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SOUTHEAST ALASKA SPORT HARVEST ESTIMATES

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Bill Sheffield, Governor

Annual Performance Report for

HARVEST ESTIMATES OF SELECTED SOUTHEAST ALASKA SPORT FISHERIES

by

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RESEARCH PROJECT SEGMENT

State: Alaska Name: Sport Fish Investigations of Alaska

Project: F-10-1

Study: S Study Title: ANADROMOUS SALMON STUDIES

Job: 1-1 Job Title: Harvest Estimates of Selected Southeast Alaska Sport Fisheries

Cooperators: Robert D. Mecum and Paul M. Suchanek

Period Covered: 1 July 1985 to 30 June 1986

ABSTRACT

Creel surveys of the major marine boat and freshwater roadside recreational fisheries in southeast Alaska were conducted in 1985. Instantaneous observations of total boat or angler effort were obtained each week. Angler interviews provided estimates of catch rates for selected species. Scale and gonad samples were collected from chinook salmon for age and maturity analysis. The contribution of wild and hatchery chinook and coho salmon stocks to the recreational fisheries was estimated from coded micro-wire tag recovery data.

An estimated 15,000 chinook salmon were harvested by marine recreational anglers in Juneau, Ketchikan, Petersburg, Wrangell, Haines, Thomas Basin, and Blind Slough, compared to the approximately 12,000 chinook harvested in both 1983 and 1984. Nearly 15%, or 2,300, of these chinook salmon were produced by hatcheries. The largest producers of hatchery chinook were the Crystal Lake and Deer Mountain (Alaska Department of Fish and Game), Whitman Lake (Southern Southeast Regional Aquaculture Association), and Little Port Walter (National Marine Fisheries Service) hatcheries.

KEY WORDS

Creel survey, harvest estimate, catch, effort, recreational fishery, derby, length, maturity, tag, hatchery, enhancement, chinook salmon, *Oncorhynchus tshawytscha* (Walbaum), coho salmon, *Oncorhynchus kisutch* (Walbaum), pink salmon, *Oncorhynchus gorbuscha* (Walbaum), Pacific halibut, *Hippoglossus stenolepis* (Schmidt), Juneau, Petersburg, Wrangell, Ketchikan, Southeast, Alaska.

BACKGROUND

On-site creel surveys of the Juneau marine sport fishery have been conducted by the Division of Sport Fish every year since 1960 (Mattson, 1975; Schmidt and Robards, 1973, 1974, 1975; Robards, 1976, 1977, 1978; Mariott et al., 1979; Schwan, 1980, 1981, 1982; Niemark and Schwan, 1983; Niemark, 1984, 1985) Only in recent years have marine sport fisheries in Ketchikan, Petersburg, Wrangell, and Haines and freshwater roadside fisheries in Haines and Yakutat been surveyed on a regular basis (Niemark, 1984, 1985). Creel survey data are used for a variety of forecasting and reporting purposes. For example, in-season estimates of the harvests of wild and hatchery chinook and coho salmon are used to monitor Alaska's compliance with the U.S./Canada Salmon Treaty. Creel survey information is also provided to the State of Alaska's Board of Fisheries and the International Halibut Commission during their consideration of proposed changes to commercial and sport fishing regulations.

A list of common and scientific names used in this report is presented in Table 1.

RECOMMENDATIONS

Management

1. Continue to develop and refine methods for estimating the total harvest of wild and hatchery stocks of chinook and coho salmon on an in-season basis for all of the major sport fisheries in southeast Alaska.

2. Develop methods for calculating variances of estimates of hatchery contributions of chinook and coho salmon to Southeast sport fisheries.

3. Develop a computerized data base of effort, catch-per-unit-effort (C/f), and harvest by species for all southeast Alaska sport fisheries.

Research

1. Evaluate the feasibility of using scale pattern and maturity analyses for determining the origin (Alaskan versus non-Alaskan) of chinook salmon caught in Southeast sport fisheries.

2. Evaluate the feasibility of using time-lapse cameras to improve the precision of effort and harvest estimates for saltwater shoreline and freshwater roadside sport fisheries.

OBJECTIVES

The objectives addressed in this report are from three projects: (1) Harvest Estimates of Selected Southeast Alaska Sport Fisheries (S-1-1);

Table 1. List of Common Names, Scientific Names, and Abbreviations.

Common Name	Scientific Name and Author	Abbreviation
Chinook salmon	*Oncorhynchus tshawytscha* (Walbaum)	KS
Chum salmon	*Oncorhynchus keta* (Walbaum)	CS
Coho salmon	*Oncorhynchus kisutch* (Walbaum)	SS
Pink salmon	*Oncorhynchus gorbuscha* (Walbaum)	PS
Sockeye salmon	*Oncorhynchus nerka* (Walbaum)	RS
Cod	Family Gadidae	CD
Cutthroat trout	*Salmo clarki* Richardson	CT
Dolly Varden	*Salvelinus malma* (Walbaum)	DV
Pacific Halibut	*Hippoglossus stenolepis* Schmidt	H
Flatfish	Order Pleuronectiformes	FF
Greenlings	Family Hexagrammidae	HX
Other species		OT

(2) Enhancement of Recreational Fishing Opportunities, Juneau (S-1-3); and (3) Sport Fish Evaluations, Yakutat (S-1-5).

(S-1-1)

1. To determine the angler effort, C/f, and harvest of all salmon species, Dolly Varden, halibut, and other bottomfishes by the marine recreational fisheries in Juneau, Ketchikan, Petersburg, and Wrangell.

2. To determine the angler effort, success, and harvest of hatchery chinook salmon by recreational fisheries at Thomas Basin (Ketchikan) and Blind Slough (Petersburg) Special Harvest Areas.

3. To determine the contribution of wild and hatchery chinook and coho salmon stocks to the marine recreational fisheries in Juneau, Ketchikan, Petersburg, and Wrangell.

4. To determine the size, age, maturity, and stock composition (Alaskan versus non-Alaska) of chinook salmon harvested by recreational fisheries in Juneau, Ketchikan, Petersburg, and Wrangell.

5. To determine the recreational fishing effort and harvest of chinook salmon in Chilkat Inlet from May 1 through June 30, 1986.

6. To determine the recreational fishing effort and harvest of coho, pink, and sockeye salmon and Dolly Varden char in the Chilkoot River from July 1 through October 31, 1985.

(S-1-3)

7. To determine the recreational fishing effort and harvest of; 1) Dolly Varden char in Montana Creek from July 1 through October 30, 1986, 2) pink salmon at Sheep Creek from July 1 through August 30, 1986, and 3) pink, chum, and coho salmon at Salmon Creek from July 15 through October 30, 1985.

(S-1-5)

8. To determine the recreational fishing effort and harvest of chinook salmon and steelhead trout on the Situk River from April 15 through June 30, 1986.

9. To determine the recreational fishing effort and harvest of coho, pink, and sockeye salmon, steelhead trout, and Dolly Varden char in the Situk River from July 1 through October 15, 1985, and in the Lost River and Ankau Lagoon system from September 1 through October 31, 1985.

TECHNIQUES USED

Ten separate creel surveys of southeast Alaska freshwater roadside, saltwater shoreline, and marine boat sport fisheries were conducted in 1985. Angler or boat effort, catch composition, and heads from hatchery (coded micro-wire tagged) salmon were collected by creel technicians during interviews at harbors, launch ramps, and roadside access areas in the various communities where creel survey programs were conducted. The sampling level, sampling duration, and methods for each of these surveys varied according to the particular budgetary and logistical constraints (Table 2).

Angler Effort and Harvest

Juneau and Ketchikan Marine Creel Surveys:

Creel surveys of the Juneau and Ketchikan marine sport fisheries (Figures 1 and 2) were conducted from April 15 through September 30, 1985 and from April 15 through June 30, 1985, respectively. Total boat effort ("boat-days") was estimated from aerial surveys of the fishing grounds (Figures 1 and 2). Attributes of boats (e.g., catch composition, C/f, hours fished, and anglers per boat) were estimated from dockside interviews of anglers completing their fishing trips at major access points into the respective fisheries.

Weeks were stratified into weekdays, weekend-days (including holidays), the Golden North Salmon Derby (Juneau), and the Ketchikan King Salmon Derby. The length of the fishing day was assumed to never exceed the period from 6:00 a.m. to 11:00 p.m. Creel technicians were stationed at either Auke Bay or Tee Harbor in Juneau and Knudsen Cove Harbor or Bar Harbor in Ketchikan. Each of these respective docks was sampled for the entire fishing day at least once each week in each stratum.

For each randomly selected day, a 1-hour period was also selected during which aerial surveys of the fishing grounds were conducted to count the total number of boats fishing. Flight times were randomly selected between 8:00 a.m. and sunset. Effort was estimated as "boat-days"; a boat-day consisted of a trip that one or more anglers took on a given boat. It is important to note that the basic sampling unit was the boat-day and not the angler. What any one angler did was of little interest in terms of the survey design and expansion of the various mathematical compounds. Associated with each boat-day were several attributes of interest, including catch, number of hours fished, number of anglers, start and end times, and target species. These attributes were determined from dockside interviews of fishing parties.

Notation of the surveys was as follows:

a) Use the "i" index over boat-days.

b) Use the "j" index over time.

Table 2. Creel Survey Locations, Sampling Periods, and Contact Areas in 1985.

Location	Sampling Period	Contact Area
Juneau Marine	04/15 to 09/29	Auke Bay, Tee Harbor
Juneau Roadside		
Montana Creek	07/08 to 10/27	Montana Creek
Sheep Creek SHA	07/08 to 09/01	Sheep Creek
Salmon Creek SHA	07/08 to 10/27	Salmon Creek
Ketchikan Marine	04/15 to 06/30	Bar Harbor, Knudson Cove
Thomas Basin SHA	06/03 to 07/28	Thomas Basin Harbor
Petersburg Marine	04/15 to 06/30	Town Harbor
Blind Slough SHA	06/03 to 08/04	Crystal Creek
Wrangell Marine	04/15 to 06/30	Town Harbor
Haines Marine	04/15 to 07/14	Letnikof Cove
Haines Roadside		
Chilkoot River	07/15 to 11/03	Chilkoot River
Chilkat River	04/01 to 04/21 and 09/02 to 11/03	Chilkat River
Tanani Bay/ Lutak Inlet	07/15 to 11/03	Lutak Inlet
Yakutat Roadside		
Lost River/Tawah Creek	08/12 to 10/13	Lost River
Situk River	04/29 to 10/13	Situk Lower Landing

LEGEND

Fishing Areas Within the Juneau Recreational Fishing Grounds.

1. Berner's Bay
2. Echo Cove
3. Bridget Cove
4. North Island
5. End of Road Bluffs
6. Benjamin Island
7. Eagle river
8. Pearl Harbor
9. Shrine Island
10. Aaron Island
11. Breadline
12. Steven's Point
13. Lena Point
14. Indian Point
15. Auke Bay
16. Coghlan Island
17. Portland Island
18. Spuhn Island
19. Fritz Cove
20. Juneau Harbor
21. Gastineau
22. Dupont
23. Marmion
24. Point Salisbury
25. Point Bishop
26. Circle Point
27. Taku Harbor
28. South Island
29. Grand Island
30. Doty's Cove
31. Point Arden
32. False Point Arden
33. Green Cove
34. Icy Point
35. Oliver's Inlet
36. Icy-Hilda Coast
37. Point Hilda
38. Point Young
39. Young's Bay/Grouse Point
40. Whitemaker
41. Middle Point
42. Horse & Colt Islands
43. Outer Point
44. Piling Point
45. South Shelter
46. Barlow Cove
47. Favorite Reef
48. Barlow Point
49. Point Retreat
50. Handtrollers Cove
51. East Shelter
52. North Pass
53. North Shelter
54. West Lincoln Island
55. Lincoln Island
56. Little Island
57. St. James Bay
58. Boat Harbor
66. Amalga Harbor
67. Point Louisa
68. West Shelter Island

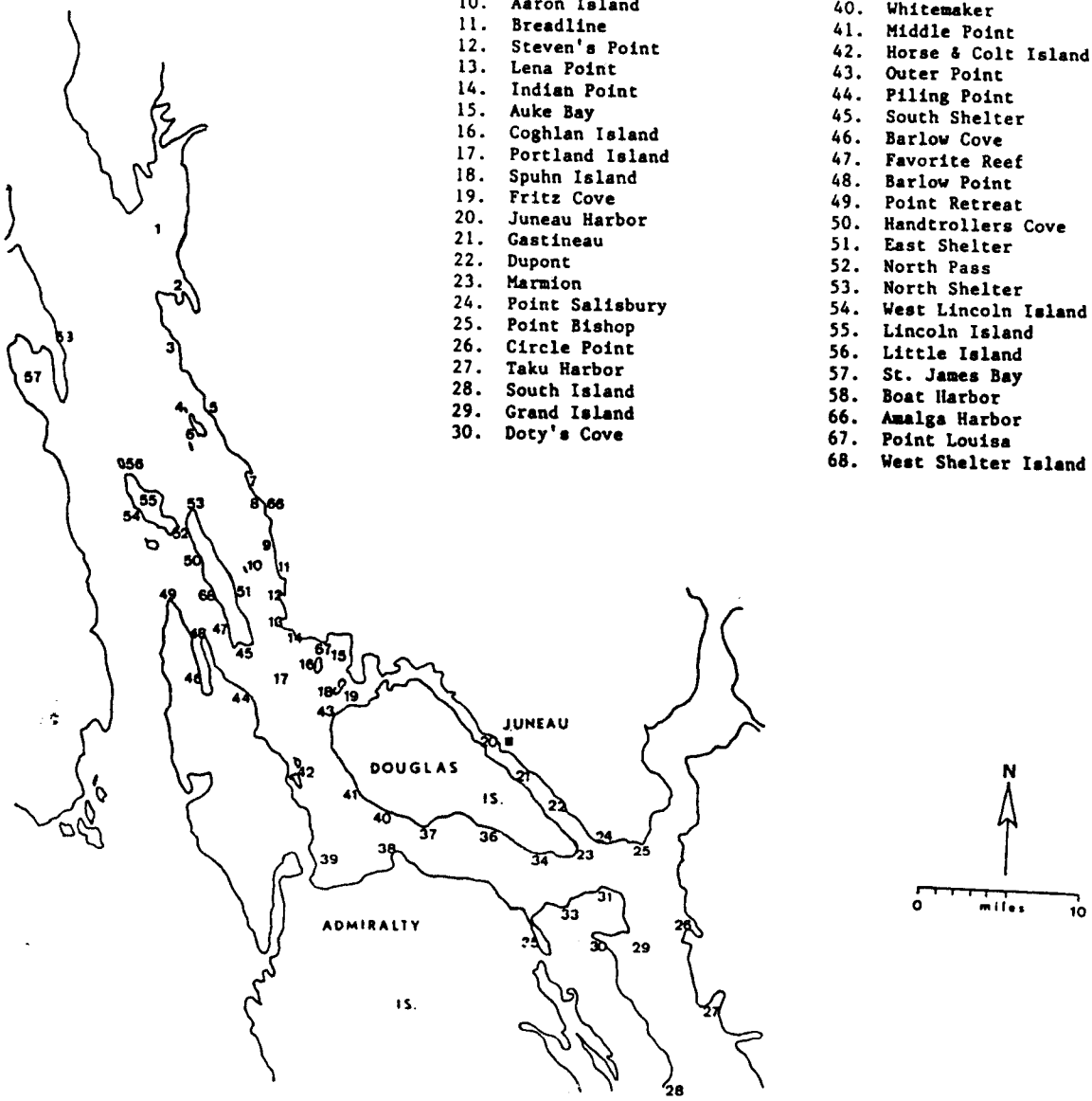

Figure 1. Fishing Areas within the Juneau Recreational Fishing Grounds.

LEGEND

Fishing Areas Within the Ketchikan Recreational Fishing Grounds.

1. Annette Island
2. Betton Island
3. Back Island
4. Blank Inlet
5. Boca de Quadra
6. Bold Island
7. Bostwick Point
8. Bushy Point
9. Caamano Point
10. California Head
11. Helm Bay
12. Carroll Point
13. Chasina Point
14. China Town
15. Clarence Strait
16. Clover Pass
17. Dall Head
18. Grant Island
19. Grindall Island
20. Ham Island
21. Herring Bay
22. Hump Island
23. Ice House Cove
24. Indian Point
25. Island Point
26. Kah Shakes
27. Lucky Cove
28. Lyman Point
29. Mary Island
30. Mountain Point
31. Niblack Point
32. Nicholas Passage
33. Pennock Island
34. Point Alava
35. Princess Bay
36. Revillagegedo Island
37. Ship Island
38. Skin Island
39. Southeast Behm Canal
40. South Vallenar Point
41. Spire Island
42. Tatoosh Island
43. Thorne Arm
44. Tongass Narrows
45. Trunk Island
46. Vallenar Point
47. Ward Cove

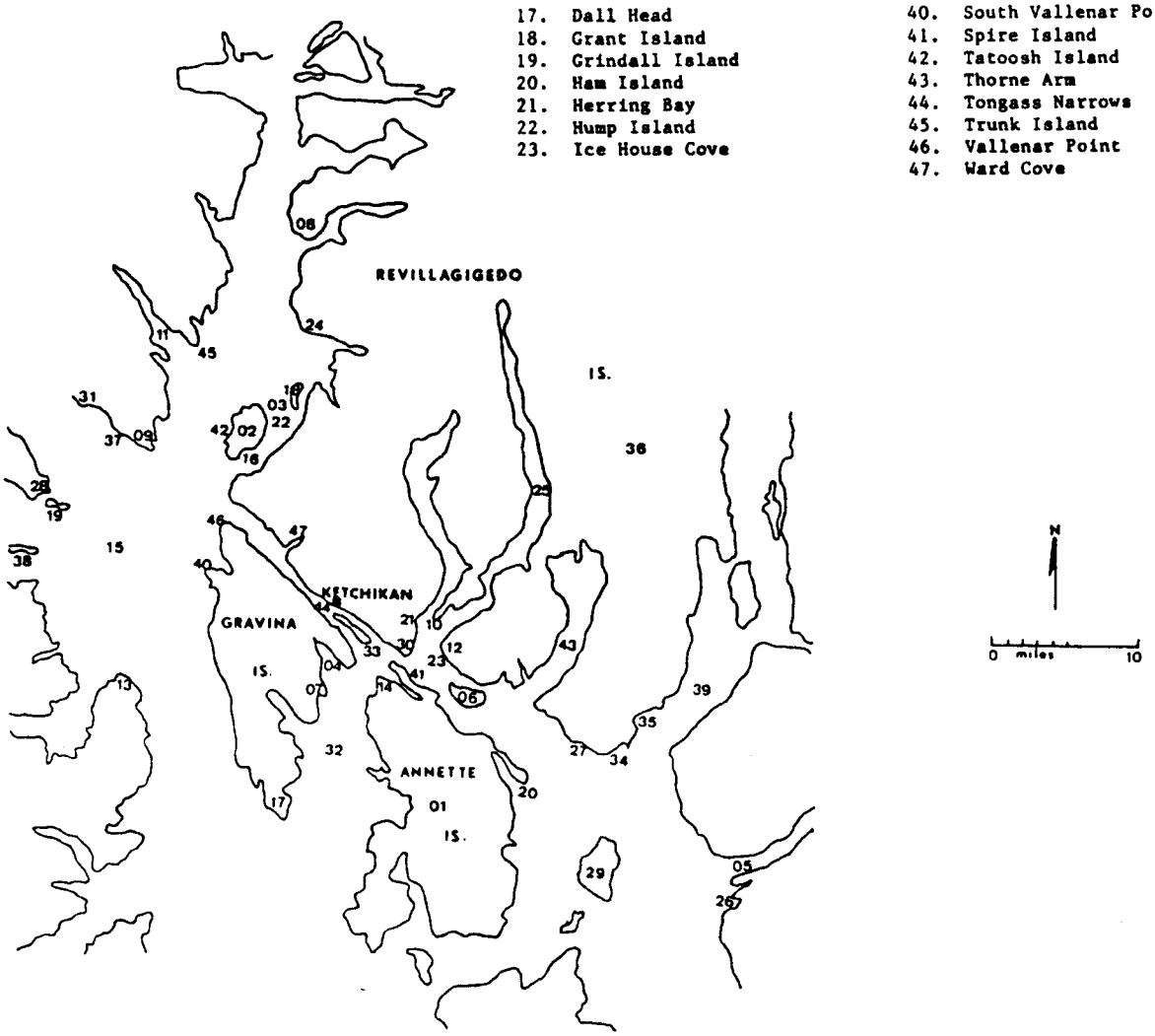

Figure 2. Fishing Areas within the Ketchikan Recreational Fishing Grounds.

c) Use the "a" index over strata.

The stratum is denoted with a superscript index. For simplicity, the stratum index will be used in the description of variables below, then suppressed until needed.

Let,

B^a = total boat-days in stratum a.

N_j^a = total boat-days on day j in stratum a.

n_{1j}^a = total boats observed during the aerial flight occurring on day j in stratum a.

n_{2j}^a = number of boats sampled in the creel survey (dockside interviews) on the jth day in stratum a.

m_{2j}^a = number of boats observed during the flight that were also in the creel survey on the jth day in stratum a.

Then,

$$\hat{N}_j = \frac{(n_{1j}+1)(n_{2j}+1)}{(m_{2j}+1)} - 1$$

Where $\hat{N}_j$ is the estimated number of boat-days on the jth day from the unbiased form of the Petersen estimator as proposed by Seber (1973). If d days are sampled out of D days in the fishing season, then,

$$\hat{B} = (D/d) \sum_{j=1}^{d} \hat{N}_j$$

That is, $\hat{B}$ is the estimated total boat-days in a given stratum.

Attributes of boat-days in the fishery were estimated by assuming that a random sample of b boat-days (out of B in the entire stratum) was obtained.

Then the following attributes of each selected boat were observed:

h_i = hours fished.

h_{is} = hours fished for species s.

c_{is} = catch of species s.

p_i = anglers fishing.

Totals (catch, hours, anglers) were estimated in the following manner:

$$\hat{C}_s = (\hat{B}/b) \sum_{i=1}^{b} c_{is}$$

where $\hat{C}_s$ = total catch for species s.

Targeted and nontargeted catch rates (C/f) were calculated from the unexpanded interview data. The nontargeted catch rate of a species was calculated by dividing all hours of angling effort by the total harvest (caught and kept) of that species. For targeted rate calculations, angling effort was first subdivided into hours expended for salmonids and hours expended for bottomfish. The targeted catch rate of a salmonid (e.g., coho salmon) was calculated by dividing all hours of salmon fishing by the coho salmon harvest for all salmon anglers. Similarly, the targeted catch rate for halibut was the ratio of bottom-fishing effort to the halibut harvest of bottom fishermen.

Petersburg, Wrangell, and Haines Marine:

Effort and harvest by species for the Petersburg (Figure 3, Appendix), Wrangell, and Haines marine sport fisheries were estimated using methods similar to those of past surveys (Neimark, 1984, 1985). A random, stratified design was used to select sampling periods. Four time strata were selected:

1) Weekday-morning (6:00 a.m. to 3:00 p.m.)
2) Weekday-evening (3:00 p.m. to 11:00 p.m.)
3) Weekend-morning (6:00 a.m. to 3:00 p.m.)
4) Weekend-evening (3:00 p.m. to 11:00 p.m.)

It was assumed that no anglers completed fishing outside of the period from 6:00 a.m. to 11:00 p.m. Legal holidays were included in the weekend strata. In Petersburg and Wrangell, each stratum was sampled at least once each week during the season. Only two of the four possible strata were sampled each week in Haines.

Relatively small fractions of the local sport fleets could be contacted by creel technicians. To determine these fractions, surveys of total fishing activity were conducted. In Petersburg and Wrangell, boats were used to conduct these surveys, while aerial surveys were conducted in Haines. In Petersburg and Wrangell, counts were made twice weekly before afternoon sampling began. In Haines, one aerial survey was conducted each week. The ratio of the number of recreational boats counted during the seasonal boat or airplane surveys to the number of boats interviewed during that season was used to expand effort and harvest in each period. The expanded effort and harvest estimates from sampled strata were used to estimate effort and harvest each week in unsampled strata. Strata estimates were summed to produce weekly estimates, and weekly estimates were summed to produce seasonal estimates of effort and harvest. Targeted and nontargeted catch rates were calculated in the same way as for the Juneau and Ketchikan creel surveys.

Blind Slough SHA and Thomas Basin SHA:

Creel technicians interviewed individual anglers completing their fishing trips at the Thomas Basin (Ketchikan) and Blind Slough

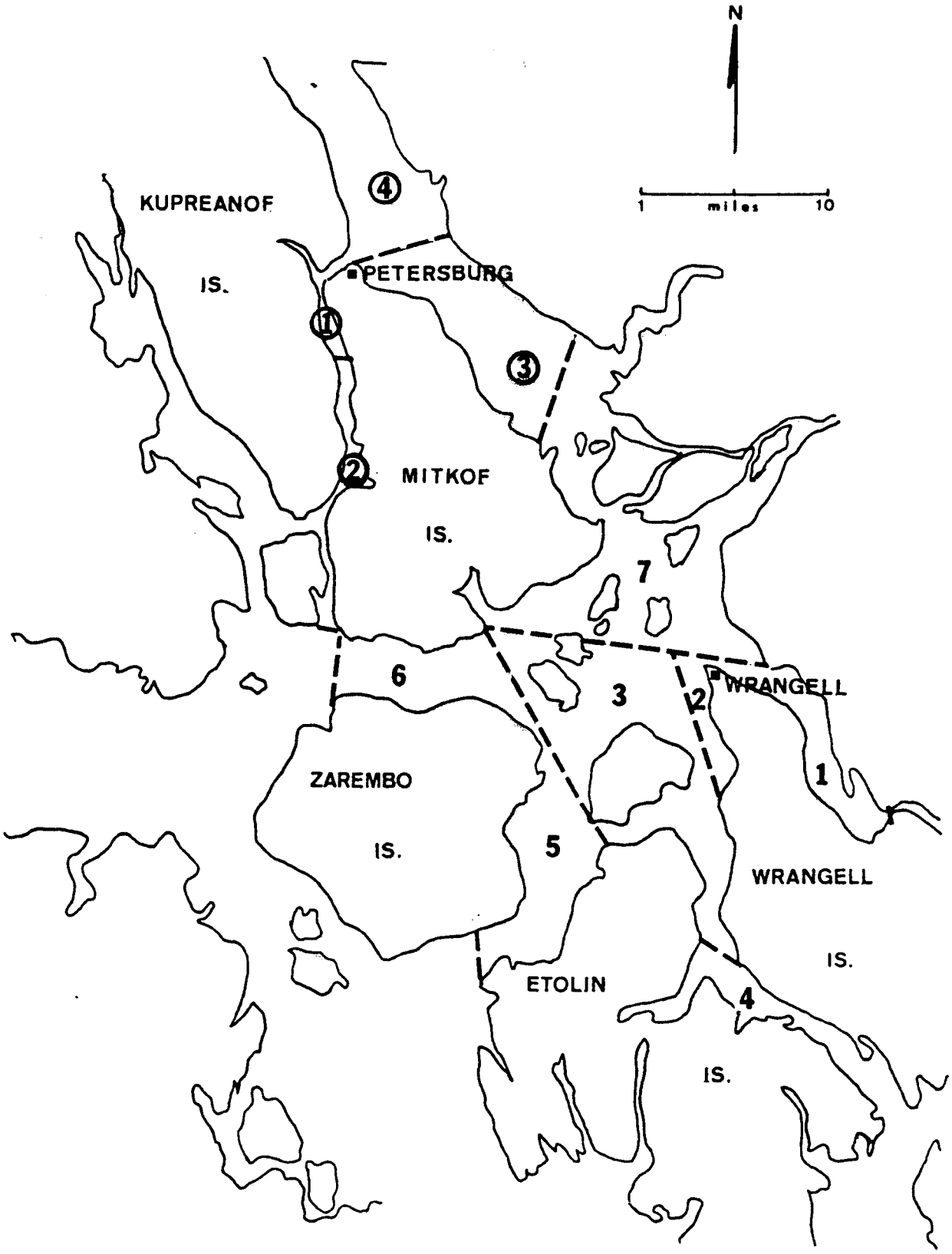

Figure . Fishing Areas Within the Petersburg, (circled numbers) and Wrangell (uncircled numbers) Recreational Fishing Grounds: Petersburg, (1) Northern Wrangell Narrows, (2) Southern Wrangell Narrows, (3) Northern Frederick Sound and (4) Southern Frederick Sound. Wrangell (1) Eastern Passage, (2) Northwest Wrangell Island, (3) Elephant's Nose, (4) Zimovia Strait, (5) Stikine Strait, (6) Sumner Strait, and (7) Gray's Pass (see Appendix).

(Petersburg) Special Harvest Areas to determine hours fished and number of hatchery-produced chinook salmon caught, kept, and released. Weeks were stratified into weekdays and weekend-holidays. The sampling design consisted of two stages: weeks were the first stage unit and sampling periods within a week were the second stage unit. All days in the fishery were divided into four sampling periods, each of which was 3 hours and 45 minutes long. Period one started at 7:30 a.m. and ended at 11:15 a.m., period two began at 11:15 a.m. and ended at 3:00 p.m., period three ran from 3:00 p.m. to 6:45 p.m., and period four started at 6:45 p.m. and ended at 10:30 p.m. For each stratum, all sampling periods within a week were numbered consecutively. A simple random sample of these was then selected using a random numbers table.

The average number of anglers per sampling period was calculated by:

$$\hat{x} = \sum_h [(N_h M_h / \sum_h N_h M_h)\hat{x}_h]$$

where:

$\hat{x}$ = mean anglers per sampling period for all strata

$\hat{x}_h$ = mean anglers per sampling period for stratum h

N_h = number of first stage units (weeks) in stratum h

M_h = number of second stage units (sampling periods) per first stage unit in stratum h

Catch-per-unit-effort (C/f) was calculated as the number of chinook salmon caught and kept per hour fished. Within a sampling period, C/f was calculated from:

$$R_t = C_t / h_t$$

where:

R_t = C/f during sampling period t.

C_t = total catch of chinook salmon by all anglers interviewed in sampling period t

h_t = total hours fished by all anglers interviewed in sampling period t

The overall C/f ($\hat{R}$) was calculated by the following equation:

$$\hat{R} = \sum_h (N_h M_h / \sum_h N_h M_h)\bar{R}_h$$

where:

$\bar{R}_h$ = mean C/f of all sampling periods in stratum h

The total harvest of chinook salmon ($\hat{C}$) for the season is estimated by multiplying the overall C/f (R) times the estimated angler hours.

Haines Roadside:

Recreational anglers were interviewed at access areas along the Chilkoot River, Chilkat River, and Lutak Inlet according to a stratified random sampling schedule. Individual anglers were asked the number and species of fish caught and kept or caught and released, the amount of time spent fishing, and the species and number of marked fish caught and kept.

Survey weeks were stratified by day type (i.e., weekdays or weekends and holidays). Days were further divided into four sampling periods of equal length which varied from 3 to 4 hours, depending on the number of daylight hours. Two randomly selected periods were sampled within each stratum.

Estimates of angler effort were based on instantaneous counts of anglers taken either upon arrival or departure from a particular area during a sampling period. The remainder of time available at each area was spent conducting interviews with individual anglers.

The total number of angler-hours of fishing effort was obtained by:

$$f = c\,\bar{x}$$

where:

f = angler-hours
c = number of fishing periods
$\bar{x}$ = mean number of fishermen per count.

Mean catch per unit effort for n days was calculated as the mean of the ratio of catch per hours fished:

$$\bar{r}_h = 1/n \sum_h 1/m \frac{\sum_h c_{ij}}{\sum_h c_{ij}}$$

where:

$\bar{r}_h$ = mean catch per unit effort for time period h

c_{ij} = catch of the jth angler on the ith day

f_{ij} = time fished by the jth angler on the ith day

m_i = number of parties interviewed on the ith day

n = number of days sampled

The total number of each species harvested for each week was calculated by multiplying the estimated C/f times the estimated total angler-hours for that week.

Petersburg Roadside:

Steelhead anglers at Falls, Ohmer, and Crystal Creeks (Blind Slough) were surveyed from April 15 to May 19 in order to estimate total angling effort and the harvest of wild and hatchery-produced steelhead. Because of limited budget and employee resources no stratification was possible, and only 21 sampling periods were surveyed. All days in the 5-week season were divided into four sampling periods of equal length. The fishing day was defined as beginning at 7:00 a.m. and ending on the average civil twilight for a given week.

A simple random sample of all possible sampling periods was drawn using a random-numbers table. The starting point of the survey and whether instantaneous angler counts were made upon arrival or before departure from a given area were also randomly determined.

Time not spent on instantaneous angler counts was used for interviewing anglers. An attempt was made to contact all anglers present at a given sampling location. If this was not possible, anglers were skipped in a systematic fashion (i.e., every second or third angler).

Interviews were conducted with individual anglers only. During the interview, the creel sampler recorded the length of time spent fishing to the nearest 10 minutes, the number of fish caught and kept as well as the number caught and released, and the number of adipose-clipped steelhead caught and kept.

The average number of anglers per count ($\bar{X}$) was calculated as:

$$\bar{X} = (\sum_{i=1}^{n} x_i)/n$$

where,

n = the number of instantaneous counts made in the stratum.

Total angler-hours were estimated by:

$$\hat{H} = N\bar{X} = N\ (\sum_{i=1}^{n} x_i)/n$$

where,

N = total number of possible fishing hours in the season.

The average C/f ($\hat{r}$) of steelhead anglers was estimated as follows:

$$\hat{r} = \frac{\sum_{j=1}^{m} y_j}{\sum_{j=1}^{m} h_j}$$

where,

y_j = number of steelhead caught and kept by the jth angler.

h_j = hours fished by the jth angler.

The total harvest ($\hat{C}$) of steelhead anglers will be calculated as:

$$\hat{C} = \hat{H} \times \hat{r}$$

Yakutat Roadside:

The recreational harvests of chinook, coho, pink, and sockeye salmon, Dolly Varden, steelhead trout, and cutthroat trout were estimated from creel surveys conducted on the Situk River, Lost River, and Ankau Lagoon. Creel survey methods were identical to those described for the Haines and Petersburg roadside creel survey, except that effort and harvest estimates were not based on instantaneous angler counts; rather, they were based on completed angler trip hours expended during the sampled periods.

Chinook Age, Maturity, and Stock Composition

All chinook salmon encountered by creel samplers were measured to the nearest 5 mm (fork length). In addition, three scales were taken from the third row above the lateral line on a diagonal from the insertion of the dorsal fin to the origin of the anal fin.

Gonad samples were collected from sport caught chinook salmon in all marine sport fisheries surveyed. Gonad samples were kept frozen until analysis. After thawing, egg diameters were measured to the nearest 0.1 mm and testes weighed (wet weight) to the nearest gram. The gonad size-frequency distributions of the male and female chinook samples were plotted and inspected to determine if descrete size groupings representing immature and mature chinook could be determined.

Age and stock composition of all sport caught chinook were estimated using methods described by Van Alen (1985). Coded micro-wire tag data were used to estimate the harvest of chinook originating from hatcheries (Alaskan and non-Alaskan). Age-0 chinook not of Alaskan hatchery origin were classified as non-Alaskan wild or hatchery because of the very small percentage of age-0 chinook present in Alaskan runs. Finally, scale pattern analysis was used to estimate the harvest of the remaining age-1 and age-2 chinook originating from Alaskan wild and non-Alaskan wild and hatchery runs.

Hatchery Contributions

All adipose-clipped chinook and coho salmon were measured (fork length) and their heads retained. A cinch strap with a unique number was then inserted through the jaw. Heads and coded micro-wire tag recovery data were sent to the Alaska Department of Fish and Game Coded Wire Tag Processing Lab in Juneau for tag removal and decoding.

Hatchery chinook and coho salmon stock contributions to Southeast marine sport fisheries were estimated by the following:

$$C = m_2 \ (N/n) \ (M/m)$$

where: m_2 = number of tags randomly recovered during the creel survey from a given tag code over an entire season

N = estimated harvest of a species for the season

n = number of fish of a given species examined for marks (adipose-clipped) over the season

M = estimated total number of fish of a species in a hatchery release (tagged and untagged)

m = number of fish of a species and tag code released from a particular hatchery

FINDINGS

Angler Effort and Harvest

Over 18,000 anglers were interviewed during creel surveys conducted in Juneau, Ketchikan, Petersburg, Wrangell, and Haines in 1985. The sampled effort and catches of these anglers are listed in Tables 3 through 13, estimated effort and harvests (by species) in Tables 14 through 24, and weekly catch rates in Tables 25 through 35.

During the survey periods, over 15,000 chinook salmon were harvested by marine anglers in the previously mentioned areas (including Thomas Basin and Blind Slough). This compares with harvests of approximately 12,000 chinook in both 1983 and 1984. The increased harvest was primarily a result of excellent chinook salmon fishing in the Juneau area where the chinook harvest increased by 25%. Roughly 15% of the total Juneau area chinook salmon harvest occurred during the 3-day Juneau Golden North Salmon Derby; over 1,200 chinook salmon were taken (Table 36). Seasonal catch rates (fish per hour) for chinook salmon in the Juneau marine fishery were the highest observed since 1973 (Table 37).

Coho salmon catch rates were also higher than normal, averaging one coho per 14 hours of nontargeted effort (Table 38). Harvest of coho salmon by Juneau marine anglers was over 17,000 fish, representing a 70% increase over 1984 and a 35% increase over 1983.

Table 3. Sampled Effort and Catch of the Juneau Marine Sport Fishery from April 15 to September 29, 1985.

WEEK	ANGL-ER-DAYS	ROD-HRS	SALMON HRS	BOTTOM HRS	CHIN-OOK <28IN KEPT	CHIN-OOK >28IN KEPT	CHIN-OOK <28IN RELE	CHIN-OOK >28IN RELE	COHO	PINK	CHUM	SOC-KEYE	DOL-LY	HALI-BUT KEPT	HALI-BUT RELE	FL-AT-FI-SH	COD	ROC-KFI-SH	GRE-ENL-ING	OT-HER
1 4/15-4/21	132	417	244	174	0	7	0	1	0	0	0	0	0	1	9	0	3	2	0	1
2 4/22-4/28	117	450	376	74	0	11	1	0	0	0	0	0	0	1	7	0	1	1	0	0
3 4/29-5/05	142	485	382	103	0	15	1	0	0	0	0	0	0	1	2	0	0	0	0	0
4 5/06-5/12	143	565	550	15	0	20	5	0	0	0	0	0	1	0	0	0	0	0	0	0
5 5/13-5/19	285	1177	959	218	0	32	4	0	0	0	0	0	0	11	13	0	0	0	0	0
6 5/20-5/26	317	1446	1153	293	0	28	5	0	0	0	0	0	6	23	12	0	4	0	0	0
7 5/27-6/02	390	1763	1189	574	0	46	14	0	0	0	0	0	3	33	7	0	13	26	0	0
8 6/03-6/09	357	1605	1005	600	0	31	16	1	1	0	0	0	3	83	14	1	0	1	0	0
9 6/10-6/16	367	1761	1145	616	0	48	12	0	0	0	0	0	13	82	28	0	4	0	0	0
10 6/17-6/23	511	2449	1350	1098	2	50	31	2	11	4	3	0	15	194	33	0	8	7	0	0
11 6/24-6/30	348	1332	895	437	1	26	23	2	9	68	8	0	10	72	35	0	9	0	0	0
12 7/01-7/07	664	3169	2185	984	2	54	74	1	134	463	26	3	24	169	47	0	0	2	0	0
13 7/08-7/14	436	1838	1472	366	1	58	33	0	118	219	10	0	1	103	32	1	16	3	0	0
14 7/15-7/21	591	2652	2044	608	2	84	66	4	182	204	9	1	15	128	68	0	3	4	0	0
15 7/22-7/28	640	3037	2097	939	5	147	37	26	210	42	3	0	2	207	30	0	2	6	0	0
16 7/29-8/04	474	2396	1645	752	7	81	63	25	119	57	4	1	0	152	37	0	9	3	0	0
17 8/05-8/11	68	240	189	52	0	13	5	1	25	2	0	0	0	11	4	0	0	0	0	0
18 8/12-8/18	523	2500	1596	904	2	16	15	10	150	61	13	0	4	143	71	2	6	9	0	0
19 8/19-8/25	509	2466	1886	580	2	22	53	0	349	30	15	2	0	107	110	0	0	8	0	15
20 8/26-9/01	354	1596	1103	493	1	10	4	0	197	10	16	1	0	87	42	0	1	4	0	0
21 9/02-9/08	540	2424	1685	740	2	25	13	1	243	3	11	0	1	117	64	0	0	12	0	0
22 9/09-9/15	266	1114	818	296	1	11	7	0	99	0	5	0	0	44	2	2	3	1	0	0
23 9/16-9/22	129	502	276	227	0	3	2	0	45	0	1	0	0	23	2	0	2	3	0	0
24 9/23-9/29	80	299	158	142	2	3	0	0	16	0	0	0	0	19	18	0	0	0	0	0
TOTAL	8383	37682	26399	11283	30	841	484	74	1908	1163	124	8	98	1811	687	6	84	92	0	16

Table 4. Sampled Effort and Catch of the Ketchikan Marine Sport Fishery from April 15 to June 30, 1985.

	ANGL-ER-DAYS	ROD-HRS	SALMON HRS	BOTTOM HRS	CHIN-OOK <28IN KEPT	CHIN-OOK >28IN KEPT	CHIN-OOK <28IN RELE	CHIN-OOK >28IN RELE	COHO	PINK	CHUM	SOC-KEYE	DOL-LY	HALI-BUT KEPT	HALI-BUT RELE	FL-AT-FI-SH	COD	ROC-KFI-SH	GRE-ENL-ING	OT-HER
	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM
WEEK																				
1 4/15-4/21	80	263	60	202	0	1	0	0	0	0	0	0	0	6	1	5	0	16	0	0
2 4/22-4/28	64	230	23	207	0	1	0	0	0	0	0	0	0	4	6	0	4	8	0	0
3 4/29-5/05	45	163	36	127	0	0	0	0	0	0	0	0	0	8	2	0	9	18	0	0
4 5/06-5/12	43	135	41	94	0	0	0	0	0	0	0	0	0	4	0	2	4	10	0	0
5 5/13-5/19	185	820	276	544	0	5	9	0	0	0	0	0	0	47	16	0	42	46	1	0
6 5/20-5/26	515	2726	2044	682	1	70	36	0	1	0	0	0	0	99	39	11	58	62	1	0
7 5/27-6/02	692	4035	3310	725	12	119	142	3	0	0	0	0	0	123	65	6	34	39	0	12
8 6/03-6/09	445	2939	2367	571	11	85	67	1	0	0	0	0	0	105	12	6	16	43	0	1
9 6/10-6/16	276	1360	858	502	1	22	27	0	1	0	1	0	0	78	30	14	12	33	0	0
10 6/17-6/23	305	1468	635	832	2	21	31	5	0	0	0	0	1	146	29	7	33	51	0	0
11 6/24-6/30	222	1210	385	825	0	27	14	0	6	3	0	0	1	96	39	13	30	31	0	0
TOTAL	2872	15348	10036	5312	27	351	326	9	8	3	1	0	2	716	239	64	242	357	2	13

Table 5. Sampled Effort and Catch of the Petersburg Marine Sport Fishery from April 15 to June 30, 1985.

	ANGL-ER-DAYS	ROD-HRS	SALMON HRS	BOTTOM HRS	CHIN-OOK <28IN KEPT	CHIN-OOK >28IN KEPT	CHIN-OOK <28IN RELE	CHIN-OOK >28IN RELE	COHO	PINK	CHUM	SOC-KEYE	DOL-LY	HALI-BUT KEPT	HALI-BUT RELE	FL-AT-FI-SH	COD	ROC-KFI-SH	GRE-ENL-ING	OT-HER
	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM
WEEK																				
1 4/15-4/21	50	166	107	59	0	2	0	0	0	0	0	0	0	5	6	0	0	2	0	0
2 4/22-4/28	17	51	48	3	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3 4/29-5/05	39	164	149	15	0	5	0	0	0	0	0	0	0	3	6	0	0	0	0	0
4 5/06-5/12	41	133	110	23	0	5	0	1	0	0	0	0	0	4	0	0	0	0	0	0
5 5/13-5/19	100	331	252	79	0	18	0	0	0	0	0	0	0	3	0	0	0	30	0	0
6 5/20-5/26	148	2389	2314	75	1	91	4	3	0	0	0	0	0	20	6	0	0	0	0	0
7 5/27-6/02	96	1469	1469	0	2	69	25	7	1	0	0	0	2	7	1	0	0	42	0	0
8 6/03-6/09	93	1331	1311	20	0	50	26	4	0	0	0	0	0	7	0	0	0	1	0	0
9 6/10-6/16	71	767	675	92	0	29	9	0	0	0	0	0	0	10	0	0	0	0	0	0
10 6/17-6/23	52	523	435	88	0	11	2	0	0	0	0	0	0	4	0	0	0	0	0	0
11 6/24-6/30	63	678	472	206	0	10	1	0	0	1	0	0	0	13	8	0	2	8	0	0
TOTAL	770	8001	7342	659	3	291	67	15	1	1	0	0	2	77	27	0	2	83	0	0

Table 6. Sampled Effort and Catch of the Wrangell Marine Sport Fishery from April 15 to June 30, 1985.

	ANGL-ER-DAYS	ROD-HRS	SALMON HRS	BOTTOM HRS	CHIN-OOK <28IN KEPT	CHIN-OOK >28IN KEPT	CHIN-OOK <28IN RELE	CHIN-OOK >28IN RELE	COHO	PINK	CHUM	SOC-KEYE	DOL-LY	HALI-BUT KEPT	HALI-BUT RELE	FL-AT-FI-SH	COD	ROC-KFI-SH	GRE-ENL-ING	OT-HER
	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM
WEEK																				
1 4/15-4/21	70	270	155	114	0	8	0	5	0	0	0	0	0	10	1	0	0	0	0	0
2 4/22-4/28	31	104	51	53	0	1	0	0	0	0	0	0	0	7	1	2	0	0	0	2
3 4/29-5/05	64	212	134	78	0	10	3	2	0	0	0	0	0	10	8	3	0	1	0	3
4 5/06-5/12	196	853	797	56	1	28	5	0	0	0	0	0	1	6	0	0	0	0	0	4
5 5/13-5/19	323	1696	1692	4	0	65	8	0	0	0	0	0	0	1	0	2	1	1	0	1
6 5/20-5/26	295	1589	1547	42	0	87	12	4	0	0	0	0	0	10	0	1	0	0	0	0
7 5/27-6/02	101	481	375	107	0	19	11	1	0	0	0	0	0	14	4	2	0	0	0	4
8 6/03-6/09	85	470	320	151	0	22	0	0	0	0	0	0	0	34	0	4	5	5	0	0
9 6/10-6/16	59	295	209	86	0	20	2	1	0	0	0	0	0	18	3	0	0	0	0	0
10 6/17-6/23	58	279	185	94	0	8	3	0	0	0	0	0	0	14	0	0	0	0	0	0
11 6/24-6/30	36	207	102	105	0	3	0	0	0	0	0	0	0	25	0	0	1	3	0	0
TOTAL	1318	6457	5567	890	1	271	44	13	0	0	0	0	1	149	17	14	7	10	0	14

Table 7. Sampled Effort and Catch of the Haines Marine Sport Fishery from April 22 to June 14, 1985.

	ANGL-ER-DAYS	ROD-HRS	SALMON HRS	BOTTOM HRS	CHIN-OOK <28IN KEPT	CHIN-OOK >28IN KEPT	CHIN-OOK <28IN RELE	CHIN-OOK >28IN RELE	DOLLY	HALI-BUT KEPT	HALI-BUT RELE	FLAT-FISH	COD	GRE-ENL-ING	OTH-ER
	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM
WEEK															
2 4/22-4/28	1	2	2	0	0	1	0	0	0	0	0	0	0	0	0
3 4/29-5/05	20	91	91	0	0	1	0	0	0	0	0	0	0	0	0
4 5/06-5/12	9	30	30	0	0	0	0	0	0	0	0	0	0	0	0
5 5/13-5/19	54	162	160	2	0	6	0	0	0	0	0	0	0	0	0
6 5/20-5/26	74	305	305	0	0	23	0	0	2	0	0	0	0	0	0
7 5/27-6/02	36	106	106	0	0	15	3	0	1	0	0	0	0	0	0
8 6/03-6/09	135	517	490	27	0	21	7	0	3	1	1	0	0	0	0
9 6/10-6/16	39	97	97	0	0	5	2	0	4	0	0	0	0	0	0
10 6/17-6/23	77	336	332	4	0	12	3	0	0	0	0	4	2	0	0
11 6/24-6/30	48	148	102	47	0	6	2	0	0	2	0	10	1	0	0
12 7/01-7/07	41	143	138	5	0	8	1	0	2	4	0	0	0	0	0
13 7/08-7/14	29	125	99	26	1	2	16	0	3	1	0	0	0	0	0
ALL	563	2063	1953	110	1	100	34	0	15	8	1	14	3	0	0

Table 8. Sampled Effort and Catch for Blind Slough SHA from June 3 to August 4, 1985

WEEK		ROD HOURS	CHINO-OK <28IN KEPT	CHINO-OK >28IN KEPT	CHINO-OK <28IN RELE	CHINO-OK >28IN RELE	COHO KEPT	COHO RELE	PINK KEPT	PINK RELE	DOLLY VARDEN	CHUM	CUTTH-ROAT
		SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM
8	6/03-6/09	40	0	0	0	0	0	0	0	0	18	0	8
9	6/10-6/16	51	1	0	0	0	0	0	0	0	16	0	15
10	6/17-6/23	231	11	0	1	37	0	0	0	0	3	0	0
11	6/24-6/30	196	4	1	1	51	0	0	0	0	1	0	1
12	7/01-7/07	135	7	1	0	17	0	0	0	0	2	0	0
13	7/08-7/14	293	5	23	9	33	0	0	0	0	16	0	6
14	7/15-7/21	218	0	21	1	25	0	0	0	0	0	1	0
15	7/22-7/28	124	3	9	5	26	0	0	0	0	5	0	6
16	7/29-8/04	55	0	0	0	0	3	0	2	0	2	0	0
TOTAL		1344	31	55	17	189	3	0	2	0	63	1	36

Table 9. Sampled Effort and Catch for Thomas Basin SHA Sport Fishery from June 3 to July 28, 1985.

	ROD HOURS	CHINO-OK <28IN KEPT	CHINO-OK >28IN KEPT	CHINO-OK <28IN RELE	CHINO-OK >28IN RELE	COHO KEPT	PINK KEPT	CHUM	DOLLY VARDEN
	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM
WEEK									
8 6/03-6/09	25	0	3	0	0	0	0	0	0
9 6/10-6/16	54	0	3	0	0	0	0	0	0
10 6/17-6/23	145	0	7	0	0	0	0	0	1
11 6/24-6/30	114	0	17	0	0	0	0	0	0
12 7/01-7/07	135	0	13	0	0	0	0	0	0
13 7/08-7/14	248	0	17	1	0	0	0	0	0
14 7/15-7/21	95	0	2	0	2	0	1	0	0
15 7/22-7/28	33	0	1	0	0	0	1	0	1
TOTAL	849	0	63	1	2	0	2	0	2

Table 10. Sampled Effort and Catch for Juneau Roadside Fisheries in 1985.

AREA	WEEK		ROD HOURS SUM	DOLLY VARDEN SUM	COHO SUM	PINK SUM	CHUM SUM	CUTTH-ROAT SUM
SHEEP CREEK	13	7/08-7/14	58	3	0	102	0	0
	14	7/15-7/21	117	7	0	179	0	0
	15	7/22-7/28	93	3	0	114	0	0
	16	7/29-8/04	76	0	0	147	0	0
	17	8/05-8/11	20	0	0	27	0	0
	18	8/12-8/18	19	0	0	25	1	0
	19	8/19-8/25	6	0	0	29	0	0
	20	8/26-9/01	6	0	0	8	0	0
	TOTAL		395	13	0	631	1	0
SALMON CREEK	13	7/08-7/14	5	0	0	1	0	0
	14	7/15-7/21	17	0	0	13	1	0
	15	7/22-7/28	43	0	0	39	11	0
	16	7/29-8/04	49	2	0	36	0	0
	17	8/05-8/11	1	0	0	1	0	0
	18	8/12-8/18	10	0	0	6	0	0
	19	8/19-8/25	2	0	0	2	0	0
	20	8/26-9/01	7	0	0	3	0	0
	21	9/02-9/08	1	0	0	0	0	0
	22	9/09-9/15	46	0	10	2	0	0
	23	9/16-9/22	33	0	1	0	0	0
	24	9/23-9/29	79	0	19	0	0	0
	25	9/30-10/06	23	0	7	0	0	0
	26	10/07-10/13	78	0	81	1	0	0
	27	10/14-10/20	41	0	24	0	0	0
	28	10/21-10/27	11	0	13	0	0	0
	TOTAL		444	2	155	104	12	0
MONTANA CREEK	13	7/08-7/14	0	0	0	0	0	0
	14	7/15-7/21	15	0	0	0	5	0
	15	7/22-7/28	3	0	0	0	1	0
	16	7/29-8/04	5	8	0	0	0	0
	17	8/05-8/11	1	0	0	0	0	0
	18	8/12-8/18	0	0	0	0	0	0
	19	8/19-8/25	0	0	0	0	0	0
	20	8/26-9/01	0	0	0	0	0	0
	21	9/02-9/08	1	2	0	0	0	0
	22	9/09-9/15	0	0	0	0	0	0
	23	9/16-9/22	0	0	0	0	0	0
	24	9/23-9/29	0	0	0	0	0	0
	25	9/30-10/06	0	0	0	0	0	0
	26	10/07-10/13	0	0	0	0	0	0
	27	10/14-10/20	1	0	0	0	0	0
	28	10/21-10/27	1	0	0	0	0	0
	TOTAL		28	10	0	0	6	0

Table 11. Sampled Effort and Catch of Haines Roadside Sport Fisheries in 1985.

AREA	WEEK	ROD HOURS SUM	DOLLY VARDEN SUM	CUTTH-ROAT SUM	COHO SUM	PINK SUM	SOCKE-YE SUM	CHUM SUM
CHILKOOT RIVER	21 9/02-9/08	95	65	0	0	52	1	0
	22 9/09-9/15	106	4	0	2	54	1	0
	23 9/16-9/22	68	26	0	11	6	0	0
	24 9/23-9/29	158	7	0	32	2	1	2
	25 9/30-10/06	203	3	0	33	0	0	1
	26 10/07-10/13	235	29	0	21	0	0	0
	27 10/14-10/20	79	0	0	18	0	0	1
	28 10/21-10/27	17	1	0	0	0	0	0
	29 10/28-11/03	3	0	0	1	0	0	0
	TOTAL	3020	524	0	118	451	124	5
CHILKAT RIVER	WEEK							
	4/01-4/07	78	24	0	0	0	0	0
	4/08-4/14	21	8	0	0	0	0	0
	4/15-4/21	25	9	0	0	0	0	0
	21 9/02-9/08	0	0	0	0	0	0	0
	22 9/09-9/15	5	0	0	0	0	1	0
	23 9/16-9/22	43	0	0	10	0	0	8
	24 9/23-9/29	34	2	0	2	0	0	11
	25 9/30-10/06	226	1	0	7	0	0	66
	26 10/07-10/13	212	9	0	39	0	0	59
	27 10/14-10/20	140	7	0	40	0	0	16
	28 10/21-10/27	41	0	0	15	0	0	4
	29 10/28-11/03	0	0	0	0	0	0	0
	TOTAL	826	60	0	113	0	1	164

Table 11. (cont'd). Sampled Effort and Catch of Haines Roadside Sport Fisheries in 1985.

AREA	WEEK	ROD HOURS	DOLLY VARDEN	CUTTH-ROAT	COHO	PINK	SOCKE-YE	CHUM
TANANI BAY / LUTAK INLET (SALTWATER)	14 7/15-7/21	14	2	1	0	4	1	0
	15 7/22-7/28	51	9	0	0	12	0	0
	16 7/29-8/04	33	2	0	0	10	0	0
	17 8/05-8/11	40	0	0	0	20	0	0
	18 8/12-8/18	65	0	0	0	49	4	0
	19 8/19-8/25	87	6	0	0	51	0	0
	20 8/26-9/01	22	1	0	0	8	0	0
	21 9/02-9/08	10	0	0	0	11	0	0
	22 9/09-9/15	0	0	0	0	0	0	0
	23 9/16-9/22	0	0	0	0	0	0	0
	24 9/23-9/29	0	0	0	0	0	0	0
	25 9/30-10/06	0	0	0	0	0	0	0
	26 10/07-10/13	0	0	0	0	0	0	0
	27 10/14-10/20	0	0	0	0	0	0	0
	28 10/21-10/27	0	0	0	0	0	0	0
	29 10/28-11/03	0	0	0	0	0	0	0
	TOTAL	322	20	1	0	165	5	0
CHILKOOT RIVER	WEEK							
	14 7/15-7/21	53	24	0	0	0	0	0
	15 7/22-7/28	370	80	0	0	26	6	0
	16 7/29-8/04	482	48	0	0	53	45	0
	17 8/05-8/11	463	52	0	0	51	46	0
	18 8/12-8/18	284	77	0	0	46	18	0
	19 8/19-8/25	165	69	0	0	36	6	0
	20 8/26-9/01	240	39	0	0	125	0	1

Table 12, Sampled Effort and Catch of Yakutat Roadside Sport Fisheries in 1985.

AREA	WEEK	ANGLER DAYS	ROD HOURS	STEELHEAD KEPT	STEELHEAD RELE	KING > 16 INCH	KING < 16 INCH	SOCKEYE	PINK	COHO	DOLLY VARDEN	RAINBOW
SITUK RIVER	3 4/29-5/05	56	340	12	161	0	0	0	0	0	0	0
	4 5/06-5/12	49	251	4	16	0	0	0	0	0	0	0
	5 5/13-5/19	30	188	6	86	0	0	0	0	0	0	0
	6 5/20-5/26	17	136	6	90	0	0	0	0	0	0	0
	7 5/27-6/02	9	18	1	3	0	0	0	0	0	0	0
	8 6/03-6/09	6	7	0	0	0	0	0	0	0	0	0
	9 6/10-6/16	11	57	5	5	1	0	1	0	0	1	0
	10 6/17-6/23	26	91	7	10	6	0	2	0	0	2	0
	11 6/24-6/30	57	257	7	11	19	9	11	0	0	1	0
	12 7/01-7/07	34	152	4	3	10	8	21	1	0	1	0
	13 7/08-7/14	28	111	0	0	5	13	12	2	0	1	0
	14 7/15-7/21	20	41	0	1	1	1	0	1	0	0	0
	15 7/22-7/28	0	0	0	0	0	0	0	0	0	0	0
	16 7/29-8/04	3	7	0	0	0	0	0	9	0	0	0
	17 8/05-8/11	46	349	0	0	0	0	0	297	6	30	0
	18 8/12-8/18	70	302	0	0	0	0	0	132	28	3	0
	19 8/19-8/25	81	289	0	0	0	0	0	44	40	12	0
	20 8/26-9/01	120	428	0	0	0	0	0	6	109	1	0
	21 9/02-9/08	133	494	0	0	0	0	0	7	188	1	0
	22 9/09-9/15	116	524	0	0	0	0	0	0	106	1	0
	23 9/16-9/22	62	233	0	0	0	0	0	0	75	0	0
	24 9/23-9/29	30	163	0	0	0	0	0	0	33	0	0
	25 9/30-10/06	13	41	0	0	0	0	0	0	4	0	0
	26 10/07-10/13	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	1017	4475	52	386	42	31	47	499	589	54	0

Table 12. (cont'd). Sampled Effort and Catch of Yakutat Roadside Sport Fisheries in 1985.

AREA	WEEK	ANGLER DAYS	ROD HOURS	STEELHEAD KEPT	STEELHEAD RELE	KING > 16 INCH	KING < 16 INCH	SOCKEYE	PINK	COHO	DOLLY VARDEN	RAINBOW
LOST RIVER	WEEK											
	18 8/12-8/18	22	61	0	0	0	0	0	18	12	0	0
	19 8/19-8/25	52	188	0	0	0	0	0	10	62	0	1
	20 8/26-9/01	60	185	0	0	0	0	0	2	38	0	0
	21 9/02-9/08	103	353	0	0	0	0	0	3	157	1	0
	22 9/09-9/15	130	415	0	0	0	0	0	1	159	1	0
	23 9/16-9/22	76	255	0	0	0	0	0	0	99	0	0
	24 9/23-9/29	69	223	0	0	0	0	0	0	75	0	0
	25 9/30-10/06	23	62	0	0	0	0	0	0	28	0	0
	26 10/07-10/13	5	12	0	0	0	0	0	0	1	0	0
	TOTAL	540	1753	0	0	0	0	0	34	631	2	1
TAWAH CREEK--LOST RIVER	WEEK											
	18 8/12-8/18	7	19	0	0	0	0	0	0	4	0	0
	21 9/02-9/08	16	40	0	0	0	0	0	0	20	0	0
	22 9/09-9/15	25	57	0	0	0	0	0	0	19	0	0
	23 9/16-9/22	18	42	0	0	0	0	0	0	29	0	0
	24 9/23-9/29	29	106	0	0	0	0	0	0	44	0	0
	25 9/30-10/06	8	22	0	0	0	0	0	0	15	0	0
	26 10/07-10/13	4	10	0	0	0	0	0	0	3	0	0
	TOTAL	107	295	0	0	0	0	0	0	134	0	0

Table 13. Sampled Effort and Catch of Petersburg Roadside Sport Fisheries from April 14 to May 19, 1985.

Area	Week	No. of Anglers	Rod Hours	Steelhead		Dolly Varden		Cutthroat	
				Kept	Rel.	Kept	Rel.	Kept	Rel.
Falls Creek	1	2	3	0	0	0	0	0	0
	2	7	9	2	0	0	0	0	0
	3	17	21	11	2	0	0	0	0
	4	16	29	14	2	0	0	0	0
	5	13	21	5	1	0	0	0	0
Total		55	83	32	5	0	0	0	0
Blind Slough (Crystal Cr.)	1	12	24	7	3	0	0	0	0
	2	9	9	4	5	0	0	0	0
	3	11	17	0	0	0	0	0	0
	4	5	10	1	0	0	7	1	0
	5	0	0	0	0	0	0	0	0
Total		37	60	12	8	0	7	1	0
Ohmer Creek	1	4	6	1	0	0	0	0	0
	2	2	15	0	0	0	0	0	0
	3	4	6	2	0	0	0	0	0
	4	2	2	0	0	1	0	0	0
	5	5	4	4	3	0	0	0	0
Total		17	33	7	3	1	0	0	0

Table 14. Estimated Effort and Harvest by Species for Juneau Marine Sport Fishery from April 15 to September 29, 1985 (Includes Golden North Salmon Derby Harvest, August 9, 10, and 11).

WEEK	BOAT-DAYS	ANGLER DAYS	SALMON HOURS	BOTTOM FISH HOURS	CHIN-OOK <28IN KEPT	CHIN-OOK >28IN KEPT	CHIN-OOK <28IN RELE	CHIN-OOK >28IN RELE	HALI-BUT KEPT	HALI-BUT RELE	COHO	PINK	CHUM	SOCK-EYE	DOLLY VARD-EN
1 4/15-4/21	80	191	382	195	0	10	0	1	1	14	0	0	0	0	0
2 4/22-4/28	158	376	1412	178	0	44	4	0	4	6	0	0	0	0	0
3 4/29-5/05	400	1097	3357	392	0	146	21	0	0	42	0	0	0	0	0
4 5/06-5/12	204	533	2081	37	0	76	20	0	0	0	0	0	0	0	5
5 5/13-5/19	1128	2729	9699	1899	0	405	39	0	89	89	0	0	0	0	0
6 5/20-5/26	1410	3381	10985	2508	0	201	47	0	93	51	0	0	0	0	30
7 5/27-6/02	1208	3065	9817	3843	0	378	118	0	170	60	0	0	0	0	18
8 6/03-6/09	687	1760	5155	2605	0	177	80	4	325	28	0	0	0	0	17
9 6/10-6/16	792	1961	6127	3335	0	292	41	0	472	161	0	0	0	0	56
10 6/17-6/23	1459	3797	9852	6874	18	372	222	11	1339	199	67	22	16	0	121
11 6/24-6/30	1162	2974	7702	3651	8	224	200	17	585	180	78	578	69	0	87
12 7/01-7/07	1328	3600	11801	5061	16	342	454	4	866	244	691	2513	157	12	91
13 7/08-7/14	1174	2882	9799	2257	6	403	212	0	631	184	791	1467	74	0	6
14 7/15-7/21	1907	4958	16959	4996	18	725	550	35	1017	352	1541	1708	74	8	110
15 7/22-7/28	1941	5004	16834	6460	52	1219	329	201	1298	239	1659	350	21	0	25
16 7/29-8/04	1224	3389	11605	3850	73	718	471	341	676	208	939	320	39	5	0
17 8/05-8/11	3955	11218	80717	2021	51	1397	2417	126	1061	542	3354	3361	176	8	29
18 8/12-8/18	1564	3880	11753	6040	12	107	107	88	942	324	1131	480	95	0	24
19 8/19-8/25	1332	3289	12438	3059	20	136	343	0	542	328	2369	246	106	11	0
20 8/26-9/01	1247	3116	9959	3716	11	90	33	0	509	212	1763	90	143	11	0
21 9/02-9/08	1524	3730	12364	5039	11	195	107	8	761	325	1769	25	85	0	8
22 9/09-9/15	761	1798	5284	1847	14	109	67	0	252	7	607	0	49	0	0
23 9/16-9/22	322	791	1543	1412	0	15	10	0	139	10	224	0	29	0	0
24 9/23-9/29	348	703	1452	1106	17	25	0	0	159	150	155	0	0	0	0
TOTAL	27315	70222	269077	72381	327	7806	5892	836	11931	3955	17138	11160	1133	55	627

Table 15. Estimated Effort and Harvest by Species for Ketchikan Marine Sport Fishery from April 15 to June 30, 1985.

	BOAT-DAYS	ANGLER DAYS	SALMON HOURS	BOTTOM FISH HOURS	CHIN-OOK <28IN KEPT	CHIN-OOK >28IN KEPT	CHIN-OOK <28IN RELE	CHIN-OOK >28IN RELE	HALI-BUT KEPT	HALI-BUT RELE	COHO	PINK	CHUM	SOCK-EYE	DOLLY VARD-EN
	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM
WEEK															
1 4/15-4/21	77	168	116	424	0	2	0	0	12	2	0	0	0	0	0
2 4/22-4/28	86	157	58	503	0	3	0	0	10	14	0	0	0	0	0
3 4/29-5/05	134	319	255	948	0	0	0	0	51	13	0	0	0	0	0
4 5/06-5/12	181	410	311	895	0	0	0	0	44	0	0	0	0	0	0
5 5/13-5/19	786	1595	2218	3481	0	22	39	0	287	132	0	0	0	0	0
6 5/20-5/26	962	2341	9443	3036	5	322	166	0	449	177	5	0	0	0	0
7 5/27-6/02	1625	3945	18487	4270	69	756	977	15	703	426	0	0	0	0	0
8 6/03-6/09	1802	4298	20672	6935	86	787	675	23	1122	124	0	0	0	0	0
9 6/10-6/16	958	2396	7770	3723	17	204	257	0	719	275	17	0	6	0	0
10 6/17-6/23	578	1564	3237	4132	10	115	173	32	716	147	0	0	0	0	6
11 6/24-6/30	411	1079	1837	4055	0	132	67	0	459	194	28	14	0	0	4
TOTAL	7600	18272	64404	32402	187	2343	2354	70	4572	1504	50	14	6	0	10

Table 16. Estimated Effort and Harvest by Species of the Petersburg Marine Sport Fishery from April 15 to June 30, 1985.

	ANGL-ER-DAYS	ROD-HRS	SALMON HRS	BOTTOM HRS	CHIN-OOK <28IN KEPT	CHIN-OOK >28IN KEPT	CHIN-OOK <28IN RELE	CHIN-OOK >28IN RELE	DOLLY VARD-EN	HALI-BUT KEPT	HALI-BUT RELE	FLAT-FISH	COD	ROCK-FISH	GREE-NLING
	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM
WEEK															
1 4/15-4/21	212	629	440	188	0	6	0	0	0	16	19	0	0	6	0
2 4/22-4/28	64	171	162	9	0	3	0	0	0	3	0	0	0	0	0
3 4/29-5/05	143	604	555	49	0	16	0	0	0	10	19	0	0	0	0
4 5/06-5/12	207	706	634	72	0	40	0	8	0	13	0	0	0	0	0
5 5/13-5/19	491	1734	1247	487	0	110	0	0	0	10	0	0	0	239	0
6 5/20-5/26	570	8697	8298	398	3	333	13	10	0	96	19	0	0	0	0
7 5/27-6/02	459	7025	7025	0	10	330	120	33	10	33	5	0	0	201	0
8 6/03-6/09	464	6239	6108	131	0	274	135	27	0	22	0	0	0	8	0
9 6/10-6/16	269	2632	2320	312	0	102	29	0	0	32	0	0	0	0	0
10 6/17-6/23	252	2610	2157	453	0	35	6	0	0	27	0	0	0	0	0
11 6/24-6/30	287	2700	2035	665	0	56	3	0	0	41	26	0	6	26	0
TOTAL	3418	33745	30982	2764	13	1305	306	78	10	303	88	0	6	480	0

Table 17. Estimated Effort and Harvest by Species of the Wrangell Marine Sport Fishery from April 15 to June 30, 1985.

	ANGL-ER-DAYS	ROD-HRS	SALMON HRS	BOTTOM HRS	CHIN-OOK <28IN KEPT	CHIN-OOK >28IN KEPT	CHIN-OOK <28IN RELE	CHIN-OOK >28IN RELE	DOLLY VARD-EN	HALI-BUT KEPT	HALI-BUT RELE	FLAT-FISH	COD	ROCK-FISH	GREE-NLING
	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM
WEEK															
1 4/15-4/21	308	1072	611	461	0	39	0	18	0	36	9	0	0	0	0
2 4/22-4/28	201	669	384	285	0	4	0	0	0	57	4	18	0	0	0
3 4/29-5/05	276	857	558	300	0	36	11	7	0	36	28	11	0	4	0
4 5/06-5/12	938	4121	3695	426	9	121	28	0	9	21	0	0	0	0	0
5 5/13-5/19	1886	8912	8877	36	0	285	28	0	0	9	0	18	4	4	0
6 5/20-5/26	1727	8942	8794	148	0	512	96	36	0	73	0	9	0	0	0
7 5/27-6/02	594	2773	2165	609	0	119	60	5	0	78	25	14	0	0	0
8 6/03-6/09	447	2396	1701	696	0	121	0	0	0	137	0	30	23	18	0
9 6/10-6/16	311	1425	1018	407	0	103	7	4	0	91	27	0	0	0	0
10 6/17-6/23	324	1643	1169	474	0	55	11	0	0	76	0	0	0	0	0
11 6/24-6/30	229	1187	700	487	0	16	0	0	0	126	0	0	4	11	0
TOTAL	7241	33997	29671	4326	9	1411	242	69	9	740	93	100	30	36	0

Table 18. Estimated Effort and Harvest by Species of the Haines Marine Sport Fishery from April 15 to July 15, 1985 (Includes 1985 Haines Salmon Derby Harvest).

	ANGL-ER-DAYS	ROD-HRS	SALMON HRS	BOTTOM HRS	CHIN-OOK <28IN KEPT	CHIN-OOK >28IN KEPT	CHIN-OOK <28IN RELE	CHIN-OOK >28IN RELE	DOLLY VARD-EN	HALI-BUT KEPT	HALI-BUT RELE	FLAT-FISH	COD
	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM
WEEK													
4/15 - 4/28	183	662	662	0	0	12	0	0	0	0	0	0	0
4/29 - 5/12	418	1256	1244	12	0	35	0	0	0	0	0	0	0
5/13 - 5/26	2846	5368	5368	0	0	976	190	9	92	19	0	0	0
5/27 - 6/09	1758	6866	6481	384	0	342	78	0	67	15	15	0	0
6/10 - 6/23	1161	4639	4272	367	0	200	46	0	0	20	0	125	17
6/24 - 7/15	746	2807	2554	253	13	131	199	0	59	59	0	0	0
TOTAL	7111	21598	20582	1016	13	1696	514	9	218	113	15	125	17

Table 19. Estimated Effort and Harvest by Species of the Blind Slough SHA Sport Fishery from June 3 to August 4, 1985.

	ANGLER HOURS	CHINO-OK <28IN KEPT	CHINO-OK >28IN KEPT	CHINO-OK <28IN RELE	CHINO-OK >28IN RELE	COHO	PINK	CHUM	DOLLY VARDEN	CUTTH-ROAT
	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM
WEEK										
8 6/03-6/09	92	0	0	0	0	0	0	0	39	23
9 6/10-6/16	117	2	0	0	0	0	0	0	37	33
10 6/17-6/23	571	25	0	2	90	0	0	0	9	0
11 6/24-6/30	556	11	2	2	146	0	0	0	3	3
12 7/01-7/07	386	19	3	0	50	0	0	0	5	0
13 7/08-7/14	622	10	47	25	75	0	0	0	32	12
14 7/15-7/21	615	0	61	2	81	0	0	3	0	0
15 7/22-7/28	312	10	22	17	60	0	0	0	13	12
16 7/29-8/04	159	0	0	0	0	15	7	0	7	0
TOTAL	3430	77	135	48	502	15	7	3	145	83

Table 20. Estimated Effort and Harvest by Species for the Thomas Basin SHA Sport Fishery from June 3 to July 28, 1985.

	ANGLER HOURS	CHINO-OK <28IN KEPT	CHINO-OK >28IN KEPT	CHINO-OK <28IN RELE	CHINO-OK >28IN RELE	COHO	PINK	CHUM	DOLLY VARDEN
	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM	SUM
WEEK									
8 6/03-6/09	67	0	10	0	0	0	0	0	0
9 6/10-6/16	140	0	10	0	0	0	0	0	0
10 6/17-6/23	356	0	18	0	0	0	0	0	2
11 6/24-6/30	319	0	45	0	0	0	0	0	0
12 7/01-7/07	383	0	36	0	0	0	0	0	0
13 7/08-7/14	647	0	43	2	0	0	0	0	0
14 7/15-7/21	259	0	7	0	7	0	3	0	0
15 7/22-7/28	90	0	3	0	0	0	3	0	3
TOTAL	2261	0	172	2	7	0	6	0	5

Table 21. Estimated Effort and Harvest by Species for Juneau Roadside Fisheries in 1985.

AREA	WEEK		ANGLER HOURS SUM	DOLLY VARDEN SUM	COHO SUM	PINK SUM	CHUM SUM	CUTTH-ROAT SUM
SHEEP CREEK	13	7/08-7/14	468	15	0	741	0	0
	14	7/15-7/21	1325	82	0	2031	0	0
	15	7/22-7/28	1022	31	0	1286	0	0
	16	7/29-8/04	931	0	0	1549	0	0
	17	8/05-8/11	341	0	0	432	0	0
	18	8/12-8/18	250	0	0	332	7	0
	19	8/19-8/25	112	0	0	555	0	0
	20	8/26-9/01	31	0	0	42	0	0
	TOTAL		4480	128	0	6968	7	0
SALMON CREEK	13	7/08-7/14	36	0	0	7	0	0
	14	7/15-7/21	335	0	0	255	8	0
	15	7/22-7/28	796	0	0	577	296	0
	16	7/29-8/04	630	16	0	504	0	0
	17	8/05-8/11	68	0	0	83	0	0
	18	8/12-8/18	244	0	0	144	0	0
	19	8/19-8/25	31	0	0	29	0	0
	20	8/26-9/01	217	0	0	62	0	0
	21	9/02-9/08	16	0	0	0	0	0
	22	9/09-9/15	466	0	96	31	0	0
	23	9/16-9/22	167	0	5	0	0	0
	24	9/23-9/29	315	0	75	0	0	0
	25	9/30-10/06	108	0	33	0	0	0
	26	10/07-10/13	269	0	281	3	0	0
	27	10/14-10/20	93	0	55	0	0	0
	28	10/21-10/27	38	0	46	0	0	0
	TOTAL		3827	16	591	1695	304	0
MONTANA CREEK	13	7/08-7/14	0	0	0	0	0	0
	14	7/15-7/21	71	0	0	0	16	0
	15	7/22-7/28	62	0	0	0	11	0
	16	7/29-8/04	280	368	0	0	0	0
	17	8/05-8/11	54	0	0	0	0	0
	18	8/12-8/18	0	0	0	0	0	0
	19	8/19-8/25	0	0	0	0	0	0
	20	8/26-9/01	25	0	0	0	0	0
	21	9/02-9/08	16	43	0	0	0	0
	22	9/09-9/15	0	0	0	0	0	0
	23	9/16-9/22	0	0	0	0	0	0
	24	9/23-9/29	3	0	0	0	0	0
	25	9/30-10/06	0	0	0	0	0	0
	26	10/07-10/13	9	0	0	0	0	0
	27	10/14-10/20	5	0	0	0	0	0
	28	10/21-10/27	5	0	0	0	0	0
	TOTAL		529	411	0	0	27	0

Table 22. Estimated Effort and Harvest by Species of Haines Roadside Sport Fisheries in 1985.

AREA	WEEK	ANGLER HOURS	DOLLY VARDEN	CUTTH-ROAT	COHO	PINK	SOCKE-YE	CHUM
TANANI BAY / LUTAK INLET (SALTWATER)	14 7/15-7/21	446	141	15	0	115	15	0
	15 7/22-7/28	552	176	0	0	259	0	0
	16 7/29-8/04	381	33	0	0	121	0	0
	17 8/05-8/11	444	0	0	0	178	0	0
	18 8/12-8/18	953	0	0	0	714	59	0
	19 8/19-8/25	885	33	0	0	477	0	0
	20 8/26-9/01	317	28	0	0	177	0	0
	21 9/02-9/08	79	0	0	0	65	0	0
	22 9/09-9/15	0	0	0	0	0	0	0
	23 9/16-9/22	0	0	0	0	0	0	0
	24 9/23-9/29	24	0	0	0	0	0	0
	25 9/30-10/06	0	0	0	0	0	0	0
	26 10/07-10/13	0	0	0	0	0	0	0
	27 10/14-10/20	0	0	0	0	0	0	0
	28 10/21-10/27	0	0	0	0	0	0	0
	29 10/28-11/03	0	0	0	0	0	0	0
	TOTAL	4082	411	15	0	2106	74	0
CHILKOOT RIVER	WEEK							
	14 7/15-7/21	1208	547	0	0	0	0	0
	15 7/22-7/28	3637	849	0	0	301	69	0
	16 7/29-8/04	4464	345	0	0	590	480	0
	17 8/05-8/11	3924	663	0	0	407	440	0
	18 8/12-8/18	2914	821	0	0	505	174	0
	19 8/19-8/25	1384	435	0	0	348	43	0
	20 8/26-9/01	2045	341	0	0	1197	0	6

Table 22. (cont'd). Estimated Effort and Harvest by Species of Haines Roadside Sport Fisheries in 1985.

AREA	WEEK	ANGLER HOURS SUM	DOLLY VARDEN SUM	CUTTH-ROAT SUM	COHO SUM	PINK SUM	SOCKE-YE SUM	CHUM SUM
CHILKOOT RIVER	21 9/02-9/08	1183	699	0	0	573	10	0
	22 9/09-9/15	878	29	0	21	426	11	0
	23 9/16-9/22	747	269	0	126	62	0	0
	24 9/23-9/29	1176	52	0	243	16	8	16
	25 9/30-10/06	914	32	0	162	0	0	2
	26 10/07-10/13	1199	149	0	107	0	0	0
	27 10/14-10/20	320	0	0	74	0	0	6
	28 10/21-10/27	43	3	0	0	0	0	0
	29 10/28-11/03	70	0	0	9	0	0	0
	TOTAL	26103	5234	0	742	4425	1235	30
CHILKAT RIVER	WEEK							
	4/01-4/07	1188	367	0	0	0	0	0
	4/08-4/14	214	80	0	0	0	0	0
	4/15-4/21	317	147	0	0	0	0	0
	21 9/02-9/08	10	0	0	0	0	0	0
	22 9/09-9/15	78	0	0	0	0	14	0
	23 9/16-9/22	334	0	0	60	0	0	48
	24 9/23-9/29	330	10	0	10	0	0	168
	25 9/30-10/06	653	3	0	21	0	0	195
	26 10/07-10/13	2653	97	0	446	0	0	692
	27 10/14-10/20	537	22	0	155	0	0	58
	28 10/21-10/27	342	0	0	85	0	0	35
	29 10/28-11/03	28	0	0	0	0	0	0
	TOTAL	6685	726	0	777	0	14	1196

Table 23. Estimated Effort and Harvest by Species for Yakutat Roadside Sport Fisheries in 1985.

AREA	WEEK	ANGLER DAYS	EFFORT (HOURS)	STEELHEAD KEPT	STEELHEAD RELE	KING > 16 INCH	KING < 16 INCH	SOCKEYE	PINK	COHO	DOLLY VARDEN	RAINBOW
SITUK RIVER	3 4/29-5/05	392	2382	84	1127	0	0	0	0	0	0	0
	4 5/06-5/12	343	1756	28	112	0	0	0	0	0	0	0
	5 5/13-5/19	210	1317	42	602	0	0	0	0	0	0	0
	6 5/20-5/26	119	951	42	630	0	0	0	0	0	0	0
	7 5/27-6/02	42	84	5	14	0	0	0	0	0	0	0
	8 6/03-6/09	42	46	0	0	0	0	0	0	0	0	0
	9 6/10-6/16	77	399	35	35	7	0	7	0	0	7	0
	10 6/17-6/23	182	636	49	70	42	0	14	0	0	14	0
	11 6/24-6/30	399	1798	49	77	133	63	77	0	0	7	0
	12 7/01-7/07	238	1065	28	21	70	56	147	7	0	7	0
	13 7/08-7/14	196	776	0	0	35	91	84	14	0	7	0
	14 7/15-7/21	140	284	0	7	7	7	0	7	0	0	0
	15 7/22-7/28	0	0	0	0	0	0	0	0	0	0	0
	16 7/29-8/04	21	49	0	0	0	0	0	63	0	0	0
	17 8/05-8/11	322	2441	0	0	0	0	0	2079	42	210	0
	18 8/12-8/18	294	1266	0	0	0	0	0	554	118	13	0
	19 8/19-8/25	425	1515	0	0	0	0	0	231	210	63	0
	20 8/26-9/01	630	2244	0	0	0	0	0	32	572	5	0
	21 9/02-9/08	698	2595	0	0	0	0	0	37	987	5	0
	22 9/09-9/15	609	2751	0	0	0	0	0	0	557	5	0
	23 9/16-9/22	326	1221	0	0	0	0	0	0	394	0	0
	24 9/23-9/29	158	853	0	0	0	0	0	0	173	0	0
	25 9/30-10/06	68	213	0	0	0	0	0	0	21	0	0
	26 10/07-10/13	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	5931	26639	362	2695	294	217	329	3024	3074	343	0

Table 23. (cont'd). Estimated Effort and Harvest by Species for Yakutat Roadside Sport Fisheries in 1985.

AREA	WEEK	ANGLER DAYS	EFFORT (HOURS)	STEELHEAD KEPT	STEELHEAD RELE	KING > 16 INCH	KING < 16 INCH	SOCKEYE	PINK	COHO	DOLLY VARDEN	RAINBOW
LOST RIVER	18 8/12-8/18	92	255	0	0	0	0	0	76	50	0	0
	19 8/19-8/25	273	987	0	0	0	0	0	53	326	0	5
	20 8/26-9/01	315	973	0	0	0	0	0	11	200	0	0
	21 9/02-9/08	541	1853	0	0	0	0	0	16	824	5	0
	22 9/09-9/15	683	2176	0	0	0	0	0	5	835	5	0
	23 9/16-9/22	399	1336	0	0	0	0	0	0	520	0	0
	24 9/23-9/29	362	1168	0	0	0	0	0	0	394	0	0
	25 9/30-10/06	121	326	0	0	0	0	0	0	147	0	0
	26 10/07-10/13	26	63	0	0	0	0	0	0	5	0	0
	TOTAL	2812	9137	0	0	0	0	0	161	3301	10	5
TAWAH CREEK--LOST RIVER	WEEK											
	18 8/12-8/18	29	80	0	0	0	0	0	0	17	0	0
	21 9/02-9/08	84	210	0	0	0	0	0	0	105	0	0
	22 9/09-9/15	131	297	0	0	0	0	0	0	100	0	0
	23 9/16-9/22	95	221	0	0	0	0	0	0	152	0	0
	24 9/23-9/29	152	554	0	0	0	0	0	0	231	0	0
	25 9/30-10/06	42	116	0	0	0	0	0	0	79	0	0
	26 10/07-10/13	21	53	0	0	0	0	0	0	16	0	0
	TOTAL	554	1529	0	0	0	0	0	0	700	0	0

Table 24. Harvest and Effort of Petersburg Roadside Sport Fisheries from April 15 to May 19, 1985.

Area	Week	Rod Hours	Steelhead Kept	Steelhead Rel.
Falls Creek	1	56	22	0
	2	153	32	0
	3	409	217	39
	4	314	151	22
	5	264	63	13
	Total	1,196	485	74
Blind Slough (Crystal Creek)	1	336	99	42
	2	197	89	111
	3	265	0	0
	4	98	10	0
	5	0	0	0
	Total	896	198	153
Ohmer Creek	1	112	0	0
	2	44	0	0
	3	96	30	0
	4	39	0	0
	5	102	111	83
	Total	393	141	83

Table 25. Weekly Catch Rates (Fish per Hour) for Juneau Marine Sport Fishery from April 15 to September 28, 1985.

WEEK	ROD HOURS	SALMON HOURS	% SALMON HOURS	BOTTOM HOURS	% BOTTOM HOURS	CHI-NOOK (NON)	COHO (NON)	HAL-IBUT (NON)	CHI-NOOK (TAR)	COHO (TAR)	PINK (TAR)	CHUM (TAR)	ALL SALMON (TAR)	DOLLY (TAR)	HAL-IBUT (TAR)
1	417	244	58.4	174	41.6	0.017	0.000	0.002	0.029	0.000	0.000	0.000	0.029	0.000	0.006
2	450	376	83.6	74	16.4	0.024	0.000	0.002	0.029	0.000	0.000	0.000	0.029	0.000	0.014
3	485	382	78.7	103	21.3	0.031	0.000	0.002	0.039	0.000	0.000	0.000	0.039	0.000	0.010
4	565	550	97.3	15	2.7	0.035	0.000	0.000	0.036	0.000	0.000	0.000	0.036	0.002	0.000
5	1177	959	81.5	218	18.5	0.027	0.000	0.009	0.031	0.000	0.000	0.000	0.031	0.000	0.028
6	1446	1153	79.7	293	20.3	0.019	0.000	0.016	0.024	0.000	0.000	0.000	0.024	0.005	0.051
7	1763	1189	67.4	574	32.6	0.026	0.000	0.019	0.037	0.000	0.000	0.000	0.037	0.002	0.049
8	1605	1005	62.6	600	37.4	0.019	0.001	0.052	0.031	0.001	0.000	0.000	0.032	0.003	0.133
9	1761	1145	65.0	616	35.0	0.027	0.000	0.047	0.039	0.000	0.000	0.000	0.039	0.010	0.130
10	2449	1350	55.1	1099	44.9	0.021	0.004	0.079	0.036	0.007	0.003	0.002	0.049	0.007	0.157
11	1332	895	67.2	437	32.8	0.020	0.007	0.054	0.027	0.010	0.076	0.008	0.121	0.011	0.158
12	3169	2185	69.0	984	31.0	0.018	0.042	0.053	0.026	0.057	0.207	0.011	0.302	0.010	0.153
13	1838	1472	80.1	366	19.9	0.032	0.064	0.056	0.039	0.080	0.146	0.006	0.271	0.001	0.240
14	2652	2044	77.1	608	22.9	0.032	0.069	0.048	0.040	0.087	0.095	0.004	0.226	0.007	0.179
15	3037	2097	69.1	939	30.9	0.050	0.069	0.068	0.072	0.097	0.020	0.001	0.190	0.001	0.194
16	2396	1645	68.6	752	31.4	0.037	0.050	0.063	0.052	0.071	0.034	0.002	0.159	0.000	0.161
17	240	189	78.6	52	21.4	0.054	0.104	0.046	0.064	0.132	0.011	0.000	0.207	0.000	0.155
18	2500	1596	63.8	904	36.2	0.007	0.060	0.057	0.010	0.090	0.037	0.008	0.145	0.003	0.136
19	2466	1886	76.5	580	23.5	0.010	0.142	0.043	0.012	0.185	0.015	0.007	0.221	0.000	0.152
20	1596	1103	69.1	493	30.9	0.007	0.123	0.055	0.010	0.176	0.009	0.014	0.209	0.000	0.164
21	2424	1685	69.5	740	30.5	0.011	0.100	0.048	0.015	0.142	0.002	0.006	0.165	0.001	0.146
22	1114	818	73.5	296	26.5	0.011	0.089	0.040	0.012	0.121	0.000	0.006	0.139	0.000	0.132
23	503	276	54.9	227	45.1	0.006	0.090	0.046	0.007	0.160	0.000	0.004	0.170	0.000	0.097
24	299	158	52.6	142	47.4	0.017	0.053	0.063	0.032	0.102	0.000	0.000	0.133	0.000	0.120

Table 26. Weekly Catch Rates (Fish per Hour) for Ketchikan Marine Sport Fishery from April 15 to June 30, 1985.

WEEK	ROD HOURS	SALMON HOURS	% SALMON HOURS	BOTTOM HOURS	% BOTTOM HOURS	CHI-NOOK (NON)	COHO (NON)	HAL-IBUT (NON)	CHI-NOOK (TAR)	COHO (TAR)	PINK (TAR)	CHUM (TAR)	ALL SALMON (TAR)	DOLLY (TAR)	HAL-IBUT (TAR)
1	263	60	22.9	202	77.1	0.004	0.000	0.023	0.017	0.000	0.000	0.000	0.017	0.000	0.030
2	230	23	10.1	207	89.9	0.004	0.000	0.017	0.043	0.000	0.000	0.000	0.043	0.000	0.019
3	163	36	22.2	124	76.0	0.000	0.000	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.065
4	135	41	30.2	94	69.8	0.000	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.043
5	820	276	33.6	544	66.4	0.006	0.000	0.057	0.018	0.000	0.000	0.000	0.018	0.000	0.081
6	2726	2044	75.0	682	25.0	0.026	0.000	0.036	0.034	0.000	0.000	0.000	0.035	0.000	0.128
7	4035	3310	82.0	725	18.0	0.032	0.000	0.030	0.039	0.000	0.000	0.000	0.039	0.000	0.142
8	2939	2367	80.6	571	19.4	0.033	0.000	0.036	0.041	0.000	0.000	0.000	0.041	0.000	0.151
9	1360	858	63.1	502	36.9	0.017	0.001	0.057	0.026	0.001	0.000	0.001	0.028	0.000	0.148
10	1468	635	43.3	832	56.7	0.016	0.000	0.099	0.033	0.000	0.000	0.000	0.033	0.000	0.167
11	1211	386	31.8	825	68.2	0.022	0.005	0.079	0.065	0.016	0.008	0.000	0.088	0.003	0.114

Table 27. Weekly Catch Rates (Fish per Hour) for Petersburg Marine Sport Fishery from April 15 to June 30, 1985.

WEEK	ROD HOURS	SALMON HOURS	% SALMON HOURS	BOTTOM HOURS	% BOTTOM HOURS	CHI-NOOK (NON)	COHO (NON)	HAL-IBUT (NON)	CHI-NOOK (TAR)	COHO (TAR)	PINK (TAR)	CHUM (TAR)	ALL SALMON (TAR)	DOLLY (TAR)	HAL-IBUT (TAR)
1	166	107	64.4	59	35.6	0.012	0.000	0.030	0.019	0.000	0.000	0.000	0.019	0.000	0.085
2	51	48	94.2	3	5.8	0.020	0.000	0.020	0.021	0.000	0.000	0.000	0.021	0.000	0.343
3	164	149	90.7	15	9.3	0.030	0.000	0.018	0.034	0.000	0.000	0.000	0.034	0.000	0.000
4	133	110	83.0	23	17.0	0.038	0.000	0.030	0.045	0.000	0.000	0.000	0.045	0.000	0.178
5	331	252	76.1	79	23.9	0.054	0.000	0.009	0.071	0.000	0.000	0.000	0.071	0.000	0.038
6	2389	2314	96.9	75	3.1	0.039	0.000	0.008	0.040	0.000	0.000	0.000	0.040	0.000	0.133
7	1469	1469	100.0	0	0.0	0.048	0.001	0.005	0.048	0.001	0.000	0.000	0.049	0.001	-
8	1331	1311	98.5	20	1.5	0.038	0.000	0.005	0.038	0.000	0.000	0.000	0.038	0.000	0.150
9	767	675	88.0	92	12.0	0.038	0.000	0.013	0.041	0.000	0.000	0.000	0.041	0.000	0.033
10	523	435	83.2	88	16.8	0.021	0.000	0.008	0.025	0.000	0.000	0.000	0.025	0.000	0.045
11	678	472	69.7	206	30.3	0.015	0.000	0.019	0.019	0.000	0.002	0.000	0.021	0.000	0.058

Table 28. Weekly Catch Rates (Fish per Hour) for Wrangell Marine Sport Fishery from April 15 to June 30, 1985.

WEEK	ROD HOURS	SALMON HOURS	% SALMON HOURS	BOTTOM HOURS	% BOTTOM HOURS	CHI-NOOK (NON)	COHO (NON)	HAL-IBUT (NON)	CHI-NOOK (TAR)	COHO (TAR)	PINK (TAR)	CHUM (TAR)	ALL SALMON (TAR)	DOLLY (TAR)	HAL-IBUT (TAR)
1	270	155	57.5	115	42.5	0.030	0.000	0.037	0.045	0.000	0.000	0.000	0.045	0.000	0.079
2	104	51	49.2	53	50.8	0.010	0.000	0.067	0.020	0.000	0.000	0.000	0.020	0.000	0.133
3	212	134	63.2	78	36.8	0.047	0.000	0.047	0.075	0.000	0.000	0.000	0.075	0.000	0.128
4	854	797	93.4	56	6.6	0.034	0.000	0.007	0.036	0.000	0.000	0.000	0.036	0.001	0.000
5	1696	1692	99.8	4	0.2	0.038	0.000	0.001	0.038	0.000	0.000	0.000	0.038	0.000	0.000
6	1589	1547	97.4	42	2.6	0.055	0.000	0.006	0.056	0.000	0.000	0.000	0.056	0.000	0.048
7	482	375	77.8	107	22.2	0.039	0.000	0.029	0.051	0.000	0.000	0.000	0.051	0.000	0.131
8	471	320	68.0	151	32.0	0.047	0.000	0.072	0.069	0.000	0.000	0.000	0.069	0.000	0.133
9	295	209	70.9	86	29.1	0.068	0.000	0.061	0.096	0.000	0.000	0.000	0.096	0.000	0.210
10	279	185	66.2	95	33.8	0.029	0.000	0.050	0.043	0.000	0.000	0.000	0.043	0.000	0.106
11	207	102	49.1	105	50.9	0.015	0.000	0.121	0.030	0.000	0.000	0.000	0.030	0.000	0.219

Table 29. Weekly Catch Rates (Fish per Hour) for Haines Marine Sport Fishery from April 22 to July 14, 1985.

WEEK	ROD HOURS	SALMON HOURS	% SALMON HOURS	BOTTOM HOURS	% BOTTOM HOURS	CHI-NOOK (NON)	HAL-IBUT (NON)	CHI-NOOK (TAR)	DOLLY (TAR)	HAL-IBUT (TAR)
2	2	2	100.0	0	0.0	0.500	0.000	0.500	0.000	-
3	91	91	100.0	0	0.0	0.011	0.000	0.011	0.000	-
4	31	31	100.0	0	0.0	0.000	0.000	0.000	0.000	-
5	162	160	98.8	2	1.2	0.037	0.000	0.037	0.000	0.000
6	305	305	100.0	0	0.0	0.075	0.000	0.075	0.007	-
7	106	106	100.0	0	0.0	0.142	0.000	0.142	0.009	-
8	517	490	94.9	27	5.1	0.041	0.002	0.043	0.006	0.000
9	97	97	100.0	0	0.0	0.052	0.000	0.052	0.041	-
10	336	332	98.8	4	1.2	0.036	0.000	0.036	0.000	0.000
11	148	102	68.7	47	31.3	0.040	0.013	0.059	0.000	0.043
12	144	139	96.5	5	3.5	0.056	0.028	0.058	0.014	0.200
13	125	99	79.3	26	20.7	0.024	0.008	0.030	0.030	0.000

Table 30. Weekly Catch Rates (Fish per Hour) Blind Slough SHA Sport Fishery from June 3 to August 4, 1985.

WEEK	ROD HOURS	KINGS <28 IN KEPT	KINGS >28 IN KEPT	KINGS <28 IN RELE	KINGS >28 IN RELE	COHO	PINK	CHUM	DOLLY VARDEN	CUT-THROAT
8	40	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.455	0.202
9	51	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.315	0.295
10	231	0.048	0.000	0.004	0.160	0.000	0.000	0.000	0.013	0.000
11	197	0.020	0.005	0.005	0.260	0.000	0.000	0.000	0.005	0.005
12	135	0.052	0.007	0.000	0.126	0.000	0.000	0.000	0.015	0.000
13	293	0.017	0.078	0.031	0.112	0.000	0.000	0.000	0.055	0.020
14	218	0.000	0.096	0.005	0.114	0.000	0.000	0.005	0.000	0.000
15	124	0.024	0.072	0.040	0.209	0.000	0.000	0.000	0.040	0.048
16	55	0.000	0.000	0.000	0.000	0.055	0.036	0.000	0.036	0.000

Table 31. Weekly Catch Rates (Fish per Hour) for Thomas Basin SHA Sport Fishery from June 3 to July 28, 1985.

WEEK	ROD HOURS	KINGS <28 IN KEPT	KINGS >28 IN KEPT	KINGS <28 IN RELE	KINGS >28 IN RELE	COHO	PINK	CHUM	DOLLY VARDEN
8	25	0.000	0.118	0.000	0.000	0.000	0.000	0.000	0.000
9	54	0.000	0.056	0.000	0.000	0.000	0.000	0.000	0.000
10	145	0.000	0.048	0.000	0.000	0.000	0.000	0.000	0.007
11	114	0.000	0.149	0.000	0.000	0.000	0.000	0.000	0.000
12	135	0.000	0.096	0.000	0.000	0.000	0.000	0.000	0.000
13	248	0.000	0.069	0.004	0.000	0.000	0.000	0.000	0.000
14	95	0.000	0.021	0.000	0.021	0.000	0.011	0.000	0.000
15	34	0.000	0.030	0.000	0.000	0.000	0.030	0.000	0.030

Table 32. Weekly Catch Rates for Selected Juneau Roadside Fisheries in 1985.

AREA	WEEK	ROD HOURS	DOLLY VARDEN	COHO	PINK	CHUM
SHEEP CREEK	13	58	0.052	0.000	1.753	0.000
	14	117	0.060	0.000	1.530	0.000
	15	93	0.032	0.000	1.228	0.000
	16	76	0.000	0.000	1.927	0.000
	17	20	0.000	0.000	1.324	0.000
	18	19	0.000	0.000	1.322	0.053
	19	6	0.000	0.000	4.971	0.000
	20	6	0.000	0.000	1.333	0.000
SALMON CREEK	13	5	0.000	0.000	0.199	0.000
	14	17	0.000	0.000	0.780	0.060
	15	43	0.000	0.000	0.914	0.258
	16	49	0.041	0.000	0.738	0.000
	17	1	0.000	0.000	1.224	0.000
	18	10	0.000	0.000	0.592	0.000
	19	2	0.000	0.000	0.952	0.000
	20	7	0.000	0.000	0.429	0.000
	21	1	0.000	0.000	0.000	0.000
	22	46	0.000	0.215	0.043	0.000
	23	33	0.000	0.030	0.000	0.000
	24	80	0.000	0.239	0.000	0.000
	25	23	0.000	0.310	0.000	0.000
	26	78	0.000	1.042	0.013	0.000
	27	41	0.000	0.590	0.000	0.000
	28	11	0.000	1.204	0.000	0.000
MONTANA CREEK	13	0	-	-	-	-
	14	15	0.000	0.000	0.000	0.328
	15	3	0.000	0.000	0.000	0.308
	16	5	1.468	0.000	0.000	0.000
	17	1	0.000	0.000	0.000	0.000
	18	0	-	-	-	-
	19	0	-	-	-	-
	20	0	-	-	-	-
	21	1	2.667	0.000	0.000	0.000
	22	0	-	-	-	-
	23	0	-	-	-	-
	24	0	0.000	0.000	0.000	0.000
	25	0	-	-	-	-
	26	0	0.000	0.000	0.000	0.000
	27	1	0.000	0.000	0.000	0.000
	28	1	0.000	0.000	0.000	0.000

Table 33. Weekly Catch Rates (Fish per Hour) for Haines Roadside Fisheries in 1985.

AREA	WEEK	ROD HOURS	DOLLY VARDEN	CUTT-THROAT	COHO	PINK	SOCKEYE	CHUM
TANANI BAY / LUTAK INLET (SALT-WATER)	14	14	0.145	0.072	0.000	0.289	0.072	0.000
	15	51	0.177	0.000	0.000	0.236	0.000	0.000
	16	33	0.061	0.000	0.000	0.304	0.000	0.000
	17	40	0.000	0.000	0.000	0.504	0.000	0.000
	18	65	0.000	0.000	0.000	0.752	0.061	0.000
	19	87	0.069	0.000	0.000	0.585	0.000	0.000
	20	22	0.045	0.000	0.000	0.357	0.000	0.000
	21	10	0.000	0.000	0.000	1.073	0.000	0.000
	22	0	-	-	-	-	-	-
	23	0	-	-	-	-	-	-
	24	0	0.000	0.000	0.000	0.000	0.000	0.000
	25	0	-	-	-	-	-	-
	26	0	-	-	-	-	-	-
	27	0	-	-	-	-	-	-
	28	0	-	-	-	-	-	-
	29	0	-	-	-	-	-	-
CHIL-KOOT RIVER	14	53	0.455	0.000	0.000	0.000	0.000	0.000
	15	370	0.216	0.000	0.000	0.070	0.016	0.000
	16	482	0.100	0.000	0.000	0.110	0.093	0.000
	17	463	0.112	0.000	0.000	0.110	0.099	0.000
	18	284	0.271	0.000	0.000	0.162	0.063	0.000
	19	165	0.418	0.000	0.000	0.218	0.036	0.000
	20	240	0.163	0.000	0.000	0.522	0.000	0.004
	21	95	0.682	0.000	0.000	0.545	0.010	0.000
	22	106	0.038	0.000	0.019	0.510	0.009	0.000
	23	68	0.385	0.000	0.163	0.089	0.000	0.000
	24	158	0.044	0.000	0.203	0.013	0.006	0.013
	25	203	0.015	0.000	0.162	0.000	0.000	0.005
	26	235	0.123	0.000	0.089	0.000	0.000	0.000
	27	79	0.000	0.000	0.228	0.000	0.000	0.013
	28	17	0.059	0.000	0.000	0.000	0.000	0.000
	29	3	0.000	0.000	0.316	0.000	0.000	0.000
CHILKAT RIVER	4/01-07	78	0.309	0.000	0.000	0.000	0.000	0.000
	4/08-14	21	0.374	0.000	0.000	0.000	0.000	0.000
	4/15-21	25	0.355	0.000	0.000	0.000	0.000	0.000
	21	0	-	-	-	-	-	-
	22	5	0.000	0.000	0.000	0.000	0.185	0.000
	23	43	0.000	0.000	0.232	0.000	0.000	0.185
	24	34	0.058	0.000	0.058	0.000	0.000	0.320
	25	226	0.004	0.000	0.031	0.000	0.000	0.292
	26	212	0.042	0.000	0.184	0.000	0.000	0.279
	27	140	0.050	0.000	0.285	0.000	0.000	0.114
	28	41	0.000	0.000	0.367	0.000	0.000	0.098
	29	0	-	-	-	-	-	-

Table 34. Weekly Catch Rates (Fish per Hour) for Situk River, Lost River, and Tawah Creek Sport Fisheries in 1985.

AREA	WEEK	ROD HOURS	KING >16 IN	KING <16 IN	ALL KING	STEELHD	COHO	SOCKEYE	PINK	DOLLY VARDEN	RAINBOW
SITUK RIVER	3	340	0.000	0.000	0.000	0.035	0.000	0.000	0.000	0.000	0.000
	4	251	0.000	0.000	0.000	0.016	0.000	0.000	0.000	0.000	0.000
	5	188	0.000	0.000	0.000	0.032	0.000	0.000	0.000	0.000	0.000
	6	136	0.000	0.000	0.000	0.044	0.000	0.000	0.000	0.000	0.000
	7	18	0.000	0.000	0.000	0.056	0.000	0.000	0.000	0.000	0.000
	8	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	9	57	0.018	0.000	0.018	0.088	0.000	0.018	0.000	0.018	0.000
	10	91	0.066	0.000	0.066	0.077	0.000	0.022	0.000	0.022	0.000
	11	257	0.074	0.035	0.109	0.027	0.000	0.043	0.000	0.004	0.000
	12	152	0.066	0.053	0.118	0.026	0.000	0.138	0.007	0.007	0.000
	13	111	0.045	0.117	0.162	0.000	0.000	0.108	0.018	0.009	0.000
	14	41	0.025	0.025	0.049	0.000	0.000	0.000	0.025	0.000	0.000
	16	7	0.000	0.000	0.000	0.000	0.000	0.000	1.286	0.000	0.000
	17	349	0.000	0.000	0.000	0.000	0.017	0.000	0.852	0.086	0.000
	18	302	0.000	0.000	0.000	0.000	0.093	0.000	0.438	0.010	0.000
	19	289	0.000	0.000	0.000	0.000	0.139	0.000	0.153	0.042	0.000
	20	428	0.000	0.000	0.000	0.000	0.255	0.000	0.014	0.002	0.000
	21	494	0.000	0.000	0.000	0.000	0.380	0.000	0.014	0.002	0.000
	22	524	0.000	0.000	0.000	0.000	0.202	0.000	0.000	0.002	0.000
	23	233	0.000	0.000	0.000	0.000	0.323	0.000	0.000	0.000	0.000
	24	163	0.000	0.000	0.000	0.000	0.203	0.000	0.000	0.000	0.000
	25	41	0.000	0.000	0.000	0.000	0.099	0.000	0.000	0.000	0.000
LOST RIVER	18	61	0.000	0.000	0.000	0.000	0.197	0.000	0.296	0.000	0.000
	19	188	0.000	0.000	0.000	0.000	0.330	0.000	0.053	0.000	0.005
	20	185	0.000	0.000	0.000	0.000	0.205	0.000	0.011	0.000	0.000
	21	353	0.000	0.000	0.000	0.000	0.445	0.000	0.008	0.003	0.000
	22	415	0.000	0.000	0.000	0.000	0.384	0.000	0.002	0.002	0.000
	23	255	0.000	0.000	0.000	0.000	0.389	0.000	0.000	0.000	0.000
	24	223	0.000	0.000	0.000	0.000	0.337	0.000	0.000	0.000	0.000
	25	62	0.000	0.000	0.000	0.000	0.452	0.000	0.000	0.000	0.000
	26	12	0.000	0.000	0.000	0.000	0.083	0.000	0.000	0.000	0.000
TAWAH CREEK-LOST RIVER	18	19	0.000	0.000	0.000	0.000	0.211	0.000	0.000	0.000	0.000
	21	40	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000
	22	57	0.000	0.000	0.000	0.000	0.336	0.000	0.000	0.000	0.000
	23	42	0.000	0.000	0.000	0.000	0.690	0.000	0.000	0.000	0.000
	24	106	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.000	0.000
	25	22	0.000	0.000	0.000	0.000	0.682	0.000	0.000	0.000	0.000
	26	10	0.000	0.000	0.000	0.000	0.300	0.000	0.000	0.000	0.000

Table 35. Weekly Catch Rates (Fish per Hour) for Falls Creek, Blind Slough, and Ohmer Creek Sport Fisheries from April 15 to May 19, 1985.

AREA	WEEK	ROD HOURS	STEEL-HEAD	DOLLY VARDEN	CUTT-THROAT
FALLS CREEK	1	3	0.387	0.000	0.000
	2	9	0.212	0.000	0.000
	3	21	0.530	0.000	0.000
	4	29	0.483	0.000	0.000
	5	21	0.240	0.000	0.000
BLIND SLOUGH (CRYSTAL CREEK)	1	24	0.295	0.000	0.000
	2	9	0.453	0.000	0.000
	3	17	0.000	0.000	0.000
	4	10	0.104	0.000	0.104
	5	0	-	-	-
OHMER CREEK	1	6	0.000	0.000	0.000
	2	15	0.000	0.000	0.000
	3	6	0.316	0.000	0.000
	4	2	0.000	0.414	0.000
	5	4	1.091	0.000	0.000

Table 36. Effort and Harvest of the Juneau Golden North Salmon Derby, 1971 to 1985.

Year	Dates Held	Angler Validation	Chinook Salmon			Coho Salmon			Pink Salmon			Chum Salmon			Sockeye Salmon		
			Ent.	Kept	Tot.	Ent.	Kept	Tot.	Ent.	Kept	Tot.	Ent.	Kept	Tot.	Ent.	Kept.	Tot.
1971	7/16-7/18	7,434	682	-	-	1,331	-	-	409	-	-	226	-	-	-	-	-
1972	7/21-7/23	8,199	528	-	-	1,817	-	-	328	-	-	123	-	-	-	-	-
1973	7/20-7/22	7,915	637	-	-	449	-	-	278	-	-	34	-	-	-	-	-
1974	7/26-7/28	7,714	291	-	-	1,526	-	-	226	-	-	24	-	-	-	-	-
1975	7/18-7/20	7,847	276	184	460	315	354	669	174	531	705	15	14	29	0	0	0
1976	7/23-7/25	8,466	136	167	303	536	1,135	1,671	58	96	154	4	12	16	1	0	1
1977	8/05-8/07	8,762	161	355	516	1,206	2,419	3,625	259	55	314	28	1	29	1	1	2
1978	8/11-8/13	8,283	210	40	250	1,779	1,076	2,855	122	98	220	13	9	22	0	0	0
1979	8/03-8/05	8,327	350	657	1,007	663	2,561	3,224	98	242	340	52	44	96	0	5	5
1980	8/22-8/24	7,386	271	206	477	694	1,583	2,277	67	145	212	97	33	130	0	0	0
1981	8/07-8/09	7,524	436	437	873	541	1,223	1,764	104	186	290	22	3	25	0	0	0
1982	8/13-8/15	9,067	407	609	1,016	1,640	3,680	5,320	500	1,487	1,987	15	0	15	0	0	0
1983	8/05-8/07	10,775	310	562	872	1,243	1,721	2,964	728	763	1,491	57	86	143	7	10	17
1984	8/03-8/05	12,832	764	91	855	961	634	1,594	457	119	576	100	0	100	6	0	6
1985	8/09-8/11	12,423	1,020	202	1,222	2,350	569	2,919	2,550	776	3,326	160	13	176	0	8	8

Table 37. Chinook Salmon Catch Rates (Chinook Retained per Hour of Non-Targeted Effort) for Juneau Marine Sport Fishery, 1960 to 1985. *

Period	1	2	3	4	5	6	7	8	9	10	11	12	13	Seasonal Mean**
Dates**	4/15–4/30	5/01–5/14	5/15–5/28	5/29–6/11	6/12–6/25	6/26–7/09	7/10–7/23	7/24–8/06	8/07–8/20	8/21–9/03	9/04–9/17	9/18–10/01	10/02–10/15	05/01–09/03
1960	...	.092	.047	.072	.063	.065	.033	.020	.031	.008	.000	...	...	.049
1961	...	.051	.064	.060	.034	.036	.029	.035	.020	.005	...	...	...	.036
1962	...	.022	.033	.030	.014	.003	.014	.034	.008	.015	...	...	...	.016
1963	...	.090	.089	.086	.048	.060	.045	.030	.019	.020	.013	...	...	.046
1964	...	.075	.070	.065	.053	.045	.078	.039	.022	.013	...	...	...	.054
1965	...	.055	.069	.059	.028	.027	.037	.032	.014	.013	...	...	...	.035
1966	...	.000	.036	.026	.033	.027	.020	.022	.028	.034	...	...	...	.029
1967	...	.008	.031	.045	.035	.032	.025	.019	.012	.018	...	...	...	.030
1968	...	...	...	.028	.033	.036	.048	.035	.028	.023	...	...	...	.037
1969	...	...	...	.036	.047	.048	.034	.033	.030	...	...	...	...	.038
1970	...	...	...	.046	.025	.016	.028	.015	.017	.013	...	...	...	.021
1971	...	.014	.041	.052	.038	.032	.034	.033	.040	.027	.015	...	...	.015
1972	...	...	...	.016	.031	.023	.033	.029	.049	.024	.028	...	...	.029
1973	...	.050	.029	.032	.035	.048	.057	.029	.012	.023	...	...	...	.030
1974	...	.007	.017	.015	.036	.031	.017	.018	.014	.017	.017	...	...	.020
1975	...	.030	.018	.034	.022	.018	.030	.007	.007	.002	.004	.004	...	.012
1976	...	.023	.026	.024	.030	.020	.016	.007	.006	.006	.003	.002	.000	.013
1977	...	.015	.032	.023	.025	.011	.016	.010	.001	.003	.003	.000	...	.016
1978	...	.037	.029	.024	.023	.008	.004	.005	.001	.004	.002	.000	...	.013
1979	...	.032	.037	.019	.016	.009	.021	.010	.004	.008	.004	.001	...	.015
1980	...	.028	.036	.033	.024	.019	.013	.014	.010	.008	.010	.009	...	.019
1981	...	.036	.024	.025	.020	.013	.016	.009	.007	.008	.006	.004	...	.016
1982	...	.019	.023	.029	.015	.024	.014	.012	.008	.019	.019	.027	...	.017
1983	.002	.016	.020	.012	.020	.014	.018	.010	.008	.009	.012	.017	...	.013
1984	...	.019	.029	.019	.023	.035	.031	.022	.015	.012	.011	.024	...	.023
1985	.021	.033	.023	.023	.024	.019	.032	.044	.031	.009	.011	.012	...	.026

* Excludes derby data.
** Actual dates for each period may slightly vary between years.

Table 38. Coho Salmon Catch Rates (Coho Retained per Hour of Non-Targeted Effort) in Juneau Marine Sport Fishery, 1960 to 1985.*

Period **Dates	1 4/15– 4/30	2 5/01– 5/14	3 5/15– 5/28	4 5/29– 6/11	5 6/12– 6/25	6 6/26– 7/09	7 7/10– 7/23	8 7/24– 8/06	9 8/07– 8/20	10 8/21– 9/03	11 9/04– 9/17	12 9/18– 10/01	13 10/02– 10/15	Seasonal Mean* (6/26–9/03)
1960	...	.000	.000	.003	.002	.003	.009	.055	.065	.092	.034	...	...	.045
1961	...	.000	.000	.000	.001	.006	.042	.079	.054	.100	...	...	...	.056
1962	...	.000	.000	.000	.010	.002	.014	.034	.086	.126	...	...	...	.052
1963	...	.000	.000	.002	.006	.020	.044	.102	.145	.121	.143	...	...	.086
1964	...	.000	.001	.002	.004	.035	.041	.099	.095	.131	...	...	...	.080
1965	...	.000	.000	.015	.007	.026	.074	.093	.114	.108	...	...	...	.083
1966	...	.000	.000	.001	.002	.019	.028	.049	.085	.063	...	...	...	.049
1967	...	.000	.000	.000	.006	.015	.019	.034	.074	.063	...	...	...	.041
1968	...	...	...	.000	.061	.072	.119	.143	.149	.232	...	...	...	.133
1969	...	...	...	.000	.012	.026	.030	.081	.099	...	...	...	...	.059
1970	...	...	...	.002	.002	.021	.042	.057	.100	.106	...	...	...	.065
1971	...	.000	.000	.002	.005	.013	.038	.080	.087	.073	.196	...	...	.058
1972	...	...	...	.000	.051	.093	.102	.237	.127	.133	.120	...	...	.142
1973	...	...	.000	.005	.006	.023	.023	.034	.061	.096	...	...	...	.047
1974	...	.000	.002	.001	.008	.044	.066	.087	.089	.092	.133	...	...	.076
1975	...	.000	.000	.004	.002	.025	.036	.061	.097	.066	.081	.060	...	.059
1976	...	.000	.000	.002	.006	.029	.040	.054	.063	.079	.065	.060	.005	.053
1977	...	.000	.001	.000	.013	.044	.081	.068	.058	.056	.045	.016	...	.061
1978	...	.000	.000	.000	.015	.065	.092	.129	.143	.106	.065	.055	...	.107
1979	...	.000	.000	.000	.002	.014	.037	.039	.043	.090	.078	.003	...	.041
1980	...	.000	.000	.001	.001	.015	.047	.068	.089	.083	.057	.060	...	.055
1981	...	.000	.000	.000	.000	.021	.034	.046	.085	.101	.067	.018	...	.034
1982	...	.000	.000	.002	.007	.069	.084	.112	.147	.153	.105	.031	...	.113
1983	.000	.000	.000	.000	.002	.003	.034	.054	.078	.109	.102	.061	...	.063
1984	...	.000	.000	.000	.002	.009	.027	.024	.060	.138	.096	.017	...	.050
1985	.000	.000	.000	.001	.002	.024	.067	.060	.082	.133	.095	.072	...	.073

* Excludes derby data

** Actual dates for each period may vary slightly between years.

Chinook Age, Maturity, and Stock Composition

Results from analysis of chinook salmon age, maturity, and stock composition data will be combined with 1983 and 1984 research and published in an Alaska Department of Fish and Game Technical Report: Age, Maturity, and Stock Composition of Chinook Salmon Harvested by Southeast Alaska Marine Sport Fisheries. This report will be available in final form by July 1, 1987.

Hatchery Contributions

Over 3,000 chinook salmon and 4,000 coho salmon were sampled for coded micro-wire tags in the fisheries surveyed during 1985 (Table 39). For chinook this translates into a 20% sampling rate for all of Southeast. Sampling rates varied from 7% in Haines to 100% for the Juneau Salmon Derby. Twenty-four percent of the Juneau marine coho salmon harvest was sampled for adipose clips.

The estimated harvests of hatchery-produced chinook and coho salmon in the surveyed fisheries are listed in Tables 40 through 46. Over the last several years, the percentage contributions of hatchery chinook and coho have increased steadily (Table 47). The past year was no exception as the number of hatchery chinook harvested by marine anglers in Juneau, Ketchikan, and Petersburg was the highest ever observed. Ketchikan marine anglers benefitted most from increased hatchery chinook production; over 30% of the total chinook harvest during the period surveyed was of hatchery origin. In addition, 170 and 210 hatchery chinook were harvested by the Thomas Basin and Blind Slough sport fisheries, respectively.

Marine creel surveys in all locations except Juneau ended before fishing for coho salmon began. Therefore, only the observed contributions of hatchery coho salmon for Juneau will be reported; 1,300 (8%) hatchery-produced coho salmon were harvested by marine anglers in 1985, compared with 230 (2%) and 490 (5%) in 1983 and 1984, respectively (Table 47). An additional 590 hatchery coho were harvested by roadside anglers at the Salmon Creek Special Harvest Area.

DISCUSSION

Two factors have led to increased scrutiny of methods used to conduct marine sport fish creel surveys in southeast Alaska. The recently enacted U.S./Canada Salmon Treaty requires careful monitoring of all chinook salmon harvested in Southeast, including sport catches, to determine Alaska's compliance with harvest quidelines established by the treaty. Potential criticism of Alaska's monitoring efforts may come from Washington, Oregon, or Canada where sport fisheries harvest a relatively larger proportion of the total chinook catch.

In addition to the treaty, several new sport fishery enhancement projects funded by the Federal Dingell-Johnson Expansion Program were initiated in 1985. Sport fish creel surveys will be expected to determine effectiveness of these enhancement efforts through expanded

Table 39. Number of Chinook and Coho Salmon Examined for Missing Adipose Fins in Southeast Alaskan Sport Fisheries in 1985.

Sport Fishery	Chinook			Coho		
	Estim. Harvest	Number Exam.	% Exam.	Estim. Harvest	Number Exam.	% Exam.
Juneau Non-Derby	7,113	793	11.1	14,788	1,765	11.9
Juneau Derby 1/	1,020	1,020	100.0	2,350	2,350	100.0
Ketchikan 2/	2,530	335	13.2	50	8	16.0
Petersburg 3/	1,318	274	20.8	0	0	0.0
Wrangell	1,420	180	12.7	0	0	0.0
Haines Non-Derby	1,229	85	6.9	0	0	0.0
Haines Derby	480	187	39.0	0	0	0.0
Sitka Derby 4/	240	240	100.0	0	0	0.0
Total	15,350	3,114	20.3	17,188	4,123	24.0

1/ Includes only salmon actually entered in derby. Salmon caught on a derby day but not entered in the derby are included in the non-derby fishery for purposes of coded-wire-tag recovery analysis.

2/ Excludes Thomas Basin SHA sport fishery.

3/ Excludes Blind Slough SHA sport fishery.

4/ Includes only salmon actually entered in derby.

Table 40. Estimates of Hatchery Chinook Contributions to the 1985 (April 15 to September 30) Juneau Marine Sport Fishery (Non-Derby).

REGION	AGENCY	HATCHERY	TAG CODE	RECOVERIES	EXPANDED CONTRIBUTIONS
British Columbia	CDFO	Snootli Creek	024517	1	10
			TOTAL	1	10
		Kitimat River	021961	1	72
			022744	1	22
			TOTAL	2	94
		Chilliwack River	022159	1	11
			TOTAL	1	11
	CDFR	Quinsam River	022304	1	49
			082121	1	9
			082122	1	9
			082144	1	9
			TOTAL	4	67
		British Columbia	TOTAL	8	182
Southeast Alaska	NMFS	Little Port Walter	031762	1	9
			031801	2	19
			031802	1	9
			031804	1	9
			031809	3	29
			031846	1	9
			031857	1	13
			036303	3	29
			036304	1	9
			036308	1	10
			TOTAL	15	145

Table 40. (Cont.). Estimates of Hatchery Chinook Contributions to the 1985 (April 15 to September 30) Juneau Marine Sport Fishery (Non-Derby).

REGION	AGENCY	HATCHERY	TAG CODE	RECOVERIES	EXPANDED CONTRIBUTIONS
Southeast Alaska	ADF&G	Crystal Lake	042202	10	453
			042229	3	39
			042354	1	43
			TOTAL	14	535
		Deer Mountain	042121	1	10
			042222	1	9
			TOTAL	2	19
		Hidden Falls	042216	1	9
				1	9
	SSRA	Whitman Lake	044005	1	10
			B40908	2	19
				3	29
		Southeast Alaska	TOTAL	35	737

Table 41. Estimates of Hatchery Coho Contributions to the 1985 (April 15 to September 30) Juneau Marine Sport Fishery (Non-Derby).

REGION	AGENCY	HATCHERY	TAG CODE	RECOVERIES	EXPANDED CONTRIBUTIONS
Southeast Alaska	NMFS	Auke Creek	031820	7	66
			031825	9	85
		Little Port Walter/ Auke Creek	031821	10	90
			TOTAL	26	241
	NSRAA/NMFS	Salmon Creek	031759	4	38
			031760	7	67
			031824	2	19
			035603	1	10
			035604	2	20
			036204	2	704
			036205	2	19
			036206	1	10
			TOTAL	21	887
	ADF&G	Snettisham	042244	3	36
			042352	4	161
			TOTAL	7	197
		Southeast Alaska	TOTAL	54	1,325

Table 42. Estimates of Hatchery Chinook Contributions to the 1985 (August 9, 10, and 11) Juneau Golden North Salmon Derby.

REGION	AGENCY	HATCHERY	TAG CODE	RECOVERIES	EXPANDED CONTRIBUTIONS
British Columbia	CDFO	Kitimat River	022137	1	1
			022222	1	2
			TOTAL	2	3
	CDFR	Quinsam River	082134	1	1
			022303	2	8
			022304	2	11
			TOTAL	5	20
	British Columbia		TOTAL	7	23
Washington	WDF	Priest Rapids	632612	1	1
			TOTAL	1	1
	Washington		TOTAL	1	1
Southeast Alaska	ADF&G	Crystal Lake	042202	9	46
			042205	2	2
			042229	4	10
			TOTAL	15	58
		Deer Mountain	042121	5	6
			041944	1	1
			TOTAL	6	7

Table 42. (Cont.). Estimates of Hatchery Chinook Contributions to the 1985 (August 9, 10 and and 11) Juneau Golden North Salmon Derby.

REGION	AGENCY	HATCHERY	TAG CODE	RECOVERIES	EXPANDED CONTRIBUTIONS
Southeast Alaska	ADF&G	Snettisham	042049	2	2
			042228	1	6
			TOTAL	3	8
	NMFS	Little Port Walter	031753	2	2
			031754	4	4
			031762	1	1
			031803	2	2
			031804	1	1
			031808	1	1
			031812	1	1
			036303	1	1
			036304	1	1
			TOTAL	14	14
	SSRA	Whitman Lake	044005	3	3
			B40907	1	1
			B40908	2	2
			TOTAL	6	6
	MIC	Tamgas Creek	471628	1	1
			TOTAL	1	1
	Southeast Alaska		TOTAL	45	94

Table 43. Estimates of Hatchery Coho Contributions to the 1985 (August 9, 10, and 11) Juneau Golden North Salmon Derby.

REGION	AGENCY	HATCHERY	TAG CODE	RECOVERIES	EXPANDED CONTRIBUTIONS
Southeast Alaska	NMFS	Little Port Walter	031821	12	14
			TOTAL	12	14
		Auke Creek	031825	3	3
			TOTAL	3	3
		Salmon Creek	031759	1	1
			035603	1	1
			031824	1	1
			036206	1	1
			031760	1	1
			TOTAL	5	5
	ADF&G	Snettisham	042244	1	1
			042352	1	5
			TOTAL	2	6
	Southeast Alaska		TOTAL	22	28

Table 44. Estimates of Hatchery Chinook Contributions to the 1985 (April 15 to June 30) Ketchikan Marine Sport Fishery.

REGION	AGENCY	HATCHERY	TAG CODE	RECOVERIES	EXPANDED CONTRIBUTIONS
British Columbia	CDFO	Quinsam River	082129	1	6
			082143	1	6
			082146	1	6
			TOTAL	3	18
		Kitimat River	021844	1	6
			TOTAL	1	6
		British Columbia	TOTAL	4	24
Southeast Alaska	ADF&G	Deer Mountain	041943	2	13
			041944	3	20
			041945	2	12
			042039	1	6
			042040	1	6
			042121	18	116
			042222	4	24
			042223	4	120
			042227	1	15
			042230	5	31
			TOTAL	41	363

Table 44. (Cont.) Estimates of Hatchery Chinook Contributions to the 1985 (April 15 to June 30) Ketchikan Marine Sport Fishery.

REGION	AGENCY	HATCHERY	TAG CODE	RECOVERIES	EXPANDED CONTRIBUTIONS
	SSRA	Whitman Lake	042430	1	21
			042431	1	21
			044005	34	221
			B40907	23	139
			B40908	12	73
			TOTAL	71	475
	Southeast Alaska		TOTAL	112	838

Table 45. Estimates of Hatchery Chinook Contributions to the 1985 (April 15 to June 30) Petersburg Marine Sport Fishery.

REGION	AGENCY	HATCHERY	TAG CODE	RECOVERIES	EXPANDED CONTRIBUTIONS
British Columbia	CDFR	Quinsam River	021943	1	36
			082054	1	5
			022303	2	35
			TOTAL	4	76
	British Columbia		TOTAL	4	76
Washington	WDF	Washougal River	632461	1	99
			TOTAL	1	99
	Washington		TOTAL	1	99
Southeast Alaska	ADF&G	Crystal Lake	042355	1	32
			042042	2	10
			042043	2	10
			042202	6	139
			042205	1	5
			TOTAL	12	196
	Southeast Alaska		TOTAL	12	196

Table 46. Estimates of Hatchery Chinook Contributions to the 1985 (May 25, 26, and 27 and June 1 and 2) Sitka Derby.

REGION	AGENCY	HATCHERY	TAG CODE	RECOVERIES	EXPANDED CONTRIBUTIONS
British Columbia	CDFO	Nitinat River	021841	1	1
		Penny Creek	022320	1	1
		Sooke River	022305	1	1
	CDFR	Quinsam River	082127	1	1
			TOTAL	4	4
	British Columbia		TOTAL	4	4
Washington	WDF	Priest Rapids	632155	1	20
			TOTAL	1	20
	Washington		TOTAL	1	20
Southeast Alaska	SSRAA	Whitman Lake	B40907	1	1
			044005	2	2
	ADF&G	Crystal Lake	042202	1	5
		Deer Mountain	042121	1	1
			TOTAL	5	9
	Southeast Alaska		TOTAL	5	9

Table 47. Estimated Harvest and Percentage Contribution of Hatchery (Alaskan and Non-Alaskan) Reared Chinook and Coho Salmon to Southeast Alaskan Marine Recreational Fisheries from 1983 to 1985.

Area	Year	Survey Date	Hatchery KS		Hatchery SS 1/	
			Harv.	%	Harv.	%
Juneau 2/	1983	04/17-10/01	46	1.1	227	1.8
	1984	04/29-09/29	577	8.9	494	4.9
	1985	04/15-09/29	1,037	12.8	1,353	7.9
Ketchikan 3/	1983	05/01-07/09	350	9.6	398	9.9
	1984	04/29-09/29	432	23.7	5,181	36.4
	1985	04/15-06/30	862	34.1	-	-
Petersburg 4/	1983	05/01-07/16	23	5.8	-	-
	1984	04/29-07/14	140	14.8	-	-
	1985	04/15-06/30				
Wrangell	1983	04/17-07/02	0	0.0	-	-
	1984	04/15-06/30	66	5.9	-	-
	1985	04/15-06/30	0	0.0	-	-
Sitka Derby 5/	1983	...	100	68.0	-	-
	1984	05/26-06/03	15	4.2	-	-
	1985	05/24-06/02	33	13.8	-	-

1/ Surveys in Ketchikan (1983 and 1985), Petersburg, Wrangell, and during the Sitka Derby ended before coho fishing began. Therefore, hatchery contribution figures would have little meaning.

2/ Includes the Golden North Salmon Derby harvest.

3/ Does not include Thomas Basin SHA harvest.

4/ Does not include Blind Slough SHA harvest.

5/ Hatchery contributions are only listed for the entered portion of the derby harvest.

and improved creel programs. To do so will require increased funding to conduct harvest surveys in areas and during times that have not been surveyed in past years. It will also require a thorough review of the methods and operation of these surveys in order to make the best use of available money and employee resources.

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APPENDIX

LEGEND TO FIGURE 3 (Cont'd)

Fishing Areas within the Petersburg and Wrangell Recreational Fishing Grounds.

Petersburg Areas (Circled Numbers)

1. Northern Wrangell Narrows
That portion of the Wrangell Narrows bounded on the north by a line from Hungry Point on Mitkof Island to Prowley Point on Kupreanof Island south to a line across lower Scow Bay at Mountain Point on Kupreanof Island.

2. Southern Wrangell Narrows
The waters of the Wrangell Narrows south of Mountain Point to Point Alexander on Mitkof Island. Fishing may be concentrated around Papke's Landing and Point Alexander.

3. Northern Frederick Sound
The waters of Frederick Sound enclosed by a line from Hungry Point on Mitkof Island to a point on the mainland south of Ice Cove, and a line from Ideal Cove on Mitkof Island to Jap Creek on the Mainland.

4. Southern Frederick Sound
The waters of Frederick Sound north of a line from Hungry Point on Mitkof Island to a point on the mainland south of Icy Cove, and south of a line from Cape Strait on Kupreanof Island to Wood Point on the mainland.

Wrangell Areas (Uncircled Numbers)

1. Eastern Passage
That portion of Eastern Passage south of a line from Point Highfield to Babbler Point, and north of a line at the "Narrows".

2. Northwest Wrangell Island
The area inside a line from "The Bluffs" to the closed waters line from Point Highfield to Blind Slough.

3. Elephant's Nose
The area enclosed by a line from Point Highfield to Blind Slough to Reef Point on Woronofski Island to Nemo Point on Wrangell Island. This are includes "The Nose" -- a popular fishing area the northeast end of Woronofski Island.

4. Zimovia Strait
The waters of Zimovia Strait inside a line from Nemo Point to Reef Point, to a line from Fishermen's Chuck on Etolin Island to a point on Deer Island, and that portion of Blake Channel south of the "Narrows".

LEGEND TO FIGURE 3 (Cont'd)

Fishing Areas within the Petersburg and Wrangell Recreational Fishing Grounds.

5. Stikine Strait
   The waters inside a line from Blind Slough to Reef Point on Woronofski Island to Nemo Point on Wrangell Island, and a line from Round Point on Zarembo Island to Steamer Point on Etolin Island.

6. Summer Strait
   The waters inside of a line from Point Alexander on Mitkof Island to Low Point on Zarembo Island east to a line from Blind Slough on Mitkof Island to Reef Point on Woronofski Island.

7. Gray's Pass
   The waters enclosed by a line from Blind Slough on Mitkof Island to Point Highfield on Wrangell Island to Babbler Point on the mainland. This area includes Gray's Pass, the most popular fishing area near Wrangell.