	0	0	1	0	0	1
8/9/95	3	1	6.5	11:10	8.03	0	0	0	0	0	0	0	0	0	0
8/9/95	3	2	4	18:58	8.83	0	0	0	0	0	0	0	0	0	0
8/9/95	3	2	5	17:39	7.77	0	0	0	0	0	0	0	0	0	0
8/9/95	3	2	5.5	19:27	10.59	0	0	0	1	0	0	0	0	0	1
8/9/95	3	2	6.5	18:09	8.41	0	0	0	1	0	0	0	0	0	1
8/10/95	1	1	2.75	20:17	4.35	0	0	0	0	0	0	0	2	0	2
8/10/95	1	1	4	18:20	5.4	0	0	0	1	0	0	0	0	0	1
8/10/95	1	1	5	20:42	4.53	0	0	0	0	0	0	0	0	0	0
8/10/95	1	1	5.5	18:50	6.15	0	0	0	1	3	0	0	0	0	4
8/10/95	1	1	6.5	19:42	4.04	0	0	0	1	0	0	0	0	0	1
8/10/95	2	1	2.75	20:06	7.05	0	0	0	0	0	0	0	0	0	0
8/10/95	2	1	4	18:12	5.04	0	0	0	0	0	0	0	0	0	0
8/10/95	2	1	5	20:32	6.53	0	0	0	0	0	0	1	0	0	1
8/10/95	2	1	5.5	18:42	5.42	0	0	0	0	0	0	0	0	0	0
8/10/95	2	1	6.5	19:30	6.67	0	0	0	2	0	0	0	0	0	2
8/10/95	3	1	2.75	20:24	7.95	0	0	0	0	0	0	0	1	0	1
8/10/95	3	1	4	18:30	7.93	0	0	0	0	0	0	0	0	0	0
8/10/95	3	1	5	20:50	9.68	0	0	0	0	0	0	0	0	0	0
8/10/95	3	1	5.5	19:08	8.29	0	0	0	0	0	0	0	0	0	0
8/10/95	3	1	6.5	19:50	8.11	0	0	0	1	0	0	0	0	0	1
8/11/95	1	1	2.75	11:06	5.39	0	0	0	0	0	0	1	1	0	2
8/11/95	1	1	5	9:44	4.52	0	0	0	0	0	0	0	0	0	0
8/11/95	1	1	5.5	11:41	4.56	0	0	0	0	0	0	0	0	1	1
8/11/95	1	1	6.5	10:14	4.56	0	0	0	1	0	0	0	0	0	1
8/11/95	1	2	5.5	17:40	4.81	0	0	0	1	0	0	0	0	0	1
8/11/95	1	2	6.5	18:16	4.18	0	0	0	1	2	0	0	0	0	3
8/11/95	2	1	2.75	10:55	6.47	0	0	0	0	0	1	1	0	0	2
8/11/95	2	1	5	9:33	5.93	0	0	0	0	0	0	1	0	0	1
8/11/95	2	1	5.5	11:31	6.16	0	0	0	0	0	0	0	0	0	0
8/11/95	2	1	6.5	10:04	5.34	0	0	0	0	0	0	1	0	0	1
8/11/95	2	2	5.5	17:30	6.47	0	0	0	0	0	0	0	0	0	0
8/11/95	2	2	6.5	18:04	7.37	0	0	0	1	0	0	0	0	0	1
8/11/95	3	1	2.75	11:17	9.48	0	0	0	0	0	0	0	3	0	3
8/11/95	3	1	5	9:52	8.54	0	0	0	0	0	0	0	0	1	1
8/11/95	3	1	5.5	11:50	9.61	0	0	0	2	0	0	0	0	0	2
8/11/95	3	1	6.5	10:23	8.05	0	0	0	2	0	0	0	0	0	2
8/11/95	3	2	5.5	17:49	8.98	0	0	0	2	0	0	0	0	0	2
8/11/95	3	2	6.5	18:27	8.64	0	0	0	1	0	0	0	0	0	1
8/12/95	1	1	4	9:43	3.65	0	0	0	3	2	0	0	0	0	5
8/12/95	1	1	5	10:17	3.34	0	0	0	0	0	0	0	0	0	0
8/12/95	1	1	5.5	10:56	4.6	0	0	0	3	0	0	0	0	0	3
8/12/95	1	1	6.5	11:30	4.53	0	0	0	2	0	0	0	0	0	2
8/12/95	1	2	2.75	19:02	4.7	0	0	0	0	0	0	0	0	2	2

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore
[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
8/12/95	1	2	5	19:32	4.58	0	0	0	5	1	0	2	0	0	8
8/12/95	1	2	5.5	18:17	4.24	0	0	0	7	3	0	1	0	0	11
8/12/95	1	2	6.5	17:35	3.74	0	0	0	0	0	0	0	0	0	0
8/12/95	2	1	4	9:32	7	0	0	0	0	0	0	0	0	0	0
8/12/95	2	1	5	10:06	5.54	0	0	0	4	0	0	0	0	0	4
8/12/95	2	1	5.5	10:47	5.56	0	0	0	0	0	0	0	0	0	0
8/12/95	2	1	6.5	11:22	5.38	0	0	0	0	0	0	0	0	0	0
8/12/95	2	2	2.75	18:52	6.53	0	0	0	0	0	0	0	0	0	0
8/12/95	2	2	5	19:24	6.05	0	0	0	0	0	0	0	0	0	0
8/12/95	2	2	5.5	18:07	5.2	0	0	0	1	0	0	0	0	0	1
8/12/95	2	2	6.5	17:24	5.25	0	0	0	4	0	0	0	0	0	4
8/12/95	3	1	4	9:53	8.4	0	0	0	0	0	0	0	0	0	0
8/12/95	3	1	5	10:25	7.03	0	0	0	1	0	0	0	0	0	1
8/12/95	3	1	5.5	11:07	8.48	0	0	0	4	1	0	0	0	0	5
8/12/95	3	1	6.5	11:41	8.87	0	0	0	7	0	0	0	0	0	7
8/12/95	3	2	2.75	19:11	9.29	0	0	0	0	0	0	0	0	0	0
8/12/95	3	2	5	19:43	9.19	0	0	0	1	0	0	0	0	0	1
8/12/95	3	2	5.5	18:32	5.26	0	0	0	2	0	0	0	0	0	2
8/12/95	3	2	6.5	17:54	3.96	0	0	0	6	0	0	0	0	0	6
8/13/95	1	1	2.75	10:11	5.25	0	0	0	0	3	0	2	0	0	5
8/13/95	1	1	5	9:36	5.89	0	0	0	1	0	0	0	0	1	2
8/13/95	1	1	5.5	11:34	5.69	0	0	0	1	2	0	0	0	0	3
8/13/95	1	1	6.5	10:58	5.38	0	0	0	3	0	0	0	0	0	3
8/13/95	1	2	2.75	18:57	4.46	0	0	0	0	1	0	0	0	0	1
8/13/95	1	2	5	19:27	3.88	0	0	0	1	1	0	0	0	0	2
8/13/95	1	2	5.5	17:40	4.35	0	0	0	1	2	0	0	0	0	3
8/13/95	1	2	6.5	18:13	4.3	0	0	0	1	0	0	0	0	0	1
8/13/95	2	1	2.75	10:00	7.29	0	0	0	0	0	0	0	3	0	3
8/13/95	2	1	5	9:25	7.09	0	0	0	0	2	0	0	0	0	2
8/13/95	2	1	5.5	11:25	5.44	0	0	0	0	0	0	0	0	0	0
8/13/95	2	1	6.5	10:47	5.58	0	0	0	1	0	0	0	0	0	1
8/13/95	2	2	2.75	18:48	5.38	0	0	0	0	0	0	0	2	0	2
8/13/95	2	2	5	19:18	5.25	0	0	0	0	0	0	0	0	0	0
8/13/95	2	2	5.5	17:31	6.13	0	0	0	0	0	0	0	0	0	0
8/13/95	2	2	6.5	18:03	6.34	0	0	0	0	0	0	0	0	0	0
8/13/95	3	1	2.75	10:24	9.49	0	0	0	1	0	0	0	1	0	2
8/13/95	3	1	5	9:47	9.61	0	0	0	1	1	0	0	0	0	2
8/13/95	3	1	5.5	11:47	8.58	0	0	0	2	0	0	0	0	0	2
8/13/95	3	1	6.5	11:09	8.35	0	0	0	1	0	0	0	0	0	1
8/13/95	3	2	2.75	19:06	8.57	0	0	0	0	0	0	0	0	0	0
8/13/95	3	2	5	19:36	8.18	0	0	0	1	0	0	0	0	0	1
8/13/95	3	2	5.5	17:51	8.58	0	0	0	1	0	0	0	0	0	1
8/13/95	3	2	6.5	18:21	9.38	0	0	0	2	0	0	0	0	0	2
8/14/95	1	1	2.75	17:36	5.01	0	0	0	0	0	0	0	0	1	1
8/14/95	1	1	4	18:34	4.31	0	0	0	0	0	0	0	1	0	1
8/14/95	1	1	5	16:59	5.02	0	0	0	0	1	0	0	0	0	1
8/14/95	1	1	5.5	19:07	4.08	0	0	0	3	0	0	0	0	0	3
8/14/95	1	1	6.5	19:39	4.3	0	0	0	4	0	0	0	0	0	4
8/14/95	2	1	2.75	17:23	8.66	0	0	0	0	0	0	0	0	0	0
8/14/95	2	1	4	18:24	6.48	0	0	0	0	0	0	0	1	0	1

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
8/14/95	2	1	5	16:45	8.1	0	0	0	0	1	0	1	0	0	2
8/14/95	2	1	5.5	18:56	7.6	0	0	0	0	0	0	0	0	0	0
8/14/95	2	1	6.5	19:29	5.7	0	0	0	0	0	0	0	0	0	0
8/14/95	3	1	2.75	17:46	11.26	0	0	0	0	0	0	0	1	0	1
8/14/95	3	1	4	18:44	9.18	0	0	0	0	0	0	0	0	0	0
8/14/95	3	1	5	17:08	10.43	0	0	0	2	0	0	1	0	0	3
8/14/95	3	1	5.5	19:17	9.84	0	0	0	0	0	0	0	0	0	0
8/14/95	3	1	6.5	19:49	8.76	0	0	0	5	0	0	0	0	0	5
8/15/95	1	1	4	10:09	4.63	0	0	0	0	0	0	0	0	0	0
8/15/95	1	1	5	11:32	4.16	0	0	0	0	1	0	0	0	0	1
8/15/95	1	1	5.5	9:34	5.74	0	0	0	3	4	0	0	0	0	7
8/15/95	1	1	6.5	10:58	5.28	0	0	0	2	0	0	0	0	0	2
8/15/95	1	2	2.75	19:23	4.41	0	0	0	0	0	0	0	1	0	1
8/15/95	1	2	5	17:35	3.78	0	0	0	0	1	0	0	0	0	1
8/15/95	1	2	5.5	18:48	4.73	0	0	0	2	2	0	0	0	0	4
8/15/95	1	2	6.5	18:06	3.86	0	0	0	1	0	0	0	0	0	1
8/15/95	2	1	4	10:00	6.15	0	0	0	0	0	0	0	0	0	0
8/15/95	2	1	5	11:23	5.32	0	0	0	0	0	0	0	0	0	0
8/15/95	2	1	5.5	9:24	5.96	0	0	0	0	0	0	1	0	0	1
8/15/95	2	1	6.5	10:48	6.28	0	0	0	0	0	0	0	0	0	0
8/15/95	2	2	2.75	19:12	6.53	0	0	0	0	0	0	1	0	0	1
8/15/95	2	2	5	17:26	6.15	0	0	0	0	0	0	0	0	0	0
8/15/95	2	2	5.5	18:37	6.38	0	0	0	0	1	0	1	0	1	3
8/15/95	2	2	6.5	17:56	7.46	0	0	0	0	0	0	0	0	0	0
8/15/95	3	1	4	10:18	9.18	0	0	0	0	0	0	0	0	0	0
8/15/95	3	1	5	11:39	9.84	0	0	0	0	0	0	0	0	0	0
8/15/95	3	1	5.5	9:47	8.53	0	0	0	3	0	0	0	0	0	3
8/15/95	3	1	6.5	11:09	8.23	0	0	0	2	0	0	0	0	0	2
8/15/95	3	2	2.75	19:31	9.8	0	0	0	1	0	0	0	1	0	2
8/15/95	3	2	5	17:43	9.62	0	0	0	2	0	0	0	0	0	2
8/15/95	3	2	5.5	18:59	9.67	0	0	0	0	1	0	0	0	0	1
8/15/95	3	2	6.5	18:14	9.97	0	0	0	1	0	0	0	0	0	1
8/16/95	1	1	2.75	9:42	3.84	0	0	0	0	0	0	0	0	0	0
8/16/95	1	1	5	11:36	4.32	0	0	0	1	1	0	0	0	0	2
8/16/95	1	1	5.5	10:12	4.71	0	0	0	3	3	0	0	0	0	6
8/16/95	1	1	6.5	10:58	4.47	0	0	0	0	1	0	0	0	0	1
8/16/95	1	2	4	19:44	4.09	0	0	0	2	0	0	1	0	0	3
8/16/95	1	2	5	17:47	4.37	0	0	0	3	3	0	0	0	0	6
8/16/95	1	2	5.5	19:07	4.71	0	0	0	11	1	0	0	0	0	12
8/16/95	1	2	6.5	18:22	4.77	0	0	0	15	0	0	0	0	0	15
8/16/95	2	1	2.75	9:30	6.47	0	0	0	0	0	0	0	1	0	1
8/16/95	2	1	5	11:25	8.21	0	0	0	0	0	0	0	0	0	0
8/16/95	2	1	5.5	10:03	5.93	0	0	0	0	0	0	0	0	0	0
8/16/95	2	1	6.5	10:48	5.64	0	0	0	0	0	0	0	0	0	0
8/16/95	2	2	4	19:34	6.16	0	0	0	0	0	0	0	0	0	0
8/16/95	2	2	5	17:35	6.45	0	0	0	1	2	0	2	0	0	5
8/16/95	2	2	5.5	18:55	8.2	0	0	0	0	0	0	1	0	0	1
8/16/95	2	2	6.5	18:13	5.88	0	0	0	0	0	0	0	0	0	0
8/16/95	3	1	2.75	9:49	9.15	0	0	0	0	0	0	0	1	0	1
8/16/95	3	1	5	11:45	8.63	0	0	0	2	0	0	0	0	0	2

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
8/16/95	3	1	5.5	10:25	9.25	0	0	0	3	0	0	0	0	0	3
8/16/95	3	1	6.5	11:08	9.22	0	0	0	6	0	0	0	0	0	6
8/16/95	3	2	4	19:53	6.78	0	0	0	0	1	0	1	0	0	2
8/16/95	3	2	5	17:59	9.05	0	0	0	2	0	0	0	0	0	2
8/16/95	3	2	5.5	19:21	3.79	0	0	0	9	0	0	0	0	0	9
8/16/95	3	2	6.5	18:36	3.3	0	0	0	7	0	0	0	0	0	7
8/17/95	1	1	2.75	12:05	9.04	0	0	0	0	0	0	0	0	0	0
8/17/95	1	1	4	9:32	4.59	0	0	0	2	1	0	1	0	0	4
8/17/95	1	1	5	10:53	4.47	0	0	0	9	1	0	0	0	0	10
8/17/95	1	1	5.5	10:03	4.51	0	0	0	11	3	0	0	0	0	14
8/17/95	1	1	6.5	11:30	4.52	0	0	0	8	2	0	0	0	0	10
8/17/95	2	1	2.75	11:54	6.31	0	0	0	0	0	0	0	1	0	1
8/17/95	2	1	4	9:18	5.43	0	0	0	0	0	0	1	3	0	4
8/17/95	2	1	5	10:43	6.15	0	0	0	0	1	0	0	0	0	1
8/17/95	2	1	5.5	9:54	5.36	0	0	0	0	0	0	0	0	1	1
8/17/95	2	1	6.5	11:16	5.28	0	0	0	1	0	0	0	0	0	1
8/17/95	3	1	2.75	12:21	9.13	0	0	0	0	0	0	0	0	0	0
8/17/95	3	1	4	9:42	8.39	0	0	0	0	0	0	0	1	0	1
8/17/95	3	1	5	11:04	7.38	0	0	0	7	0	0	1	0	1	9
8/17/95	3	1	5.5	10:16	3.43	0	0	0	5	0	0	0	0	0	5
8/17/95	3	1	6.5	11:44	4.4	0	0	0	2	0	0	0	0	0	2
8/18/95	1	1	2.75	9:39	5.1	0	0	0	0	0	0	0	0	0	0
8/18/95	1	1	5	11:44	5.06	0	0	0	2	0	0	0	0	0	2
8/18/95	1	1	5.5	10:59	5.95	0	0	0	9	11	0	0	0	0	20
8/18/95	1	1	6.5	10:13	4.71	0	0	0	1	0	0	0	0	0	1
8/18/95	1	2	4	19:53	5.44	0	0	0	0	0	0	0	0	0	0
8/18/95	1	2	5	17:36	4.31	0	0	0	0	4	0	0	0	0	4
8/18/95	1	2	5.5	18:12	4.21	0	0	0	0	7	0	0	0	1	8
8/18/95	1	2	6.5	19:08	5.28	0	0	0	2	9	0	0	0	0	11
8/18/95	2	1	2.75	9:29	5.53	0	0	0	0	0	0	0	0	0	0
8/18/95	2	1	5	11:34	6.35	0	0	0	0	0	0	0	0	0	0
8/18/95	2	1	5.5	10:49	6.36	0	0	0	0	0	0	0	0	0	0
8/18/95	2	1	6.5	10:02	7.58	0	0	0	0	0	0	0	0	0	0
8/18/95	2	2	4	19:40	8.16	0	0	0	0	0	0	0	1	0	1
8/18/95	2	2	5	17:25	7.55	0	0	0	0	0	0	0	0	0	0
8/18/95	2	2	5.5	18:00	7.88	0	0	0	0	2	0	0	0	0	2
8/18/95	2	2	6.5	18:57	6.78	0	0	0	0	0	0	0	0	0	0
8/18/95	3	1	2.75	9:48	9.58	0	0	0	1	0	0	0	0	0	1
8/18/95	3	1	5	11:54	9.98	0	0	0	0	2	0	0	0	0	2
8/18/95	3	1	5.5	11:17	12.34	0	0	0	0	2	0	0	0	0	2
8/18/95	3	1	6.5	10:22	11.29	0	0	0	2	2	0	0	0	0	4
8/18/95	3	2	4	20:02	7.03	0	0	0	0	0	0	0	0	0	0
8/18/95	3	2	5	17:46	8.78	0	0	0	0	1	0	1	0	0	2
8/18/95	3	2	5.5	18:26	8.67	0	0	0	3	1	0	0	0	0	4
8/18/95	3	2	6.5	19:25	11.89	0	0	0	0	0	0	0	0	0	0
8/19/95	1	1	4	9:31	7.15	0	0	0	0	1	0	0	0	0	1
8/19/95	1	1	5	11:29	4.35	0	0	0	0	2	0	0	0	0	2
8/19/95	1	1	5.5	10:54	4.2	0	0	0	2	0	0	0	0	0	2
8/19/95	1	1	6.5	10:12	4.08	0	0	0	0	1	0	0	0	0	1
8/19/95	1	2	2.75	19:19	4.32	0	0	0	0	0	0	0	0	1	1

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
8/19/95	1	2	5	17:29	4.77	0	0	0	0	2	0	0	0	0	2
8/19/95	1	2	5.5	18:01	5.88	0	0	0	2	4	0	0	0	0	6
8/19/95	1	2	6.5	18:47	4.83	0	0	0	1	0	0	0	0	0	1
8/19/95	2	1	4	9:26	6.13	0	0	0	0	0	0	1	0	0	1
8/19/95	2	1	5	11:17	7.58	0	0	0	0	0	0	0	0	0	0
8/19/95	2	1	5.5	10:41	8.2	0	0	0	0	2	0	0	0	0	2
8/19/95	2	1	6.5	9:58	8.17	0	0	0	0	0	1	0	0	0	1
8/19/95	2	2	2.75	19:09	6.18	0	0	0	0	0	0	0	0	0	0
8/19/95	2	2	5	17:19	6.32	0	0	0	0	1	0	0	0	0	1
8/19/95	2	2	5.5	17:52	6.18	0	0	0	0	0	0	0	0	0	0
8/19/95	2	2	6.5	18:39	5.33	0	0	0	0	0	0	0	0	0	0
8/19/95	3	1	4	9:43	10.01	0	0	0	0	0	0	0	0	0	0
8/19/95	3	1	5	11:38	9.53	0	0	0	0	0	0	0	0	0	0
8/19/95	3	1	5.5	11:03	10.57	0	0	0	1	0	0	0	0	0	1
8/19/95	3	1	6.5	10:21	8.71	0	0	0	0	0	0	0	0	0	0
8/19/95	3	2	2.75	19:29	8.84	0	0	0	0	0	0	0	0	0	0
8/19/95	3	2	5	17:38	9.25	0	0	0	0	0	0	0	0	0	0
8/19/95	3	2	5.5	18:16	9.29	0	0	0	1	0	0	0	0	0	1
8/19/95	3	2	6.5	18:57	8.62	0	0	0	0	0	0	0	0	0	0
8/20/95	1	1	2.75	10:51	4.92	0	0	0	0	0	0	0	0	0	0
8/20/95	1	1	5	10:14	4.09	0	0	0	1	0	0	0	0	0	1
8/20/95	1	1	5.5	9:39	4.48	0	0	0	0	1	0	0	0	0	1
8/20/95	1	1	6.5	11:22	5.68	0	0	0	3	3	0	0	0	0	6
8/20/95	1	2	4	18:23	4.54	0	0	0	1	0	0	0	0	0	1
8/20/95	1	2	5	19:02	4.43	0	0	0	0	3	0	1	0	0	4
8/20/95	1	2	5.5	19:35	3.71	0	0	0	6	1	0	0	0	0	7
8/20/95	1	2	6.5	17:40	3.82	0	0	0	1	0	0	0	0	0	1
8/20/95	2	1	2.75	10:37	7.93	0	0	0	0	0	0	1	2	0	3
8/20/95	2	1	5	10:02	7.27	0	0	0	0	0	0	1	0	0	1
8/20/95	2	1	5.5	9:28	6.71	0	0	0	1	1	0	0	0	0	2
8/20/95	2	1	6.5	11:12	5.94	0	0	0	0	0	0	0	0	0	0
8/20/95	2	2	4	18:09	10.32	0	0	0	0	0	0	0	0	0	0
8/20/95	2	2	5	18:52	5.68	0	0	0	2	1	0	0	0	0	3
8/20/95	2	2	5.5	19:26	5.31	0	0	0	1	0	0	0	0	0	1
8/20/95	2	2	6.5	17:25	8.86	0	0	0	2	1	0	0	0	0	3
8/20/95	3	1	2.75	11:00	9.93	0	0	0	0	0	0	0	0	0	0
8/20/95	3	1	5	10:21	7.38	0	0	0	0	0	0	0	0	0	0
8/20/95	3	1	5.5	9:49	9	0	0	0	1	1	0	1	0	0	3
8/20/95	3	1	6.5	11:35	10.46	0	0	0	0	0	0	0	0	0	0
8/20/95	3	2	4	18:32	12.24	0	0	0	0	0	0	0	0	0	0
8/20/95	3	2	5	19:12	8.54	0	0	0	1	1	0	0	0	0	2
8/20/95	3	2	5.5	19:46	8.41	0	0	0	1	0	0	0	0	0	1
8/20/95	3	2	6.5	17:49	10.83	0	0	0	7	0	0	0	0	0	7
8/21/95	1	1	2.75	19:51	3.43	0	0	0	0	0	0	0	1	0	1
8/21/95	1	1	4	17:39	4.4	0	0	0	0	1	0	0	0	0	1
8/21/95	1	1	5	19:17	3.3	0	0	0	1	1	0	0	0	0	2
8/21/95	1	1	5.5	18:45	3.67	0	0	0	6	8	0	0	0	0	14
8/21/95	1	1	6.5	18:10	3.72	0	0	0	3	0	0	0	0	0	3
8/21/95	2	1	2.75	19:43	4.8	0	0	0	0	0	0	0	0	0	0
8/21/95	2	1	4	17:30	5.65	0	0	0	0	1	0	0	0	0	1

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore
[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
8/21/95	2	1	5	19:08	5.97	0	0	0	0	0	0	0	0	1	1
8/21/95	2	1	5.5	18:34	6.32	0	0	0	0	1	0	0	0	0	1
8/21/95	2	1	6.5	18:02	5.45	0	0	0	0	0	0	0	0	0	0
8/21/95	3	1	2.75	19:58	8.16	0	0	0	0	0	0	0	0	0	0
8/21/95	3	1	4	17:49	9.22	0	0	0	1	0	0	1	0	0	2
8/21/95	3	1	5	19:30	8.89	0	0	0	0	0	0	0	0	0	0
8/21/95	3	1	5.5	18:59	3.15	0	0	0	5	0	0	0	0	0	5
8/21/95	3	1	6.5	18:18	4.03	0	0	0	6	0	0	0	0	0	6
8/22/95	1	1	2.75	9:45	4.47	0	0	0	1	1	0	2	1	0	5
8/22/95	1	1	5	10:21	4.07	0	0	0	0	3	0	0	0	0	3
8/22/95	1	1	5.5	12:06	4.21	0	0	0	1	1	0	0	0	0	2
8/22/95	1	1	6.5	11:03	4.53	0	0	0	4	6	0	0	0	0	10
8/22/95	1	2	4	19:27	4.13	0	0	0	0	1	0	0	0	0	1
8/22/95	1	2	5	18:51	2.63	0	0	0	3	3	0	0	0	0	6
8/22/95	1	2	5.5	17:35	2.63	0	0	0	1	3	0	0	0	0	4
8/22/95	1	2	6.5	18:07	4.2	0	0	0	3	3	0	0	0	0	6
8/22/95	2	1	2.75	9:32	8.93	0	0	0	0	0	0	1	0	0	1
8/22/95	2	1	5	10:09	7.53	0	0	0	0	2	0	0	0	0	2
8/22/95	2	1	5.5	11:50	10.53	0	0	0	0	3	0	0	0	0	3
8/22/95	2	1	6.5	10:50	7.54	0	0	0	2	1	0	0	0	0	3
8/22/95	2	2	4	19:17	6.74	0	0	0	0	0	0	0	0	0	0
8/22/95	2	2	5	18:41	6.19	0	0	0	0	1	0	0	0	0	1
8/22/95	2	2	5.5	17:24	6.49	0	0	0	0	2	0	0	0	0	2
8/22/95	2	2	6.5	17:57	5.71	0	0	0	0	2	0	0	0	0	2
8/22/95	3	1	2.75	9:55	10.52	0	0	0	0	0	0	0	0	0	0
8/22/95	3	1	5	10:30	10.98	0	0	0	0	1	0	0	0	0	1
8/22/95	3	1	5.5	12:16	10.67	0	0	0	5	1	0	0	0	0	6
8/22/95	3	1	6.5	11:18	11.8	0	0	0	3	0	0	0	0	0	3
8/22/95	3	2	4	19:35	9.47	0	0	0	0	0	0	0	0	0	0
8/22/95	3	2	5	19:03	8.11	0	0	0	2	0	0	0	0	0	2
8/22/95	3	2	5.5	17:45	8.01	0	0	0	1	0	0	0	0	0	1
8/22/95	3	2	6.5	18:19	8.05	0	0	0	1	0	0	0	0	0	1
8/23/95	1	1	4	9:32	4.34	0	0	0	1	5	0	0	0	0	6
8/23/95	1	1	5	10:09	4.14	0	0	0	0	1	0	0	0	0	1
8/23/95	1	1	5.5	11:19	4.58	0	0	0	1	5	0	0	0	0	6
8/23/95	1	1	6.5	10:43	4.21	0	0	0	0	2	0	0	0	0	2
8/23/95	1	2	2.75	19:50	4.7	0	0	0	0	0	0	0	0	0	0
8/23/95	1	2	5	19:12	4.36	0	0	0	1	8	0	0	0	0	9
8/23/95	1	2	5.5	17:42	6.56	0	0	0	1	9	0	0	0	0	10
8/23/95	1	2	6.5	18:28	4.17	0	0	0	0	0	0	0	0	0	0
8/23/95	2	1	4	9:23	5.18	0	0	0	0	0	0	0	0	0	0
8/23/95	2	1	5	9:56	8.59	0	0	0	0	0	0	1	0	0	1
8/23/95	2	1	5.5	11:07	7.85	0	0	0	1	0	0	0	0	0	1
8/23/95	2	1	6.5	10:32	7.26	0	0	0	0	0	0	0	0	0	0
8/23/95	2	2	2.75	19:36	9.48	0	0	0	0	0	0	0	0	0	0
8/23/95	2	2	5	18:59	8.61	0	0	0	0	0	0	0	0	0	0
8/23/95	2	2	5.5	17:32	7.17	0	0	0	0	0	0	0	0	0	0
8/23/95	2	2	6.5	18:18	7.18	0	0	0	0	0	0	0	0	0	0
8/23/95	3	1	4	9:43	9.03	0	0	0	0	1	0	0	0	0	1
8/23/95	3	1	5	10:18	7.18	0	0	0	0	0	0	0	0	0	0

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
8/23/95	3	1	5.5	11:31	9.18	0	0	0	0	0	0	0	0	0	0
8/23/95	3	1	6.5	10:53	9.37	0	0	0	0	2	0	0	0	0	2
8/23/95	3	2	2.75	19:59	10.73	0	0	0	0	0	0	1	0	0	1
8/23/95	3	2	5	19:24	9.51	0	0	0	0	0	0	0	0	0	0
8/23/95	3	2	5.5	18:01	12.56	0	0	0	1	0	0	0	0	0	1
8/23/95	3	2	6.5	18:37	10.27	0	0	0	0	0	0	0	0	0	0
8/24/95	1	1	2.75	9:38	4.71	0	0	0	0	0	0	1	0	0	1
8/24/95	1	1	5	10:11	4.29	0	0	0	0	3	0	0	0	0	3
8/24/95	1	1	5.5	11:20	6.06	0	0	0	4	7	0	0	0	0	11
8/24/95	1	1	6.5	10:43	3.73	0	0	0	1	3	0	0	0	0	4
8/24/95	1	2	4	19:23	4.06	0	0	0	0	1	0	0	0	0	1
8/24/95	1	2	5	18:44	4.15	0	0	0	8	9	0	0	0	0	17
8/24/95	1	2	5.5	17:33	3.54	0	0	0	3	2	0	0	0	0	5
8/24/95	1	2	6.5	18:05	4.13	0	0	0	2	0	0	0	0	0	2
8/24/95	2	1	2.75	9:28	6.66	0	0	0	0	0	0	0	1	0	1
8/24/95	2	1	5	10:01	5.72	0	0	0	0	0	0	0	0	0	0
8/24/95	2	1	5.5	11:09	6.37	0	0	0	0	1	0	0	0	0	1
8/24/95	2	1	6.5	10:33	6.33	0	0	0	0	0	0	0	0	0	0
8/24/95	2	2	4	19:14	6.08	0	0	0	0	0	0	0	0	0	0
8/24/95	2	2	5	18:33	6.69	0	0	0	0	0	0	0	0	1	1
8/24/95	2	2	5.5	17:24	5.5	0	0	0	0	0	0	1	0	0	1
8/24/95	2	2	6.5	17:54	6.07	0	0	0	0	0	0	0	0	0	0
8/24/95	3	1	2.75	9:49	8.78	0	0	0	0	0	0	0	0	0	0
8/24/95	3	1	5	10:20	8.75	0	0	0	0	0	0	0	0	0	0
8/24/95	3	1	5.5	11:36	9.68	0	0	0	3	0	0	0	0	0	3
8/24/95	3	1	6.5	10:55	9.79	0	0	0	2	0	0	0	0	0	2
8/24/95	3	2	4	19:32	8.18	0	0	0	0	0	0	0	0	0	0
8/24/95	3	2	5	19:01	9.83	0	0	0	1	0	0	0	0	0	1
8/24/95	3	2	5.5	17:42	8.9	0	0	0	2	0	0	0	0	0	2
8/24/95	3	2	6.5	18:14	7.86	0	0	0	3	0	0	0	0	0	3
8/25/95	1	1	4	9:38	4.09	0	0	0	1	2	0	0	0	0	3
8/25/95	1	1	5	10:10	3.54	0	0	0	0	1	0	0	0	0	1
8/25/95	1	1	5.5	11:22	3.96	0	0	0	21	3	0	1	0	0	25
8/25/95	1	1	6.5	10:48	3.69	0	0	0	2	0	0	0	0	0	2
8/25/95	1	2	2.75	19:22	4.4	0	0	0	1	0	0	0	0	0	1
8/25/95	1	2	5	18:45	4.56	0	0	0	5	5	0	0	0	0	10
8/25/95	1	2	5.5	17:37	4.22	0	0	0	3	1	0	0	0	0	4
8/25/95	1	2	6.5	18:09	3.7	0	0	0	3	0	0	0	0	0	3
8/25/95	2	1	4	9:27	6.44	0	0	0	0	1	0	0	0	0	1
8/25/95	2	1	5	9:59	7.18	0	0	0	1	0	0	1	0	0	2
8/25/95	2	1	5.5	11:12	5.92	0	0	0	0	0	0	0	0	0	0
8/25/95	2	1	6.5	10:37	7.1	0	0	0	1	0	0	0	0	0	1
8/25/95	2	2	2.75	19:12	6.37	0	0	0	0	0	0	0	0	1	1
8/25/95	2	2	5	18:36	6.13	0	0	0	0	0	0	0	0	0	0
8/25/95	2	2	5.5	17:26	5.79	0	0	0	1	1	0	0	0	0	2
8/25/95	2	2	6.5	17:59	6.47	0	0	0	0	1	0	0	0	0	1
8/25/95	3	1	4	9:47	8.98	0	0	0	0	0	0	0	0	0	0
8/25/95	3	1	5	10:17	9.35	0	0	0	5	0	0	0	0	0	5
8/25/95	3	1	5.5	11:43	2.34	0	0	0	11	1	0	0	0	0	12
8/25/95	3	1	6.5	10:57	10.64	0	0	0	0	0	0	0	0	0	0

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
8/25/95	3	2	2.75	19:30	9.57	0	0	0	0	0	0	0	1	0	1
8/25/95	3	2	5	18:57	9.64	0	0	0	5	1	0	0	0	0	6
8/25/95	3	2	5.5	17:47	8.36	0	0	0	1	0	0	0	0	0	1
8/25/95	3	2	6.5	18:19	7.57	0	0	0	2	2	0	0	0	0	4
8/26/95	1	1	2.75	9:36	5.16	0	0	0	0	0	0	0	2	0	2
8/26/95	1	1	5	10:12	5.41	0	0	0	1	7	0	0	0	0	8
8/26/95	1	1	5.5	11:03	4.48	0	0	0	4	0	0	1	0	0	5
8/26/95	1	1	6.5	11:45	4.55	0	0	0	0	8	0	0	0	0	8
8/26/95	1	2	4	18:49	4.14	0	0	0	0	3	0	0	0	0	3
8/26/95	1	2	5	19:19	5.32	0	0	0	1	4	0	0	0	0	5
8/26/95	1	2	5.5	18:07	3.78	0	0	0	1	3	0	1	0	1	6
8/26/95	1	2	6.5	17:37	3.9	0	0	0	1	0	0	0	0	0	1
8/26/95	2	1	2.75	9:26	6.44	0	0	0	0	0	0	0	0	0	0
8/26/95	2	1	5	10:00	6.86	0	0	0	1	2	0	1	0	0	4
8/26/95	2	1	5.5	10:51	9.14	0	0	0	0	0	0	0	0	0	0
8/26/95	2	1	6.5	11:35	7.91	0	0	0	0	0	0	0	0	0	0
8/26/95	2	2	4	18:41	5.22	0	0	0	0	0	0	1	0	0	1
8/26/95	2	2	5	19:09	5.28	0	0	0	0	1	0	0	0	0	1
8/26/95	2	2	5.5	17:57	6.46	0	0	0	1	0	0	0	0	0	1
8/26/95	2	2	6.5	17:27	6.18	0	0	0	1	0	0	0	0	0	1
8/26/95	3	1	2.75	9:46	9.74	0	0	0	1	0	0	0	0	0	1
8/26/95	3	1	5	10:26	10.28	0	0	0	0	1	0	0	0	0	1
8/26/95	3	1	5.5	11:15	15.18	0	0	0	0	2	0	0	0	0	2
8/26/95	3	1	6.5	10:59	10.78	0	0	0	2	0	0	0	0	0	2
8/26/95	3	2	4	18:58	8.59	0	0	0	0	0	0	0	0	0	0
8/26/95	3	2	5	19:28	8.45	0	0	0	0	0	0	0	0	0	0
8/26/95	3	2	5.5	18:17	9.19	0	0	0	0	1	0	0	0	0	1
8/26/95	3	2	6.5	17:45	6.98	0	0	0	3	0	0	0	0	0	3
8/27/95	1	1	4	10:25	4.28	0	0	0	1	1	0	0	0	1	3
8/27/95	1	1	5	9:44	4.55	0	0	0	1	1	0	0	0	0	2
8/27/95	1	1	5.5	11:12	6.47	0	0	0	2	2	0	0	0	0	4
8/27/95	1	1	6.5	11:46	4.03	0	0	0	0	0	0	0	0	0	0
8/27/95	1	2	2.75	19:33	5.2	0	0	0	0	1	0	0	1	0	2
8/27/95	1	2	5	18:59	4.6	0	0	0	0	3	0	0	0	0	3
8/27/95	1	2	5.5	18:10	3.75	0	0	0	1	4	0	0	0	0	5
8/27/95	1	2	6.5	17:35	3.67	0	0	0	1	0	0	0	0	0	1
8/27/95	2	1	4	10:10	9.27	0	0	0	0	0	0	2	1	0	3
8/27/95	2	1	5	9:32	8.94	0	0	0	0	0	0	0	0	0	0
8/27/95	2	1	5.5	11:02	7	0	0	0	1	0	0	0	0	0	1
8/27/95	2	1	6.5	11:38	5.07	0	0	0	0	0	0	0	0	0	0
8/27/95	2	2	2.75	19:23	5.39	0	0	0	0	0	0	1	2	0	3
8/27/95	2	2	5	18:49	5.1	0	0	0	0	0	0	1	0	0	1
8/27/95	2	2	5.5	17:59	6.46	0	0	0	2	0	0	0	0	0	2
8/27/95	2	2	6.5	17:22	6.1	0	0	0	0	1	0	0	0	0	1
8/27/95	3	1	4	10:38	12.66	0	0	0	0	0	0	0	0	0	0
8/27/95	3	1	5	9:55	9.99	0	0	0	1	1	0	0	0	0	2
8/27/95	3	1	5.5	11:22	11.02	0	0	0	2	1	0	0	0	0	3
8/27/95	3	1	6.5	11:54	10.42	0	0	0	0	1	0	0	0	0	1
8/27/95	3	2	2.75	19:42	8.37	0	0	0	0	0	0	0	0	0	0
8/27/95	3	2	5	19:09	8.41	0	0	0	1	0	0	1	0	0	2

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
8/27/95	3	2	5.5	18:21	9.33	0	0	0	1	2	0	0	0	0	3
8/27/95	3	2	6.5	17:44	9.99	0	0	0	1	2	0	0	0	0	3
8/28/95	1	1	2.75	9:39	4.21	0	0	0	0	0	0	0	0	0	0
8/28/95	1	1	5	10:10	4.96	0	0	0	0	3	0	0	0	0	3
8/28/95	1	1	5.5	11:45	4.05	0	0	0	0	7	0	0	0	0	7
8/28/95	1	1	6.5	11:01	5.21	0	0	0	0	6	0	0	0	0	6
8/28/95	1	2	2.75	19:03	4.5	0	0	0	0	1	0	0	0	0	1
8/28/95	1	2	5	19:37	4.74	0	0	0	0	0	0	0	0	0	0
8/28/95	1	2	5.5	17:46	3.57	0	0	0	0	3	0	0	0	0	3
8/28/95	1	2	6.5	18:19	3.78	0	0	0	0	0	0	0	0	0	0
8/28/95	2	1	2.75	9:29	6.08	0	0	0	0	0	0	2	0	0	2
8/28/95	2	1	5	10:00	7.15	0	0	0	0	0	0	0	0	0	0
8/28/95	2	1	5.5	11:31	11.12	0	0	0	1	0	0	0	0	0	1
8/28/95	2	1	6.5	10:49	7.97	0	0	0	0	0	0	0	0	0	0
8/28/95	2	2	2.75	18:53	6.15	0	0	0	0	0	0	0	1	0	1
8/28/95	2	2	5	19:26	7.79	0	0	0	0	0	0	0	0	0	0
8/28/95	2	2	5.5	17:37	6.21	0	0	0	0	0	0	0	0	0	0
8/28/95	2	2	6.5	18:08	6.28	0	0	0	0	1	0	0	0	0	1
8/28/95	3	1	2.75	9:47	10.31	0	0	0	0	0	0	0	0	0	0
8/28/95	3	1	5	10:20	10.12	0	0	0	1	2	0	0	0	0	3
8/28/95	3	1	5.5	11:58	10.75	0	0	0	2	1	0	0	0	0	3
8/28/95	3	1	6.5	11:16	10.49	0	0	0	1	0	0	0	0	0	1
8/28/95	3	2	2.75	19:13	10.39	0	0	0	0	1	0	0	0	0	1
8/28/95	3	2	5	19:43	11.68	0	0	0	1	1	0	1	0	0	3
8/28/95	3	2	5.5	17:55	9.23	0	0	0	0	0	0	0	0	0	0
8/28/95	3	2	6.5	18:26	9.08	0	0	0	0	1	0	0	0	0	1
8/29/95	1	1	4	10:27	5.81	0	0	0	0	1	0	0	0	0	1
8/29/95	1	1	5	9:51	4.78	0	0	0	1	3	0	1	0	0	5
8/29/95	1	1	5.5	11:47	4.39	0	0	0	0	3	0	0	0	0	3
8/29/95	1	1	6.5	11:10	4.35	0	0	0	0	0	0	0	0	0	0
8/29/95	1	2	2.75	19:31	4	0	0	0	0	0	0	0	0	0	0
8/29/95	1	2	5	18:56	5.27	0	0	0	1	4	0	0	0	0	5
8/29/95	1	2	5.5	17:40	4.09	0	0	0	0	1	0	0	0	0	1
8/29/95	1	2	6.5	18:14	3.78	0	0	0	0	1	0	0	0	0	1
8/29/95	2	1	4	10:13	9.58	0	0	0	0	0	0	1	1	0	2
8/29/95	2	1	5	9:38	8.56	0	0	0	1	0	1	1	0	0	3
8/29/95	2	1	5.5	11:35	8.12	0	0	0	0	0	0	1	0	0	1
8/29/95	2	1	6.5	10:59	7.99	0	0	0	0	0	0	0	0	0	0
8/29/95	2	2	2.75	19:19	6.78	0	0	0	0	0	0	3	3	0	6
8/29/95	2	2	5	18:45	6.14	0	0	0	0	0	0	1	0	0	1
8/29/95	2	2	5.5	17:30	7.07	0	0	0	0	1	0	0	0	0	1
8/29/95	2	2	6.5	18:03	7.29	0	0	0	0	0	0	0	0	0	0
8/29/95	3	1	4	10:35	8.31	0	0	0	0	0	0	0	0	0	0
8/29/95	3	1	5	10:01	8.9	0	0	0	1	0	0	0	0	0	1
8/29/95	3	1	5.5	11:57	13.48	0	0	0	1	0	0	0	0	0	1
8/29/95	3	1	6.5	11:18	12.81	0	0	0	2	0	0	0	0	0	2
8/29/95	3	2	2.75	19:39	9.58	0	0	0	0	0	0	0	0	0	0
8/29/95	3	2	5	19:06	9.23	0	0	0	0	0	0	0	0	0	0
8/29/95	3	2	5.5	17:48	8.03	0	0	0	1	1	0	0	0	0	2
8/29/95	3	2	6.5	18:24	10.77	0	0	0	0	0	0	0	0	0	0

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
8/30/95	1	1	2.75	9:38	4.35	0	0	0	0	0	0	0	1	0	1
8/30/95	1	1	5	10:10	5.4	0	0	0	0	2	0	0	0	0	2
8/30/95	1	1	5.5	10:51	4.63	0	0	0	0	0	0	0	0	0	0
8/30/95	1	1	6.5	11:23	3.68	0	0	0	0	0	0	0	0	0	0
8/30/95	1	2	4	19:33	4.64	0	0	0	0	0	0	0	0	0	0
8/30/95	1	2	5	18:58	4.74	0	0	0	0	0	0	0	0	0	0
8/30/95	1	2	5.5	18:06	4.36	0	0	0	0	3	0	0	0	0	3
8/30/95	1	2	6.5	17:35	4.25	0	0	0	0	0	0	0	0	0	0
8/30/95	2	1	2.75	9:29	5.82	0	0	0	0	0	0	0	1	0	1
8/30/95	2	1	5	9:59	7.55	0	0	0	0	0	0	1	0	0	1
8/30/95	2	1	5.5	10:41	6.28	0	0	0	0	0	0	0	0	0	0
8/30/95	2	1	6.5	11:12	6.28	0	0	0	0	0	0	0	0	0	0
8/30/95	2	2	4	19:22	7.11	0	0	0	0	1	0	1	0	0	2
8/30/95	2	2	5	18:46	9.42	0	0	0	0	0	0	0	0	0	0
8/30/95	2	2	5.5	17:56	7.13	0	0	0	0	0	0	0	0	0	0
8/30/95	2	2	6.5	17:25	6.03	0	0	0	0	1	0	0	0	0	1
8/30/95	3	1	2.75	9:46	9.3	0	0	0	0	0	0	0	0	0	0
8/30/95	3	1	5	10:20	9.78	0	0	0	0	1	0	0	0	0	1
8/30/95	3	1	5.5	10:59	9.25	0	0	0	0	0	0	0	0	0	0
8/30/95	3	1	6.5	11:30	9.26	0	0	0	0	0	0	0	0	0	0
8/30/95	3	2	4	19:41	11.14	0	0	0	0	1	0	0	0	0	1
8/30/95	3	2	5	19:06	10.29	0	0	0	0	0	0	0	0	1	1
8/30/95	3	2	5.5	18:17	9.06	0	0	0	0	0	0	0	0	0	0
8/30/95	3	2	6.5	17:42	10.24	0	0	0	1	1	0	0	0	0	2
8/31/95	1	1	4	9:36	4.79	0	0	0	0	0	0	0	0	0	0
8/31/95	1	1	5	10:07	4.77	0	0	0	1	0	0	0	0	0	1
8/31/95	1	1	5.5	10:48	4.55	0	0	0	0	1	0	0	0	0	1
8/31/95	1	1	6.5	11:21	4.45	0	0	0	0	1	0	0	0	0	1
8/31/95	1	2	2.75	18:52	4.83	0	0	0	0	0	0	0	0	0	0
8/31/95	1	2	5	19:25	4.44	0	0	0	0	2	0	0	0	0	2
8/31/95	1	2	5.5	18:04	5.7	0	0	0	0	2	0	0	0	0	2
8/31/95	1	2	6.5	17:32	4.05	0	0	0	0	3	0	0	0	0	3
8/31/95	2	1	4	9:27	6.53	0	0	0	0	0	0	0	0	0	0
8/31/95	2	1	5	9:57	5.47	0	0	0	0	1	0	1	0	0	2
8/31/95	2	1	5.5	10:38	6.28	0	0	0	0	0	0	0	0	0	0
8/31/95	2	1	6.5	11:11	6.13	0	0	0	0	0	0	0	0	0	0
8/31/95	2	2	2.75	18:41	7.17	0	0	0	0	0	0	2	1	0	3
8/31/95	2	2	5	19:16	5.83	0	0	0	0	0	0	0	0	0	0
8/31/95	2	2	5.5	17:53	6.5	0	0	0	0	0	0	1	0	0	1
8/31/95	2	2	6.5	17:21	6.44	0	0	0	0	2	0	0	0	0	2
8/31/95	3	1	4	9:45	8.28	0	0	0	0	0	0	1	0	0	1
8/31/95	3	1	5	10:16	8.29	0	0	0	0	0	0	0	0	0	0
8/31/95	3	1	5.5	10:57	9.98	0	0	0	0	3	0	0	0	0	3
8/31/95	3	1	6.5	11:30	9.09	0	0	0	0	0	0	0	0	0	0
8/31/95	3	2	2.75	19:00	11.19	0	0	0	0	1	0	1	0	0	2
8/31/95	3	2	5	19:34	8.76	0	0	0	0	0	0	0	0	0	0
8/31/95	3	2	5.5	18:15	9.45	0	0	0	0	1	0	0	0	0	1
8/31/95	3	2	6.5	17:40	9.18	0	0	0	2	0	0	0	0	0	2
9/1/95	1	1	2.75	10:18	4.38	0	0	0	0	0	0	1	0	0	1
9/1/95	1	1	5	9:42	5.22	0	0	0	0	0	0	0	0	0	0

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore
[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
9/1/95	1	1	5.5	11:02	4.29	0	0	0	1	1	0	0	0	0	2
9/1/95	1	1	6.5	11:37	4.19	0	0	0	0	0	0	0	0	0	0
9/1/95	1	2	4	19:28	4.74	0	0	0	0	0	0	0	0	0	0
9/1/95	1	2	5	18:54	4.53	0	0	0	0	0	0	0	0	0	0
9/1/95	1	2	5.5	18:05	4.54	0	0	0	3	0	0	0	0	0	3
9/1/95	1	2	6.5	17:33	4.45	0	0	0	0	1	0	0	0	0	1
9/1/95	2	1	2.75	10:06	7.53	0	0	0	0	0	0	1	2	0	3
9/1/95	2	1	5	9:31	7.75	0	0	0	0	0	0	0	0	0	0
9/1/95	2	1	5.5	10:53	5.01	0	0	0	0	0	0	0	0	0	0
9/1/95	2	1	6.5	11:27	5.38	0	0	0	0	0	0	0	0	0	0
9/1/95	2	2	4	19:16	8.17	0	0	0	0	0	0	0	0	0	0
9/1/95	2	2	5	18:43	7.92	0	0	0	0	0	0	0	0	0	0
9/1/95	2	2	5.5	17:56	6.47	0	0	0	0	0	0	1	0	0	1
9/1/95	2	2	6.5	17:23	6.68	0	0	0	0	0	0	0	0	0	0
9/1/95	3	1	2.75	10:26	9.7	0	0	0	0	0	0	0	0	0	0
9/1/95	3	1	5	9:52	10.38	0	0	0	1	0	0	0	0	0	1
9/1/95	3	1	5.5	11:11	11.09	0	0	0	0	1	0	0	0	0	1
9/1/95	3	1	6.5	11:44	11.3	0	0	0	0	0	0	0	0	0	0
9/1/95	3	2	4	19:36	6.53	0	0	0	0	0	0	0	0	0	0
9/1/95	3	2	5	19:02	10.45	0	0	0	1	0	0	0	0	0	1
9/1/95	3	2	5.5	18:17	9.42	0	0	0	0	0	0	0	0	0	0
9/1/95	3	2	6.5	17:41	9.36	0	0	0	4	0	0	0	0	0	4
9/2/95	1	1	4	10:09	3.53	0	0	0	0	0	0	0	0	0	0
9/2/95	1	1	5	10:38	3.61	0	0	0	0	0	0	0	0	0	0
9/2/95	1	1	5.5	11:20	5	0	0	0	2	3	0	0	0	0	5
9/2/95	1	1	6.5	11:52	4.65	0	0	0	0	0	0	0	0	0	0
9/2/95	1	2	2.75	19:39	5.05	0	0	0	0	1	0	0	4	2	7
9/2/95	1	2	5	19:04	4.98	0	0	0	0	5	0	0	0	0	5
9/2/95	1	2	5.5	18:12	4.46	0	0	0	3	0	0	0	0	1	4
9/2/95	1	2	6.5	17:36	4.93	0	0	0	4	4	0	0	0	0	8
9/2/95	2	1	4	9:57	7.03	0	0	0	0	2	0	2	0	0	4
9/2/95	2	1	5	10:28	6.35	0	0	0	0	0	0	0	0	0	0
9/2/95	2	1	5.5	11:09	6.03	0	0	0	0	1	0	1	0	0	2
9/2/95	2	1	6.5	11:44	5.28	0	0	0	0	0	0	0	0	0	0
9/2/95	2	2	2.75	19:29	7.29	0	0	0	0	0	0	0	0	0	0
9/2/95	2	2	5	18:52	7.45	0	0	0	0	0	0	1	0	0	1
9/2/95	2	2	5.5	18:02	5.66	0	0	0	0	0	0	0	0	0	0
9/2/95	2	2	6.5	17:28	5.25	0	0	0	0	0	0	0	0	0	0
9/2/95	3	1	4	10:16	10.03	0	0	0	0	0	0	0	0	0	0
9/2/95	3	1	5	10:45	9.79	0	0	0	0	0	0	0	0	0	0
9/2/95	3	1	5.5	11:32	8.58	0	0	0	1	1	0	0	0	0	2
9/2/95	3	1	6.5	12:00	8.21	0	0	0	0	0	0	0	0	0	0
9/2/95	3	2	2.75	19:51	10.53	0	0	0	0	0	0	0	0	0	0
9/2/95	3	2	5	19:16	9.89	0	0	0	0	0	0	0	0	0	0
9/2/95	3	2	5.5	18:22	8.82	0	0	0	1	0	0	0	0	1	2
9/2/95	3	2	6.5	17:49	8.48	0	0	0	1	0	0	0	0	0	1
9/3/95	1	1	2.75	9:41	4.34	0	0	0	0	0	0	0	0	0	0
9/3/95	1	1	5	10:18	4.13	0	0	0	0	3	0	0	0	0	3
9/3/95	1	1	5.5	11:04	5.24	0	0	0	0	10	0	0	0	1	11
9/3/95	1	1	6.5	11:46	5.02	0	0	0	2	4	0	0	0	0	6

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore
[b]Test fish period: 1=915-1215 2=515-2015

-Continued-

Appendix C. (Continued)

Date	Zone[a]	Period[b]	Mesh (Inches)	Time Drift Began	Minutes Fishing Time	Chinook	Jack	Summer Chum	Fall Chum	Coho	Pink	White	Cisco Species	Other Species	Total Catch
9/3/95	1	2	4	20:01	4.03	0	0	0	0	0	0	0	0	0	0
9/3/95	1	2	5	18:57	4.13	0	0	0	1	1	0	0	0	0	2
9/3/95	1	2	5.5	18:10	4.88	0	0	0	5	3	0	0	0	0	8
9/3/95	1	2	6.5	17:37	5.16	0	0	0	0	0	0	0	0	0	0
9/3/95	2	1	2.75	9:24	10.78	0	0	0	0	0	0	1	0	0	1
9/3/95	2	1	5	10:06	8.78	0	0	0	0	0	0	0	0	0	0
9/3/95	2	1	5.5	10:52	8.61	0	0	0	0	0	0	0	0	0	0
9/3/95	2	1	6.5	11:35	8.45	0	0	0	0	0	0	0	0	0	0
9/3/95	2	2	4	19:49	8.06	0	0	0	0	0	0	1	0	0	1
9/3/95	2	2	5	18:46	7.78	0	0	0	0	0	0	0	0	0	0
9/3/95	2	2	5.5	17:58	8.48	0	0	0	0	0	0	0	0	0	0
9/3/95	2	2	6.5	17:25	8.4	0	0	0	0	1	0	0	0	0	1
9/3/95	3	1	2.75	9:49	9.21	0	0	0	0	0	0	0	0	0	0
9/3/95	3	1	5	10:27	7.87	0	0	0	0	0	0	0	0	0	0
9/3/95	3	1	5.5	11:19	9.99	0	0	0	2	0	0	0	0	0	2
9/3/95	3	1	6.5	12:00	8.69	0	0	0	1	0	0	0	0	0	1
9/3/95	3	2	4	20:08	7.84	0	0	0	0	0	0	1	0	0	1
9/3/95	3	2	5	19:39	7.57	0	0	0	0	0	0	0	0	0	0
9/3/95	3	2	5.5	18:21	8.72	0	0	0	1	0	0	0	0	0	1
9/3/95	3	2	6.5	17:45	8.93	0	0	0	0	0	0	1	0	0	1
					=========	=======	====	======	====	====	====	======	======	=======	=====
TOTAL					12,405.18	229	101	3,776	1,391	435	43	367	231	96	6,669

[a]Zone: 1=Right Bank 2= Left Bank Nearshore
3=Left Bank Midshore and Offshore

[b]Test fish period: 1=915-1215 2=515-2015