

Georgia Strait Sport Fishing Creel Survey 1980 - 81



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Dear Mr. Shardlow:

We are pleased to enclose the final report on the 1980-81 Georgia Strait Sport Fishing Creel Survey.

A project of this size and scope could not have been completed without the assistance of many people, and we would like to take advantage of this opportunity to acknowledge the assistance of the following individuals and groups.

Ken Ouellette "conceived" the idea to pursue this contract study, and initially acted as Project Manager. Vic Faulkes and Judy Coursley served as advisors. Joanna Dale, Janet Canning, and Don McConnell undertook the bulk of the data editing. Geoff Zeiss and Paul Higgins assisted in computer program development. Keith Brickley brought the study team's attention to the Statistics Canada travel survey upon which the creel survey design is broadly based. Judith Hawkins undertook the bulk of the typing and day to day accounting management. Doreen Fraser assisted with the typing.

We thank the Canada Employment and Immigration Commission (CEIC) for their support and cooperation in funding summer students to work on the project. Non-CEIC personnel also acted as project leaders and surveyors. The Department of Fisheries and Oceans, including Steering Committee members and Fishery Officers, provided considerable guidance and encouragement. In particular, we would like to thank Steve Heizer and yourself.

The assistance of marina operators and recreational fishermen was a critical component of the success of the study. Without their cooperation, the study could not have been completed.

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While acknowledging the assistance of the above individuals, we alone accept responsibility for the study contents.

Yours truly,

Doug Williams

Douglas Williams, Ph.D.
Vice President

DW:jh
Encl.

THE GEORGIA STRAIT SPORT FISHING
CREEL SURVEY

VOLUME 1
MAIN REPORT

Prepared for:
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PREFACE

The results of the Georgia Strait Sport Fishing Creel Survey are reported in five volumes. In Volume I, Main Report, the approach and statistical methodology are outlined, and the sport fishing catch and effort estimates are presented. Additional detail concerning the underlying data base and methodology is documented in Volume II, Supporting Statistical Appendices. In Volume III, Data Processing Documentation, the computer software developed to process and edit the creel survey data is presented. The structure of future creel surveys is addressed in Volume IV, Future Creel Survey Considerations. Finally, in Volume V, Grouped Landing Site Summaries, summary creel survey computer output for each month is presented.

EXECUTIVE SUMMARY

The recreational tidal salmon fishery in Georgia Strait has grown dramatically over the past two decades. This pattern of increased growth is set against a background of declining commercial salmon catches and increased concern for the resource. For the Georgia Strait fishery, reliable estimates of basic salmon sport fishery statistics of catch and effort have been lacking. This deficiency has retarded analysis of this fishery sector and challenged the credibility of sport fishery regulations -- both those in place and those proposed.

The primary objectives of this study were to estimate the following quantities on a monthly and sub-regional or Statistical Area basis for Georgia Strait:

- . the catches of coho and chinook salmon by recreational fishermen,
- . the fishing effort expended in achieving these catches, and
- . the proportions of marked coho and marked chinook in the sports catch.

Given the vast geographic dimensions of the study area, the dynamic and diverse nature of the sport fishery and the lack of baseline data, a hybrid survey approach was adopted. From chartered aircraft, the number of recreational boats actively fishing during a 'snapshot' hour of the day was identified (the overflight survey). Additionally, interviews were conducted with recreational boating parties landing at marinas, boat ramps, and other landing points (the creel survey). During the interviews, time of fishing, catches realized (kept and released) and other boating party characteristics were determined. On the basis of daily fishing profiles derived from the creel survey data, the 'snapshot' boat counts from the overflight survey were scaled to a monthly estimate of

sport fishing boat trips. Sport catches were estimated by applying creel survey catch per boat trip estimates to the sport fishing boat trip estimate.

Over the July 1980 to June 1981 survey period, 49 thousand boating parties, of which 41 thousand had been fishing, were interviewed. A total of 136 overflights on 54 separate days were conducted.

Over the 12 month period, an estimated 877 thousand salmon were caught by sport fishermen in Georgia Strait, with 537 thousand and 324 thousand being coho and chinook respectively. The estimated effort expended in achieving these catches was 724 thousand sport fishing boat trips. Ninety-five percent confidence bounds for each of the four total Georgia Strait annual activity estimates (total salmon caught, total coho caught, total chinook caught, and total effort) are within 6 percent of these values. The 95 percent confidence interval estimate for the 12 month total salmon catch is 839 thousand to 916 thousand salmon.

In the table on page iv estimated sport fishing catch and effort by statistical area are summarized.

An outgrowth of the survey was the construction of a detailed database upon which in-depth analysis of the sport fishery can be based. For example, the distribution of catch between sport fishing boating parties can be analyzed. The data reveal that, of those sport fishing boating parties interviewed, 52 percent caught zero salmon, whereas 2.5 percent "limited out" (caught at least 4 salmon per person).

ESTIMATED GEORGIA STRAIT SPORT FISHERMEN CATCH, JULY 1980 TO JUNE 1981

	Statistical Area										Total
	13	14	15	16	17	18	19A	19B+	28	29	
	('000)										
Effort ^a	135.7	108.2	17.5	95.3	83.1	57.7	45.3	84.6	48.7	47.7	723.8
Coho Catch ^b	177.0	124.5	15.8	82.3	44.8	17.6	8.7	25.4	18.5	22.2	536.8
Chinook Catch ^b	40.1	32.5	4.8	32.1	57.8	27.4	31.9	58.9	17.9	20.3	323.7
Salmonid Catch ^b	219.9	161.0	21.1	115.1	103.4	48.4	41.0	86.9	37.0	43.4	877.2

AT

^a Sport fishing boat trips

^b Kept fish only

1.0 INTRODUCTION

Participation in the recreational tidal salmon fishery in Georgia Strait has grown dramatically over the past two decades and this growth is expected to continue in the future. Increased mobility of fishermen and increased harvesting efficiency due to improved fishing gear and techniques, together with the growth in angler participation, have altered the level and distribution of sport fishing catch and effort significantly from historic norms.

This pattern of increased growth for the Georgia Strait sport fishery is set against a background of declining commercial salmon catches and increased concern for the resource. Sport fishermen are significant "users" of the chinook and coho salmon resources -- the main salmon species landed in the sport fishery. However, little concrete information exists concerning either the levels of catch for chinook and coho or the level of effort expended in achieving these catches. Such information, on a temporal and geographical basis, is critical to the sound management of the sport fishery.

For the Georgia Strait sport fishery, reliable sport fishery statistics have been lacking. This deficiency has retarded analysis of this fishery sector and challenged the credibility of sport fishery regulations -- both those in place and those proposed.

From 1956 to 1976 the Department of Fisheries published annual reports on sport fishery salmon catch and effort by month and by Statistical Area. These statistics were provided by Department of Fisheries and Oceans (DFO) Fishery Officers using a variety of judgemental techniques. Sport fishery related duties -- regulation,

enforcement, and statistics generation -- are viewed as an adjunct to Fishery Officer work load and, accordingly, are afforded a low priority. Due to understaffing problems and an increase in the non-sport fishery related work load, Fishery Officers have been allocating an even smaller percentage of their time to monitoring the sport fishery. In 1976, the last year for which DFO published sport fishery statistics, the Department estimated that less than 500 thousand coho and chinook were caught in the Georgia Strait recreational fishery.

Recently, several studies employing a variety of techniques have estimated the total sport fish catch for the main salmon species, but these analyses have produced widely varying results.¹ These studies have suggested a sport fish catch from two to four times as great as that based on Fishery Officers' estimates.

This is the environment of uncertainty concerning the present status of the Georgia Strait sport fishery in which the present study was spawned. In sum, the increasing magnitude of the sport fishery and the wide variability in existing estimates indicate the need for a controlled comprehensive statistical sampling procedure to be employed in estimating the basic salmon sport fishery statistics of catch and effort. It is this need that the study described herein addresses.

The remaining sections of this volume are organized as follows. In Section 2 we outline the study objectives and the rationale underlying the approach adopted. In Section 3 the project is described in non-technical terms. In the following section, we present technical documentation of the statistical procedures underlying the methodology. Data processing procedures are described in Section 5. The estimates of Georgia Strait sport fishing salmon catch

and effort are presented in Section 6. Limitations to the analysis are summarized in the concluding section. Appendices referred to in the text comprise Volumes II and III of the study.

FOOTNOTES

1. Using mark-recapture and log book data, Argue et al estimated the five year (1972-1976) Georgia Strait average sport catch for the total of chinook plus coho at 813 thousand pieces [3]. A 1975 postal survey estimated the total coho and chinook catch to be 1.2 million pieces [1]. A 1978 mail questionnaire of boat owners generated an estimate of 1.7 million salmon (all species) caught in the recreational fishery in the Strait of Georgia in that year [14].

2.0 BACKGROUND

2.1 Problem Definition

The primary objectives of the project were to estimate the following quantities on a monthly and sub-regional (Statistical Area) basis for the broad geographic region known as Georgia Strait:

- . the catches of coho and chinook salmon by recreational fishermen,
- . the fishing effort expended in achieving these catches, and
- . the proportions of marked coho and marked chinook in the sports catch¹.

2.2 Alternate Potential Approaches

Because of the requirement for determining the proportions of marked coho and chinook in the sports catch, feasible approaches are restricted to "direct methods", i.e., methods in which the catch is actually observed. In addition, indirect methods, such as mail survey questionnaires and punch card approaches, were deemed inadequate for this particular study due to the significant non-response and recall bias inherent in such approaches, especially at the disaggregate level of detail required (i.e., by month and Statistical Area).

The essential features of several direct survey methods and some British Columbia sport fishery applications for estimating sport fishery catch and effort² are summarized below. The summary description is necessarily succinct and may depart somewhat from the actual field procedures implemented for the surveys cited.

2.2.1 Access Point Creel Survey

With this method, interviewers are stationed at boat access points (marinas, boat ramps, etc.) and sport fishing parties are interviewed at the end of their just completed boat trips. A list of all potential landing sites is required, and the day must be broken into time blocks representing potential interviewing periods or shifts. Ideally, measures of boat traffic volumes at different access points and during different time periods should be available to enhance the efficiency of the survey design. Sampling shifts are determined by randomizing with respect to access points and interviewing periods. For each shift, at the designated facility and during the designated time block, all boating parties returning are counted and as many parties as possible interviewed. Estimates of total fishing effort and total catch over all access points and over all landing time blocks can be constructed.

Such access point creel surveys in British Columbia include the unpublished 1977 and 1978 Campbell River creel surveys and the 1980 Kitimat creel survey (Oguss [18]).

2.2.2 Roving Creel Survey

In the roving creel survey, boating parties are approached by water, and interviews are conducted in the middle of the fishing boat trip. A frame or grid of fishing regions must be identified, and the day divided into time blocks. As with the access point creel survey, the sampling design can be enhanced if the relative distribution of fishing effort over the referent region and during the day is available. Sampling shifts are determined by randomizing with respect to fishing regions and time blocks. For each shift selected (characterized by a

fishing region and an interviewing period), all boats fishing in the selected fishing region are counted and a random sample of boats are interviewed. Sometimes counting of sport boats in the referent region is conducted by a survey crew (by water, by air, or by land) distinct from the team of interviewers. Since interviewing takes place in the middle of the sport fishing experience, and since one is interested in catches from completed boat trips, some assumption is required concerning the relationship between catches of incompleted boat trips and catches of completed boat trips (equal, catch from incomplete trips equal to half that of completed trips, etc.). Given such an assumption, estimates of total fishing effort and total catches over all fishing regions and over all fishing time blocks can be constructed.

Description of two roving creel surveys in the United States are provided by Geldern and Tomlinson [11] and by Malvestuto et al [16].

2.2.3 Benchmark Effort Surveys

The number of active boating parties during a specific high volume period of the day is observed (by water, by air, or by land). Given an external estimate of the proportion of daily fishing activity taking place during the "snapshot" period, one can estimate total daily fishing effort. In turn, if an external estimate of catch per unit effort is available, this estimated fishing effort can be translated into fish catch realized. Consequently, this approach entails two and, perhaps, three distinct survey requirements.

It should be noted that this approach, albeit not on a rigorous statistical basis, most closely approximates the procedure whereby Fishery Officers in British Columbia

presently estimate sport catches.³ Counts of boats actively fishing during a particular period of the day and over particular sub-regions are conducted from patrol boats. Based on Fishery Officers' knowledge and judgement, this count is "scaled" to a total daily effort count over the total region of interest. Interviews conducted concomitantly with the "on the water" counts are used to translate fishing effort into fish catch.

2.2.4 Mark Recapture Methods⁴

Under this approach, units of fish (or alternatively, sport fishing effort) are "marked" and then released to the total fish (sport fishing effort) population. Thereafter, sampling of sport fish catch (effort) occurs at the completion of the sport fishing experience, and the proportion of marks in the sample, or "recaptures", is identified. Assuming random mixing of the population between the time of marking and the time of recapture, and assuming marked and unmarked units are subject to the same "mortality" within the system, one can estimate the total number of units of sport fish catch (effort).

The approach by Argue, Coursley, and Harris [3], in which Georgia Strait Head Recovery (GSHR) data are used, is essentially a mark recapture procedure⁵. The number of "marks" is the number of voluntary sport mark head recoveries turned into DFO, and the proportion of marks "recaptured" is the proportion of sport mark head recoveries in the catches of log book fishermen.⁶ However, the (voluntary) return of heads is outside the control of DFO and significant under-reporting is suspected. Consequently, Argue et al employ an "awareness factor"⁷, based on Puget Sound experience in the State of Washington, to "scale up" the initial estimated catch levels.

Fraidenburg and Bargmann [9] outline a mark recapture method for estimating sport fishing effort in which on the water interviewing represents "marking a boat" and ramp sampling represents "mark sampling."

2.3 The Approach Adopted

Georgia Strait comprises a water surface area of over 2,000 square miles and has in excess of 1,500 shoreline miles. There are over 500 marinas, boat ramps, and public wharves, as well as thousands of private boat access points from which sport fishing expeditions can be launched. The sport fishery of the extreme north of Georgia Strait is distributed over a remote area characterized by few marinas or ramps and a highly mobile sport fleet.

Given the dynamic nature of the sport fishery and given vagaries in weather, one would expect large inherent variability in raw sport fishery data. At the project design phase (May/June, 1980), there was no frame or list of ramps and marinas with relative traffic volumes available, and the relative distribution of sport fishing effort between Georgia Strait sub-regions was not available.

The vast geographic dimensions of the study area, the dynamic and diverse nature of the sport fishery, and the lack of baseline data precluded the adoption of either an access point creel survey or a roving creel survey alone as the instrument to meet the project objectives. The issue of the appropriate estimation of catch per unit effort from incomplete boat trips in a roving creel survey was also a limitation to this method.⁸

The mark recovery program was deemed inappropriate due to

the lack of any BC specific empirical data supporting the "awareness" factors adopted (and the sensitivity of estimates to these factors).

Accordingly, in response to the above considerations, a hybrid approach comprised of an aerial effort survey and an access point creel survey was adopted for this project. In the aerial survey, for each sub-region, the number of sport boats actively fishing during a particular benchmark period is identified. From the creel survey, the proportion of daily fishing effort occurring during the benchmark period and the daily catch per unit effort are determined. Such a "dual" approach encompassing rigorous statistical design standards was felt to be the best one available to meet the project objectives.

The measure of fishing effort adopted for this study is a "fishing boat trip" -- the basic measurement unit for both the aerial survey and the creel survey. Past analysis has concluded that the fishing effort component, rather than the catch per unit effort component, of the catch estimating equation has been most in error.⁹ Therefore, we argue that fishing effort should be the primary design variable for the two survey instruments.

FOOTNOTES

1. Since 1973 marking (clipping the adipose fin) of coho and chinook has occurred in Georgia Strait with marked fish having a coded wire tag (CWT) implanted in their noses. See Argue [2].
2. See Fraidenburg and Bargmann [9] for a comparative study of alternate survey methods for Puget Sound in the State of Washington. They found that the one indirect method analysed -- a punch card system --

produced catch estimates twice as high as those from any of three direct estimation methods.

3. See also Fraidenburg and Bargmann [9] for a description of an aerial effort survey in Puget Sound.
4. See Ricker [19], Chapter 3, for a complete description this approach.
5. The GSHR program was never intended as a means of generating sport fish catch and effort statistics. Rather, its intent was to produce information on the location of CWT recoveries, and, hence, migration of salmon.
6. Actually, this is an "indirect" method since catches of log book fishermen are not actually observed. In addition, an external estimate of catch per unit effort is required in order to convert estimated catch into estimated effort.
7. Proportion voluntary mark returns of total marks caught. The order of magnitude of the awareness factor used is .30, i.e., 70% under-reporting.
8. Robson [20,21] shows that statistically unbiased estimates of total use and total catch can only be constructed by interviewing fishermen at the end of the recreational fishing experience.
9. Argue et al [3], in presenting revised 1972-1976 figures for the Georgia Strait sport fishery, essentially adjusted effort upwards, but kept catch per unit effort the same as Fishery Officer-based estimates.

3.0 PROJECT DESCRIPTION

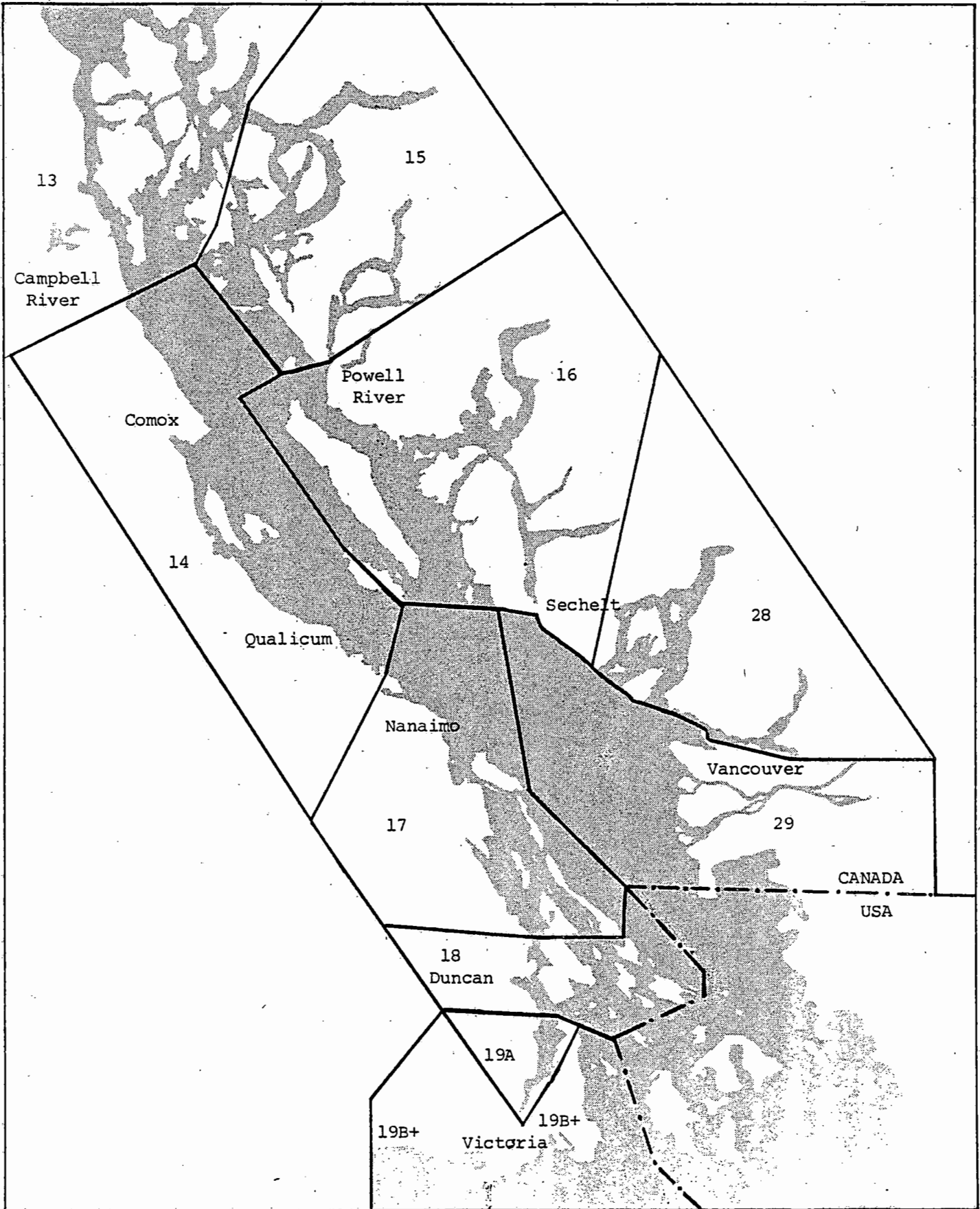
The two primary data collection instruments underlying the methodology for estimating sport salmon catch and sport fishing effort are a creel survey of boating parties and an aerial survey of sport boats actively fishing. In this section, descriptions of both data collection exercises are presented. Emphasis is directed toward the operational details and implementation of each survey. In a following section, sampling design and methodological considerations are outlined.

3.1 The Study Area and Survey Period

The study area is that part of the Strait of Georgia between Sheringham Point off Sooke to Stuart Island north of Campbell River. For statistical reporting purposes DFO has divided the coastal waters of British Columbia into a geographic grid of "Statistical Areas." Some minor differences exist between DFO's commercial fishing Statistical Areas and their sport fishing Statistical Areas. For this study we have adopted commercial fishery Statistical Area boundaries. The study area essentially is that area encompassed by Statistical Areas 13 through 20, with Statistical Area 19 being comprised of areas 19A and 19B. Hereafter, areas 19B and 20 are designated 19B+ in the report (see Figure 1).

The study period is the 12 month period from July, 1980 to June, 1981 inclusive. For their commercial fishery statistical system, DFO has defined standard time periods called "months" which do not necessarily conform to calendar months. In this project, we have adopted DFO's time reporting units. Consequently, July, October, January, and April are five week "months", whereas other periods are 4 week "months".¹ The following periods

FIGURE 1: GEORGIA STRAIT STATISTICAL AREA BOUNDARIES



represent the relevant months over the study period:

<u>Month</u>	<u>Period</u>
July	June 29 - August 2
August	August 3 - August 30
September	August 31 - September 27
October	September 28 - November 1
November	November 2 - November 29
December	November 30 - December 28
January	December 29 - February 1
February	February 2 - March 1
March	March 2 - March 29
April	March 30 - May 3
May	May 4 - May 31
June	June 1 - June 28

3.2 The Creel Survey

3.2.1 Description

In the creel survey individuals were stationed at boat access points during fixed time periods, and boating parties were interviewed at the end of the just-completed boat trip. One person from each boating party was interviewed concerning boat trip characteristics for the total boating party. Information was collected on hour of arrival, trip length, number of people in the party, time of fishing, fishing gear used, catches realized (kept and released), etc. In addition, the interviewer inspected the creel of kept fish. This inspection served two purposes:

- . to determine the number of marked and unmarked coho and chinook in the creel, and
- . to ensure the correct species identification of kept fish.

Generally, the personal interview took at most 5 minutes. A daily boat trip was the basic interviewing unit. One boat trip represents a completed trip, i.e., the boat has reached its final landing point. Therefore, refueling and disembarking immediately would not constitute a completed boat trip. A boat trip is not a boat day. A boating party may undertake more than one boat trip in a given day. Moreover, a boat trip refers to the present day portion of the trip. For overnight trips, boat trip characteristics such as catch and fishing time refer to that activity occurring after midnight only.

The primary focus of the survey was directed toward recreational fishing activity as opposed to recreational boating activity. However, without interviewing the party, it was impossible to determine whether a boating party had been fishing. Accordingly, an attempt was made to interview all craft returning to a facility. If the interviewer determined that the boating party was not fishing, the interview was terminated at the break point between recreational boating and fishing activity related sequences of questions (see Appendix A).

For each stint or interviewing shift the interviewer completed a "tally sheet" on which the number of boats arriving by hour was recorded. The interviewer also recorded qualitative environmental information (sky cover, precipitation, wind and tidal conditions). Interviewers were instructed to attempt to interview all recreational craft arriving during the specified interviewing period. In cases where more boats arrived than could be interviewed, the interviewers were advised to interview a "representative" (with respect to catch per unit effort) cross-section of boats returning. In practice, this meant that interviewers were not to base the selection criteria

for interviewing on the likelihood that the boating party had been fishing (e.g., by not interviewing sail boating parties) or that the fishing party had been successful (e.g., by conducting interviews only at the gutting table).

The creel survey was voluntary and anonymous. No information was recorded that could be used to identify the boating party, such as the boat license number. Refusals amounted to less than 1% of those individuals approached for interviews.

3.2.2 Field Organizational Structure and Staffing

The Georgia Strait study region was segmented into administrative areas. For each administrative area, a project leader was selected who, in turn, hired the field surveyors. The role of the project leader was to ensure the proper delivery of the survey in the field, to undertake the bulk of training of new staff after project start up, and to act as a liaison between project management and the sport fishing public, marina operators, and DFO field staff.²

During the summer of 1980 (July and August) and the spring of 1981 (May and June), the project utilized students funded under the Canada Employment and Immigration (CEIC) summer student employment program.³ During other months, project leaders and field surveyors were hired directly on contract. The CEIC student personnel were sponsored by DFO, but were subject to direction and instruction by the Project Team.

The number of administrative areas/project leaders varied by season as follows:

<u>July/August</u>	<u>Sept through Apr</u>	<u>May/June</u>
Campbell River	Campbell River/Comox	Campbell River
Comox/Courtenay	Nanaimo/Qualicum	Qualicum/Comox
Qualicum	Victoria	Nanaimo
Nanaimo	Sechelt Peninsula/	Sechelt Pen./
Victoria	Powell River	Powell River
Powell River	Vancouver Region	Vancouver Region
Sechelt Peninsula		Victoria
West Vancouver		
Vancouver		
Fraser River		

3.2.3 Inventory of Facilities

In June, 1980 project leaders conducted an inventory of recreational boating landing sites in each administrative area. The following information was requested:

- . type of facility (marina, boat ramp, beach access)
- . services offered (charter boats, bait sales)
- . seasonality of operation
- . estimated sport fishing boat traffic by month
- . proportion sport fishing boat traffic to total recreational boating traffic
- . areas fished by the local fishermen population.

In compiling the inventory, information sources included marina operators, Fishery Officers, and knowledgeable sport fishermen.

The above information was used in designing the creel and aerial surveys.

3.2.4 Questionnaire Design and Pretest

The creel survey consisted of personal interviews of boating parties at the end of their recreational boating experience. The questionnaire format was a single page of closed-ended questions with a map of the local fishing region on the reverse side.^{4,5} Interviewers were asked to mark on the map the particular location of fishing, hours fished, number of kept and released fish for each "fishing hole" frequented. The intent was not to incorporate such information into the creel survey analysis, but to collect the relevant information during the course of the survey with a view to meeting future downstream information needs on a "local area" basis.

The month of June, 1980 was treated as a pilot survey period and a draft questionnaire was administered in the field. Results of, and experience with, the pilot survey in terms of question wording, survey delivery, and local areas fished were used to enhance the design of both the creel and aerial surveys proper which started in July, 1980. In particular, pilot survey results were used to identify daily peak fishing periods. Subsequently, the timing of the overflights in July was matched to these peak periods. In addition, sport boat traffic volumes realized during the pilot survey were used to modify traffic volume estimates derived from the inventory of facilities.

Early in the design phase of the project, DFO officials indicated a desire to collect information under the auspices of the creel survey related to such issues as socioeconomic characteristics of boating party members and number of released fish -- data not directly related to the objectives of the project. Subsequently, it was agreed to include such questions in the questionnaire on

the condition that such information be collected under the survey and captured under computer data entry, but that activity estimates on the same basis as catch and effort (i.e., by month and Statistical Areas) would not be generated. As a result, the creel survey questionnaire in final form addressed the following questions:

Recreational Boating Characteristics

- . length class of boat
- . propulsion class of boat
- . rented or non-rented boat
- . guided or non-guided boat
- . number of individuals in boating party by age class
- . residence of boating party members
- . time of landing
- . length of boat trip
- . did the party fish?

Fishing Activity Characteristics (for those parties fishing)

- . main species at which fishing effort was directed
- . hours of day during which fishing occurred⁶
- . average number fishing lines employed
- . fishing method and tackle
- . number of hours fished by Statistical Area
- . number of kept fish by species and Statistical Area caught
- . number of released fish by species and Statistical Area caught
- . number of marked coho and marked chinook in creel
- . number of unmarked coho and unmarked chinook in creel.

A copy of the questionnaire and details concerning questionnaire definitions are provided in Appendix A.

3.2.5 Training and Monitoring

Because of the staff turnover inherent in employing student interviewers, training and monitoring programs were essentially year-round operations. Peak training periods were during times of project start-up (June/July), the changeover from 1980 summer student staff to off-season samplers (September), and 1981 summer student staff additions (May/June).

Training involved instruction in:

- . the correct administering of the questionnaire
- . the correct identification of fish.

The main training instrument, which outlined the correct delivery of the questionnaire on a question-by-question basis, was a "samplers manual." (See Appendix B for selected excerpts). In addition, local fishing vernacular regarding names of fish and fishing gear were identified in the manual.

Training relating to the correct identification of fish encompassed the following:

- . classroom training on species identification
- . on-site fish identification training at marina facilities, and
- . visiting commercial fish processing operations.

After an initial familiarization period, project leaders in the field were responsible for ensuring that the questionnaire was being administered properly, and that field interviewing staff could properly identify fish.

Monitoring of field performance was accomplished by periodic unannounced on-site visits and by checking questionnaire returns. A substantial effort was made by project leaders and the Project Team Field Coordinator to monitor the creel survey through on-site visits. In the summer of 1980, DFO personnel also took part in monitoring.

3.2.6 Scale of the Survey

Various measures of creel survey sampling effort corresponding to the different dimensions or stages of the sampling design exist (see Chapter 4). The following table summarizes the magnitude of the survey effort in terms of people employed, number of sites sampled, number of interviewing shifts, and number of interviews by month.

TABLE 1: MEASURES OF SAMPLING EFFORT FOR THE 1980/81 GEORGIA STRAIT SPORT FISHING CREEL SURVEY

	Person Months* of Sampling Effort	Sites Sampled	Interviewing Shifts	Number of Interviews	
				All Parties	Fishing Parties
July	37	80	934	15,679	12,517
August	35	77	693	12,414	10,199
September	16	34	317	3,839	3,337
October	9	24	227	2,368	2,129
November	5	14	109	679	533
December	5	14	107	491	407
January	6	19	142	1,335	1,123
February	6	19	119	1,156	945
March	7	18	143	1,049	805
April	7	18	168	954	733
May	15	30	301	4,131	3,387
June	19	38	387	5,349	4,720
Total	167		3,647	49,444	40,835

* Based on 5 interviewing shifts (6-8 hours in length) per week. July, October, January, and April are 5 week months.

3.3 The Aerial Survey

3.3.1 Description

The aerial survey entailed counting from an aircraft the number of sports craft actively engaged in fishing. For a given month and day type (weekends versus weekdays), counts for each Georgia Strait region were conducted during the same hour of the day over a sequence of days.

Counts were conducted from chartered aircraft (Cessna 180, 185, or 206 float planes) flown at an altitude of 500-750 feet, a height that allowed a sufficiently broad line of vision and from which vessel characteristics could be easily identified. In order to cover the vast geographic distances involved, either two or three aircraft (depending on the season) were deployed simultaneously, with each aircraft having two or three observers.⁷ Each observer counted sports boats actively fishing off his/her side of the plane. The length of each flight ranged from two to four hours.

Each Statistical Area (Figure 1) was divided into reporting grids or sub-areas to facilitate the recording of boat counts and to allow the delineation of the geographic pattern of sport fishing activity on a sub-Statistical Area basis (see charts in Appendix D). Observers marked the location of clusters of craft actively fishing within each sub-area on a series of charts. Total counts for each sub-area were determined as the sum of the left hand count plus the average right hand count.

Sport boats fishing were deemed to be non-commercial vessels except the following:

. sailboats with sails up, obviously "running" or

- towing a dinghy
- . boats running (larger wake than trolling), and
- . boats buoyed (anchored for mooring rather than fishing).

In cases where observers actually saw sport fishing lines in the water (e.g., person fishing from a tugboat), the above criteria were overridden.

3.3.2 Flight Path Design

Flight path design refers to the geographic location of the overflight path and the timing of the overflights. The line of the flight path was based on three main considerations:

- . the geographic distribution of sport fishing activity in summer months from 1965 to 1971 as given by Argue and Pitre [4],
- . inspection of local fishing areas from the reverse side of the questionnaire used in the June, 1980 pilot creel survey, and
- . knowledge of Project Team members.

Because of the potential for verification of observer accuracy for right hand counts (i.e., potentially, two observers on the right hand side of the aircraft versus one on the left), flight paths were constructed to keep the majority of the boats on the right side of the aircraft.

From July through October, three planes were deployed simultaneously to cover known sport fishing areas. In winter months, certain areas (e.g., Stuart Island) were eliminated, and only two planes were used. In spring, 1981, with ten months of overflights completed, it was judged adequate to continue with two planes through June,

albeit with much longer routes. In winter months, fishing spots are concentrated closer to shore, and, accordingly, winter flight paths were designed to follow the shoreline more closely than were summer flight paths. The different flight paths employed for different months are documented in Appendix C.

For statistical reasons, it was desirable to conduct overflight counts at hours of the day corresponding to peak fishing activity. Summer peak fishing periods, as determined from a cursory analysis of June, 1980 pilot survey data, were deemed to be early evening on weekdays and mid-morning on weekends. In early project months (July through September) weekday overflights started in late afternoon and weekend overflights started in early morning. In October, due to the decrease in daylight hours and the decrease in tourism-related fishing activity, all overflights were scheduled in the morning. This schedule persisted to the end of the survey. The exact overflight starting time within the scheduled departure hour was determined so that in the majority of cases the overflights crossed major Statistical Area boundaries "on the hour."

The chance of "double counting" the sport boats was minimized through the following procedures:

- . overflights were designed so that "crossovers" in overflight paths were avoided if possible,
- . unavoidable crossovers were designed not to occur over major sport fishery grounds, and
- . the pilot was instructed to fly between, rather than over, clusters of boats.

3.3.3 Training of Observers

Initially, i.e., at project start-up, training for overflight observers took two forms:

- . a classroom training session, involving an instruction booklet and aerial photographs of sport and non-sport vessels as source materials, to determine decision rules for identifying sport fishing craft, and
- . a training overflight.

For subsequent flights involving new personnel, the individuals were briefed as to boat identification and overflight recording procedures. They were then deployed as "right hand counters" in the aircraft. As an internal check on the performance of trainees, an experienced observer was also deployed on the right hand side.

3.3.4 Overflight Verification Procedures

Potentially, an "observer error" could occur in the overflight counts if an observer did not accurately count all sport craft actively fishing as determined by the decision rule adopted.

Internal verification of the accuracy of visual counts was possible in those situations where three observers per aircraft were employed (allowing two right hand counts). Based on a review of the charts on a total Statistical Area basis, it was found that the two right hand counts differed by at most 5%. In relation to sampling variation between overflight days this was of minimal significance.

On two occasions photographs of selected densely populated sport fishing grounds were taken from an independent aircraft at the same time as overflight counts were being

conducted. By comparing sport fishing boat counts as determined from the photographs⁸ to corresponding overflight counts, it was possible to compare the visual counts to "reality."

On July 27, 1980 (Vancouver Sun Derby Day), the east and south shorelines of Bowen Island in Howe Sound were photographed. The count of sport fishing boats from the photographs (450 boats) compared favourably with the 440 boats sighted from the aircraft. On September 17, 1980 a photographic flight off Cape Mudge near Campbell River recorded 187 sport fishing boats, whereas the visual count from overflights was 184 craft. Additional details concerning the photographic verification flights are given in Appendix F.

These two occasions provide a good test of the accuracy of the overflight procedure because one would expect the greatest errors to occur in densely population fishing areas such as Howe Sound on Derby Day and Cape Mudge during summer.

Based on the empirical evidence from the internal verification comparisons of right hand overflight counts and from the photographic overflights, it was concluded that at the total regional or Statistical Area level, observer error was not a concern.⁹

3.3.5. Number of Overflights

As indicated earlier, the number of aircraft deployed per overflight day was three from July through October and two thereafter. The following table summarizes the number of overflights by month and by weekend versus weekday over the life of the project.

TABLE 2: NUMBER OF OVERFLIGHTS IN THE 1980/81 GEORGIA STRAIT SPORT FISHING AERIAL SURVEY

	Number of Overflight Days			Number of Plane Trips
	<u>Weekday</u>	<u>Weekend</u>	<u>Total</u>	
July	3	6	9	27
August	3	5	8	24
September	3	4	7	21
October	2	2	4	12
November	1	1	2	4
December	1	1	2	4
January	1	1	2	4
February	1	1	2	4
March	2	2	4	8
April	2	2	4	8
May	2	2	4	8
June	3	3	6	12
Total	24	30	54	136

FOOTNOTES :

1. In 1980, DFO used a "Sunday to Saturday" span to designate time periods. In 1981, they changed the reporting period to "Monday to Sunday." Consequently, December, 1980 had 29 days.
2. In winter months the project leaders were the only full-time interviewers.
3. The 1980 CEIC summer student employment program sponsored by DFO was designed before project start-up, and the project "inherited" the existing number and distribution of students in the program. For 1981, the

creel survey was continued under direct DFO direction into July and August, a period beyond the 12 month term of this study.

4. Four types of questionnaires existed, with each type having the same sequence of questions on the front face, but a different Georgia Strait sub-region map on the reverse.
5. The survey form was designed so that computer data entry could be conducted directly from it.
6. A boat was deemed to fish during a given hour if it fished one-half hour or more during the hour.
7. In cases where there were three observers in the plane, two were situated on the right hand side.
8. The decision rules for defining sport fishing boats used for the overflights were employed, e.g., boats with large wakes were not fishing, etc.
9. However, the distribution of sport fishing boats among Statistical sub-Areas as determined from overflights is subject to greater errors (Appendix F).

4.0 SURVEY DESIGN AND METHODOLOGY

The methodology underlying the estimation of salmon sport fishing catch and effort is based on two major surveys:

- . a creel survey of fishermen landing at particular facilities (marinas, ramps, etc.) and
- . an aerial survey (or overflight procedure) of sport fishing boat counts.

This section presents a description of the design and estimation procedures for each of the two surveys. The procedure by which the results of the two surveys are drawn together to estimate sport fishing catch and effort is also described.

4.1 Synopsis of Methodology

The following is a simplified description of the methodology used to estimate sport fishing catch and effort.

Results from the overflight survey indicate the number of sport fishing boats fishing in a particular one-hour block, Y. Using data from the creel survey, one can calculate the proportion of daily sport craft fishing during the designated one-hour period, p, and the catch per boat trip, c. Estimates of monthly catch and effort are constructed as:

$$\text{Total Effort} : N \times Y \times 1/p$$

$$\text{Total Catch} : N \times Y \times 1/p \times c$$

where N represents the number of days in the month.

We do not rely solely on the landing site survey to estimate total effort and total catch. Rather, the

landing site survey is used to estimate intensive fishing parameters (catch per boat trip and daily fishing patterns) to be applied to the benchmark sport fishing boat counts provided by the aerial survey.

The above is a simplified representation of the methodology that abstracts from stratification (months, Statistical Areas, weekends versus weekdays, stint or shift type, and time blocks within the day) and the multistage sampling dimension (marinas/ramps, days, and vessels) of the creel survey.

Following is detailed technical documentation of the design of the two surveys and the methodology adopted.

4.2 The Creel Survey

The creel survey involves the interviewing of boating parties at the end of their just-completed boat trip. The intent of the creel survey is to provide data with which to estimate intensive fishing parameters, such as catch per boat trip and the proportion of boats fishing during each hour of the day.

4.2.1 Survey Design

In May, 1980 rough estimates¹ of design parameters such as expected catch per unit effort by salmon species, the variability in fishing success among fishing parties, and the relative distribution of sport fishing effort between Statistical Areas and months were used to designate recommended creel survey manpower requirements of 136 person-months. This level of sampling effort was altered in response to the availability of CEIC sponsored student manpower. As a result, 167 person-months of creel survey sampling effort were realized (see Table 1).

The coastline of Georgia Strait was segmented into 23 grouped landing sites (see map in Appendix L) corresponding to distinct local fishing regions and corresponding to regions accessible to the field staff. The grouped landing areas were chosen to be consistent with the classification of fishing areas in previous studies [4].

For each grouped landing site area², a stratified three-stage sampling design was considered (collapsing into two stages in some cases). The stages of selection were site, stint or day, and boat (or boating party). The three stratification levels were day type (weekend versus weekday), stint type, and time block. The hierarchy shown in Table 3 denotes the sampling and stratification stages. The design is broadly based on, and adapted from, a design suggested by Statistics Canada for estimating traffic through Canadian custom ports [5,13].

TABLE 3: CREEL SURVEY SAMPLING AND STRATIFICATION HIERARCHY

<u>Subscript</u>	<u>Sampling Stage</u>	<u>Stratification</u>
h		weekend/weekday
i	site	
j		stint type
k	stint	
l		time block
q	recreational vessel	

For the sake of simplicity in the presentation, no subscripts referring to month and region (Statistical

Area) are employed in the following discussion.

Day Type

Fishing success and the temporal distribution of fishing effort may vary from weekend to weekday. Consistent with experiences elsewhere, one would also expect substantially more fishing activity to take place on a weekend day as opposed to a mid-weekday [11, 16, 18]. Accordingly, separate estimates were obtained for weekend versus weekday activity. For classification purposes, statutory holidays are treated as weekend days.

Sites

From the list of marinas/ramps and associated sport boat traffic estimates constructed by each project leader for each of the 23 grouped landing areas, facilities with the following characteristics were selected for potential sampling in July and August:

- . the facility had expected sport fishing boat traffic of at least 500 boats in July (i.e., 15-20 boats a day)
- . adequate vantage or observation points existed so that one person could get an accurate count of all vessels returning to the facility³, and
- . the facility was readily accessible (by car, ferry, etc.) to samplers during daylight hours.

For certain high volume marinas for which it would be impossible for one person to monitor total incoming boat traffic, the facility was treated as a multiple site, and each separate quay or grouped set of quays were considered a distinct facility.

Facilities meeting the above criteria were included in the "sampled population"⁴ of sites at which interviewing could occur. Because of the exclusion of low volume sites (the

first criterion)⁵, and because certain landing areas, such as Stuart Island, the Gulf Islands, and Texada Island, were excluded from potential sampling (the third criterion), some differences exist between the sampled population of sites and the target population of all landing sites in Georgia Strait.

In the off-season (October through May), some sites were sampled only on weekends.

For July and August, a probability sample of sites was drawn. For other months, arbitrary selection of sites occurred based largely on:

- . summer 1980 sport boat traffic results (e.g., the high traffic volume sites)
- . seasonality of operation (e.g., some tourist oriented facilities in Campbell River are not open in the winter), and
- . on-going monitoring of area traffic volumes (e.g., a boat ramp in the Victoria region with high winter traffic volume and low summer traffic volume was sampled in February as a result of a Fishery Officer's report).

Selection of sites to be sampled within each area for July and August was determined by probability proportional to size (pps) sampling⁶ where the CEIC student manpower supply could not satisfy manpower requirements to sample all sites in the area sampled population. For these cases the following approach was adopted.

Sites within the sampled population for each month and grouped area were allocated a relative measure of "size" on a scale of 1 to 5. The measure of size⁷ for each site was determined by dividing the monthly estimate of sport fishing boat traffic volume for the site by that volume

corresponding to the busiest facility, where traffic volumes were determined from the inventory of facilities, and then multiplying this scaled quantity by 5. Sites having less than 10% of the sport boat traffic of the busiest facility were allocated a size measure of 1.

At least one high volume facility from each administrative area was selected as a "certainty site." Certainty sites were selected to ensure that comprehensive information on at least one large volume site was available for July and August.⁸ Certainty sites were selected with probability 1.0 and 16 monthly interviewing periods, or stints, were allocated to each. In contrast, non-certainty sites included in the pps sample were allocated 8 stints each. The rationale for the minimum number of stints per site is given in the sub-section called "Stint".

A pps sample without replacement was drawn from the non-certainty sites. The number of sites included in the sample was determined by dividing the minimum target number of monthly stints per site (8) into the number of monthly stints available. The number of monthly stints available was determined by the number of interviewers. For example, for a 4 week month in which 3 interviewers were available (4 stints per person per week), and in which 1 certainty site was selected, 4 non-certainty sites could be selected ($\{3 \times 4 \times 4 - 16 \times 1\} / 8$).

f

The procedure for drawing the pps sample is as follows:

- (a) List the sites and their sizes:

<u>Site</u>	<u>Size</u>
1	Z_1
⋮	⋮
α	$Z_α$
⋮	⋮
I	Z_I
	$\sum_{\alpha=1}^I Z_\alpha$

where Z is a relative measure of size.

- (b) Select a random number r between 1 and $\sum_{\alpha=1}^I Z_\alpha$.

If $\sum_{\alpha=1}^{i-1} Z_\alpha < r \leq \sum_{\alpha=1}^i Z_\alpha$, the i^{th} site is selected.

- (c) To select the second site, eliminate the i^{th} site and repeat procedures in (a) and (b) and so on for succeeding sites (if necessary).

Although a probability sample of sites was drawn for July and August, in the ensuing estimation stage the estimates refer only to those sites sampled.

Stint Type

Within each day type and site to be sampled, the day was stratified into two 8-hour periods, namely 7AM-3PM and

3PM-11PM, for July and August sampling. We thought that the majority of boats landing would do so between these hours.

For other months, stint length or interviewing period was altered in accordance with the changing hours of daylight. For winter months -- November through February -- only one stint was constructed. The following table outlines the stint periods during the months of the year.⁹

	<u>Stint Type</u>	
	<u>A</u>	<u>B</u>
July	7:00 AM - 3:00 PM	3:00 PM - 11:00 PM
August	7:00 AM - 3:00 PM	3:00 PM - 11:00 PM
September	8:00 AM - 3:00 PM	3:00 PM - 9:30 PM
October	9:00 AM - 3:00 PM	11:00 PM-7:30 PM
November	10:00 AM - 6:00 PM	
December	10:00 AM - 5:00 PM	
January	10:00 AM - 5:00 PM	
February	10:00 AM - 6:30 PM	
March	9:00 AM - 3:00 PM	11:00 AM - 8:00 PM
April	9:00 AM - 3:00 PM	3:00 PM - 9:00 PM
May	8:00 AM - 3:00 PM	3:00 PM - 10:30 AM
June	7:30 AM - 3:00 PM	3:00 PM - 10:30 PM

Stint

At the second sampling stage, the required number of interviewing periods or "stints" was selected. As mentioned above, stint length ranged from 6 to 8 hours, depending on the season. We attempted to sample a minimum of two days for each stint type chosen for each day type.¹⁰ That is, for the summer months, a minimum of 8 stints of sampling effort per site was attempted for each non-certainty site. For each certainty site, a sampling effort target of 16 stints was applied. The greater sampling intensity for certainty sites reflected a desire to provide precise estimates for some larger volume sites over time. We attempted to sample equal numbers of stints within each stint type for each day type for each

site selected.

The allocation of stints for the certainty sites and the selected non-certainty sites was done separately for weekday and weekend days.

In selecting the samples of stints, the month was divided into two halves. A simple random sample without replacement for each stint type and each day type was drawn within each half-month¹¹, subject to certain restrictions, including the following:

- (1) the same site could not be sampled twice within the same day (i.e., AM and PM shifts)
- (2) manpower constraints (samplers must have two consecutive days off, number of sites sampled in any given day must be less than or equal to the number of interviewers, etc.).

This procedure represents a departure from the pure simple random sampling (srs) of stints within day types, selected sites, and stint types for each month. Nevertheless, we predicated subsequent analysis on the assumption of an srs of stints.

Therefore, for each day type, h, for each site, i, for each stint type, j, the probability of a stint being chosen is assumed to be:

$$\Pi_{hij} = \frac{m_{hij}}{M_{hij}} \quad (1)$$

where m_{hij} = the number of stints to be allocated of day type h to the i^{th} site of stint type j.

M_{hij} = the number of stints available of day type h to the i^{th} site of stint type j.

For example, if for the month of July (a 5 week month with

11 "weekend" days including the statutory holiday), a particular site i is sampled twice on weekdays during the 7AM-3PM shift, then $\Pi_{hijk} = 2/24$.

Time Block

The day was stratified into four time blocks, namely:

- (1) before 11AM
- (2) 11AM-3PM
- (3) 3PM-7PM
- (4) after 7PM.

These time blocks were based on the length of summer stints.

In July and August, each stint (7AM-3PM or 3PM-11PM) was divided into two time blocks. For winter months the after 7PM time block was omitted.

Recreational Vessel

The third sampling stage, selection of recreational vessels, took place in the field. At the specified time and site, the interviewer did the following:

- . counted all recreational craft landing
- . interviewed as many of the boating parties as possible.

Let s_{hijkl} be the total number of recreational boating parties interviewed in the l^{th} time block in the k^{th} stint of the j^{th} stint type at the i^{th} site on the h^{th} day type, and let S_{hijkl} be the corresponding total number of recreational boats landing.

One can assume, based on the selection criteria of boating parties for interviewing (Section 3.2.1), that the s_{hijkl} parties interviewed are a simple random sample from the S_{hijkl} boating parties landing. Let Π_{hijkl} be the probability of interviewing a boating party in the l^{th}

Let \hat{X}_h^* represent the unbiased monthly estimate for total number of sport fishing boats returning to the landing sites sampled (determined as in (3) with x_{hijklq} identically equal to one). Then the estimator for a particular average fishing boating party characteristic is constructed as estimated monthly total of response variable X divided by estimated monthly total of fishing boat trips, namely:

$$\frac{\hat{X}_h}{\frac{\hat{X}_h^*}{X_h}} \quad (4)$$

The above expression is a combined ratio estimator¹³. The choice of this estimator over alternate ratio estimators was predicated on accuracy and precision (bias and variance) considerations. We expected that average sport fishing boating characteristics would vary substantially between different stratification and sampling stages. For example, a boat landing at dusk would have fished different hours of the day than one landing in mid-morning. In addition, salmon catch levels by species for the two boats may differ due to different diurnal feeding patterns of coho and chinook salmon or due to potentially different effort characteristics (hours fished, etc.). Consequently, an unweighted estimator would produce a significantly biased result. Alternately, with the sample sizes realized and the many levels of stratification present in the design, we thought that the combined ratio estimator offered significant advantages in terms of mean square error (bias squared plus variance) reduction over alternate weighted ratio estimators such as the separate ratio estimator.¹⁴

For the estimation of the proportion of marked coho and marked chinook in the creel we argue that the most

appropriate estimator is the simple unweighted ratio estimator.

$$\hat{w} = \frac{\sum_h \sum_i \sum_j \sum_k \sum_l \sum_q u_{hijklq}}{\sum_h \sum_i \sum_j \sum_k \sum_l \sum_q v_{hijklq}} \quad (5)$$

where u_{hijklq} (v_{hijklq}) is the number of marked salmon (number of salmon inspected) in the creel of the q^{th} fishing boating party in the l^{th} time block in the k^{th} stint of the j^{th} stint type for the i^{th} site on the h^{th} day type.

One would not expect the proportion of marked fish within a given small area to vary by day type, site, stint type, stint, time block, or recreational vessel, apart from sampling variation. Under such conditions the above estimator is unbiased.

4.3 The Aerial Survey

The aerial survey involved counting boats actively fishing from aircraft. The intent of the aerial survey was to provide data with which to estimate the number of boats fishing during a particular "snapshot" hour of the day.

4.3.1 Survey Design

A stratified design was planned with strata being day type (weekend versus weekday). In May, 1980, rough estimates of design parameters such as the ratio of fishing effort on weekends to fishing effort on weekdays and the

variability in fishing effort among days were used to designate a recommended number of overflights of 50. Subsequently, during the course of the project, some minor modifications were made to the initial design with the result that 54 overflights were undertaken (see Table 2).

Within each day type strata for each month, overflight days were selected based on the following circular systematic sampling procedure ([6] p. 208).

Let n_h be the number of overflight days of day type h to be selected in the given month. The N_h available days are ordered chronologically and a random number a_h is selected from 1 to N_h . The sample consists of the n_h days corresponding to:

$$B_h = a_h + k \left[\frac{N_h}{n_h} \right] \quad : k=0,1,\dots,m_h-1$$

where $\left[\frac{N_h}{n_h} \right]$ is the greatest integer in $\frac{N_h}{n_h}$ and where B_h is reduced modulo N_h .

For several months the actual sequence of days on which overflights occurred differed somewhat from the idealized situation. This departure was due to three main reasons:

- . uncertainties at project start up and at the beginning of winter due to negotiations with charter aircraft companies
- . non-availability of aircraft on particular days, and
- .. cancellation of less than 6 of the 54 flights due to inclement weather, mainly visibility (fog) problems.

This latter factor could bias the resulting estimates

- . Daily temporal patterns of fishing activity were aggregated over the 23 grouped landing site areas to form daily fishing patterns for 9 broad "Major Regions" (see Appendix H).¹⁵
- . Based on inspection of local areas fished as determined from the chart on the reverse side of the questionnaire, each Statistical sub-Area was "mapped" to one (or a combination) of the 23 grouped landing site areas for which information was available (see Appendix I).
- . The temporal fishing pattern of the Major Group to which this grouped landing area belonged (Appendix H) was used to convert the "snapshot" overflight boat count of each sub-Area to a total monthly fishing effort estimate.
- . The catch per boat trip of the grouped landing site area (Appendix G) was applied to the resulting monthly sub-Area fishing effort estimate in order to estimate sub-Area total monthly catch.
- . The monthly estimates were summed over sub-Areas to generate total Statistical Area monthly estimates of catch and effort.
- . The proportions of marked salmon of those grouped landing sites to which the sub-Areas were mapped were weighted by relative sub-Area catch¹⁶ to estimate total Statistical Area proportion of marked coho or chinook in the catch.

A detailed numerical example of the procedure is given in Appendix I.

derived from overflight data. However, this is not a significant concern since weather on overflight days was, in most cases, representative of monthly weather conditions. See Appendix E for a comparison of weather on overflight days with average monthly weather conditions.

4.3.2 Estimation

The systematic sample mean

$$\bar{y}_h(t) = \frac{\sum_{b=1}^{n_h} y_{hb}(t)}{n_h} \quad (6)$$

is an unbiased estimate of the population mean

$$\bar{Y}_h(t) = \frac{\sum_{b=1}^{N_h} y_{hb}(t)}{N_h},$$

the average number of sport boats fishing in hour t on day type h in the month.

4.4 Sport Fishing Activity Estimation

The preceding two sections have outlined the methodology and statistical considerations underlying the creel survey and the aerial survey, respectively. In this section, the procedure by which results of the two surveys are drawn together to estimate salmon catch and effort on a Statistical Area by month basis is described.

Implicit in the estimation procedure is the need for correspondence between area of landing (from the creel survey) and area of fishing or Statistical sub-Area (from the overflights). We took the following approach in estimating total Statistical Area catch, effort, and proportions of marked coho and chinook in the catch for a given month and day type:

Separate estimates of salmon sport fishing catch and effort were made for weekends and weekdays for each Statistical Area and each month. The total monthly estimate is the sum of weekend and weekday estimates. Following is a mathematical representation of the procedure for a given sub-Area:

Let $\bar{p}_h(t)$ be the estimated proportion of daily sport fishing boats of day type h fishing in hour t (analogous to equation (4)). The estimate of monthly sport fishing effort for each day type is:

$$E_h = N_h \frac{\bar{y}_h(t)}{\bar{p}_h(t)} \quad (7)$$

where $\bar{y}_h(t)$ = mean sport boat count in hour t on day type h

N_h = number of days of type h in the month.

The total monthly effort estimate is:

$$E = \sum_{h=1}^2 E_h = \sum_{h=1}^2 N_h \frac{\bar{y}_h(t)}{\bar{p}_h(t)} \quad (8)$$

Let \bar{c}_h be the estimated monthly catch per boat trip on day type h for a particular species (analogous to equation (4)). The total monthly catch estimate is:

$$C = \sum_{h=1}^2 C_h = \sum_{h=1}^2 \bar{c}_h N_h \frac{\bar{y}_h(t)}{\bar{p}_h(t)} \quad (9)$$

The estimation procedure essentially uses the proportion of daily sport boats fishing in the target hour, $\bar{p}_h(t)$, as

a "scale" factor to convert the "snapshot" sport fishing boat estimate to a total daily estimate of sport fishing boat trips. This daily estimate is converted to a monthly estimate of sport boat trips by multiplying by the number of like days in the month, and this monthly effort estimate is multiplied by the estimated catch per boat trip to generate a monthly estimate of sport catch.

FOOTNOTES

1. From several sources including unpublished 1977 and 1978 Campbell River creel survey results, historical sport fishery statistics from DFO [7], and mark-recovery data [3].
2. The 23 grouped areas represent the maximum number of areas considered. In winter months, due to less sport fishing activity, fewer landing areas are addressed.
3. No facilities were excluded on this criterion alone.
4. The sampled population is the population from which the sample is drawn and is a subset of the target population. The target population is that about which information is wanted ([6] p. 6 and [8] p. 23).
5. Including all private wharves, etc.
6. For a description of pps sampling, see Cochran, Chapter 9 [6] and Des Raj, Chapter 6 [8]. Malvestuto et al implement pps sampling in a roving creel survey [16].
7. The scale of 1 to 5 represents essentially a "rounding" of the boat traffic estimates.
8. Generally, sites classified as certainty sites during July and August continued to be sampled in the September through June period.
9. For May through October period, times refer to Pacific Daylight Time. For other months, times refer to Pacific Standard Time.
10. A minimum of two days sampling for each type are

required for variance estimates to be produced.

11. Fishing success or the temporal pattern of fishing activity within the day may vary significantly between the first and last weeks of a month. Selecting samples for each half month independently was an attempt to ensure that the sample chosen for each site was representative with respect to these two key parameters.
12. Non-fishing party responses are excluded.
13. The numerator and denominator of ratio estimators are random variables. Ratio estimators generally are biased, i.e., in repeated sampling the mean of the estimator is not equal to the true mean. However, the combined ratio estimator is consistent, i.e., the estimate is the true mean when the sample size equals the population size.
14. See [8] p. 105 and [6] p. 168.
15. In addition, a tenth daily fishing pattern corresponding to "Campbell River Guided" facilities was specified.
16. The weights are sub-Area catch divided by total Statistical Area catch.

5.0 DATA PROCESSING PROCEDURES

The two primary data collection instruments underlying the study were an access point creel survey and an overflight survey. In section 3 we outlined the interview process and procedures taken to ensure that the access point creel survey was administered correctly. Following is an outline¹ of the data processing procedures and the steps taken to validate the data received.

The data collection, editing and analysis procedures were designed to:

- 1) insure the accurate capture of information from fishermen during a brief interview at the landing site;
- 2) transform this interview information to machine readable form without corruption;
- 3) produce reports that would give fishing parameter estimates to be used in conjunction with the overflight data to produce estimates of catch and effort.

5.1 Data Capture Issues

Our initial requirement was to be able to administer the form quickly (under five minutes) with a high degree of accuracy. We also required that data entry be possible directly from the form without a coding step. The objective was to obtain over 90% good forms through the first editing stage.

5.1.1 Testing

The data capture form was revised four times in June, 1980 during field tests to determine what data were being captured accurately. The surveyors alerted us to confusing

questions and to the difficulty of recording time block information.

5.1.2 Coding Issues

There were eight possible species and up to three fishing areas per boat trip. Each species could be caught or released in any of 10 areas. The use of a matrix data entry format would have been prone to error due to the number of cells (10x8x2) and there would be no way to check the entry once it was recorded. We decided to use a shorthand notation that allowed the surveyor to enter only the information that was received and to enter it in the order that it was given (see the sample form in Appendix B).

The shorthand notation that was used consisted of a species code preceded by a number indicating how many of that species were caught or released. Information could be entered for up to three Statistical Areas per boat trip. The shorthand notation was used for catch, released, and marked/non-marked entries. It was entered as a two-digit number followed by a two-letter species code. The data editing program later expanded the shorthand to a fixed-field entry when it created the Interview Record.

5.1.3 Time of Fishing

The time of fishing data presented a problem since it may or may not be continuous. Hand-writing the information would have been a problem for data verification because of the numeric nature of the data and because we required the information in one-hour blocks. After testing a couple of graphic representations during the month of June, 1980, we chose an explicit listing of the one-hour time blocks with the surveyor circling each of the hour blocks

whenever there was at least one half-hour of fishing in that block.

5.1.4 Verification

In order to obtain detailed location-of-catch information, the data collection forms were printed with maps on the reverse side. Four maps were used to cover the entire Georgia Strait so that each site's interview forms covered the widest possible fishing area. The surveyor recorded the area(s) of fishing and the catch for that area on the map as well as on the face of the form. This provided a second source of information that helped resolve ambiguous or missing entries.

5.1.5 Site Summaries

Each work stint was summarized on a single page "Tally Sheet" that recorded boat traffic at the site on an hourly basis. The interviewers entered a count of the number of vessels landing, the number of interviews attempted, the number of interviews completed and the number uncompleted. A space was provided for both a stick count and a numeric count for each type of entry.

Weather information was recorded on a work-block basis (i.e., 7am-11am, 11am-3pm, 3pm-7pm, 7pm-11pm) at the bottom of the form. Additional control information was entered at the top of the form. This control information included beginning and ending form numbers, site name, site code, date, interviewer's name and shift times. Much of this information duplicated information on the interview form and provided us with a mechanism for reassembling the sheets when they became separated.

The practice was to attach the Site Summary Tally Sheet to

the group of interview forms to which they applied. The Site Summaries were then coded on a data entry form and entered into the computer separately from the interviews. The records produced from the Site Summaries were called Site Summary Records (SSR).

5.2. Data Processing Issues

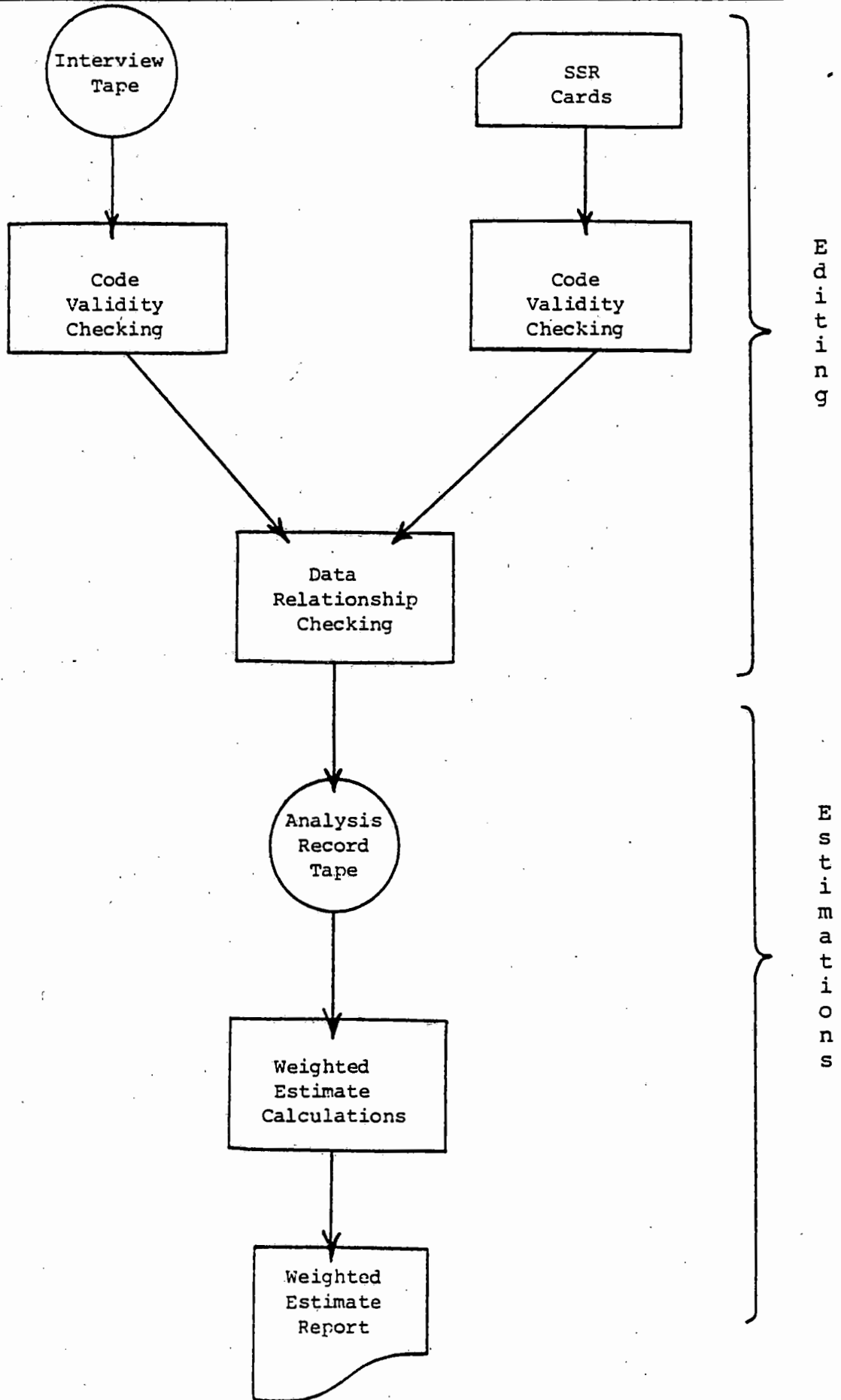
The data processing for the Creel Survey was divided into two stages: the editing stage and the estimation stage (Figure 2). In the editing stage the interview forms and the Site Summary Records were passed through separate programs that check for invalid data. A third program was used to combine the data into an Analysis Record. In the estimation stage the Analysis Record was used to produce estimates at the required level of aggregation.

5.2.1 Editing Stage

Initially, a manual edit of the questionnaires and the covering tally sheets was conducted in order to verify that the correct identifying information and key responses were completed and legible. At a service bureau, the interviews and tally sheets were entered on to magnetic tape directly from the forms. For each type of record (interview records and SSR's), specific validation programs were used to detect data entry errors and inconsistencies between data elements. The following are examples of the type of inconsistency errors detected:

- 1) Hours of fishing must be less than or equal to time of landing.
- 2) Number of hours of fishing must be less than or equal to length of the boat trip.
- 3) Number of kept fish by species over all statistical areas must equal the total by species in the creel.
- 4) Number of marked plus unmarked coho or chinook must

FIGURE 2 : DATA FLOW DIAGRAM FOR CREEL SURVEY PROCESSING



total the number of coho or chinook in the creel.

Corrections were made to the erroneous record via a batch command file and an updated data file was created. This error detection/error correction and file updating cycle was repeated as many times as necessary to bring the error rate down to an 'acceptable' level. From an initial interview rejection rate of 7%, a final error rejection rate of less than one half of one percent was realized. A substantial effort was invested in data editing due to a selection bias in the error detection process. Interviews with salmon in the creel were more likely to be rejected², and hence if we had based the catch per unit effort estimation on only those interviews passing the first editing stage, it likely would have led to biased results.

5.2.2 Estimation Stage

After individual editing of the interview records and SSR's was completed, a third editing step involving comparing the two data sets for consistency occurred. The main validity checks were:

- 1) to identify cases where interviews on a given date existed but no corresponding SSR existed (or vice versa), and
- 2) to check that the number of interviews conducted was less than or equal to the number of boats recorded in the SSR.

After discrepancies were reconciled, aggregate records (the 'Analysis Records') were created which summarized the interview and SSR information on a 'landing time block' basis.³

5.3 Estimation Procedures

A program was developed to read the Analysis Records and to construct 'weighted' estimates [according to equation (3) in Section 4.2.2] of average fishing trip characteristics on a monthly and landing site basis. For each month/landing site combination a one-page letter size report was constructed which summarized the facilities sampled, the sampling intensity (number of days sampled, number of interviews, etc.) and total and average monthly fishing trip parameters estimates for those sites sampled. These data were then integrated with the overflight data to produce the catch and effort estimates.

FOOTNOTES

1. Details of the data processing steps, along with data flow diagrams, file formats and program listings can be found in Appendices S, T, U, V and W.
2. Over 50 percent of fishing parties interviewed caught zero fish.
3. Four potential time blocks exist, namely: Before 11:00 AM, 11:00 - 2:59 AM, 3:00 PM - 6:59 PM, and 7:00 PM or later.

6.0 RESULTS

The primary intent of this study was to estimate the following quantities by month and Statistical Area for Georgia Strait:

- . the coho and chinook catch by sportfishermen,
- . the fishing effort expended in achieving these catches, and
- . the proportion of marked coho and chinook in the sports catch.

In preceding sections, we have outlined the survey effort and the methodology employed to generate these basic sport fishery statistics. In this section, the statistical estimates are presented.

For the period July 1980 to June 1981 an estimated 877 thousand salmon were caught by sportfishermen in Georgia Strait (Table 4). Of this total salmon catch, 537 thousand were coho (Table 5) and 324 thousand were chinook (Table 6) with the remainder being pink, chum, sockeye, steelhead or sea running cutthroat trout. The fishing effort expended in achieving these catches was estimated to be 724 thousand boat trips (Table 7). The proportions of marked coho and marked chinook in the sports catch are reported in Tables 8 and 9.

Standard errors corresponding to the estimates also are presented in Tables 4 through 9.¹ From this information, one can construct statistical interval estimates corresponding to a specified precision level for the sport fishery parameters of interest. For example, a 95 percent confidence interval estimate for the 12 month total salmon catch is 839 thousand to 916 thousand salmon.²

As well as the annual level of sport fishing catch and effort, the distribution of these basic parameters over time and space is of interest to sport fishery managers. Over the 12 month study period, 83 percent of the salmon catch was realized in the May through September (summer) period and 43 percent of the catch was caught in Statistical Areas 13 and 14 (see below). Little of the Statistical Area 13 and 14 catch was caught during winter (October through April). In contrast, the sports catch in the Victoria general area (Statistical Areas 19A and 19B+) is split equally between summer and winter periods.

Percent of Total Salmon Catch

<u>Statistical Areas</u>	<u>May through Sept</u>	<u>Oct through Apr</u>	<u>Total Year</u>
13/14	41.7	1.8	43.5
15/16	13.7	1.8	15.5
17/18	13.1	4.2	17.3
19A/19B+	7.3	7.2	14.5
28/29	7.4	1.8	9.2
Total	83.2	16.8	100.0

Weighted³ estimates of the salmon catch per unit effort for each of the grouped landing site areas by month is given in Appendix G. In Appendices L through R unweighted estimates corresponding to the simple averages over all interviews of catch per unit effort and other fishing trip characteristics are reported.

A significant outgrowth of the study is the construction of a detailed database to support future analysis of the Georgia Strait sport fishery. To illustrate the potential for such "downstream" use of the data collected, we summarize the relative catch distribution between boating parties in Table 10. Of the greater than 40 thousand fishing boating parties interviewed, over 50 percent

caught zero salmon whereas only 2.5 percent of parties "limited out" (i.e., number of salmon caught was greater or equal to 4 times the number of party members). Additionally, one can investigate the temporal fishing pattern of sport fishing activity during the day (see Figure 3 for example). Such information is critical to the design of future surveys.

In the next section (Section 7) we outline limitations to the study and the sport fishery parameter estimates generated. However, some comment is warranted at this time concerning the interpretation of the results. The estimates refer explicitly to sport fishing activity during the study period -- July 1980 through June 1981 -- and it is not known whether or not this is a "typical" 12 month period. One can not necessarily view the estimates as being applicable to past or future (calendar) years. Year to year variation in sport fishery activity is related mainly to:

- . long term trends in angler participation
- . variation in fishing success (catch per unit effort) by species between years,
- . variation in weather between years,⁴ and
- . changes in sport fishery regulations between years.

Consequently, any extrapolation of study results to other time periods is speculative.

TABLE 4: ESTIMATED SALMONID CATCH* BY SPORTFISHERMEN IN GEORGIA STRAIT
BY MONTH AND STATISTICAL AREA, JULY 1980 TO JUNE 1981

	S T A T I S T I C A L A R E A **										Total
	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19A</u>	<u>19B+</u>	<u>28</u>	<u>29</u>	
	('000)										
JUL	83.7 (6.4)	53.3 (4.6)	5.7 (0.5)	42.9 (5.1)	39.9 (3.7)	18.1 (4.7)	4.2 (0.6)	12.0 (2.2)	5.8 (0.9)	13.3 (2.0)	278.9 (11.6)
AUG	55.7 (2.6)	25.5 (2.1)	5.9 (1.4)	21.7 (2.2)	11.4 (1.2)	12.9 (1.6)	7.6 (1.0)	8.0 (1.0)	9.6 (1.8)	10.0 (1.3)	168.3 (5.4)
SEP	31.1 (3.8)	14.5 (1.9)	2.3 (0.7)	12.0 (2.6)	4.7 (0.8)	2.5 (0.6)	7.2 (1.2)	11.8 (1.6)	6.7 (1.8)	3.8 (0.4)	96.6 (5.7)
OCT	1.7 (1.0)	4.9 (1.6)	1.5 (0.9)	3.4 (3.8)	4.8 (0.9)	2.4 (0.9)	3.3 (0.8)	4.3 (0.6)	0.6 (0.2)	1.2 (1.2)	28.1 (4.8)
NOV/DEC	0.2 (0.1)	0.6 (0.3)	0.4 (0.2)	1.8 (0.4)	3.1 (1.2)	3.0 (0.6)	4.9 (0.8)	18.3 (2.2)	3.4 (1.4)	1.6 (0.6)	37.3 (3.2)
JAN/FEB	2.0 (0.7)	1.0 (0.7)	0.5 (0.7)	0.5 (0.3)	11.0 (2.7)	3.2 (1.1)	6.9 (1.1)	10.5 (1.7)	2.5 (0.5)	2.6 (0.6)	40.7 (3.8)
MAR	0.3 (0.1)	0.5 (0.3)	0.1 (0.1)	1.2 (0.4)	3.5 (0.8)	1.2 (0.3)	1.3 (0.2)	9.5 (1.2)	1.1 (0.3)	1.1 (0.4)	19.8 (1.7)
APR	1.3 (0.6)	3.1 (0.9)	0.5 (0.3)	5.8 (2.7)	4.8 (1.2)	0.3 (0.1)	1.1 (0.2)	3.4 (0.8)	0.8 (0.3)	0.8 (0.8)	21.9 (3.4)
MAY	9.8 (1.2)	17.6 (1.7)	0.4 (0.1)	14.3 (3.4)	9.3 (2.2)	2.0 (0.3)	2.4 (0.6)	4.9 (1.1)	4.2 (1.5)	4.4 (1.0)	69.3 (5.1)
JUN	34.1 (5.7)	40.0 (7.5)	3.8 (1.3)	11.5 (2.6)	10.9 (1.7)	2.8 (0.6)	2.1 (0.5)	4.2 (0.5)	2.3 (0.4)	4.6 (0.8)	116.3 (10.1)
TOTAL	219.9 (9.9)	161.0 (9.6)	21.1 (2.3)	115.1 (8.8)	103.4 (6.0)	48.4 (5.3)	41.0 (2.5)	86.9 (4.5)	37.0 (3.2)	43.4 (3.3)	877.2 (19.6)

*Kept fish only

**Standard error of estimate in brackets.

TABLE 5: ESTIMATED COHO CATCH* BY SPORTFISHERMEN IN GEORGIA STRAIT
BY MONTH AND STATISTICAL AREA, JULY 1980 TO JUNE 1981

	S T A T I S T I C A L A R E A **										Total
	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19A</u>	<u>19B+</u>	<u>28</u>	<u>29</u>	
	('000)										
JUL	70.5 (6.1)	43.9 (4.3)	4.7 (0.5)	35.5 (5.0)	18.3 (2.2)	10.3 (4.1)	0.4 (0.1)	7.9 (2.1)	4.2 (0.8)	9.2 (1.9)	204.9 (10.6)
AUG	45.9 (2.4)	16.7 (1.9)	4.9 (1.4)	17.7 (2.1)	4.9 (0.7)	4.3 (0.9)	0.6 (0.5)	2.8 (0.5)	7.7 (1.7)	7.5 (1.1)	113.0 (4.7)
SEP	27.5 (3.8)	8.9 (1.6)	1.6 (0.6)	8.2 (2.4)	2.0 (0.6)	1.3 (0.5)	1.4 (0.4)	3.1 (0.6)	5.4 (1.0)	2.8 (0.4)	62.2 (5.0)
OCT	1.4 (1.0)	2.5 (1.2)	0.3 (0.3)	0.9 (0.6)	1.6 (0.4)	0.5 (0.4)	0.9 (0.4)	0.7 (0.1)	0.2 (0.1)	0.6 (0.2)	9.6 (1.9)
NOV/DEC	- (-)	- (-)	0.1 (0.1)	- (-)	0.4 (0.5)	0.2 (0.1)	1.9 (0.5)	1.2 (0.4)	- (-)	- (-)	3.8 (0.8)
JAN/FEB	- (-)	0.3 (0.5)	0.4 (0.2)	- (-)	0.5 (0.3)	0.3 (0.3)	2.7 (0.5)	0.9 (0.2)	- (-)	- (-)	5.1 (0.9)
MAR	0.1 (-)	0.1 (0.1)	- (-)	0.4 (0.2)	1.1 (0.4)	0.1 (0.1)	0.5 (0.1)	6.1 (1.1)	- (-)	0.3 (0.2)	8.7 (1.2)
APR	1.1 (0.6)	2.5 (0.9)	- (-)	4.9 (2.6)	3.5 (1.1)	0.2 (0.1)	0.1 (-)	1.8 (0.6)	- (-)	0.1 (0.1)	14.2 (3.1)
MAY	4.6 (0.8)	14.8 (1.6)	0.4 (0.1)	6.4 (1.9)	7.0 (2.1)	0.2 (0.1)	0.1 (-)	0.6 (0.2)	0.6 (0.3)	0.7 (0.2)	35.4 (3.4)
JUN	25.9 (5.4)	34.8 (7.3)	3.4 (1.3)	8.3 (2.5)	5.5 (1.3)	0.2 (0.1)	0.1 (-)	0.3 (0.1)	0.4 (0.1)	1.0 (0.4)	79.9 (9.6)
TOTAL	177.0 (9.4)	124.5 (9.2)	15.8 (2.1)	82.3 (7.2)	44.8 (3.7)	17.6 (4.3)	8.7 (1.0)	25.4 (2.6)	18.5 (2.2)	22.2 (2.3)	536.8 (16.7)

*Kept fish only

**Standard error of estimate in brackets

TABLE 6: ESTIMATED CHINOOK CATCH* BY SPORTFISHERMEN IN GEORGIA STRAIT
BY MONTH AND STATISTICAL AREA, JULY 1980 TO JUNE 1981

	S T A T I S T I C A L A R E A **										Total
	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19A</u>	<u>19B+</u>	<u>28</u>	<u>29</u>	
	('000)										
JUL	11.5 (1.1)	8.6 (0.9)	0.8 (0.1)	7.1 (1.0)	21.3 (3.0)	6.0 (1.3)	3.7 (0.6)	3.9 (0.6)	1.6 (0.3)	3.9 (0.6)	68.4 (3.9)
AUG	9.0 (0.6)	8.2 (0.8)	0.9 (0.3)	4.0 (0.6)	6.3 (0.9)	7.1 (1.3)	6.9 (0.9)	5.0 (0.9)	1.4 (0.4)	2.0 (0.4)	50.8 (2.4)
SEP	3.6 (0.6)	5.4 (1.0)	0.7 (0.3)	3.7 (1.0)	2.7 (0.6)	1.2 (0.3)	5.8 (1.1)	8.4 (1.5)	1.2 (0.2)	1.0 (0.2)	33.7 (2.5)
OCT	0.3 (0.2)	2.0 (1.0)	1.2 (0.8)	2.5 (1.6)	3.2 (0.8)	1.8 (0.8)	2.3 (0.7)	3.6 (0.6)	0.4 (0.2)	0.6 (0.1)	17.9 (2.5)
NOV/DEC	0.2 (0.1)	0.6 (0.3)	0.2 (0.2)	1.8 (0.4)	2.7 (1.1)	2.8 (0.6)	3.0 (0.6)	17.0 (2.2)	3.4 (1.4)	1.6 (0.6)	33.3 (3.1)
JAN/FEB	2.0 (0.7)	0.7 (0.5)	0.1 (0.1)	0.5 (0.3)	10.5 (2.7)	2.9 (1.1)	4.1 (1.0)	9.6 (1.7)	2.5 (0.5)	2.5 (0.6)	35.4 (3.7)
MAR	0.2 (0.1)	0.3 (0.2)	0.1 (0.1)	0.8 (0.4)	2.3 (0.7)	1.1 (0.3)	0.8 (0.2)	3.0 (0.4)	1.1 (0.3)	0.8 (0.3)	10.5 (1.1)
APR	0.2 (0.1)	0.6 (0.2)	0.5 (0.3)	0.9 (0.6)	1.3 (0.5)	0.1 (0.1)	1.0 (0.2)	1.2 (0.4)	0.8 (0.3)	0.7 (0.2)	7.3 (1.0)
MAY	5.1 (0.9)	2.6 (0.4)	- (-)	7.6 (2.8)	2.3 (0.8)	1.8 (0.3)	2.3 (0.6)	3.3 (0.5)	3.6 (1.5)	3.7 (1.0)	32.3 (3.7)
JUN	8.0 (1.8)	3.5 (0.6)	0.3 (0.1)	3.2 (0.8)	5.2 (1.1)	2.6 (0.6)	2.0 (0.5)	3.9 (0.5)	1.9 (0.4)	3.5 (0.7)	34.1 (2.6)
TOTAL	40.1 (2.6)	32.5 (2.1)	4.8 (1.0)	32.1 (3.8)	57.8 (4.7)	27.4 (2.5)	31.9 (2.2)	58.9 (3.5)	17.9 (2.3)	20.3 (1.7)	323.7 (8.9)

*Kept fish only

** Standard error of estimate in brackets

TABLE 7: ESTIMATED SPORT FISHING EFFORT* IN GEORGIA STRAIT BY MONTH AND STATISTICAL AREA, JULY 1980 TO JUNE 1981

	S T A T I S T I C A L A R E A **										Total
	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19A</u>	<u>19B+</u>	<u>28</u>	<u>29</u>	
	('000)										
JUL	44.2 (3.7)	31.9 (3.2)	5.1 (0.3)	27.8 (3.1)	26.7 (3.4)	17.5 (2.3)	8.0 (1.0)	13.6 (2.1)	7.7 (1.0)	10.5 (1.9)	193.0 (7.8)
AUG	35.5 (1.6)	24.3 (2.6)	5.6 (1.2)	21.5 (1.6)	17.9 (2.3)	14.9 (1.4)	8.9 (1.6)	11.0 (1.6)	13.0 (1.2)	11.1 (1.5)	163.7 (5.4)
SEP	18.7 (2.2)	20.1 (2.4)	2.8 (1.0)	9.5 (1.5)	6.9 (1.2)	4.4 (0.4)	6.4 (1.1)	10.5 (1.2)	8.0 (0.8)	4.1 (0.5)	91.4 (4.4)
OCT	1.2 (0.7)	4.1 (1.5)	0.8 (0.6)	7.4 (4.2)	4.2 (0.9)	4.1 (0.6)	4.7 (1.5)	5.3 (0.5)	1.8 (0.6)	3.7 (1.0)	37.3 (5.1)
NOV/DEC	0.3 (0.1)	0.8 (0.3)	0.2 (0.1)	1.8 (0.3)	1.5 (0.6)	1.8 (0.3)	2.4 (0.4)	10.1 (1.0)	4.0 (0.7)	2.1 (0.6)	25.0 (1.6)
JAN/FEB	1.8 (0.7)	0.7 (0.2)	0.3 (0.1)	1.4 (0.4)	4.4 (1.1)	2.9 (1.0)	4.8 (1.4)	7.2 (1.1)	3.7 (0.3)	3.9 (0.9)	31.1 (2.6)
MAR	0.5 (-)	0.5 (0.1)	0.1 (0.1)	2.0 (0.6)	2.8 (0.5)	2.4 (0.5)	2.1 (0.2)	5.1 (0.4)	2.4 (0.4)	1.8 (0.5)	19.7 (1.2)
APR	1.5 (0.4)	2.0 (0.4)	0.4 (0.3)	7.7 (3.4)	4.7 (1.1)	1.8 (0.2)	1.6 (0.1)	4.1 (0.3)	2.6 (0.3)	1.6 (0.2)	28.0 (3.7)
MAY	8.3 (1.1)	6.9 (0.8)	0.5 (0.1)	7.7 (1.2)	5.1 (1.3)	3.0 (0.4)	2.8 (0.7)	7.5 (0.7)	3.1 (0.9)	3.3 (0.8)	48.2 (2.8)
JUN	23.7 (4.6)	16.9 (3.0)	1.7 (0.5)	8.5 (1.2)	8.9 (1.4)	4.9 (0.5)	3.6 (0.7)	10.2 (1.0)	2.4 (0.3)	5.6 (0.8)	86.4 (6.0)
TOTAL	135.7 (6.7)	108.2 (5.9)	17.5 (1.8)	95.3 (6.9)	83.1 (5.1)	57.7 (3.1)	45.3 (3.2)	84.6 (3.6)	48.7 (2.3)	47.7 (3.1)	723.8 (14.3)

*Sport boat trips

**Standard error of estimate in brackets

TABLE 8: ESTIMATED PROPORTION OF MARKED COHO IN CATCH* OF SPORTFISHERMEN IN GEORGIA STRAIT BY MONTH AND STATISTICAL AREA, JULY 1980 TO JUNE 1981

	S T A T I S T I C A L A R E A **									
	13	14	15	16	17	18	19A	19B+	28	29
JUL	.073 (.004)	.042 (.003)	.034 (.008)	.045 (.006)	.023 (.005)	.075 (.026)	.000 (NA)	.015 (.004)	.127 (.020)	.091 (.007)
AUG	.090 (.006)	.035 (.005)	.022 (.016)	.037 (.006)	.014 (.006)	.046 (.018)	.000 (NA)	.022 (.008)	.120 (.012)	.092 (.007)
SEP	.069 (.013)	.039 (.012)	.000 (NA)	.022 (.014)	.041 (.022)	.000 (NA)	.000 (NA)	.000 (NA)	.130 (.022)	.046 (.008)
OCT	.086 (.020)	.032 (.018)	.000 (NA)	.160 (.088)	.029 (.017)	.000 ^c (NA)	.013 (.013)	.019 (.013)	.091 (.061)	.148 (.068)
NOV/DEC	NA	NA	.000 ^e (NA)	NA	.000 (NA)	.000 ^c (NA)	.000 (NA)	.014 (.014)	NA	NA
JAN/FEB	NA	.059 ^a (.059)	.167 ^a (.110)	NA	.029 (.029)	.000 ^c (NA)	.004 (NA)	.006 (.006)	NA	NA
MAR	.000 ^{a,d} (NA)	.000 ^{a,d} (NA)	NA	.000 ^a (NA)	.000 (NA)	.000 ^c (NA)	.000 (NA)	.000 (NA)	NA	.000 (NA)
APR	.045 (.044)	.105 (.029)	NA	.182 (.058)	.042 (.024)	.000 ^c (NA)	.000 ^b (NA)	.034 (.019)	NA	.000 ^e (NA)
MAY	.074 (.016)	.059 (.006)	.176 (.057)	.068 (.029)	.125 (.026)	.000 ^c (NA)	.000 ^b (NA)	.069 (.030)	.000 (NA)	.015 (.010)
JUN	.068 (.009)	.069 (.005)	.203 (.019)	.201 (.023)	.095 (.016)	.000 ^c (NA)	.000 ^b (NA)	.000 (NA)	.016 (.016)	.052 (.013)

*Kept fish only

a Based on only 10-20 observations. Other estimates are based on 20 or more observations

b Data for April, May and June pooled

c October to June data pooled

d Data pooled for Statistical Areas 13 and 14

e Estimate

NA not applicable

**Standard error of estimate in brackets

TABLE 9: ESTIMATED PROPORTION OF MARKED CHINOOK IN CATCH* OF SPORTFISHERMEN IN GEORGIA STRAIT BY MONTH AND STATISTICAL AREA, JULY 1980 TO JUNE 1981

	S T A T I S T I C A L A R E A **									
	13	14	15	16	17	18	19A	19B+	28	29
JUL	.021 (.006)	.006 (.001)	.023 (.011)	.030 (.009)	.010 (.003)	.025 (.011)	.003 (.003)	.012 (.005)	.035 (.015)	.033 (.006)
AUG	.051 (.010)	.025 (.007)	.008 (.008)	.032 (.012)	.016 (.006)	.017 (.009)	.006 (.004)	.013 (.005)	.033 (.019)	.058 (.011)
SEP	.041 (.023)	.016 (.009)	.000 (NA)	.018 (.018)	.055 (.020)	.017 (.017)	.020 (.007)	.009 (.005)	.085 (.041)	.041 (.014)
OCT	.000 (NA)	.019 (.019)	.006 (.006)	.021 (.016)	.023 (.009)	.000 ^a (NA)	.008 (.006)	.018 (.005)	.077 (.043)	.056 (.027)
NOV/DEC	.000 (NA)	.000 (NA)	.000 (NA)	.080 (.030)	.030 (.013)	.078 (.030)	.000 (NA)	.003 (.002)	.036 (.020)	.035 (.015)
JAN/FEB	.000 (NA)	.000 (NA)	.081 ^b (.045)	.081 ^b (.045)	.024 (.006)	.005 (.002)	.005 (.003)	.004 (.002)	.035 (.017)	.012 (.008)
MAR	.000 ^a (NA)	.000 (NA)	.081 ^b (.045)	.081 ^b (.045)	.009 (.009)	.087 ^c (.059)	.000 (NA)	.000 (NA)	.018 (.018)	.022 (.022)
APR	.045 (.045)	.213 (.059)	.081 ^b (.045)	.081 ^b (.045)	.065 (.061)	.087 ^c (.059)	.017 (.017)	.010 (.010)	.000 ^a (NA)	.000 (NA)
MAY	.037 (.013)	.047 (.011)	NA	.074 (.033)	.050 (.034)	.029 (.017)	.004 (.004)	.013 (.005)	.014 (.002)	.047 (.010)
JUN	.024 (.012)	.041 (.009)	.318 (.072)	.233 (.066)	.027 (.010)	.071 (.033)	.014 (.010)	.016 (.007)	.021 (.008)	.038 (.009)

*Kept fish only

a Based on only 10-20 observations. Other estimates are based on 20 or more observations

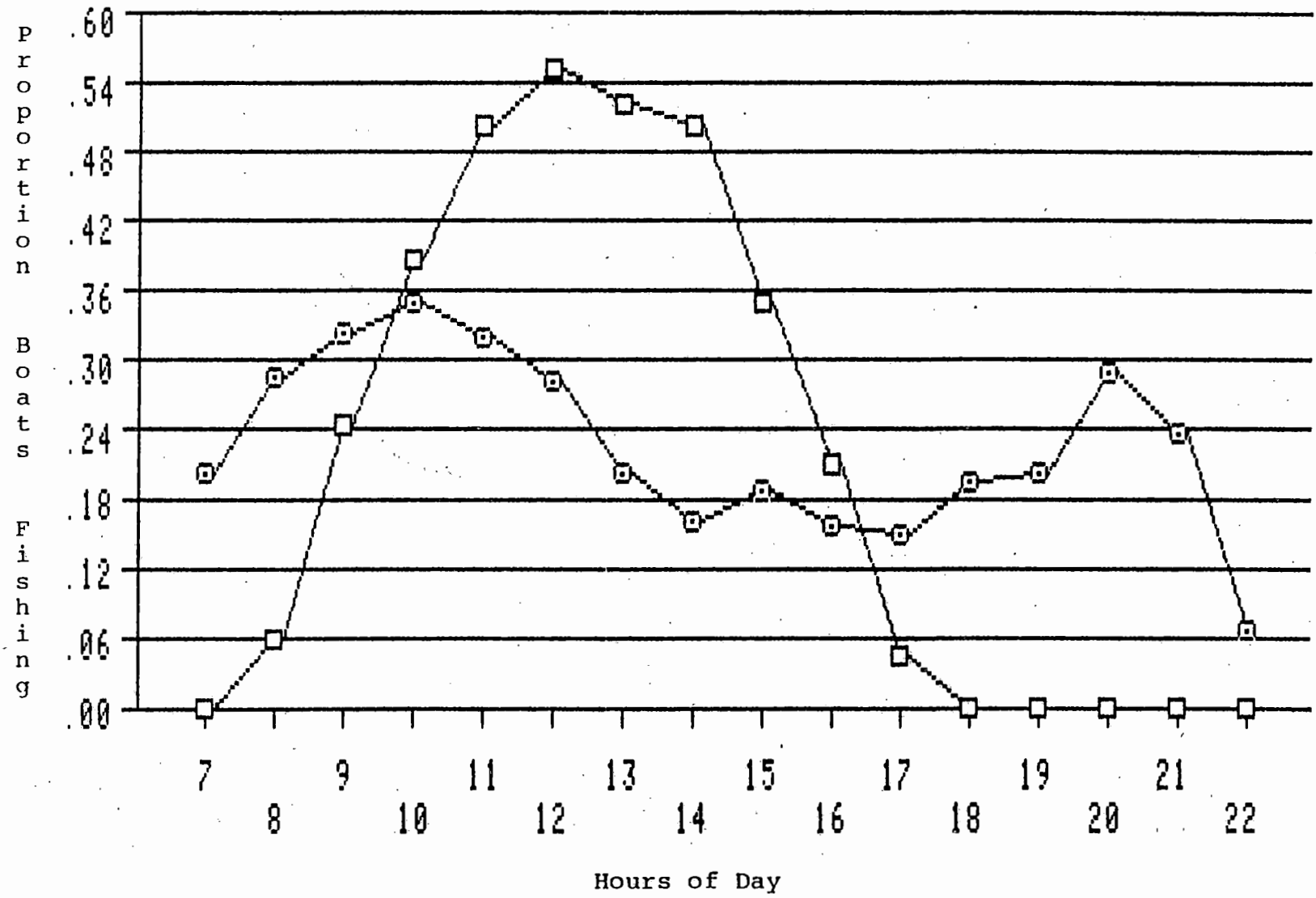
b Data pooled for Statistical Areas 15 and 16 and months January, February and March

c Data pooled for March and April

NA not applicable

**Standard error of estimate in brackets

FIGURE 3: TIME OF FISHING PROFILES FOR JULY AND JANUARY WEEKDAYS, SAANICH INLET



6-10

—□ January
 -□ July

Source: Appendix I.



TABLE 10 : DISTRIBUTION OF SALMONID CATCH FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, ALL REGIONS.

Month	No. of Interviews (Boat Trips)	PERCENT DISTRIBUTION OF NO. SALMONIDS IN CREEL													% of Boat Trips (1) With Limit of Salmonids
		0	1	2	3	4	5	6	7	8	9	10	11	12+	
July 1980	12,517	49.6	19.0	11.1	7.1	5.0	2.3	1.9	1.3	1.7	.2	.2	.1	.5	2.4
August 1980	10,199	55.5	20.4	10.4	5.6	3.7	1.4	1.1	.6	.8	.1	.1	.1	.2	1.5
September 1980	3,337	54.2	21.3	10.6	5.8	3.4	2.0	1.1	.5	.6	.1	.1	-	.3	1.3
October 1980	2,129	57.6	19.1	10.1	5.2	3.6	1.5	1.0	.6	.9	.1	.1	.1	.1	2.2
November 1980	533	50.8	18.6	8.8	7.5	6.2	2.8	.9	.2	3.2	-	.6	-	.4	5.8
December 1980	407	42.8	17.2	13.5	10.8	7.9	2.7	1.5	1.2	2.0	.2	.2	-	-	6.4
January 1981	1,123	47.5	16.5	10.9	8.4	7.6	2.5	1.8	1.1	2.9	.1	-	.2	.5	5.9
February 1981	945	52.7	18.6	9.7	8.6	4.1	1.6	1.4	.6	1.9	.1	-	.1	.6	3.8
March 1981	805	60.6	15.4	10.3	4.7	4.7	1.7	.6	.4	1.0	.4	-	.1	.1	3.0
April 1981	733	61.6	17.5	10.2	4.8	2.7	1.8	.5	.4	-	-	.1	-	.4	.8
May 1981	3,387	48.6	19.0	11.6	7.5	5.5	2.3	1.9	.6	2.3	.3	.1	-	.3	3.7
June 1981	4,720	49.3	19.2	11.0	6.0	5.6	2.2	1.7	1.4	2.2	.3	.3	.2	.6	3.9
TOTAL	40,835	52.1	19.4	10.8	6.5	4.6	2.0	1.5	.9	1.5	.2	.1	-	.4	2.5

(1) Refers to % of boat trips where the number of Salmonids in creel was equal to or greater than four per person.

FOOTNOTES

1. Estimated variances were calculated using Taylor series approximation methods (i.e., the delta method, [22] p.6. See Appendix K.
2. Confidence interval estimation procedures assume a normal distribution as the sampling distribution for each estimator. Empirical studies of the sampling distribution of ratio estimators, upon which our procedure depends, indicate that in practice the normal approximation performs well, [10], [15].
3. Weighted by the inverse of the sampling intensity realized (see Equation (3)).
4. One can compare temperature and precipitation during the 12 study months to long-term averages (see Appendix E).

7.0 LIMITATIONS

As with most survey efforts, the limitations or errors associated with the salmon catch and effort estimates produced in this study can be broadly categorized into sampling and non-sampling errors. Sampling errors are discussed in detail in Appendix K and are reported in Chapter 6. In this section we concentrate on identifying non-sampling errors associated with the surveys and, where possible, indicate the likely direction of bias or error arising therefrom.

Figure 4 is a schematic representation of error classification for the two survey instruments -- the creel survey and the overflight survey. The intent is not to be exhaustive of all survey limitations, but to highlight those limitations which impinge to the greatest extent on the accuracy of the estimates produced. For each survey, four broad non-sampling error classifications are identified, namely:

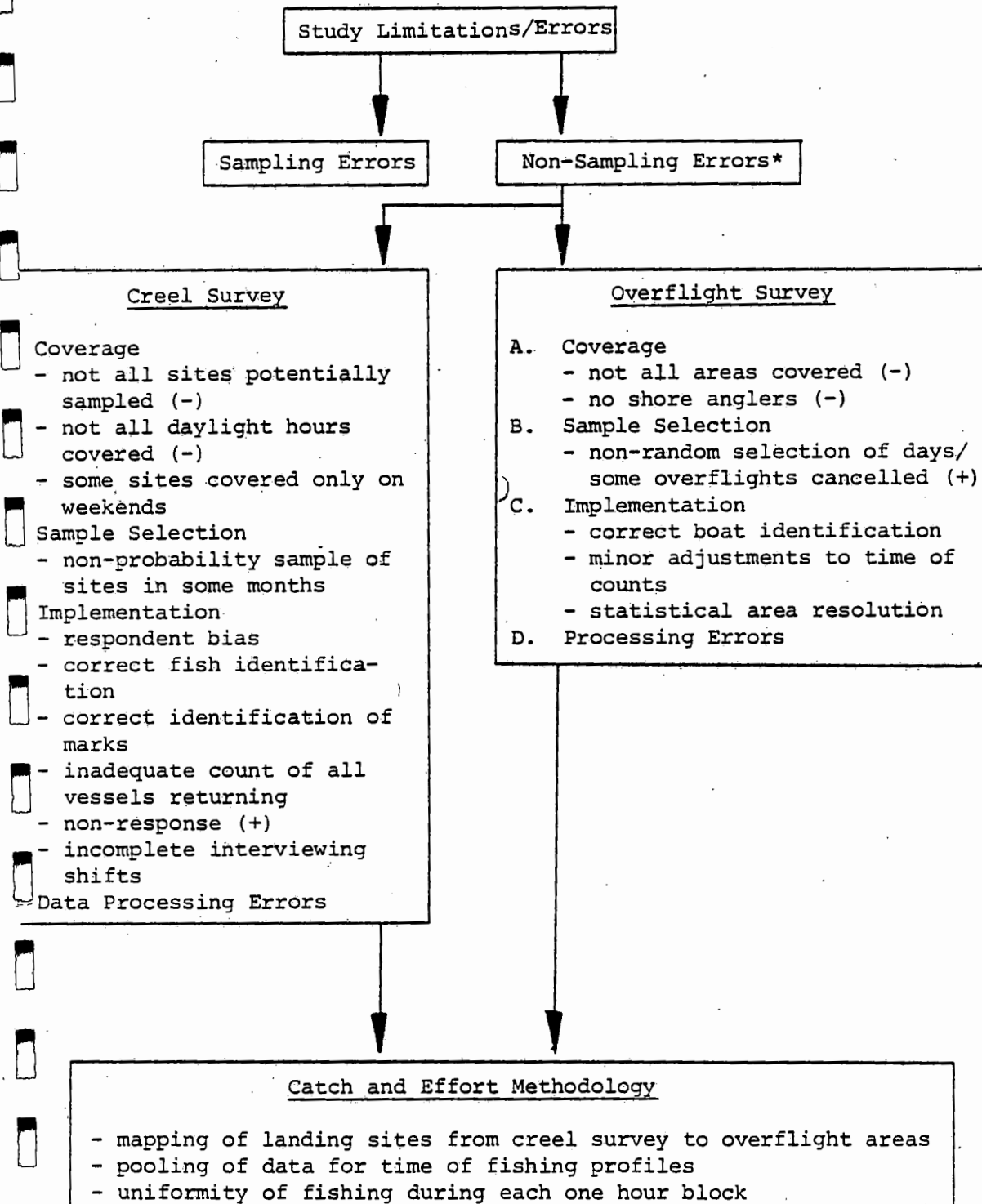
- . survey coverage
- . sample selection
- . implementation
- . data processing errors.

The first two correspond to methodological considerations, whereas the latter two relate to the operational phase of the surveys and the ensuing analysis.

7.1 The Creel Survey

There is a difference between the target population of all landing sites in the Georgia Strait area and the population of landing sites potentially sampled. Some sites were excluded due to expected low boat traffic volumes or due to the inaccessibility of the site to the

FIGURE 4: REPRESENTATION OF STUDY LIMITATIONS



*Probable directions of impact of the non-sampling error on the annual catch and effort estimate are indicated by "+" and "-".

interviewing staff. In particular, all private access points, Stuart Island sites, and the Gulf Island sites were excluded. In addition, in some areas (e.g., Vancouver) charter boat operations were underrepresented in the sampling scheme. It is thought that fishing parties emanating from private wharves and charter operations would have "above average" fishing success for salmon and, therefore, on balance, differences between the sampled and target populations of landing sites would result in the salmon catch estimates generated being slightly underestimated.

Some (small) proportion of sport fishing boats would have landed outside the potential interviewing period or stint type in any given month. We think that the majority of such boats "missed" would be those landing before the morning shift starting time. Accordingly, the estimated proportions of boats fishing by hour would be overestimated (underestimated) for those hours after (before) the morning interviewing shift starting time. Since overflights occurred after this point, this error in proportion of boats fishing during each hour would get translated into a downward bias in the resulting total daily boat estimate.¹

In terms of the actual implementation of the survey, as opposed to the survey methodology, several potential sources of error common to all surveys exist, including:

- . non-response bias
- . respondent error
- . incorrect administering of the questionnaire
- . processing errors.

We feel that such issues do not impact significantly on the results presented due to:

- . the low refusal rate of less than 1% realized and the fact that some parties "over limit" were interviewed.
- . the comprehensive training and monitoring program for field personnel undertaken.
- . the low volume of forms rejected (at the manual or computer editing stage) of less than one-half of one percent.
- . the extensive use of internal computer checks for the key response variables of time of fishing and salmon catch.

However, in some cases salmon identification and the identification of marks by the interviewer may have been in error. For example, high (unexplained) proportions of marks in the coho and chinook catches of Pender Harbour and Powell River fishermen during May and June, which could have been due to an identification problem, resulted in relatively large proportions of marked fish for Statistical Areas 15 and 16 for these months (Tables 8 and 9).

7.2 The Overflight Survey

Only the major regions of Georgia Strait were covered in the overflight survey for each month.² In addition, no count of shore anglers was conducted. Both these factors tend to result in the "snapshot" sport boat counts, and hence the fishing catch and effort estimates, being underestimates of total sport fishing activity.

Counterbalancing this, it was necessary to reschedule approximately 10% of overflights due to inclement weather resulting from poor visibility. However, overflights were

conducted under rainy conditions (see Appendix D). We compared weather on overflight days to average monthly weather conditions (Appendix E). Based on these weather comparisons and on the few number of flights cancelled, we do not think that the annual fishing activity estimates produced are overestimated to any significant degree by the overflight day selection process. However, estimates for certain months (particularly April) may have been influenced to a greater degree by the choice of days flown.

In some areas, fishing statistical boundaries pass through major sport fishing grounds. Consequently, the geographic resolution in "snapshot" counts, and the resulting estimates, may be poor. For example, in summer months the resolution between Statistical Area 28 and 29 estimates is poorer than for other areas due to the concentration of sport boats off Bowen Island and Gower Point.

7.3 Catch and Effort Methodology

A major feature of the methodology for estimating catch and effort is the construction of a mapping or correspondence between areas of landing from the creel survey and areas of fishing from the overflight survey. In general, the actual correspondence of grouped landing sites and fishing grounds is not "one to one" with fishermen from more than one grouped landing site fishing a particular fishing ground and fishermen from a particular grouped landing site fishing more than one ground.

It was noted that certain regions were not covered in the creel survey. Consequently, it was necessary to allocate "related" times of fishing and catch per boat trip parameters to these fishing regions. For example,

characteristics of Campbell River guided operations were applied to the Stuart Island region. This problem of imputation becomes more severe during winter -- a time in which interviewing took place at fewer landing sites than in summer. Consequently, it was necessary to allocate the intensive fishing parameter estimates of a specific site to a broader geographic region. Due to the lack of interviewing in the south Gulf Islands area, it is thought that this problem of imputation is most severe for Statistical Area 18.

7.4 Some General Observations

Estimates corresponding to different Statistical Areas and to different months are of different "quality" with respect to non-sampling errors. This results from the interplay of the following:

- . different geographic characteristics of each Statistical Area
- . the availability of interviewers in different regions
- . different mixes of landing site classes (government and commercial marinas, boat ramps, private access points, charter operations, etc.)
- . different quality in interviewing staff.

Generally, one would expect creel survey data reliability to be poorest during times of major training efforts (July, 1980 and May/June, 1981) due to "start up" problems. Due to the predominance of private access points relative to public or commercial access points in the Pender Harbour region and due to the vast geographic boundaries of Statistical Area 16, one would expect estimates for this area to be the most suspect of those Statistical Areas considered. In contrast, estimates corresponding to Saanich Inlet (Statistical Area 19A) are thought to be the most reliable.

In sum, non-sampling errors do exist. However, the adoption of rigorous statistical procedures and the large scale of the survey effort, as embodied by the 136 overflight trips and the 41 thousand fishing party interviews, ensure that the Georgia Strait annual fishing activity estimates presented do not suffer from significant biases or sampling variability.

FOOTNOTES

1. Daily boat estimate is the average number of boats fishing during a particular hour (from the overflight survey) divided by the proportion of daily boats fishing during that same hour (from the creel survey data).
2. In some cases judgemental estimates of sport boat counts in areas not covered by overflights were made, e.g., the Egmont area in March and April (see Appendix D).

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THE GEORGIA STRAIT SPORT FISHING
CREEL SURVEY
VOLUME II
STATISTICAL APPENDICES

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PREFACE

The results of the Georgia Strait Sport Fishing Creel Survey are reported in five volumes. In Volume I, Main Report, the approach and statistical methodology are outlined, and the sport fishing catch and effort estimates are presented. Additional detail concerning the underlying data base and methodology is documented in Volume II, Supporting Statistical Appendices. In Volume III, Data Processing Documentation, the computer software developed to process and edit the creel survey data is presented. The structure of future creel surveys is addressed in Volume IV, Future Creel Survey Considerations. Finally, in Volume V, Grouped Landing Site Summaries, summary creel survey computer output for each month is presented.

LIST OF APPENDICES

- A: The Creel Survey Questionnaire
- B: 1980/81 Georgia Strait Sport Fishing Creel Survey Surveyors' Manual
- C: Overflight Paths
- D: Overflight Sport Fishing Boat Count
- E: Weather Information for Selected Georgia Strait Reporting Stations
- F: Verification of Overflight Counts
- G: Weighted Estimates of Salmon Catch per Boat Trip
- H: Weighted Daily Fishing Profiles
- I: Catch, Effort and Proportion of Marked Fish Estimation
- J: Vancouver Sun Derby Day Estimates
- K: Variance Estimation
- L: Kept Fish Summaries from the Georgia Strait Creel Survey Raw Data
- M: Released Fish Summaries from Georgia Strait Creel Survey Raw Data
- N: Marked/Unmarked Fish Summaries from Georgia Strait Creel Survey Raw Data
- O: Party Characteristics Summaries from Georgia Strait Creel Survey Raw Data
- P: Fishing Effort Summaries from Georgia Strait Creel Survey Raw Data
- Q: Fishing Method and Tackle Summaries from Georgia Strait Creel Survey Raw Data
- R: Distributions of Salmonid Catch from Georgia Strait Creel Survey Raw Data

APPENDIX A

THE CREEL SURVEY QUESTIONNAIRE

There are four types of questionnaires. Each type has the same sequence of questions on the front face, with a different Georgia Strait sub-region map on the reverse. Following is a copy of the questionnaire with each of the four types of maps. Thereafter, the questionnaire is described on a question by question basis.

Landing Site _____ / _____

Statistical Area _____

Interviewer _____ / _____

Date 80 / _____ Time _____ : _____
year/month/day AM
PM

I. PRESENT BOAT TRIP COMPLETED

1. Vessel Characteristics:

Length: _____	Propulsion: _____	Ownership: _____	Guided: _____
(1) Less than 16'	(1) inboard	(4) sail	(0) Yes
(2) 16'-30'11"	(2) outboard	(5) row	(1) No
(3) 31' and up	(3) in/outboard	(6) other	(1) private

2. Time of Landing _____ : _____ AM Time Block _____
_____ PM

3. Number of Individuals in Party: 1-15 yrs 16+ yrs Total

4. Residences of Party: BC Rest of Canada Other

5. Length of Boat Trip hrs

6. Did your party fish in the Georgia Strait on this trip? Yes No

7. What was the main species at which fishing effort was directed?
(1) salmon (2) groundfish (3) shellfish (4) Other (5) non-specific

8. Times Lines were IN the water (EXCLUDE time not fishing)

AM	PM
(1) before 7:00	(4) 9:00-9:59
(2) 7:00-7:59	(5) 10:00-10:59
(3) 8:00-8:59	(6) 11:00-11:59
(7) 12:00-12:59	(10) 3:00-3:59
(8) 1:00-1:59	(11) 4:00-4:59
(9) 2:00-2:59	(12) 5:00-5:59
	(13) 6:00-6:59
	(14) 7:00-7:59
	(15) 8:00-8:59
	(16) 9:00 plus

9. Average number of lines in water for TOTAL boat party

10. Fishing method: DR TR MO CA PL JI OT 11. Terminal tackle: Bait Lure Other

12. Catch Summary

Total Creel for Trip		1st Stat Area	2nd Stat Area	3rd Stat Ar
<input type="checkbox"/>	GO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	TO	Kept <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	MAP	Released <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Time Fishing		Time <input type="checkbox"/> hrs	<input type="checkbox"/> hrs	<input type="checkbox"/> hr
<input type="checkbox"/> hrs				
M <input type="checkbox"/>	U <input type="checkbox"/>			

13. Cor ID Salmon: Yes No N/A 14. Cor ID Non-Salmon: Yes No N/A

15. Expected number of fishing boat trips for this vessel today (INCLUDING THE ONE JUST COMPLETED)

16. Have you been interviewed previously today? YES NO

VICTORIA MAP

Map 1

A-3

28

29

VANCOUVER

ANAIMO

ADYSMITH

CANADA

USA

17

ACTIVE PASS

18

DUNCAN

19A

SAANICH INLET

19B

VICTORIA

SOOKE

20

SPECIES CODES

- CO - Coho
- CH - Chinook
- SM - Other Salmonid
- RF - Rockfish
- LC - Ling Cod
- DF - Dogfish
- UF - Unidentified/Other Fis
- SF - Shellfish

Coding example:

Fishing for 3 hours, caught 3 Chinook and 1 Ling Cod, released 4 Dogfish.

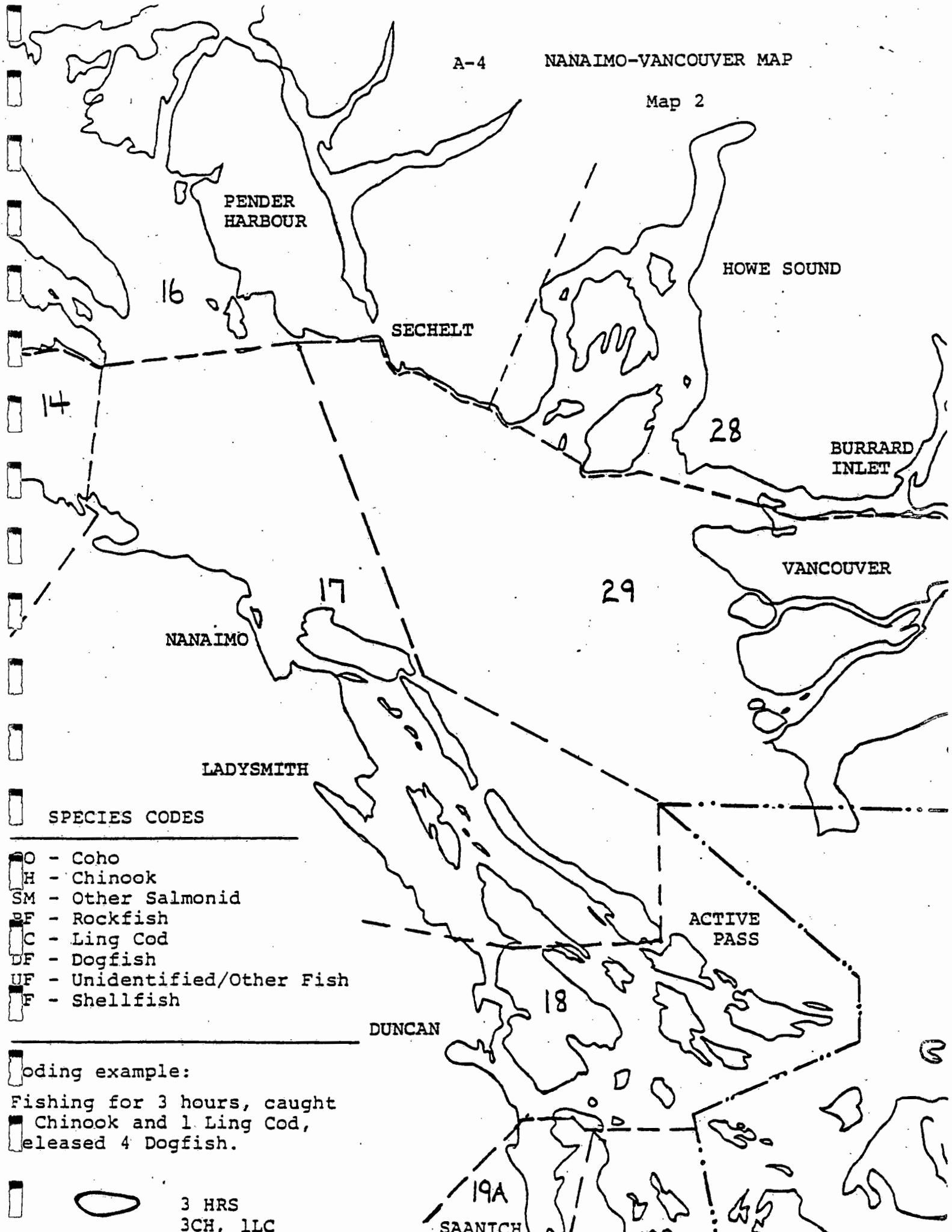


3 HRS
207 110

A-4

NANAIMO-VANCOUVER MAP

Map 2



PENDER HARBOUR

16

SECHELT

HOWE SOUND

28

BURRARD INLET

29

VANCOUVER

NANAIMO

17


LADYSMITH

SPECIES CODES

- O - Coho
- H - Chinook
- SM - Other Salmonid
- RF - Rockfish
- C - Ling Cod
- DF - Dogfish
- UF - Unidentified/Other Fish
- F - Shellfish

Coding example:

Fishing for 3 hours, caught
Chinook and 1 Ling Cod,
released 4 Dogfish.

 3 HRS
 3CH, 1LC

DUNCAN

ACTIVE PASS

18

19A

SAANTICH

PENDER HARBOUR-QUALICUM MAP

A-5


Map 3

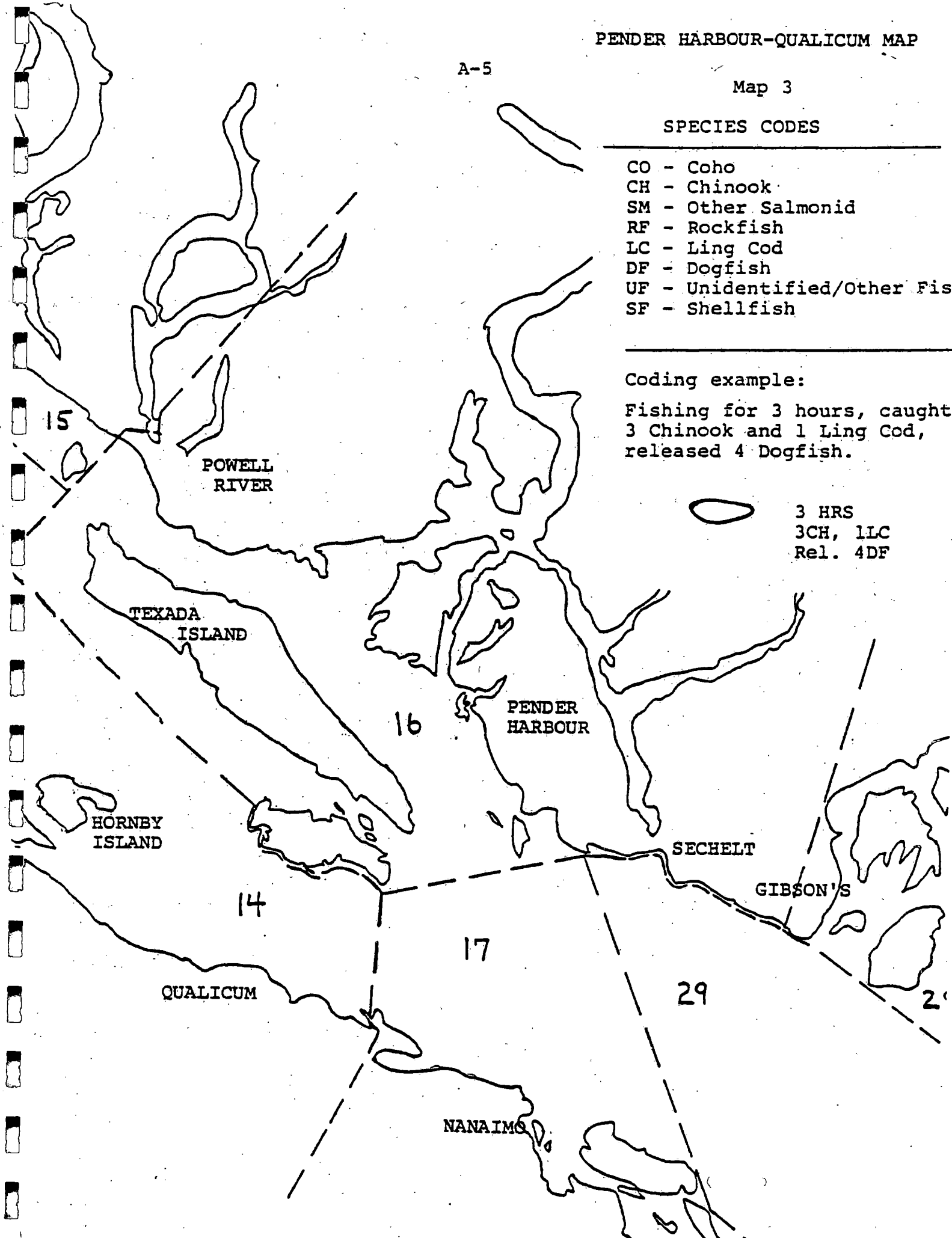
SPECIES CODES

- CO - Coho
- CH - Chinook
- SM - Other Salmonid
- RF - Rockfish
- LC - Ling Cod
- DF - Dogfish
- UF - Unidentified/Other Fis
- SF - Shellfish

Coding example:

Fishing for 3 hours, caught 3 Chinook and 1 Ling Cod, released 4 Dogfish.

 3 HRS
 3CH, 1LC
 Rel. 4DF



CAMPBELL RIVER, FOWELL RIVER
COMOX MAP

A-6

Map 4

QUADRA
ISLAND

CAMPBELL
RIVER

SHELTER
POINT

POWELL
RIVER

COMOX

TEXADA
IS.

HORNBY
ISLAND

SPECIES CODES

- CO - Coho
- CH - Chinook
- SM - Other Salmonid
- RF - Rockfish
- LC - Ling Cod
- DF - Dogfish
- UF - Unidentified/Other Fish
- SF - Shellfish

Coding example:

Fishing for 3 hours, caught
3 Chinook and 1 Ling Cod,
released 4 Dogfish.

3 HRS

CREEL SURVEY QUESTIONNAIRE DESCRIPTION

Administrative Information

Landing Site: The name of the landing site from which the interview is conducted plus its respective ID number.

Statistical Area: The statistical area in which the landing site is located.

Interviewer: Full name plus respective ID number.

Date: Year, month, day in numbers, e.g., June 8, 1980 should be coded as 80/06/08.

Time: The time of interview -- hours and minutes.

Question 1: Vessel Characteristics

Length: Length class of boat in feet.

Propulsion: This question refers to the main mode of transport, e.g., a sailboat with an outboard auxiliary is still a sailboat.

Ownership: Rented or charter -- refers to a paying trip.
Private -- can refer to a loaned or borrowed boat as well, as long as it is not a paying trip.

Guided: For a trip to be guided a payment must be made to the guide.

Question 2: Time of Landing

Time of Landing: Exact time of landing.

Time Block of Landing: Refers to blocks listed in question #8.

Question 3: Number of Individuals in Party

Number of People in the Boating Party (including individuals not fishing and guides): 1-15 yrs
16+ yrs
total -- the sum of the above

Question 4: Residences of Party

BC
Rest of Canada
Other

The total should equal the total in Question #3.

Question 5: Length of Boat Trip

Number of Hours: to the closest half hour.

Question 6: Did Your Party Fish in the Georgia Strait on This Trip?

Any time spent fishing for any type of fish, including shellfish, in the Georgia Strait (and including the portion of Juan de Fuca Strait in Area 20).

Question 7: What Was the Main Species at Which Fishing Effort Was Directed?

Only one of the five categories is to be indicated. If fishing for anything or many species, "non-specific" is marked.

Question 8: Times Lines were in the Water

(Exclude time not fishing.) Time slots in which the boating party spent $\frac{1}{2}$ hour or more time fishing. Does not include the time the fishermen spent not fishing (such as running time).

Question 9: Average Number of Lines in the Water for the Total Boat Party

This does not refer to individuals, but the boating party as a whole. How many lines are over the edge of the boat on average?

Question 10: Fishing Method

DR - Downrigger
TR - Troller
MO - Mooching (Bait only)
CA - Casting
PL - Planer
JI - Jigging (Lure only)
OTHER - refers to methods such as spearfishing or gathering shellfish.

More than one fishing method may be employed.

Question 11: Terminal Tackle

Bait
Lure
Other

Terminal tackle is what is at the end of the line. More than one terminal tackle type can be employed.

Question 12: Catch Summary

Total Creel for Trip: What they have in their possession.

Total Fishing Time: Total hours lines were in the water to the closest half hour.

M _____ U _____ : The number of marked (adipose clipped) chinook and coho, as well as the number not marked.
e.g., M 1 CH, 2 CO U 4 CH, 5 CO

If one did not actually inspect the creel (e.g., fish filleted) question is left blank.

On Back of Every Form

Marked on the map are distinct and separate locations fished during the last fishing trip. With each distinct location, are marked the time fished to the closest $\frac{1}{2}$ hour in decimal points. With each location, the species caught and species released are recorded (e.g., 2 CO kept, 2 CO released).

Species UF and SF are specified, e.g., 7 UF = greycod
6 SF = prawns.

The information is then transferred from the map to the front of the form. The information is grouped by Statistical Area (all locations in one statistical area on the map are reported together on the front).

1st Stat Area: Statistical Area fished.

Kept: All species caught and kept from one statistical area into this block.

Released: All species caught and released from one statistical area into this block. Codes from back of form. No need to specify on front of form UF and SF just number of UF (e.g., 7 UF) and the occurrence of SF (e.g., SF).

Time: Number of hours to the closest half hour spent fishing in that statistical area.

2nd or 3rd Stat Area: Repeat the above for each separate statistical area fished.

Species Codes: CO - Coho
CH - Chinook
SM - Other Salmonid or Unknown Salmonid
RF - Rockfish
LC - Ling Cod
DF - Dogfish
US - Unidentified/Other Fish
SF - Shellfish

Coding example: Fishing for 3 hours, caught 3 chinook and 1 long cod, released 4 dogfish:

3 HRS
3CH, 1LC
Rel. 4DF

Question 13: Cor ID Salmon: (Did Fishermen Properly Identify Salmon Species?)

Filled in by interviewer rather than asked of fisherman.

Yes No N/A

Surveyor uses his/her own discretion on this question. If people are unsure of what they caught -- answer No. N/A - is nonapplicable, i.e., if angler did not have any salmon in the creel or the creel was not inspected.

Question 14: Cor ID Salmon: (Did Fishermen Properly Identify Non-Salmon Species?)

Filled in by interviewer also.

Yes No N/A

Same procedure for this question as for #13, except refers to non-salmon species.

Question 15: Expected Number of Fishing Boat Trips for This Vessel Today (Including One Just Completed)

This is the total number of times the boat is expected to go fishing today.

Question 16: Have You Been Interviewed Previously Today?

Yes No

APPENDIX B

1980/81 GEORGIA STRAIT
SPORT FISHING CREEL SURVEY
SURVEYORS' MANUAL

1980 GEORGIA STRAIT SPORT FISHING CREEL SURVEY
SURVEYORS' MANUAL

INTRODUCTION

The Georgia Strait Creel Survey is being conducted from June 15, 1980 through June 30, 1981 in 11 Administrative Areas covering 10 Statistical Areas. Each surveyor will be working within an Administrative Area under the direction of a Project Leader. This Project Leader in turn reports to DPA Consulting Limited in Vancouver (Suite 130, 601 West Cordova, Vancouver, BC V6B 1G1, 681-7577). To administer the questionnaire and collect data on a consistent basis, a standardized format has been established in the form of this Surveyors' Manual.

The Surveyors' Manual covers the general procedure of sampling in areas of Georgia Strait. Topics which are area-specific will be covered by individual Project Leaders.

SAMPLING PROCEDURE

Sampling of every boat in the Strait of Georgia is not possible because of the magnitude of the sport fishery. A statistically based system of sampling of landing sites has been established to eliminate potential bias that could be introduced from judgemental sampling. For a given landing site and time period selected, one should attempt to interview all boats landing. When not all boat landing can be interviewed (i.e., at busy periods), it is important to select boats for interview on a random basis so that the information collected will be representative of all boats landing in that time period. That is, do not select one boat over another because you think it has fish aboard.

Boat Counts and Weather Conditions

Each interviewer will be responsible for tallying the total number of boats landing at the landing location by time block. Except for peak periods in which all boats landing may not be interviewed, the tally should coincide with the number of interviews attempted. The actual arrival and departure times of the surveyor at the landing site should be noted. Weather and environmental conditions -- tide, sun, rain, wind, and fog -- should be summarized for each 4-hour time block on the tally sheet.

Definition of a Boat Trip

A boat trip is the basic interviewing unit. It represents a completed trip, i.e., the boat has reached its final landing point. That is, refueling and going right out again is not a complete boat trip. It is important that the counts of boats landing coincides with the number of boats that potentially had a chance to be interviewed. For this reason do not interview boats not counted in the boat tally and do not count boats that are just refueling.

In addition, a boat trip refers to the present day portion of the trip. For overnight trips, the catch and fishing time occurring since midnight only should be counted.

Conducting the Survey

In approaching a boater, mention that you are conducting a sport fishing survey for DPA Consulting. You may also mention that the intent of the survey is to provide an accurate count of the number of sport fishing boats and of the sport fishing catch. Ask the boater if he/she would answer a few questions. If at this time, or any subsequent time during the interview, objection to the survey arises, you should withdraw from the interview and go on to the next boat. The incomplete interview will be noted in the appropriate column on the daily tally sheet.

If the boat was not out fishing (i.e., answer NO to question 6), terminate the interview.

When you get to the catch summary, ask the person for the total catch of the boat party and the total time fishing. Then you can ask if the interviewee would mind if you inspect the creel. Thereafter, or perhaps at the same time, you can indicate on the map where the party was fishing and what they caught. Explicitly ask if they released any fish.

At the end of the interview, thank the respondent.

THE SURVEY FORM

The survey form includes a space for identifying information and a list of questions on the front (identical for all Administrative Areas). On the back of the form is one of four maps (illustrating different fishing regions of Georgia Strait). You should ensure that you are using the correct form for your particular area.

Administrative Information

Landing Site: The name of the landing site from which the interview is conducted plus its respective ID number (see Appendix for codes).

Statistical Area: The statistical area in which the landing site is located.

Interviewer: Full name plus respective ID number (see Appendix for codes).

Date: Year, month, day in numbers (include zeros), e.g., June 8, 1980 should be coded as 80/06/08.

B-4

Time: The time of Interview. Enter hours and minutes.

Remember to circle AM or PM.

NOON IS 12:00 AM.

Question #1 - Vessel Characteristics

- Length - Circle the appropriate information.
If the answer is not visually evident, ask the operator the length of the boat.
- Propulsion - This question refers to the main mode of transport, e.g, a sailboat with an outboard auxillary is still a sailboat.
If unsure how to distinguish an inboard from an outboard and in/outboard, consult your project leader.
- Ownership - Rented or charter - refers to a paying trip.
Private - can refer to a loaned or borrowed boat as well, as long as it's not a paying trip.
- Guided - A simple yes or no answer, but a question that must be asked as it is not always evident.

Question #2 - Time of Landing

exact time of landing, not the time of the questionnaire. Use hours and minutes and remember to circle the AM or PM.

Time Block - refer to blocks listed in question #8.
of Landing

Question #3 - Number of Individuals in Party

1-15 yrs - ask if not evident
16 yrs + - ask if not evident
total - the sum of the above

Question #4 - Residences of Party

BC - ask
Rest of Canada - ask
Other - ask

The total should equal the total in Question #3.

Question #5 - Length of Boat Trip

to the closest half hour, i.e., four hours 40 minutes should be marked down as 4.5 hours and four hours 50 minutes should be 5.0 hours.

Question #6 - Did Your Party Fish in the Georgia Strait on This Trip

any time spent fishing for any type of fish, including shellfish, in the Georgia Strait (and including the portion of Juan de Fuca Strait in Area 20) should answer yes.

Question #7 - What was the Main Species at Which Fishing Effort was Directed?

Circle only one.
If they were fishing for anything or many species, mark non-specific (5).

Question #8 - Times Lines were in the Water (exclude time not fishing)

Circle each time slot in which the fishermen spent $\frac{1}{2}$ hour or more time fishing.
Do not include time the fishermen spent not fishing (such as running time or boating time).

Question #9 - Average Number of Lines in the Water for the Total Boat Party

This does not refer to individuals, but the boat as a whole. How many lines are over the edge of the boat on average?

Question #10 - Fishing Method

DR - Downrigger
TR - Trolling
MO - Mooching (Bait only)
CA - Casting
PL - Planer
JI - Jigging (Lure only)
OTHER - refers to methods such as spearfishing or gathering shellfish.

Circle one or more.

Question #11 - Terminal Tackle

Bait Lure Other

Terminal tackle is what is at the end of the line.

Circle one or more.

Question #12 - Catch Summary

Total Creel
for Trip - What they have in their possession.
Use codes as printed on back of survey form.

Total Time
Fishing - (total time lines were in the water)
To the closest half hour (i.e., 3.5 hours).

M _____ U _____ -The number of marked (adipose clipped)
chinook and coho, as well as the number not
marked.

e.g., M 1 CH, 2 CO U 4 CH, 5 CO

Go to Map - Mark on the map distinct and separate locations
fished during the last fishing trip. With
each distinct location, mark the time fished
to the closest $\frac{1}{2}$ hour in decimal points. With
each location, mark down the species caught
and species released, i.e., 2 CO kept,
2 Co released.
Specify what UF and SF are: 7 UF = greycod
6 SF = prawns

After you have marked the fishing locations, catch and
time information on the map go on to questions 13 to 16
so the interview can be completed as quickly as possible.

Later, when you have time, transfer the information from
the map to the front of the form, grouping the information
by Stat area (all locations in one stat area on the map
are to be reported together on the front).

1st Stat Area -Mark down what stat area fished.

Kept - Group all species released from one stat area
into this block.

Released - Group all species released from one stat area
into this block.
Use codes from back of form.
No need to specify on front of form UF and SF
just no. of UF (i.e., 7 UF) and the occurrence
of SF (i.e., SF).

Time - Number of hours to the closest half hour in
decimal points, spent in that stat area.

2nd or 3rd
Stat Area - Repeat the above for separate statistical areas.

Question #12 - continuedSpecies Codes

CO - Coho
 CH - Chinook
 SM - Other Salmonid
 RF - Rockfish
 LC - Ling Cod
 DF - Dogfish
 US - Unidentified/Other Fish
 SF - Shellfish

Coding example:

Fishing for 3 hours, caught 3 Chinook and 1 Ling Cod,
 released 4 Dogfish.

3 HRS
 3CH, 1LC
 Rel. 4DF

Question #13 - Cor ID Salmon: (Did Fishermen Properly Identify Salmon Species?)

(To be filled in
 by interviewer
 rather than asked
 of fisherman.)

Yes No N/A

Surveyor uses his/her own discretion on
 this question.
 If people are unsure of what they caught --
 answer no.
 N/A - is nonapplicable, i.e., if they did
 not have any salmon in the creel.

Question #14 - Cor ID non-Salmon: (Did Fishermen Properly Identify Non-Salmon Species?)

(To be filled in
 by interviewer
 also.)

Yes No N/A

Same procedure for this question as for #13,
 except refers to non-salmon species.

Question #15 - Expected Number of Fishing Boat Trips for This Vessel Today (Including One Just Completed)

This is the total number of times the boat
 is expected to go fishing today.

Question #16 - Have You Been Interviewed Previously Today?

Yes No

SOME SPECIAL PROBLEMS TO KEEP IN MIND

1. Write clearly -- Use pen or pencil, as you wish, but please do not use red.

Some numbers and letters look alike so be especially careful of the following:

1 could be 7 so write it 1

3 could be 5 so write it 3

5 could be 6 so write it 5

4 could be 9 so write it 4

8 could be 9 so write it 8

A could be H so write it A

D could be O so write it D

l could be / so write it L

0 could be O so write it U

2. Write the species codes: Number code, species code, such as 1CO, 4CH, 3LC
3. Circle multiple choice answers clearly. Always circle.
4. Look at the problem form on the following page.
 - (a) Note that the interview time is exactly the time of landing. Try to distinguish these so that we can see from the tally sheet what group of vessels this one belongs to. This is particularly important when a vessel lands just before the hour and is interviewed in the next hour.
 - (b) Questions 3 and 4 relate to each other: the total number of people in the party should equal all the residences. Please use numbers in both questions, even though the information is obvious, our keypunchers are trying to enter a large volume of information and don't have time to check this.

- (c) The biggest problem with length of trip and fishing times is that there is a tendency to enter the minutes or quarter hours. The information should be entered to the nearest half hour -- as a decimal (i.e., 2.5 hours for 2½ hours).
- (d) Fishing time blocks are to be circled when the fisherman has been fishing for one half an hour or more in a block.
- (e) A stat area should appear on the front in only one box; combined information for fishing locations is necessary for checking, for scheduling overflights, and to the biologists who will use this form for location information.
- (f) Please use the species codes at all times on the front of the form.
- (g) Be especially consistent with the creel. If there were coho and/or chinook, check for marked fish and record both the marked and unmarked for both species.
- (h) In Questions 13 and 14, the code N/A means "not applicable." The question is not applicable if these species were not caught.

In general, consider that you are collecting and transmitting information in a precise shorthand. People at this end need to understand exactly what you saw. The shorthand was set up to make the information collection process quick and uniform. It also speeds up our data entry.

Now look at the correct form to see how the problem form should have been entered.

A PROBLEM FORM

Landing Site _____ Statistical Area _____
 Interviewer _____ Date 80 / 6 / 12 Time 9 : 20 AM
 year/month/day

PRESENT BOAT TRIP COMPLETED

Vessel Characteristics:

Length: (S) Less than 16' (1) inboard (4) sail (0) rented or chartered (0) Yes
 (M) 16'-30'11" (2) outboard (5) row (1) No
 (L) 31' and up (3) in/outboard (6) other (0) private

Time of Landing should be before time of interview

Time of Landing 9 : 20 AM Time Block 4
 MISSING AGE Breakdown
 Number of Individuals in Party: 1-15 yrs [] 16+ yrs [] Total 3

Residences of Party: BC [] Rest of Canada [] Other []

Length of Boat Trip 3 1/2 hrs this becomes 3 HRS (to closest 1/2 HR)
 Did your party fish in the Georgia Strait on this trip? Yes No though it is obvious.

What was the main species at which fishing effort was directed?
 (1) salmon (2) groundfish (3) shellfish (4) Other (5) non-specific

Times Lines were IN the water (EXCLUDE time not fishing)

AM		PM			
(1) before 7:00	(4) 9:00-9:59	(7) 12:00-12:59	(10) 3:00-3:59	(14) 7:00-7:59	
(2) 7:00-7:59	(5) 10:00-10:59	(8) 1:00-1:59	(11) 4:00-4:59	(15) 8:00-8:59	
(3) 8:00-8:59	(6) 11:00-11:59	(9) 2:00-2:59	(12) 5:00-5:59	(16) 9:00 plus	
			(13) 6:00-6:59		

could NOT have fished 1/2 HR or more in this block Landing at 9:20am write clearly this could be a 3 or 5

Average number of lines in water for TOTAL boat party 3

Fishing method: DR (TR) (MC) CA PL Other 11. Terminal tackle: (Bait) (Lure) Other

Both Area 17 Locations should be combined!

Catch Summary

	1st Stat Area	2nd Stat Area	3rd Stat Area
Total Creel for Trip	17	17	
GO			
TO	Kept 400	1LC	
MAP	Released 3 rockfish		
Total Time Fishing	Time 1 1/2 hrs	1/2 hrs	hrs

M [] U 4 USE code for COKE + chinook even though obvious PLEASE! USE THE SPECIES CODES.
 Cor ID Salmon: Yes No N/A 14. Cor ID Non-Salmon: Yes No N/A

Expected number of fishing boat trips for this vessel today (INCLUDING THE ONE JUST COMPLETED) 1
 where A line (2nd use)

A GOOD FORM

Landing Site _____ Statistical Area _____

Interviewer _____ Date 80/06/12 Time 9:20 AM
year/month/day

PRESENT BOAT TRIP COMPLETED

1. Vessel Characteristics:

Length:	Propulsion:	Ownership:	Guided:
(S) Less than 16'	(1) inboard	(4) sail	(0) Yes
(M) 16'-30'11"	(2) outboard	(5) row	(1) No
(L) 31' and up	(3) in/outboard	(6) other	(1) private

2. Time of Landing 9:15 AM Time Block 4

3. Number of Individuals in Party: 1-15 yrs 1 16+ yrs 2 Total 3

4. Residences of Party: BC 3 Rest of Canada 0 Other 0

5. Length of Boat Trip 3.0 hrs

6. Did your party fish in the Georgia Strait on this trip? Yes No

7. What was the main species at which fishing effort was directed?

(1) salmon (2) groundfish (3) shellfish (4) Other (5) non-specific

8. Times Lines were IN the water (EXCLUDE time not fishing)

AM		PM	
(1) before 7:00	(4) 9:00-9:59	(7) 12:00-12:59	(10) 3:00-3:59
(2) 7:00-7:59	(5) 10:00-10:59	(8) 1:00-1:59	(11) 4:00-4:59
(3) 8:00-8:59	(6) 11:00-11:59	(9) 2:00-2:59	(12) 5:00-5:59
			(13) 6:00-6:59
			(14) 7:00-7:59
			(15) 8:00-8:59
			(16) 9:00 plus

9. Average number of lines in water for TOTAL boat party 3

10. Fishing method: DR TR MO CA PL Other 11. Terminal tackle: Bait Lure Other

12. Catch Summary

Total Creel for Trip	GO	1st Stat Area	2nd Stat Area	3rd Stat Area	
400, 1LC	}	17			
		Kept	400, 1LC		
		Released	3RF		
Total Time Fishing		MAP	Time	hrs	hrs
2.0 hrs		2.0 hrs			
M 000		U 400			

13. Cor ID Salmon: Yes No N/A 14. Cor ID Non-Salmon: Yes No N/A

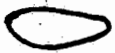
15. Expected number of fishing boat trips for this vessel today (INCLUDING THE ONE JUST COMPLETED) 1

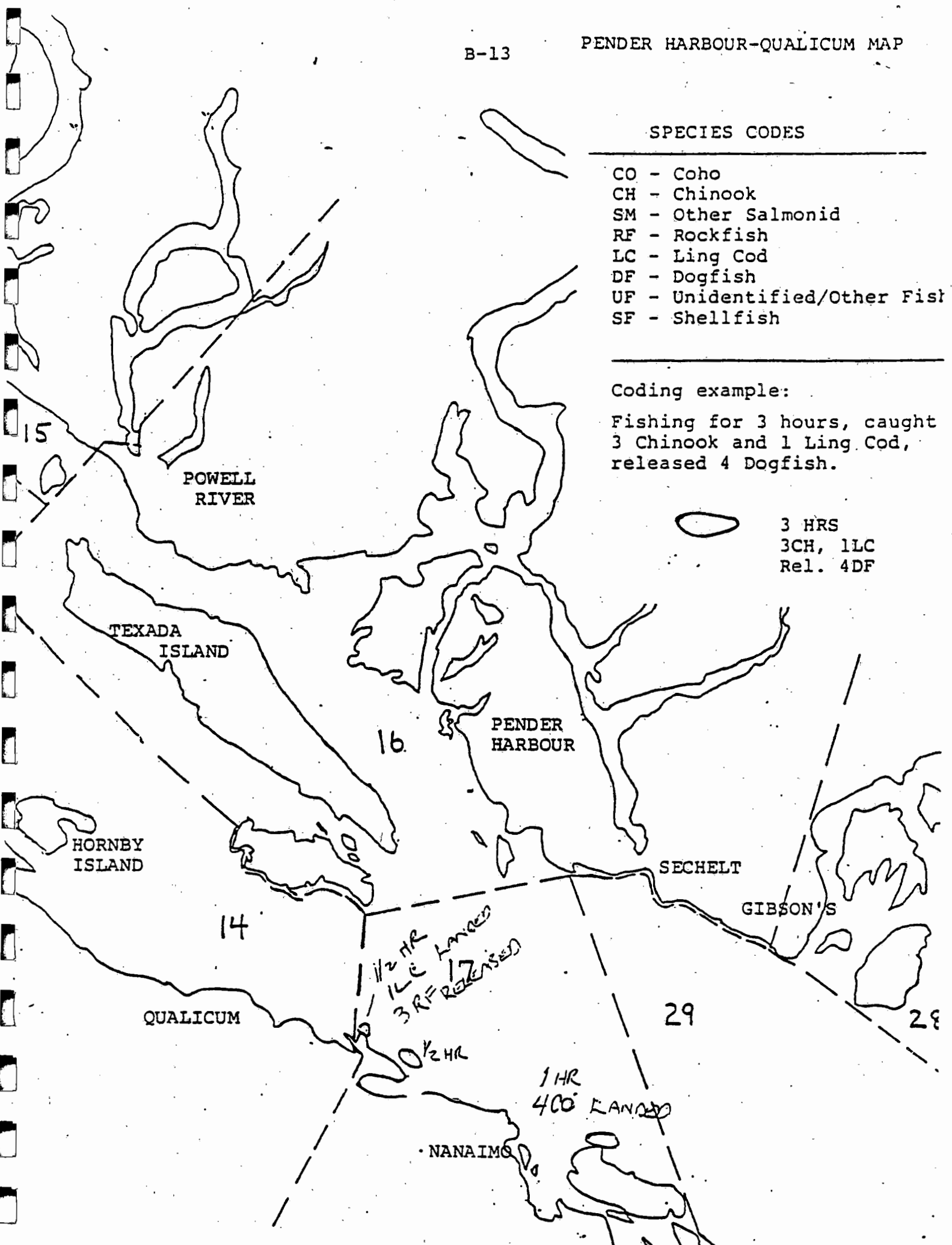
SPECIES CODES

- CO - Coho
- CH - Chinook
- SM - Other Salmonid
- RF - Rockfish
- LC - Ling Cod
- DF - Dogfish
- UF - Unidentified/Other Fish
- SF - Shellfish

Coding example:

Fishing for 3 hours, caught 3 Chinook and 1 Ling Cod, released 4 Dogfish.

 3 HRS
 3CH, 1LC
 Rel. 4DF



TerminologySlangSpecies

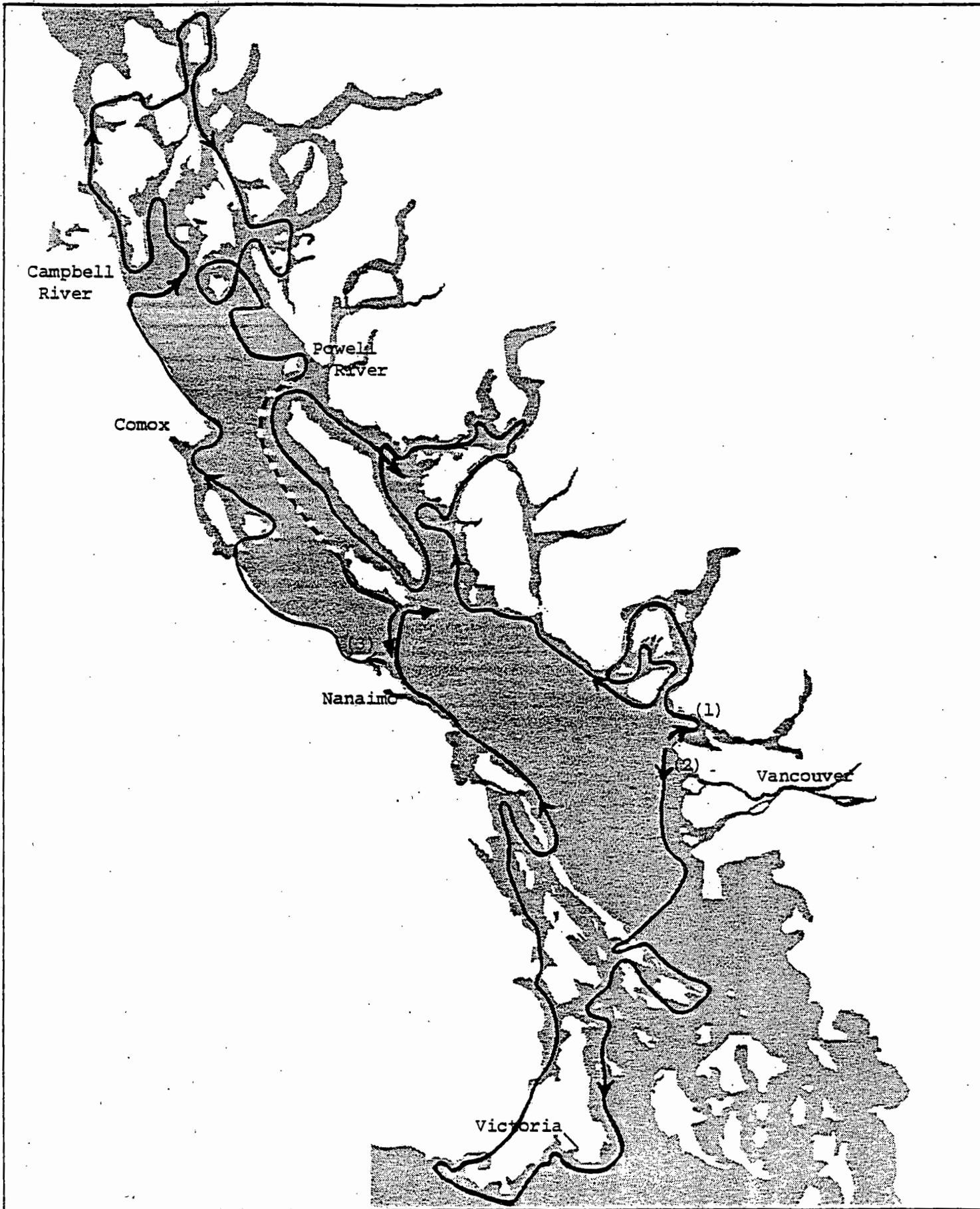
Blueback	coho
Silver	coho
Shaker	coho or chinook
Grilse*	coho or chinook
Blackmouth	chinook
King	chinook
Tyee	chinook
Jack**	coho or chinook
Spring	chinook
Rockcod	rockfish
Red snapper	rockfish
Dog	chum
Humpy	pink
Red salmon	sockeye

*a small salmon of any species

** a precocious (early maturing) male of any salmon species.

APPENDIX C
OVERFLIGHT PATHS

FIGURE C-1: AUGUST 1980 OVERFLIGHT PATHS (3)



--- indicates that counting of sport boats did not occur

FIGURE C-2: DECEMBER 1980 OVERFLIGHT PATHS (2)

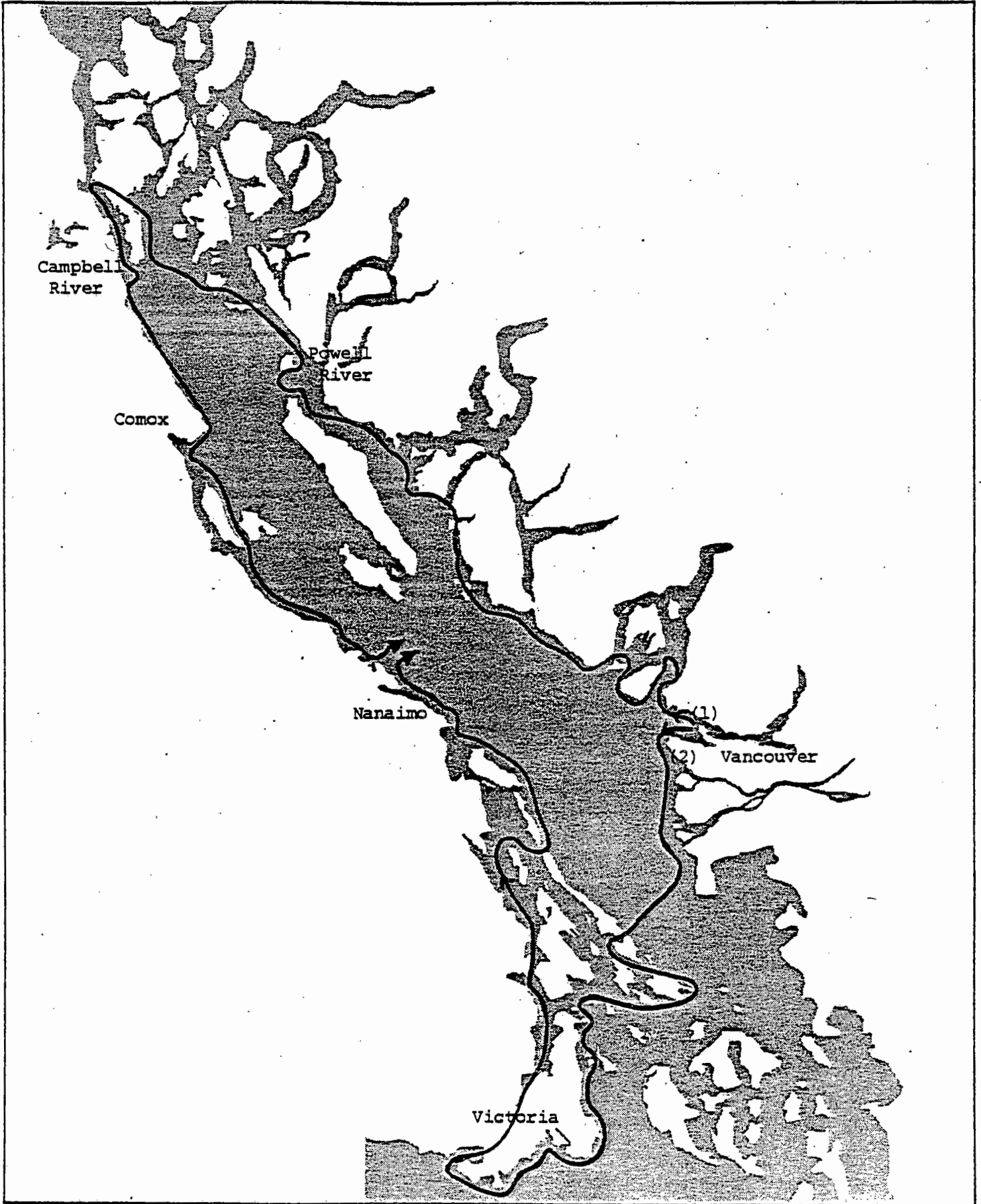
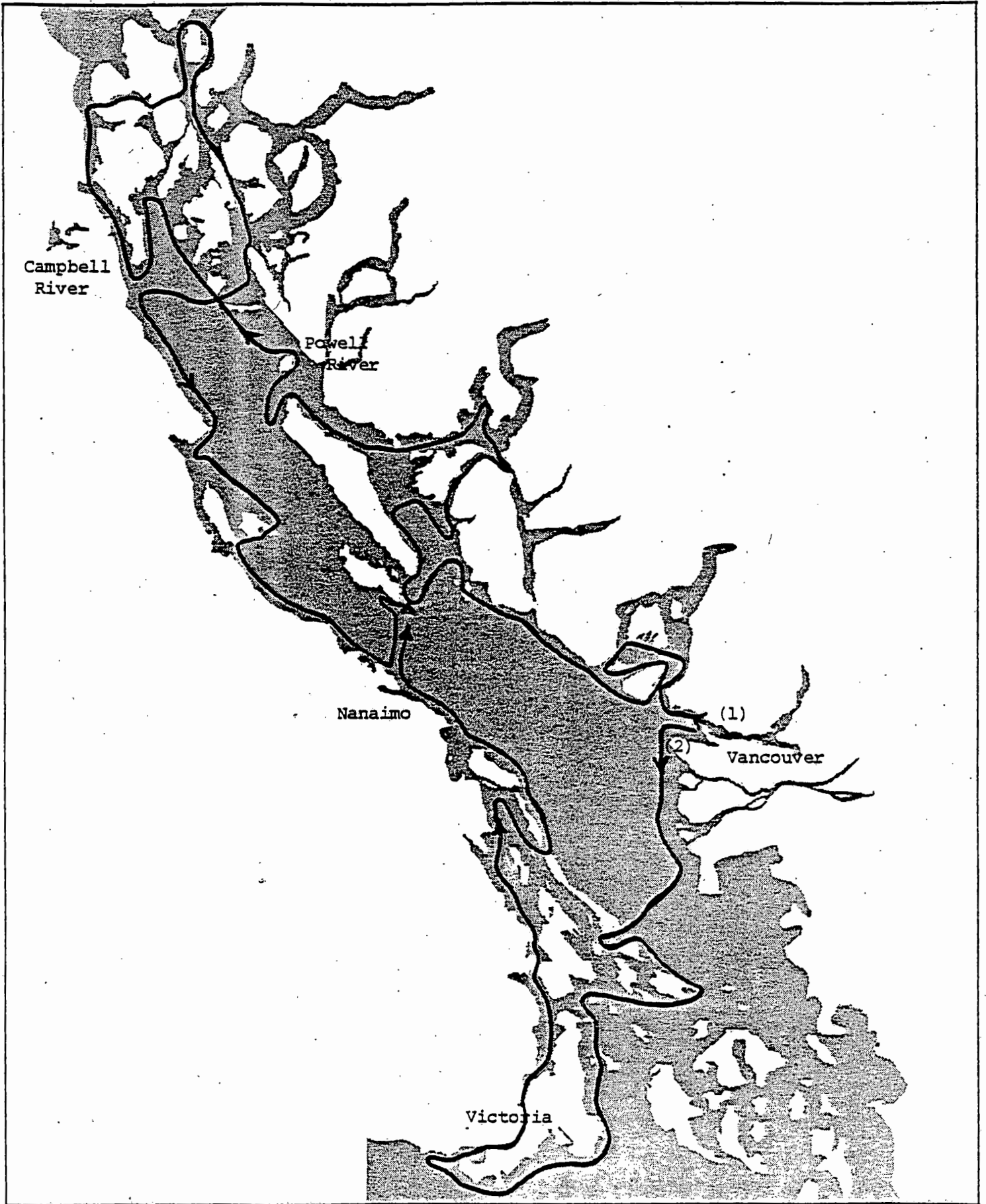


FIGURE C-3: JUNE 1981 OVERFLIGHT PATHS (2)

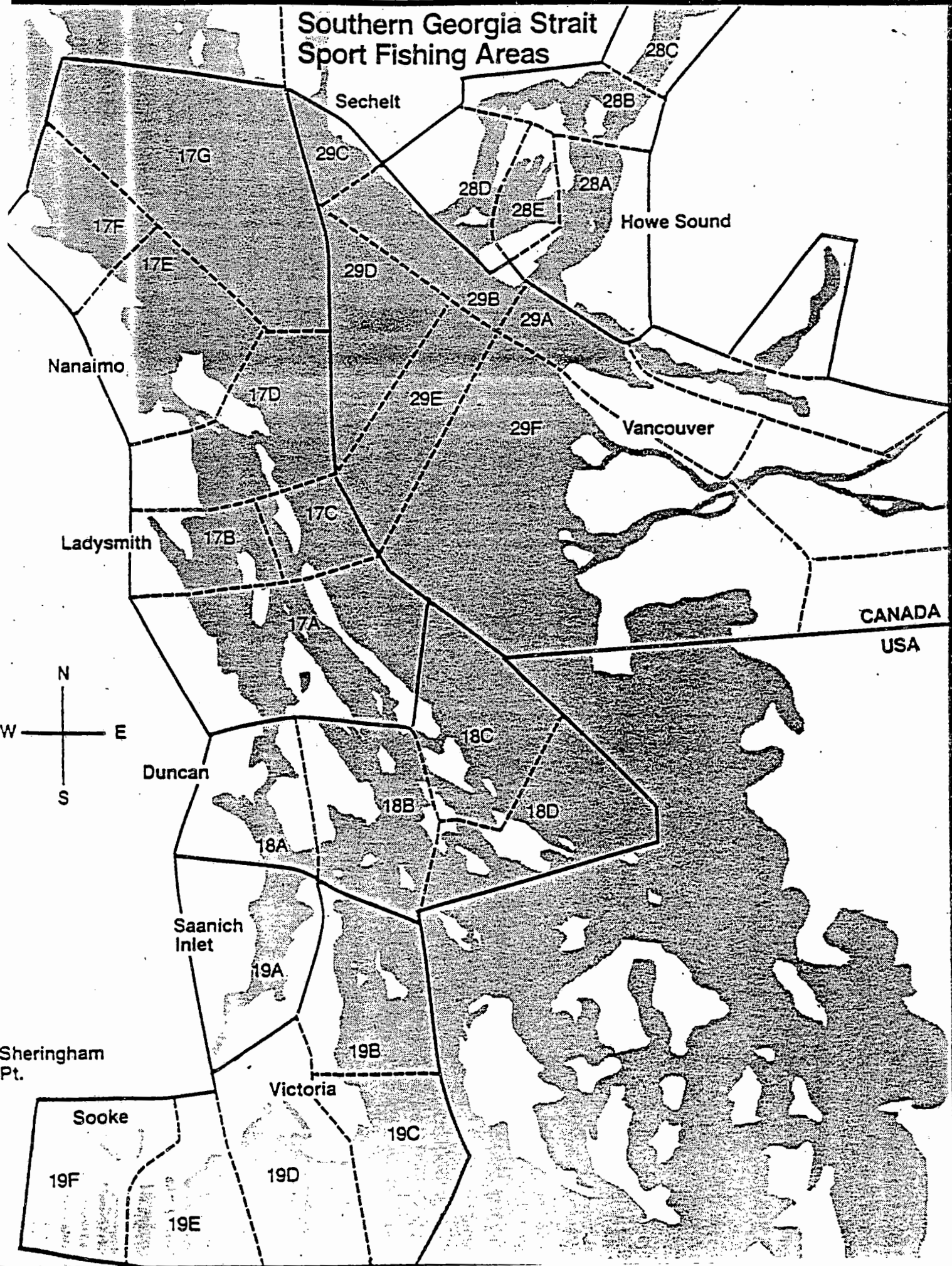


APPENDIX D

OVERFLIGHT SPORT FISHING BOAT COUNTS

Monthly tallys of individual sub-areas are presented and totalled for each Statistical Area. The weather reports from specific weather stations are included for each flight-day. A description of the codes used in the weather reports is included at the back of this appendix.

Southern Georgia Strait Sport Fishing Areas



Northern Georgia Strait Sport Fishing Areas

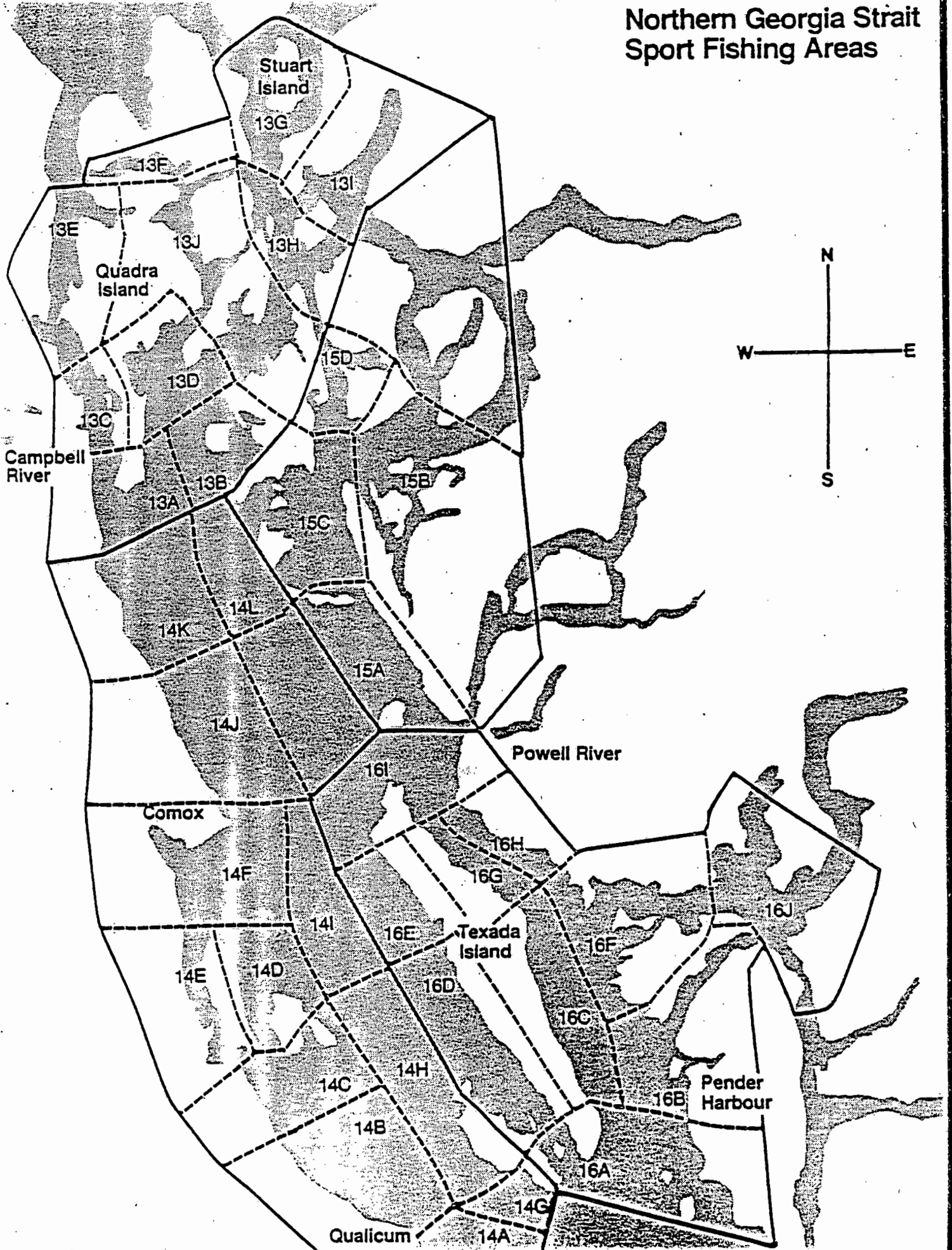


TABLE D-1 : SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 13 AND 14, JULY 1980

SPORT BOAT COUNTS	WEEK DAYS					WEEK ENDS							
	Jul.7	Jul.23	Jul.31	Mean	Time PDT	Jul.5	Jul.12	Jul.13	Jul.19	Jul.27	Aug.2	Mean	Time PDT
	Mon.	Wed.	Thurs.			Sat.	Sat.	Sun.	Sat.	Sun.	Sat.		
Area 13													
A	179	218	266	222	1800-1900	154	239	204	74	225	299	199	0800-0900
B	6	3	NA	5	1800-1900	9	19	10	NA	4	5	10	0800-0900
C	19	149	100	89	1800-1900	28	30	50	10	56	46	37	0800-0900
D	0	3	NA	2	1800-1900	24 ^e	18	38	NA	21	19	24	0800-0900
E	11	20	NA	15	1800-1900	4	2	7	1	25	14	9	0800-0900
F	1	0	NA	1	1800-1900	0	0	3	NA	0	1	1	0900-1000
G	12	20	NA	16	1800-1900	47	52	43	NA	44	42	45	0900-1000
H	1	3	NA	2	1800-1900	2	0	7	NA	3	0	2	0900-1000
I													
J	0	0	NA	0	1800-1900	0	0	0	NA	0	4	1	0900-1000
Total	229	416	412	352		268	360	362	169	378	430	328	

Area 14													
A	21	16	12 ^a	16	1700-1800	50	51	46	0	40	34	37	0800-0900
B	18	29	63 ^a	37	1700-1800	20	23	42	9	35	15	24	0800-0900
C	44	52	59 ^a	52	1700-1800	78	70	126	18	89	79	77	0800-0900
D	19	11	9 ^a	13	1700-1800	6	49	2	0	13	7	13	0800-0900
E	0	0	2 ^a	1	1700-1800	0	0	0	0	0	0	0	0800-0900
F	13	13	26 ^a	17	1800-1900	4	30	29	1	7	2	12	0800-0900
G	12	23	NA	17	1800-1900	26	62	42	NA	25	20	35	0900-1000
H	16	16	NA	16	1800-1900	25	31	23	NA	5	3	17	0900-1000
I													
J	10	50	124 ^a	61	1800-1900	3	10	16	0	2	22	9	0800-0900
K	45	20	54 ^a	40	1800-1900	0	15	18	7	10	0	8	0800-0900
L	8	14	NA	11	1800-1900	24	7	13	0	9	0	9	0800-0900
Total	206	244	394	231		236	348	357	81	235	182	241	

WEATHER

Cape Mudge

	PT CLDY	PT CLDY	PT CLDY	1600	CLDY	CLDY	OVC	OVC	PT CLDY	OVC	1000
Visibility	15+	15+	15+	1600	15+	12	15+	8	15+	15	1000
Precipitation	-	-	-	1600	-	-	-	RAIN	-	LT DRIZ	1000
Wind	SE8	NW4	SE4	1600	NW6	NW4	N6	SE2	NW6	NW4	1000
Sea	RPLD	RPLD	RPLD	1600	RPLD	RPLD	RPLD	RPLD	RPLD	RPLD	1000

Cape Lazo

	PT CLDY	PT CLDY	CLDY	1600	CLDY	PT CLDY	OVC	OVC	CLR	OVC	1000
Visibility	20	20	20	1600	8	15	25	10	20	15	1000
Precipitation	-	-	-	1600	RN SH	-	-	RAIN	-	-	1000
Wind	NES	N5	N5	1600	NW5	N10	NW8	SE15	NW10	CLM	1000
Sea	SMTH	LT CHP	SMTH	1600	RPLD	RPLD	RPLD	CHPY	CHPY	SMTH	1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver

^aOverflight occurred one hour later than time indicated.

^eEstimate

NA - Sub-area not covered due to poor visibility (smoke, fog, etc.)

TABLE D-2 : SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 15 AND 16, JULY 1980

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S								
	Jul.7 Mon.	Jul.23 Wed.	Jul.31 Thurs.	Mean	Time PDT ^a	Jul.5 Sat.	Jul.12 Sat.	Jul.13 Sat.	Jul.19 Sat.	Jul.27 Sun.	Aug.2 Sat.	Mean	Time PDT
Area 15													
A	23	22	NA	22	1900-2000	9 ^e	37	34	NA	11	20	22	0900-1000
B	0 ^e	0	NA	0	1900-2000	3 ^e	3	0	NA	6	4	3	0900-1000
C	10	11	NA	11	1900-2000	19	17	4	NA	2	17	12	0900-1000
D	0	0	NA	0	1900-2000	0	1	1	NA	5	0	2	0900-1000
Total	33	33	NA	33		33	58	39	NA	24	41	39	

Area 16													
A	34	49	71	51	1800-1900	5	NC	118	35	100	80	68	0800-0900
B	27	62	52	47	1800-1900	22	NC	75	40	108	59	61	0800-0900
C	3	9	15	9	1800-1900	1	NC	12	2	9	5	6	0800-0900
D	3	1	11	5	1800-1900	1	NC	5	2	3	1	2	0900-1000
E	9	7	13	10	1800-1900	1	NC	4	13	0	1	4	0900-1000
F	14	12	16	14	1800-1900	2	NC	97	5	28	16	29	0800-0900
G	12	0	4	5	1800-1900	3	NC	3	2	1	4	3	0900-1000
H	0	0	0	0	1800-1900	0	NC	0	2	3	0	1	0900-1000
I	38	12	21	24	1800-1900	6	NC	19	3	24	5	11	0900-1000
J	11 ^e	9	13	11	1800-1900	27 ^e	NC	27 ^e	27 ^e	35	18	27	0800-0900
Total	151	161	216	176		68	NC	360	131	311	189	212	

WEATHER

Grief Point

Sky	CLR	CLR	PT CLDY	1645	OVC	CLDY	OVC	OVC	CLR	OVC	1045
Visibility	15	15	15	1645	4	15	15	12	15	12	1045
Precipitation	-	-	-	1645	RN SH	-	-	VL RAIN	-	-	1045
Wind	NW8	NW7	NW6	1645	N4	E5	SW4	SE15	NW10	NW7	1045
Sea	RPLD	RPLD	RPLD	1645	SMTH	RPLD	RPLD	LT CHP	RPLD	RPLD	1045

Merry Island

Sky	PT CLDY	PT CLDY	CLDY	1600	OVC	CLDY	OVC	OVC	PT CLDY	OVC	1000
Visibility	15+	15+	15+	1600	8	12	15	10	15+	15	1000
Precipitation	-	-	-	1600	LT RAIN	-	-	LT RAIN	-	-	1000
Wind	W10	SE5	SE7	1600	E9	SW4	SW4	SE26	W6	N10	1000
Sea	LT CHP	RPLD	RPLD	1600	LT CHP	RPLD	RPLD	MOD	LT CHP	LT CHP	1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver

^aTime of weather report is 0845 for Grief Point on July 12.

^eEstimate

NA - Sub-area not covered due to fog in Campbell River area.

NC - Sub-area not covered due to termination of wheeled aircraft flight in Howe Sound.

TABLE D-3 : SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 17 AND 18, JULY 1980

SPORT BOAT COUNTS	W E E K D A Y				Time PDT	W E E K E N D S						Mean	Time PDT
	Jul. 7 Mon.	Jul. 23 Wed.	Jul. 31 Thurs.	Mean		Jul. 5 Sat.	Jul. 12 Sat.	Jul. 13 Sun.	Jul. 19 Sat.	Jul. 27 Sun.	Aug. 2 Sat.		
Area 17													
A	1	7	3	4	1800-1900	2	11	13	2	8	8	7	0800-0900
B	5	9	17	10	1800-1900	1	7	13	4	21	3	8	0800-0900
C	23	18	29	24	1800-1900	27	59	94	43	51	45	53	0800-0900
D	8	15	16	13	1800-1900	7	24	32	8	25	30	21	0900-1000
E	33	61	65	53	1800-1900	115	81	104	8	1	24	56	0900-1000
F	31	57	95	61	1800-1900	63	91	89	4	25	18	49	0900-1000
G	12	16	27	18	1800-1900	46 ^e	72	94	0	47	17	46	0900-1000
Total	113	183	252	133		261	345	439	69	178	145	240	
Area 18													
A	16	34	32	27	1800-1900	25	26	33	27	36	37	30	0800-0900
B	32	9	8	16	1700-1800	8	0	15	1	18	12	9	0700-0800
C	22	35	38	32	1700-1800	16	49	53	24	72	35	42	0700-0800
D	28 ^e	28	28	28	1700-1800	39 ^e	45	61	35	26	26	39	0700-0800
Total	98	106	106	103		88	120	162	87	152	110	120	
WEATHER													
Entrance													
Sky	PT CLDY	PT CLDY	PT CLDY		1600	OVC	PT CLDY	OVC	OVC	CLR	OVC		1000
Visibility	15	15	10		1600	6-8	6-8	10	3	15	15		1000
Precipitation	-	-	-		1600	-	-	-	LT RAIN	-	-		1000
Wind	NNW10	SE6	E10		1600	SE4	NW6	NNE6	ESE16	NW22	NW10		1000
Sea	CHPY	RPLD	CHPY		1600	RPLD	RPLD	RPLD	MOD	MOD	CHPY		1000
East Point													
Sky	PT CLDY	PT CLDY	PT CLDY		1600	CLDY	CLDY	CLDY	OVC	PT CLDY	OVC		1000
Visibility	15	15	15		1600	15	10	15	3-5	15	15		1000
Precipitation	-	-	-		1600	-	-	-	LT RAIN	-	-		1000
Wind	NW4	SE8	S10		1600	S4	SW2	SW9	S16	N5	S9		1000
Sea	RPLD	RPLD	RPLD		1600	RPLD	RPLD	LT CHPY	CHPY	RPLD	RPLD		1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^eEstimate.

TABLE D-4 : SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 19A AND 19B+, JULY 1980

SPORT BOAT COUNTS	W E E K D A Y				W E E K E N D S								
	Jul. 7 Mon.	Jul. 23 Wed.	Jul. 31 Thurs.	Mean	Time PDT	Jul. 5 Sat.	Jul. 12 Sat.	Jul. 13 Sun.	Jul. 19 Sat.	Jul. 27 Sun.	Aug. 2 Sat.	Mean	Time PDT
<u>Area 19A</u>	27	44	45	39	1800-1900	100	113	191	118	127	85	122	0800-0900
<u>Area 19B+</u>													
B	12	13	6	11	1700-1800	13	25	33	10	18	5	17	0800-0900
C	5	1	1	2	1700-1800	17	23	26	7	12	9	16	0800-0900
D	4	3	6	4	1700-1800	9	30	25	7	30	9	18	0800-0900
E	23	11	10	15	1700-1800	49	NA	84	NA	101	98	85	0800-0900
F	27	1	0	9	1700-1800	190	NA	116	NA	NA	77	128	0800-0900
Total	71	29	23	41		286	291	284	237	289	198	264	

WEATHERRace Rocks

	PT CLDY	PT CLDY	PT CLDY	1600	CLDY	OBSC	CLDY	OBSC	CLR	OVC	1000
Sky	10	10	8	1600	15	0.5/FOG	10	.25/FOG	6	10	1000
Visibility	-	-	-	1600	-	-	-	-	-	-	1000
Precipitation	-	-	-	1600	-	-	-	-	-	-	1000
Wind	W15	W25	W35	1600	W8	W12	SW12	SW12	W12	W16	1000
Sea	RPLD	MOD	MOD	1600	RPLD	CHPY	CHPY	LT CHPY	CHPY	CHPY	1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

NA- Sub-area not covered due to fog.

TABLE D-5 : SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 28 AND 29, JULY 1980

SPORT BOAT COUNTS	W E E K D A Y S					W E E K E N D S							
	Jul. 7 Mon.	Jul. 23 Wed.	Jul. 31 Thurs.	Mean	Time PDT	Jul. 5 Sat.	Jul. 12 Sat.	Jul. 13 Sun.	Jul. 19 Sat.	Jul. 27 Sun.	Aug. 2 Sat.	Mean	Time PDT
Area 28													
A	9	28	39	25	1700-1800	12	NC	32	51	DERBY	67	41	0700-0800
B	2	1	4	2	1700-1800	5	NC	2	0	DERBY	8	4	0700-0800
C													
D	11	18	6	12	1700-1800	21	NC	30	28	DERBY	6	21	0800-0900
E	11	1	6	6	1700-1800	20	NC	6	9	DERBY	10	11	0800-0900
Total	33	48	55	45		58	NC	70	88	DERBY	91	77	

Area 29													
A	0	6	6	4	1700-1800	0	NC	2	5	DERBY	17	6	0700-0800
B	29	59	79	56	1700-1800	114	NC	203	74	DERBY	78	117	0800-0900
C	6	35	16	19	1700-1800	0	NC	22	13	DERBY	4	10	0800-0900
D													
E													
F	2 ^e	2 ^a	2 ^a	2 ^a	1700-1800	2 ^e	NC	2 ^e	2 ^a	DERBY	2 ^e	2 ^e	0700-0800
Total	37	102	103	81		116	NC	229	94	DERBY	101	135	

WEATHER

Pt. Atkinson

Sky	PT CLDY	PT CLDY	PT CLDY	1600	OVC	OVC	CLDY	OVC	PT CLDY	OVC	1000
Visibility	15	15	15	1600	15	8	15	10	10	15	1000
Precipitation	-	-	-	1600	-	-	-	VL RAIN	-	-	1000
Wind	W9	SW3	NW3	1600	E11	W5	E18	E19	E3	W7	1000
Sea	LT CHPY	RPLD	RPLD	1600	LT CHPY	RPLD	LT CHPY	CHPY	RPLD	RPLD	1000

Sandheads

Sky	PT CLDY	PT CLDY	PT CLDY	1600	OVC	OVC	OVC	OVC	PT CLDY	OVC	1000
Visibility	15	15	15	1600	15	12	15	6	12	15	1000
Precipitation	-	-	-	1600	-	-	-	LT RAIN	-	-	1000
Wind	NW12	SE10	SE6	1600	SE12	CLM	SE12	SE22	NW12	E4	1000
Sea	CHPY	LT CHPY	RPLD	1600	CHPY	SMTH	LT CHPY	CHPY	CHPY	RPLD	1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver

^eEstimate.

NC - Sub-area not covered due to use of wheeled aircraft on overcast day.

TABLE D-6 : SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 13 AND 14, AUGUST 1980

SPORT BOAT COUNTS	W E E K D A Y					W E E K E N D S						
	Aug. 8 Fri.	Aug. 20 Wed.	Aug. 25 Mon.	Mean	Time PDT	Aug. 3 Sun.	Aug. 10 Sun.	Aug. 17 Sun.	Aug. 23 Sat.	Aug. 24 Sun.	Mean	Time PDT
Area 13												
A	311	235	256	267	1800-1900	312	272	237	209	113	228	0800-0900
B	0	2	2	1	1800-1900	0	8	0	5	0	3	0800-0900
C	55	101	101	86	1800-1900	97	45	90	188	141	112	0800-0900
D	8	19	32	20	1800-1900	42	40	8	38	19	29	0800-0900
E	64	20	20	35	1800-1900	10	45	13	59	46	35	0800-0900
F	0	0	0	0	1800-1900	1	0	0	0	0	0	0900-1000
G	18	21	11	17	1800-1900	49	62	43	57	64	55	0900-1000
H	5	1	1	2	1800-1900	4	9	1	2	7	5	0900-1000
I	0	1	0	0	1800-1900	0	0	0	0	0	0	0900-1000
J	0	1	0	0	1800-1900	0	0	0	0	0	0	0900-1000
Total	461	400	423	428		515	481	392	558	390	467	
Area 14												
A	3	7	16	9	1700-1800	18	10	13	30	1	14	0800-0900
B	53	34	36	41	1700-1800	52	58	20	69	19	44	0800-0900
C	62	85	4	50	1700-1800	108	99	10	70	27	63	0800-0900
D	18	19	4	14	1700-1800	18	30	0	5	4	11	0800-0900
E	0	0	3	1	1700-1800	4	0	0	0	4	2	0800-0900
F	36	18	55	36	1700-1800	4	23	0	26	13	13	0800-0900
G	5	7	2	5	1900-2000	61	67	1	53	15	39	0900-1000
H	20	3	13	12	1900-2000	6	10	2	17	0	7	0900-1000
I	0	0	0	0	1900-2000	0	0	0	0	0	0	0900-1000
J	30	53	81	54	1800-1900	3	14	13	39	0	14	0800-0900
K	5	18	18	14	1800-1900	65	5	0	12	1	17	0800-0900
L	11	1	1	4	1800-1900	5	1	0	1	0	1	0800-0900
Total	243	245	233	240		344	317	59	322	84	225	
WEATHER												
Cape Mudge												
Sky	PT CLDY	PT CLDY	CLDY	1600		PT CLDY	PT CLDY	OVC	CLDY	CLR	1000	
Visibility	15+	15	15	1600		20	15+	12	10	15	1000	
Precipitation	-	-	-	1600		-	-	-	-	-	1000	
Wind	NW6	NW10	SE12	1600		NW15	NW4	SE2	NW4	NW14	1000	
Sea	RPLD	RPLD	RPLD	1600		CHPY	RPLD	RPLD	RPLD	CHPY	1000	
Cape Lazo												
Sky	PT CLDY	PT CLDY	CLDY	1600		PT CLDY	CLDY	CLDY	CLDY	CLR	1000	
Visibility	20	20	15+	1600		20	20	20	15	20	1000	
Precipitation	-	-	-	1600		-	-	-	-	-	1000	
Wind	NW8	NW10	SE12	1600		NW15	NW10	SE15	NW10	W20	1000	
Sea	RPLD	RPLD	RPLD	1600		CHPY	CHPY	HVY CHP	RPLD	HVY CHP	1000	

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-7 : SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 15 AND 16, AUGUST 1980

SPORT BOAT COUNTS	WEEKDAYS				Time PDT	WEEKENDS					Mean	Time PD
	Aug. 8 Fri	Aug. 20 Wed	Aug. 25 Mon	Mean		Aug. 3 Sun	Aug. 10 Sun	Aug. 17 Sun	Aug. 23 Sat	Aug. 24 Sun		
<u>Area 15</u>												
A	60	20	30	36	1900-2000	8	25	1	34	2	14	0900-100
B	3	6	1	3	1900-2000	2	2	0	3	7	3	0900-100
C	38	9	12	20	1900-2000	11	35	0	11	7	13	0900-100
D	2	0	0	1	1900-2000	1	2	0	2	0	1	0900-100
Total	103	35	43	60		22	64	1	50	16	31	
<u>Area 16</u>												
A	120	93	69	94	1700-1800	130	135	15	48	45	74	0800-090
B	28	31	51	36	1700-1800	119	117	41	40	51	74	0800-090
C	7	1	1	3	1800-1900	21	21	0	8	0	10	0800-090
D	0	11	3	5	1800-1900	4	8	1	8	4	5	0900-100
E	1	4	13	6	1800-1900	1	2	8	1	1	3	0900-100
F	19	24	26	23	1700-1800	36	44	4	21	16	24	0800-090
G	2	1	0	1	1800-1900	4	0	0	1	0	1	0900-100
H	0	0	0	0	1800-1900	0	0	0	0	0	0	0900-100
I	30	10	13	18	1800-1900	8	25	5	8	3	10	0900-100
J	14	7	14	12	1700-1800	33	15	4	3	9	13	0800-090
Total	221	182	190	198		356	367	78	138	129	214	

WEATHER

Grief Point

Sky	CLR	PT CLDY	CLDY	1645	CLDY	CLR	OVC	CLDY	CLR	1045
Visibility	15	12	15	1645	15	15	11	15	15	1045
Precipitation	-	-	-	1645	-	-	-	-	-	1045
Wind	NW6	NW5	S10	1645	NW9	NW3	NE25	NW3	NW5-10	1045
Sea	SMTH	RPLD	LT CHP	1645	RPLD	SMTH	CHPY	SMTH	RPLD	1045

Merry Island

Sky	PT CLDY	PT CLDY	CLDY	1600	CLDY	PT CLDY	OVC	OVC	PT CLDY	1000
Visibility	15+	15+	15	1600	15+	15	15+	12	15	1000
Precipitation	-	-	-	1600	-	-	VL RAIN	-	-	1000
Wind	NW7	NW7	SE9	1600	NW7	W3	SE22	NW2	NW16	1000
Sea	LT CHP	RPLD	LT CHP	1600	LT CHP	RPLD	CHPY	RPLD	CHPY	1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-8: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 17 AND 18, AUGUST 1980

SPORT BOAT COUNTS	WEEK DAYS					WEEK ENDS					Mean	Time PD
	Aug. 8 Fri	Aug. 20 Wed	Aug. 25 Mon	Mean	Time PDT	Aug. 3 Sun	Aug. 10 Sun	Aug. 17 Sun	Aug. 23 Sat	Aug. 24 Sun		
Area 17												
A	9	9	1	6	1800-1900	14	23	5	5	1	10	0800-090
B	16	26	3	15	1800-1900	28	32	2	24	4	18	0800-090
C	18	26	14	20	1800-1900	29	75	43	54	6	41	0800-090
D	24	39	17	27	1800-1900	27	48	10	27	11	25	0900-100
E	21	34	92	49	1800-1900	26	66	22	73	2	38	0900-100
F	39	33	69	47	1800-1900	44	87	51	45	5	46	0900-100
G	10	10	2	7	1800-1900	6	19	0	29	16	14	0900-100
Total	137	177	198	171		174	350	133	257	45	192	
Area 18												
A	25	21	42	29	1800-1900	42	52	73	45	69	56	0800-090
B	13	28	14	18	1700-1800	25	13	15	3	12	14	0800-090
C	34	46	42	41	1700-1800	47	67	36	70	46	53	0700-080
D	41	26	25	31	1700-1800	40	60	23	56	10	38	0700-080
Total	113	121	123	119		154	192	147	174	137	161	
WEATHER												
Entrance												
Sky	PT CLDY	PT CLDY	CLDY		1600	CLDY	PT CLDY	OVC	OVC	PT CLDY		1000
Visibility	15	15	10		1600	15	12	10	10	15		1000
Precipitation	-	-	-		1600	-	-	-	-	-		1000
Wind	NW20	NW16	SE14		1600	NW20	NW8	SE12	NW10	NW12		1000
Sea	MOD	MOD	CHPY		1600	MOD	RPLD	CHPY	CHPY	ROUGH		1000
East Point												
Sky	PT CLDY	PT CLDY	PT CLDY		1600	PT CLDY	PT CLDY	OVC	OVC	PT CLDY		1000
Visibility	15	15	15		1600	15	12	12	12	15		1000
Precipitation	-	-	-		1600	-	-	RAIN	-	-		1000
Wind	NW12	NW6	S3		1600	SW4	NW7	S16	SW10	NW12		1000
Sea	CHPY	CHPY	RPLD		1600	RPLD	RPLD	CHPY	LT CHPY	CHPY		1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-9: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 19A AND 19B+, AUGUST 1980

SPORT BOAT COUNTS	W E E K D A Y S					W E E K E N D S						
	Aug. 8 Fri	Aug. 20 Wed	Aug. 25 Mon	Mean	Time PDT	Aug. 3 Sun	Aug. 10 Sun	Aug. 17 Sun	Aug. 23 Sat	Aug. 24 Sun	Mean	Time PI
Area 19A	47	94	65	69	1800-1900	120	184	155	174	256	178	0800-0900
Area 19B+												
B	6	11	4	7	1700-1800	17	3	3	18	1	8	0800-0900
C	15	7	2	8	1700-1800	25	39	12	23	0	20	0800-0900
D	2	2	0	1	1700-1800	31	39	9	23	18	24	0800-0900
E	18	17	0	12	1700-1800	165	92	94	66	122	108	0800-0900
F	22	19	1	14	1700-1800	119	128	29	125	NA	100	0800-0900
Total	63	56	7	42		357	301	147	255	241	260	

WEATHER

Race Rocks

Sky	PT CLDY	PT CLDY	OBSC	1600	PT CLDY	CLR	OVC	OBSC	OBSC	1000
Visibility	15	8	O/FOG	1600	10	10	8	4/FOG	O/FOG	1000
Precipitation	-	-	-	1600	-	-	LT RN SH	-	-	1000
Wind	W18	W15	W20	1600	SW10	CLM	SW6	SW10	W12	1000
Sea	CHPY	CHPY	CHPY	1600	LT CHP	RPLD	RPLD	LT CHP	CHPY	1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

NA - Sub area not covered due to fog.

TABLE D-10: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 28 AND 29, AUGUST 1980

SPORT BOAT COUNTS	WEEKDAYS					WEEKENDS						
	Aug. 8 Fri	Aug. 20 Wed	Aug. 25 Mon	Mean	Time PDT	Aug. 3 Sun	Aug. 10 Sun	Aug. 17 Sun	Aug. 23 Sat	Aug. 24 Sun	Mean	Time PDT
Area 28												
A	45	53	79	59	1700-1800	149	217 ^a	120	292	182	192	0700-0800
B	4	2	4	3	1700-1800	1	4 ^a	0	1	5	2	0700-0800
C												
D	13	6	11	10	1700-1800	21	61 ^a	35	35	38	38	0700-0800
E	3	3	13	7	1700-1800	11	7 ^a	15	1	8	9	0700-0800
Total	65	64	107	79		182	289	170	329	233	241	
Area 29												
A	5	4	5	5	1700-1800	11	65 ^a	12	35	32	31	0700-0800
B	20	32	71	41	1700-1800	154	172 ^a	65	156	93	128	0700-0800
C	13	34	23	23	1700-1800	20	45	13	20	8	21	0800-0900
D												
E												
F	8 ^e	11	5	8	1700-1800	2 ^e	2 ^e	1	5	0	2	0700-0800
Total	46	81	104	77		187	284	91	216	133	182	
WEATHER												
Pt. Atkinson												
Sky	PT CLDY	PT CLDY	CLDY		1600	OVC	PT CLDY	OVC	CLDY	CLDY		
Visibility	15	15	15		1600	15	12	5	12	15		1000
Precipitation	-	-	-		1600	-	-	RAIN	-	-		1000
Wind	W4	SW7	W3		1600	E5	NW7	E16	SW10	W5		1000
Sea	RPLD	LT CHP	RPLD		1600	RPLD	RPLD	CHPY	LT CHP	LT CHP		1000
Sandheads												
Sky	PT CLDY	PT CLDY	CLDY		1600	CLDY	PT CLDY	OVC	CLDY	CLDY		1000
Visibility	20	15	15		1600	15	12	12	15	15		1000
Precipitation	-	-	-		1600	-	-	-	-	-		1000
Wind	NW12	NW10	SE10		1600	NW14	W2	SE32	SE10	NW20		1000
Sea	LT CHP	LT CHP	LT CHP		1600	MOD	RPLD	MOD	RPLD	MOD		1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^a Overflight occurred one hour later than time indicated.

^e Estimate.

TABLE D-11: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 13 AND 14, SEPTEMBER 1980

SPORT BOAT COUNTS	W E E K D A Y S				Time PDT	W E E K E N D S				Mean	Time PDT
	Sep. 8 Mon	Sep. 17 Wed	Sep. 25 Thu	Mean		Sep. 6 Sat	Sep. 13 Sat	Sep. 14 Sun	Sep. 21 Sun		
Area 13											
A	199	72	145	139	1700-1800	45	112	117	235	127	0900-1000
B	2	1	1	1	1700-1800	1	1	0	0	1	0900-1000
C	62	112	26	67	1700-1800	73	161	226	64	131	0900-1000
D	15	7	11	11	1700-1800	3	14	15	5	9	0900-1000
E	29	12	5	15	1700-1800	23	8	31	11	18	0900-1000
F	0	1	0 ^e	0	1700-1800	0	0	0	0 ^e	0	0900-1000
G	37	4	2 ^e	14	1700-1800	50	44	36	10 ^e	35	0900-1000
H	1	0	0 ^e	1	1700-1800	1	0	0	0 ^e	1	0900-1000
I											
J	0	0	0 ^e	0	1700-1800	0	0	1	0 ^e	0	0900-1000
Total	345	209	190	248		196	340	426	325	322	
Area 14											
A	21	11	9	14	1600-1700	20	11	13	14	14	0800-0900
B	41	31	42	38	1700-1800	44	22	31	66	41	0800-0900
C	87	74	69	77	1700-1800	22	71	114	69	69	0800-0900
D	20	3	8	10	1700-1800	1	0	3	1	1	0800-0900
E	6	0	0	2	1700-1800	0	2	3	0	1	0800-0900
F	64	9	16	30	1700-1800	7	24	13	12	14	0800-0900
G	1	2	4	2	1800-1900	1	1	1	7	3	1000-1100
H	5	1	1	2	1800-1900	12	2	10	2	6	1000-1100
I											
J	73	34	26	44	1700-1800	0	0	27	60	22	0800-0900
K	9	3	2	5	1700-1800	1	7	7	1	4	0800-0900
L	3	2	2 ^e	2	1700-1800	1	1	0	0 ^e	1	0800-0900
Total	330	170	179	226		109	141	222	232	176	
WEATHER											
Cape Mudge											
Sky	CLR	PT CLDY	CLDY	1600	OVC	CLR	CLDY	PT CLDY	1000		
Visibility	15+	15	15+	1600	10	15	15+	15+	1000		
Precipitation	-	-	-	1600	LT RAIN	-	-	-	1000		
Wind	SE6	S6	SE6	1600	SE26	NW10	NW4	CLM	1000		
Sea	RPLD	RPLD	RPLD	1600	CHPY	LT CHPY	RPLD	LT RPLD	1000		
Cape Lazo											
Sky	CLR	CLDY	OVC	1600	OVC	PT CLDY	PT CLDY	CLDY	1000		
Visibility	20	20	20	1600	8	15	20	20	1000		
Precipitation	-	-	-	1600	LT RAIN	-	-	-	1000		
Wind	NW10	SE5	NE5	1600	SE15	NW15	NW15	N5	1000		
Sea	LT CHPY	RPLD	RPLD	1600	MOD	CHPY	CHPY	RPLD	1000		

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^e Estimate.

TABLE D-12: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 15 AND 16, SEPTEMBER 1980

SPORT BOAT COUNTS	W E E K D A Y S					W E E K E N D S					
	Sep. 8 Mon.	Sep. 17 Wed	Sep. 25 Thu	Mean	Time PDT	Sep. 6 Sat	Sep. 13 Sat	Sep. 14 Sun	Sep. 21 Sun	Mean	Time PDT
Area 15											
A	47	24	8 ^e	26	1800-1900	3	17	17	24 ^e	15	0900-1000
B	4	0	0 ^e	1	1800-1900	3	0	1	0 ^e	1	0900-1000
C	6	3	1 ^e	3	1800-1900	2	3	0	4	3	0900-1000
D	1	0	0 ^e	1	1800-1900	2	0	0	3	1	0900-1000
Total	58	27	9	31		10	20	18	31	20	
Area 16											
A	19	25	19	21	1700-1800	7	34	43	45	32	0800-0900
B	51	12	33	32	1700-1800	27	38	37	46	37	0800-0900
C	0	0	0	0	1700-1800	0	6	1	0	2	0800-0900
D	13	5	4	7	1800-1900	0	5	3	10	5	0900-1000
E	6	3	6	5	1800-1900	0	7	0	0	2	0900-1000
F	26	1	8 ^e	11	1700-1800	1	26	14	7 ^e	12	0800-0900
G	6	6	3 ^e	5	1800-1900	0	0	0	0 ^e	0	0900-1000
H	0	0	0 ^e	0	1800-1900	0	1	2	1 ^e	1	0900-1000
I	20	24	9	18	1800-1900	3	11	10	8	8	0900-1000
J	6	2	3	4	1700-1800	0	1	3	1	1	0800-0900
Total	147	78	85	103		38	129	113	118	100	

WEATHER

Grief Point

	PT CLDY	PT CLDY	CLDY	1645	OVC	PT CLDY	PT CLDY	PT CLDY	1045
Sky	15	15	15	1645	6/FOG	12	12	12	1045
Visibility	-	-	-	1645	VL RAIN	-	-	-	1045
Precipitation	NW6	NW5	NW9	1645	SE20-25	NW8	NW7	NW5	1045
Wind	RPLD	RPLD	LT CHP	1645	CHPY	LT CHP	LT CHP	RPLD	1045
Sea									

Merry Island

	CLDY	CLDY	CLDY	1600	OVC	CLDY	PT CLDY	CLDY	1000
Sky	12	6/FOG	15	1600	12	15+	15+	15	1000
Visibility	-	-	-	1600	-	-	-	-	1000
Precipitation	NW8	SE9	NW7	1600	SE26	NW8	N7	NW10	1000
Wind	LT CHP	LT CHP	LT CHP	1600	MOD	LT CHP	LT CHP	LT CHP	1000
Sea									

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^e Estimate.

TABLE D-13: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 17 AND 18, SEPTEMBER 1980

SPORT BOAT COUNTS	W E E K D A Y S				Time PDT	W E E K E N D S				Time PDT	
	Sep. 8 Mon	Sep. 17 Wed	Sep. 25 Thu	Mean		Sep. 6 Sat	Sep. 13 Sat	Sep. 14 Sun	Sep. 21 Sun		Mean
<u>Area 17</u>											
A	9	0	3	4	1800-1900	1	18	16	28	16	0900-1000
B	0	2	3	2	1800-1900	0	11	5	3	5	0900-1000
C	18	0	0	6	1800-1900	12	2	29	21	16	0900-1000
D	4	5	3	4	1800-1900	0	8	2	15	6	0900-1000
E	23	6	57	29	1800-1900	11	0	6	71	22	0900-1000
F	12	23	19	18	1800-1900	1	1	12	34	12	0900-1000
G	3	5	2	3	1800-1900	7	11	12	4	8	0900-1000
Total	69	41	87	66		32	51	82	176	85	
<u>Area 18</u>											
A	23	22	17	21	1800-1900	20	34	36	52	36	0900-1000
B	0	0	8	2	1700-1800	0	12	27	21	15	0800-0900
C	3	2	10	5	1700-1800	25	40	20	14	25	0800-0900
D	1	7	1	3	1700-1800	15	18	25	35	23	0800-0900
Total	27	31	36	31		60	104	108	122	99	
<u>WEATHER</u>											
<u>Entrance</u>											
Sky	CLDY	OBSC	CLDY		1600	CLDY	PT CLDY	CLDY	CLDY		1000
Visibility	12	1-3/FOG	10		1600	10	12	15	15		1000
Precipitation	-	-	-		1600	-	-	-	-		1000
Wind	NW14	SE8	NW14		1600	SE26	NW26	NW24	NW12		1000
Sea	CHPY	CHPY	CHPY		1600	MOD	MOD	MOD	CHPY		1000
<u>East Point</u>											
Sky	CLDY	OVC	CLDY		1600	OVC	PT CLDY	PT CLDY	OVC		1000
Visibility	15	8	15		1600	8	15	15	15		1000
Precipitation	-	-	-		1600	-	-	-	-		1000
Wind	NW4	SW8	NW10G		1600	SW9	NW13	NW10+	SW7		1000
Sea	CHPY	LT CHP	CHPY		1600	LT CHP	MOD	CHPY	RPLD		1000

SOURCE: Overflight records and Marine Weather Report, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-14: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 19A AND 19B+, SEPTEMBER 1980

SPORT BOAT COUNTS	W E E K D A Y S					W E E K E N D S					
	Sep. 8 Mon	Sep. 17 Wed	Sep. 25 Thu	Mean	Time PDT	Sep. 6 Sat	Sep. 13 Sat	Sep. 14 Sun	Sep. 21 Sun	Mean	Time PDT
Area 19A	79	13	66	53	1800-1900	143	186	200	201	183	0900-1000
Area 19B+											
B	3	1	11	5	1700-1800	NA	12	9	13	11	0800-0900
C	6	5	8	6	1700-1800	NA	22	33	39	31	0800-0900
D	10	3	10	8	1700-1800	NA	83	54	30	56	0800-0900
E	38	10	37	28	1700-1800	NA	101	202	200	168	0800-0900
F	7	7	5	7	1700-1800	NA	44	106	118	89	0800-0900
Total	64	26	71	54		NA	262	404	400	355	

WEATHER

Race Rocks

Sky	PT CLDY	CLDY	CLDY	1600	OVC	PT CLDY	CLR	CLDY	1000
Visibility	10	10	10	1600	1/FOG	6	15	10	1000
Precipitation	-	-	-	1600	-	-	-	-	1000
Wind	S10	NE5	SE10	1600	NE10	W10	W10	W14	1000
Sea	CHPY	RPLD	CHPY	1600	LT CHP	LT CHP	RPLD	CHPY	1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

NA - Sub areas not covered due to fog.

TABLE D-15: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 28 AND 29, SEPTEMBER 1980

SPORT BOAT COUNTS	W E E K D A Y S					W E E K E N D S					Time PDT
	Sep. 8 Mon	Sep. 17 Wed	Sep. 25 Thu	Mean		Sep. 6 Sat	Sep. 13 Sat	Sep. 14 Sun	Sep. 21 Sun	Mean	
Area 28											
A	82	65	44 ^e	64	1600-1700	85	175	241	106 ^e	152	0800-0900
B	0	0	0 ^e	0	1600-1700	1	1	0	0 ^e	0	0800-0900
C											
D	10	16	8	11	1700-1800	37	46	53	35	43	0800-0900
E	0	1	2	1	1700-1800	1	0	4	7	3	0800-0900
Total	92	82	54	76		124	222	298	148	198	
Area 29											
A	7	5	15	9	1600-1700	19	5	52	50	31	0700-0800
B	11	4	10	8	1700-1800	27	7	78	58	43	0800-0900
C	7	6	8	7	1700-1800	0	23	12	9	11	0800-0900
D											
E											
F	1	0	2	1	1700-1800	34	3	15	29	20	0800-0900
Total	26	15	35	25		80	38	157	146	105	
WEATHER											
Pt. Atkinson											
Sky	CLDY	CLDY	OVC		1600	CLDY	PT CLDY	PT CLDY	CLDY		1000
Visibility	15	5	15		1600	14	10	15	15		1000
Precipitation		F			1600						1000
Wind	W7	SE9	W2		1600	E14	NW4	E4	E3		1000
Sea	LT CHP	LT CHP	LT CHP		1600	LT CHP	RPLD	RPLD	RPLD		1000
Sandheads											
Sky	CLDY	OVC	CLDY		1600	OVC	PT CLDY	PT CLDY	CLDY		1000
Visibility	15	8	15		1600	12	15	20	15		1000
Precipitation	-	-	-		1600	-	-	-	-		1000
Wind	NW20	E8	NW16		1600	E14	NW26	NW18	W6		1000
Sea	MOD	LT CHP	LT CHP		1600	LT CHP	MOD	MOD	LT CHP		1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^e Estimate.

TABLE D-16: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 13 AND 14, OCTOBER 1980

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Oct. 8 Wed	Oct. 23 Thu	Mean	Time PDT	Oct. 11 Sat	Oct. 26 Sun	Mean	Time PDT
<u>Area 13</u>								
A	13	0	6	1000-1100	33	6	19	0900-1000
B	0	0	0	1000-1100	0	0	0	0900-1000
C	4	0	2	1000-1100	15	5	10	0900-1000
D	0	0	0	1000-1100	1	0	1	0900-1000
E	6	1	4	1000-1100	9	0	5	0900-1000
F								
G								
H								
I								
J								
Total	<u>23</u>	<u>1</u>	<u>12</u>		<u>58</u>	<u>11</u>	<u>35</u>	
<u>Area 14</u>								
A	10	1	5	0900-1000	13	7	10	0900-1000
B	20	2	11	0900-1000	32	15	23	0900-1000
C	19	1	10	0900-1000	39	3	21	0900-1000
D	1	0	1	0900-1000	0	19	10	0900-1000
E	0	0	0	0900-1000	0	0	0	0900-1000
F	1	4	2	0900-1000	3	1	2	0900-1000
G	0	0	0	1100-1200	0	0	0	1100-1200
H								
I								
J	0	0	0	0900-1000	5	1	3	0900-1000
K	1	0	1	0900-1000	1	0	1	0900-1000
Total	<u>52</u>	<u>8</u>	<u>30</u>		<u>93</u>	<u>46</u>	<u>70</u>	
<u>WEATHER</u>								
<u>Cape Mudge</u>								
Sky	CLDY	OVC		1000	OVC	OVC		1000
Visibility	15+	15		1000	10	12		1000
Precipitation	RN SH	-		1000	-	-		1000
Wind	NW9	CLM		1000	NW4	CLM		1000
Sea	RPLD	LT RPLD		1000	RPLD	RPLD		1000
<u>Cape Lazo</u>								
Sky	PT CLDY	CLDY		1000	OVC	OVC		1000
Visibility	15	3/FOG		1000	15	12		1000
Precipitation	-	-		1000	VL RN SH	-		1000
Wind	NW15	CLM		1000	CLM	CLM		1000
Sea	CHPY	RPLD		1000	RPLD	RPLD		1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-17: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 15 AND 16, OCTOBER 1980

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Oct. 8 Wed	Oct. 23 Thu	Mean	Time PDT	Oct. 11 Sat	Oct. 26 Sun	Mean	Time PDT
<u>Area 15</u>								
A	0	2	1	1000-1100	16	6	11	1000-1100
B								
C	0	0	0	1000-1100	0	1	1	1000-1100
D								
Total	<u>0</u>	<u>2</u>	<u>1</u>		<u>16</u>	<u>7</u>	<u>12</u>	
<u>Area 16</u>								
A	0	2	1	0900-1000	5	4	5	0900-1000
B	5	8	6	0900-1000	9	25	17	0900-1000
C	0	0	0	0900-1000	0	0	0	0900-1000
D	0	0	0	1000-1100	0	0	0	1000-1100
E	0	0	0	1000-1100	2	0	1	1000-1100
F	2	1	2	0900-1000	11	5	8	0900-1000
G								
H								
I	0	4	2	1000-1100	14	8	11	1000-1100
J	<u>1</u>	<u>0</u>	<u>1</u>	0900-1000	<u>6</u>	<u>4</u>	<u>5</u>	0900-1000
Total	<u>8</u>	<u>15</u>	<u>12</u>		<u>47</u>	<u>46</u>	<u>47</u>	

WEATHERGrief Point

Sky	PT CLDY	PT CLDY	0945	CLDY	OVC	0945
Visibility	15	15	0945	12	15	0945
Precipitation	-	-	0945	-	-	0945
Wind	NW15	SE3	0945	E8	E7	0945
Sea	CHPY	RPLD	0945	LT CHP	RPLD	0945

Merry Island

Sky	PT CLDY	CLDY	1000	PT CLDY	CLDY	1000
Visibility	12	12	1000	10	12	1000
Precipitation	-	-	1000	-	-	1000
Wind	NW10	NW4	1000	SE4	SE9	1000
Sea	LT CHP	RPLD	1000	RPLD	LT CHP	1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-18: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 17 AND 18, OCTOBER 1980

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Oct. 8 Wed	Oct. 23 Thu	Mean	Time PDT	Oct. 11 Sat	Oct. 26 Sun	Mean	Time PDT
<u>Area 17</u>								
A	1	8	4	1000-1100	3	14	8	1000-1100
B	6	9	7	1000-1100	0	5	3	1000-1100
C	2	7	5	1000-1100	8	14	11	1000-1100
D	4	3	4	1000-1100	4	8	6	1000-1100
E	5	8	6	1000-1100	20	40	30	1000-1100
F	3	6	5	1000-1100	20	12	16	1000-1100
G	0	0	0	1000-1100	0	0	0	1000-1100
Total	<u>21</u>	<u>41</u>	<u>31</u>		<u>55</u>	<u>93</u>	<u>74</u>	
<u>Area 18</u>								
A	15	28	21	1000-1100	74	48	61	1000-1100
B	2	1	2	0900-1000	10	13	11	0900-1000
C	1	0	1	0900-1000	6	7	7	0900-1000
D	3	1	2	0900-1000	12	5	9	0900-1000
Total	<u>21</u>	<u>30</u>	<u>26</u>		<u>102</u>	<u>73</u>	<u>88</u>	
<u>WEATHER</u>								
<u>Entrance</u>								
Sky	CLDY	CLDY	1000		CLDY	CLDY	1000	
Visibility	10	2-5/FOG	1000		6-8	5-8/FOG	1000	
Precipitation	-	-	1000		-	-	1000	
Wind	NW24	S4	1000		SE10	ESE12	1000	
Sea	MOD	RPLD	1000		CHPY	CHPY	1000	
<u>East Point</u>								
Sky	CLDY	CLDY	1000		PT CLDY	CLDY	1000	
Visibility	15	15	1000		10	12	1000	
Precipitation	-	-	1000		-	-	1000	
Wind	SW9	N6	1000		S2	SE7	1000	
Sea	CHPY	CHPY	1000		RPLD	RPLD	1000	

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-19: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 19A AND 19B+, OCTOBER 1980

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Oct. 8	Oct. 23	Mean	Time PDT	Oct. 11	Oct. 26	Mean	Time PDT
	Wed	Thu			Sat	Sun		
<u>Area 19A</u>	52	16	34	1000-1100	144	84	114	1000-1100
<u>Area 19B+</u>								
B	4	2	3	0900-1000	3	2	3	0900-1000
C	6	1	3	0900-1000	9	10	10	0900-1000
D	3	4	4	0900-1000	28	31	29	0900-1000
E	6	22	14	0900-1000	102	76	89	0900-1000
F	0	3	2	0900-1000	21	58	39	0900-1000
Total	<u>19</u>	<u>32</u>	<u>26</u>		<u>163</u>	<u>177</u>	<u>170</u>	

WEATHERRace Rocks

	CLDY	CLDY	1000	PT CLDY	CLDY	1000
Sky						
Visibility	10	12	1000	10	10	1000
Precipitation	-	-	1000	-	-	1000
Wind	W30	NE28	1000	NE8	E12	1000
Sea	MOD	MOD	1000	RPLD	CHPY	1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-20: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 28 AND 29, OCTOBER 1980

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Oct. 8 Wed	Oct. 23 Thu	Mean	Time PDT	Oct. 11 Sat	Oct. 26 Sun	Mean	Time PDT
Area 28								
A	15	1	8	0800-0900	19	47	33	0900-1000
B								
C								
D	4	2	3	0900-1000	25	14	20	0900-1000
E	0	0	0	0900-1000	4	6	5	0900-1000
Total	19	3	11		48	67	58	
Area 29								
A	4	7	6	0800-0900	46	22	34	0800-0900
B	10	4	7	0900-1000	60	10	35	0900-1000
C	2	2	2	0900-1000	2	2	2	0900-1000
D								
E								
F	6	0	3	0800-0900	19	3	11	0800-0900
Total	22	13	18		127	37	82	
WEATHER								
Pt. Atkinson								
Sky	CLDY	CLDY	1000		PT CLDY	CLDY	1000	
Visibility	8	15	1000		10	10	1000	
Precipitation	-	-	1000		-	-	1000	
Wind	W19	E6	1000		E6	E2	1000	
Sea	CHPY	LT CHP	1000		LT CHP	RPLD	1000	
Sandheads								
Sky	PT CLDY	CLDY	1000		CLDY	CLDY	1000	
Visibility	15	15	1000		12	15	1000	
Precipitation	-	-	1000		-	-	1000	
Wind	NW6	E4	1000		SE10	E8	1000	
Sea	RPLD	RPLD	1000		LT CHP	LT CHP	1000	

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-21: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 13 AND 14, NOVEMBER/DECEMBER 1980

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Nov. 19 Wed	Dec. 12 Fri	Mean	Time PST	Nov. 22 Sat	Dec. 14 Sun	Mean	Time PST
<u>Area 13</u>								
A	0	1	1	1000-1100	0	0	0	1000-1100
B	0	0	0	1000-1100	0	0	0	1000-1100
C	0 ^e	0 ^e	0	1000-1100	3	0 ^e	1	1000-1100
D	0	0 ^e	0	1000-1100	0	0 ^e	0	1000-1100
E	0	0	0	1000-1100	1	0	1	1000-1100
F								
G								
H								
I								
J								
Total	<u>0</u>	<u>1</u>	<u>1</u>		<u>4</u>	<u>0</u>	<u>2</u>	
<u>Area 14</u>								
A	2	3	3	1100-1200	0	2	1	1100-1200
B	0	NA	0	1100-1200	1	0	1	1100-1200
C	0	NA	0	1100-1200	1	0	1	1100-1200
D	0	NA	0	1100-1200	0	0	0	1100-1200
E								
F	9	2 ^e	5	1100-1200	3 ^e	0	1	1100-1200
G								
H								
I								
J	0	NA	0	1100-1200	0	0	0	1100-1200
K	0	NA	0	1100-1200	0	0	0	1100-1200
L								
Total	<u>11</u>	<u>5</u>	<u>8</u>		<u>5</u>	<u>2</u>	<u>4</u>	
<u>WEATHER</u>								
<u>Cape Mudge</u>								
Sky	OBSC	OVC		0900	OVC	OVC		0900
Visibility	1/8/FOG	5/FOG		0900	15+	10		0900
Precipitation	-	-		0900	-	RAIN		0900
Wind	CLM	NW5		0900	CLM	SE16		0900
Sea	SMTN	RPLD		0900	RPLD	CHPY		0900
<u>Cape Lazo</u>								
Sky	OVC	OBSC		0900	PT CLDY	OVC		0900
Visibility	15	1/8/FOG		0900	20	8		0900
Precipitation	-	-		0900	-	RN SH		0900
Wind	CLM	CLM		0900	W3	SE20		0900
Sea	RPLD	UNKN		0900	RPLD	ROUGH		0900

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^e - Estimate.

NA - Sub area not covered due to fog.

TABLE D-22: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 15 AND 16, NOVEMBER/DECEMBER 1980

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Nov.19 Wed	Dec.12 Fri	Mean	Time PST	Nov.22 Sat	Dec.14 Sun	Mean	Time PST
<u>Area 15</u>								
A	1	0	1	1000-1100	4	1	2	1000-1100
B								
C	0	0	0	1000-1100	1	0	1	1000-1100
D								
Total	<u>1</u>	<u>0</u>	<u>1</u>		<u>5</u>	<u>1</u>	<u>3</u>	
<u>Area 16</u>								
A	3	3	3	1000-1100	5	8	7	1000-1100
B	12	8	10	1000-1100	17	16	16	1000-1100
C								
D								
E								
F	0	0	0	1000-1100	0	1	1	1000-1100
G								
H	0	0	0	1000-1100	0	0	0	1000-1100
I	0	0	0	1000-1100	0	0	0	1000-1100
J								
Total	<u>15</u>	<u>11</u>	<u>13</u>		<u>22</u>	<u>25</u>	<u>24</u>	
<u>WEATHER</u>								
<u>Grief Point</u>								
Sky	PT CLDY	OVC		0845	CLDY	OVC		0845
Visibility	12	15		0845	8	10		0845
Precipitation	-	-		0845	-	-		0845
Wind	N4	S5		0845	N5	E20		0845
Sea	SMTH	SMTH		0845	SMTH	CHPY		0845
<u>Merry Island</u>								
Sky	PT CLDY	CLDY		0900	CLDY	OVC		0900
Visibility	15+	10		0900	15	10		0900
Precipitation	-	-		0900	-	LT RAIN		0900
Wind	N7	NW7		0900	E4	SE26		0900
Sea	LT CHP	RPLD		0900	RPLD	MOD		0900

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-23: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 17 AND 18, NOVEMBER/DECEMBER 1980

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Nov. 19	Dec. 12	Mean	Time PST	Nov. 22	Dec. 14	Mean	Time PST
	Wed	Fri			Sat	Sun		
<u>Area 17</u>								
A	0	2	1	1100-1200	4	0	2	1000-1100
B	0	0	0	1100-1200	1	0	1	1000-1100
C	1	0	1	1100-1200	2	0	1	1000-1100
D	0	0	0	1100-1200	0	1	1	1000-1100
E	6	3	4	1100-1200	12	0	6	1000-1100
F	5	3	4	1100-1200	13	0	6	1000-1100
G								
Total	<u>12</u>	<u>8</u>	<u>10</u>		<u>32</u>	<u>1</u>	<u>17</u>	
<u>Area 18</u>								
A	2	10	6	1100-1200	9	10	9	1000-1100
B	4	6	5	1000-1100	11	8	10	1000-1100
C	0	0	0	1000-1100	2	2	2	1000-1100
D	<u>1</u>	<u>0</u>	<u>1</u>	1000-1100	<u>1</u>	<u>1</u>	<u>1</u>	1000-1100
Total	<u>7</u>	<u>16</u>	<u>12</u>		<u>23</u>	<u>21</u>	<u>22</u>	
<u>WEATHER</u>								
<u>Entrance</u>								
Sky	CLDY	OVC		0900	CLDY	OVC		0900
Visibility	10	4-8/FOG		0900	10	4-10		0900
Precipitation	-	-		0900	-	-		0900
Wind	NE8	W6		0900	W2	ESE22		0900
Sea	CHPY	RPLD		0900	RPLD	MOD		0900
<u>East Point</u>								
Sky	CLDY	OVC		0900	PT CLDY	CLDY		0900
Visibility	15	2-8/FOG		0900	15	15		0900
Precipitation	-	-		0900	-	-		0900
Wind	SW4	NW6		0900	NEL3	S8		0900
Sea	RPLD	LT CHP		0900	CHPY	LT CHP		0900

SOURCE: Overflight records and Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-24: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 19A AND 19B+, NOVEMBER/DECEMBER 1

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Nov. 19 Wed	Dec. 12 Fri	Mean	Time PST	Nov. 22 Sat	Dec. 14 Sun	Mean	Time PST
Area 19A	16	15	16	1100-1200	58	23	41	1000-1100
Area 19B+								
B	1	9	5	1000-1100	10	18	14	1000-1100
C	3	1	2	1000-1100	10	1	6	1000-1100
D	41	29	35	1000-1100	101	45	73	1000-1100
E	22	20	21	1000-1100	58	40	49	1000-1100
F	4	11	8	1000-1100	12	10	11	1000-1100
Total	71	70	71		191	114	153	
WEATHER								
Race Rocks								
Sky	OVC	CLDY		0900	OVC	OVC		0900
Visibility	5/FOG	10		0900	10	4/FOG		0900
Precipitation	-	-		0900	-	RAIN		0900
Wind	SE5	N12		0900	NE15	NE8		0900
Sea	RPLD	CHPY		0900	CHPY	RPLD		0900

SOURCE: Overflight records and Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-25: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 28 AND 29, NOVEMBER/DECEMBER 1980

SPORT BOAT COUNTS	WEEKDAYS				WEEKENDS			
	Nov.19 Wed	Dec.12 Fri	Mean	Time PST	Nov.22 Sat	Dec.14 Sun	Mean	Time PST
Area 28								
A	10	33	22	0900-1000	48	41	44	0900-1000
B								
C								
D	5	7	6	0900-1000	3	7	5	0900-1000
E	0	4	2	0900-1000	14	3	9	0900-1000
Total	15	44	30		65	51	58	
Area 29								
A	3	6	4	0900-1000	17	13	15	0900-1000
B	0	1	1	0900-1000	26	0	13	0900-1000
C	2	1	2	0900-1000	4	0	2	0900-1000
D								
E								
F	9	1	5	0900-1000	1	0	1	0900-1000
Total	14	9	12		48	13	31	
WEATHER								
Pt. Atkinson								
Sky	CLDY	OVC		0900	CLDY	OVC		0900
Visibility	15	15		0900	15	10		0900
Precipitation	-	-		0900	-	V L RAIN		0900
Wind	NW2	E4		0900	NE2	E19		0900
Sea	RPLD	RPLD		0900	RPLD	CHPY		0900
Sandheads								
Sky	CLDY	OVC		0900	CLDY	OVC		0900
Visibility	15	10		0900	15	15		0900
Precipitation	-	-		0900	-	-		0900
Wind	CLM	N10		0900	NE6	SE12		0900
Sea	RPLD	LT CHP		0900	RPLD	LT CHP		0900

SOURCE: Overflight records and Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-26: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 13 AND 14, JANUARY/FEBRUARY 1981

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Jan. 26 Mon	Feb. 18 Wed	Mean	Time PST	Jan. 10 Sat	Feb. 8 Sun	Mean	Time PST
<u>Area 13</u>								
A	0	9	4	1000-1100	16	21	18	1000-1100
B	0	0	0	1000-1100	0	0	0	1000-1100
C	0	2	1	1000-1100	4	7	5	1000-1100
D	0	1	1	1000-1100	0	0	1	1000-1100
E	0	0	0	1000-1100	1	0 ^e	1	1000-1100
F								
G								
H								
I								
J								
Total	<u>0</u>	<u>12</u>	<u>6</u>		<u>22</u>	<u>28</u>	<u>25</u>	
<u>Area 14</u>								
A	0	3	1	1100-1200	0	3	1	1100-1200
B	0	0	0	1100-1200	3	3	3	1100-1200
C	0	0	0	1100-1200	0	3	2	1100-1200
D	0	3	1	1100-1200	2	0	1	
E								
F	0	1	1	1100-1200	4	2	3	1100-1200
G								
H								
I								
J	0	0	0	1000-1100	0	0	0	1000-1100
K	0	1	1	1000-1100	0	3	2	1000-1100
L								
Total	<u>0</u>	<u>8</u>	<u>4</u>		<u>9</u>	<u>14</u>	<u>12</u>	
<u>WEATHER</u>								
<u>Cape Mudge</u>								
Sky	OVC	OVC		0900	CLDY	OVC		0900
Visibility	8	15+		0900	12	15+		0900
Precipitation	RAIN	-		0900	-	-		0900
Wind	SE23	CLM		0900	CLM	CLM		0900
Sea	CHPY	RPLD		0900	SMTH	RPLD		0900
<u>Cape Lazo</u>								
Sky	OVC	CLDY		0900	OBSC	OVC		0900
Visibility	10	15		0900	.75/FOG	20		0900
Precipitation	LT RAIN	-		0900	-	-		0900
Wind	SE20	SW5		0900	CLM	CLM		0900
Sea	MOD CHP	RPLD		0900	RPLD	RPLD		0900

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^e - Estimate.

TABLE D-27: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 15 AND 16, JANUARY/FEBRUARY 1981

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Jan. 26 Mon	Feb. 18 Wed	Mean	Time PST	Jan. 10 Sat	Feb. 8 Sun	Mean	Time PST
<u>Area 15</u>								
A	0	1	0	1000-1100	6	3	5	1000-1100
B								
C	0	1	1	1000-1100	0	0	0	1000-1100
D								
Total	<u>0</u>	<u>2</u>	<u>1</u>		<u>6</u>	<u>3</u>	<u>5</u>	
<u>Area 16</u>								
A	1	0	1	1000-1100	7	3	5	1000-1100
B	3	1	2	1000-1100	20	31	25	1000-1100
C								
D								
E								
F	1	1	1	1000-1100	0	0		
G								
H	0	0	0	1000-1100	1	0	1	1000-1100
I	0	0	0	1000-1100	2	5	4	1000-1100
J								
Total	<u>5</u>	<u>2</u>	<u>4</u>		<u>30</u>	<u>39</u>	<u>35</u>	
<u>WEATHER</u>								
<u>Grief Point</u>								
Sky	OVC	CLDY		0845	CLDY	OVC		0845
Visibility	10	10		0845	12	10		0845
Precipitation	LT RAIN	-		0845	-	-		0845
Wind	E10	E10		0845	SE8	NE4		0845
Sea	LT CHP	LT CHP		0845	LT CHP	SMTH		0845
<u>Merry Island</u>								
Sky	OVC	OVC		0900	CLDY	CLDY		0900
Visibility	15	15		0900	30	15+		0900
Precipitation	RN SH	-		0900	-	-		0900
Wind	SE26	E10		0900	NE3	N1		0900
Sea	MOD	LT CHP		0900	RPLD	RPLD		0900

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-28: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 17 AND 18, JANUARY/FEBRUARY 1981

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Jan. 26 Mon	Feb. 18 Wed	Mean	Time PST	Jan. 10 Sat	Feb. 8 Sun	Mean	Time PST
<u>Area 17</u>								
A	2	10	6	1100-1200	0	4	2	1100-1200
B	0	6	3	1100-1200	3	1	2	1100-1200
C	0	6	3	1100-1200	3	21	12	1100-1200
D	0	3	1	1100-1200	2	4	3	1100-1200
E	0	3	2	1100-1200	33	70	51	1100-1200
F	0	6	3	1100-1200	8	15	12	1100-1200
G								
Total	<u>2</u>	<u>34</u>	<u>18</u>		<u>49</u>	<u>115</u>	<u>82</u>	
<u>Area 18</u>								
A	1	14	7	1000-1100	2	18	10	1000-1100
B	0	7	4	1000-1100	57	7	32	1000-1100
C	1	1	1	1000-1100	0	9	4	1000-1100
D	0	2	1	1000-1100	4	3	4	1000-1100
Total	<u>2</u>	<u>24</u>	<u>13</u>		<u>63</u>	<u>37</u>	<u>50</u>	
<u>WEATHER</u>								
<u>Entrance</u>								
Sky	OVC	OVC		0900	PT CLDY	CLDY		0900
Visibility	8	10		0900	8	10		0900
Precipitation	RAIN	-		0900	-	-		0900
Wind	SE28	S10		0900	SE8	NE6		0900
Sea	ROUGH	RPLD		0900	RPLD	CHPY		0900
<u>East Point</u>								
Sky	OVC	CLDY		0900	CLDY	OVC		0900
Visibility	15	15		0900	15	6/FOG		0900
Precipitation	V L RAIN	-		0900	-	-		0900
Wind	SE20	SW7		0900	NW6	NE6		0900
Sea	MOD	CHPY		0900	LT CHP	LT CHP		0900

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-29: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 19A AND 19B+, JANUARY/FEBRUARY 19

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Jan. 26 Mon	Feb. 18 Wed	Mean	Time PST	Jan. 10 Sat	Feb. 8 Sun	Mean	Time PST
Area 19A	22	21	22	1000-1100	44	175	110	1000-1100
Area 19B+								
B	0	4	2	1000-1100	32	36	34	1000-1100
C	0	6	3	1000-1100	2	2	2	1000-1100
D	2	3	3	1000-1100	143	49	96	1000-1100
E	4	5	4	1000-1100	50	56	53	1000-1100
F	0	6	3	1000-1100	33	9	21	1000-1100
Total	6	24	15		260	152	206	

WEATHER

Race Rocks

Sky	CLDY	OVC	0900	PT CLDY	OVC	0900
Visibility	8	12	0900	15	10	0900
Precipitation	LT RN SH	-	0900	-	-	0900
Wind	NWS	W14	0900	NE15	N14	0900
Sea	LT CHP	MOD	0900	CHPY	CHPY	0900

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-30: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 28 AND 29, JANUARY/FEBRUARY 1981

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Jan. 26 Mon	Feb. 18 Wed	Mean	Time PST	Jan. 10 Sat	Feb. 8 Sun	Mean	Time PST
Area 28								
A	8	6	7	0900-1000	46	40	43	0900-1000
B								
C								
D	4	6	5	0900-1000	38	15	27	0900-1000
E	0	0	0	0900-1000	4	12	8	0900-1000
Total	12	12	12		88	67	78	
Area 29								
A	0	10	5	0900-1000	110	54	82	0900-1000
B	1	1	1	0900-1000	6	16	11	0900-1000
C	0	1	1	0900-1000	5	4	4	0900-1000
D								
E								
F	0	5	2	0900-1000	3	0	2	0900-1000
Total	1	17	9		124	74	99	
WEATHER								
Pt. Atkinson								
Sky	OVC	OVC		0900	CLDY	CLDY		0900
Visibility	8	15		0900	12	12		0900
Precipitation	LT RAIN	-		0900	-	-		0900
Wind	SE12	E10		0900	NE2	E4		0900
Sea	CHPY	LT CHP		0900	RPLD	RPLD		0900
Sandheads								
Sky	OVC	CLDY		0900	CLDY	PT CLDY		0900
Visibility	12	15		0900	12	8		0900
Precipitation	-	-		0900	-	-		0900
Wind	E22	S12		0900	CLM	E4		0900
Sea	MOD	LT CHP		0900	RPLD	RPLD		0900

SOURCE: Overflight records and Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-31: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 13 AND 14, MARCH 1981

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Mar. 10 Tue	Mar. 25 Wed	Mean	Time PST ^a	Mar. 14 Sat	Mar. 22 Sun	Mean	Time PST
Area 13								
A	6	2	4	1000-1100	1	6	4	1000-1100
B	0	0	0	1000-1100	0	0	0	1000-1100
C	0	2	1	1000-1100	12	9	10	1000-1100
D	0	0	0	1000-1100	0	0	0	1000-1100
E	0	2	1	1000-1100	3	1	2	1000-1100
F								
G								
H								
I								
J								
Total	6	6	6		16	16	16	
Area 14								
A	2	1	1	1100-1200	3	8	5	1100-1200
B	3	0	2	1100-1200	1	0	1	1100-1200
C	0	0	0	1100-1200	0	0	0	1100-1200
D	3	2	2	1100-1200	4	0	2	1100-1200
E	0	0	0	1100-1200	0	0	0	1100-1200
F	1	1	1	1100-1200	4	1	2	1100-1200
G	0	0	0	1100-1200	0	1	1	1100-1200
H								
I								
J	0	0	0	1100-1200	0	0	0	1100-1200
K	1	0	1	1100-1200	0	0	0	1100-1200
L								
Total	10	4	7		12	10	11	
WEATHER								
Cape Mudge								
Sky	OVC	PT CLDY		0900	OVC	CLDY		0900
Visibility	10	15+		0900	15+	15+		0900
Precipitation	-	-		0900	-	-		0900
Wind	NW4	SE5		0900	SE6	SE2		0900
Sea	RPLD	RPLD		0900	RPLD	RPLD		0900
Cape Lazo								
Sky	CLDY	PT CLDY		0900	CLDY	PT CLDY		0900
Visibility	15	20		0900	15	20		0900
Precipitation	LT RN SH	-		0900	-	-		0900
Wind	W10	SSE5		0900	NE5	CLM		0900
Sea	RPLD	LT CHP		0900	CHPY	LT RPLD		0900

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^a - Time of weather report is 1000 PST for Cape Mudge on March 25.

TABLE D-32: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 15 AND 16, MARCH 1981

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Mar. 10 Tue	Mar. 25 Wed	Mean	Time PST	Mar. 14 Sat	Mar. 22 Sun	Mean	Time PST
<u>Area 15</u>								
A	2	0	1	1000-1100	1	2	2	1000-1100
B								
C	0	0	0	1000-1100	0	0	0	1000-1100
D								
Total	<u>2</u>	<u>0</u>	<u>1</u>		<u>1</u>	<u>2</u>	<u>2</u>	
<u>Area 16</u>								
A	3	0	2	1000-1100	1	9	5	1000-1100
B	11	9	10	1000-1100	6	20	13	1000-1100
C								
D								
E								
F	0	2	1	1000-1100	0	10	5	1000-1100
G	0	0	0	1000-1100	0	0	0	1000-1100
H								
I	4	0	2	1000-1100	1	2	2	1000-1100
J	<u>2^e</u>	<u>2^e</u>	<u>2</u>	<u>1000-1100</u>	<u>4^e</u>	<u>4^e</u>	<u>4</u>	<u>1000-1100</u>
Total	<u>20</u>	<u>13</u>	<u>17</u>		<u>12</u>	<u>45</u>	<u>29</u>	

WEATHER

Grief Point

Sky	OVC	CLDY	0845	CLDY	CLDY	0845
Visibility	7	15	0845	8	10	0845
Precipitation	-	-	0845	LT RN SH	-	0845
Wind	NW2	SE15	0845	SE11	SE11	0845
Sea	SMTH	CHPY		CHPY	LT CHP	0845

Merry Island

Sky	CLDY	PT CLDY	0900	CLDY	PT CLDY	0900
Visibility	12	15+	0900	15+	15+	0900
Precipitation	-	-	0900	LT RN SH	-	0900
Wind	N4	E10	0900	SE21	E10	0900
Sea	RPLD	LT CHP	0900	MOD	LT CHP	0900

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^e - Estimate.

TABLE D-33: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 17 AND 18, MARCH 1981

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Mar. 10 Tue	Mar. 25 Wed	Mean	Time PST	Mar. 14 Sat	Mar. 22 Sun	Mean	Time PST
<u>Area 17</u>								
A	0	4	2	1100-1200	5	13	9	1100-1200
B	6	5	6	1100-1200	5	7	6	1100-1200
C	3	3	3	1100-1200	17	14	16	1100-1200
D	2	0	1	1100-1200	2	6	4	1100-1200
E	10	20	15	1100-1200	14	44	29	1100-1200
F	7	12	9	1100-1200	5	19	12	1100-1200
G	0	0	0	1100-1200	0	0	0	1100-1200
Total	<u>28</u>	<u>44</u>	<u>36</u>		<u>48</u>	<u>103</u>	<u>76</u>	
<u>Area 18</u>								
A	12	3	8	1000-1100	19	33	26	1000-1100
B	7	9	8	1000-1100	13	28	20	1000-1100
C	8	17	12	1000-1100	9	19	14	1000-1100
D	0	7	4	1000-1100	3	16	10	1000-1100
Total	<u>27</u>	<u>36</u>	<u>32</u>		<u>44</u>	<u>96</u>	<u>70</u>	
<u>WEATHER</u>								
<u>Entrance</u>								
Sky	CLDY	PT CLDY		0900	CLDY	CLDY		0900
Visibility	8	6-8		0900	8	10		0900
Precipitation	-	-		0900	-	-		0900
Wind	SE6	ENE8		0900	ESE10	S6		0900
Sea	RPLD	RPLD		0900	CHPY	RPLD		0900
<u>East Point</u>								
Sky	CLDY	CLDY		0900	CLDY	PT CLDY		0900
Visibility	12	15		0900	15	15		0900
Precipitation	-	-		0900	-	-		0900
Wind	SW2	SW8		0900	SW7	S5		0900
Sea	RPLD	CHPY		0900	CHPY	RPLD		0900

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-34: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 19A AND 19B+, MARCH 1981

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Mar. 10 Tue	Mar. 25 Wed	Mean	Time PST	Mar. 14 Sat	Mar. 22 Sun	Mean	Time PST
<u>Area 19A</u>	29	22	26	1000-1100	74	68	71	1000-1100
<u>Area 19B+</u>								
B	10	5	8	1000-1100	15	32	24	1000-1100
C	14	11	13	1000-1100	52	23	37	1000-1100
D	19	12	15	1000-1100	20	34	27	1000-1100
E	19	14	16	1000-1100	24	66	45	1000-1100
F	5	10	8	1000-1100	49	35	42	1000-1100
Total	<u>67</u>	<u>52</u>	<u>60</u>		<u>160</u>	<u>190</u>	<u>175</u>	
<u>WEATHER</u>								
<u>Race Rocks</u>								
Sky	CLDY	PT CLDY		0900	CLDY	PT CLDY		0900
Visibility	12	12		0900	12	12		0900
Precipitation	-	-		0900	-	-		0900
Wind	N3	W8		0900	W10	W9		0900
Sea	RPLD	CHPY		0900	CHPY	LT CHP		0900

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-35: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 28 AND 29, MARCH 1981

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Mar.10 Tue	Mar.25 Wed	Mean	Time PST ^a	Mar.14 Sat	Mar.22 Sun	Mean	Time PST
Area 28								
A	9	2	6	0900-1000	42	42	42	0900-1000
B								
C								
D	9	9	9	0900-1000	31	43	37	0900-1000
E	9	1	5	0900-1000	20	13	17	0900-1000
Total	<u>27</u>	<u>12</u>	<u>20</u>		<u>93</u>	<u>98</u>	<u>96</u>	
Area 29								
A	27	6	16	0900-1000	19	18	19	0900-1000
B	4	3	3	0900-1000	6	21	13	0900-1000
C	2	1	2	0900-1000	1	2	2	0900-1000
D								
E								
F	3	0	2	0900-1000	4	0	2	0900-1000
Total	<u>36</u>	<u>10</u>	<u>23</u>		<u>30</u>	<u>41</u>	<u>36</u>	
WEATHER								
Pt. Atkinson								
Sky	CLDY	CLDY		0900	OVC	CLDY		0900
Visibility	15	15		0900	15	15		0900
Precipitation	-	-		0900	-	-		0900
Wind	NW6	SE3		0900	E18	SE12		0900
Sea	RPLD	RPLD		0900	CHPY	CHPY		0900
Sandheads								
Sky	PT CLDY	CLDY		0900	OVC	PT CLDY		0900
Visibility	15	15		0900	15	15		0900
Precipitation	-	-		0900	-	-		0900
Wind	E6	SW8		0900	E8	SW14		0900
Sea	RPLD	LT CHP		0900	LT CHP	CHPY		0900

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^a - Time of weather report is 1200 PST for Pt. Atkinson on March 10.

TABLE D-36: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 13 AND 14, APRIL 1981

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Apr. 9 Thu	Apr. 24 Fri	Mean	Time PST	Apr. 18 Sat	Apr. 25 Sat	Mean	Time PST ^a
Area 13								
A	4	8	6	1000-1100	23	6	14	1000-1100
B	0	2	1	1000-1100	2	0	1	1000-1100
C	2	0	1	1000-1100	8	8	8	1000-1100
D	0	1	1	1000-1100	3	0	2	1000-1100
E	1	2	1	1000-1100	4	6	5	1000-1100
F								
H								
I								
J								
Total	<u>7</u>	<u>13</u>	<u>10</u>		<u>40</u>	<u>20</u>	<u>30</u>	
Area 14								
A	1	1	1	1100-1200	15	2	9	1100-1200
B	1	6	3	1100-1200	9	10	9	1100-1200
C	1	0	1	1100-1200	15	3	9	1100-1200
D	1	1	1	1100-1200	3	3	3	1100-1200
E	0	0	0	1100-1200	0	0	0	1100-1200
F	3	0	2	1100-1200	13	10	11	1100-1200
G	0	0	0	1100-1200	0	0	0	1100-1200
H								
I								
J	0	0	0	1100-1200	5	12	9	1100-1200
K	2	0	1	1100-1200	0	1	1	1100-1200
L	0	0	0	1100-1200	2	0	1	1100-1200
Total	<u>9</u>	<u>8</u>	<u>9</u>		<u>62</u>	<u>41</u>	<u>52</u>	
WEATHER								
Cape Mudge								
Sky	CLDY	CLDY		0900	CLR	PT CLDY		0900
Visibility	15+	15		0900	15+	15		0900
Precipitation	-	-		0900	-	-		0900
Wind	NW5	CLM		0900	SE9	NW3		0900
Sea	RPLD	SMTH		0900	RPLD	RPLD		0900
Cape Lazo								
Sky	CLDY	CLDY		0900	CLR	PT CLDY		0900
Visibility	15	20		0900	20	15		0900
Precipitation	-	-		0900	-	-		0900
Wind	NW5	ENE8		0900	N5-10	NW10		0900
Sea	RPLD	RPLD		0900	RPLD	CHPY		0900

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^a - Time of weather report is 1200 PST for Cape Mudge and Cape Lazo on April 25.

TABLE D-37: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 15 AND 16, APRIL 1981

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Apr. 9 Thu	Apr. 24 Fri	Mean	Time PST	Apr. 18 Sat	Apr. 25 Sat	Mean	Time PST
<u>Area 15</u>								
A	1	1	1	1000-1100	8	2	5	1000-1100
B								
C	0	0	0	1000-1100	5	0	3	1000-1100
D								
Total	<u>1</u>	<u>1</u>	<u>1</u>		<u>13</u>	<u>2</u>	<u>8</u>	
<u>Area 16</u>								
A	1	8	5	1000-1100	35	10	22	1000-1100
B	5	14	9	1000-1100	123	28	75	1000-1100
C								
D								
E								
F	2	2	2	1000-1100	14	5	10	1000-1100
G	0	0	0	1000-1100	1	0	1	1000-1100
H								
I	0	1	1	1000-1100	9 ^a	4	7	1000-1100
J	5 ^e	5 ^a	5	1000-1100	10 ^a	10 ^a	10	1000-1100
Total	<u>13</u>	<u>30</u>	<u>22</u>		<u>192</u>	<u>57</u>	<u>125</u>	
<u>WEATHER</u>								
<u>Grief Point</u>								
Sky	OVC	PT CLDY		0845	CLR	CLR		0845
Visibility	15	15		0845	15	15		0845
Precipitation	-	-		0845	-	-		0845
Wind	SE10	SE8		0845	W3	W10		0845
Sea	LT CHP	RPLD		0845	SMTH	RPLD		0845
<u>Merry Island</u>								
Sky	CLDY	CLDY		0900	PT CLDY	PT CLDY		0900
Visibility	15+	16+		0900	15+	15+		0900
Precipitation	-	-		0900	-	-		0900
Wind	SE7	W3		0900	NW6	NW10		0900
Sea	LT CHP	RPLD		0900	RPLD	LT CHP		0900

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^a - Time of weather report is 1145 PST for Grief Point on April 25.

TABLE D-38: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 17 AND 18, APRIL 1981

SPORT BOAT COUNTS	W E E K D A Y S			Time PST	W E E K E N D S			Time PST
	Apr. 9 Thu	Apr. 24 Fri	Mean		Apr. 18 Sat	Apr. 25 Sat	Mean	
Area 17								
A	1	0	1	1100-1200	8	5	6	1100-1200
B	1	0	1	1100-1200	20	4	12	1100-1200
C	3	3	3	1100-1200	36	10	23	1100-1200
D	1	3	2	1100-1200	13	15	14	1100-1200
E	12	2	7	1100-1200	27	11	19	1100-1200
F	19	4	11	1100-1200	50	26	38	1100-1200
G	0	0	0	1100-1200	0	1	1	1100-1200
Total	37	12	25		154	72	113	
Area 18								
A	2	0	1	1000-1100	20	12	16	1000-1100
B	0	1	1	1000-1100	5	6	6	1000-1100
C	10	1	5	1000-1100	24	12	18	1000-1100
D	1	5	3	1000-1100	14	16	15	1000-1100
Total	13	7	10		63	46	55	
WEATHER								
Entrance								
Sky	CLDY	CLDY		0900	PT CLDY	PT CLDY		
Visibility	15	15		0900	10	12		0900
Precipitation	-	-		0900	-	-		0900
Wind	NE4	ESE8		0900	WNW12	WNW18		0900
Sea	RPLD	RPLD		0900	CHPY	MOD		0900
East Point								
Sky	CLDY	CLDY		0900	CLDY	PT CLDY		
Visibility	15	15		0900	12	15		0900
Precipitation	VL RN SH	-		0900	-	-		0900
Wind	SW22+	SW14		0900	NW8	W4		0900
Sea	CHPY	CHPY		0900	LT CHPY	LT CHPY		0900

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-39: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 19A AND 19B+, APRIL 1981

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	Apr. 9 Thu	Apr. 24 Fri	Mean	Time PST	Apr. 18 Sat	Apr. 25 Sat	Mean	Time PST
<u>Area 19A</u>	8	7	8	1000-1100	54	55	55	1000-1100
<u>Area 19B+</u>								
B	2	1	1	1000-1100	34	13	24	1000-1100
C	0	1	1	1000-1100	27	41	34	1000-1100
D	4	2	3	1000-1100	22	12	17	1000-1100
E	1	6	3	1000-1100	56	75	65	1000-1100
F	2	1	2	1000-1100	25	22	24	1000-1100
Total	<u>9</u>	<u>11</u>	<u>10</u>		<u>164</u>	<u>163</u>	<u>164</u>	
<u>WEATHER</u>								
<u>Race Rocks</u>								
Sky	CLDY	CLDY		0900	CLR	PT CLDY		0900
Visibility	12	12		0900	12	15		0900
Precipitation	-	-		0900	-	-		0900
Wind	SW18	W15		0900	NE8	S3		0900
Sea	CHPY	CHPY		0900	RPLD	RPLD		0900

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^a - Time of weather report is 1200 PST for Race Rocks on April 25.

TABLE D-40: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 28 AND 29, APRIL 1981

SPORT BOAT COUNTS	WEEK DAYS				WEEK ENDS			
	Apr. 9 Thu	Apr. 24 Fri	Mean	Time PST	Apr. 18 Sat	Apr. 25 Sat	Mean	Time PST
Area 28								
A	4	6	5	0900-1000	33	31	32	0900-1000
B								
C								
D	9	4	7	0900-1000	49	29	39	0900-1000
E	1	3	2	0900-1000	10	15	13	0900-1000
Total	14	13	14		92	75	84	
Area 29								
A	7	2	4	0900-1000	21	22	22	0900-1000
B	0	2	1	0900-1000	27	28	27	0900-1000
C	1	0	1	0900-1000	1	1	1	0900-1000
D								
E								
F	2	0	1	0900-1000	0	4	2	0900-1000
Total	10	4	7		49	55	52	
WEATHER								
Pt. Atkinson								
Sky	OVC	CLDY		0900	CLR	PT CLDY		0900
Visibility	15	15		0900	15	15		0900
Precipitation	-	-		0900	-	-		0900
Wind	E10	SW6		0900	E2	NW3		0900
Sea	CHPY	LT CHP		0900	RPLD	RPLD		0900
Sandheads								
Sky	CLDY	PT CLDY		0900	PT CLDY	PT CLDY		0900
Visibility	15	15		0900	15	15		0900
Precipitation	-	-		0900	-	-		0900
Wind	SW16	SW12		0900	NW8	NW12		0900
Sea	CHPY	CHPY		0900	LT CHP	CHPY		0900

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-41: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 13 AND 14, MAY 1981

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	May 12 Tue	May 27 Wed	Mean	Time PDT	May 10 Sun	May 30 Sat	Mean	Time PDT
Area 13								
A	33	47	40	1000-1100	93	60	76	1000-1100
B	0	0	0	1000-1100	0	1	1	1000-1100
C	8	10	9	1000-1100	3	22	13	1000-1100
D	3	1	2	1000-1100	0	4	2	1000-1100
E	3	4	3	1000-1100	10	20	15	1000-1100
F	2	0	1	1000-1100	0	1	1	1000-1100
G	10	4	7	1000-1100	13	19	16	1000-1100
H	0	3	2	1000-1100	6	9	7	1000-1100
I								
J	0	0	0	1000-1100	0	0	0	1000-1100
Total	<u>59</u>	<u>69</u>	<u>64</u>		<u>125</u>	<u>136</u>	<u>131</u>	
Area 14								
A	1	5	3	1100-1200	17	11	14	1100-1200
B	15	7	11	1100-1200	19	16	17	1100-1200
C	8	6	7	1100-1200	9	12	10	1100-1200
D	1	3	2	1100-1200	4	11	8	1100-1200
E	0	4	2	1100-1200	0	1	1	1100-1200
F	8	4	6	1100-1200	22	22	22	1100-1200
G	0	0	0	1000-1100	0	2	1	1000-1100
H	0	2	1	1000-1100	4	3	4	1000-1100
I								
J	22	2	12	1100-1200	35	16	25	1100-1200
K	10	11	10	1000-1100	6	1	4	1000-1100
L	0	1	1	1000-1100	7	13	10	1000-1100
Total	<u>65</u>	<u>45</u>	<u>55</u>		<u>123</u>	<u>108</u>	<u>116</u>	
WEATHER								
Cape Mudge								
Sky	PT CLDY	PT CLDY	1000	CLDY	CLDY	1000	1000	1000
Visibility	15+	10	1000	15	15	1000	1000	1000
Precipitation	-	-	1000	-	-	1000	1000	1000
Wind	CLM	NW10	1000	NW2	NW5	1000	1000	1000
Sea	SMTB	CHPY	1000	RPLD	RPLD	1000	1000	1000
Cape Lazo								
Sky	PT CLDY	PT CLDY	1000	CLDY	CLDY	1000	1000	1000
Visibility	20	20	1000	20	15	1000	1000	1000
Precipitation	-	-	1000	-	-	1000	1000	1000
Wind	NW5	NW10	1000	NW10	NE8	1000	1000	1000
Sea	RPLD	CHPY	1000	RPLD	RPLD	1000	1000	1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-42: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 15 AND 16, MAY 1981

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	May 12 Tue	May 27 Wed	Mean	Time PDT ^a	May 10 Sun	May 30 Sat	Mean	Time PD
<u>Area 15</u>								
A	2	4	3	0900-1000	5	3	4	0900-1000
B								
C	2	1	2	1000-1100	1	3	2	1000-1100
D	0	0	0	1000-1100	1	2	2	1000-1100
Total	4	5	5		7	8	8	
<u>Area 16</u>								
A	4	8	6	0900-1000	15	39	27	0900-1000
B	22	32	27	0900-1000	74	76	75	0900-1000
C								
D	1	0	1	1000-1100	1 ^e	0	1	1000-1100
E	0 ^e	0	0	0900-1000	0 ^e	0	0	0900-1000
F	3	2	2	0900-1000	3	3	3	0900-1000
G	0	1	1	0900-1000	0	0	0	0900-1000
H								
I	13	3	8	0900-1000	13	11	12	0900-1000
J	10	20	15	0900-1000	23	27	25	0900-1000
Total	53	66	60		129	156	143	

WEATHER

Grief Point

	PT CLDY	PT CLDY	0945	PT CLDY	OVC	0945
Sky	15	15	0945	15	10	0945
Visibility	-	-	0945	-	-	0945
Precipitation	E2	W6	0945	N4	SW4	0945
Wind	CLM	RPLD	0945	CLM	SMTH	0945
Sea						

Merry Island

	PT CLDY	PT CLDY	1000	PT CLDY	CLDY	1000
Sky	15	15+	1000	15+	15+	1000
Visibility	-	-	1000	-	-	1000
Precipitation	SW4	W8	1000	SE4	E4	1000
Wind	RPLD	LT CHP	1000	RPLD	RPLD	1000
Sea						

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver

^a - Time of weather report is 0745 PDT for Grief Point on May 10 and May 12.

^e - Estimate.

TABLE D-43: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 17 AND 18, MAY 1981

SPORT BOAT COUNTS	WEEKDAYS				WEEKENDS			
	May 12 Tue	May 27 Wed	Mean	Time PDT	May 10 Sun	May 30 Sat	Mean	Time PDT
Area 17								
A	1	1	1	1000-1100	7	4	6	1000-1100
B	3	12	8	1000-1100	2	13	8	1000-1100
C	4	6	5	1000-1100	16	34	25	1000-1100
D	11	3	7	1000-1100	11	15	13	1000-1100
E	11	8	9	1000-1100	45	71	58	1000-1100
F	27	7	17	1000-1100	29	40	34	1000-1100
G	0	0	0	1000-1100	2	4	3	1000-1100
Total	<u>57</u>	<u>37</u>	<u>47</u>		<u>112</u>	<u>181</u>	<u>147</u>	
Area 18								
A	12	18	15	0900-1000	15	24	19	0900-1000
B	4	1	3	0800-0900	6	17	12	0800-0900
C	1	8	5	0800-0900	8	36	22	0800-0900
D	9	4	6	0800-0900	18	14	16	0800-0900
Total	<u>26</u>	<u>31</u>	<u>29</u>		<u>47</u>	<u>91</u>	<u>69</u>	
WEATHER								
Entrance								
Sky	CLDY	PT CLDY	1000		PT CLDY	CLDY	1000	
Visibility	8	10	1000		10	15	1000	
Precipitation	-	-	1000		-	-	1000	
Wind	ESE8	WNW14	1000		NNW6	ESE6	1000	
Sea	CHPY	CHPY	1000		CHPY	RPLD	1000	
East Point								
Sky	PT CLDY	CLDY	1000		CLDY	CLDY	1000	
Visibility	15	15	1000		15	15	1000	
Precipitation	-	-	1000		-	VL RN SR	1000	
Wind	SW7	NW12	1000		SW6	SW6	1000	
Sea	RPLD	CHPY	1000		RPLD	LT CHPY	1000	

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver

TABLE D-44: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 19A AND 19B+, MAY 1981

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S			
	May 12 Tue	May 27 Wed	Mean	Time PDT	May 10 Sun	May 30 Sat	Mean	Time PDT
Area 19A	18	41	30	0900-1000	49	119	84	0900-1000
Area 19B+								
B	17	20	19	0900-1000	29	32	31	0900-1000
C	19	16	18	0900-1000	19	19	19	0900-1000
D	5	3	4	0900-1000	8	4	6	0900-1000
E	40	59	49	0900-1000	74	69	71	0900-1000
F	9	15	12	0900-1000	10	51	31	0900-1000
Total	<u>90</u>	<u>113</u>	<u>102</u>		<u>140</u>	<u>175</u>	<u>158</u>	
WEATHER								
Race Rocks								
Sky	PT CLDY	PT CLDY	1000		CLDY	CLDY	1000	
Visibility	15	15	1000		10	10	1000	
Precipitation	-	-	1000		-	-	1000	
Wind	E4	W8	1000		W12	W21	1000	
Sea	RPLD	LT CHP	1000		CHPY	CHPY	1000	

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

TABLE D-45: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 28 AND 29, MAY 1981

SPORT BOAT COUNTS	W E E K D A Y S			Time PDT	W E E K E N D S			Time PDT
	May 12 Tue	May 27 Wed	Mean		May 10 Sun	May 30 Sat	Mean	
Area 28								
A	5	18	11	0800-0900	23	30	27	0800-0900
B	0 ^e	0 ^e	0	0800-0900	1 ^e	1 ^e	1	0800-0900
C								
D	6	24	15	0800-0900	13	86	49	0800-0900
E	2	1	2	0800-0900	6	3	5	0800-0900
Total	<u>13</u>	<u>43</u>	<u>28</u>		<u>43</u>	<u>120</u>	<u>82</u>	
Area 29								
A	15	4	10	0800-0900	9	2	6	0800-0900
B	11	27	19	0800-0900	32	98	65	0800-0900
C	2	0	1	0800-0900	4	9	6	0800-0900
D								
E								
F	0	0	0	0800-0900	0	3	2	0800-0900
Total	<u>28</u>	<u>31</u>	<u>30</u>		<u>45</u>	<u>112</u>	<u>79</u>	
WEATHER								
Pt. Atkinson								
Sky	CLDY	PT CLDY		1000	CLDY	OVC		1000
Visibility	15	15		1000	15	12		1000
Precipitation	-	-		1000	-	-		1000
Wind	CLM	NW3		1000	SE2	E14		1000
Sea	SMTH	RPLD		1000	RPLD	CHPY		1000
Sandheads								
Sky	PT CLDY	CLDY		1000	CLDY	OVC		1000
Visibility	12	15		1000	12	15		1000
Precipitation	-	-		1000	-	LT RAIN		1000
Wind	SE6	NW14		1000	CLM	CLM		1000
Sea	RPLD	CHPY		1000	RPLD	SMTH		1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver

^e - Estimate.

TABLE D-46: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 13 AND 14, JUNE 1981

SPORT BOAT COUNTS	WEEK DAYS				WEEK ENDS					
	Jun. 8 Mon	Jun. 15 Mon	Jun. 24 Wed	Mean	Time PDT	Jun. 7 Sun	Jun. 20 Sat	Jun. 28 Sun	Mean	Time PDT
Area 13										
A	32	28	134	65	1000-1100	84	141	206	144	1000-1100
B	3	0	10	4	1000-1100	1	10	5	5	1000-1100
C	31	29	23	28	1000-1100	64	36	39	46	1000-1100
D	5	0	31	12	1000-1100	7	41	35	28	1000-1100
E	3	4	6	4	1000-1100	10	23	11	15	1000-1100
F	0	0	0	0	1000-1100	1	0	0	0	1000-1100
G	15	14	16	15	1000-1100	19	33	20	24	1000-1100
H	1	2	0	1	1000-1100	6	5	5	5	1000-1100
I	0	0	0	0	1000-1100	0	0	0	0	1000-1100
J	0	0	0	0	1000-1100	0	0	0	0	1000-1100
Total	90	77	220	129		192	289	321	267	
Area 14										
A	3	2	2	2	1100-1200	18	3	6	9	1100-1200
B	12	0	9	7	1100-1200	27	7	15	16	1100-1200
C	21	0	40	21	1100-1200	24	7	5	12	1100-1200
D	8	5	0	4	1100-1200	16	5	NA	11	1100-1200
E	0	0	0	0	1100-1200	0	1	NA	1	1100-1200
F	12	2	23	13	1100-1200	27	7	NA	17	1100-1200
G	2	0	5	2	1100-1200	10	24	7	13	1100-1200
H	1 ^e	1 ^e	1 ^e	1	1100-1200	6	6 ^e	6 ^e	6	1100-1200
I										
J	10	1	16	9	1100-1200	20	20	NA	20	1100-1200
K	34	0	38	24	1100-1200	55	19	NA	37	1100-1200
L	17	0	7	8	1100-1200	16	11	NA	14	1100-1200
Total	120	11	141	91		219	110	139	156	
WEATHER										
Cape Mudge										
Sky	OVC	OVC	PT CLDY		1000	OVC	CLDY	OVC		1000
Visibility	15	15+	10		1000	10	15	15+		1000
Precipitation	-	-	-		1000	-	-	-		1000
Wind	CLM	SE20	NW5		1000	NW8	SE3	NW5		1000
Sea	RPLD	CHPY	RPLD		1000	CHPY	SMTH	RPLD		1000
Cape Lazo										
Sky	CLDY	OVC	PT CLDY		1000	CLDY	CLDY	OVC		1000
Visibility	20	20	20		1000	15	15	20		1000
Precipitation	-	-	-		1000	-	-	-		1000
Wind	ESE10	SE15	NW10		1000	N5	W10	SES-10		1000
Sea	LT CHP	CHPY	RPLD		1000	LT CHP	RPLD	LT CHP		1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^e - Estimate
 NA - Sub area not covered due to mechanical problems with float plane.

TABLE D-47: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 15 AND 16, JUNE 1981

SPORT BOAT COUNTS	W E E K D A Y S				W E E K E N D S					
	Jun. 8 Mon	Jun. 15 Mon	Jun. 24 Wed	Mean	Time PDT ^a	Jun. 7 Sun	Jun. 20 Sat	Jun. 28 Sun	Mean	Time PDT
Area 15										
A	9	2	29	13	1000-1100	7	13	15	12	1000-1100
B	0 ^e	0 ^e	0 ^e	0	1100-1200	1 ^e	1 ^e	1 ^e	1	1100-1200
C	3	3	6	4	1100-1200	4	7	22	11	1100-1200
D	0	0	0	0	1100-1200	1	3	2	2	1100-1200
Total	<u>12</u>	<u>5</u>	<u>35</u>	<u>17</u>		<u>13</u>	<u>24</u>	<u>40</u>	<u>26</u>	
Area 16										
A	11	10	16	13	0900-1000	23	34	64	40	0900-1000
B	26	24	15	22	0900-1000	41	50	66	53	0900-1000
C	0	0	1 ^e	0	0900-1000	0	0	6	2	0900-1000
D	1 ^e	1 ^e	1 ^e	1	0900-1000	1	2 ^e	3 ^e	2	0900-1000
E	1	1	1	1	0900-1000	1	2 ^e	3 ^e	2	0900-1000
F	8	7	7	7	0900-1000	7	6	18	10	0900-1000
G	0	0	7	2	0900-1000	3	5	1	3	0900-1000
H	0	0	0	0	0900-1000	0	1	0	0	0900-1000
I	7	1	34	14	0900-1000	22	8	36	22	0900-1000
J	8	7	9	8	0900-1000	19	19	16	18	0900-1000
Total	<u>62</u>	<u>51</u>	<u>91</u>	<u>68</u>		<u>117</u>	<u>127</u>	<u>213</u>	<u>152</u>	
WEATHER										
Grief Point										
Sky	CLDY	CLDY	CLR		0945	OVC	PT CLDY	OVC		0900
Visibility	10	10	15		0945	10	10	12		0900
Precipitation	-	-	-		0945	-	-	-		0900
Wind	SE7	SE18	W2		0945	SW3	SE8	SE15		0900
Sea	LT CHP	LT CHP	SMTH		0945	SMTH	RPLD	CHPY		0900
Merry Island										
Sky	CLDY	OVC	PT CLDY		1000	OVC	CLDY	CLDY		1000
Visibility	10	15+	12		1000	15	15+	12		1000
Precipitation	-	-	-		1000	-	-	-		1000
Wind	SW4	SE23	SW4		1000	SW4	NW3	SE16		1000
Sea	RPLD	CHPY	RPLD		1000	RPLD	RPLD	CHPY		1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^a - Time of weather report is 0900 PDT for Grief Point on June 15.
^e - Estimate.

TABLE D-48: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 17 AND 18, JUNE 1981

SPORT BOAT COUNTS	W E E K D A Y S					W E E K E N D S				
	Jun. 8 Mon	Jun. 15 Mon	Jun. 24 Wed	Mean	Time: PDT	Jun. 7 Sun	Jun. 20 Sat	Jun. 28 Sun	Mean	Time
Area 17										
A	1	1	2	1	1000-1100	9	1	13	8	1000-1100
B	1	2	12	5	1000-1100	2	0	6	3	1000-1100
C	6	6	12	8	1000-1100	51	10	49	36	1000-1100
D	8	4	13	9	1000-1100	32	21	49	34	1000-1100
E	14	2	17	11	1000-1100	65	38	18	40	1000-1100
F	16	5	18	13	1000-1100	58	23	18	33	1000-1100
G	2 ^e	8 ^e	14	8	1000-1100	15 ^e	15 ^e	15 ^e	15	1100-1200
Total	48	28	88	55		232	108	168	169	
Area 18										
A	23	9	22	18	0900-1000	48	41	70	53	0900-1000
B	2	0	4	2	0900-1000	10	8	5	8	0900-1000
C	21	11	22	18	0900-1000	34	32	93	53	0900-1000
D	5	4	18	9	0900-1000	25	20	18	21	0900-1000
Total	51	24	66	47		117	102	186	135	
WEATHER										
Entrance										
Sky	OVC	OVC	PT CLDY		1000	CLDY	CLDY	CLDY		1000
Visibility	8	10	6-8		1000	10	15	6-8		1000
Precipitation	-	-	-		1000	-	-	-		1000
Wind	SE6	SE20	NNW4		1000	W4	WSW4	SE14		1000
Sea	RPLD	MOD	RPLD		1000	RPLD	RPLD	CHPY		1000
East Point										
Sky	OVC	CLDY	PT CLDY		1000	OVC	CLDY	CLDY		1000
Visibility	8	15	15		1000	15	15	15		1000
Precipitation	LT RAIN	-	-		1000	-	-	-		1000
Wind	NE3	SE10	NW6		1000	CLM	SW6	SW12		1000
Sea	RPLD	CHPY	RPLD		1000	RPLD	RPLD	LT CHP		1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver

^e - Estimate.

TABLE D-49: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 19A AND 19B+, JUNE 1981

SPORT BOAT COUNTS	W E E K D A Y S				Time PDT	W E E K E N D S				Time PD
	Jun. 8 Mon	Jun. 15 Mon	Jun. 24 Wed	Mean		Jun. 7 Sun	Jun. 20 Sat	Jun. 28 Sun	Mean	
Area 19A	11	39	24	25	0900-1000	121	102	129	117	0900-1000
Area 19B+										
B	4	8	8	7	0900-1000	21	10	45	25	0900-1000
C	3	14	4	7	0900-1000	25	10	16	17	0900-1000
D	1	2	1	1	0900-1000	12	0	28	13	0900-1000
E	42	14	72	43	0900-1000	185	76	166	143	0900-1000
F	24	83	65	57	0900-1000	166	97	181	148	0900-1000
Total	74	121	150	115		409	193	436	346	

WEATHERRace Rocks

Sky	OVC	CLDY	CLR	0800	OVC	CLDY	PT CLDY	1000
Visibility	8	12	15	0800	15	10	10	1000
Precipitation	LT RAIN	-	-	0800	-	LT RN SH	-	1000
Wind	NEL2	W10	NE3	0800	W6	W15	SW12	1000
Sea	LT CHP	LT CHP	RPLD	0800	RPLD	CHPY	CHPY	1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver

TABLE D-50: SPORT BOAT COUNTS AND WEATHER DURING OVERFLIGHTS, STATISTICAL AREAS 28 AND 29, JUNE 1981

SPORT BOAT COUNTS	W E E K D A Y S				Time PDT	W E E K E N D S				Time PDT
	Jun. 8 Mon	Jun. 15 Mon	Jun. 24 Wed	Mean		Jun. 7 Sun	Jun. 20 Sat	Jun. 28 Sun	Mean	
<u>Area 28</u>										
A	8	13	9	10	0800-0900	28	27	48	35	0800-0900
B	1 ^e	1 ^e	1 ^e	1	0800-0900	3 ^e	3 ^e	3 ^e	3 ^e	0800-0900
C										
D	4	7	12	8	0800-0900	9	50	19	26	0800-0900
E	1	0	0	0	0800-0900	9	12	4	8	0800-0900
Total	<u>14</u>	<u>21</u>	<u>22</u>	<u>19</u>		<u>49</u>	<u>92</u>	<u>74</u>	<u>72</u>	
<u>Area 29</u>										
A	4	3	6	4	0800-0900	16	3	27	15	0800-0900
B	42	25	19	29	0800-0900	213	81	222	172	0800-0900
C	2	0	2	1	0800-0900	6	5	14	9	0800-0900
D										
E										
F	0	0	1	0	0800-0900	0	1	5	2	0800-0900
Total	<u>46</u>	<u>28</u>	<u>28</u>	<u>34</u>		<u>235</u>	<u>90</u>	<u>268</u>	<u>198</u>	
<u>WEATHER</u>										
<u>Pt. Atkinson</u>										
Sky	OVC	OVC	PT CLDY		1000	OVC	CLDY	PT CLDY		1000
Visibility	15	15	12		1000	15	15	15		1000
Precipitation	-	-	-		1000	-	-	-		1000
Wind	NW2	E18	E2		1000	E4	SW10	E12		1000
Sea	SMTH	CHPY	RPLD		1000	RPLD	CHPY	LT CHP		1000
<u>Sandheads</u>										
Sky	OVC	CLDY	CLDY		1000	OVC	CLDY	CLDY		1000
Visibility	15	15	15		1000	15	15	15		1000
Precipitation	-	-	-		1000	-	-	-		1000
Wind	E4	SE14	NW4		1000	E8	SW12	SE12		1000
Sea	RPLD	LT CHP	RPLD		1000	LT CHP	CHPY	LT CHP		1000

SOURCE: Overflight records and Marine Weather Reports, Atmospheric Environment Service, Pacific Regional Office, Vancouver

^e - Estimate.

TABLE D-51: CODE TO WEATHER REPORTS

SKY CONDITION

CLRClear (no cloud)
 PT CLDYPartly Cloudy (not over 50% cloud cover)
 CLDYCloudy (over 50% cloud cover but under 100%)
 OVCOvercast (100% cloud cover)
 OBSCObscured (sky obscured by fog, smoke, or snow)

VISIBILITY - is the greatest distance at which objects near water level
 can be recognized.

- this distance is reported in miles
- visibility greater than 15 miles is reported as 15+

Obstructions to Vision:

FFog KSmoke H Haze

WEATHER

Precipitation Types:

- No precipitation
 RAIN..... Rain
 RN SH..... Rain Shower
 DRIZ..... Drizzle

Intensity of precipitation is denoted by the following symbols:

VL Very light
 LT Light
 HVY..... Heavy

WIND DIRECTION AND SPEED

Direction - from which wind is blowing, to nearest of 8 true directions:

N	North	S	South
NE.....	Northeast	SW.....	Southwest
E	East	W.....	West
SE.....	Southeast	NW.....	Northwest

Speed - in knots, e.g., NW12 = Northwest 12 knots.

SEA CONDITION - as shown by "short waves on surface" which result from

SMTHSmooth
 LT RPLLight Ripple
 RPLDRippled
 LT CHPLight Chop
 CHPYChoppy
 HVY CHPHeavy Chop
 MODModerate Seas
 ROUGHRough Seas
 UNKNUnknown (usually because

APPENDIX E

WEATHER INFORMATION FOR SELECTED
GEORGIA STRAIT REPORTING STATIONS

Monthly temperature and precipitation for overflight days are presented for comparison with corresponding monthly averages at selected stations in the study area.

FIGURE E-1 : LOCATIONS OF SELECTED GEORGIA STRAIT WEATHER STATIONS

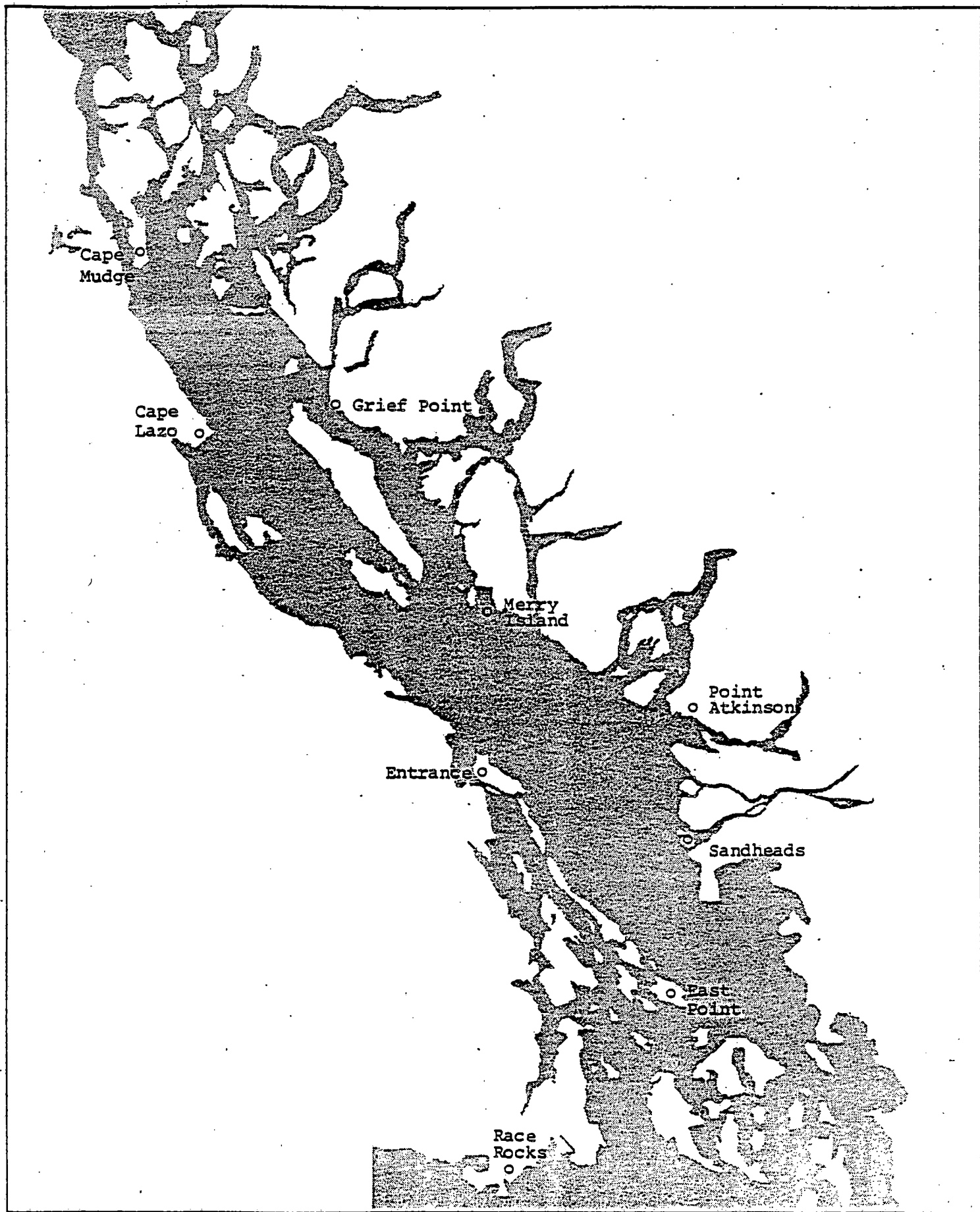


TABLE E-1 : COMPARISON OF TEMPERATURE AND PRECIPITATION ON OVERFLIGHT DAYS WITH CORRESPONDING MONTHLY AVERAGES, JULY 1980

		OVERFLIGHT DAYS										Monthly Average
		WEEKDAY			WEEKEND							
		Jul. 7	Jul. 23	Jul. 31	Jul. 5	Jul. 12	Jul. 13	Jul. 19	Jul. 27	Aug. 2	Average	
Vancouver Airport:	MDT ^a (°C)	15.7	17.6	18.8	14.5	16.1	15.0	15.5	18.9	16.9	16.6	16.6
	DP ^a (mm)	-	-	-	0.4	-	0.8	5.1	-	0.4	0.7	2.2
Victoria Airport:	MDT (°C)	15.9	16.9	16.3	14.0	13.5	12.9	14.7	17.2	16.8	15.4	15.6
	DP (mm)	-	-	-	trace	-	1.0	3.4	-	trace	0.5	0.7
Victoria (Phyllis St.):	MDT (°C)	16.0	17.3	16.3	13.0	13.5	13.8	13.3	16.3	15.3	15.0	15.1
	DP (mm)	-	-	-	-	-	0.7	3.3	-	-	0.4	0.5
Saturna Island:	MDT (°C)	16.8	16.5	17.0	13.5	14.3	13.3	14.8	19.0	15.3	15.6	15.9
	DP (mm)	-	-	-	-	-	0.8	1.6	-	-	0.3	0.8
Powell River:	MDT (°C)	17.0	19.5	17.5	15.0	17.8	14.5	18.0	20.3	16.8	17.4	17.7
	DP (mm)	-	-	-	25.0	-	0.2	-	-	trace	2.8	3.2
Nanaimo Airport:	MDT (°C)	16.1	18.8	18.7	13.7	15.4	14.7	16.7	20.7	17.7	16.9	17.1
	DP (mm)	-	-	-	2.5	-	3.2	3.4	-	trace	1.0	1.1
Merry Island:	MDT (°C)	16.9	19.5	18.3	14.5	16.7	16.1	16.9	20.4	16.5	17.3	17.4
	DP (mm)	-	-	-	17.7	-	2.3	3.4	-	1.2	2.7	2.5
Gibson's (Gower Pt.):	MDT (°C)	15.8	18.5	NA	13.8	15.8	15.0	15.0	19.0	16.3	16.2	16.3
	DP (mm)	-	-	-	0.8	-	4.6	3.4	-	-	1.0	2.8
Campbell River Airport:	MDT (°C)	15.5	17.9	16.3	12.7	14.7	13.5	15.5	18.9	16.3	15.7	15.7
	DP (mm)	-	-	0.2	1.0	-	2.4	3.6	-	0.2	0.8	2.0
Comox Airport:	MDT (°C)	17.1	18.5	16.1	13.8	16.3	15.4	16.9	20.5	16.5	16.8	17.0
	DP (mm)	-	-	-	4.4	-	1.0	5.2	-	0.6	1.2	1.2
Sooke:	MDT (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	DP (mm)	-	-	0.7	-	-	-	5.6	-	-	0.7	0.9

Source: Climatological records from Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^aMDT = mean daily temperature in degrees centigrade
DP = daily precipitation in millimetres

TABLE E-2 : COMPARISON OF TEMPERATURE AND PRECIPITATION ON OVERFLIGHT DAYS WITH CORRESPONDING MONTHLY AVERAGES, AUGUST 1980

		OVERFLIGHT DAYS								Average	Monthly Average
		WEEKDAY			WEEKEND						
		Aug. 3	Aug. 20	Aug. 25	Aug. 3	Aug. 10	Aug. 17	Aug. 23	Aug. 24		
Vancouver Airport:	MDT ^a (°C)	19.4	15.5	16.8	15.9	20.0	15.9	16.7	16.2	17.1	16.4
	DP ^a (mm)	-	-	-	trace	-	12.2	-	-	1.5	1.7
Victoria Airport:	MDT (°C)	19.7	13.7	14.1	14.9	20.1	16.4	15.3	15.1	16.2	15.3
	DP (mm)	-	-	-	-	-	9.9	-	-	1.2	0.4
Victoria (Phyllis St.):	MDT (°C)	17.8	13.8	13.3	15.5	17.3	14.3	14.8	15.0	15.2	14.7
	DP (mm)	-	-	-	-	-	9.6	-	-	1.2	0.7
Saturna Island:	MDT (°C)	21.0	15.8	15.3	15.0	19.3	14.8	16.3	16.0	16.7	15.5
	DP (mm)	-	-	trace	-	-	11.2	-	-	1.4	0.9
Howell River:	MDT (°C)	20.5	15.0	15.3	16.3	21.5	16.5	16.0	16.3	17.2	17.2
	DP (mm)	-	-	2.0	-	-	12.2	-	-	1.8	2.1
Nanaimo Airport:	MDT (°C)	21.9	16.4	15.6	15.5	21.1	18.2	16.0	16.5	17.7	16.9
	DP (mm)	-	-	-	-	-	12.8	0.4	-	1.7	0.8
Berry Island:	MDT (°C)	20.0	15.9	15.6	16.6	20.3	16.1	17.0	15.5	17.1	17.0
	DP (mm)	-	-	0.4	-	-	8.8	-	-	1.2	0.9
Bibson's (Gower Pt.):	MDT (°C)	19.3	14.5	15.5	16.3	20.3	15.3	16.3	14.5	16.5	16.0
	DP (mm)	-	-	3.0	-	-	15.0	-	-	2.3	1.7
Campbell River Airport:	MDT (°C)	20.2	13.9	12.3	15.7	20.9	17.0	16.1	14.1	16.3	15.5
	DP (mm)	-	-	1.4	-	-	5.2	0.2	-	0.9	1.7
Comox Airport:	MDT (°C)	20.1	14.8	13.9	16.2	20.2	17.8	16.2	15.6	16.9	16.6
	DP (mm)	-	-	trace	-	-	6.8	-	-	0.9	0.9
Sooke:	MDT (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	DP (mm)	-	-	1.0	-	-	7.6	-	-	1.1	0.5

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Source: Climatological records from Atmospheric Environment Service, Pacific Regional Office, Vancouver.

MDT = mean daily temperature in degrees centigrade
 DP = daily precipitation in millimetres

TABLE E-3: COMPARISON OF TEMPERATURE AND PRECIPITATION ON OVERFLIGHT DAYS WITH CORRESPONDING MONTHLY AVERAGES, SEPTEMBER 1980

		OVERFLIGHT DAYS							Average	Monthly Average
		WEEKDAYS			WEEKENDS					
		Sep. 8	Sep. 17	Sep. 25	Sep. 6	Sep. 13	Sep. 14	Sep. 21		
Vancouver Airport:	MDT ^a (°C)	12.9	12.6	11.0	15.0	14.5	16.4	12.8	13.6	13.9
	DP ^a (mm)	-	-	-	9.0	0.8	-	0.4	1.5	3.3
Victoria Airport:	MDT (°C)	14.9	11.6	12.9	12.3	14.5	18.3	13.6	14.0	13.4
	DP (mm)	-	-	-	6.0	0.2	-	trace	0.9	1.2
Victoria (Phyllis St.):	MDT (°C)	13.8	11.3	11.3	12.5	13.5	16.8	13.5	13.2	13.1
	DP (mm)	-	-	-	3.8	0.6	-	1.3	0.8	1.5
Saturna Island:	MDT (°C)	14.3	12.8	13.0	13.3	14.0	15.3	13.5	13.7	13.9
	DP (mm)	-	-	-	4.4	0.6	-	1.4	0.9	1.2
Powell River:	MDT (°C)	16.0	16.0	13.5	18.0	15.5	17.5	12.5	15.6	15.1
	DP (mm)	-	-	-	6.5	-	-	3.0	1.4	2.3
Nanaimo Airport:	MDT (°C)	14.5	13.3	12.3	13.9	16.0	17.4	13.0	14.3	14.1
	DP (mm)	-	trace	-	3.2	0.9	-	-	0.6	1.4
Merry Island:	MDT (°C)	14.4	14.8	12.8	15.1	15.3	16.7	13.5	14.7	14.5
	DP (mm)	-	-	-	5.5	trace	-	1.1	0.9	2.6
Gibson's (Gower Pt.):	MDT (°C)	13.5	13.0	12.0	15.3	13.5	13.0	16.3	13.8	13.6
	DP (mm)	-	-	-	10.8	-	-	3.6	2.1	3.2
Campbell River Airport:	MDT (°C)	12.4	12.9	11.8	13.5	15.3	15.9	8.8	12.9	12.6
	DP (mm)	-	-	-	3.1	-	-	6.4	1.4	2.7
Comox Airport:	MDT (°C)	14.1	14.7	12.7	14.7	16.3	18.3	12.4	14.7	14.0
	DP (mm)	-	-	-	5.4	-	-	1.0	0.9	1.8
Sooke:	MDT (°C)	NA	NA	NA	NA	NA	NA	NA	NA	NA
	DP (mm)	-	-	-	10.0	-	-	4.1	2.0	2.8

Source: Climatological records from Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^aMDT = mean daily temperature in degrees centigrade
 DP = daily precipitation in millimetres

TABLE E-4 : COMPARISON OF TEMPERATURE AND PRECIPITATION ON OVERFLIGHT DAYS WITH CORRESPONDING MONTHLY AVERAGES, OCTOBER 1980

		OVERFLIGHTS				Average	Monthly Average
		WEEKDAYS		WEEKENDS			
		Oct. 8	Oct. 23	Oct. 11	Oct. 26		
Vancouver Airport:	MDT ^a (°C)	13.2	7.2	12.1	10.2	10.7	10.8
	DP ^a (mm)	-	-	1.8	-	0.5	1.9
Victoria Airport:	MDT (°C)	12.8	8.2	10.4	8.7	10.0	10.3
	DP (mm)	-	-	0.4	-	0.1	0.9
Victoria (Phyllis St.):	MDT (°C)	14.0	10.5	11.5	10.0	11.5	11.1
	DP (mm)	-	-	3.0	-	0.8	0.4
Saturna Island:	MDT (°C)	14.3	11.0	12.5	10.0	12.0	11.7
	DP (mm)	-	-	2.2	-	0.6	0.7
Powell River:	MDT (°C)	15.0	7.0	14.5	11.5	12.0	12.2
	DP (mm)	-	-	2.4	-	0.6	2.1
Nanaimo Airport:	MDT (°C)	13.6	6.8	11.5	8.0	10.0	10.3
	DP (mm)	-	-	3.0	-	0.8	1.4
Merry Island:	MDT (°C)	13.1	8.9	12.6	10.0	11.2	11.5
	DP (mm)	-	-	3.6	-	0.9	1.5
Gibson's (Gower Pt.):	MDT (°C)	13.8	8.0	11.8	9.5	10.8	10.9
	DP (mm)	-	-	7.4	-	1.9	2.6
Campbell River Airport:	MDT (°C)	12.0	3.8	8.9	6.0	7.7	8.2
	DP (mm)	0.9	trace	3.5	2.4	1.7	3.3
Comox Airport:	MDT (°C)	12.7	6.0	9.9	7.9	9.1	10.0
	DP (mm)	-	-	2.2	1.6	1.0	1.9
Sooke:	MDT (°C)	NA	NA	NA	NA	NA	NA
	DP (mm)	-	-	5.3	-	1.3	0.9

Source: Climatological records from Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^aMDT = mean daily temperature in degrees centigrade
 DP = daily precipitation in millimetres

TABLE E-5: COMPARISON OF TEMPERATURE AND PRECIPITATION ON OVERFLIGHT DAYS WITH CORRESPONDING MONTHLY AVERAGES, NOVEMBER/DECEMBER, 1980

		NOVEMBER OVERFLIGHT DAYS			November Monthly Average	DECEMBER OVERFLIGHT DAYS			December Monthly Average
		Weekday	Weekend	Average		Weekday	Weekend	Average	
		Nov.19	Nov.22			Dec.12	Dec.14		
Vancouver Airport:	MDT ^a (°C)	8.9	2.7	5.8	7.0	6.2	8.7	7.5	4.9
	DP ^a (mm)	trace	-	-	10.4	-	8.0	4.0	7.5
Victoria Airport:	MDT (°C)	7.4	3.4	5.4	6.8	5.0	8.6	6.8	5.6
	DP (mm)	1.6	-	0.8	8.2	-	4.7	2.4	6.6
Victoria (Phyllis St.):	MDT (°C)	9.5	6.0	7.8	8.2	6.5	8.8	7.1	6.4
	DP (mm)	1.0	-	0.5	6.7	-	2.2	1.1	5.0
Saturna Island:	MDT (°C)	9.0	4.3	6.7	8.7	6.5	8.3	7.4	6.3
	DP (mm)	2.6	-	1.3	6.3	-	1.0	0.5	3.7
Powell River:	MDT (°C)	7.5	5.0	6.3	7.9	7.0	8.5	7.8	5.9
	DP (mm)	1.9	0.6	1.3	8.2	-	7.0	3.5	5.3
Nanaimo Airport:	MDT (°C)	5.8	2.2	4.0	6.1	3.9	8.7	6.3	4.6
	DP (mm)	0.8	-	0.4	9.7	-	7.0	3.5	8.7
Merry Island:	MDT (°C)	7.8	5.0	6.4	8.1	6.3	9.1	7.7	5.9
	DP (mm)	0.2	-	0.1	9.2	-	4.0	2.0	6.8
Gibson's (Gower Pt.):	MDT (°C)	7.0	3.8	5.4	6.8	5.3	7.5	6.4	4.5
	DP (mm)	3.4	-	1.7	9.9	trace	3.0	1.5	7.9
Campbell River Airport:	MDT (°C)	3.7	-0.2	1.8	5.0	-0.6	7.2	3.3	2.2
	DP (mm)	0.5	1.4	1.0	6.8	-	13.2	6.6	8.8
Comox Airport:	MDT (°C)	5.7	2.8	4.3	6.7	4.1	9.1	6.6	4.4
	DP (mm)	trace	-	-	8.2	-	7.2	3.6	7.1
Sooke:	MDT (°C)	NA	NA	NA	NA	NA	NA	NA	NA
	DP (mm)	1.0	-	0.5	11.0	-	22.2	11.1	10.1

Source: Climatological records from Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^aMDT = mean daily temperature in degrees centigrade
DP = daily precipitation in millimetres

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TABLE E-6: COMPARISON OF TEMPERATURE AND PERCIPITATION ON OVERFLIGHT DAYS WITH CORRESPONDING MONTHLY AVERAGES, JANUARY/
FEBRUARY, 1981

		JANUARY OVERFLIGHT DAYS			January Monthly Average	FEBRUARY OVERFLIGHT DAYS			February Monthly Average
		Weekday	Weekend	Average		Weekday	Weekend	Average	
		Jan 26	Jan 10			Feb 18	Feb 8		
Vancouver Airport:	MDT ^a (°C)	4.8	6.0	5.4	5.5	7.2	1.6	4.4	5.2
	DP ^a (mm)	6.1	--	3.1	2.3	9.8	--	4.9	5.6
Victoria Airport:	MDT (°C)	4.1	6.3	5.2	5.8	7.6	3.5	5.6	5.3
	DP (mm)	5.9	--	3.0	1.5	13.6	--	6.8	5.5
Victoria (Phyllis St.):	MDT (°C)	4.2	7.5	5.8	7.2	8.8	3.8	6.3	6.6
	DP (mm)	2.1	--	2.1	0.7	14.5	--	7.3	4.6
Saturna Island:	MDT (°C)	5.3	7.5	6.4	6.7	9.0	4.3	6.7	6.6
	DP (mm)	0.3	--	0.2	1.0	11.8	--	5.9	3.5
Powell River:	MDT (°C)	5.0	8.0	6.5	6.6	8.0	3.8	5.9	5.8
	DP (mm)	3.0	--	1.5	3.3	18.0	--	9.0	3.5
Nanaimo Airport:	MDT (°C)	4.1	6.1	5.1	4.7	6.3	2.9	4.6	4.7
	DP (mm)	8.1	0.3	4.2	4.0	13.4	--	6.7	5.6
Merry Island:	MDT (°C)	4.0	6.6	5.3	6.1	8.2	4.5	6.4	5.9
	DP (mm)	10.2	--	5.1	2.2	11.0	--	5.5	3.0
Gibson's (Gower Point):	MDT (°C)	3.4	6.5	4.9	5.5	7.0	3.3	5.2	5.1
	DP (mm)	9.3	--	4.7	2.7	18.7	--	9.4	4.6
Campbell River Airport:	MDT (°C)	2.7	4.8	3.7	3.8	4.0	0.5	2.3	3.6
	DP (mm)	trace	--	--	4.4	37.2	1.6	18.6	4.9
Comox Airport:	MDT (°C)	4.1	5.3	4.7	5.1	5.0	2.8	3.9	4.9
	DP (mm)	3.4	--	1.7	4.0	17.2	--	8.6	4.7
Sooke:	MDT (°C)	NA	NA	NA	NA	NA	NA	NA	NA
	DP (mm)	--	--	--	2.2	16.7	--	8.4	7.0

Source: Climatological records from Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^aMDT = mean daily temperature in degrees centigrade.
DP = daily precipitation in millimeters.

TABLE E-7: COMPARISON OF TEMPERATURE AND PRECIPITATION ON OVERFLIGHT DAYS WITH CORRESPONDING MONTHLY AVERAGES, MARCH 1981

		OVERFLIGHT DAYS				Average	Monthly Average
		WEEKDAYS		WEEKENDS			
		Mar. 10	Mar. 25	Mar. 14	Mar. 22		
Vancouver Airport:	MDT ^a (°C)	7.9	11.2	9.6	10.3	9.8	7.8
	DP ^a (mm)	-	14.2	-	3.7	4.5	4.1
Victoria Airport:	MDT (°C)	7.4	10.3	7.3	9.4	8.6	7.6
	DP (mm)	-	9.8	-	1.2	2.8	1.7
Victoria (Phyllis St.):	MDT (°C)	8.3	10.5	8.5	9.8	9.3	8.8
	DP (mm)	-	-	-	2.3	0.6	0.9
Saturna Island:	MDT (°C)	8.8	10.3	9.8	8.0	9.2	8.7
	DP (mm)	-	-	0.8	2.2	0.8	1.4
Powell River:	MDT (°C)	7.0	9.5	11.5	8.5	9.1	8.2
	DP (mm)	1.5	-	1.2	4.2	1.7	3.6
Nanaimo Airport:	MDT (°C)	6.7	11.0	8.1	8.6	8.6	7.3
	DP (mm)	-	-	-	1.2	0.3	2.0
Merry Island:	MDT (°C)	8.6	10.4	9.7	9.1	9.5	8.4
	DP (mm)	-	9.8	trace	3.4	3.3	2.7
Gibson's (Gower Pt.):	MDT (°C)	8.3	10.8	8.8	9.0	9.2	7.9
	DP (mm)	-	-	1.6	3.8	1.4	4.4
Campbell River Airport:	MDT (°C)	5.2	7.8	6.1	4.7	6.0	5.1
	DP (mm)	1.1	-	2.0	7.0	2.5	2.6
Comox Airport:	MDT (°C)	6.4	9.4	8.0	9.1	8.2	6.8
	DP (mm)	0.3	4.2	trace	2.0	1.6	2.2
Sooke:	MDT (°C)	NA	NA	NA	NA	NA	NA
	DP (mm)	-	-	-	3.6	0.9	3.2

Source: Climatological records from Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^aMDT = mean daily temperature in degrees centigrade
 DP = daily precipitation in millimetres

TABLE E-8: COMPARISON OF TEMPERATURE AND PRECIPITATION ON OVERFLIGHT DAYS WITH CORRESPONDING MONTHLY AVERAGES, APRIL 1981

		O V E R F L I G H T D A Y S				Average	Monthly Average
		WEEKDAYS		WEEKENDS			
		Apr. 9	Apr. 24	Apr. 18	Apr. 25		
Vancouver Airport:	MDT ^a (°C)	7.9	10.4	8.7	8.0	8.8	8.7
	DP ^a (mm)	trace	trace	-	-	-	4.8
Victoria Airport:	MDT (°C)	7.3	8.6	10.1	7.8	8.5	8.4
	DP (mm)	0.2	3.0	-	-	0.8	2.2
Victoria (Phyllis St.):	MDT (°C)	NA	9.3	NA	7.3	8.3	8.7
	DP (mm)	18.6	NA	-	-	6.2	2.0
Saturna Island:	MDT (°C)	8.0	9.0	10.3	7.8	8.8	9.3
	DP (mm)	0.6	-	-	-	0.2	2.0
Powell River:	MDT (°C)	7.5	9.5	10.0	9.5	9.1	8.7
	DP (mm)	1.6	-	-	-	0.4	2.1
Nanaimo Airport:	MDT (°C)	7.6	9.0	9.9	7.5	8.5	8.3
	DP (mm)	-	-	-	-	-	1.8
Merry Island:	MDT (°C)	8.4	10.5	9.8	8.7	9.4	8.9
	DP (mm)	trace	trace	-	-	-	3.2
Gibson's (Gower Pt.):	MDT (°C)	7.0	10.0	9.5	8.5	8.8	8.7
	DP (mm)	2.3	-	-	-	0.6	4.8
Campbell River Airport:	MDT (°C)	5.8	5.3	7.3	4.9	5.8	6.8
	DP (mm)	10.8	1.9	-	-	3.2	2.9
Comox Airport:	MDT (°C)	11.6	8.8	8.2	6.8	8.9	8.2
	DP (mm)	trace	0.8	-	-	0.2	2.5
Sooke:	MDT (°C)	NA	NA	NA	NA	NA	NA
	DP (mm)	12.7	-	-	-	3.2	5.7

Source: Climatological records from Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^aMDT = mean daily temperature in degrees centigrade
DP = daily precipitation in millimetres

TABLE E-9: COMPARISON OF TEMPERATURE AND PRECIPITATION ON OVERFLIGHT DAYS WITH CORRESPONDING MONTHLY AVERAGES, MAY 1981

		OVERFLIGHT DAYS				Average	Monthly Average
		WEEKDAYS		WEEKENDS			
		May 12	May 27	May 10	May 30		
Vancouver Airport:	MDT ^a (°C)	11.6	13.8	10.7	16.2	13.1	12.5
	DP ^a (mm)	-	-	0.2	0.4	0.2	2.6
Victoria Airport:	MDT (°C)	10.9	11.6	11.9	15.0	12.4	11.4
	DP (mm)	-	-	trace	0.2	0.1	1.4
Victoria (Phyllis St.):	MDT (°C)	11.3	11.8	11.8	14.8	12.4	11.7
	DP (mm)	0.3	-	0.6	0.2	0.3	1.5
Saturna Island:	MDT (°C)	12.0	12.5	10.8	14.5	12.5	11.9
	DP (mm)	-	-	1.4	-	0.4	1.8
Powell River:	MDT (°C)	11.0	14.5	11.0	16.3	13.2	12.4
	DP (mm)	-	-	1.5	2.8	1.1	3.9
Nanaimo Airport:	MDT (°C)	11.4	12.7	10.7	15.1	12.5	11.8
	DP (mm)	-	-	1.8	0.4	0.6	2.2
Merry Island:	MDT (°C)	12.4	14.4	11.4	16.5	13.7	12.7
	DP (mm)	-	-	4.5	1.0	1.4	3.5
Gibson's (Gower Pt.):	MDT (°C)	11.8	13.3	11.0	15.8	13.0	12.1
	DP (mm)	4.0	-	16.6	trace	5.2	5.0
Campbell River Airport:	MDT (°C)	9.0	12.1	8.2	11.6	10.2	10.8
	DP (mm)	1.2	-	5.0	7.9	3.5	4.1
Comox Airport:	MDT (°C)	11.8	12.5	9.3	14.6	9.2	12.1
	DP (mm)	-	-	4.8	3.4	2.1	3.1
Sooke:	MDT (°C)	NA	NA	NA	NA	NA	NA
	DP (mm)	-	-	1.0	-	0.3	1.5

Source: Climatological records from Atmospheric Environment Service, Pacific Regional Office, Vancouver.

^aMDT = mean daily temperature in degrees centigrade
 DP = daily precipitation in millimetres

TABLE E-10: COMPARISON OF TEMPERATURE AND PRECIPITATION ON OVERFLIGHT DAYS WITH CORRESPONDING MONTHLY AVERAGES, JUNE 1981

		OVERFLIGHT DAYS						Average	Monthly Average
		WEEKDAY			WEEKEND				
		Jun 8	Jun 15	Jun 24	Jun 7	Jun 20	Jun 28		
Vancouver Airport:	MDT ^a (°C)	12.5	13.1	14.8	12.2	14.2	14.8	13.6	13.9
	DP ^a (mm)	12.3	6.8	--	1.0	0.8	1.0	3.7	4.5
Victoria Airport:	MDT (°C)	10.6	10.5	13.8	11.3	14.2	12.5	12.2	13.1
	DP (mm)	12.4	4.2	--	--	--	0.2	2.8	2.3
Victoria (Phyllis St.):	MDT (°C)	10.3	11.8	12.8	11.5	13.8	13.0	12.2	13.1
	DP (mm)	17.0	3.4	--	trace	0.2	trace	3.4	1.5
Saturna Island:	MDT (°C)	11.0	12.3	16.8	11.5	12.5	15.0	13.2	13.6
	DP (mm)	10.4	2.2	--	0.4	1.4	0.6	2.5	2.0
Powell River:	MDT (°C)	14.3	12.5	16.5	14.0	14.0	15.0	14.4	14.4
	DP (mm)	2.0	5.9	--	1.0	--	6.4	2.6	2.3
Nanaimo Airport:	MDT (°C)	9.7	11.7	15.4	11.3	13.2	13.4	12.5	13.2
	DP (mm)	2.0	2.0	0.4	1.4	--	1.1	1.2	2.1
Berry Island:	MDT (°C)	13.8	12.8	15.0	12.8	13.7	15.2	13.9	14.0
	DP (mm)	0.2	9.0	--	trace	0.2	6.8	2.7	2.7
Gibson's (Gower Point):	MDT (°C)	12.5	12.5	14.5	12.3	13.3	15.0	13.4	13.3
	DP (mm)	3.2	12.1	--	--	--	17.1	5.4	4.2
Campbell River Airport:	MDT (°C)	12.1	11.6	12.8	11.6	11.5	9.4	11.5	12.2
	DP (mm)	5.3	1.2	--	2.8	2.8	6.2	3.1	2.6
Comox Airport:	MDT (°C)	13.3	13.3	15.0	12.2	14.0	12.5	13.4	13.5
	DP (mm)	trace	1.4	--	trace	--	7.6	1.5	1.3
Sooke:	MDT (°C)	NA	NA	NA	NA	NA	NA	NA	NA
	DP (mm)	17.1	11.1	--	--	1.7	1.5	5.3	3.0

Source: Climatological records from Atmospheric Environment Service, Pacific Regional Office, Vancouver.

MDT = mean daily temperature in degrees centigrade.
 DP = daily precipitation in millimeters.

TABLE E-11: 1941-1970 MONTHLY MEAN TEMPERATURES ($^{\circ}\text{C}$) AT SELECTED GEORGIA STRAIT WEATHER REPORTING STATIONS

	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>
Vancouver Airport	17.4	17.1	14.2	10.1	6.1	3.8	2.4	4.4	5.8	8.9	12.4	15.3
Victoria Airport	16.4	16.1	13.9	10.0	6.2	4.2	2.9	4.7	5.8	8.6	11.9	14.5
Victoria (Phyllis St.)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statuana Island	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dowell River	16.8	16.3	13.6	9.2	5.1	3.2	1.9	3.6	4.4	7.3	11.4	14.7
Manaimo Airport	17.1	16.7	13.9	9.2	5.1	2.9	1.5	3.5	4.7	7.8	11.7	14.8
Berry Island	17.9	17.7	14.8	10.8	7.3	5.2	4.1	5.3	6.4	9.1	12.9	15.6
Hibson's (Gower Point)	17.1	16.9	14.1	9.9	5.6	3.4	2.1	3.8	5.2	8.0	12.1	14.9
Campbell River Airprt.	16.6	15.9	12.7	8.1	4.2	1.6	0.1	2.7	3.7	6.9	11.2	14.1
Comox Airport	17.3	16.8	13.7	9.1	5.4	3.6	2.1	3.9	4.9	7.9	12.1	15.2
Soke	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

E-13

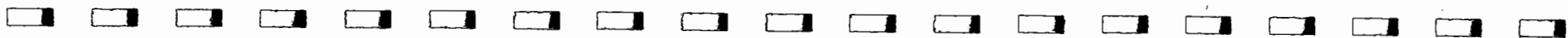
Source: Atmospheric Environment Service, Pacific Regional Office, Vancouver

TABLE E-12: 1941-1970 MONTHLY MEAN PRECIPITATION (mm) AT SELECTED GEORGIA STRAIT WEATHER REPORTING STATIONS

	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>
Vancouver Airport	29.7	37.1	61.2	122.2	141.2	165.4	143.3	116.6	93.7	61.0	47.5	45.2
Victoria Airport	18.5	24.9	36.6	87.4	127.5	145.5	146.3	96.8	69.1	44.2	30.5	29.2
Victoria (Phyllis St.)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statuana Island	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dowell River	42.4	53.1	64.8	149.9	158.2	170.4	140.7	102.1	90.2	74.2	51.6	58.4
Manaimo Airport	23.1	25.1	43.9	106.4	153.9	180.6	161.8	110.7	101.3	63.5	37.3	39.4
Berry Island	29.7	39.9	57.2	103.6	118.6	129.3	118.1	82.8	62.0	59.4	40.6	41.4
Hibson's (Gower Point)	44.2	52.6	83.3	161.3	172.7	206.2	174.5	144.8	115.8	74.4	53.8	44.2
Campbell River Airprt.	39.1	51.6	68.1	166.4	231.1	270.3	227.1	165.6	143.3	76.5	48.5	51.1
Comox Airport	28.4	41.9	47.5	132.6	186.9	211.6	196.1	125.5	107.7	56.9	34.5	36.8
Doke	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

E-14

Source: Atmospheric Environment Service, Pacific Region Office, Vancouver



APPENDIX F

VERIFICATION OF OVERFLIGHT COUNTS

The accuracy and precision of the procedure used to count sport fishing boats from an aircraft is of some concern in the methodology. In this context, the accuracy of the overflight counts refers to the magnitude of any deviations of the visual counts from the "true" number of sport boats fishing in the region (bias). Precision, in turn, refers to the size of any deviation of an overflight count from the mean count as determined from repeated observations (sampling variation). In this appendix, both types of "observer error" are investigated.

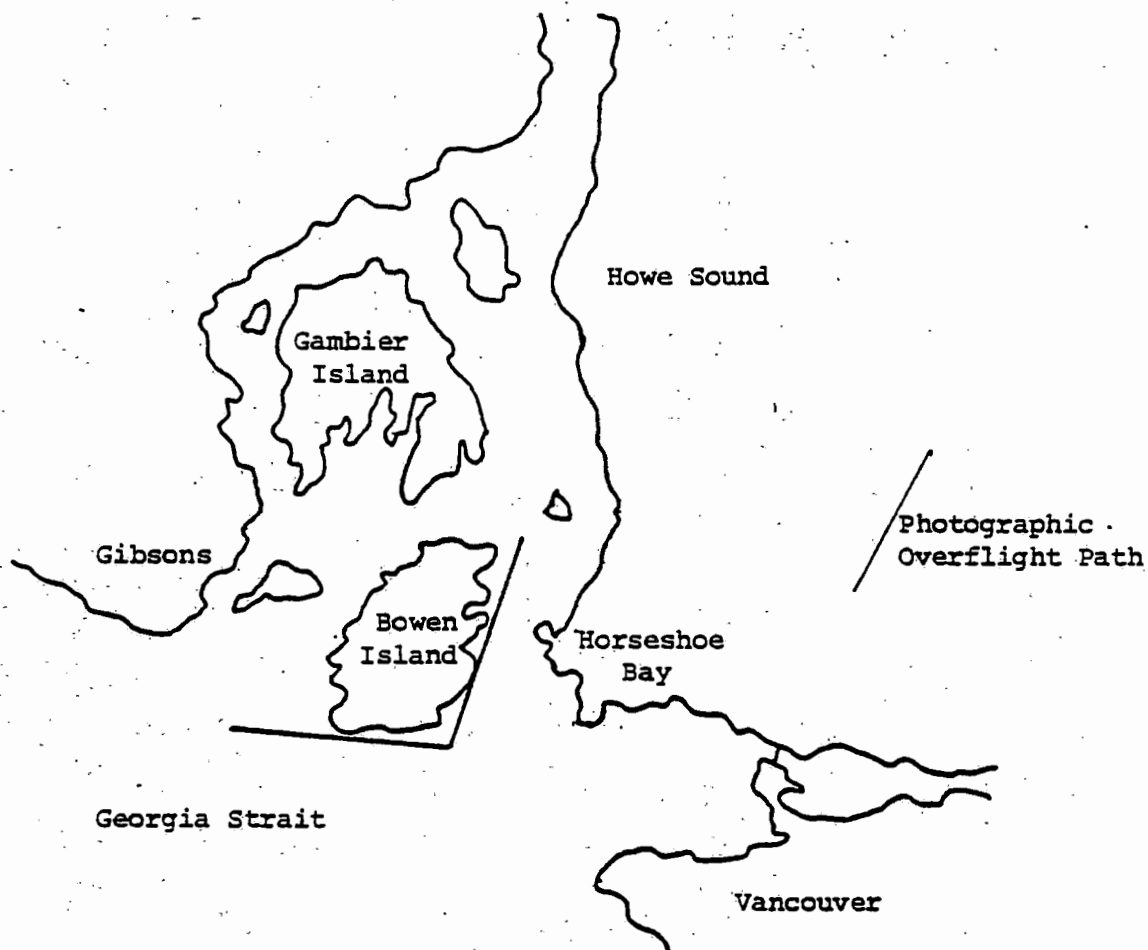
On two occasions aerial photographs of selected densely populated sport fishing grounds were taken from an independent aircraft at the same time as overflight counts were being conducted. Accordingly, it was possible to compare sport boat counts as determined from photographic contact negatives.

On the overflight day July 27, 1980 (Vancouver Sun Derby Day) the east and south shorelines of Bowen Island in Howe Sound were photographed (Figure F-1). The count of 440 boats sighted from the air is within 3 percent of the 450 sport boat¹ from the photographic flight.

On the overflight day September 17, 1980 the southern tip of Quadra Island (Cape Mudge) near Campbell River was photographed (Figure F-2). The area covered was essentially sub-areas 13A and 13C (Appendix B). The total visual count of 187 sport fishing boats compared favourably with the total

¹ Part of the discrepancy may be due to the fact that the timing of the overflight and the photographic flight could not be matched exactly.

 FIGURE F-1: BOWEN ISLAND, PHOTOGRAPHIC FLIGHT, JULY 27, 1980

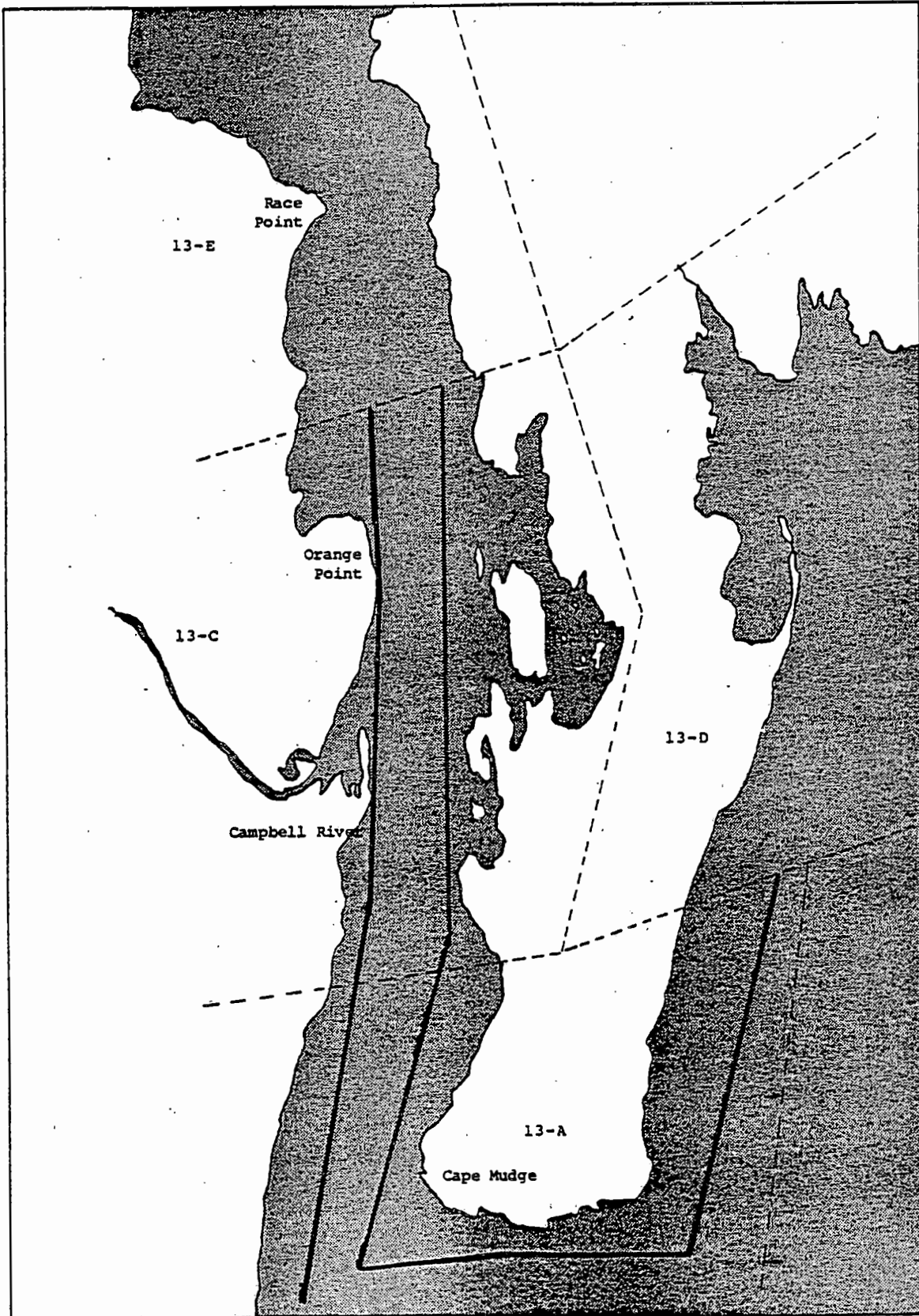

BOWEN ISLAND SPORT BOAT COUNTS, JULY 27, 1980

<u>Photographic Count (8:00 am - 9:00 am PDT)</u>	450 *
<u>Overflight Count (8:00 am - 8:15 am PDT)</u>	
Left Hand Count	21
Right Hand Count #1	409
Right Hand Count #2	429
Total Count **	440

* In addition from the photographic contact negatives, 42 boats were deemed to be "running" and 95 boats were deemed to be moored.

** Left hand count plus average of right hand counts.

FIGURE F-2: CAPE MUDGE PHOTOGRAPHIC LINES, SEPTEMBER 17, 1980



—— Lines of Photographic Flight

FIGURE F-2: Continued

CAPE MUDGE SPORT BOAT COUNTS, SEPTEMBER 17, 1980

	Sub-Area 13A	Sub-Area 13C	Total
Photographic Count (10:00 am - 10:30 am PDT)	148	39	187
Overflight Count (10:00 am 0 10:30 am PDT)			
Left hand Count	37	99	136
Right hand Count #1	35	14	49
Right hand Count #2	34	11	45
Total Count *	72	112	184

* Left hand count plus average of right hand counts.

photographic count of 184. However, there are significant differences in the distribution of the counts between the two sub-areas. This is somewhat atypical in that in the majority of cases, sub-area boundaries do not traverse major sport fishing grounds. However, this example does tend to highlight the fact that the geographic resolution of sport boat counts is less accurate at the sub-area level.

The data presented above and documenting the disparities in right hand overflight counts illustrate the procedure by which the precision or sampling variability of overflight counts can be assessed. Generally, on a total statistical area basis, it was found that two right hand counts differed by at most 5 percent and in relation to sampling variation between overflight days, was of minimal importance.

Generally the two examples presented represent a good test of the accuracy and precision of the overflight procedure since one would expect greatest errors to occur at densely populated fishing grounds. Based on the empirical evidence from the internal verification inherent in having two right hand overflight counts and from the photographic verification procedure, it is concluded that at the total statistical area level observer error (bias and sampling error) is not a concern. However, as noted above, one could expect lower precision at a finer geographic level.

APPENDIX G

WEIGHTED ESTIMATES OF SALMON CATCH

PER BOAT TRIP

TABLE G-1: WEIGHTED ESTIMATES OF AVERAGE SALMON CATCH PER BOAT TRIP, GEORGIA STRAIT CREEL SURVEY, JULY 1980

Area of Landing	Weekday				Weekend				Total			
	CO	CH	SM	T SAL	CO	CH	SM	T SAL	CO	CH	SM	T SAL
Campbell River	1.59	.26	.04	1.90	1.46	.21	.03	1.70	1.54	.24	.04	1.82
Chemainus	.41	1.32	-	1.73	.31	1.02	.01	1.34	.35	1.15	.01	1.51
Central Comox*	1.27	.19	-	1.47	1.16	.24	-	1.41	1.24	.20	-	1.45
North Comox *	2.04	.17	.06	2.28	3.30	.15	-	3.45	2.12	17	.06	2.35
South Comox												
Cowichan Bay	.03	.41	-	.44	.03	.41	.01	.45	.03	.41	-	.44
Delta	.71	.66	.10	1.47	.64	.56	.01	1.21	.67	.60	.05	1.32
Egmont	.21	.14	-	.35	.28	.27	-	.55	.23	.18	-	.41
Gibson's Landing	.91	.28	-	1.19	.31	.20	-	.50	.57	.23	-	.80
Ladysmith	.09	.60	-	.68	.65	.73	-	1.38	.39	.67	-	1.06
Lund	.91	.09	-	1.00	.58	.13	-	.71	.79	.11	-	.89
Nanaimo	.53	.77	.02	1.32	1.24	.91	.01	2.16	.87	.84	.01	1.73
Pender Harbour	1.42	.27	.01	1.70	1.54	.31	-	1.86	1.47	.29	-	1.76
Powell River	1.01	.22	.06	1.29	1.13	.17	.05	1.35	1.06	.20	.05	1.32
Qualicum North	1.01	.09	.01	1.11	1.35	.18	.01	1.55	1.14	.13	.01	1.27
Qualicum South	1.18	.48	.03	1.69	1.46	.49	.01	1.96	1.28	.48	.03	1.79
Richmond	.36	.14	.09	.59	.50	.26	.15	.92	.47	.23	.14	.84
Saanich Inlet	.05	.55	-	.59	.06	.35	-	.42	.06	.45	-	.51
Sooke	1.03	.24	.02	1.29	.65	.21	.01	.88	.86	.23	.02	1.10
Vancouver	.63	.95	.05	1.63	.60	.60	.05	1.26	.62	.76	.05	1.43
West Vancouver	.56	.19	.01	.76	.25	.20	.01	.46	.41	.19	.01	.60
Victoria	.02	.46	-	.48	.05	.40	-	.45	.03	.43	-	.46
Sidney	.07	.44	-	.51	.09	.41	.02	.52	.08	.43	.01	.52

Legend: CO - Coho
 CH - Chinook
 SM - Other salmon or unidentified salmon
 T SAL - All salmonids

*Weekday and weekend estimates refer to different combinations of landing sites.

G-1

TABLE G2: WEIGHTED ESTIMATES OF AVERAGE SALMON CATCH PER BOAT TRIP, GEORGIA STRAIT CREEL SURVEY, AUGUST 1980

Area of Landing	Weekday				Weekend				Total			
	CO	CH	SM	T SAL	CO	CH	SM	T SAL	CO	CH	SM	T SAL
Campbell River*	1.26	.23	.01	1.51	1.40	.26	.04	1.69	1.31	.24	.02	1.58
Chemainus	.31	.20	-	.51	.35	.52	-	.87	.33	.37	-	.70
Central Comox*	.62	.44	.01	1.07	.73	.21	.01	.95	.65	.38	.01	1.04
North Comox*	1.20	.29	.04	1.53	1.01	.29	.03	1.32	1.15	.29	.04	1.48
South Comox												
Cowichan Bay	.02	.51	-	.53	.04	.39	-	.43	.03	.46	-	.49
Delta	.30	.23	.13	.66	.46	.44	.01	.91	.39	.35	.06	.80
Egmont	.04	.07	-	.10	.02	.15	-	.17	.03	.10	-	.13
Gibson's Landing	.38	.32	.03	.73	1.16	.18	-	1.34	.70	.26	.02	.97
Ladysmith	.11	.28	-	.38	.17	.35	.02	.54	.14	.32	.01	.46
Lund	1.12	.05	-	1.16	.35	.14	-	.48	.94	.07	-	1.01
Nanaimo	.19	.31	.01	.51	.49	.49	.01	.99	.32	.39	.01	.72
Pender Harbour	.77	.15	-	.92	1.18	.26	-	1.43	.92	.19	-	1.10
Powell River*	.72	.32	-	1.04	.60	.22	.02	.85	.66	.27	.01	.93
Qualicum North	.70	.19	.07	.95	.55	.17	-	.72	.64	.18	.04	.86
Qualicum South	.65	.48	-	1.13	.68	.42	.03	1.14	.67	.45	.01	1.13
Richmond	.80	.20	.12	1.12	.43	.31	.03	.76	.49	.29	.04	.82
Saanich Inlet	.07	.79	-	.86	.08	.75	-	.83	.07	.77	-	.84
Sooke	.25	.51	.03	.79	.40	.41	.01	.83	.33	.46	.02	.81
Vancouver*	.84	.42	.09	1.35	.80	.28	.11	1.19	.81	.33	.10	1.25
West Vancouver	.62	.09	.03	.75	.49	.07	.06	.62	.56	.08	.05	.68
Victoria	.03	.61	-	.65	.02	.44	-	.46	.02	.53	-	.55
Sidney	-	.33	-	.33	.11	.41	.01	.53	.05	.37	.01	.43

Legend: CO - Coho

SM - Other salmon or unidentified salmon

CH - Chinook

T SAL - All salmonids

*Weekday and weekend estimates refer to different combinations of landing sites.

G-2

TABLE G 3: WEIGHTED ESTIMATES OF AVERAGE SALMON CATCH PER BOAT TRIP, GEORGIA STRAIT CREEL SURVEY, SEPTEMBER 1980

Area of Landing	Weekday				Weekend				Total			
	CO	CH	SM	T SAL	CO	CH	SM	T SAL	CO	CH	SM	T SAL
Campbell River	1.84	.24	-	2.08	1.06	.14	-	1.20	1.54	.20	-	1.74
Chemainus	-	.63	-	.63	.17	1.06	-	1.22	.06	.78	-	.84
Central Comox	.47	.28	.01	.76	.38	.34	-	.72	.42	.31	.01	.74
North Comox	.84	.17	.01	1.03	1.32	.16	-	1.48	.98	.17	.01	1.16
South Comox												
Cowichan Bay	.11	.28	-	.38	.08	.30	-	.39	.10	.29	-	.38
Delta	.29	.24	.10	.62	1.07	.20	-	1.27	.70	.22	.05	.96
Egmont												
Gibson's Landing	.45	.32	-	.77	.36	.27	-	.64	.40	.29	-	.69
Ladysmith	.09	.48	-	.57	.23	1.05	-	1.28	.15	.73	-	.88
Lund					.14	.14	-	.29				
Nanaimo *	.31	.16	-	.47	.42	.33	.04	.79	.39	.28	.03	.70
Pender Harbour	1.23	.48	-	1.71	.63	.37	.01	1.02	.93	.42	.01	1.36
Powell River					.56	.27	.01	.84				
Qualicum North	.35	.10	-	.45	.56	.31	.01	.88	.46	.20	.01	.67
Qualicum South	.47	.42	-	.89	.46	.40	.07	.94	.47	.41	.03	.91
Richmond	.32	.14	.04	.50	.58	.58	.06	1.22	.45	.37	.05	.88
Saanich Inlet	.32	.93	.01	1.26	.16	.89	-	1.05	.24	.91	-	1.15
Sooke	.42	1.19	.08	1.69	.41	.79	.01	1.21	.41	.99	.04	1.45
Vancouver	.84	.15	.01	1.01	.47	.14	.01	.62	.57	.14	.01	.72
West Vancouver	.82	.08	.03	.93	.63	.15	.01	.79	.70	.12	.02	.84
Victoria	.04	.47	-	.51	.02	.43	-	.46	.03	.45	-	.48
Sidney	-	.25	-	.25	.06	.29	-	.35	.04	.28	-	.32

Legend: CO - Coho

SM - Other salmon or unidentified salmon

CH - Chinook

T SAL - All salmonids

*Weekday and weekend estimates refer to different combinations of landing sites.

TABLE G4: WEIGHTED ESTIMATES OF AVERAGE SALMON CATCH PER BOAT TRIP, GEORGIA STRAIT CREEL SURVEY, OCTOBER 1980

Area of Landing	Weekday				Weekend				Total			
	CO	CH	SM	T SAL	CO	CH	SM	T SAL	CO	CH	SM	T SAL
Campbell River	1.21	.31	.09	1.62	1.02	.10	-	1.12	1.15	.24	.06	1.45
Chemainus												
Central Comox	-	.07	.80	.87	.21	.05	.17	.43	.13	.06	.40	.59
North Comox												
South Comox												
Cowichan Bay					.17	.50	-	.67				
Delta												
Egmont												
Gibson's Landing	-	.25	-	.25	.43	.04	-	.47	.21	.15	-	.36
Ladysmith												
Lund												
Nanaimo	.43	.73	-	1.16	.31	.81	.01	1.12	.37	.77	-	1.14
Pender Harbour	.06	-	-	.06	.05	.36	.03	.45	.05	.22	.02	.29
Powell River					.40	1.41	.02	1.83				
Qualicum North												
Qualicum South	.72	.67	-	1.39	.71	.50	.07	1.27	.71	.57	.04	1.32
Richmond					.36	.14	-	.49				
Saanich Inlet *	.20	.31	-	.51	.19	.71	.02	.92	.19	.63	.01	.83
Sooke *	.20	1.16	.01	1.37	.17	.76	-	.93	.19	1.05	.01	1.25
Vancouver					.07	.25	-	.32				
West Vancouver	-	.27	-	.27	.08	.24	.01	.33	.04	.26	-	.30
Victoria	.05	.18	-	.22	.04	.25	-	.29	.04	.22	-	.26
Sidney					-	.24	-	.24				

Legend: CO - Coho
CH - Chinook

SM - Other salmon or unidentified salmon
T SAL - All salmonids

*Weekday and weekend estimates refer to different combinations of landing sites.

TABLE G5: WEIGHTED ESTIMATES OF AVERAGE SALMON CATCH PER BOAT TRIP, GEORGIA STRAIT CREEL SURVEY, NOVEMBER 1980

Area of Landing	Weekday				Weekend				Total			
	CO	CH	SM	T SAL	CO	CH	SM	T SAL	CO	CH	SM	T SAL
Campbell River	-	.60	-	.60	-	.45	-	.45	-	.50	-	.50
Chemainus												
Central Comox	-	.82	-	.82	-	.33	.15	.48	-	.58	.07	.66
North Comox												
South Comox												
Cowichan Bay					.39	1.48	.21	2.09				
Delta												
Egmont												
Gibson's Landing												
Ladysmith												
Lund												
Nanaimo	.05	2.23	-	2.27	.47	1.53	-	2.00	.19	1.99	-	2.18
Pender Harbour	-	1.11	.09	1.20	-	1.25	-	1.25	-	1.18	.04	1.22
Powell River					.08	1.75	-	1.83				
Qualicum North												
Qualicum South					-	.67	-	.67				
Richmond												
Saanich Inlet	.61	2.36	-	2.97	.50	.67	-	1.17	.54	1.35	-	1.90
Sooke	.13	2.13	.03	2.29	.15	1.36	-	1.51	.14	1.72	.02	1.87
Vancouver					-	.61	-	.61				
West Vancouver	-	.81	-	.81	-	.78	-	.78	-	.80	-	.80
Victoria					.22	1.85	-	2.07				
Sidney					-	.48	-	.48				

Legend: CO - Coho

SM - Other salmon or unidentified salmon

CH - Chinook

T SAL - All salmonids

*Weekday and weekend estimates refer to different combinations of landing sites.

TABLE G6: WEIGHTED ESTIMATES OF AVERAGE SALMON CATCH PER BOAT TRIP, GEORGIA STRAIT CREEL SURVEY, DECEMBER 1980

Area of Landing	Weekday				Weekend				Total			
	CO	CH	SM	T SAL	CO	CH	SM	T SAL	CO	CH	SM	T SAL
Campbell River	-	1.50	-	1.50	-	1.86	-	1.86	-	1.78	-	1.78
Chemainus												
Central Comox	-	.83	-	.83	-	1.80	-	1.80	-	1.29	-	1.29
North Comox												
South Comox												
Cowichan Bay					-	2.25	-	2.25				
Delta												
Egmont												
Gibson's Landing												
Ladysmith												
Lund												
Nanaimo	-	1.72	-	1.72	-	1.83	-	1.83	-	1.78	-	1.78
Pender Harbour	-	.92	-	.92	-	.72	-	.72	-	.82	-	.82
Powell River					2.53	-	-	2.53				
Qualicum North												
Qualicum South												
Richmond												
Saanich Inlet	1.42	.96	-	2.38	1.09	1.63	-	2.72	1.23	1.34	-	2.57
Sooke	-	1.29	-	1.29	.05	1.55	-	1.60	.03	1.45	-	1.48
Vancouver					-	.77	-	.77				
West Vancouver	-	1.21	-	1.21	-	.37	-	.37	-	.89	-	.89
Victoria					.05	1.75	-	1.80				
Sidney					-	1.80	-	1.80				

Legend: CO - Coho

SM - Other salmon or unidentified salmon

CH - Chinook

T SAL - All salmonids

*Weekday and weekend estimates refer to different combinations of landing sites.

TABLE G7: WEIGHTED ESTIMATES OF AVERAGE SALMON CATCH PER BOAT TRIP, GEORGIA STRAIT CREEL SURVEY, JANUARY 1981

Area of Landing	Weekday				Weekend				Total			
	CO	CH	SM	T SAL	CO	CH	SM	T SAL	CO	CH	SM	T SAL
Campbell River	-	1.30	-	1.30	.04	1.66	-	1.70	.03	1.57	-	1.59
Chemainus												
Central Comox	-	2.00	-	2.00	-	1.09	-	1.09	-	1.74	-	1.74
North Comox												
South Comox												
Cowichan Bay					.02	1.44	-	1.46				
Delta												
Egmont												
Gibson's Landing												
Ladysmith					.30	2.67	-	2.97				
Lund												
Nanaimo	.12	2.13	-	2.25	.15	2.66	-	2.81	.14	2.49	-	2.63
Pender Harbour *	-	.64	-	.64	-	.19	.02	.21	-	.29	.02	.31
Powell River					1.43	.29	-	1.71				
Qualicum North												
Qualicum South					1.75	1.63	-	3.38				
Richmond												
Saanich Inlet *	1.23	1.59	-	2.82	.48	1.29	-	1.76	.75	1.40	-	2.15
Sooke *	.07	.61	-	.68	.08	1.13	-	1.22	.08	1.04	-	1.13
Vancouver					.02	.79	-	.82				
West Vancouver	-	.71	-	.71	-	.70	-	.70	-	.70	-	.70
Victoria					.11	1.48	-	1.59				
Sidney					-	2.15	-	2.15				

Legend: CO - Coho

SM - Other salmon or unidentified salmon

CH - Chinook

T SAL - All salmonids

*Weekday and weekend estimates refer to different combinations of landing sites.

TABLE G8: WEIGHTED ESTIMATES OF AVERAGE SALMON CATCH PER BOAT TRIP, GEORGIA STRAIT CREEL SURVEY, FEBRUARY, 1981

Area of Landing	Weekday				Weekend				Total			
	CO	CH	SM	T SAL	CO	CH	SM	T SAL	CO	CH	SM	T SAL
Campbell River	-	.50	-	.50	-	1.32	-	1.32	-	1.21	-	1.21
Chemainus												
Central Comox	-	.40	-	.40	-	.56	-	.56	-	.50	-	.50
North Comox												
South Comox												
Cowichan Bay					.23	.15	-	.38				
Delta												
Egmont												
Gibson's Landing												
Ladysmith					.07	.77	-	.84				
Lund												
Nanaimo	.39	2.94	-	3.33	.04	3.52	-	3.56	.14	3.36	-	3.50
Pender Harbour *	-	.43	-	.43	-	.24	-	.24	-	.30	-	.30
Powell River					1.25	.25	-	1.50				
Qualicum North												
Qualicum South	1.50	1.50	-	3.00	-	2.13	-	2.13	.68	1.84	-	2.52
Richmond												
Saanich Inlet*	.72	.47	-	1.20	.24	.52	-	.76	.35	.51	-	.87
Sooke *	-	1.53	-	1.53	.25	1.55	-	1.80	.22	1.55	-	1.78
Vancouver					-	.54	-	.54				
West Vancouver	-	.61	-	.61	-	.69	-	.69	-	.64	-	.64
Victoria					.28	.95	-	1.23				
Sidney					.02	.77	-	.79				

Legend: CO - Coho
 CH - Chinook
 SM - Other salmon or unidentified salmon
 T SAL - All salmonids

*Weekday and weekend estimates refer to different combinations of landing sites.

TABLE G9: WEIGHTED ESTIMATES OF AVERAGE SALMON CATCH PER BOAT TRIP, GEORGIA STRAIT CREEL SURVEY, MARCH, 1981

Area of Landing	Weekday				Weekend				Total			
	CO	CH	SM	T SAL	CO	CH	SM	T SAL	CO	CH	SM	T SAL
Campbell River*	-	.40	-	.40	.49	.40	-	.89	.36	.40	-	.76
Chemainus												
Central Comox	-	-	-	-	-	-	-	-	-	-	-	-
North Comox												
South Comox												
Cowichan Bay					.17	.39	-	.57				
Delta												
Egmont												
Gibson's Landing												
Ladysmith					.73	.33	-	1.06				
Lund												
Nanaimo *	.22	.94	-	1.15	.32	1.39	-	1.71	.27	1.19	-	1.46
Pender Harbour	.13	.45	-	.58	.29	.20	-	.49	.20	.35	-	.54
Powell River					-	.75	-	.75				
Qualicum North												
Qualicum South	.67	1.17	-	1.83	.29	1.61	-	1.91	.46	1.42	-	1.87
Richmond												
Saanich Inlet *	.24	.44	-	.67	.18	.31	-	.49	.21	.37	-	.57
Sooke *	1.94	.39	-	2.34	.47	.80	.04	1.31	.68	.74	.04	1.46
Vancouver					.21	.47	-	.68				
West Vancouver	-	.65	-	.65	-	.33	-	.33	-	.48	-	.48
Victoria					1.64	.59	.18	2.41				
Sidney					-	.48	-	.48				

Legend: CO - Coho
CH - Chinook

SM - Other salmon or unidentified salmon
T SAL - All salmonids

*Weekday and weekend estimates refer to different combinations of landing sites.

TABLE G11: WEIGHTED ESTIMATES OF AVERAGE SALMON CATCH PER BOAT TRIP, GEORGIA STRAIT CREEL SURVEY, MAY, 1981

Area of Landing	Weekday				Weekend				Total			
	CO	CH	SM	T SAL	CO	CH	SM	T SAL	CO	CH	SM	T SAL
Campbell River	.56	.56	-	1.12	.77	.53	-	1.30	.66	.55	-	1.21
Chemainus												
Central Comox	1.53	.44	.13	2.09	1.37	.80	-	2.17	1.46	.58	.08	2.12
North Comox	3.84	.05	.01	3.90	3.17	.04	.03	3.24	3.63	.05	.02	3.69
South Comox												
Cowichan Bay					.15	.31	-	.46				
Delta												
Egmont												
Gibson's Landing	.22	1.94	-	2.16	.31	1.20	-	1.50	.25	1.67	-	1.92
Ladysmith												
Lund					.50	-	-	.50				
Nanaimo *	2.00	.57	-	2.57	.82	.37	-	1.19	1.45	.48	-	1.93
Pender Harbour *	1.05	.92	-	1.97	.59	1.24	.06	1.89	.93	1.01	.02	1.95
Powell River	1.03	.07	-	1.10	.98	.19	.07	1.24	1.02	.09	.01	1.12
Qualicum North	2.46	.08	-	2.54	2.81	.27	-	3.08	2.60	.15	-	2.76
Qualicum South	1.73	.41	-	2.14	1.79	.52	.01	2.31	1.76	.46	.01	2.22
Richmond												
Saanich Inlet	.02	.79	-	.81	.02	.83	-	.86	.02	.82	-	.84
Sooke	.14	.52	-	.67	.12	.38	-	.51	.13	.45	-	.59
Vancouver					.11	.92	-	1.02				
West Vancouver	.10	.72	-	.83	.06	.60	-	.66	.08	.64	-	.71
Victoria	-	.59	-	.59	.01	.55	-	.56	.01	.57	-	.58
Sidney	-	1.14	-	1.14	-	.52	-	.52	-	.89	-	.89

Legend: CO - Coho
CH - Chinook

SM - Other salmon or unidentified salmon
T SAL - All salmonids

*Weekday and weekend estimates refer to different combinations of landing sites.

TABLE G12: WEIGHTED ESTIMATES OF AVERAGE SALMON CATCH PER BOAT TRIP, GEORGIA STRAIT CREEL SURVEY, JUNE, 1981

Area of Landing	Weekday				Weekend				Total			
	CO	CH	SM	T SAL	CO	CH	SM	T SAL	CO	CH	SM	T SAL
Campbell River	1.14	.35	.01	1.50	1.49	.26	.01	1.76	1.28	.31	.01	1.61
Chemainus	.27	1.68	-	1.96	.28	.76	-	1.04	.28	1.17	-	1.45
Central Comox	1.60	.24	.22	2.07	1.69	.46	.16	2.31	1.64	.32	.20	2.16
North Comox	2.75	.05	.16	2.97	3.65	.14	.07	3.86	3.01	.08	.14	3.22
South Comox												
Cowichan Bay	-	.66	-	.66	.12	.77	.04	.93	.05	.70	.02	.77
Delta					-	1.00	-	1.00				
Egmont												
Gibson's Landing	.18	1.44	-	1.63	.19	.90	-	1.09	.19	1.24	-	1.43
Ladysmith	.05	.79	-	.84	.37	1.13	-	1.50	.16	.90	-	1.06
Lund					1.62	.12	-	1.74				
Nanaimo	.59	.46	.04	1.09	.68	.38	.02	1.08	.63	.42	.03	1.08
Pender Harbour *	.59	.24	-	.83	.64	.68	-	1.33	.60	.32	-	.91
Powell River	2.27	.19	-	2.46	2.02	.45	.05	2.52	2.19	.28	.02	2.48
Qualicum North	1.57	.16	-	1.72	1.85	.12	-	1.98	1.66	.15	-	1.80
Qualicum South	1.09	.50	-	1.59	1.39	.35	-	1.74	1.22	.43	-	1.65
Richmond	.17	.33	-	.50	.15	.29	-	.44	.15	.30	-	.45
Saanich Inlet	-	.59	-	.59	.04	.53	.01	.57	.02	.56	-	.58
Sooke	.02	.45	-	.47	.03	.34	-	.37	.03	.40	-	.42
Vancouver	.21	.45	.10	.76	.09	.92	-	1.01	.12	.78	.03	.93
West Vancouver	.22	.39	-	.61	.11	.55	.01	.67	.15	.49	.01	.65
Victoria	.02	.46	-	.48	-	.26	-	.26	.01	.38	-	.39
Sidney	-	.18	-	.18	.02	.51	-	.53	.01	.35	-	.36

Legend: CO - Coho
CH - Chinook

SM - Other salmon or unidentified salmon
T SAL - All salmonids

*Weekday and weekend estimates refer to different combinations of landing sites.

APPENDIX H

WEIGHTED DAILY FISHING PROFILES

Nine broad regional groupings of the 23 grouped landing sites exist (see mapping in Table H-1). In addition, a tenth grouping (Campbell River Guided) comprising landing sites within the Campbell River area that mainly provided guided sport fishing expeditions was formed. Daily fishing patterns by month and day type for these 10 groupings are presented in Tables H-2 through H-11.

For November to April months only the following 4 Major Groupings existed:

- . North Island (comprising the summer groupings of Campbell River, Comox, Qualicum and Nanaimo)
- . Victoria Region (Victoria plus Saanich Inlet)
- . Vancouver, and
- . Sechelt Peninsula.

TABLE H-1: LANDING SITE AND MAJOR REGION CODES

<u>CODE</u>	<u>GROUPED LANDING SITE</u>	<u>MAJOR REGIONAL GROUPING</u>
CAM	Campbell River	Campbell River
CHE	Chemainus	Nanaimo
COC	Central Comox	Comox
CON	North Comox	Campbell River
COW	Cowichan Bay	Nanaimo
DEL	Delta	South Arm of Fraser River
EGM	Egmont	Sechelt Peninsula
GIB	Gibson's	Vancouver
LDY	Ladysmith	Nanaimo
LND	Lund	Sechelt Peninsula
NAN	Nanaimo	Nanaimo
PH	Pender Harbour	Sechelt Peninsula
PR	Powell River	Sechelt Peninsula
QUN	Qualicum North	Qualicum
QUS	Qualicum South	Qualicum
RIC	Richmond	Vancouver
SAN	Saanich Inlet	Saanich Inlet
SID	Sidney	Victoria
SOK	Sooke	Victoria
VAN	Vancouver	Vancouver
VAW	West Vancouver	Vancouver
VIC	Victoria	Victoria

TABLE H-2 : DAILY FISHING PATTERN BY MONTH AND DAY TYPE, CAMPBELL RIVER REGION

MIDWEEK DAYS^aProportion of Boats Fishing by Hour^b

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Before 7 AM	.183	.231	.188	.015	-	-	-	-	.016	.047	.215	.263
7 AM - 8 AM	.212	.292	.310	.187	.033	-	.034	-	.109	.102	.363	.321
8 AM - 9 AM	.215	.268	.361	.323	.227	.056	.216	.105	.217	.165	.390	.294
9 AM - 10 AM	.197	.233	.371	.423	.493	.367	.351	.175	.353	.220	.330	.211
10 AM - 11 AM	.179	.217	.327	.430	.553	.367	.466	.342	.467	.378	.261	.167
11 AM - 12 PM	.155	.187	.271	.451	.460	.556	.596	.482	.429	.354	.234	.134
12 PM - 1 PM	.143	.189	.240	.516	.493	.611	.601	.623	.391	.346	.151	.099
1 PM - 2 PM	.140	.192	.248	.490	.487	.611	.615	.693	.429	.339	.126	.121
2 PM - 3 PM	.158	.208	.270	.503	.440	.400	.601	.693	.413	.386	.162	.140
3 PM - 4 PM	.159	.217	.335	.438	.280	.189	.389	.482	.364	.378	.176	.160
4 PM - 5 PM	.166	.243	.393	.308	.087	-	.159	.175	.440	.362	.165	.194
5 PM - 6 PM	.219	.285	.415	.195	-	-	-	.070	.201	.291	.183	.213
6 PM - 7 PM	.313	.352	.385	.087	-	-	-	-	.109	.165	.271	.267
7 PM - 8 PM	.388	.359	.259	-	-	-	-	-	-	.024	.240	.294
8 PM - 9 PM	.354	.249	.058	-	-	-	-	-	-	-	.164	.256
After 9 PM	.177	.084	-	-	-	-	-	-	-	-	.013	.108

WEEKEND DAYS^aProportion of Boats Fishing by Hour^b

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Before 7 AM	.186	.222	.134	.021	.009	-	-	-	.066	.050	.245	.248
7 AM - 8 AM	.229	.313	.286	.359	.036	.039	.043	.075	.261	.080	.383	.341
8 AM - 9 AM	.226	.352	.376	.489	.113	.102	.152	.184	.394	.169	.415	.338
9 AM - 10 AM	.205	.320	.400	.679	.212	.391	.312	.301	.509	.280	.374	.312
10 AM - 11 AM	.181	.265	.390	.662	.257	.430	.468	.410	.554	.360	.345	.293
11 AM - 12 PM	.177	.226	.344	.561	.401	.477	.569	.481	.560	.410	.306	.283
12 PM - 1 PM	.161	.191	.306	.439	.505	.570	.612	.566	.498	.444	.250	.229
1 PM - 2 PM	.177	.191	.317	.354	.649	.516	.625	.587	.443	.427	.282	.207
2 PM - 3 PM	.191	.206	.345	.300	.662	.391	.569	.551	.303	.415	.256	.207
3 PM - 4 PM	.206	.222	.404	.295	.450	.305	.426	.361	.287	.443	.236	.247
4 PM - 5 PM	.219	.234	.455	.245	.221	.141	.158	.226	.122	.411	.204	.248
5 PM - 6 PM	.229	.274	.435	.080	-	-	-	.044	.017	.300	.192	.227
6 PM - 7 PM	.266	.316	.351	-	-	-	-	-	.010	.150	.184	.234
7 PM - 8 PM	.313	.309	.223	-	-	-	-	-	-	.054	.136	.199
8 PM - 9 PM	.270	.233	.023	-	-	-	-	-	-	-	.060	.168
After 9 PM	.152	.075	-	-	-	-	-	-	-	-	.010	.063

^a From May through October times are PDT. For other months times are PST.

^b All profiles are based on more than 40 interviews.

TABLE H-3: DAILY FISHING PATTERN BY MONTH AND DAY TYPE, COMOX REGION

MIDWEEK DAYS^a

	Proportion of Boats Fishing by Hour											
	JUL	AUG	SEP	OCT ^b	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Before 7 AM	.119	.093	.210	-	-	-	-	-	.016	.047	.077	.075
7 AM - 8 AM	.130	.131	.338	.067	.033	-	.034	-	.109	.102	.161	.110
8 AM - 9 AM	.117	.088	.279	.133	.227	.056	.216	.105	.217	.165	.209	.130
9 AM - 10 AM	.079	.073	.244	.267	.493	.367	.351	.175	.353	.220	.246	.194
10 AM - 11 AM	.035	.077	.211	.533	.553	.367	.466	.342	.467	.378	.292	.237
11 AM - 12 PM	.029	.068	.176	.800	.460	.556	.596	.482	.429	.354	.322	.172
12 PM - 1 PM	.039	.069	.230	.733	.493	.611	.601	.623	.391	.346	.297	.122
1 PM - 2 PM	.082	.104	.254	.333	.487	.611	.615	.693	.429	.339	.238	.091
2 PM - 3 PM	.122	.151	.230	.133	.440	.400	.601	.693	.413	.386	.238	.089
3 PM - 4 PM	.165	.173	.204	.133	.280	.189	.389	.482	.364	.378	.238	.125
4 PM - 5 PM	.181	.242	.239	-	.087	-	.159	.175	.440	.362	.232	.170
5 PM - 6 PM	.207	.332	.324	.133	-	-	-	.070	.201	.291	.273	.254
6 PM - 7 PM	.306	.427	.375	-	-	-	-	-	.109	.165	.350	.297
7 PM - 8 PM	.491	.534	.325	-	-	-	-	-	-	.024	.345	.406
8 PM - 9 PM	.515	.337	.070	-	-	-	-	-	-	-	.262	.410
After 9 PM	.321	.065	-	-	-	-	-	-	-	-	.057	.279

WEEKEND DAYS^a

	Proportion of Boats Fishing by Hour											
	JUL	AUG	SEP	OCT ^c	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Before 7 AM	.077	.131	.056	.016	.009	-	-	-	.066	.050	.105	.121
7 AM - 8 AM	.117	.174	.113	.031	.036	.039	.043	.075	.261	.080	.184	.244
8 AM - 9 AM	.123	.125	.169	.082	.113	.102	.152	.184	.394	.169	.251	.319
9 AM - 10 AM	.120	.081	.164	.097	.212	.391	.312	.301	.509	.280	.293	.282
10 AM - 11 AM	.115	.073	.220	.184	.257	.430	.468	.410	.554	.360	.314	.262
11 AM - 12 PM	.108	.076	.204	.300	.401	.477	.569	.481	.560	.410	.370	.238
12 PM - 1 PM	.143	.097	.236	.476	.505	.570	.612	.566	.498	.444	.356	.235
1 PM - 2 PM	.168	.121	.285	.632	.649	.516	.625	.587	.443	.427	.333	.212
2 PM - 3 PM	.220	.160	.290	.766	.662	.391	.569	.551	.303	.415	.300	.201
3 PM - 4 PM	.303	.185	.380	.700	.450	.305	.426	.361	.287	.443	.343	.205
4 PM - 5 PM	.294	.181	.451	.642	.221	.141	.158	.226	.122	.411	.308	.185
5 PM - 6 PM	.331	.203	.386	.572	-	-	-	.044	.017	.300	.304	.157
6 PM - 7 PM	.417	.335	.428	.257	-	-	-	-	.010	.150	.280	.171
7 PM - 8 PM	.455	.480	.313	.093	-	-	-	-	-	.054	.213	.218
8 PM - 9 PM	.388	.387	.088	-	-	-	-	-	-	-	.121	.232
After 9 PM	.178	.132	-	-	-	-	-	-	-	-	.037	.114

^a From May through October times are PDT. For other months times are PST.

^b Profile based on less than 20 interviews.

^c Profile based on 20 - 40 interviews. All other profiles are based on more than 40 interviews.

TABLE H-4: DAILY FISHING PATTERN BY MONTH AND DAY TYPE, QUALICUM AREA

MIDWEEK DAYS^a

	Proportion of Boats Fishing by Hour ^b											
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Before 7 AM	.213	.197	.145	-	-	-	-	-	.016	.047	.206	.350
7 AM - 8 AM	.281	.336	.300	.253	.033	-	.034	-	.109	.102	.351	.465
8 AM - 9 AM	.296	.401	.308	.306	.227	.056	.216	.105	.217	.165	.397	.395
9 AM - 10 AM	.234	.352	.281	.405	.493	.367	.351	.175	.353	.220	.376	.344
10 AM - 11 AM	.169	.289	.281	.328	.553	.367	.466	.342	.467	.378	.334	.239
11 AM - 12 PM	.117	.208	.168	.338	.460	.556	.596	.482	.429	.354	.270	.185
12 PM - 1 PM	.108	.154	.188	.120	.493	.611	.601	.623	.391	.346	.196	.121
1 PM - 2 PM	.108	.154	.123	.102	.487	.611	.615	.693	.429	.339	.176	.045
2 PM - 3 PM	.131	.145	.114	.159	.440	.400	.601	.693	.413	.386	.147	.073
3 PM - 4 PM	.186	.184	.115	.240	.280	.189	.389	.482	.364	.378	.137	.091
4 PM - 5 PM	.236	.195	.187	.254	.087	-	.159	.175	.440	.362	.148	.159
5 PM - 6 PM	.295	.224	.280	.254	-	-	-	.070	.201	.291	.193	.180
6 PM - 7 PM	.368	.317	.399	.226	-	-	-	-	.109	.165	.242	.182
7 PM - 8 PM	.361	.308	.297	-	-	-	-	-	-	.024	.203	.190
8 PM - 9 PM	.224	.155	.048	-	-	-	-	-	-	-	.112	.113
After 9 PM	.049	.004	-	-	-	-	-	-	-	-	.008	.072

WEEKEND DAYS^a

	Proportion of Boats Fishing by Hour ^b											
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Before 7 AM	.256	.147	.200	.030	.009	-	-	-	.066	.050	.266	.372
7 AM - 8 AM	.323	.236	.328	.306	.036	.039	.043	.075	.261	.080	.387	.519
8 AM - 9 AM	.319	.294	.391	.398	.113	.102	.152	.184	.394	.169	.453	.511
9 AM - 10 AM	.277	.254	.368	.409	.212	.391	.312	.301	.509	.280	.452	.398
10 AM - 11 AM	.231	.203	.295	.356	.257	.430	.468	.410	.554	.360	.398	.280
11 AM - 12 PM	.192	.165	.226	.321	.401	.477	.569	.481	.560	.410	.286	.187
12 PM - 1 PM	.183	.147	.188	.350	.505	.570	.612	.566	.498	.444	.195	.087
1 PM - 2 PM	.159	.152	.162	.366	.649	.516	.625	.587	.443	.427	.166	.051
2 PM - 3 PM	.170	.149	.155	.356	.662	.391	.569	.551	.303	.415	.131	.092
3 PM - 4 PM	.206	.204	.204	.320	.450	.305	.426	.361	.287	.443	.124	.113
4 PM - 5 PM	.231	.250	.245	.295	.221	.141	.158	.226	.122	.411	.112	.135
5 PM - 6 PM	.318	.326	.356	.160	-	-	-	.044	.017	.300	.101	.148
6 PM - 7 PM	.356	.376	.356	.045	-	-	-	-	.010	.150	.132	.185
7 PM - 8 PM	.303	.355	.244	-	-	-	-	-	-	.054	.114	.187
8 PM - 9 PM	.207	.187	.029	-	-	-	-	-	-	-	.061	.161
After 9 PM	.035	.031	-	-	-	-	-	-	-	-	-	.040

^a From May through October times are PDT. For other months times are PST.

^b All profiles are based on more than 40 interviews.

TABLE H-5: DAILY FISHING PATTERN BY MONTH AND DAY TYPE, NANAIMO REGION

MIDWEEK DAYS^a

	Proportion of Boats Fishing by Hour											
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY ^b	JUN
Before 7 AM	.158	.173	.104	.013	-	-	-	-	.016	.047	.095	.106
7 AM - 8 AM	.229	.261	.158	.142	.033	-	.034	-	.109	.102	.190	.196
8 AM - 9 AM	.297	.278	.219	.290	.227	.056	.216	.105	.217	.165	.238	.248
9 AM - 10 AM	.309	.248	.271	.358	.493	.367	.351	.175	.353	.220	.333	.289
10 AM - 11 AM	.289	.224	.290	.325	.553	.367	.466	.342	.467	.378	.381	.247
11 AM - 12 PM	.255	.222	.285	.263	.460	.556	.596	.482	.429	.354	.429	.246
12 PM - 1 PM	.203	.198	.288	.206	.493	.611	.601	.623	.391	.346	.238	.226
1 PM - 2 PM	.190	.194	.231	.239	.487	.611	.615	.693	.429	.339	.238	.206
2 PM - 3 PM	.178	.203	.191	.246	.440	.400	.601	.693	.413	.386	.190	.190
3 PM - 4 PM	.159	.213	.185	.310	.280	.189	.389	.482	.364	.378	.143	.179
4 PM - 5 PM	.158	.223	.185	.336	.087	-	.159	.175	.440	.362	.238	.208
5 PM - 6 PM	.178	.239	.282	.319	-	-	-	.070	.201	.291	.238	.232
6 PM - 7 PM	.227	.262	.285	.159	-	-	-	-	.109	.165	.238	.293
7 PM - 8 PM	.253	.284	.202	-	-	-	-	-	-	.024	.238	.359
8 PM - 9 PM	.200	.167	.017	-	-	-	-	-	-	-	.048	.301
After 9 PM	.065	.009	-	-	-	-	-	-	-	-	-	.092

WEEKEND DAYS^a

	Proportion of Boats Fishing by Hour											
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY ^b	JUN
Before 7 AM	.240	.178	.068	.021	.009	-	-	-	.066	.050	.150	.231
7 AM - 8 AM	.314	.262	.185	.220	.036	.039	.043	.075	.261	.080	.263	.325
8 AM - 9 AM	.369	.317	.284	.393	.113	.102	.152	.184	.394	.169	.300	.413
9 AM - 10 AM	.327	.310	.300	.416	.212	.391	.312	.301	.509	.280	.438	.371
10 AM - 11 AM	.323	.295	.309	.416	.257	.430	.468	.410	.554	.360	.475	.325
11 AM - 12 PM	.300	.277	.331	.410	.401	.477	.569	.481	.560	.410	.588	.291
12 PM - 1 PM	.269	.237	.350	.418	.505	.570	.612	.566	.498	.444	.588	.193
1 PM - 2 PM	.243	.192	.347	.430	.649	.516	.625	.587	.443	.427	.488	.190
2 PM - 3 PM	.212	.250	.406	.385	.662	.391	.569	.551	.303	.415	.475	.221
3 PM - 4 PM	.213	.260	.366	.339	.450	.305	.426	.361	.287	.443	.400	.243
4 PM - 5 PM	.189	.203	.400	.233	.221	.141	.158	.226	.122	.411	.338	.238
5 PM - 6 PM	.180	.273	.358	.121	-	-	-	.044	.017	.300	.200	.176
6 PM - 7 PM	.201	.263	.286	.030	-	-	-	-	.010	.150	.138	.217
7 PM - 8 PM	.203	.211	.176	-	-	-	-	-	-	.054	.088	.183
8 PM - 9 PM	.135	.109	.010	-	-	-	-	-	-	-	.025	.146
After 9 PM	.024	.003	-	-	-	-	-	-	-	-	-	.042

^a From May through October times are PDT. For other months times are PST.

^b Profile based on 20-40 interviews. All other profiles are based on more than 40 interviews.

TABLE H-6: DAILY FISHING PATTERN BY MONTH AND DAY TYPE, SAANICH INLET

MIDWEEK DAYS ^a	Proportion of Boats Fishing by Hour ^b											
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Before 7 AM	.200	.210	.126	.078	.018	-	-	-	.070	.135	.338	.235
7 AM - 8 AM	.282	.302	.206	.173	.128	.121	.058	.105	.178	.166	.399	.301
8 AM - 9 AM	.322	.341	.279	.268	.248	.383	.242	.279	.267	.265	.373	.304
9 AM - 10 AM	.346	.346	.354	.304	.376	.473	.384	.474	.425	.462	.440	.270
10 AM - 11 AM	.317	.271	.320	.304	.496	.559	.501	.553	.457	.538	.458	.319
11 AM - 12 PM	.281	.207	.325	.301	.602	.543	.551	.605	.486	.561	.401	.314
12 PM - 1 PM	.200	.164	.314	.225	.493	.418	.518	.568	.473	.482	.334	.246
1 PM - 2 PM	.161	.171	.324	.219	.442	.410	.501	.553	.400	.289	.280	.217
2 PM - 3 PM	.184	.161	.306	.170	.412	.277	.348	.358	.295	.305	.171	.235
3 PM - 4 PM	.156	.172	.293	.183	.245	.156	.207	.211	.168	.173	.137	.210
4 PM - 5 PM	.150	.186	.244	.297	.018	-	.045	.063	.127	.099	.108	.163
5 PM - 6 PM	.195	.210	.243	.275	-	-	-	-	.022	.027	.115	.115
6 PM - 7 PM	.201	.244	.386	.199	-	-	-	-	-	.013	.165	.231
7 PM - 8 PM	.287	.283	.250	-	-	-	-	-	-	-	.128	.283
8 PM - 9 PM	.234	.176	.007	-	-	-	-	-	-	-	.074	.217
After 9 PM	.067	.013	-	-	-	-	-	-	-	-	-	.044

WEEKEND DAYS ^a	Proportion of Boats Fishing by Hour ^b											
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Before 7 AM	.268	.305	.202	.137	.046	.006	.008	.025	.095	.169	.304	.257
7 AM - 8 AM	.334	.402	.358	.453	.202	.131	.141	.176	.272	.316	.391	.386
8 AM - 9 AM	.400	.449	.425	.622	.304	.369	.415	.368	.403	.454	.461	.470
9 AM - 10 AM	.437	.467	.437	.662	.420	.499	.613	.528	.536	.527	.510	.533
10 AM - 11 AM	.439	.435	.410	.623	.534	.653	.705	.606	.578	.488	.507	.467
11 AM - 12 PM	.374	.335	.337	.555	.464	.649	.642	.577	.555	.429	.440	.391
12 PM - 1 PM	.306	.261	.292	.363	.428	.532	.499	.494	.423	.358	.402	.368
1 PM - 2 PM	.261	.233	.290	.270	.454	.403	.396	.431	.337	.312	.343	.278
2 PM - 3 PM	.213	.213	.310	.245	.436	.334	.323	.348	.272	.278	.366	.235
3 PM - 4 PM	.179	.214	.280	.193	.302	.215	.180	.244	.219	.216	.313	.236
4 PM - 5 PM	.162	.187	.290	.165	.078	.035	.027	.131	.134	.158	.194	.183
5 PM - 6 PM	.163	.185	.306	.113	-	-	-	.021	.064	.120	.171	.135
6 PM - 7 PM	.157	.162	.222	.056	-	-	-	-	.005	.066	.124	.100
7 PM - 8 PM	.126	.142	.045	-	-	-	-	-	-	.033	.065	.114
8 PM - 9 PM	.165	.062	.003	-	-	-	-	-	-	-	.031	.091
After 9 PM	.039	.006	-	-	-	-	-	-	-	-	-	.029

^a From May through October times are PDT. For other months times are PST.

^b All profiles are based on more than 40 interviews.

TABLE H-7: DAILY FISHING PATTERN BY MONTH AND DAY TYPE, VICTORIA REGION

MIDWEEK DAYS^a

	Proportion of Boats Fishing by Hour ^b											
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Before 7 AM	.189	.123	.233	.025	.018	-	-	-	.070	.135	.125	.277
7 AM - 8 AM	.273	.200	.369	.206	.128	.121	.058	.105	.178	.166	.231	.407
8 AM - 9 AM	.322	.289	.438	.361	.248	.383	.242	.279	.267	.265	.316	.498
9 AM - 10 AM	.345	.348	.475	.448	.376	.473	.384	.474	.425	.462	.418	.496
10 AM - 11 AM	.351	.399	.445	.517	.496	.559	.501	.553	.457	.538	.474	.454
11 AM - 12 PM	.350	.421	.412	.500	.602	.543	.551	.605	.486	.561	.427	.360
12 PM - 1 PM	.288	.334	.291	.425	.493	.418	.518	.568	.473	.482	.352	.286
1 PM - 2 PM	.257	.307	.266	.386	.442	.410	.501	.553	.400	.289	.308	.224
2 PM - 3 PM	.227	.278	.245	.369	.412	.277	.348	.358	.295	.305	.297	.167
3 PM - 4 PM	.199	.230	.238	.293	.245	.156	.207	.211	.168	.173	.260	.162
4 PM - 5 PM	.163	.181	.234	.224	.018	-	.045	.063	.127	.099	.263	.179
5 PM - 6 PM	.152	.153	.206	.221	-	-	-	-	.022	.027	.234	.188
6 PM - 7 PM	.144	.162	.174	.147	-	-	-	-	-	.013	.194	.182
7 PM - 8 PM	.161	.170	.078	.004	-	-	-	-	-	-	.144	.173
8 PM - 9 PM	.125	.073	-	-	-	-	-	-	-	-	.067	.089
After 9 PM	.029	-	-	-	-	-	-	-	-	-	.010	.010

WEEKEND DAYS^a

	Proportion of Boats Fishing by Hour ^b											
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Before 7 AM	.211	.200	.310	.076	.046	.006	.009	.025	.095	.169	.227	.324
7 AM - 8 AM	.333	.317	.511	.272	.202	.131	.151	.176	.272	.316	.369	.430
8 AM - 9 AM	.404	.403	.576	.391	.304	.369	.429	.368	.403	.454	.468	.488
9 AM - 10 AM	.432	.446	.600	.475	.420	.499	.612	.528	.536	.527	.501	.498
10 AM - 11 AM	.421	.450	.576	.490	.534	.653	.704	.606	.578	.488	.483	.453
11 AM - 12 PM	.376	.404	.486	.498	.464	.649	.630	.577	.555	.429	.393	.385
12 PM - 1 PM	.286	.382	.402	.441	.428	.532	.486	.494	.423	.358	.291	.326
1 PM - 2 PM	.227	.347	.311	.418	.454	.403	.382	.431	.337	.312	.250	.300
2 PM - 3 PM	.209	.303	.249	.390	.436	.334	.308	.348	.272	.278	.250	.234
3 PM - 4 PM	.186	.269	.174	.294	.302	.215	.173	.244	.219	.216	.231	.220
4 PM - 5 PM	.160	.214	.173	.243	.078	.035	.030	.131	.134	.158	.204	.205
5 PM - 6 PM	.146	.177	.137	.153	-	-	-	.021	.064	.120	.169	.179
6 PM - 7 PM	.135	.170	.078	.063	-	-	-	-	.005	.066	.122	.134
7 PM - 8 PM	.112	.143	.012	.006	-	-	-	-	-	.033	.081	.118
8 PM - 9 PM	.064	.060	-	-	-	-	-	-	-	-	.035	.068
After 9 PM	.011	.006	-	-	-	-	-	-	-	-	.002	.008

^a From May through October times are PDT. For other months times are PST.

^b All profiles are based on more than 40 interviews.

TABLE H-8: DAILY FISHING PATTERN BY MONTH AND DAY TYPE, VANCOUVER REGION

MIDWEEK DAYS^a

	Proportion of Boats Fishing by Hour											
	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>
Before 7 AM	.156	.206	.112	.027	-	-	-	-	.017	.036	.112	.151
7 AM - 8 AM	.268	.301	.197	.097	-	.152	.029	.059	.095	.108	.208	.267
8 AM - 9 AM	.320	.376	.281	.340	.250	.364	.200	.176	.259	.361	.376	.309
9 AM - 10 AM	.381	.442	.372	.490	.558	.652	.386	.412	.414	.506	.475	.385
10 AM - 11 AM	.438	.448	.458	.648	.808	.803	.557	.647	.526	.723	.542	.503
11 AM - 12 PM	.489	.477	.505	.695	.769	.909	.686	.765	.707	.735	.610	.473
12 PM - 1 PM	.485	.438	.530	.742	.731	.985	.729	.843	.595	.747	.685	.518
1 PM - 2 PM	.416	.434	.540	.712	.654	.879	.586	.862	.672	.602	.584	.501
2 PM - 3 PM	.395	.382	.442	.609	.557	.700	.514	.686	.629	.400	.537	.537
3 PM - 4 PM	.352	.314	.354	.464	.365	.288	.300	.431	.517	.337	.447	.450
4 PM - 5 PM	.276	.275	.344	.185	-	-	.100	.157	.405	.145	.354	.328
5 PM - 6 PM	.232	.203	.320	.036	-	-	-	-	.147	.048	.202	.230
6 PM - 7 PM	.155	.154	.240	-	-	-	-	-	-	-	.146	.166
7 PM - 8 PM	.088	.102	.122	-	-	-	-	-	-	-	.045	.091
8 PM - 9 PM	.040	.053	.013	-	-	-	-	-	-	-	-	.039
After 9 PM	-	.003	-	-	-	-	-	-	-	-	-	.005

WEEKEND DAYS^a

	Proportion of Boats Fishing by Hour											
	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>
Before 7 AM	.268	.213	.189	.063	-	-	-	.010	.050	.150	.175	.267
7 AM - 8 AM	.377	.386	.334	.188	.025	.071	.043	.040	.182	.311	.311	.355
8 AM - 9 AM	.465	.485	.479	.458	.210	.506	.406	.286	.351	.382	.435	.478
9 AM - 10 AM	.501	.536	.546	.564	.383	.729	.697	.568	.541	.482	.530	.601
10 AM - 11 AM	.528	.562	.611	.646	.593	.800	.839	.789	.657	.607	.590	.632
11 AM - 12 PM	.528	.518	.634	.634	.710	.788	.827	.869	.669	.668	.635	.651
12 PM - 1 PM	.503	.469	.554	.585	.790	.612	.737	.794	.694	.625	.610	.614
1 PM - 2 PM	.443	.403	.487	.556	.660	.400	.601	.704	.628	.618	.526	.497
2 PM - 3 PM	.395	.370	.418	.450	.500	.259	.427	.608	.566	.571	.470	.451
3 PM - 4 PM	.285	.313	.355	.354	.241	.176	.204	.397	.430	.486	.353	.356
4 PM - 5 PM	.215	.256	.273	.184	.086	-	.015	.196	.236	.382	.236	.248
5 PM - 6 PM	.150	.191	.237	.065	-	-	-	-	.091	.196	.161	.143
6 PM - 7 PM	.098	.115	.164	.020	-	-	-	-	-	.104	.098	.069
7 PM - 8 PM	.052	.061	.079	-	-	-	-	-	-	.054	.031	.033
8 PM - 9 PM	.012	.023	.017	-	-	-	-	-	-	.014	.005	.005
After 9 PM	-	.001	-	-	-	-	-	-	-	-	-	-

^a From May through October times are PDT. For other months times are PST.

^b Profile based on 20-40 interviews. All other profiles are based on more than 40 interviews.

TABLE H-10: DAILY FISHING PATTERN BY MONTH AND DAY TYPE, SOUTH ARM OF FRASER RIVER REGION

MIDWEEK DAYS^a

	Proportion of Boats Fishing by Hour ^b											
	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>
Before 7 AM	.213	.147										
7 AM - 8 AM	.280	.192										
8 AM - 9 AM	.402	.204										
9 AM - 10 AM	.421	.280										
10 AM - 11 AM	.543	.437										
11 AM - 12 PM	.604	.463										
12 PM - 1 PM	.634	.534										
1 PM - 2 PM	.640	.477										
2 PM - 3 PM	.604	.418										
3 PM - 4 PM	.561	.363										
4 PM - 5 PM	.463	.330										
5 PM - 6 PM	.220	.273										
6 PM - 7 PM	.146	.159										
7 PM - 8 PM	.098	.069										
8 PM - 9 PM	.024	.024										
After 9 PM	-	-										

WEEKEND DAYS^a

	Proportion of Boats Fishing by Hour ^b											
	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>
Before 7 AM	.168	.129										
7 AM - 8 AM	.205	.228										
8 AM - 9 AM	.316	.260										
9 AM - 10 AM	.386	.320										
10 AM - 11 AM	.488	.397										
11 AM - 12 PM	.601	.402										
12 PM - 1 PM	.601	.399										
1 PM - 2 PM	.617	.440										
2 PM - 3 PM	.641	.430										
3 PM - 4 PM	.573	.410										
4 PM - 5 PM	.488	.407										
5 PM - 6 PM	.275	.359										
6 PM - 7 PM	.157	.217										
7 PM - 8 PM	.109	.118										
8 PM - 9 PM	.033	.008										
After 9 PM	-	-										

^a From May through October times are PDT. For other months times are PST.

^b All profiles are based on more than 40 interviews.

TABLE H-11: DAILY FISHING PATTERN BY MONTH AND DAY TYPE, CAMPBELL RIVER GUIDED OPERATIONS

MIDWEEK DAYS^a

	Proportion of Boats Fishing by Hour											
	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY^b</u>	<u>JUN</u>
Before 7 AM	.302	.459									.062	.182
7 AM - 8 AM	.260	.474									.062	.309
8 AM - 9 AM	.248	.245									.062	.269
9 AM - 10 AM	.194	.141									.094	.144
10 AM - 11 AM	.176	.117									.187	.109
11 AM - 12 PM	.137	.064									.187	.073
12 PM - 1 PM	.147	.083									.133	.045
1 PM - 2 PM	.109	.102									.164	.055
2 PM - 3 PM	.117	.174									.266	.109
3 PM - 4 PM	.061	.260									.343	.200
4 PM - 5 PM	.084	.204									.343	.345
5 PM - 6 PM	.083	.204									.315	.327
6 PM - 7 PM	.194	.212									.556	.218
7 PM - 8 PM	.266	.223									.392	.164
8 PM - 9 PM	.277	.192									.395	.182
After 9 PM	.205	.082									.139	.182

WEEKEND DAYS^a

	Proportion of Boats Fishing by Hour											
	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>
Before 7 AM	.351	.329									.270	.306
7 AM - 8 AM	.352	.496									.399	.484
8 AM - 9 AM	.245	.529									.448	.459
9 AM - 10 AM	.196	.385									.384	.374
10 AM - 11 AM	.201	.259									.384	.310
11 AM - 12 PM	.154	.183									.358	.255
12 PM - 1 PM	.118	.150									.195	.085
1 PM - 2 PM	.112	.136									.334	-
2 PM - 3 PM	.112	.140									.263	.040
3 PM - 4 PM	.100	.166									.213	.119
4 PM - 5 PM	.066	.149									.315	.239
5 PM - 6 PM	.078	.143									.318	.239
6 PM - 7 PM	.138	.188									.267	.239
7 PM - 8 PM	.213	.206									.147	.127
8 PM - 9 PM	.252	.186									.073	.048
After 9 PM	.201	.029									-	-

^a From May through October times are PDT. For other months times are PST.

^b Profile based on 20-40 interviews. All other profiles are based on more than 40 interviews.

The three basic information components underlying the methodology for estimating sport fishing salmon catch and effort are "snapshot" sport fishing boat counts (Appendix D), daily temporal patterns of fishing activity (Appendix H), and salmon catch per unit effort or boat trip (Appendix G). In this appendix we elaborate on the methodology discussion of Section 4 of the text and provide a detailed example of the calculations.

CATCH AND EFFORT ESTIMATION

Methodology

Following is a step by step outline of the methodology for integrating the results of the creel and overflights surveys in generating sport fishery statistics.

Step 1: The key step in the methodology is the mapping of Statistical sub-Areas from the overflight survey to one or more of the 23 grouped landing sites from the creel survey. This mapping was based on information concerning local areas fished discerned from the charts on the reverse side of the completed creel survey questionnaires. The creel survey was not conducted in all 23 grouped landing site areas for each of the 12 months and consequently this affected the spectrum of potential mappings. The actual mappings employed for each month are given in the tables at the end of this appendix.

Step 2: Nine broad "Major Regions", representing aggregations of the 23 grouped landing site areas, were identified to be used in calculating temporal fishing patterns by month and day type on a broad area basis.¹ The

¹In addition, a tenth region, Campbell River Guided (a subset of Campbell River), was formed.

rationale was that temporal fishing patterns would remain constant over a broader geographic area than would fishing success as embodied by catch per unit effort. The Major Regions were chosen in part on the following grouped landing site characteristics:

- . the areas were geographically contiguous, and hence had similar hours of daylight,
- . the fishing party clientele of the grouped landing site areas were somewhat similar (e.g., some areas were chosen on the fact that a large proportion of fishing activity was conducted by tourists), and
- . the Major Regions corresponded in the main to DFO district Fisheries Services office regions.

Daily temporal patterns of fishing activity were calculated for each of the nine Major Regions (according to equation (4) in Section 4.2.2 of the Main Report). These patterns are reported in Appendix H.

- Step 3: It was noted that each Statistical sub-Area was mapped to a grouped landing site. In turn, each grouped landing site belongs to a distinct Major Region. Consequently, each Statistical sub-Area is mapped to a Major Region, the temporal fishing pattern of which is used to convert the "snapshot" overflight boat count of the Statistical sub-Area to a total monthly fishing effort estimate for each day type (see equation (7) in the Main Report).
- Step 4: The catch per boat trip of the mapped grouped landing site area (see Appendix G) was applied to the monthly Statistical sub-Area fishing effort

estimate to estimate sub-Area total monthly catch for each day type (see equation (9) in the Main Report).

Step 5: The monthly estimates were summed over sub-Areas for each day type to generate total Statistical Area monthly estimates of catch and effort by day type.

Step 6: The monthly estimates for the two day types are added to estimate total monthly catch and effort.

In Table I-1 the detailed calculations for estimating salmon catch and effort in Statistical Area 14 for July, 1980 are presented. The daily catch and effort estimated by day type given in the table are multiplied by the number of like days in the month (Table I-2) to form monthly activity estimates by day type, and these two day type estimates are added to derive the total monthly estimates (given in Tables 4, 5, 6, and 7 in the Main Report).

Imputations

Two main imputations were necessary. The first relates to the non-coverage of the creel survey in certain areas (e.g., Stuart Island, the Gulf Islands, etc.). For those areas not covered, it was necessary to impute a daily fishing pattern and a catch per unit effort pattern. For the Stuart Island area (Statistical sub-Areas 13F through J) fishing and catch patterns of fishermen using guided facilities in the Campbell River area were used. For the Gulf Islands area of Statistical sub-Areas 18C and 18D, fishing and catch patterns of fishermen using the Crescent Beach marina in Delta were employed.²

²Landing sites in the Delta area were only sampled in the July through September period. In other months, these two sub-Areas were mapped to the Sidney grouped landing site area.

TABLE I-1: CALCULATION OF DAILY SPORT FISHING EFFORT AND SALMON CATCH BY MIDWEEK AND WEEKEND DAYS, STATISTICAL AREA 14, JULY 1980

Statistical Sub-Area	Mapped Landing Site ^a	Major Region ^b	Effort				Catch					
			Time of Count ^c	Snapshot Count ^c	Coverage Factor ^d	Daily Effort	Catch Rate ^e			Daily Catch		
							CO	CH	Total	CO	CH	Total
Midweek Day												
14K/L	CON	Campbell River	1800-1900	51	.313	163	2.04	.17	2.28	332	28	371
14F/J	COC	Comox	1800-1900	78	.306	255	1.27	.19	1.47	324	49	374
14C/D/E	QUN	Qualicum	1700-1800	66	.295	224	1.01	.09	1.11	225	21	249
14A/B	QUS	Qualicum	1700-1800	53	.295	180	1.18	.48	1.69	212	86	304
14G/H	QUS	Qualicum	1800-1900	33	.368	90	1.18	.48	1.69	106	43	152
All						912				1199	227	1450
Weekend Day												
14K/L	CON	Campbell River	0800-0900	17	.226	75	3.30	.15	3.45	248	11	260
14F/J	COC	Comox	0800-0900	21	.123	171	1.16	.24	1.41	197	41	240
14C/D/E	QUN	Qualicum	0800-0900	90	.319	282	1.35	.18	1.55	381	52	436
14A/B	QUS	Qualicum	0800-0900	61	.319	191	1.46	.49	1.96	279	94	374
14G/H	QUS	Qualicum	0900-1000	52	.277	188	1.46	.49	1.96	274	92	368
All						907				1379	290	1678

^aTable I-4.

^bTable H-1.

^cTable D-1.

^dTables H-2, H-3, and H-4.

^eTable G-1.

I-4

TABLE I-2: DAY TYPE CLASSIFICATION

	<u>Midweek Days</u>	<u>Weekend Days</u>	<u>Total</u>
July, 1980	24	11	35
August, 1980	19	9	28
September, 1980	19	9	28
October, 1980	24	11	35
November, 1980	19	9	28
December, 1980	19	10	29
January, 1981	24	11	35
February, 1981	20	8	28
March, 1981	20	8	28
April, 1981	24	11	35
May, 1981	19	9	28
June, 1981	20	8	28
Total	251	114	365

Information from the map on the reverse side of the questionnaires completed by these latter fishermen indicated a substantial portion fished off Saturna Island and in Active Pass. Stuart Island and the south Gulf Islands are the major fishing areas not covered by the creel survey.

A second major imputation occurred for those areas in winter months in which the creel survey was conducted only on weekend days. The resulting weekend catch per unit effort was used to translate both weekday and weekend effort into fish catch realized. Additionally, during winter interviewing took place at fewer landing sites than in summer. Accordingly, in winter it was necessary to allocate the catch per unit effort estimates of a specific landing site to a broader geographic area than in summer.

PROPORTION OF MARKED SALMON ESTIMATION

The proportion of marked salmon (coho or chinook) is calculated as a weighted average of Statistical sub-Area proportion of marked salmon in the catch. For each sub-Area the marked fish proportion is that of the mapped grouped landing site (Appendix N). The relative weight for each sub-Area is the proportion of total Statistical Area catch that the sub-Area contributes. An illustration of the procedure for Statistical Area 14 in July, 1980 is given in Table I-3.

In those cases where the number of fish inspected for marks in a given grouped landing site area was less than 20, the data were aggregated with that of neighbouring sub-Areas in calculating the proportion of marked salmon.

TABLE I-3: CALCULATION OF PROPORTIONS OF MARKED COHO AND CHINOOK,
STATISTICAL AREA 14, JULY 1980

	<u>Mapped Landing Site</u> ^a	<u>Catch</u> ^b	<u>Relative Weight</u>	<u>Proportion Marked Fish</u>
<u>Coho</u>				
14K/L	CON	10,696	.244	.063
14F/J	COC	9,943	.226	.038
14C/D/E	QUN	9,591	.218	.054
14A/B/G/H	QUS	13,715	.312	.021
All		43,945	1.000	.042
<u>Chinook</u>				
14K/L	CON	793	.092	.015
14F/J	COC	1,627	.188	.000
14C/D/E	QUN	1,076	.125	.000
14A/B/G/H	QUS	5,142	.595	.008
All		8,638	1.000	.006

^aTable I-4.

^bDerived from Tables I-1 and I-2.

^cTable N-1.

TABLE I-4 : MAPPING OF LANDING SITE REGIONS TO OVERFLIGHT SUB-AREAS, JULY 1980

<u>OVERFLIGHT SUB-AREA</u>	<u>LANDING SITE REGION EMPLOYED FOR ESTIMATING</u>	
	<u>DAILY FISHING PATTERN</u>	<u>CATCH RATE</u>
13A/B	Campbell River	CAM
13C/D/E	Campbell River	CAM
13F/G/H/J	Campbell River Guided	Campbell River Guided
14A/B/G/H	Qualicum	QUS
14C/D/E	Qualicum	QUN
14F/J	Comox	COC
14K/L	Campbell River	CON
15A	Sechelt Peninsula	PR/LND
15B/C/D	Sechelt Peninsula	LND
16A/B/C/F	Sechelt Peninsula	PH
16D/E	Qualicum	QUN
16G/H/I	Sechelt Peninsula	PR
16J	Sechelt Peninsula	EG
17A/B/C	Nanaimo	CHE/LDY
17D/E/F	Nanaimo	NAN
17G	Qualicum	QUS
18A	Nanaimo	COW
18B	Victoria	SID
18C/D	South Arm of Fraser South	Crescent Beach
19A	Saanich Inlet	SAN
19B	Victoria	SID
19C/D	Victoria	VIC
19E/F	Victoria	SOK
28A/B/E	Vancouver	VAW
28D	Vancouver	GIB
29A	Vancouver	RIC/VAN
29B	Vancouver	RIC/VAN/VAW/GIB
29C	Sechelt Peninsula	PH
29F	South Arm of Fraser South	DEL

TABLE I-5 : MAPPING OF LANDING SITE REGIONS TO OVERFLIGHT SUB-AREAS, AUGUST 1980

<u>OVERFLIGHT SUB-AREA</u>	<u>LANDING SITE REGION EMPLOYED FOR ESTIMATING</u>	
	<u>DAILY FISHING PATTERN</u>	<u>CATCH RATE</u>
13A/B	Campbell River	CAM/CON
13C/D/E	Campbell River	CAM
13F/G/H/J	Campbell River Guided	Campbell River Guided
14A/B/G/H	Qualicum	QUS
14C/D/E	Qualicum	QUN
14F/J	Comox	COC
14K/L	Campbell River	CON
15A	Sechelt Peninsula	PR/LND
15B/C/D	Sechelt Peninsula	LND
16A/B/C/F	Sechelt Peninsula	PH
16D/E	Qualicum	QUN
16G/H/I	Sechelt Peninsula	PR
16J	Sechelt Peninsula	EG
17A/B/C	Nanaimo	CHE/LDY
17D/E/F	Nanaimo	NAN
17G	Qualicum	QUS
18A	Nanaimo	COW
18B	Victoria	SID
18C/D	South Arm of Fraser South	Crescent Beach
19A	Saanich Inlet	SAN
19B	Victoria	SID
19C/D	Victoria	VIC
19E/F	Victoria	SOK
28A/B/E	Vancouver	VAW
28D	Vancouver	GIB
29A	Vancouver	RIC/VAN
29B	Vancouver	RIC/VAW/VAN/GIB
29C	Sechelt Peninsula	PH
29F	South Arm of Fraser South	DEL

TABLE I-6: MAPPING OF LANDING SITE REGIONS TO OVERFLIGHT SUB-AREAS, SEPTEMBER 1980

<u>OVERFLIGHT SUB-AREA</u>	<u>LANDING SITE REGION EMPLOYED FOR ESTIMATED</u>	
	<u>DAILY FISHING PATTERN</u>	<u>CATCH RATE</u>
13A/B	Campbell River	CAM/CON
13C/D/E	Campbell River	CAM
13F/G/H/J	Campbell River Guided	Campbell River Guided
14A/B/G/H	Qualicum	QUS
14C/D/E	Qualicum	QUN
14F/J	Comox	COC
14K/L	Campbell River	CON
15A/B/C/D	Sechelt Peninsula	PR
16A/B/C/F/J	Sechelt Peninsula	PH
16D/E	Qualicum	QUN
16G/H/I	Sechelt Peninsula	PR
17A/B/C	Nanaimo	CHE/LDY
17D/E/F	Nanaimo	NAN
17G	Qualicum	QUS
18A	Nanaimo	COW
18B	Victoria	SID
18C/D	Victoria	DEL
19A	Saanich Inlet	SAN
19B	Victoria	SID
19C/D	Victoria	VIC
19E/F	Victoria	SOK
28A/B/E	Vancouver	VAW
28D	Vancouver	GIB
29A	Vancouver	RIC/VAN
29B	Vancouver	RIC/VAN/VAW/GIB
29C	Sechelt Peninsula	PH
29F	Vancouver	RIC

TABLE I-7 : MAPPING OF LANDING SITE REGIONS TO OVERFLIGHT SUB-AREAS, OCTOBER 1980

<u>OVERFLIGHT SUB-AREA</u>	<u>LANDING SITE REGION EMPLOYED FOR ESTIMATING</u>	
	<u>DAILY FISHING PATTERN</u>	<u>CATCH RATE</u>
13A/B/C/D/E	Campbell River	CAM
14A/B/C/D/E	Qualicum	QUS
14F/J	Comox	COC
14K/L	Campbell River	CAM
15A/B/C/D	Sechelt Peninsula	PR
16A/B/C/F/J	Sechelt Peninsula	PH
16G/H/I	Sechelt Peninsula	PR
17A/B/C/D/E/F/G	Nanaimo	NAN
18A	Nanaimo	COW
18B/C/D	Victoria	SID
19A	Saanich Inlet	SAN
19B	Victoria	SID
19C/D	Victoria	VIC
19E/F	Victoria	SOK
28A/E	Vancouver	VAW
28D	Vancouver	GIB
29A	Vancouver	RIC/VAN
29B	Vancouver	RIC/VAN/VAW/GIB
29C	Sechelt Peninsula	PH
29F	Vancouver	RIC

TABLE I-8 : MAPPING OF LANDING SITE REGIONS TO OVERFLIGHT SUB-AREAS, NOVEMBER 1980

<u>OVERFLIGHT SUB-AREA</u>	<u>LANDING SITE REGION EMPLOYED FOR ESTIMATING</u>	
	<u>DAILY FISHING PATTERN</u>	<u>CATCH RATE</u>
13A/B/C/D/E	North Island*	CAM
14A/B/C	North Island	QUS
14D/F/J/K	North Island	COC
15A/C	Séchelt Peninsula	PR
16A/B/F/H/I	Sechelt Peninsula	PH
17A/B/C/D/E/F	North Island	NAN
18A	North Island	COW
18B/C/D	Victoria/Saanich Inlet	SID
19A	Victoria/Saanich Inlet	SAN
19B	Victoria/Saanich Inlet	SID
19C/D	Victoria/Saanich Inlet	VIC
19E/F	Victoria/Saanich Inlet	SOK
28A/D/E	Vancouver	VAW
29A/F	Vancouver	VAN
29B	Vancouver	VAW
29C	Sechelt Peninsula	PH

* North Island is Campbell River, Comox, Qualicum plus Nanaimo.

TABLE I-9 : MAPPING OF LANDING SITE REGIONS TO OVERFLIGHT SUB-AREAS, DECEMBER 1980

<u>OVERFLIGHT SUB-AREA</u>	<u>LANDING SITE REGION EMPLOYED FOR ESTIMATING</u>	
	<u>DAILY FISHING PATTERN</u>	<u>CATCH RATE</u>
13A/B/C/D/E	North Island	CAM
14A/B/C/D/F/J/K	North Island	COC
15A/C	Sechelt Peninsula	PR
16A/B/F/H/I	Sechelt Peninsula	PH
17A/B/C/D/E/F	North Island	NAN
18A	North Island	COW
18B/C/D	Victoria/Saanich Inlet	SID
19A	Victoria/Saanich Inlet	SAN
19B	Victoria/Saanich Inlet	SID
19C/D	Victoria/Saanich Inlet	VIC
19E/F	Victoria/Saanich Inlet	SOK
28A/D/E	Vancouver	VAW
29A/F	Vancouver	VAN
29B	Vancouver	VAW
29C	Sechelt Peninsula	PH

TABLE I-10: MAPPING OF LANDING SITE REGIONS TO OVERFLIGHT SUB-AREA, JANUARY 1981

<u>OVERFLIGHT SUB-AREA</u>	<u>LANDING SITE REGION EMPLOYED FOR ESTIMATING</u>	
	<u>DAILY FISHING PATTERN</u>	<u>CATCH RATE</u>
13A/B/C/D/E	North Island	CAM
14A/B/C	North Island	QUS
14D/E/F/K/L	North Island	COC
15A/C	Sechelt Peninsula	PR
16A/B/F/H/I	Sechelt Peninsula	PH
17A/B/C	North Island	LDY
17D/E/F	North Island	NAN
18A	North Island	COW
18B/C/D	Victoria/Saanich Inlet	SID
19A	Victoria/Saanich Inlet	SAN
19B	Victoria/Saanich Inlet	SID
19C/D	Victoria/Saanich Inlet	VIC
19E/F	Victoria/Saanich Inlet	SOK
28A/D/E	Vancouver	VAW
29A	Vancouver	VAN
29B	Vancouver	VAW
29C	Sechelt Peninsula	PH

TABLE I-11: MAPPING OF LANDING SITE REGIONS TO OVERFLIGHT SUB-AREA, FEBRUARY 1981

<u>OVERFLIGHT SUB-AREA</u>	<u>LANDING SITE REGION EMPLOYED FOR ESTIMATING</u>	
	<u>DAILY FISHING PATTERN</u>	<u>CATCH RATE</u>
13A/B/C/D/E	North Island	CAM
14A/B/C	North Island	QUS
14D/E/F/K/L	North Island	COC
15A/C	Sechelt Peninsula	PR
16A/B/F/H/I	Sechelt Peninsula	PH
17A/B/C	North Island	LDY
17D/E/F	North Island	NAN
18A	North Island	COW
18B/C/D	Victoria/Saanich Inlet	SID
19A	Victoria/Saanich Inlet	SAN
19B	Victoria/Saanich Inlet	SID
19C/D	Victoria/Saanich Inlet	VIC
19E/F	Victoria/Saanich Inlet	SOK
28A/D/E	Vancouver	VAW
29A	Vancouver	VAN
29B	Vancouver	VAW
29C	Sechelt Peninsula	PH

TABLE I-12: MAPPING OF LANDING SITE REGIONS TO OVERFLIGHT SUB-AREA, MARCH 1981

<u>OVERFLIGHT SUB-AREA</u>	<u>LANDING SITE REGION EMPLOYED FOR ESTIMATING</u>	
	<u>DAILY FISHING PATTERN</u>	<u>CATCH RATE</u>
13A/B/C/D/E	North Island	CAM
14A/B/C/G	North Island	QUS
14D/E/F/J	North Island	COC
15A/C	Sechelt Peninsula	PR
16A/B/F/J	Sechelt Peninsula	PH
16G/I	Sechelt Peninsula	PR
17A/B/C	North Island	LDY
17D/E/F/G	North Island	NAN
18A	North Island	COW
18B/C/D	Victoria/Saanich Inlet	SID
19A	Victoria/Saanich Inlet	SAN
19B	Victoria/Saanich Inlet	SID
19C/D	Victoria/Saanich Inlet	VIC
19E/F	Victoria/Saanich Inlet	SOK
28A/D/E	Vancouver	VAW
29A	Vancouver	VAN
29B	Vancouver	VAW
29C	Sechelt Peninsula	PH
29F	Vancouver	VAN

TABLE I-13.: MAPPING OF LANDING SITE REGIONS TO OVERFLIGHT SUB-AREA, APRIL 1981

<u>OVERFLIGHT SUB-AREA</u>	<u>LANDING SITE REGION EMPLOYED FOR ESTIMATING</u>	
	<u>DAILY FISHING PATTERN</u>	<u>CATCH RATE</u>
13A/B/C/D/E	North Island	CAM
14A/B/C	North Island	QUS
14D/E/F/J	North Island	COC
14K/L	North Island	CAM
15A/C	Sechelt Peninsula	PR
16A/B/F/G	Sechelt Peninsula	PH
16G/I	Sechelt Peninsula	PR
17A/B/C	North Island	LDY
17D/E/F/G	North Island	NAN
18A	North Island	COW
18B/C/D	Victoria/Saanich Inlet	SID
19A	Victoria/Saanich Inlet	SAN
19B	Victoria/Saanich Inlet	SID
19C/D	Victoria/Saanich Inlet	VIC
19E/F	Victoria/Saanich Inlet	SOK
28A/D/E	Vancouver	VAW
29A	Vancouver	VAN
29B	Vancouver	VAW
29C	Sechelt Peninsula	PH
29F	Vancouver	VAN

TABLE I-14.: MAPPING OF LANDING SITE REGIONS TO OVERFLIGHT SUB-AREA, MAY 1981

<u>OVERFLIGHT SUB-AREA</u>	<u>LANDING SITE REGION EMPLOYED FOR ESTIMATING</u>	
	<u>DAILY FISHING PATTERN</u>	<u>CATCH RATE</u>
13A/B	Campbell River	CAM
13C/D/E	Campbell River	CAM
13F/G/H/J	Campbell River Guided	Campbell River Guided
14A/B/G/H	Qualicum	QUS
14C/D/E	Qualicum	QUN
14F/J	Comox	COC
14K/L	Campbell River	CON
15A	Sechelt Peninsula	PR/LND
15B/C/D	Sechelt Peninsula	LND
16A/B/F/J	Sechelt Peninsula	PH
16D/E	Qualicum	QUN
16G/H/I	Sechelt Peninsula	PR
17A/B/C/D/E/F/G	Nanaimo	NAN
18A	Nanaimo	COW
18B/C/D	Victoria	SID
19A	Saanich Inlet	SAN
19B	Victoria	SID
19C/D	Victoria	VIC
19E/F	Victoria	SOK
28A/B/E	Vancouver	VAW
28D	Vancouver	GIB
29A	Vancouver	VAN
29B	Vancouver	VAN/VAW/GIB
29C	Sechelt Peninsula	PH
29F	Vancouver	VAN

TABLE I-15 : MAPPING OF LANDING SITE REGIONS TO OVERFLIGHT SUB-AREAS, JUNE 1981

<u>OVERFLIGHT SUB-AREA</u>	<u>LANDING SITE REGION EMPLOYED FOR ESTIMATING</u>	
	<u>DAILY FISHING PATTERN</u>	<u>CATCH RATE</u>
13A/B	Campbell River	CAM
13C/D/E	Campbell River	CAM
13F/G/H/J	Campbell River Guided	Campbell River Guided
14A/B/G/H	Qualicum	QUS
14C/D/E	Qualicum	QUN
14F/J	Comox	COC
14K/L	Campbell River	CON
15A	Sechelt Peninsula	PR/LND
15B/C/D	Sechelt Peninsula	LND
16A/B/C/F/J	Sechelt Peninsula	PH
16D/E	Qualicum	QUN
16G/H/I	Sechelt Peninsula	PR
17A/B/C	Nanaimo	CHE/LDY
17D/E/F	Nanaimo	NAN
17G	Qualicum	QUS
18A	Nanaimo	COW
18B	Victoria	SID
18C/D	Victoria	SID
19A	Saanich Inlet	SAN
19B	Victoria	SID
19C/D	Victoria	VIC
19E/F	Victoria	SOK
28A/B/E	Vancouver	VAW
28D	Vancouver	GIB
29A	Vancouver	RIC/VAN
29B	Vancouver	RIC/VAN/VAW/GIB
29C	Sechelt Peninsula	PH
29F	Vancouver	RIC

APPENDIX J

VANCOUVER SUN DERBY DAY ESTIMATES

For over 30 years the Vancouver Sun newspaper has sponsored "The Sun Free Salmon Derby". Prizes are given to the largest salmon caught within greater Howe Sound (see Figure J-1) between midnight and 2:30 on Derby Day (usually the last Sunday in July). In response to this promotion, many more boats than are usual in a July weekend participate in the recreational fishery in Howe Sound on this day. In addition, given the closing time deadline, the distribution of fishing effort throughout the day differs from that on a normal weekend day. These considerations suggest that Derby Day should be considered a distinct day type for analytic purposes for those areas affected.

In this appendix, estimates of salmon catch and effort are developed for this one weekend day in July for Statistical Areas 28 and 29 -- the areas affected by the Derby (Figure J-1). These estimates will then be added to the total July estimates (excluding Derby Day) generated per the methodology outlined in Section 4 of the report to produce the total July sport fishing activity estimates presented in Section 6.

Two separate sport boat counts in the Derby Day area were conducted -- one in the forward leg of an overflight and one on the back leg of the flight (Table J-1). Because of fog conditions in Howe Sound during the early flight, it is thought that the second count is more reliable and, accordingly, this second count during 10:00 AM - 10:45 AM is employed in the ensuing analysis.

In concert with the overflight, interviewers were stationed at 3 landing sites (2 marinas and 1 boat ramp) in the

FIGURE J-1: SUN DERBY BOUNDARIES, JULY 27, 1980

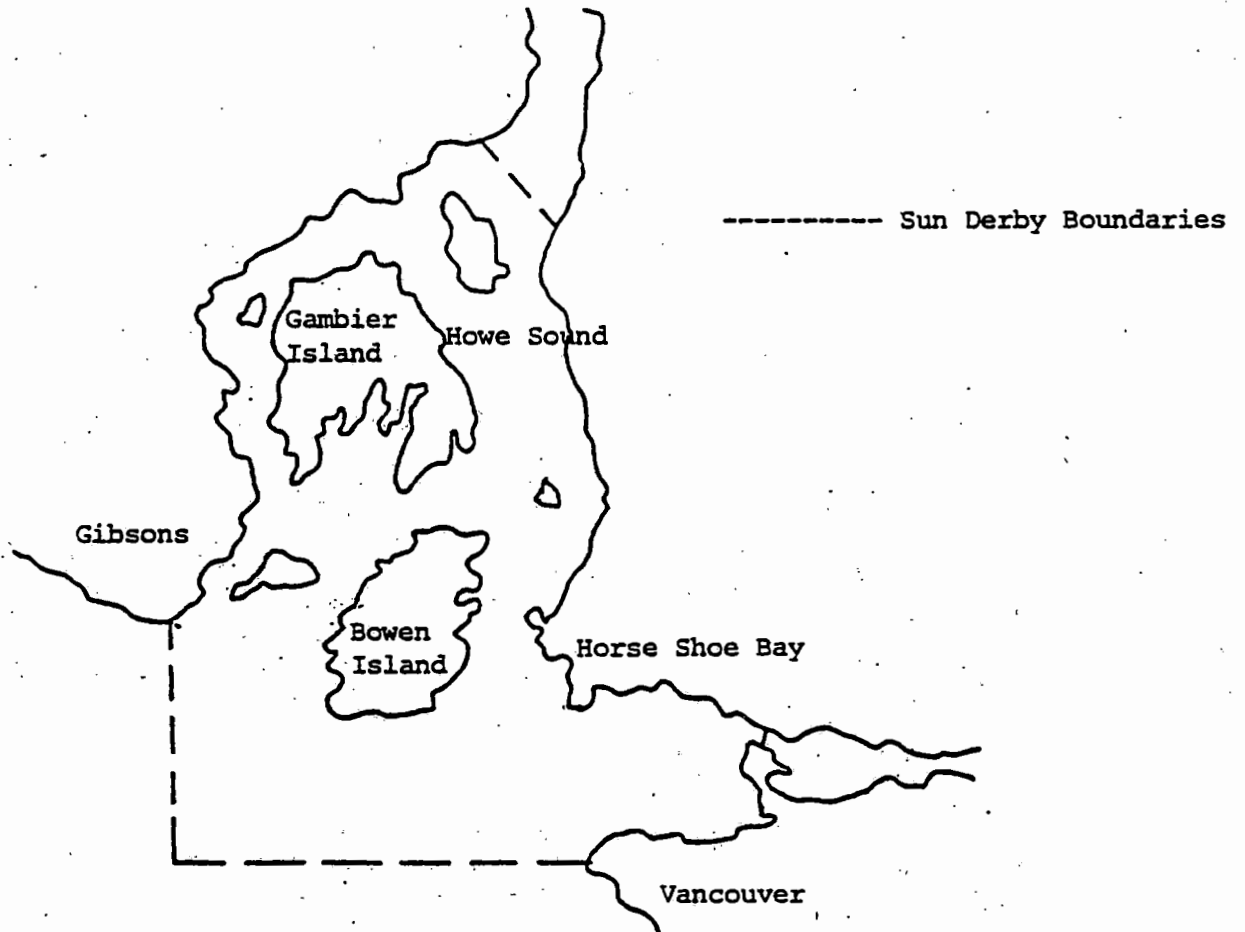


TABLE J-1: OVERFLIGHT COUNTS IN STATISTICAL AREAS 28 and 29, VANCOUVER
SUN DERBY DAY, JULY, 1980

<u>Time of Overflight</u>	<u>Overflight Count</u>	
	#1 7:30 AM - 8:15 AM	#2 10:00 AM - 10:45 AM
<u>Sport Boat Counts</u>		
Area 28		
Area 28A	306	361
Area 28B	195	186
Area 28D	155	193
Area 28E	84	125
Area 29		
Area 29A	45	47
Area 29B	321	343
Area 29C (not in Derby Area)	29	NA
Area 29F (not in Derby Area)	2 ^e	NA
Total Count in Derby Area*	1,106	1,255

* An overflight was conducted by DFO on Derby Day in 1981 (July 26) between 8:00 AM and 9:00 AM. The 1981 sport boat count was approximately the same as the 1980 7:30 AM - 8:15 AM count.

^e Estimate

TABLE J-2: ESTIMATES OF SPORT FISHING ACTIVITY FOR BOATS LANDING AT SELECTED SITES IN THE VANCOUVER REGION, VANCOUVER SUN DERBY DAY, SUNDAY, JULY 27, 1980

SAMPLING EFFORT

No. Sites Sampled	3
No. Sites Sampled ^a	6
No. Fishing Boats Interviewed	225

<u>SITE DAILY ESTIMATES</u>	<u>ACTIVITY</u>	
	<u>Total</u>	<u>Average per Boat Trip</u>
No. Sport Boat Trips	381	1.000
No. Kept Salmon		
Coho	208	.546
Chinook	90	.236
Total Salmon	298	.782
No. Sport Boats Fishing		
Before 7:00 AM	263	.690
7:00 AM - 8:00 AM	292	.766
8:00 AM - 9:00 AM	305	.801
9:00 AM - 10:00 AM	309	.811
10:00 AM - 11:00 AM	278	.730
11:00 AM - 12:00 PM	243	.638
12:00 PM - 1:00 PM	202	.530
1:00 PM - 2:00 PM	146	.383
2:00 PM - 3:00 PM	118	.310
3:00 PM - 4:00 PM	65	.171
4:00 PM - 5:00 PM	34	.089
5:00 PM - 6:00 PM	13	.034
6:00 PM - 7:00 PM	9	.024
7:00 PM - 8:00 PM	6	.016
8:00 PM - 9:00 PM	3	.008
After 9:00 PM	1	.003

^a Each site was sampled on a back to back 7:00 AM - 3:00 PM and 3:00 PM - 11:00 PM shifts.

Vancouver area on a "back to back" shift basis so that all returning boat traffic between the hours of 7 AM and 11 PM on Derby Day was covered at these selected facilities. Estimates of total¹ sport fishing boat activity originating from these facilities on Derby Day were estimated (Table J-2).

Inflating the "snapshot" sport boat counts from Table J-1 by the inverse of the proportion of total daily fishing activity taking place within the hour of count (10 AM - 11 AM) from Table J-2 allows one to estimate total sport fishing effort in Derby Day in Statistical areas 28 and 29. Salmon catches per unit effort (Table J-2) then can be applied to the total effort count above to produce estimates of total salmon catch made by all boating parties in areas 28 and 29 on Derby Day. The resulting rounded estimates are:

	EFFORT (BOAT TRIPS)	SALMON CATCH	
		Coho	Chinook
Area 28	1,180 *	640	280
Area 29 **	530	290	130
TOTAL	1,710	930	410

*eg. 865/.730

** Daily fishing patterns and catches within the Derby Boundaries and outside the boundaries, but still within area 29, are assumed to be the same on this day.

¹Due to the volume of boat traffic, not all boating parties returning could be interviewed. Estimates of sport fishing activity parameters for all parties are made by "weighting up" the raw interview data totals in the basis of the proportion of boats interviewed to returning.

One should not view the above estimates as estimates of the total number of boats participating in the Sun Derby and of the number of salmon caught by Derby participants. Some of the fishing activity in Area 29 occurred outside the Derby Boundaries (Figure J-1). Moreover, some of the fishing activity occurred after the 2:30 PM derby closing deadline (Table J-2).

APPENDIX K

VARIANCE ESTIMATION

In this appendix we outline the methodology employed to estimate the variance (sampling variability or precision) of the estimates of catch, effort and proportions of marked salmon presented in Section 6 of the Main Report.

CATCH AND EFFORT ESTIMATESTheoretical Framework

The creel survey estimates of intensive fishing parameters are of the form \hat{X}_h / \hat{X}_h^* (see equation (4) Main Report) where both \hat{X}_h and \hat{X}_h^* are random variables. Because of the ratio form of the estimate, no closed analytic form for the variance of the estimate exists. Taylor series approximation methods, sometimes called the "delta method", were used to estimate the variance as:¹

$$\text{Var} \left(\frac{\hat{X}_h}{\hat{X}_h^*} \right) = \frac{\hat{X}_h^2}{\hat{X}_h^{*2}} \left(\frac{\text{Var } \hat{X}_h^*}{\hat{X}_h^2} + \frac{\text{Var } \hat{X}_h}{\hat{X}_h^{*2}} - \frac{2\text{COV}(\hat{X}_h, \hat{X}_h^*)}{\hat{X}_h \hat{X}_h^*} \right) \quad (\text{K.1})$$

where $\text{Var } \hat{X}_h$ and $\text{Var } \hat{X}_h^*$ are the variances of \hat{X}_h and \hat{X}_h^* respectively, and $\text{COV}(\hat{X}_h, \hat{X}_h^*)$ is the covariance of \hat{X}_h and \hat{X}_h^* .

Two sources of variation exist in the average characteristics estimate due to the sampling of stints and due to the sampling of boating parties. A relatively large fraction of recreational boat traffic during sampling periods was interviewed (approximately 85 percent of returning boats in summer months and over 95 percent of boats in winter months). Therefore, one would expect the greatest contribution to the variance to come from the stint level of selection and, hence, the following variance estimates embody only this sampling stage.

¹ See W.G. Cochran, Sampling Techniques, John Wiley and Sons, 1963, p. 158, and G.A.F. Seber, The Estimation of Animal Abundance and Related Parameters, Griffin, London, 1973, p. 1.3.3.

One estimates $\text{Var } \hat{X}_h$, $\text{Var } \hat{X}_h^*$, and $\text{COV}(\hat{X}_h, \hat{X}_h^*)$ as:

$$\text{Var}(\hat{X}_h) = \sum_{\substack{i \\ \uparrow \\ \text{sites}}} \sum_{\substack{j \\ \uparrow \\ \text{stint type}}} M_{hij}^2 \left(\frac{1}{m_{hij}} - \frac{1}{M_{hij}} \right) \sum_{\substack{k \\ \uparrow \\ \text{stints}}} \frac{\left(\hat{X}_{hijk} - \frac{1}{m_{hij}} \sum_k \hat{X}_{hijk} \right)^2}{m_{hij}^{-1}} \quad (\text{K.2})$$

$\text{Var}(\hat{X}_h^*)$ is analagous to above, and

$$\text{COV}(\hat{X}_h, \hat{X}_h^*) = \sum_i \sum_j M_{hij}^2 \left(\frac{1}{m_{hij}} - \frac{1}{M_{hij}} \right) \times \sum_k \left(\frac{\hat{X}_{hijk} \hat{X}_{hijk}^* - \frac{1}{m_{hij}} \sum \hat{X}_{hijk} \sum \hat{X}_{hijk}^*}{m_{hij}^{-1}} \right) \quad (\text{K.3})$$

These estimates, in turn, are substituted into expression K.1 in estimating the variance of average fishing boating party characteristics.

From the overflight survey the estimate of the average number of sport boats fishing in hour t on day type h is:

$$\bar{y}_h(t) = \sum_{b=1}^{n_h} \frac{y_{hb}(t)}{n_h} \quad (\text{K.4})$$

For variance calculations, it was assumed that the overflight days selected comprised a simple random sample. Accordingly, the variance estimate of $\bar{y}_h(t)$ is approximated by:

$$\text{Var}(\bar{Y}_h(t)) = \left(\frac{1}{n_h} - \frac{1}{N_h} \right) \sum_{b=1}^{n_h} \frac{(y_{hb}(t) - \bar{Y}_h(t))^2}{n_h - 1} \quad (\text{K.5})$$

General expressions for the variances of products and ratios of independent random variables are:

$$\text{Var}(XY) = E_X^2 \text{Var}Y + E_Y^2 \text{Var}X + \text{Var}X \text{Var}Y \quad (\text{K.6})$$

and

$$\text{Var} \left(\frac{X}{Y} \right) = \frac{E_X^2}{E_Y^2} \left[\frac{\text{Var}X}{E_X^2} + \frac{\text{Var}Y}{E_Y^2} \right] \quad (\text{K.7})$$

where E_X is expected value of X, and

$\text{Var}X$ is variance of X.

The expression for the variance of the ratio is a Taylor series approximation whereas the expression for variance of the product is an exact result.²

The total monthly effort estimate is (per equation (8) in the Main Report):

$$E = \sum_{h=1}^2 E_h = \sum_{h=1}^2 N_h \frac{\bar{Y}_h(t)}{\bar{P}_h(t)} \quad (\text{K.8})$$

Using the above results and substituting sample estimates of means and variances for the corresponding population parameters, one estimates the variance of total monthly effort as:

²See L.A. Goodman, "On the Exact Variance of Products", Journal of the American Statistical Association, Vol. 55: 708-713, 1960.

$$\begin{aligned} \text{VarE} &= \sum_{h=1}^2 \text{VarE}_h = \sum_{h=1}^2 N_h^2 \left[\frac{\bar{y}_h(t)}{\bar{p}_h(t)} \right]^2 \left[\frac{\text{Var } \bar{y}_h(t)}{\bar{y}_h(t)^2} + \frac{\text{Var } \bar{p}_h(t)}{\bar{p}_h(t)^2} \right] \\ &= \sum_{h=1}^2 E_h^2 \left[\text{CV}^2(\bar{y}_h(t)) + \text{CV}^2(\bar{p}_h(t)) \right] \end{aligned} \quad (\text{K.9})$$

where $\text{CV}(\bar{y}_h(t))$ is the coefficient of variation of $\bar{y}_h(t)$.

The total monthly catch estimate is (per equation (9) in the Main Report):

$$C = \sum_{h=1}^2 C_h = \sum_{h=1}^2 \bar{c}_h N_h \frac{\bar{y}_h(t)}{\bar{p}_h(t)} \quad (\text{K.10})$$

The corresponding variance estimate is:³

$$\begin{aligned} \text{VarC} &= \sum_{h=1}^2 \text{VarC}_h = \sum_{h=1}^2 \left[\bar{c}_h^2 \text{VarE}_h + E_h^2 \text{Var}\bar{c}_h + \text{Var } \bar{c}_h \text{Var } E_h \right] \\ &= \sum_{h=1}^2 \bar{c}_h^2 E_h^2 \left[\frac{\text{VarE}_h}{E_h^2} + \frac{\text{Var}\bar{c}_h}{\bar{c}_h^2} + \frac{\text{VarE}_h \text{Var}\bar{c}_h}{\bar{c}_h^2 E_h^2} \right] \\ &= \sum_{h=1}^2 C_h^2 \left[\text{CV}^2(E_h) + \text{CV}^2(\bar{c}_h)^2 + \text{CV}^2(E_h) \text{CV}^2(\bar{c}_h) \right] \end{aligned} \quad (\text{K.11})$$

³This formulation ignores any correlation between $\bar{p}_h(t)$ and $\bar{c}_h(t)$.

Imputations

Due to time constraints the procedure for estimating the variance of intensive fishing parameter estimates (of the form \hat{X}_h/\hat{X}_h^*) outlined previously was not feasible. Consequently, a proxy to the procedure embodied in equations K.1 through K.3 was adopted. The relative precision, or coefficient of variation, of unweighted estimates of the intensive fishing parameters determined from the raw creel survey data is imputed as the coefficient of variation of the weighted estimates of these parameters. That is, the relative error of weighted intensive fishing parameters is estimated as:

$$CV(Z) = \frac{\sqrt{\text{var}(\bar{Z})}}{\bar{Z}} \quad (K.12)$$

$$\text{where Var}(\bar{Z}) = \frac{1}{n} \sum_1^n \frac{(z_i - \bar{z})^2}{n-1}$$

CV = coefficient of variation

z_i = value of i^{th} observation

\bar{z} = mean value

n = number of interviews

instead of equation K.1.

Thereafter, the calculation of variance estimates for total effort and coho and chinook catch follows equations K.9 and K.11.

Similar to the catch and effort estimation methodology outlined in Appendix I, the calculations are undertaken for "like" statistical Sub-Areas and the resulting estimated variances of sub-area estimates are added to comprise a total Statistical Area estimate for midweek and weekend day types.⁴ These two

⁴This procedure assumes that sub-area estimates are statistically uncorrelated.

estimates are added to form a total monthly estimate. In Table K-1 the companion variance calculations to the catch and effort estimates in Table I-1 are presented for Statistical Area 14 for July 1980.

This is the procedure used to estimate error bounds for the fishing effort and coho catch and chinook catch estimates. A different procedure was used for the total salmon -- coho plus chinook plus other or unidentified salmon -- catch estimates due to the non-availability⁵ of coefficient of variation estimates for this variable. Rather, total salmon variance estimates were calculated under the following two assumptions:

- . the coefficient of variation of other or unidentified salmon is equal to one, and
- . the catches of coho, chinook and other or unidentified salmon are uncorrelated.

Under these conditions, the variance of a given total salmon catch estimate was equal to the sum of the variance of the corresponding coho catch estimate, the variance of the corresponding chinook estimate and the squared level of the corresponding other or unidentified salmon catch estimate.

Other or unidentified salmon comprise only 1 percent of the 877 thousand 12 month salmon catch so the first assumption has minimal impact. The question of whether coho and chinook catches are uncorrelated, positively correlated or negatively correlated is somewhat open. One could argue that due to the daily individual "bag limit" of 4 salmon per person, conceptually the catches should be negatively correlated. However, only 2 1/2 percent of boating parties interviewed "limited out" so this does not

⁵ Summary statistics from raw creel survey data were tabulated by computer before the variance estimation approach was resolved. Such calculations did not include tabulations for total salmon but only for the constituent salmon species. Consequently, an equivalent approach to that for coho and chinook could not be followed.

TABLE K-1: CALCULATION OF SPORT FISHING EFFORT AND SALMON CATCH VARIANCE ESTIMATES, STATISTICAL AREA 14, JULY 1980

Statistical Sub-Area	Mapped Landing Site	Overflight Counts			Coverage Factor	Monthly Effort		CV ^b of Catch Rate		Monthly Catch			
		Mean	SE ^a	CV ^b	CV ^b	Est ^c	Var ^d	CO	CH	CO		CH	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Est ^c	Var ^d	Est ^c	Var ^d
<u>Midweek Day</u>													
14K/L	CON	51	8.4	.17	.04	3,912	466,800	.06	.20	7,968	2,171,900	692	32,400
14F/J	COC	78	35.1	.45	.06	6,120	7,719,400	.07	.13	7,776	12,819,400	1,176	313,200
14C/D/E	QUN	66	1.9	.03	.07	5,376	167,600	.12	.26	5,400	591,500	504	18,700
14A/B	QUS	53	10.4	.20	.07	4,320	837,900	.07	.11	5,088	1,294,900	2,064	245,100
14G/H	QUS	33	3.7	.11	.06	2,160	73,200	.07	.11	2,544	133,800	1,032	29,800
All						21,888	9,264,900			28,776	17,011,500	5,448	639,200
<u>Weekend Day</u>													
14K/L	CON	17	3.2	.19	.05	825	26,300	.08	.17	2,728	336,700	121	1,000
14F/J	COC	21	5.7	.27	.15	1,881	337,500	.08	.19	2,167	480,900	451	27,400
14C/D/E	QUN	90	10.8	.12	.05	3,102	162,600	.09	.21	4,191	441,500	572	20,200
14A/B	QUS	61	7.8	.13	.05	2,101	85,600	.07	.12	3,069	229,800	1,034	36,400
14G/H	QUS	52	9.4	.18	.05	2,068	149,300	.07	.12	3,014	363,100	1,012	51,000
All						9,977	761,300			15,169	1,852,000	3,190	136,000
<u>Total</u>						31,865	10,026,200			43,945	18,863,500	8,638	775,200

^aStandard Error (square root of variance estimate)

^bCoefficient of variation

^cEstimate

^dVariance estimate

.....Continued

TABLE K-1: CALCULATION OF SPORT FISHING EFFORT AND SALMON CATCH VARIANCE ESTIMATES, STATISTICAL AREA 14, JULY 1980 (Continued)

- (1) Table D-1
- (2) Calculated from data in Table D-1 and using equation K.5
- (3) = (2)/(1)
- (4) Derived from raw (unweighted) data using binomial variance formula K.12
- (5) Daily effort (Table I-1) times number of days in month (Table I-2)
- (6) $(5)^2 \left[(3)^2 + (4)^2 \right]$
- (7) Derived from raw (unweighted) data using equation K.12
- (8) Derived from raw (unweighted) data using equation K.12
- (9) Daily catch (Table I-1) times number of days in month (Table I-2)
- (10) = $(9)^2 \left[\left\{ (3)^2 + (4)^2 \right\} + (9)^2 + (9)^2 \left\{ (3)^2 + (4)^2 \right\} \right]$
- (11) Daily catch (Table I-1) times number of days in month (Table I-2)
- (12) = $(11)^2 \left[\left\{ (3)^2 + (4)^2 \right\} + (10)^2 + (10)^2 \left\{ (3)^2 + (4)^2 \right\} \right]$

appear to be a serious consideration. Some fishermen "target" on a particular salmon species through choice of fishing location, fishing depth, fishing method and tackle, etc. In such cases, one would expect catches of coho and chinook to be negatively correlated, i.e., boats with high coho catches have low chinook catches and vice versa. However, one could also argue that skill in fishing applies equally to all salmon species and that therefore one would expect coho and chinook catches to be positively correlated. For the purposes of this study, we view the neutral position of their being no correlation between coho and chinook catches as being adequate.

As an example, the variance of the total salmon catch estimate for Statistical Area 14 in July 1980 of 53,300 is 4600 squared (4,300 squared plus 900 squared plus 800 squared -- see Tables 4, 5 and 6 in the Main Report). The variances of the column (total Statistical Area) and row (total month) estimates in Tables 4, 5, 6 and 7 of the Main Report are calculated as the sum of the variances of the individual entries.

In the months of November through February only one overflight per month for each day type was conducted. Consequently, variance estimates of the "snapshot" sport fishing boat counts (equation K.5) could not be calculated. However, approximate variance estimates were calculated from the pooled November and December data and from the pooled January and February data.

In those cases in which a sub-area catch or effort estimate of zero was realized, a variance estimate of zero was imputed.

PROPORTION OF MARKED SALMON

The proportion of marked salmon (coho or chinook) is calculated as a weighted average of Statistical sub-area proportion of marked salmon in the catch where the weights are relative sub-area catch. That is

$$\hat{W} = \frac{\sum_{\text{(sub-areas)}} a_i \hat{w}_i}{\sum_{\text{(sub-areas)}} a_i} \quad (\text{K.13})$$

where \hat{W} is estimated Statistical Area proportion marked salmon

\hat{w}_i is estimated sub-area proportion marked salmon, and

a_i is the proportion of total statistical Area catch that the sub-area contributes.

Note that

$$\hat{w}_i = \frac{\sum_{\text{(interviews } j)} u_{ij}}{\sum_{\text{(interviews } j)} v_{ij}} \quad (\text{K.14})$$

where u_{ij} refers to the number of marked salmon and v_{ij} refers to the number of salmon inspected for marks.

A Taylor series approximation to the variance of \hat{W} is

$$\begin{aligned} \text{Var}(\hat{W}) &= \sum_{\text{(sub-areas)}} a_i^2 \text{Var}(\hat{w}_i) \\ &= \frac{\sum_{\text{(sub-area)}} a_i^2 \hat{w}_i (1 - \hat{w}_i)}{\sum_{\text{(interviews } j)} 1} \quad (\text{K.15}) \end{aligned}$$

An example of the procedure for statistical Area 14 in July 1980 is presented in Table K-2.

For those sub-areas in which the estimated proportion of marked fish is zero a variance estimate of zero is imputed.

TABLE K-2: CALCULATION OF VARIANCES OF ESTIMATED PROPORTIONS OF MARKED COHO AND CHINOOK, STATISTICAL AREA 14, JULY 1980

	<u>Mapped Landing Site</u>	<u>Relative Weight</u>	<u>Proportion Marked Fish</u>	<u>Number of Interviews</u>	<u>Variance</u>
		(1)	(2)	(3)	(4)
<u>Coho</u>					
14K/L	CON	.244	.063	1,203	.0000029
14F/J	COC	.226	.038	1,000	.0000018
14C/D/E	QUN	.218	.054	515	.0000047
14A/B/G/H	QUS	.312	.021	1,411	.0000014
All		1.000	.042	4,129	.0000108
<u>Chinook</u>					
14K/L	CON	.092	.015	136	.0000009
14F/J	COC	.188	.000	166	-
14C/D/E	QUN	.125	.000	62	-
14A/B/G/H	QUS	.595	.008	398	.0000070
All		1.000	.006	762	.0000079*

(1) Table I-3

(2) Table I-3

(3) Table N-1

(4) $= (1)^2 (2) [1 - (2)] / (3)$

*The standard error is .003 rather than the .001 reported in Table 9 of the Main Report.

APPENDIX L

KEPT FISH SUMMARIES FROM THE GEORGIA STRAIT
CREEL SURVEY RAW DATA

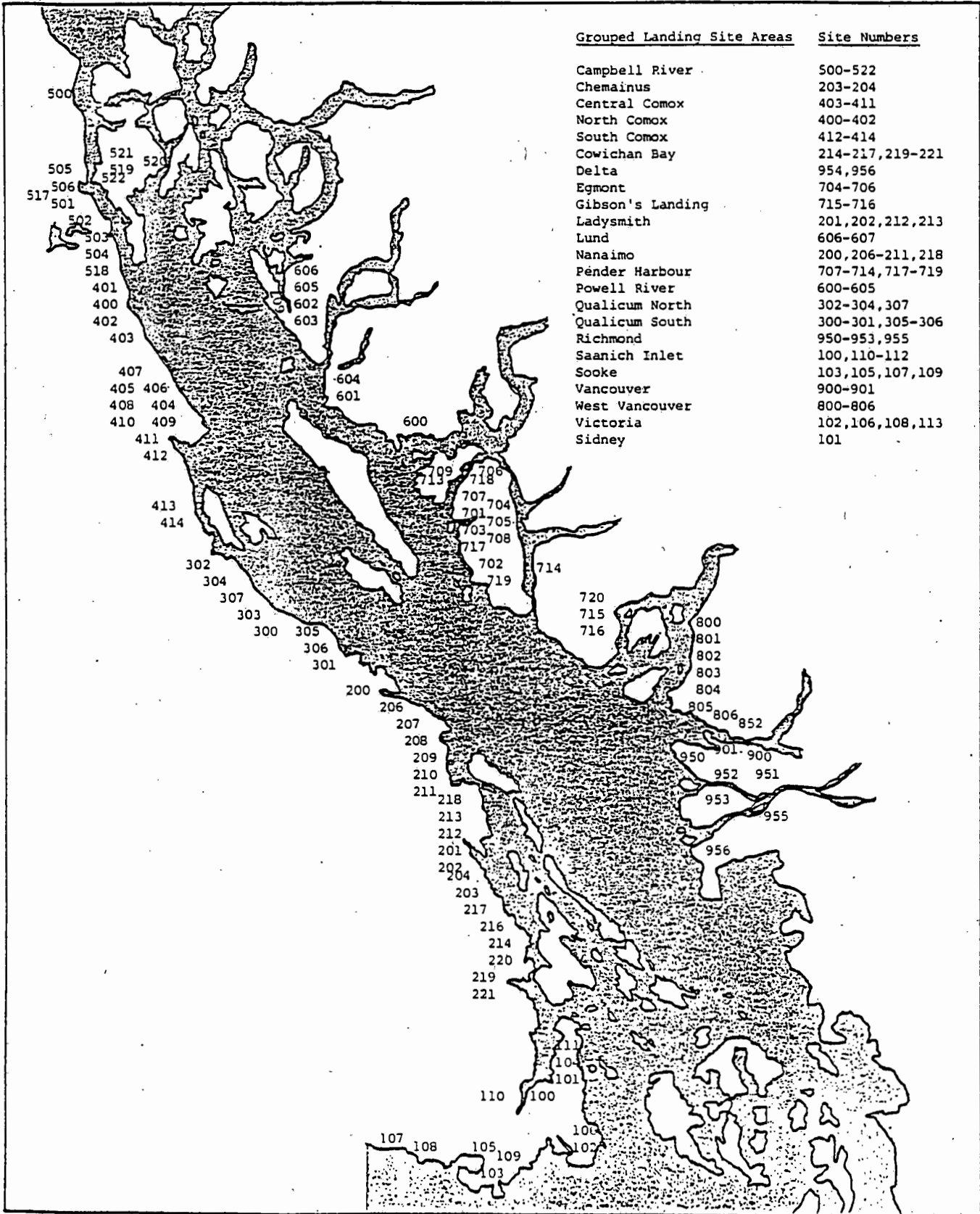


TABLE L-1: HMP FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JULY 1990

Area of Landing	No. of Interviews (Boat Trips)	Kept Fish								Average Number Kept Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	2,229	3,564	543	78	386	4	315	21	3	1.60	.25	.03	.17	-	.14	.01	-
Chemainus	166	52	193	1	134	-	60	7	3	.31	1.10	.01	.81	-	.36	.04	.02
Central Comox	324	1,002	169	4	69	7	86	5	-	1.22	.20	.01	.08	.01	.10	.01	-
North Comox	630	1,206	136	35	69	-	160	3	-	1.91	.22	.05	.11	-	.25	.01	-
South Comox	65	115	17	-	8	-	7	-	-	1.77	.26	-	.12	-	.11	-	-
Cowichan Bay	224	9	108	2	120	7	11	11	2	.04	.48	.01	.54	.03	.05	.05	.01
Delta	159	102	96	5	73	8	18	23	-	.64	.60	.03	.46	.05	.11	.14	-
Egmont	159	37	32	-	205	-	79	36	-	.23	.20	-	1.29	-	.50	.23	-
Gibson's Landing	139	75	32	-	8	40	15	6	2	.54	.23	-	.06	.29	.11	.04	.01
Ladysmith	124	49	92	-	87	1	14	28	2	.40	.74	-	.70	.01	.11	.23	.01
Lund	139	101	15	-	22	-	15	16	-	.73	.11	-	.16	-	.11	.12	-
Nanaimo	962	948	354	13	57	1	77	28	2	.99	.89	.01	.06	-	.08	.03	-
Pender Harbour	343	1,330	265	4	227	2	202	45	-	1.57	.31	.01	.27	-	.24	.05	-
Powell River	790	331	173	27	128	1	123	16	-	1.05	.22	.03	.16	-	.16	.02	-
Qualicum North	430	510	64	5	115	6	48	1	-	1.20	.15	.01	.27	.01	.11	-	-
Qualicum South	923	1,415	403	18	85	5	36	3	-	1.53	.44	.02	.09	.01	.09	-	-
Richmond	136	68	33	18	15	1	7	2	2	.50	.24	.13	.11	.01	.05	.01	.01
Saanich Inlet	647	41	315	1	180	5	43	56	4	.06	.49	.01	.28	.01	.07	.09	.01
Sooke	1,047	737	239	17	125	8	64	81	18	.75	.23	.02	.12	.01	.06	.07	.02
Vancouver	235	126	137	23	49	14	20	8	1	.54	.58	.10	.21	.06	.09	.03	-
West Vancouver	1,047	378	229	7	109	17	151	112	5	.36	.22	.01	.10	.02	.14	.11	-
Victoria	382	13	170	-	134	5	124	27	1	.03	.45	-	.35	.01	.32	.07	-
Sidney	212	15	92	2	105	2	36	27	9	.07	.43	.01	.50	.01	.18	.13	.04
Total	12,517	12,782	4,402	260	2,511	134	1,763	562	54	1.02	.35	.02	.20	.01	.14	.04	-

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE L-2: KEPT FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, AUGUST 1980

Area of Landing	No. of Interviews (Boat Trips)	Kept Fish								Average Number Kept Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	1,834	2,316	430	41	377	3	389	67	1	1.26	.24	.02	.20	-	.21	.04	-
Chemainus	107	33	49	-	63	-	24	10	2	.31	.46	-	.78	-	.22	.09	.02
Central Comox	630	379	233	7	56	3	37	3	-	.60	.37	.01	.09	-	.06	-	-
North Comox	639	756	135	23	167	3	255	6	-	1.16	.29	.04	.26	-	.40	.01	-
South Comox	63	48	29	1	16	-	5	-	-	.76	.46	.02	.25	-	.08	-	-
Cowichan Bay	260	9	114	-	202	1	12	10	3	.03	.44	-	.78	-	.05	.04	.01
Delta	285	123	108	12	70	-	83	68	1	.43	.38	.04	.25	-	.29	.24	-
Egmont	116	3	13	-	156	1	62	-	-	.03	.11	-	1.34	.01	.53	-	-
Gibson's Landing	65	54	13	1	5	4	24	-	-	.83	.20	.01	.08	.06	.37	-	-
Ladysmith	118	18	40	1	84	2	29	15	-	.15	.34	.01	.71	.02	.25	.13	-
Lund	38	31	3	-	37	-	5	1	-	.01	.08	-	.97	-	.13	.03	-
Nanaimo	585	216	245	3	107	-	108	21	1	.37	.42	.01	.16	-	.18	.04	-
Pender Harbour	771	763	161	1	462	-	204	10	1	.99	.21	-	.60	-	.26	.01	-
Powell River	475	299	128	8	94	6	68	13	-	.63	.27	.02	.20	.01	.14	.03	-
Qualicum North	503	306	100	19	254	2	49	7	-	.61	.20	.04	.51	-	.10	.01	-
Qualicum South	584	410	275	7	80	3	74	3	-	.70	.47	.01	.14	.01	.13	.01	-
Richmond	136	64	42	4	24	-	-	9	-	.47	.31	.03	.18	-	-	.07	-
Saanich Inlet	587	46	472	1	120	-	35	51	3	.08	.80	-	.20	-	.06	.09	.01
Sooke	681	309	252	14	131	2	70	17	6	.45	.37	.02	.19	-	.10	.03	.01
Vancouver	241	208	78	27	28	-	5	2	1	.86	.32	.11	.11	-	.02	.01	-
West Vancouver	1,031	580	78	61	104	9	53	50	2	.56	.07	.06	.10	.01	.05	.05	-
Victoria	309	7	175	-	178	1	125	12	1	.02	.57	-	.58	-	.40	.04	-
Sidney	141	10	54	1	112	2	18	2	1	.07	.38	.01	.79	.01	.13	.01	.01
Total	10,199	6,992	3,285	232	2,947	42	1,734	377	23	.68	.32	.02	.29	-	.17	.04	-

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE L-3: KEPT FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, SEPTEMBER 1960

Area of Landing	No. of Interviews (Boat Trips)	Kept Fish								Average Number Kept Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	559	638	111	-	142	-	332	1	-	1.50	.20	-	.25	-	.59	-	-
Chemainus	36	3	31	-	24	-	8	3	1	.08	.06	-	.67	-	.22	.08	.03
Central Comox	186	76	52	1	9	-	31	2	-	.41	.28	.01	.05	-	.17	.01	-
North Comox	146	143	22	1	15	-	21	1	-	.98	.15	.01	.10	-	.14	.01	-
South Comox																	
Cowichan Bay	124	14	38	-	77	-	26	8	1	.11	.31	-	.62	-	.21	.06	.01
Delta	50	33	12	1	2	2	1	-	-	.66	.24	.02	.04	.04	.02	-	-
Egmont																	
Gibson's Landing	50	31	14	-	5	-	10	-	-	.62	.28	-	.10	-	.20	-	-
Ladysmith	65	11	52	-	24	-	5	5	-	.17	.80	-	.37	-	.08	.08	-
Lund	7	1	1	-	-	-	-	-	-	.14	.14	-	-	-	-	-	-
Nanaimo	139	50	40	5	61	-	32	1	-	.42	.29	.04	.44	-	.23	.01	-
Pender Harbour	115	97	44	1	27	-	19	9	2	.84	.38	.01	.23	-	.17	.08	.02
Powell River	78	44	22	1	27	-	13	1	-	.56	.28	.01	.35	-	.17	.01	-
Qualicum North	124	75	37	1	31	-	6	2	-	.60	.30	.01	.25	-	.05	.01	-
Qualicum South	221	118	94	7	28	1	13	1	-	.53	.43	.03	.13	-	.06	-	-
Richmond	98	44	37	6	1	-	1	1	-	.45	.38	.06	.01	-	.01	.01	-
Saanich Inlet	356	75	356	1	111	4	12	19	4	.21	1.00	-	.31	.01	.03	.05	.01
Sooke	289	116	270	7	50	1	29	39	3	.40	.93	.02	.17	-	.10	.13	.01
Vancouver	154	98	23	2	28	-	11	4	-	.64	.15	.01	.18	-	.07	.03	-
West Vancouver	322	200	40	6	18	1	15	22	1	.62	.12	.02	.06	.01	.05	.07	-
Victoria	164	4	81	-	72	-	52	8	-	.02	.49	-	.44	-	.32	.05	-
Sidney	54	2	15	-	50	4	7	9	1	.04	.28	-	.93	.07	.13	.17	.02
Total	3,337	2,081	1,392	40	802	13	644	136	13	.62	.42	.01	.24	-	.19	.04	-

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

L-4

TABLE L-4: KEPT FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, OCTOBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Kept Fish								Average Number Kept Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	179	198	37	10	72	-	131	-	-	1.11	.21	.06	.40	-	.73	-	-
Chemainus																	
Central Comox	46	11	3	19	2	-	8	-	-	.24	.07	.41	.04	-	.17	-	-
North Comox	5	3	1	-	-	-	-	-	-	.60	.20	-	-	-	-	-	-
South Comox																	
Cowichan Bay	6	1	3	-	-	-	-	-	-	.17	.50	-	-	-	-	-	-
Delta																	
Egmont																	
Gibson's Landing	23	9	2	-	1	1	2	-	-	.39	.09	-	.04	.04	.09	-	-
Ladysmith																	
Lund																	
Nanaimo	301	103	263	2	73	1	40	-	1	.34	.87	.01	.24	-	.13	-	-
Pender Harbour	67	5	18	2	44	-	8	-	-	.07	.27	.03	.66	-	.12	-	-
Powell River	113	41	166	2	10	-	5	2	-	.36	1.47	.02	.09	-	.04	.02	-
Qualicum North																	
Qualicum South	94	60	50	2	32	1	3	2	-	.64	.53	.02	.34	.01	.03	.02	-
Richmond	21	7	4	-	-	-	1	-	-	.33	.19	-	-	-	.05	-	-
Saanich Inlet	319	76	244	3	86	4	14	25	1	.24	.76	.01	.27	.01	.04	.08	-
Sooke	588	99	543	3	257	-	104	41	13	.17	.92	.01	.44	-	.18	.07	.02
Vancouver	28	1	10	-	-	-	-	1	1	.04	.36	-	-	-	-	.04	.04
West Vancouver	166	8	38	1	10	-	21	25	-	.05	.23	.01	.06	-	.13	.15	-
Victoria	132	8	33	-	49	-	58	8	-	.06	.25	-	.37	-	.44	.06	-
Sidney	41	-	12	-	27	-	11	6	-	-	.29	-	.66	-	.27	.15	-
Total	2,129	630	1,427	44	663	7	406	110	16	.30	.67	.02	.31	-	.19	.05	.01

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE L-5: KEPT FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, NOVEMBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Kept Fish								Average Number Kept Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	HF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	16	-	8	-	-	-	22	-	-	-	.50	-	-	-	1.38	-	-
Chemainus																	
Central Comox	38	-	18	4	-	-	2	-	-	-	.47	.11	-	-	.05	-	-
North Comox																	
South Comox																	
Cowichan Bay	32	12	47	7	6	1	2	-	-	.38	1.47	.22	.19	.03	.06	-	-
Delta																	
Egmont																	
Gibson's Landing																	
Ladysmith																	
Lund																	
Nanaimo	41	10	78	-	1	-	7	-	-	.25	1.90	-	.02	-	.17	-	-
Pender Harbour	43	-	52	1	4	-	1	-	-	-	1.21	.02	.09	-	.02	-	-
Powell River	12	1	21	-	-	-	-	-	-	.08	1.75	-	-	-	-	-	-
Qualicum North																	
Qualicum South	6	-	4	-	-	-	-	-	-	-	.67	-	-	-	-	-	-
Richmond																	
Saanich Inlet	93	53	122	-	17	-	5	-	1	.57	1.31	-	.18	-	.05	-	.01
Sooke	99	16	157	1	20	-	4	-	6	.16	1.58	.01	.20	-	.04	-	.06
Vancouver	44	-	27	-	1	-	2	2	2	-	.61	-	.02	-	.05	.05	.05
West Vancouver	57	-	46	-	-	-	-	6	-	-	.81	-	-	-	-	.11	-
Victoria	28	7	52	-	3	-	1	-	1	.25	1.86	-	.11	-	.04	-	.04
Sidney	24	-	10	-	8	-	1	-	-	-	.42	-	.33	-	.04	-	-
Total	533	99	642	13	60	1	47	8	10	.19	1.20	.02	.11	-	.09	.02	.02

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE L-6: KEPT FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, DECEMBER 1900

Area of Landing	No. of Interviews (Boat Trips)	Kept Fish								Average Number Kept Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	16	-	29	-	-	-	5	-	-	-	1.81	-	-	-	.31	-	-
Chemainus																	
Central Comox	11	-	14	-	-	-	3	-	-	-	1.27	-	-	-	.27	-	-
North Comox																	
South Comox																	
Cowichan Bay	8	-	18	-	-	-	-	-	-	-	2.25	-	-	-	-	-	-
Delta																	
Egmont																	
Gibson's Landing																	
Ladysmith																	
Lund																	
Nanaimo	51	-	90	-	-	-	-	-	1	-	1.76	-	-	-	-	-	.02
Pender Harbour	31	-	24	-	13	-	-	3	-	-	.77	-	.42	-	-	.10	-
Powell River	7	15	-	-	-	-	-	-	-	2.14	-	-	-	-	-	-	-
Qualicum North																	
Qualicum South																	
Richmond																	
Saanich Inlet	70	82	97	-	15	-	-	3	-	1.17	1.39	-	.21	-	-	.04	-
Sooke	116	5	159	-	37	-	-	1	10	.04	1.37	-	.32	-	-	.01	.09
Vancouver	13	-	10	-	1	-	-	4	-	-	.77	-	.08	-	-	.31	-
West Vancouver	46	-	41	-	1	-	-	-	-	-	.89	-	.02	-	-	-	-
Victoria	33	2	54	-	7	-	-	-	-	.06	1.64	-	.21	-	-	-	-
Sidney	5	-	9	-	1	-	-	-	-	-	1.80	-	.20	-	-	-	-
Total	407	104	545	0	75	0	6	11	11	.26	1.34	0	.18	0	.02	.03	.03

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE L-7: KEPT FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JANUARY 1981

Area of Landing	No. of Interviews (Boat Trips)	Kept Fish								Average Number Kept Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	33	1	53	-	-	-	4	-	-	.03	1.61	-	-	-	.12	-	-
Chemainus																	
Central Comox	38	-	65	-	-	-	10	-	-	-	1.71	-	-	-	.26	-	-
North Comox																	
South Comox																	
Cowichan Bay	61	1	88	-	54	-	-	16	1	.02	1.44	-	.89	-	-	.26	.02
Delta																	
Egmont																	
Gibson's Landing																	
Ladysmith	33	10	88	-	12	-	-	3	-	.30	2.67	-	.36	-	-	.09	-
Lund																	
Nanaimo	95	14	233	-	14	-	-	-	-	.15	2.45	-	.15	-	-	-	-
Pender Harbour	38	-	13	1	6	-	-	1	-	-	.34	.03	.16	-	-	.03	-
Powell River	9	10	2	-	-	-	-	-	-	1.11	.22	-	-	-	-	-	-
Qualicum North																	
Qualicum South	8	14	13	-	-	-	-	-	-	1.75	1.63	-	-	-	-	-	-
Richmond																	
Saanich Inlet	230	166	320	-	97	-	5	1	3	.72	1.39	-	.42	-	.02	-	.01
Sooke	239	13	256	-	83	1	6	-	11	.08	1.07	-	.35	-	.03	-	.05
Vancouver	85	2	69	-	1	-	2	5	3	.02	.81	-	.01	-	.02	.06	.04
West Vancouver	98	-	64	-	1	1	2	6	-	-	.65	-	.01	.01	.02	.06	-
Victoria	98	10	134	-	32	-	-	-	-	.10	1.37	-	.33	-	-	-	-
Sidney	58	-	123	-	7	-	-	99	6	-	2.12	-	.12	-	-	1.71	.10
Total	1,123	246	1,521	1	307	2	29	131	24	.22	1.35	-	.27	-	.03	.12	.02

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE L-8: KEPT FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, FEBRUARY 1981

Area of Landing	No. of Interviews (Boat Trips)	Kept Fish								Average Number Kept Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	27	-	35	-	-	-	4	-	-	-	1.30	-	-	-	.15	-	-
Chemainus																	
Central Comox	21	-	11	-	-	-	-	-	-	-	.52	-	-	-	-	-	-
North Comox																	
South Comox																	
Cowichan Bay	26	6	4	-	53	-	-	46	2	.23	.15	-	2.04	-	-	1.77	.08
Delta																	
Egmont																	
Gibson's Landing																	
Ladysmith	26	2	20	-	22	-	-	1	-	.08	.77	-	.85	-	-	.04	-
Lund																	
Nanaimo	87	9	287	-	14	3	1	1	3	.10	3.30	-	.16	.03	.01	.01	.03
Pender Harbour	42	-	10	-	25	-	-	-	-	-	.24	-	.60	-	-	-	-
Powell River	4	5	1	-	-	-	-	-	-	1.25	.25	-	-	-	-	-	-
Qualicum North																	
Qualicum South	10	3	20	-	-	-	-	-	-	.30	2.00	-	-	-	-	-	-
Richmond																	
Saanich Inlet	198	67	99	-	103	-	2	172	1	.34	.50	-	.52	-	.01	.87	.01
Sooke	182	48	283	-	52	-	4	-	2	.26	1.55	-	.29	-	.02	-	.01
Vancouver	68	-	37	-	3	-	-	2	1	-	.54	-	.04	-	-	.03	.01
West Vancouver	83	1	50	-	-	2	2	7	-	.01	.60	-	-	.02	.02	.08	-
Victoria	120	35	115	-	45	-	4	-	2	.30	.96	-	.38	-	.03	-	.02
Sidney	51	1	41	-	8	1	-	279	4	.02	.80	-	.16	.02	-	5.47	.08
Total	945	177	1,013	0	325	6	17	503	15	.19	1.07	0	.34	.01	.02	.54	.02

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE L-9: KEPT FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, MARCH 1981

Area of Landing	No. of Interviews (Boat Trips)	Kept Fish								Average Number Kept Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	22	10	9	-	5	-	9	1	-	.45	.41	-	.23	-	.41	.05	-
Chemainus																	
Central Comox	13	-	-	-	-	-	1	-	-	-	-	-	-	-	.08	-	-
North Comox																	
South Comox																	
Cowichan Bay	18	4	9	-	23	-	-	-	-	.22	.50	-	1.28	-	-	-	-
Delta																	
Egmont																	
Gibson's Landing																	
Ladysmith	5	3	2	-	5	-	-	1	-	.60	.40	-	1.00	-	-	.20	-
Lund																	
Nanaimo	85	28	106	-	12	-	-	-	1	.33	1.25	-	.14	-	-	-	.01
Pender Harbour	46	14	12	-	15	-	-	2	-	.30	.26	-	.33	-	-	.04	-
Powell River	3	-	3	-	-	-	-	-	-	-	1.00	-	-	-	-	-	-
Qualicum North																	
Qualicum South	15	6	25	-	-	-	-	-	-	.40	1.67	-	-	-	-	-	-
Richmond																	
Saanich Inlet	183	41	68	-	62	-	5	93	2	.22	.37	-	.34	-	.03	.51	.01
Sooke	164	91	120	7	53	-	4	2	-	.55	.73	.04	.32	-	.02	.01	-
Vancouver	58	9	21	-	11	-	4	-	-	.16	.36	-	.19	-	.07	-	-
West Vancouver	107	-	56	-	12	1	6	1	-	-	.52	-	.11	.01	.06	.01	-
Victoria	61	02	40	11	44	1	9	1	-	1.34	.66	.18	.72	.02	.15	.02	-
Sidney	25	-	14	-	12	-	2	30	1	-	.56	-	.48	-	.08	1.20	.04
Total	805	288	485	18	254	2	40	131	4	.36	.60	.02	.32	-	.05	.16	.01

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

L-10

TABLE L-10: KEPT FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, APRIL 1981

Area of Landing	No. of Interviews (Boat Trips)	Kept Fish								Average Number Kept Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	46	22	6	-	32	-	53	1	-	.48	.13	-	.70	-	1.15	.02	-
Chemainus																	
Central Comox	52	84	25	-	-	-	-	-	-	1.62	.48	-	-	-	-	-	-
North Comox																	
South Comox																	
Cowichan Bay	12	2	-	-	17	-	10	-	1	.17	-	-	1.42	-	.83	-	.08
Delta																	
Egmont																	
Gibson's Landing																	
Ladysmith	5	1	1	-	15	-	-	-	-	.20	.20	-	3.00	-	-	-	-
Lund																	
Nanaimo	71	71	23	-	10	-	16	-	-	1.00	.32	-	.14	-	.23	-	-
Pender Harbour	60	44	4	-	16	-	3	-	1	.73	.07	-	.27	-	.05	-	.02
Powell River	8	-	8	-	-	-	6	-	-	-	1.00	-	-	-	.75	-	-
Qualicum North																	
Qualicum South	20	30	5	-	-	-	-	-	-	1.50	.25	-	-	-	-	-	-
Richmond																	
Saanich Inlet	95	4	60	-	41	-	8	3	-	.04	.63	-	.43	-	.08	.03	-
Sooke	242	79	97	9	159	-	59	13	10	.33	.40	.04	.66	-	.24	.05	.04
Vancouver	29	-	17	-	14	-	3	2	-	-	.59	-	.48	-	.10	.07	-
West Vancouver	65	-	17	-	5	-	4	4	-	-	.26	-	.08	-	.06	.06	-
Victoria	11	8	2	2	2	-	4	-	-	.73	.18	.18	.18	-	.36	-	-
Sidney	17	2	1	2	18	-	8	-	1	.12	.06	.12	1.06	-	.47	-	.06
Total	733	347	266	13	329	0	174	23	13	.47	.36	.02	.45	0	.24	.03	.02

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE L-11: KEPT FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, MAY 1901

Area of Landing	No. of Interviews (Boat Trips)	Kept Fish								Average Number Kept Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	394	273	216	1	140	-	184	113	1	.69	.55	-	.36	-	.47	.29	-
Chemainus																	
Central Comox	293	442	175	25	23	2	51	2	1	1.51	.60	.09	.08	.01	.17	.01	-
North Comox	196	679	9	4	2	-	18	-	-	3.46	.05	.02	.01	-	.09	-	-
South Comox																	
Cowichan Bay	31	4	9	-	36	-	4	-	1	.13	.29	-	1.16	-	.13	-	.03
Delta																	
Egmont																	
Gibson's Landing	28	9	34	-	6	-	15	-	-	.32	1.21	-	.21	-	.54	-	-
Ladysmith	2	-	-	-	1	-	-	-	-	-	-	-	.50	-	-	-	-
Lund	12	6	-	-	-	-	3	-	2	.50	-	-	-	-	.25	-	.17
Nanaimo	122	168	40	-	26	1	13	1	3	1.38	.33	-	.21	.01	.11	.01	.02
Pender Harbour	62	41	45	2	17	-	21	-	-	.66	.73	.03	.27	-	.34	-	-
Powell River	93	85	13	3	9	-	24	1	2	.91	.14	.03	.10	-	.26	.01	.02
Qualicum North	63	168	12	-	15	-	10	-	-	2.67	.19	-	.24	-	.16	-	-
Qualicum South	549	951	264	3	27	-	9	2	-	1.73	.48	.01	.05	-	.02	-	-
Richmond																	
Saanich Inlet	320	7	274	-	68	-	28	1	1	.02	.86	-	.21	-	.09	-	-
Sooke	505	71	216	2	108	-	119	48	4	.14	.43	-	.21	-	.24	.10	.01
Vancouver	107	11	79	-	14	6	10	1	-	.10	.74	-	.13	.06	.09	.01	-
West Vancouver	325	22	183	-	99	12	85	12	1	.07	.56	-	.30	.04	.26	.04	-
Victoria	149	1	88	-	58	-	95	39	-	.01	.59	-	.39	-	.64	.26	-
Sidney	136	-	93	-	41	-	31	7	5	-	.68	-	.30	-	.23	.05	.04
Total	3,387	2,938	1,750	40	690	21	720	227	21	.87	.52	.01	.20	.01	.21	.07	.01

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE L-12: KEPT FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JUNE 1981

Area of Landing	No. of Interviews (Boat Trips)	Kept Fish								Average Number Kept Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	572	702	170	0	97	5	175	97	1	1.37	.30	.01	.17	.01	.31	.17	-
Chemainus	74	29	76	-	58	3	46	9	-	.27	1.03	-	.78	.04	.62	.12	-
Central Comox	406	668	156	60	39	1	29	-	-	1.65	.38	.15	.10	-	.07	-	-
North Comox	601	1,923	56	71	28	1	114	3	5	3.20	.09	.12	.05	-	.19	.01	.01
South Comox																	
Cowichan Bay	66	6	37	1	57	5	8	-	1	.09	.56	.02	.86	.08	.12	-	.02
Delta	18	1	7	-	-	-	4	-	-	.06	.39	-	-	-	.22	-	-
Egmont																	
Gibson's Landing	81	17	96	-	43	1	70	11	-	.31	1.19	-	.53	.01	.86	.14	-
Ladysmith	35	7	33	-	18	-	2	-	1	.20	.94	-	.51	-	.06	-	.03
Lund	34	55	4	-	7	-	17	-	-	1.62	.12	-	.21	-	.50	-	-
Nanaimo	213	152	83	7	49	-	55	2	2	.71	.39	.03	.23	-	.26	.01	.01
Pender Harbour	91	82	31	-	20	-	40	-	-	.91	.34	-	.22	-	.44	-	-
Powell River	222	402	68	5	32	2	79	-	1	2.17	.31	.02	.14	.01	.36	-	-
Qualicum North	158	259	21	-	4	2	16	1	-	1.64	.13	-	.03	.01	.10	.01	-
Qualicum South	343	443	137	-	22	1	20	-	2	1.30	.40	-	.06	-	.06	-	.01
Richmond	64	9	32	-	7	1	6	2	-	.14	.50	-	.11	.02	.09	.03	-
Saanich Inlet	262	6	142	1	53	-	33	5	-	.02	.54	-	.20	-	.13	.02	-
Sooke	818	23	318	1	176	-	120	43	2	.03	.39	-	.22	-	.15	.05	-
Vancouver	73	9	53	1	4	-	29	-	-	.12	.73	.01	.05	-	.40	-	-
West Vancouver	392	47	177	2	124	2	139	16	-	.12	.45	.01	.32	.01	.35	.04	-
Victoria	130	1	44	-	115	-	75	5	-	.01	.34	-	.08	-	.58	.04	-
Sidney	67	1	29	-	44	-	14	3	1	.01	.43	-	.66	-	.21	.04	.01
Total	4,720	4,933	1,770	157	997	24	1,091	197	16	1.06	.38	.03	.21	.01	.23	.04	-

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

APPENDIX M

RELEASED FISH SUMMARIES FROM GEORGIA STRAIT
CREEL SURVEY RAW DATA

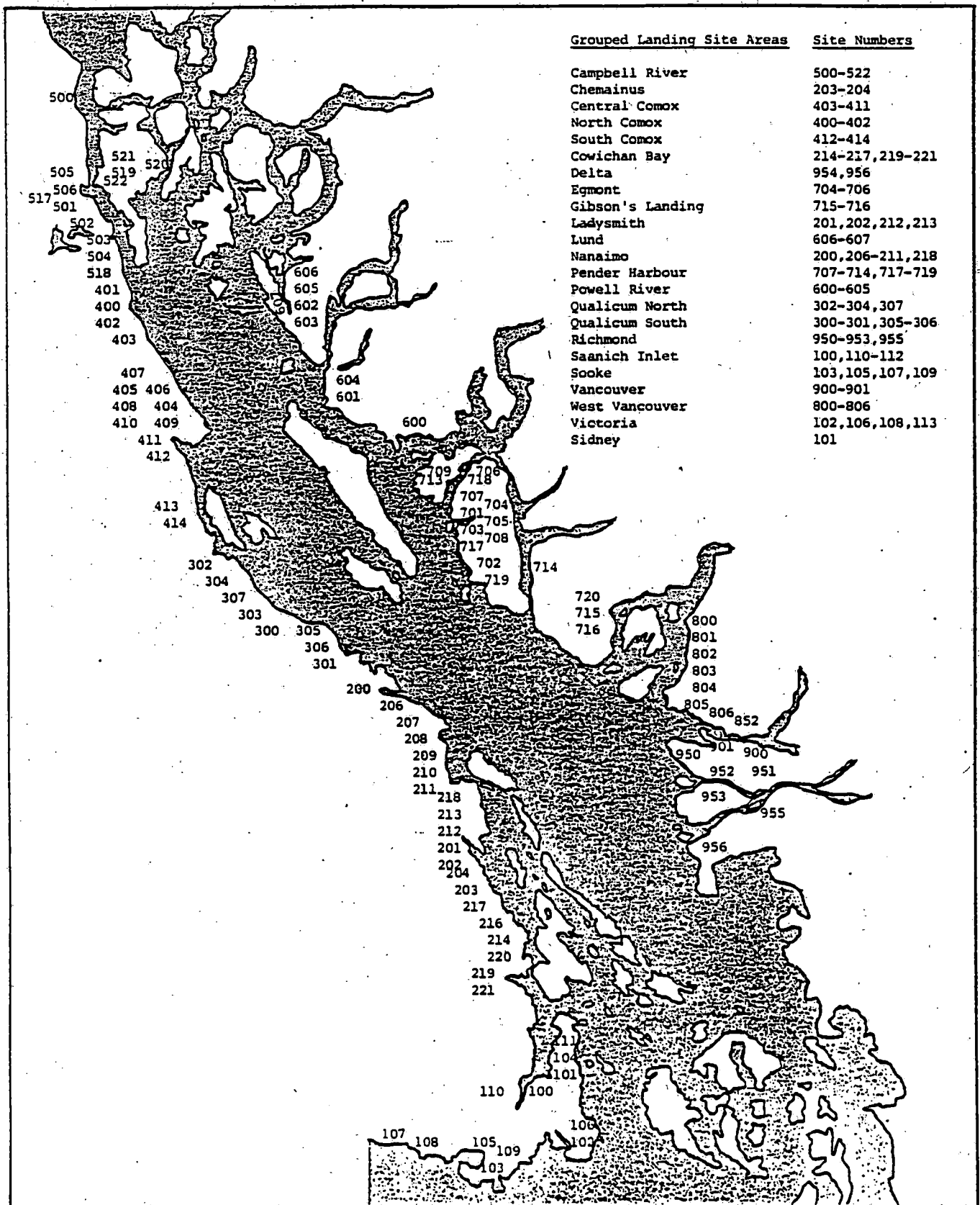


TABLE M-1: RELEASED FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JULY 1980

Area of Landing	No. of Interviews (Boat Trips)	Released Fish								Average Number Released Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	2,229	322	61	229	721	1,299	84	62	1	.14	.03	.10	.32	.58	.04	.03	-
Chemainus	166	3	37	-	39	56	5	3	-	.02	.22	-	.23	.34	.03	.02	-
Central Comox	824	11	24	106	102	224	38	113	-	.01	.03	.13	.12	.27	.05	.14	-
North Comox	630	37	119	81	11	109	8	137	-	.06	.19	.13	.02	.17	.01	.22	-
South Comox	65	4	-	13	10	13	1	18	-	.06	-	.20	.15	.20	.02	.28	-
Cowichan Bay	224	2	31	1	47	273	5	4	-	.01	.14	.01	.21	1.22	.02	.02	-
Delta	159	34	39	61	26	32	12	11	-	.21	.25	.38	.16	.20	.08	.07	-
Egmont	159	-	4	11	29	71	8	-	-	-	.03	.07	.13	.45	.05	-	-
Gibson's Landing	139	-	7	52	3	10	7	20	-	-	.05	.37	.02	.07	.05	.14	-
Ladysmith	124	6	38	-	33	26	17	15	-	.05	.31	-	.27	.21	.14	.12	-
Lund	139	46	-	9	23	59	17	3	-	.33	-	.06	.17	.42	.12	.02	-
Nanaimo	962	139	218	30	51	31	49	89	-	.14	.23	.03	.05	.03	.05	.09	-
Pender Harbour	846	169	33	90	222	227	82	90	-	.20	.04	.11	.26	.27	.10	.11	-
Powell River	790	105	52	176	96	83	35	30	-	.13	.07	.22	.12	.11	.04	.04	-
Qualicum North	430	234	16	1	56	90	10	14	-	.54	.04	-	.13	.21	.02	.03	-
Qualicum South	923	148	30	3	41	55	18	6	-	.16	.03	-	.04	.06	.02	.01	-
Richmond	136	-	4	10	1	43	3	16	-	-	.03	.07	.01	.32	.02	.12	-
Saanich Inlet	647	13	62	31	78	72	49	55	1	.02	.10	.05	.12	.11	.08	.09	-
Sooke	1,047	53	78	38	77	470	55	37	-	.05	.07	.04	.07	.45	.05	.04	-
Vancouver	235	11	37	46	3	10	4	12	1	.05	.16	.20	.01	.04	.02	.05	-
West Vancouver	1,047	53	37	340	80	158	55	205	-	.05	.04	.32	.08	.15	.05	.20	-
Victoria	382	1	14	-	124	145	124	33	1	-	.04	-	.32	.38	.32	.09	-
Sidney	212	3	9	3	62	154	8	7	-	.01	.04	.01	.29	.73	.04	.03	-
Total	12,517	1,394	950	1,331	1,935	3,710	694	980	4	.11	.08	.11	.15	.30	.06	.08	-

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE M-2: RELEASED FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, AUGUST 1980

Area of Landing	No. of Interviews (Boat Trips)	Released Fish								Average Number Released Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	1,834	611	137	1,019	640	457	36	141	-	.33	.08	.56	.35	.25	.05	.08	-
Chemainus	107	21	53	-	8	7	2	7	-	.20	.50	-	.07	.07	.02	.07	-
Central Comox	630	2	21	601	70	114	47	2	1	-	.03	.95	.11	.18	.07	-	-
North Comox	639	-	4	1,171	76	135	22	2	-	-	.01	1.83	.12	.21	.03	-	-
South Comox	63	-	-	69	10	3	1	2	-	-	-	1.10	.16	.05	.02	.03	-
Cowichan Bay	260	4	93	12	79	146	11	4	-	.02	.36	.05	.30	.56	.04	.02	-
Delta	285	-	15	752	8	34	17	56	-	-	.05	2.64	.03	.12	.06	.20	-
Egmont	116	7	-	25	50	54	3	-	-	.06	-	.22	.43	.47	.03	-	-
Gibson's Landing	65	2	-	-	-	12	1	46	-	.03	-	-	-	.18	.02	.71	-
Ladysmith	118	66	118	-	74	18	7	6	-	.56	1.00	-	.63	.15	.06	.05	-
Lund	38	8	-	27	1	7	2	-	-	.21	-	.71	.03	.18	.05	-	-
Nanaimo	585	232	80	126	104	36	79	118	1	.41	.14	.22	.18	.06	.14	.20	-
Pender Harbour	771	443	6	232	285	456	39	36	-	.57	.01	.30	.37	.59	.05	.05	-
Powell River	475	15	6	540	149	80	20	12	-	.03	.01	1.14	.31	.17	.04	.03	-
Qualicum North	503	247	49	565	93	187	16	23	-	.49	.10	1.12	.18	.37	.03	.05	-
Qualicum South	584	84	22	376	33	71	15	14	-	.14	.04	.64	.06	.12	.03	.02	-
Richmond	136	4	8	37	-	10	-	5	-	.03	.06	.27	-	.07	-	.04	-
Saanich Inlet	587	5	58	185	97	23	20	45	2	.01	.10	.32	.17	.04	.03	.08	-
Sooke	681	49	42	538	113	171	33	12	3	.07	.06	.79	.17	.25	.05	.02	-
Vancouver	241	24	16	664	14	24	4	16	1	.10	.07	2.76	.06	.10	.02	.07	-
West Vancouver	1,031	4	5	1,176	27	149	21	50	1	-	-	1.14	.03	.14	.02	.05	-
Victoria	309	2	52	12	147	60	65	15	1	.01	.17	.04	.48	.19	.21	.05	-
Sidney	141	-	2	60	99	116	13	1	2	-	.01	.43	.70	.82	.09	.01	-
Total	10,199	1,836	707	8,187	2,177	2,170	524	613	12	.16	.08	.80	.21	.23	.05	.06	-

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE M-3: RELEASED FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, SEPTEMBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Released Fish								Average Number Released Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	559	213	11	250	246	141	02	19	-	.38	.02	.45	.44	.25	.15	.03	-
Chemainus	36	3	-	143	12	3	-	1	-	.08	-	3.97	.33	.08	-	.03	-
Central Comox	186	54	2	75	9	21	-	1	-	.29	.01	.40	.05	.11	-	.01	-
North Comox	146	40	6	44	3	9	-	2	-	.27	.04	.30	.02	.06	-	.01	-
South Comox																	
Cowichan Bay	124	1	10	99	39	35	17	7	-	.01	.00	.80	.31	.28	.14	.06	-
Delta	50	-	2	284	-	5	-	13	-	-	.04	5.60	-	.10	-	.26	-
Egmont																	
Gibson's Landing	50	-	-	40	4	3	-	4	-	-	-	.80	.08	.06	-	.08	-
Ladysmith	65	-	7	176	14	5	2	21	-	-	.11	2.70	.22	.08	.03	.32	-
Lund	7	-	-	8	6	9	-	-	-	-	-	1.14	.86	1.29	-	-	-
Nanaimo	139	5	4	210	20	11	4	6	-	.04	.03	1.51	.14	.08	.03	.04	-
Pender Harbour	115	-	-	132	46	82	-	3	-	-	-	1.15	.40	.71	-	.03	-
Powell River	78	-	-	101	15	47	-	-	-	-	-	1.29	.19	.60	-	-	-
Qualicum North	124	143	32	110	13	10	4	-	-	1.15	.26	.89	.10	.08	.03	-	-
Qualicum South	221	7	7	343	23	33	-	-	-	.03	.03	1.57	.10	.15	-	-	-
Richmond	98	1	25	554	-	5	-	21	-	.01	.25	5.65	-	.05	-	.21	-
Saanich Inlet	356	9	90	224	109	7	4	24	2	.03	.26	.63	.31	.02	.01	.07	.01
Sooke	289	3	4	1,247	47	1	3	9	2	.03	.01	4.31	.16	-	.01	.03	.01
Vancouver	154	43	6	313	10	27	-	8	1	.28	.05	2.03	.06	.18	-	.05	.01
West Vancouver	322	39	3	269	11	29	-	85	1	.12	.01	.84	.03	.09	-	.26	-
Victoria	164	-	-	11	70	28	39	6	-	-	-	.07	.43	.17	.24	.04	-
Sidney	54	-	29	32	15	34	4	2	3	-	.54	.59	.28	.63	.07	.04	.06
Total	3,337	566	240	4,670	712	545	159	232	9	.17	.07	1.40	.21	.16	.05	.07	.01

Legend: CO - Coho RF - Rockfish LC - Ling Cod
 CH - Chinook DF - Dogfish UF - Other fish or Unidentified Fish (non salmon)
 SM - Other Salmon or unidentified salmon SF - Shellfish (0-1 variable)

M-4



TABLE M-4: RELEASED FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, OCTOBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Released Fish								Average Number Released Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	179	76	1	10	70	139	13	2	-	.43	.01	.06	.39	.78	.07	.01	-
Chemainus																	
Central Comox	46	-	-	8	-	4	-	-	-	-	-	.17	-	.09	-	-	-
North Comox	5	-	-	4	-	-	-	-	-	-	-	.00	-	-	-	-	-
South Comox																	
Cowichan Bay	6	-	-	3	-	-	-	-	-	-	-	.50	-	-	-	-	-
Delta																	
Egmont																	
Gibson's Landing	23	-	-	50	-	-	-	-	-	-	-	2.17	-	-	-	-	-
Ladysmith																	
Lund																	
Nanaimo	301	7	10	476	23	-	13	2	1	.02	.03	1.58	.08	-	.04	.01	-
Pender Harbour	67	-	-	22	21	84	2	10	-	-	-	.33	.31	1.25	.03	.15	-
Powell River	113	-	-	214	20	26	-	-	-	-	-	1.90	.18	.23	-	-	-
Qualicum North																	
Qualicum South	94	24	4	134	-	9	-	-	-	.26	.04	1.43	-	.10	-	-	-
Richmond	21	-	1	104	-	-	-	3	-	-	.05	4.95	-	-	-	.14	-
Saanich Inlet	319	20	224	202	79	24	3	21	1	.07	.70	.63	.25	.08	.01	.07	-
Sooke	588	6	423	517	274	-	74	26	9	.01	.72	.88	.47	-	.13	.04	.02
Vancouver	28	-	-	116	-	5	-	3	-	-	-	4.14	-	.18	-	.11	-
West Vancouver	166	7	26	37	1	60	6	87	-	.04	.16	.22	.01	.36	.04	.52	-
Victoria	132	-	18	21	41	2	60	4	-	-	.14	.16	.31	.02	.45	.03	-
Sidney	41	-	43	5	13	5	3	2	-	-	1.05	.12	.32	.12	.07	.05	-
Total	2,129	140	750	1,923	542	358	174	160	11	.07	.35	.90	.25	.17	.08	.08	.01

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE M-5: RELEASED FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, NOVEMBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Released Fish								Average Number Released Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemainus																	
Central Comox	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North Comox																	
South Comox																	
Cowichan Bay	32	2	-	4	2	-	-	-	-	.06	-	.13	.06	-	-	-	-
Delta																	
Egmont																	
Gibson's Landing																	
Ladysmith																	
Lund																	
Nanaimo	41	6	4	43	2	-	1	-	-	.15	.10	1.05	.05	-	.02	-	-
Pender Harbour	43	-	-	15	34	16	2	9	-	-	-	.35	.80	.37	.05	.21	-
Powell River	12	-	-	15	3	-	-	-	-	-	-	1.25	.25	-	-	-	-
Qualicum North																	
Qualicum South	6	1	-	9	-	1	1	-	-	.17	-	1.50	-	.17	.17	-	-
Richmond																	
Saanich Inlet	93	9	1	223	6	7	-	-	-	.10	.01	2.40	.06	.08	-	-	-
Sooke	99	-	-	290	17	-	4	-	3	-	-	2.93	.17	-	.04	-	.03
Vancouver	44	-	-	-	-	32	-	6	2	-	-	-	-	.73	-	.14	.05
West Vancouver	57	-	-	2	-	69	2	-	-	-	-	.04	-	1.21	.04	-	-
Victoria	28	2	4	22	17	-	19	1	-	.07	.14	.79	.61	-	.68	.04	-
Sidney	24	-	-	18	2	2	1	-	-	-	-	.75	.08	.08	.04	-	-
Total	533	20	9	641	83	127	30	16	5	.04	.02	1.20	.16	.24	.06	.03	.01

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE M-6: RELEASED FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, DECEMBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Released Fish								Average Number Released Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemainus																	
Central Comox	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North Comox																	
South Comox																	
Cowichan Bay	8	-	1	-	-	-	-	-	-	-	.13	-	-	-	-	-	-
Delta																	
Egmont																	
Gibson's Landing																	
Ladysmith																	
Lund																	
Nanaimo	51	-	8	5	5	-	1	3	1	-	.16	.10	.42	-	.02	.06	.02
Pender Harbour	31	-	-	4	13	2	4	3	-	-	-	.13	.42	.06	.13	.10	-
Powell River	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Qualicum North																	
Qualicum South																	
Richmond																	
Saanich Inlet	70	6	18	228	7	4	2	-	-	.09	.26	3.26	.10	.06	.03	-	-
Sooke	116	-	2	170	31	-	17	2	1	-	.02	1.47	.27	-	.15	.02	.01
Vancouver	13	-	-	-	1	4	-	-	-	-	-	-	.08	.31	-	-	-
West Vancouver	46	-	-	2	-	74	-	2	-	-	-	.04	-	1.61	-	.04	-
Victoria	33	-	1	26	10	-	19	-	-	-	.03	.79	.30	-	.58	-	-
Sidney	5	-	-	3	1	10	2	-	-	-	-	.60	.20	2.0	.40	-	-
Total	407	6	30	438	68	94	45	10	2	.01	.07	1.08	.17	.23	.11	.02	-

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE M-7: RELEASED FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JANUARY 1981

Area of Landing	No. of Interviews (Boat Trips)	Released Fish								Average Number Released Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemainus																	
Central Comox	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North Comox																	
South Comox																	
Cowichan Bay	61	1	12	11	12	11	3	1	-	.02	.20	.18	.20	.18	.05	.02	-
Delta																	
Egmont																	
Gibson's Landing																	
Ladysmith	33	1	12	34	-	1	-	-	-	.03	.36	1.03	-	.03	-	-	-
Lund																	
Nanaimo	95	2	7	24	1	6	-	-	-	.02	.07	.25	.01	.06	-	-	-
Pender Harbour	38	-	-	2	8	6	5	6	-	-	.05	.21	.16	.13	.16	-	-
Powell River	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Qualicum North																	
Qualicum South	8	-	-	5	-	-	-	-	-	-	-	.63	-	-	-	-	-
Richmond																	
Saanich Inlet	230	25	32	361	30	9	11	1	-	.11	.14	1.57	.13	.04	.05	-	-
Sooke	239	4	32	238	61	1	77	-	2	.02	.13	1.00	.26	-	.32	-	.01
Vancouver	85	-	-	-	-	62	-	13	3	-	-	-	-	.73	-	.15	.04
West Vancouver	98	-	-	-	-	19	1	3	-	-	-	-	-	.19	.01	.03	-
Victoria	98	4	7	109	28	-	30	2	-	.04	.07	1.11	.29	-	.31	.02	-
Sidney	58	-	17	17	6	4	13	1	1	-	.29	.29	.10	.07	.22	.02	.02
Total	1,123	37	119	801	146	119	140	27	6	.03	.11	.71	.13	.11	.12	.02	.01

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

M-8



TABLE M-8: RELEASED FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, FEBRUARY 1981

Area of Landing	No. of Interviews (Boat Trips)	Released Fish								Average Number Released Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemainus																	
Central Comox	21	-	-	-	2	5	-	-	-	-	-	-	.10	.24	-	-	-
North Comox																	
South Comox																	
Cowichan Bay	26	-	1	2	3	1	10	1	-	-	.04	.08	.12	.04	.38	.04	-
Delta																	
Egmont																	
Gibson's Landing																	
Ladysmith	26	-	-	4	1	2	3	-	-	-	-	.15	.04	.08	.12	-	-
Lund																	
Nanaimo	87	-	-	3	2	61	3	2	-	-	-	.03	.02	.70	.03	.02	-
Pender Harbour	42	-	-	2	20	19	2	3	-	-	-	.05	.48	.45	.05	.07	-
Powell River	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Qualicum North																	
Qualicum South	10	-	-	-	-	1	-	-	1	-	-	-	-	.10	-	-	.10
Richmond																	
Saanich Inlet	198	5	8	69	34	1	11	12	-	.03	.04	.35	.17	.01	.06	.06	-
Sooke	182	45	1	214	31	2	33	15	1	.25	.01	1.18	.17	.01	.18	.08	.01
Vancouver	68	-	-	-	-	22	-	3	3	-	-	-	-	.32	-	.04	.04
West Vancouver	83	-	-	-	-	42	-	10	-	-	-	-	-	.51	-	.12	-
Victoria	120	1	1	85	36	10	65	-	1	.01	.01	.71	.30	.08	.54	-	.01
Sidney	51	1	4	6	9	2	8	-	3	.02	.08	.12	.18	.04	.16	-	.06
Total	945	52	15	385	138	168	135	46	9	.06	.02	.41	.15	.18	.14	.05	.01

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE M-9; RELEASED FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, MARCH 1981

Area of Landing	No. of Interviews (Boat Trips)	Released Fish								Average Number Released Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	22	10	-	-	2	-	5	-	-	.45	-	-	.09	-	.23	-	-
Chemainus																	
Central Comox	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North Comox																	
South Comox																	
Cowichan Bay	18	-	2	-	2	-	-	-	-	-	.11	-	.11	-	-	-	-
Delta																	
Egmont																	
Gibson's Landing																	
Ladysmith	5	-	1	-	-	-	1	4	-	-	.20	-	-	-	.20	.80	-
Lund																	
Nanaimo	35	2	-	5	3	20	-	3	1	.02	-	.06	.04	.24	-	.03	.01
Pender Harbour	46	-	-	2	1	33	1	2	-	-	-	.04	.02	.72	.02	.04	-
Powell River	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Qualicum North																	
Qualicum South	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Richmond																	
Saanich Inlet	103	3	6	69	18	5	13	-	-	.02	.03	.30	.10	.03	.07	-	-
Sooke	164	18	4	99	17	-	56	-	-	.11	.02	.60	.10	-	.34	-	-
Vancouver	58	-	7	12	-	2	7	2	-	-	.12	.21	-	.03	.12	.14	-
West Vancouver	107	-	1	-	-	9	-	2	-	-	.01	-	-	.08	-	.02	-
Victoria	61	1	-	33	15	7	27	1	-	.02	-	.54	.25	.11	.44	.02	-
Sidney	25	-	-	6	4	-	5	3	-	-	-	.24	.16	-	.20	.12	-
Total	905	34	21	226	62	76	115	23	1	.04	.03	.23	.08	.09	.14	.03	-

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE M-10: RELEASED FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, APRIL 1981

Area of Landing	No. of Interviews (Boat Trips)	Released Fish								Average Number Released Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	46	-	-	-	19	-	10	-	-	-	-	-	.41	-	.25	-	-
Chemainus																	
Central Comox	52	-	-	-	-	4	4	-	-	-	-	-	-	.08	.08	-	-
North Comox																	
South Comox																	
Cowichan Bay	12	-	-	-	2	-	-	-	1	-	-	-	.17	-	-	-	.08
Delta																	
Egmont																	
Gibson's Landing																	
Ladysmith	5	2	-	-	-	-	-	-	-	.40	-	-	-	-	-	-	-
Lund																	
Nanaimo	71	4	2	3	1	4	2	-	1	.06	.03	.04	.01	.06	.03	-	.01
Pender Harbour	60	1	-	-	10	22	2	-	-	.02	-	-	.17	.37	.03	-	-
Powell River	8	-	-	-	-	-	3	-	-	-	-	-	-	-	.38	-	-
Qualicum North																	
Qualicum South	20	-	-	7	-	1	-	-	-	-	-	.35	-	.05	-	-	-
Richmond																	
Saanich Inlet	95	4	12	17	33	-	12	1	-	.04	.13	.18	.35	-	.13	.01	-
Sooke	242	33	69	43	60	-	34	13	1	.14	.29	.18	.25	-	.14	.05	-
Vancouver	29	-	-	11	-	2	2	-	-	-	-	.38	-	.07	.07	-	-
West Vancouver	65	-	-	-	-	6	1	-	-	-	-	-	-	.09	.02	-	-
Victoria	11	3	-	1	2	-	9	-	-	.27	-	.09	.18	-	.82	-	-
Sidney	17	-	-	3	7	-	2	-	-	-	-	.41	.41	-	.12	-	-
Total	733	47	83	85	134	39	81	14	3	.06	.11	.12	.18	.05	.11	.02	-

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

TABLE M-11: RELEASED FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, MAY 1981

Area of Landing	No. of Interviews (Boat Trips)	Released Fish								Average Number Released Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	394	8	19	-	284	177	162	20	-	.02	.05	-	.72	.45	.41	.05	-
Chemainus																	
Central Comox	293	14	15	1	7	88	6	3	-	.05	.05	-	.02	.30	.02	.01	-
North Comox	196	6	1	-	-	4	1	-	-	.03	.01	-	-	.02	.01	-	-
South Comox																	
Cowichan Bay	31	-	-	-	3	-	-	-	-	-	-	-	.10	-	-	-	-
Delta																	
Egmont																	
Gibson's Landing	28	-	11	-	-	-	-	-	-	-	.39	-	-	-	-	-	-
Ladysmith	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lund	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nanaimo	122	13	13	2	14	1	1	4	-	.11	.11	.02	.11	.01	.01	.03	-
Pender Harbour	62	-	1	-	2	-	2	-	-	-	.02	-	.03	-	.03	-	-
Powell River	93	2	1	-	5	-	8	-	-	.02	.01	-	.05	-	.09	-	-
Qualicum North	63	8	-	-	16	46	2	1	-	.13	-	-	.25	.73	.03	.02	-
Qualicum South	549	22	64	-	18	25	3	1	-	.04	.12	-	.03	.05	.01	-	-
Richmond																	
Saanich Inlet	320	4	23	98	49	-	23	10	-	.01	.07	.31	.15	-	.07	.03	-
Sooke	505	17	26	21	45	13	43	8	-	.03	.05	.04	.09	.03	.09	.02	-
Vancouver	107	-	19	69	1	62	4	1	-	-	.18	.64	.01	.58	.04	.01	-
West Vancouver	325	4	49	-	43	275	13	16	1	.01	.15	-	.13	.85	.04	.05	-
Victoria	149	5	35	10	21	-	42	62	-	.03	.17	.07	.14	-	.28	.42	-
Sidney	136	-	6	7	33	8	15	17	2	-	.04	.05	.24	.06	.11	.13	.01
Total	3,387	103	273	208	541	699	325	143	3	.03	.08	.06	.16	.21	.10	.04	-

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

M-12

TABLE M-12: RELEASED FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JUNE 1931

Area of Landing	No. of Interviews (Boat Trips)	Released Fish								Average Number Released Fish per Boat Trip							
		CO	CH	SM	RF	DF	LC	UF	SF	CO	CH	SM	RF	DF	LC	UF	SF
Campbell River	572	85	33	-	168	416	188	40	1	.15	.06	-	.30	.73	.33	.07	-
Chemainus	74	8	51	8	16	11	9	11	-	.11	.69	.11	.22	.15	.12	.15	-
Central Comox	406	30	85	2	29	330	7	-	-	.07	.21	-	.07	.81	.02	-	-
North Comox	601	114	14	10	6	41	16	-	-	.19	.02	.02	.01	.07	.03	-	-
South Comox																	
Cowichan Bay	66	-	4	-	7	32	1	-	1	-	.06	-	.11	.48	.02	-	.02
Delta	18	-	-	-	-	3	-	3	-	-	-	-	-	.17	-	.17	-
Egmont																	
Gibson's Landing	81	-	7	-	-	2	1	-	-	-	.09	-	-	.02	.01	-	-
Ladysmith	35	3	32	2	16	11	3	-	-	.09	.91	.06	.46	.31	.09	-	-
Lund	34	-	-	-	2	-	-	-	-	-	-	-	.06	-	-	-	-
Nanaimo	213	37	189	4	35	10	6	2	-	.17	.89	.02	.16	.05	.03	.01	-
Pender Harbour	91	3	13	-	19	13	14	-	-	.03	.14	-	.21	.14	.15	-	-
Powell River	222	23	24	-	11	5	3	-	-	.10	.11	-	.05	.02	.04	-	-
Qualicum North	158	10	20	30	2	6	-	-	-	.06	.13	.19	.01	.04	-	-	-
Qualicum South	343	1	99	-	16	13	3	-	-	-	.29	-	.05	.04	.01	-	-
Richmond	64	1	1	15	4	23	7	-	-	.02	.02	.23	.06	.44	.11	-	-
Saanich Inlet	262	1	32	104	31	9	4	12	-	-	.12	.40	.12	.03	.02	.05	-
Sooke	818	2	8	17	48	15	48	94	-	-	.01	.02	.06	.02	.06	.11	-
Vancouver	73	-	19	-	-	19	3	1	-	-	.26	-	-	.26	.04	.01	-
West Vancouver	392	3	37	-	13	168	45	25	-	.01	.09	-	.03	.43	.11	.06	-
Victoria	130	1	-	12	54	13	28	51	-	.01	-	.09	.42	.19	.22	.39	-
Sidney	67	-	-	2	20	69	5	2	-	-	-	.03	.30	1.03	.07	.03	-
Total	4,720	322	668	206	497	1,214	396	241	2	.07	.14	.04	.11	.26	.08	.05	-

Legend: CO - Coho
 CH - Chinook
 SM - Other Salmon or unidentified salmon

RF - Rockfish
 DF - Dogfish

LC - Ling Cod
 UF - Other fish or Unidentified Fish (non salmon)
 SF - Shellfish (0-1 variable)

APPENDIX N

MARKED / UNMARKED FISH SUMMARIES FROM
GEORGIA STRAIT CREEL SURVEY RAW DATA

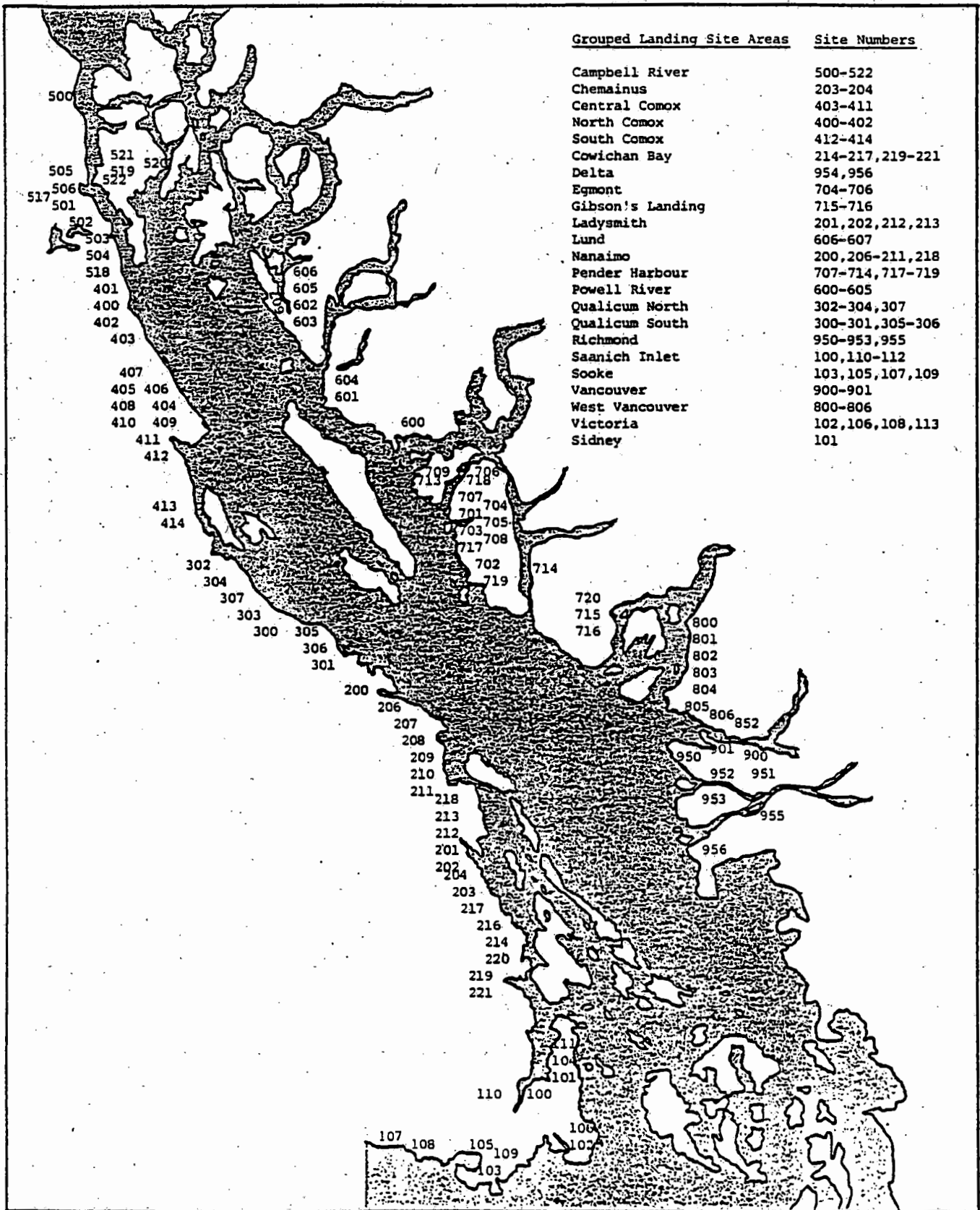


TABLE N-1: MARKED/UNMARKED FISH SUMMARY FROM GEORGIA STRAIT CREEL
SURVEY RAW DATA, JULY 1980

<u>Area of Landing</u>	<u>Number</u>				<u>Proportion</u>	
	<u>Marked</u>		<u>Unmarked</u>		<u>Marked</u>	
	CO	CH	CO	CH	CO	CH
Campbell River	252	11	3,196	514	.073	.021
Chemainus	0	6	46	153	-	.038
Central Comox	33	0	962	166	.038	-
North Comox	76	2	1,127	134	.063	.015
South Comox	9	2	106	15	.078	.117
Cowichan Bay	0	0	9	107	-	-
Delta	8	4	94	92	.078	.042
Egmont	4	0	33	32	.108	-
Gibson's Landing	10	1	65	31	.133	.031
Ladysmith	2	0	47	89	.041	-
Lund	3	0	81	14	.036	-
Nanaimo	23	4	921	841	.024	.005
Pender Harbour	58	9	1,221	254	.045	.034
Powell River	26	4	754	157	.033	.025
Qualicum North	28	0	487	62	.054	-
Qualicum South	29	3	1,382	395	.021	.008
Richmond	7	1	60	27	.104	.036
Saanich Inlet	0	1	41	304	-	.003
Sooke	12	4	771	234	.015	.017
Vancouver	14	3	102	127	.121	.023
West Vancouver	46	8	327	206	.123	.037
Victoria	0	0	13	166	-	-
Sidney	0	1	15	91	-	.011
All Areas	645	64	11,860	4,211	.052	.015

Legend: CO - Coho CH - Chinook

TABLE N-2: MARKED/UNMARKED FISH SUMMARY FROM GEORGIA STRAIT CREEL
SURVEY RAW DATA, AUGUST 1980

<u>Area of Landing</u>	<u>Number</u>				<u>Proportion</u>	
	<u>Marked</u>		<u>Unmarked</u>		<u>Marked</u>	
	CO	CH	CO	CH	CO	CH
Campbell River	223	25	2,046	401	.098	.059
Chemainus	2	0	31	49	.061	-
Central Comox	11	4	365	224	.029	.018
North Comox	28	8	728	176	.037	.043
South Comox	3	0	45	29	.063	-
Cowichan Bay	0	1	9	113	-	.009
Delta	6	1	106	103	.054	.010
Egmont	0	0	3	12	-	-
Gibson's Landing	1	0	53	13	.019	-
Ladysmith	0	0	18	40	-	-
Lund	1	0	30	3	.032	-
Nanaimo	2	5	216	235	.009	.021
Pender Harbour	29	6	722	154	.039	.038
Powell River	3	1	288	124	.010	.008
Qualicum North	17	5	289	95	.056	.050
Qualicum South	8	5	402	270	.020	.018
Richmond	5	8	59	34	.078	.190
Saanich Inlet	0	3	44	464	-	.006
Sooke	6	3	300	248	.020	.012
Vancouver	14	2	193	74	.068	.026
West Vancouver	32	3	495	75	.142	.038
Victoria	1	1	6	174	.143	.006
Sidney	0	2	10	49	-	.039
All Areas	442	83	6,458	3,159	.064	.026

Legend: CO - Coho CH - Chinook

TABLE N-3: MARKED/UNMARKED FISH SUMMARY FROM GEORGIA STRAIT CREEL
SURVEY RAW DATA, SEPTEMBER 1980

<u>Area of Landing</u>	<u>Number</u>				<u>Proportion</u>	
	<u>Marked</u>		<u>Unmarked</u>		<u>Marked</u>	
	CO	CH	CO	CH	CO	CH
Campbell River	60	5	773	106	.072	.045
Chemainus	-	2	3	29	-	.065
Central Comox	4	1	72	51	.053	.019
North Comox	4	-	139	22	.028	-
South Comox						
Cowichan Bay	-	1	12	33	-	.029
Delta	-	-	26	10	-	-
Egmont						
Gibson's Landing	1	-	26	8	.037	-
Ladysmith	-	4	9	44	-	.083
Lund	-	-	1	1	-	-
Nanaimo	3	1	55	39	.052	.025
Pender Harbour	2	1	82	43	.024	.023
Powell River	-	-	44	22	-	-
Qualicum North	3	-	72	37	.040	-
Qualicum South	3	2	115	92	.025	.021
Richmond	1	2	43	35	.223	.054
Saanich Inlet	-	7	75	346	-	.020
Sooke	-	3	116	266	-	.011
Vancouver	4	1	39	21	.043	.045
West Vancouver	28	4	170	35	.141	.103
Victoria	-	-	4	75	-	-
Sidney	-	-	2	15	-	-
All Areas	113	34	1,928	1,330	.055	.025

Legend: CO - Coho CH - Chinook

TABLE N-4: MARKED/UNMARKED FISH SUMMARY FROM GEORGIA STRAIT CREEL
SURVEY RAW DATA, OCTOBER 1980

<u>Area of Landing</u>	<u>Number</u>				<u>Proportion</u>	
	<u>Marked</u>		<u>Unmarked</u>		<u>Marked</u>	
	CO	CH	CO	CH	CO	CH
Campbell River	17	-	181	35	.086	-
Chemainus						
Central Comox	-	-	11	3	-	-
North Comox	2	-	1	1	.667	-
South Comox						
Cowichan Bay	-	-	1	3	-	-
Delta						
Egmont						
Gibson's Landing	-	-	6	1	-	-
Ladysmith						
Lund						
Nanaimo	3	6	100	257	.029	.023
Pender Harbour	2	1	3	17	.400	.056
Powell River	-	1	40	161	-	.006
Qualicum North						
Qualicum South	1	1	56	49	.018	.020
Richmond	-	-	7	4	-	-
Saanich Inlet	1	2	74	242	.013	.008
Sooke	2	9	97	534	.020	.017
Vancouver	-	-	1	10	-	-
West Vancouver	2	3	6	35	.250	.079
Victoria	-	-	8	33	-	-
Sidney	-	2	-	10	-	.167
All Areas	30	25	592	1,395	.048	.018

Legend: CO - Coho CH - Chinook

TABLE N-5: MARKED/UNMARKED FISH SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, NOVEMBER 1980

<u>Area of Landing</u>	<u>Number</u>				<u>Proportion Marked</u>	
	<u>Marked</u>		<u>Unmarked</u>		<u>CO</u>	<u>CH</u>
	<u>CO</u>	<u>CH</u>	<u>CO</u>	<u>CH</u>		
Campbell River	-	-	-	8	-	-
Chemainus						
Central Comox	-	-	-	18	-	-
North Comox						
South Comox						
Cowichan Bay	-	6	12	41	-	.128
Delta						
Egmont						
Gibson's Landing						
Ladysmith						
Lund						
Nanaimo	-	2	10	76	-	.026
Pender Harbour	-	4	-	48	-	.077
Powell River	-	-		21	-	-
Qualicum North						
Qualicum South	-	-	-	4	-	-
Richmond						
Saanich Inlet	-	-	53	122	-	-
Sooke	1	2	15	155	.063	.013
Vancouver	-	1	-	26	-	.037
West Vancouver	-	1	-	42	-	.023
Victoria	-	-	7	49	-	-
Sidney	-	-	-	10	-	-
All Areas	1	16	98	620	.010	.025

Legend: CO - Coho CH - Chinook

TABLE N-6: MARKED/UNMARKED FISH SUMMARY FROM GEORGIA STRAIT CREEL
SURVEY RAW DATA, DECEMBER 1980

<u>Area of Landing</u>	<u>Number</u>				<u>Proportion</u>	
	<u>Marked</u>		<u>Unmarked</u>		<u>Marked</u>	
	CO	CH	CO	CH	CO	CH
Campbell River	-	-	-	28	-	-
Chemainus						
Central Comox	-	-	-	14	-	-
North Comox						
South Comox						
Cowichan Bay	-	-	-	18	-	-
Delta						
Egmont						
Gibson's Landing						
Ladysmith						
Lund						
Nanaimo	-	3	-	87	-	.033
Pender Harbour	-	2	-	21	-	.087
Powell River	-	-	2	-	-	-
Qualicum North						
Qualicum South						
Richmond						
Saanich Inlet	-	-	82	97	-	-
Sooke	-	-	5	159	-	-
Vancouver	-	-	-	10	-	-
West Vancouver	-	2	-	39	-	.049
Victoria	-	-	2	54	-	-
Sidney	-	-	-	9	-	-
All Areas	0	7	91	536	-	.013

Legend: CO - Coho CH - Chinook

TABLE N-7: MARKED/UNMARKED FISH SUMMARY FROM GEORGIA STRAIT CREEL
SURVEY RAW DATA, JANUARY 1981

<u>Area of Landing</u>	<u>Number</u>				<u>Proportion</u>	
	<u>Marked</u>		<u>Unmarked</u>		<u>Marked</u>	
	CO	CH	CO	CH	CO	CH
Campbell River	-	-	1	51	-	-
Chemainus						
Central Comox	-	-	-	65	-	-
North Comox						
South Comox						
Cowichan Bay	-	4	1	84	-	.045
Delta						
Egmont						
Gibson's Landing						
Ladysmith	1	4	9	84	.100	.045
Lund						
Nanaimo	-	4	14	229	-	.017
Pender Harbour	-	1	-	12	-	.077
Powell River	1	-	9	2	.100	-
Qualicum North						
Qualicum South	1	-	13	13	.071	-
Richmond						
Saanich Inlet	-	2	166	318	-	.006
Sooke	1	1	17	255	.056	.004
Vancouver	-	1	2	68	-	.014
West Vancouver	-	4	-	60	-	.063
Victoria	-	1	10	133	-	.007
Sidney	-	-	-	123	-	-
All Areas	4	22	242	1,497	.016	.014

Legend: CO - Coho CH - Chinook

TABLE N-8: MARKED/UNMARKED FISH SUMMARY FROM GEORGIA STRAIT CREEL
SURVEY RAW DATA, FEBRUARY 1981

Area of Landing	Number				Proportion Marked	
	Marked		Unmarked		CO	CH
	CO	CH	CO	CH		
Campbell River	-	-	-	35	-	-
Chemainus						
Central Comox	-	-	-	11	-	-
North Comox						
South Comox						
Cowichan Bay	-	-	6	4	-	-
Delta						
Egmont						
Gibson's Landing						
Ladysmith	-	-	2	20	-	-
Lund						
Nanaimo	-	7	9	280	-	.024
Pender Harbour	-	2	-	8	-	.200
Powell River	1	-	1	-	.500	-
Qualicum North						
Qualicum South	-	-	3	20	-	-
Richmond						
Saanich Inlet	1	1	64	91	.015	.011
Sooke	-	2	48	271	-	.007
Vancouver	-	-	-	37	-	-
West Vancouver	-	-	1	50	-	-
Victoria	-	-	35	115	-	-
Sidney	-	-	1	41	-	-
All Areas	2	12	170	983	.012	.012

Legend: CO - Coho CH - Chinook

TABLE N-9: MARKED/UNMARKED FISH SUMMARY FROM GEORGIA STRAIT CREEL
SURVEY RAW DATA, MARCH 1981

Area of Landing	Number				Proportion	
	Marked		Unmarked		Marked	
	CO	CH	CO	CH	CO	CH
Campbell River	-	-	10	9	-	-
Chemainus						
Central Comox	-	-	-	-	-	-
North Comox						
South Comox						
Cowichan Bay	-	2	4	6	-	.250
Delta						
Egmont						
Gibson's Landing						
Ladysmith	-	-	3	2	-	-
Lund						
Nanaimo	-	1	28	103	-	.010
Pender Harbour	-	-	14	12	-	-
Powell River	-	-	-	-	-	-
Qualicum North						
Qualicum South	-	-	6	25	-	-
Richmond						
Saanich Inlet	-	-	41	68	-	-
Sooke	-	-	91	112	-	-
Vancouver	-	1	7	20	-	.048
West Vancouver	-	1	-	55	-	.018
Victoria	-	-	78	36	-	-
Sidney	-	-	-	14	-	-
All Areas	0	5	282	462	-	.011

Legend: CO - Coho CH - Chinook

TABLE N-10: MARKED/UNMARKED FISH SUMMARY FROM GEORGIA STRAIT CREEL
SURVEY RAW DATA, APRIL 1981

<u>Area of Landing</u>	<u>Number</u>				<u>Proportion Marked</u>	
	<u>Marked</u>		<u>Unmarked</u>		<u>CO</u>	<u>CH</u>
	<u>CO</u>	<u>CH</u>	<u>CO</u>	<u>CH</u>		
Campbell River	1	2	21	4	.045	.333
Chemainus						
Central Comox	13	8	71	17	.155	.320
North Comox						
South Comox						
Cowichan Bay	-	-	2	-	-	-
Delta						
Egmont						
Gibson's Landing						
Ladysmith	-	-	1	1	-	-
Lund						
Nanaimo	3	3	68	20	.042	.130
Pender Harbour	8	-	36	4	.182	-
Powell River	-	1	-	7	-	.125
Qualicum North						
Qualicum South	2	-	28	5	.067	-
Richmond						
Saanich Inlet	-	1	4	59	-	.017
Sooke	3	1	76	96	.038	.010
Vancouver	-	-	-	17	-	-
West Vancouver	-	-	-	17	-	-
Victoria	-	-	8	2	-	-
Sidney	-	-	2	1	-	-
All Areas	30	16	317	250	.086	.060

Legend: CO - Coho CH - Chinook

TABLE N-11: MARKED/UNMARKED FISH SUMMARY FROM GEORGIA STRAIT CREEL
SURVEY RAW DATA, MAY 1981

Area of Landing	Number				Proportion Marked	
	Marked		Unmarked		CO	CH
	CO	CH	CO	CH		
Campbell River	20	8	252	207	.074	.037
Chemainus						
Central Comox	25	14	417	161	.057	.080
North Comox	37	-	642	9	.054	-
South Comox						
Cowichan Bay	1	3	3	6	.250	.333
Delta						
Egmont						
Gibson's Landing	-	-	9	34	-	-
Ladysmith	-	-	-	-	-	-
Lund	1	-	5	-	.167	-
Nanaimo	21	2	147	38	.125	.050
Pender Harbour	2	4	39	41	.049	.089
Powell River	15	5	68	8	.181	.385
Qualicum North	12	-	156	12	.071	-
Qualicum South	53	4	898	260	.056	.015
Richmond						
Saanich Inlet	-	1	7	273	-	.004
Sooke	5	6	66	209	.070	.028
Vancouver	-	3	9	75	-	.038
West Vancouver	-	10	22	171	-	.055
Victoria	-	1	1	87	-	.011
Sidney	-	-	-	93	-	-
All Areas	192	61	2,741	1,684	.065	.035

Legend: CO - Coho CH - Chinook

TABLE N-12: MARKED/UNMARKED FISH SUMMARY FROM GEORGIA STRAIT CREEL
SURVEY RAW DATA, JUNE 1981

<u>Area of Landing</u>	<u>Number</u>				<u>Proportion Marked</u>	
	<u>Marked</u>		<u>Unmarked</u>		<u>CO</u>	<u>CH</u>
	<u>CO</u>	<u>CH</u>	<u>CO</u>	<u>CH</u>		
Campbell River	53	4	729	166	.068	.024
Chemainus	-	5	20	71	-	.066
Central Comox	34	10	634	146	.051	.064
North Comox	131	6	1,792	50	.068	.107
South Comox						
Cowichan Bay	2	4	4	33	.333	.108
Delta	-	-	1	7	-	-
Egmont						
Gibson's Landing	-	1	17	95	-	.010
Ladysmith	-	1	7	32	-	.030
Lund	11	2	44	2	.200	.500
Nanaimo	18	-	134	83	.118	-
Pender Harbour	17	7	65	23	.207	.233
Powell River	98	16	382	49	.204	.246
Qualicum North	22	-	237	21	.085	-
Qualicum South	34	2	409	135	.077	.015
Richmond	-	-	8	30	-	-
Saanich Inlet	-	2	6	140	-	.014
Sooke	-	6	23	312	-	.019
Vancouver	-	3	9	50	-	.057
West Vancouver	1	7	46	170	.021	.040
Victoria	-	-	1	44	-	-
Sidney	-	-	1	29	-	-
All Areas	421	76	4,569	1,688	.084	.043

Legend: CO - Coho CH - Chinook

Source: 1980/81 Georgia Strait Sport Fishing Creel Survey

APPENDIX O

PARTY CHARACTERISTICS SUMMARIES FROM
GEORGIA STRAIT CREEL SURVEY RAW DATA

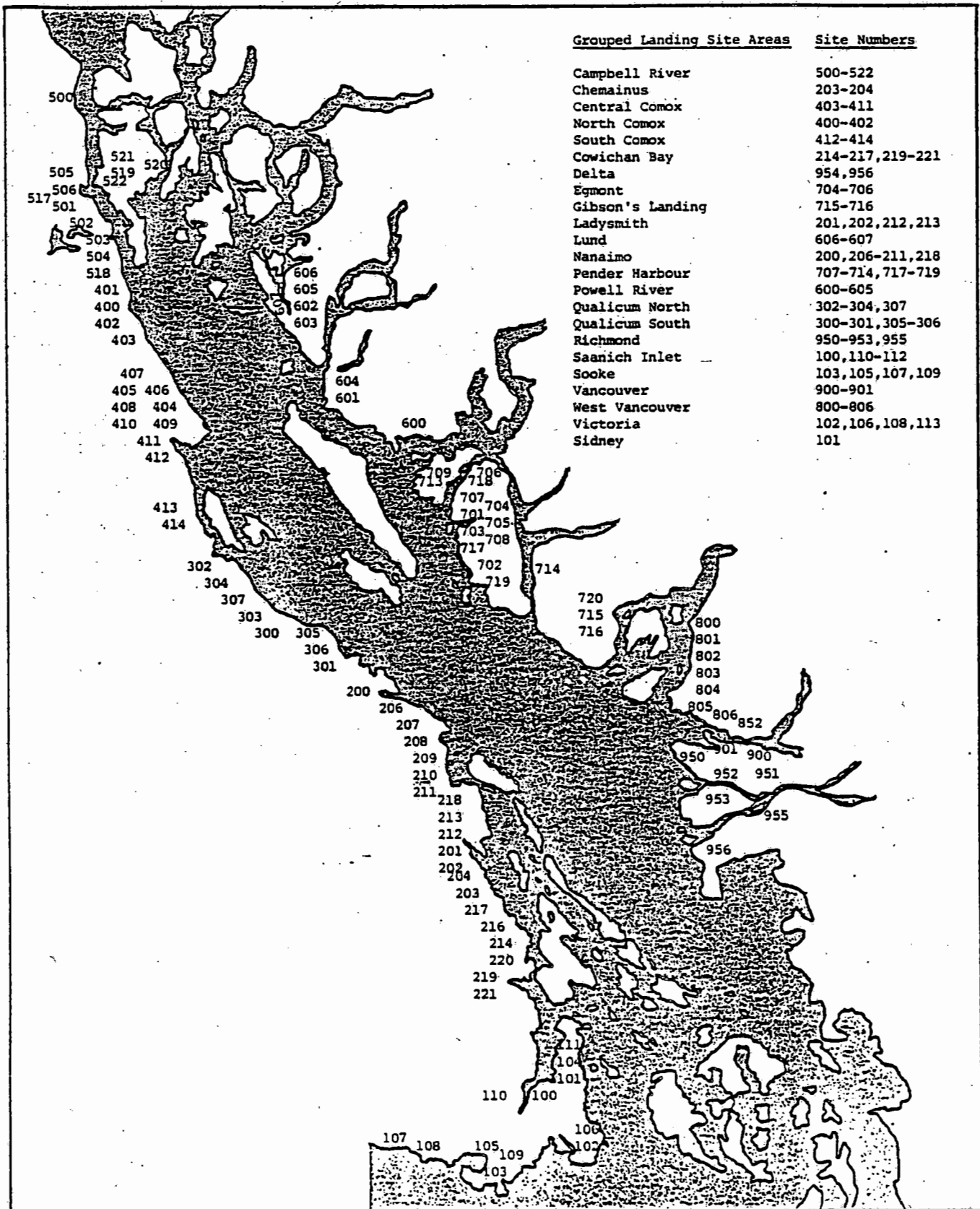


TABLE 0-12: PARTY CHARACTERISTICS SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JUNE 1981

Area of Landing	No. of Interviews (Boat Trips)	Average Party Size	Percent Distribution													
			Party Size					Party Residence			Party Age In Years		Boat Ownership		Boat Operation	
			1	2	3	4	5+	BC	ROC	ROW	<16	≥16	Rental	Private	Guided	Non-Guided
Campbell River	572	2.53	10.5	48.4	27.1	8.7	5.3	79.7	12.6	7.7	8.1	91.9	25.0	75.0	23.9	76.1
Chemainus	74	2.51	12.2	52.7	12.2	21.6	1.3	99.0	.5	.5	16.7	83.3	-	100.0	-	100.0
Central Comox	406	2.15	22.7	49.3	20.9	5.9	1.2	95.8	3.2	1.0	8.6	91.4	4.0	96.0	.7	99.3
North Comox	601	2.27	14.6	56.7	18.1	8.2	2.4	20.2	4.2	75.6	4.3	95.7	1.9	98.1	.3	99.7
South Comox																
Cowichan Bay	66	2.42	18.2	39.4	28.8	10.6	3.0	97.5	2.5	-	18.1	81.9	3.0	97.0	-	100.0
Delta	18	2.78	5.6	27.8	49.9	16.7	-	100.0	-	-	10.0	90.0	-	100.0	-	100.0
Egmont																
Gibson's Landing	81	2.41	21.0	38.3	25.9	8.6	6.2	97.9	-	2.1	4.1	95.9	1.2	98.7	-	100.0
Ladysmith	35	2.57	14.3	37.1	31.4	11.4	5.8	96.7	-	3.3	10.0	90.0	-	100.0	-	100.0
Lund	34	2.09	14.7	67.6	11.8	5.9	-	78.9	5.6	15.5	8.5	91.5	-	100.0	-	100.0
Nanaimo	213	2.47	12.7	51.6	19.7	11.3	4.7	93.2	4.9	1.9	8.1	91.9	-	100.0	-	100.0
Pender Harbour	91	2.51	15.4	47.3	18.7	12.1	6.5	96.0	1.3	2.7	6.1	93.9	2.3	97.7	-	100.0
Powell River	222	2.48	12.6	46.4	24.3	14.0	2.7	96.5	2.0	1.5	15.4	84.6	-	100.0	-	100.0
Qualicum North	158	1.97	22.8	59.5	15.8	1.9	-	48.9	27.0	24.1	6.1	93.9	30.6	69.4	-	100.0
Qualicum South	343	2.13	19.0	59.2	13.1	7.9	.9	96.7	2.1	1.2	7.2	92.8	4.7	95.3	1.2	98.8
Richmond	64	2.70	7.8	40.6	34.4	7.8	9.4	97.1	1.2	1.7	6.4	93.6	-	100.0	-	100.0
Saanich Inlet	262	2.20	17.9	54.6	19.5	6.1	1.9	96.3	3.5	.2	9.3	90.7	5.8	94.2	-	100.0
Sooke	818	2.12	19.9	57.8	15.2	6.1	1.0	97.1	2.3	.6	6.8	93.2	9.0	91.0	.2	99.8
Vancouver	73	2.40	12.3	50.7	26.0	8.2	2.8	91.5	7.4	1.1	7.5	92.5	-	100.0	-	100.0
West Vancouver	392	2.50	8.7	49.7	28.3	10.7	2.6	92.6	4.6	2.8	9.6	90.4	28.0	72.0	1.8	98.2
Victoria	130	2.10	23.1	56.2	13.1	5.4	2.2	99.6	.4	-	10.3	89.7	-	100.0	-	100.0
Sidney	67	2.54	11.9	49.3	20.9	11.9	6.0	97.6	1.8	.6	12.4	87.6	-	100.0	-	100.0
Total	4,720	2.30	16.0	52.7	20.4	8.3	2.6	82.8	5.0	12.2	8.2	91.8	9.3	90.7	3.3	96.7

Legend: BC - British Columbia ROC - Rest of Canada ROW - Rest of World

TABLE 0-11: PARTY CHARACTERISTICS SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, MAY 1981

Area of Landing	No. of Interviews (Boat Trips)	Average Party Size	Percent Distribution													
			Party Size					Party Residence			Party Age In Years		Boat Ownership		Boat Operation	
			1	2	3	4	5+	BC	ROC	ROW	<16	≥16	Rental	Private	Guided	Non-Guided
Campbell River	394	2.38	17.0	44.7	26.6	7.6	4.1	78.8	12.6	8.6	8.2	91.8	7.9	92.1	7.3	92.7
Chemainus																
Central Comox	293	2.31	18.8	47.1	21.2	10.6	2.3	96.1	2.6	1.3	14.3	85.7	.3	99.7	1.0	99.0
North Comox	196	2.00	17.3	67.9	12.2	2.6	-	11.5	4.1	84.4	.5	99.5	1.1	98.9	1.1	98.9
South Comox																
Cowichan Bay	31	2.52	6.5	48.3	32.3	12.9	-	100.0	-	-	11.5	88.5	-	100.0	-	100.0
Delta																
Egmont																
Gibson's Landing	28	2.18	35.7	39.3	14.3	3.6	7.1	90.2	9.8	-	11.5	88.5	3.7	96.3	-	100.0
Ladysmith	2	2.50	50.0	50.0	-	-	-	100.0	-	-	60.0	40.0	-	100.0	-	100.0
Lund	12	2.08	25.0	50.0	16.7	8.3	-	80.0	-	20.0	8.0	92.0	-	100.0	-	100.0
Nanaimo	122	2.47	17.2	46.7	16.4	13.9	5.8	93.7	6.0	.3	8.0	92.0	-	100.0	-	100.0
Pender Harbour	62	2.34	25.8	37.1	17.7	16.1	3.3	95.9	3.4	.7	8.9	91.1	5.1	94.9	1.7	98.3
Powell River	93	2.42	14.0	46.2	28.0	8.6	3.2	98.7	1.3	-	11.1	88.9	-	100.0	-	100.0
Qualicum North	63	1.86	28.6	58.7	11.1	1.6	-	67.5	15.4	17.1	5.1	94.9	17.7	82.3	-	100.0
Qualicum South	549	2.22	17.5	54.3	18.6	8.2	1.4	94.2	4.8	1.0	9.4	90.6	3.3	96.7	.4	99.6
Richmond																
Saanich Inlet	320	2.29	19.4	49.4	18.1	10.0	3.1	96.3	2.6	1.1	9.0	91.0	6.1	93.9	.3	99.7
Sooke	505	2.12	21.2	54.3	17.6	5.9	1.0	96.6	3.2	.2	8.6	91.4	9.2	90.8	.4	99.6
Vancouver	107	2.28	12.1	60.7	18.7	5.6	2.8	93.5	5.7	.8	9.0	91.0	-	100.0	-	100.0
West Vancouver	325	2.63	9.2	45.5	27.1	12.0	6.2	92.4	4.8	2.8	10.5	89.5	41.5	58.5	.6	99.4
Victoria	149	1.97	26.2	53.7	17.4	2.0	.7	98.6	1.4	-	12.2	87.8	-	100.0	-	100.0
Sidney	136	2.34	15.4	52.9	18.4	9.6	3.7	94.7	4.4	.9	12.2	87.8	-	100.0	-	100.0
Total	3,387	2.27	17.9	51.2	20.1	8.1	2.7	88.5	5.0	6.5	9.4	90.6	7.8	92.2	1.2	98.8

Legend: BC - British Columbia ROC - Rest of Canada ROW - Rest of World

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TABLE 0-10: PARTY CHARACTERISTICS SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, APRIL 1981

Area of Landing	No. of Interviews (Boat Trips)	Average Party Size	Percent Distribution													
			Party Size					Party Residence			Party Age In Years		Boat Ownership		Boat Operation	
			1	2	3	4	5+	BC	ROC	ROW	<16	≥16	Rental	Private	Guided	Non-Guided
Campbell River	46	2.80	4.3	39.1	37.0	13.0	6.6	89.1	10.9	-	10.9	89.1	6.7	93.3	6.7	93.3
Chemainus																
Central Comox	52	2.37	17.3	50.0	17.3	9.6	5.8	88.7	8.7	2.4	5.7	94.3	1.9	98.1	1.9	98.1
North Comox																
South Comox																
Cowichan Bay	12	2.42	8.3	66.7	8.3	8.3	8.4	100.0	-	-	27.6	72.4	-	100.0	-	100.0
Delta																
Egmont																
Gibson's Landing																
Ladysmith	5	2.40	20.0	40.0	20.0	20.0	-	100.0	-	-	25.0	75.0	-	100.0	-	100.0
Lund																
Nanaimo	71	2.38	23.9	36.6	22.5	14.1	2.9	98.2	1.8	-	14.8	85.2	-	100.0	-	100.0
Pender Harbour	60	2.45	21.7	41.7	18.3	11.7	6.6	98.0	-	2.0	19.7	80.3	-	100.0	-	100.0
Powell River	8	2.50	-	75.0	-	25.0	-	100.0	-	-	20.0	80.0	-	100.0	-	100.0
Qualicum North																
Qualicum South	20	2.35	20.0	50.0	10.0	15.0	5.0	97.9	2.1	-	19.2	80.8	-	100.0	-	100.0
Richmond																
Saanich Inlet	95	2.19	24.2	47.4	16.8	8.4	3.2	94.2	3.4	2.4	7.7	92.3	7.4	92.6	3.2	96.8
Sooke	242	2.13	19.8	56.6	16.5	5.4	1.7	94.4	4.3	1.3	7.2	92.8	6.5	93.5	.4	99.6
Vancouver	29	2.03	31.0	41.4	24.1	-	3.5	98.3	1.7	-	1.7	98.3	-	100.0	-	100.0
West Vancouver	65	2.32	27.7	36.9	20.0	10.8	4.6	96.0	4.0	-	4.0	96.0	63.1	36.9	3.1	96.9
Victoria	11	2.36	-	63.6	36.4	-		100.0	-	-	3.8	96.2	-	100.0	-	100.0
Sidney	17	2.53	-	58.8	29.4	11.8	-	100.0	-	-	4.7	95.3	-	100.0	-	100.0
Total	733	2.29	19.8	48.6	19.4	8.9	3.3	95.1	3.9	1.0	9.6	90.4	9.4	90.6	1.4	98.6

Legend: BC - British Columbia ROC - Rest of Canada ROW - Rest of World

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TABLE 0-9: PARTY CHARACTERISTICS SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, MARCH 1981

Area of Landing	No. of Interviews (Boat Trips)	Average Party Size	Percent Distribution													
			Party Size					Party Residence			Party Age In Years		Boat Ownership		Boat Operation	
			1	2	3	4	5+	BC	ROC	ROW	<16	≥16	Rental	Private	Guided	Non-Guided
Campbell River	22	2.68	18.2	31.8	13.6	36.4	-	67.8	32.2	-	11.8	88.2	4.5	95.5	4.5	95.5
Chemainus																
Central Comox	13	2.31	15.4	53.8	15.4	15.4	-	100.0	-	-	23.3	76.7	-	100.0	-	100.0
North Comox																
South Comox																
Cowichan Bay	18	2.06	27.8	44.4	22.2	5.6	-	97.3	2.7	-	5.4	94.6	-	100.0	-	100.0
Delta																
Egmont																
Gibson's Landing																
Ladysmith	5	2.20	20.0	40.0	40.0	-	-	100.0	-	-	9.1	90.9	-	100.0	-	100.0
Lund																
Nanaimo	85	2.09	21.2	54.1	20.0	3.5	1.2	100.0	-	-	10.7	89.3	-	100.0	-	100.0
Pender Harbour	46	2.37	32.6	28.3	26.1	6.5	6.5	96.3	-	3.7	10.1	89.9	2.2	97.8	2.2	97.8
Powell River	3	2.67	33.3	66.7	-	-	-	100.0	-	-	12.5	87.5	-	100.0	-	100.0
Qualicum North																
Qualicum South	15	2.27	6.7	66.7	20.0	6.6	-	91.2	8.8	-	2.9	97.1	-	100.0	-	100.0
Richmond																
Saanich Inlet	183	2.15	23.0	53.0	17.5	4.9	1.6	92.6	7.1	.3	7.1	92.9	11.8	88.2	.6	99.4
Sooke	164	2.34	12.2	56.1	22.6	6.7	2.4	92.7	6.8	.5	8.1	91.9	9.1	90.9	2.6	97.4
Vancouver	58	2.09	19.0	58.6	17.2	5.2	-	100.0	-	-	5.0	95.0	-	100.0	-	100.0
West Vancouver	107	1.97	31.8	46.7	14.0	7.5	-	94.8	3.8	1.4	3.8	96.2	63.8	36.2	2.9	97.1
Victoria	61	2.16	11.5	67.1	14.8	6.6	-	98.5	1.5	-	6.1	93.9	-	100.0	-	100.0
Sidney	25	2.32	12.0	52.0	28.0	8.0	-	98.3	1.7	-	10.3	89.7	-	100.0	-	100.0
Total	805	2.19	20.2	52.3	19.3	6.8	1.4	94.5	4.9	.6	7.7	92.3	13.2	86.8	1.3	98.7

Legend: BC - British Columbia ROC - Rest of Canada ROW - Rest of World

TABLE 0-8: PARTY CHARACTERISTICS SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, FEBRUARY 1981

Area of Landing	No. of Interviews (Boat Trips)	Average Party Size	Percent Distribution													
			Party Size					Party Residence			Party Age In Years		Boat Ownership		Boat Operation	
			1	2	3	4	5+	BC	ROC	ROW	<16	≥16	Rental	Private	Guided	Non-Guided
Campbell River	27	2.04	22.2	59.3	11.1	7.4	-	100.0	-	-	5.5	94.5	-	100.0	-	100.0
Chemainus																
Central Comox	21	1.71	33.3	61.9	4.8	-	-	100.0	-	-	-	100.0	-	100.0	-	100.0
North Comox																
South Comox																
Cowichan Bay	26	2.00	26.9	50.0	19.2	3.8	.1	100.0	-	-	7.7	92.3	-	100.0	-	100.0
Delta																
Egmont																
Gibson's Landing																
Ladysmith	26	2.35	15.4	50.0	26.9	3.8	3.9	100.0	-	-	16.4	83.6	-	100.0	-	100.0
Lund																
Nanaimo	87	2.02	24.1	54.0	17.2	4.6	.1	99.4	.6	-	10.2	89.8	-	100.0	-	100.0
Pender Harbour	42	2.05	33.3	42.9	11.9	9.5	2.4	96.5	-	3.5	4.7	95.3	20.0	80.0	-	100.0
Powell River	4	2.25	25.0	25.0	50.0	-	-	100.0	-	-	22.2	77.8	-	100.0	-	100.0
Qualicum North																
Qualicum South	10	2.50	-	50.0	50.0	-	-	100.0	-	-	8.0	92.0	-	100.0	-	100.0
Richmond																
Saanich Inlet	198	2.27	20.2	51.5	19.7	6.1	2.5	92.5	7.1	.4	6.9	93.1	10.6	89.4	2.0	98.0
Sooke	182	2.18	23.1	49.5	18.7	5.5	3.2	95.9	3.8	-	8.8	91.2	7.2	92.8	-	100.0
Vancouver	68	2.19	5.9	73.5	16.2	4.4	-	98.7	1.3	-	4.7	95.3	-	100.0	-	100.0
West Vancouver	83	1.94	33.7	43.4	18.1	4.8	-	91.9	.6	7.5	2.5	97.5	41.5	58.5	-	100.0
Victoria	120	1.85	36.7	45.0	15.0	3.3	-	97.3	2.2	.5	7.2	92.8	-	100.0	-	100.0
Sidney	51	2.24	17.6	56.9	17.6	3.9	4.0	98.2	1.8	-	7.9	92.1	-	100.0	-	100.0
Total	945	2.11	24.0	51.5	17.9	5.0	1.6	96.1	2.9	1.0	7.3	92.7	8.1	91.9	.4	99.6

Legend: BC - British Columbia ROC - Rest of Canada ROW - Rest of World

TABLE 0-7: PARTY CHARACTERISTICS SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JANUARY 1981

Area of Landing	No. of Interviews (Boat Trips)	Average Party Size	Percent Distribution													
			Party Size					Party Residence			Party Age In Years		Boat Ownership		Boat Operation	
			1	2	3	4	5+	BC	ROC	ROW	<16	≥16	Rental	Private	Guided	Non-Guided
Campbell River	33	2.09	21.1	63.6	9.1	-	6.1	88.4	11.6	-	-	100.0	-	100.0	-	100.0
Chemainus																
Central Comox	38	1.84	28.9	57.9	13.2	-	-	100.0	-	-	1.4	98.6	-	100.0	-	100.0
North Comox																
South Comox																
Cowichan Bay	61	2.21	18.0	55.7	13.1	13.1	1.0	100.0	-	-	12.6	87.4	-	100.0	-	100.0
Delta																
Egmont																
Gibson's Landing																
Ladysmith	33	2.21	27.3	39.4	21.2	9.1	3.0	100.0	-	-	8.2	91.8	-	100.0	-	100.0
Lund																
Nanaimo	95	1.98	31.6	49.5	12.6	3.2	3.1	99.5	.5	-	9.0	91.0	-	100.0	-	100.0
Pender Harbour	38	2.34	21.1	47.4	18.4	10.5	2.6	96.6	3.4	-	4.5	95.5	13.5	86.5	2.8	97.2
Powell River	9	2.33	22.2	33.3	33.3	11.1	.1	100.0	-	-	23.8	76.2	-	100.0	-	100.0
Qualicum North																
Qualicum South	8	2.63	-	62.5	25.0	-	12.5	100.0	-	-	19.0	81.0	-	100.0	-	100.0
Richmond																
Saanich Inlet	230	2.15	20.0	55.2	17.4	5.7	1.7	95.8	3.8	.4	7.7	92.3	10.8	89.2	2.3	97.7
Sooke	239	2.10	18.4	58.6	18.8	3.3	.9	97.2	2.6	.2	6.2	93.8	11.3	88.7	.4	99.6
Vancouver	85	2.28	8.2	63.5	21.2	5.9	1.2	97.4	-	2.6	7.7	92.3	-	100.0	-	100.0
West Vancouver	98	2.35	14.3	51.0	23.5	8.2	3.0	85.3	11.7	3.0	6.5	93.5	63.9	36.1	2.1	97.9
Victoria	98	2.16	16.3	59.2	17.3	6.1	1.1	98.6	1.4	-	7.1	92.9	-	100.0	-	100.0
Sidney	58	2.22	19.0	50.0	22.4	6.9	1.7	98.4	1.6	-	7.8	92.2	-	100.0	-	100.0
Total	1,123	2.16	19.2	55.3	18.1	5.6	1.8	96.3	3.1	.6	7.3	92.7	10.6	89.4	.8	99.2

Legend: BC - British Columbia ROC - Rest of Canada ROW - Rest of World

TABLE 0-6: PARTY CHARACTERISTICS SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, DECEMBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Average Party Size	Percent Distribution													
			Party Size					Party Residence			Party Age In Years		Boat Ownership		Boat Operation	
			1	2	3	4	5+	BC	ROC	ROW	<16	>16	Rental	Private	Guided	Non-Guided
Campbell River	16	2.75	6.3	50.0	25.0	6.3	12.4	85.4	9.7	4.9	4.5	95.5	-	100.0	-	100.0
Chemainus																
Central Comox	11	1.82	27.3	63.6	9.1	-	-	100.0	-	-	-	100.0	-	100.0	-	100.0
North Comox																
South Comox																
Cowichan Bay	8	2.63	-	50.0	37.5	12.5	-	100.0	-	-	9.5	90.5	-	100.0	-	100.0
Delta																
Egmont																
Gibson's Landing																
Ladysmith																
Lund																
Nanaimo	51	1.73	51.0	29.4	15.7	3.9	-	100.0	-	-	4.5	95.5	-	100.0	-	100.0
Pender Harbour	31	2.23	22.6	45.2	22.6	6.5	1.3	89.9	2.9	7.2	5.8	94.2	6.5	93.5	3.2	98.5
Powell River	7	2.29	14.3	42.9	42.8	-	-	100.0	-	-	12.5	87.5	-	100.0	-	100.0
Qualicum North																
Qualicum South																
Richmond																
Saanich Inlet	70	1.83	35.7	50.0	10.0	4.3	-	96.1	3.1	.8	7.0	93.0	7.4	92.6	1.5	98.5
Sooke	116	1.92	31.0	48.3	19.0	1.7	-	93.7	5.8	.5	2.7	97.3	8.6	91.4	-	100.0
Vancouver	13	2.08	7.7	76.9	15.4	-	-	92.6	7.4	-	-	100.0	-	100.0	-	100.0
West Vancouver	46	1.80	43.5	37.0	15.2	4.3	-	95.2	3.6	1.2	1.2	98.8	47.8	52.2	-	100.0
Victoria	33	2.18	24.2	45.5	18.2	12.1	-	97.2	1.4	1.4	5.6	94.4	-	100.0	-	100.0
Sidney	5	2.20	20.0	40.0	40.0	-	-	100.0	-	-	-	100.0	-	100.0	-	100.0
Total	407	1.97	31.7	45.7	17.7	4.2	.7	95.0	3.6	1.4	4.2	95.8	9.7	90.3	.5	99.5

Legend: BC - British Columbia ROC - Rest of Canada ROW - Rest of World

TABLE 0-5: PARTY CHARACTERISTICS SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, NOVEMBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Average Party Size	Percent Distribution														
			Party Size					Party Residence			Party Age In Years		Boat Ownership		Boat Operation		
			1	2	3	4	5+	BC	ROC	ROW	<16	>16	Rental	Private	Guided	Non-Guided	
Campbell River	16	1.94	25.0	56.2	18.8	-	-	96.8	3.2	-	3.2	96.8	-	100.0	-	100.0	
Chemainus																	
Central Comox	38	1.97	31.6	47.4	18.4	2.6	-	100.0	-	-	2.7	97.3	-	100.0	-	100.0	
North Comox																	
South Comox																	
Cowichan Bay	32	2.25	6.3	74.9	9.4	6.3	3.1	100.0	-	-	22.2	77.8	-	100.0	-	100.0	
Delta																	
Egmont																	
Gibson's Landing																	
Ladysmith																	
Lund																	
Nanaimo	41	1.83	31.7	53.7	14.6	-	-	100.0	-	-	5.3	94.7	-	100.0	-	100.0	
Pender Harbour	43	1.95	25.6	62.7	7.0	4.7	-	88.1	9.5	3.4	1.3	98.7	2.4	97.6	-	100.0	
Powell River	12	1.92	25.0	58.3	16.7	-	-	100.0	-	-	4.3	95.7	-	100.0	-	100.0	
Qualicum North																	
Qualicum South	6	1.67	50.0	33.3	16.7	-	-	100.0	-	-	20.0	80.0	-	100.0	-	100.0	
Richmond																	
Saanich Inlet	93	2.05	31.2	53.8	9.7	2.2	3.1	82.7	8.9	8.4	3.1	96.9	18.3	81.7	4.3	95.7	
Sooke	99	2.14	26.3	48.5	14.1	7.1	4.0	97.2	2.8	-	5.6	94.4	7.1	92.9	-	100.0	
Vancouver	44	2.07	15.9	61.4	22.7	-	-	97.8	2.2	-	5.5	94.5	-	100.0	-	100.0	
West Vancouver	57	1.93	38.5	35.1	21.1	5.3	-	97.3	2.7	-	1.8	98.2	41.1	58.9	3.6	96.4	
Victoria	28	2.04	28.6	57.1	7.1	3.6	3.6	96.5	3.5	-	3.5	96.5	-	100.0	-	100.0	
Sidney	24	2.29	25.0	45.8	12.5	12.5	4.2	94.5	5.5	-	10.9	89.1	8.3	91.7	-	100.0	
Total	533	2.40	27.4	52.7	14.1	3.4	2.4	94.5	3.9	1.6	5.6	94.4	9.6	90.4	1.2	98.8	

Legend: BC - British Columbia ROC - Rest of Canada ROW - Rest of World

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TABLE 0-4: PARTY CHARACTERISTICS SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, OCTOBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Average Party Size	Percent Distribution													
			Party Size					Party Residence			Party Age In Years		Boat Ownership		Boat Operation	
			1	2	3	4	5+	BC	ROC	ROW	<16	≥16	Rental	Private	Guided	Non-Guided
Campbell River	179	2.58	14.5	35.2	39.7	5.0	5.6	60.4	24.5	15.1	2.6	97.4	35.8	64.2	37.7	62.3
Chemainus																
Central Comox	46	2.09	26.1	50.0	13.0	10.9	-	92.7	7.3	-	4.2	95.8	-	100.0	2.2	97.8
North Comox	5	1.80	40.0	40.0	20.0	-	-	77.8	11.1	11.1	-	100.0	-	100.0	-	100.0
South Comox																
Cowichan Bay	6	2.50	16.7	33.3	33.3	16.7	-	100.0	-	-	6.7	93.3	-	100.0	-	100.0
Delta																
Egmont																
Gibson's Landing	23	2.39	26.1	43.5	4.3	21.7	4.4	96.4	3.6	-	10.2	89.8	9.1	90.9	4.5	95.5
Ladysmith																
Lund																
Nanaimo	301	2.15	25.9	45.5	19.6	6.3	2.7	96.0	3.4	.6	11.2	88.8	-	100.0	-	100.0
Pender Harbour	67	2.21	20.9	47.8	23.9	4.5	2.9	98.0	2.0	-	2.0	98.0	9.1	90.9	-	100.0
Powell River	113	2.47	9.7	48.7	28.3	11.5	1.8	98.9	1.1	-	11.2	88.8	-	100.0	-	100.0
Qualicum North																
Qualicum South	94	2.14	21.3	52.1	20.2	5.3	1.1	94.5	5.5	-	9.5	90.5	-	100.0	-	100.0
Richmond	21	2.00	19.0	66.7	9.5	4.8	-	97.6	2.4	-	14.3	85.7	-	100.0	-	100.0
Saanich Inlet	319	2.13	23.5	51.1	16.3	7.5	1.6	93.8	4.4	1.8	9.7	90.3	13.0	87.0	1.6	98.4
Sooke	588	2.10	19.4	56.1	20.2	3.7	.6	95.8	3.5	.7	4.9	95.1	12.2	87.8	.3	99.7
Vancouver	28	2.14	14.3	64.2	17.9	3.6	-	98.4	1.6	-	6.7	93.3	-	100.0	-	100.0
West Vancouver	166	2.42	16.9	45.8	18.1	16.9	2.3	91.3	6.0	2.7	7.0	93.0	62.0	38.0	1.2	98.7
Victoria	132	1.94	33.3	46.2	14.4	5.3	.8	95.7	3.1	1.2	10.5	89.5	-	100.0	-	100.0
Sidney	41	2.34	19.5	48.8	19.5	7.3	4.9	100.0	-	-	10.4	89.6	2.4	97.6	-	100.0
Total	2,129	2.20	21.0	49.6	20.8	6.8	1.8	92.0	5.7	2.3	7.5	92.5	13.5	86.5	3.7	96.3

Legend: BC - British Columbia ROC - Rest of Canada ROW - Rest of World

TABLE 0-3: PARTY CHARACTERISTICS SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, SEPTEMBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Average Party Size	Percent Distribution													
			Party Size					Party Residence			Party Age In Years		Boat Ownership		Boat Operation	
			1	2	3	4	5+	BC	ROC	ROW	<16	≥16	Rental	Private	Guided	Non-Guided
Campbell River	559	2.62	10.9	36.1	39.7	8.6	4.7	63.5	19.0	17.5	5.9	94.1	28.9	71.1	28.2	71.8
Chemainus	36	2.14	19.4	50.0	27.8	2.8	-	96.1	3.9	-	12.0	88.0	-	100.0	-	100.0
Central Comox	186	2.34	14.0	61.3	18.3	3.8	2.6	90.9	7.2	1.9	2.9	97.1	2.7	97.3	1.1	98.9
North Comox	146	2.20	19.9	54.8	15.1	7.5	2.7	45.1	13.2	41.7	3.3	96.7	.7	99.3	-	100.0
South Comox																
Cowichan Bay	124	2.18	21.8	50.8	17.7	8.1	1.6	94.1	4.8	1.1	13.5	86.5	-	100.0	-	100.0
Delta	50	2.22	20.0	56.0	12.0	8.0	4.0	96.4	3.6	-	12.6	87.4	-	100.0	-	100.0
Egmont																
Gibson's Landing	50	2.82	12.0	38.0	26.0	14.0	10.0	94.3	5.0	.7	5.0	95.0	17.4	82.6	6.8	93.2
Ladysmith	65	2.60	13.8	43.1	24.6	10.8	7.7	94.1	3.5	2.4	11.9	88.1	-	100.0	-	100.0
Lund	7	2.71	42.8	42.9	14.3	-	-	73.7	10.5	15.8	15.8	84.2	-	100.0	-	100.0
Nanaimo	139	2.66	10.1	41.0	30.2	12.9	5.8	90.8	5.4	3.8	17.0	83.0	.7	99.3	-	100.0
Pender Harbour	115	2.61	12.2	53.0	13.0	11.3	10.5	88.0	6.6	5.3	6.1	93.9	6.4	93.6	4.6	95.4
Powell River	78	2.71	2.6	47.4	30.8	15.4	3.8	93.4	3.3	3.3	14.7	85.3	-	100.0	-	100.0
Qualicum North	124	2.15	12.9	62.9	20.2	4.0	-	63.3	18.7	18.0	2.3	97.7	18.5	81.5	-	100.0
Qualicum South	221	2.24	16.3	51.6	25.8	4.5	1.8	85.8	9.7	4.4	6.5	93.5	2.3	97.7	.5	99.5
Richmond	98	2.48	11.2	53.1	21.4	9.2	5.1	96.3	3.7	-	14.8	85.2	-	100.0	-	100.0
Saanich Inlet	356	2.45	15.7	47.8	21.6	11.5	3.4	90.7	4.7	4.6	11.0	89.0	11.9	88.1	1.4	98.6
Sooke	289	2.07	18.6	60.2	17.0	4.2	-	95.6	4.2	.2	6.2	93.8	5.5	94.5	.7	99.3
Vancouver	154	2.37	12.5	53.9	23.7	6.6	3.3	98.6	1.4	-	11.1	88.9	-	100.0	-	100.0
West Vancouver	322	2.36	16.8	49.4	22.0	7.8	4.0	93.3	3.3	3.4	10.2	89.8	29.9	70.1	1.9	98.1
Victoria	164	2.20	29.9	48.2	17.1	3.7	1.1	94.9	4.2	.8	10.0	90.0	-	100.0	-	100.0
Sidney	54	2.28	24.1	44.4	18.5	9.3	3.7	97.6	.8	1.6	11.4	88.6	3.8	96.2	-	100.0
Total	3,337	2.38	15.4	49.2	24.1	7.9	3.4	84.4	8.2	7.4	8.6	91.4	11.0	89.0	5.4	94.6

Legend: BC - British Columbia ROC - Rest of Canada ROW - Rest of World

TABLE 0-2: PARTY CHARACTERISTICS SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, AUGUST 1980

Area of Landing	No. of Interviews (Boat Trips)	Average Party Size	Percent Distribution													
			Party Size					Party Residence			Party Age In Years		Boat Ownership		Boat Operation	
			1	2	3	4	5+	BC	ROC	ROW	<16	≥16	Rental	Private	Guided	Non-Guided
Campbell River	1,834	2.64	8.6	43.6	34.5	9.7	3.6	65.7	12.5	21.8	9.6	90.4	26.0	74.0	22.3	77.7
Chemainus	107	2.52	14.0	43.0	28.0	8.4	6.6	96.0	3.3	.7	17.9	82.1	-	100.0	-	100.0
Central Comox	630	2.25	16.7	53.7	20.5	6.8	2.3	89.8	7.0	3.2	10.8	89.2	18.9	81.1	-	100.0
North Comox	639	2.49	13.6	50.4	18.3	12.4	5.3	36.8	18.1	45.1	8.7	91.3	2.8	97.2	1.6	98.4
South Comox	63	2.25	14.3	52.4	27.0	6.3	-	83.9	13.3	2.8	9.2	90.8	6.3	93.7	-	100.0
Cowichan Bay	260	2.48	16.9	47.3	18.5	12.3	5.0	87.6	9.3	3.1	16.7	83.3	2.7	97.3	1.6	98.4
Delta	285	2.59	9.8	49.1	22.1	12.3	6.7	91.6	4.2	4.2	13.1	86.9	-	100.0	-	100.0
Egmont	116	2.99	3.5	40.9	25.2	19.1	11.3	88.1	1.4	10.5	18.3	81.7	15.5	84.5	-	100.0
Gibson's Landing	65	2.65	16.9	46.2	16.9	10.8	9.2	84.3	14.5	1.2	12.2	87.8	3.2	96.8	1.6	98.4
Ladysmith	118	2.75	12.7	42.4	15.3	22.0	7.6	89.1	5.9	5.0	18.5	81.5	-	100.0	-	100.0
Lund	38	2.16	21.1	65.8	10.5	2.6	-	35.4	3.6	61.0	9.8	90.2	-	100.0	-	100.0
Nanaimo	585	2.57	14.7	43.8	23.1	13.2	5.2	88.1	8.0	3.9	11.3	88.7	1.4	98.6	.2	99.8
Pender Harbour	771	2.81	10.9	42.4	20.6	17.4	8.7	84.7	8.9	6.4	10.4	89.6	9.0	91.0	1.6	98.4
Powell River	475	2.70	10.9	43.2	24.4	13.5	8.0	87.5	5.9	6.6	14.4	85.6	2.8	97.2	.2	99.8
Qualicum North	503	2.21	16.5	56.9	17.9	7.6	1.1	59.8	16.8	23.4	12.4	87.6	21.5	78.5	.2	99.8
Qualicum South	584	2.49	8.4	52.9	23.5	12.5	2.7	86.9	9.2	3.9	11.5	88.5	6.5	93.5	.2	99.8
Richmond	136	2.53	11.0	47.8	22.8	15.4	3.0	98.8	.9	.3	12.0	88.0	-	100.0	-	100.0
Saanich Inlet	587	2.57	14.1	46.5	22.3	10.2	6.9	85.7	10.0	4.3	14.4	85.6	15.9	84.1	2.2	97.8
Sooke	681	2.32	21.9	49.3	17.9	7.4	3.5	89.1	7.9	3.0	11.1	88.9	10.8	89.2	.4	99.6
Vancouver	241	2.37	12.9	54.8	18.7	10.8	2.8	94.2	1.7	4.1	13.0	87.0	-	100.0	-	100.0
West Vancouver	1,031	2.59	9.8	47.4	26.0	12.0	4.8	89.5	6.5	4.0	10.1	89.9	37.1	62.9	1.0	99.0
Victoria	309	2.19	20.1	56.0	15.2	7.4	1.3	97.2	1.6	1.2	9.5	90.5	-	100.0	-	100.0
Sidney	141	2.73	17.7	35.5	19.1	17.7	10.0	93.5	6.5	-	23.4	76.6	2.8	97.2	.7	99.3
Total	10,199	2.53	12.8	47.6	23.6	11.3	4.7	79.9	9.2	10.9	11.6	88.4	14.1	85.9	4.6	95.4

Legend: BC - British Columbia ROC - Rest of Canada ROW - Rest of World

TABLE 0-1: PARTY CHARACTERISTICS SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JULY 1980

Area of Landing	No. of Interviews (Boat Trips)	Average Party Size	Percent Distribution													
			Party Size					Party Residence			Party Age In Years		Boat Ownership		Boat Operation	
			1	2	3	4	5+	BC	ROC	ROW	<16	>16	Rental	Private	Guided	Non-Guided
Campbell River	2,229	2.62	10.2	41.3	32.8	11.0	4.7	68.6	11.9	19.5	11.1	88.9	21.0	79.0	17.1	82.9
Chemainus	166	2.46	10.2	54.8	18.1	14.5	2.4	93.2	5.6	1.2	15.7	84.3	-	100.0	-	100.0
Central Comox	824	2.32	11.0	58.0	21.0	8.0	2.0	89.1	5.5	5.4	12.5	87.5	6.2	93.8	-	100.0
North Comox	630	2.39	10.5	54.4	22.4	10.8	1.9	32.3	14.8	52.9	10.0	90.0	5.9	94.1	.7	99.3
South Comox	65	2.37	12.3	49.2	27.7	10.8	-	80.5	16.9	2.6	9.1	90.9	9.2	90.8	1.6	98.4
Cowichan Bay	224	2.41	22.3	40.6	21.4	9.8	5.9	91.6	5.4	3.0	17.3	82.7	4.9	95.1	1.4	98.6
Delta	159	2.51	8.8	50.9	27.0	8.2	5.1	96.4	1.8	1.8	11.5	88.5	.6	99.4	-	100.0
Egmont	159	2.40	11.9	55.3	18.2	10.7	3.9	78.7	11.0	10.3	9.7	90.3	19.1	80.9	.7	99.3
Gibson's Landing	139	2.56	14.4	39.6	26.6	15.8	3.6	94.1	4.8	1.1	12.9	87.1	10.1	89.9	-	100.0
Ladysmith	124	2.63	14.5	45.2	21.0	8.9	10.4	91.1	3.7	5.2	16.0	84.0	-	100.0	-	100.0
Lund	139	2.32	21.6	48.9	15.1	7.9	6.5	38.6	3.1	58.3	11.3	88.7	-	100.0	-	100.0
Nanaimo	962	2.43	15.8	47.5	20.6	12.0	4.1	90.3	6.7	3.0	12.6	87.4	1.1	98.9	.3	99.7
Pender Harbour	848	2.84	10.5	40.6	21.8	5.1	22.0	84.1	7.6	8.3	11.5	88.5	1.5	98.5	1.1	98.9
Powell River	790	2.62	11.6	45.7	22.4	5.3	1.5	91.5	3.7	4.8	13.0	87.0	3.3	96.7	1.5	98.5
Qualicum North	430	2.20	17.2	57.2	16.5	1.4	7.7	60.1	17.2	22.7	10.8	89.2	22.9	77.1	-	100.0
Qualicum South	923	2.41	11.4	54.1	20.0	2.4	12.1	88.6	8.7	2.7	10.4	89.6	6.9	93.1	.9	99.1
Richmond	136	2.76	9.6	40.4	24.3	6.6	19.1	94.9	2.4	2.7	12.9	87.1	-	100.0	-	100.0
Saanich Inlet	647	2.41	15.1	50.9	19.5	3.6	10.9	87.1	8.3	4.6	12.0	88.0	11.7	88.3	1.4	98.6
Sooke	1,047	2.23	18.9	52.8	17.7	1.8	8.8	90.7	6.9	2.4	10.4	89.6	10.6	89.4	.5	99.5
Vancouver	235	2.37	10.2	54.9	26.8	1.3	6.8	96.8	2.7	.5	10.3	89.7	-	100.0	.9	99.1
West Vancouver	1,047	2.73	7.3	44.9	26.8	3.5	17.5	90.7	5.3	4.0	12.3	87.7	38.8	61.2	1.2	98.8
Victoria	382	2.21	22.3	47.5	19.9	2.4	7.9	96.1	3.0	.9	13.5	86.5	-	100.0	.3	99.7
Sidney	212	2.48	14.2	48.6	23.6	4.7	8.9	86.5	9.7	3.8	14.9	86.1	4.9	95.1	1.5	98.5
Total	12,517	2.49	12.8	48.2	23.4	11.1	4.5	81.6	8.0	10.4	11.8	88.2	11.4	88.6	3.7	96.3

Legend: BC - British Columbia ROC - Rest of Canada ROW - Rest of World

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APPENDIX P

FISHING EFFORT SUMMARIES FROM
GEORGIA STRAIT CREEL SURVEY RAW DATA

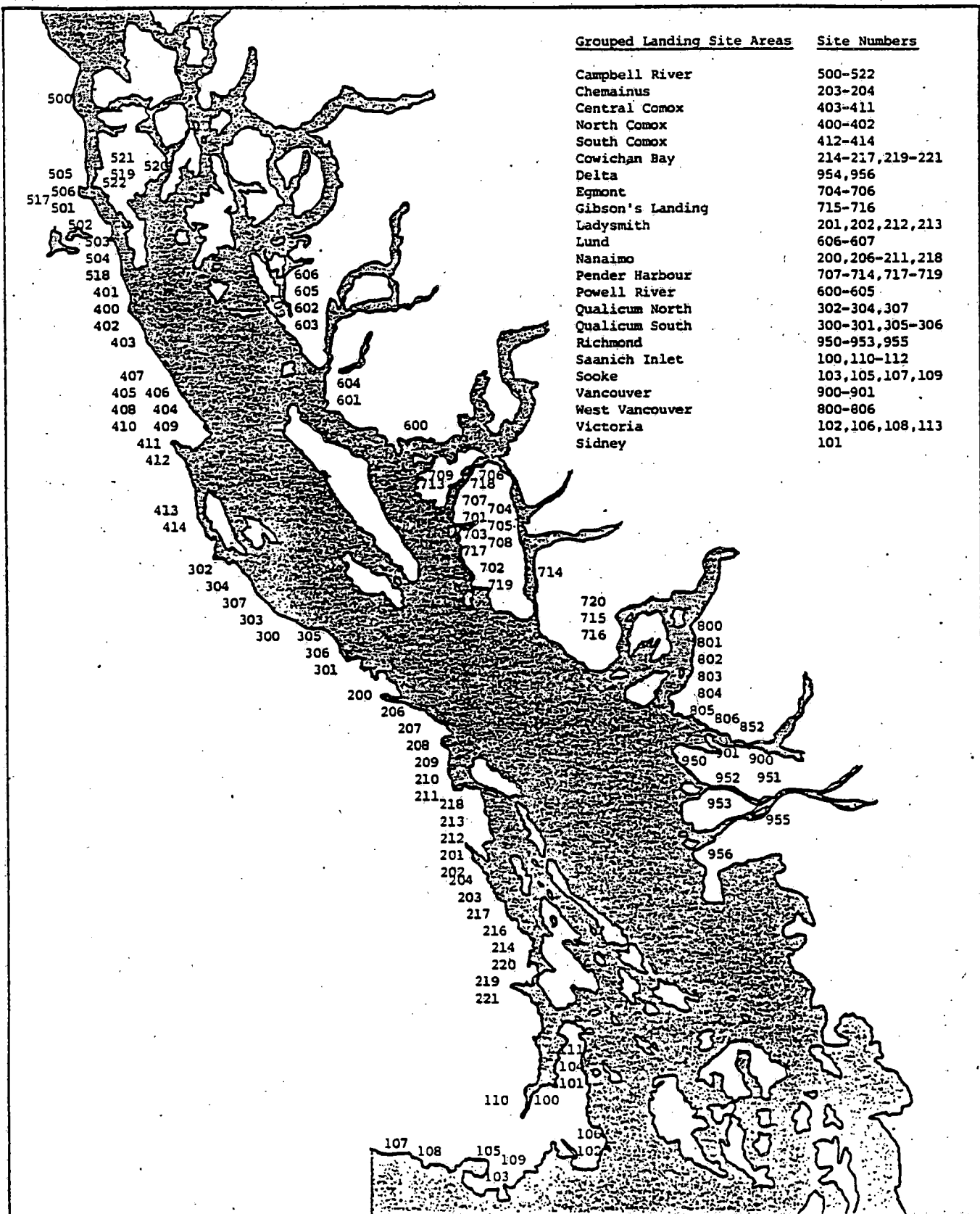


TABLE P-1: FISHING EFFORT SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JULY 1980.

Area of Landing	No. of Interviews (Boat Trips)	Boat Trip Average			Percent Fishing Effort Directed At				
		Hours Fished	Lines Employed	Party Size	Salmon	Groundfish	Shellfish	Other	Non-Specific
Campbell River	2,229	3.34	2.14	2.62	98.1	.9	.1	-	.9
Chemainus	166	3.42	2.54	2.46	61.2	8.5	1.2	-	29.1
Central Comox	824	2.96	2.34	2.32	96.7	1.0	-	-	2.3
North Comox	630	3.36	2.41	2.39	95.2	3.1	-	-	1.8
South Comox	65	2.87	2.71	2.37	100.0	-	-	-	-
Cowichan Bay	224	3.41	1.86	2.41	71.7	13.0	.4	2.2	12.6
Delta	159	5.65	2.47	2.51	92.9	4.5	-	.6	1.9
Egmont	159	3.47	2.31	2.40	79.9	18.9	-	-	1.3
Gibson's Landing	139	3.85	2.49	2.56	85.5	-	.7	8.7	5.1
Ladysmith	124	3.32	2.24	2.63	58.2	7.4	-	-	34.4
Lund	139	3.54	2.27	2.32	95.5	2.3	-	.8	1.5
Nanaimo	962	3.41	2.34	2.43	85.9	1.2	.2	-	12.7
Pender Harbour	848	4.24	2.84	2.84	96.0	1.6	-	.4	2.0
Powell River	790	3.66	2.29	2.62	93.8	1.6	.1	-	4.5
Qualicum North	430	3.49	2.21	2.20	90.5	2.1	-	-	7.3
Qualicum South	923	3.40	2.22	2.41	96.9	.9	-	-	2.2
Richmond	136	5.51	2.93	2.76	95.6	-	.7	-	3.7
Saanich Inlet	647	3.75	2.24	2.41	93.5	3.3	.3	-	2.8
Sooke	1,047	3.66	2.41	2.23	96.4	.9	.6	.1	2.0
Vancouver	235	4.92	2.37	2.37	83.8	1.7	-	-	14.5
West Vancouver	1,047	4.68	2.46	2.73	83.3	1.4	.4	.2	14.7
Victoria	382	2.88	2.26	2.21	90.6	6.4	-	-	2.9
Sidney	212	3.24	2.20	2.48	87.7	6.9	1.5	-	3.9
Total	12,517	3.65	2.34	2.49	92.0	2.3	.2	.2	5.3

TABLE P-2: FISHING EFFORT SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, AUGUST 1980

Area of Landing	No. of Interviews (Boat Trips)	Boat Trip Average			Percent Fishing Effort Directed At				
		Hours Fished	Lines Employed	Party Size	Salmon	Groundfish	Shellfish	Other	Non-Specific
Campbell River	1,834	3.45	2.13	2.64	97.4	.5	.1	.4	1.6
Chemainus	107	3.33	2.26	2.52	58.0	11.2	.9	-	29.9
Central Comox	630	2.77	2.33	2.25	97.9	.5	-	.5	1.1
North Comox	639	3.99	2.66	2.49	95.9	2.8	-	-	1.3
South Comox	63	3.44	2.27	2.25	96.8	3.2	-	-	-
Cowichan Bay	260	3.83	2.05	2.48	84.2	10.0	.8	-	5.0
Delta	285	4.27	2.19	2.59	84.3	6.0	.4	.4	8.9
Egmont	116	3.28	2.46	2.99	75.9	19.8	-	-	4.3
Gibson's Landing	65	3.47	2.94	2.65	89.0	1.6	-	-	9.4
Ladysmith	118	3.33	2.24	2.75	61.0	8.5	-	-	30.5
Lund	38	3.42	2.29	2.16	97.3	2.7	-	-	-
Nanaimo	585	3.13	2.23	2.57	88.7	2.3	.2	-	8.8
Pender Harbour	771	4.20	2.78	2.81	90.4	5.8	.1	-	3.7
Powell River	475	3.70	2.32	2.70	93.8	3.3	-	-	2.9
Qualicum North	503	3.40	2.14	2.21	81.7	2.0	-	-	16.3
Qualicum South	584	3.29	2.25	2.49	94.4	.3	-	-	5.3
Richmond	136	4.71	2.26	2.53	90.3	1.5	-	-	8.2
Saanich Inlet	587	3.60	2.30	2.57	94.8	1.9	-	-	3.3
Sooke	681	3.91	2.35	2.32	96.2	.9	.7	-	2.2
Vancouver	241	4.88	2.36	2.37	95.8	-	-	.8	3.4
West Vancouver	1,031	4.61	2.44	2.59	90.8	.8	.2	.3	7.9
Victoria	309	3.20	2.10	2.19	91.6	3.9	-	-	4.5
Sidney	141	3.48	2.17	2.73	86.5	7.1	-	-	6.4
Total	10,199	3.71	2.32	2.53	92.0	2.5	.1	.2	5.2

TABLE P-3: FISHING EFFORT SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, SEPTEMBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Boat Trip Average			Percent Fishing Effort Directed At				
		Hours Fished	Lines Employed	Party Size	Salmon	Groundfish	Shellfish	Other	Non-Specific
Campbell River	559	4.14	2.18	2.62	93.0	6.8	-	-	.2
Chemainus	36	3.31	2.11	2.14	91.6	5.6	-	-	2.8
Central Comox	186	3.32	2.37	2.34	100.0	-	-	-	-
North Comox	146	3.71	2.51	2.20	99.3	.7	-	-	-
South Comox									
Cowichan Bay	124	3.34	2.07	2.18	87.1	4.0	-	-	8.9
Delta	50	5.21	2.10	2.22	91.8	-	-	-	8.2
Egmont									
Gibson's Landing	50	3.62	1.72	2.82	93.5	4.3	-	-	2.2
Ladysmith	65	3.04	2.34	2.60	95.2	3.2	-	-	1.6
Lund	7	3.36	2.71	2.71	85.7	14.3	-	-	-
Nanaimo	139	3.44	2.22	2.66	94.1	1.5	-	-	4.4
Pender Harbour	115	4.41	3.01	2.61	93.7	5.4	.9	-	-
Powell River	78	4.31	2.38	2.71	90.2	4.2	-	-	5.6
Qualicum North	124	3.43	2.17	2.15	96.8	3.2	-	-	-
Qualicum South	221	3.03	2.19	2.24	91.4	1.4	-	-	7.2
Richmond	98	5.20	2.22	2.48	97.9	-	-	-	2.1
Saanich Inlet	356	3.84	2.27	2.45	95.2	1.4	.6	-	2.8
Sooke	289	4.43	2.49	2.07	96.5	1.4	.7	-	1.4
Vancouver	154	5.78	2.34	2.37	97.9	.7	-	-	1.4
West Vancouver	322	4.64	2.77	2.36	95.6	.3	-	.3	3.8
Victoria	164	2.85	2.05	2.20	90.0	8.1	-	-	1.9
Sidney	54	3.52	2.39	2.28	74.0	13.0	-	3.7	9.3
Total	3,337	3.98	2.35	2.38	94.2	3.0	.2	.1	2.5

TABLE P- 4: FISHING EFFORT SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, OCTOBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Boat Trip Average			Percent Fishing Effort Directed At				
		Hours Fished	Lines Employed	Party Size	Salmon	Groundfish	Shellfish	Other	Non-Specific
Campbell River	179	4.05	2.26	2.58	95.4	4.0	-	-	.6
Chemainus									
Central Comox	46	3.78	2.26	2.09	97.8	2.2	-	-	-
North Comox	5	3.20	2.60	1.80	100.0	-	-	-	-
South Comox									
Cowichan Bay	6	3.42	2.33	2.50	100.0	-	-	-	-
Delta									
Egmont									
Gibson's Landing	23	4.28	2.83	2.39	95.7	4.3	-	-	-
Ladysmith									
Lund									
Nanaimo	301	3.15	2.14	2.15	94.6	4.4	.3	-	.7
Pender Harbour	67	3.37	2.49	2.21	89.0	9.4	-	-	1.6
Powell River	113	3.92	2.33	2.47	99.1	.9	-	-	-
Qualicum North									
Qualicum South	94	3.01	2.31	2.14	93.4	-	-	-	6.6
Richmond	21	4.29	2.10	2.00	100.0	-	-	-	-
Saanich Inlet	319	3.87	2.28	2.13	98.4	1.0	-	-	.6
Sooke	588	3.86	2.29	2.10	96.0	1.4	.9	-	1.7
Vancouver	28	5.18	2.79	2.14	85.7	-	-	-	14.3
West Vancouver	166	4.17	2.37	2.42	80.1	.6	-	.6	18.7
Victoria	132	3.14	2.06	1.94	85.0	8.7	-	-	6.3
Sidney	41	3.93	2.15	2.34	92.5	7.5	-	-	-
Total	2,129	3.73	2.27	2.20	94.0	2.6	.3	.0	3.1

TABLE P-5: FISHING EFFORT SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, NOVEMBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Boat Trip Average			Percent Fishing Effort Directed At				
		Hours Fished	Lines Employed	Party Size	Salmon	Groundfish	Shellfish	Other	Non-Specific
Campbell River	16	2.75	2.56	1.94	100.0	-	-	-	-
Chemainus									
Central Comox	38	3.04	2.18	1.97	100.0	-	-	-	-
North Comox									
South Comox									
Cowichan Bay	32	2.72	2.16	2.25	100.0	-	-	-	-
Delta									
Egmont									
Gibson's Landing									
Ladysmith									
Lund									
Nanaimo	41	3.20	1.71	1.83	95.2	2.4	-	-	2.4
Pender Harbour	43	4.94	2.49	1.95	100.0	-	-	-	-
Powell River	12	2.96	1.83	1.92	100.0	-	-	-	-
Qualicum North									
Qualicum South	6	3.17	2.00	1.67	100.0	-	-	-	-
Richmond									
Saanich Inlet	93	3.45	2.09	2.05	96.7	-	-	-	3.3
Sooke	99	3.13	2.13	2.14	93.7	2.1	2.1	-	2.1
Vancouver	44	4.03	2.11	2.07	80.5	-	4.9	-	14.6
West Vancouver	57	3.89	2.12	1.93	98.2	-	-	-	1.8
Victoria	28	3.41	2.25	2.04	92.6	3.7	3.7	-	-
Sidney	24	2.75	2.08	2.29	87.5	12.5	-	-	-
Total	533	3.44	2.13	2.04	95.1	1.4	1.0	-	2.5

TABLE P-6: FISHING EFFORT SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, DECEMBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Boat Trip Average			Percent Fishing Effort Directed At				
		Hours Fished	Lines Employed	Party Size	Salmon	Groundfish	Shellfish	Other	Non-Specific
Campbell River	16	3.09	2.81	2.75	100.0	-	-	-	-
Chemainus									
Central Comox	11	2.91	1.82	1.82	100.0	-	-	-	-
North Comox									
South Comox									
Cowichan Bay	8	3.00	2.00	2.63	100.0	-	-	-	-
Delta									
Egmont									
Gibson's Landing									
Ladysmith									
Lund									
Nanaimo	51	2.92	1.63	1.73	98.0	-	2.0	-	-
Pender Harbour	31	3.79	2.45	2.23	100.0	-	-	-	-
Powell River	7	2.21	1.71	2.29	14.3	-	-	-	85.7
Qualicum North									
Qualicum South									
Richmond									
Saanich Inlet	70	3.21	2.29	1.83	98.6	1.4	-	-	-
Sooke	116	3.22	2.02	1.92	92.1	.9	4.4	-	2.6
Vancouver	13	3.65	2.00	2.08	75.0	-	-	-	25.0
West Vancouver	46	4.88	2.20	1.80	100.0	-	-	-	-
Victoria	33	3.23	2.15	2.18	100.0	-	-	-	-
Sidney	5	4.70	2.60	2.20	80.0	-	-	-	20.0
Total	407	3.41	2.11	1.97	94.7	.5	1.5	-	3.3

P-7

TABLE P-7: FISHING EFFORT SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JANUARY 1981

Area of Landing	No. of Interviews (Boat Trips)	Boat Trip Average			Percent Fishing Effort Directed At				
		Hours Fished	Lines Employed	Party Size	Salmon	Groundfish	Shellfish	Other	Non-Specific
Campbell River	33	3.73	3.09	2.09	100.0	-	-	-	-
Chemainus									
Central Comox	38	4.38	2.47	1.84	100.0	-	-	-	-
North Comox									
South Comox									
Cowichan Bay	61	3.63	2.23	2.21	90.2	3.3	1.6	-	4.9
Delta									
Egmont									
Gibson's Landing									
Ladysmith	33	3.11	2.06	2.21	97.0	-	-	-	3.0
Lund									
Nanaimo	95	3.21	1.96	1.98	96.8	1.1	-	-	2.2
Pender Harbour	38	3.36	2.61	2.34	100.0	-	-	-	-
Powell River	9	2.11	2.22	2.33	55.6	-	-	-	44.4
Qualicum North									
Qualicum South	8	2.94	2.50	2.63	100.0	-	-	-	-
Richmond									
Saanich Inlet	230	3.45	2.37	2.15	99.6	-	.4	-	-
Sooke	239	3.44	2.25	2.10	95.7	.4	1.3	-	2.6
Vancouver	85	4.45	2.03	2.28	88.0	-	2.7	-	9.3
West Vancouver	98	3.95	2.12	2.35	96.9	-	-	-	3.1
Victoria	98	3.44	2.24	2.16	95.9	1.0	-	-	3.1
Sidney	58	3.80	2.33	2.22	94.7	-	1.8	-	3.5
Total	1,123	3.58	2.27	2.16	96.0	.5	.7	-	2.8

TABLE P-8: FISHING EFFORT SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, FEBRUARY 1981

Area of Landing	No. of Interviews (Boat Trips)	Boat Trip Average			Percent Fishing Effort Directed At				
		Hours Fished	Lines Employed	Party Size	Salmon	Groundfish	Shellfish	Other	Non-Specific
Campbell River	27	3.31	2.74	2.04	100.0	-	-	-	-
Chemainus									
Central Comox	21	3.17	2.48	1.71	100.0	-	-	-	-
North Comox									
South Comox									
Cowichan Bay	26	4.08	1.73	2.00	42.3	23.1	3.8	7.7	23.1
Delta									
Egmont									
Gibson's Landing									
Ladysmith	26	3.19	1.96	2.35	76.0	8.0	-	-	16.0
Lund									
Nanaimo	87	3.39	1.88	2.02	94.2	2.3	1.2	-	2.3
Pender Harbour	42	3.32	2.50	2.05	92.9	4.8	-	2.4	-
Powell River	4	2.13	2.00	2.25	75.0	-	-	-	25.0
Qualicum North									
Qualicum South	10	4.10	2.20	2.50	100.0	-	-	-	-
Richmond									
Saanich Inlet	198	3.65	2.26	2.27	95.4	.5	-	2.6	1.5
Sooke	182	3.53	2.26	2.18	95.6	1.7	.6	-	2.2
Vancouver	68	4.91	2.10	2.19	87.7	-	1.5	-	10.8
West Vancouver	83	4.82	2.11	1.94	95.2	1.2	-	-	3.6
Victoria	120	3.31	2.08	1.85	96.6	1.7	-	-	1.7
Sidney	51	3.35	1.96	2.24	80.4	2.0	5.9	2.0	9.8
Total	945	3.70	2.17	2.11	92.2	2.1	.8	1.0	4.0

TABLE P-9: FISHING EFFORT SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, MARCH 1981

Area of Landing	No. of Interviews (Boat Trips)	Boat Trip Average			Percent Fishing Effort Directed At				
		Hours Fished	Lines Employed	Party Size	Salmon	Groundfish	Shellfish	Other	Non-Specific
Campbell River	22	3.82	2.77	2.68	95.2	4.8	-	-	-
Chemainus									
Central Comox	13	2.58	2.38	2.31	92.3	-	7.7	-	-
North Comox									
South Comox									
Cowichan Bay	18	3.25	2.28	2.06	94.4	5.6	-	-	-
Delta									
Egmont									
Gibson's Landing									
Ladysmith	5	4.40	2.00	2.20	60.0	20.0	-	-	20.0
Lund									
Nanaimo	85	3.58	2.12	2.09	92.8	-	1.2	-	6.0
Pender Harbour	46	2.90	2.83	2.37	97.7	-	-	-	2.3
Powell River	3	2.50	2.67	2.67	66.7	-	-	-	33.3
Qualicum North									
Qualicum South	15	3.27	2.20	2.27	100.0	-	-	-	-
Richmond									
Saanich Inlet	183	3.50	2.13	2.15	88.0	2.7	-	.5	8.8
Sooke	164	3.77	2.19	2.34	90.8	4.3	-	.6	4.3
Vancouver	58	4.81	2.33	2.09	94.6	1.8	-	-	3.6
West Vancouver	107	4.55	2.14	1.97	88.7	.9	-	-	10.4
Victoria	61	3.15	2.07	2.16	86.7	8.3	-	-	5.0
Sidney	25	3.88	2.00	2.32	64.0	4.0	4.0	4.0	24.0
Total	805	3.73	2.21	2.19	89.6	2.9	.4	.4	6.7

TABLE P-10: FISHING EFFORT SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, APRIL 1981

Area of Landing	No. of Interviews (Boat Trips)	Boat Trip Average			Percent Fishing Effort Directed At				
		Hours Fished	Lines Employed	Party Size	Salmon	Groundfish	Shellfish	Other	Non-Specific
Campbell River Chemainus	46	4.54	2.43	2.80	76.1	10.9	-	8.7	4.3
Central Comox North Comox South Comox	52	3.53	2.62	2.37	100.0	-	-	-	-
Cowichan Bay Delta Egmont Gibson's Landing	12	3.12	2.00	2.42	36.4	36.4	9.1	9.1	9.1
Ladysmith Lund	5	4.90	2.40	2.40	75.0	25.0	-	-	-
Nanaimo Pender Harbour	71	2.96	2.04	2.38	76.1	4.2	-	-	19.7
Powell River Qualicum North	60	2.56	2.23	2.45	89.7	6.9	1.7	-	1.7
Qualicum South Richmond	8	2.25	2.63	2.50	37.5	-	-	-	62.5
Saanich Inlet Sooke	20	3.00	2.10	2.35	70.0	-	-	-	30.0
Vancouver West Vancouver	95	3.78	2.17	2.19	84.0	6.4	-	-	9.6
Victoria Sidney	242	3.60	2.04	2.13	69.7	11.2	.4	-	18.7
Total	29	5.50	2.17	2.03	89.7	6.9	-	-	3.4
	65	4.94	2.20	2.32	98.4	-	-	-	1.6
	11	3.23	2.27	2.36	81.8	-	9.1	9.1	-
	17	3.50	2.41	2.53	41.2	35.3	5.9	-	17.6
	733	3.69	2.18	2.29	78.4	8.0	.7	.8	12.1

TABLE P-11: FISHING EFFORT SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, MAY 1981

Area of Landing	No. of Interviews (Boat Trips)	Boat Trip Average			Percent Fishing Effort Directed At				
		Hours Fished	Lines Employed	Party Size	Salmon	Groundfish	Shellfish	Other	Non-Specific
Campbell River	394	3.61	1.96	2.38	86.8	2.8	.3	.5	9.7
Chemainus									
Central Comox	293	3.42	2.30	2.31	94.2	5.1	.3	-	.3
North Comox	196	2.84	2.11	2.00	94.8	-	.5	-	4.6
South Comox									
Cowichan Bay	31	4.40	2.26	2.52	61.3	19.4	3.2	-	16.1
Delta									
Egmont									
Gibson's Landing	28	4.18	2.46	2.18	76.9	-	-	3.8	19.2
Ladysmith	2	1.75	2.00	2.50	50.0	50.0	-	-	-
Lund	12	4.04	2.50	2.08	66.7	-	8.3	-	25.0
Nanaimo	122	2.81	2.02	2.47	76.7	7.5	2.5	-	13.3
Pender Harbour	62	2.90	2.55	2.34	90.2	4.9	-	-	4.9
Powell River	93	2.92	1.99	2.42	52.7	-	3.3	25.3	18.7
Qualicum North	63	3.38	2.03	1.86	96.8	3.2	-	-	-
Qualicum South	549	3.08	2.11	2.22	98.7	1.1	-	-	.2
Richmond									
Saanich Inlet	320	4.19	2.08	2.29	81.4	3.5	.3	-	14.8
Sooke	505	3.89	2.18	2.12	89.9	4.2	-	.4	5.6
Vancouver	107	5.18	2.19	2.28	94.4	.9	-	.9	3.7
West Vancouver	325	4.72	2.56	2.63	88.9	2.5	-	-	8.6
Victoria	149	3.22	2.11	1.97	76.4	8.8	-	-	14.9
Sidney	136	3.94	1.96	2.34	73.1	4.5	.7	.7	20.9
Total	3,387	3.66	2.16	2.27	87.8	3.4	.4	.9	7.6

TABLE P-12: FISHING EFFORT SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JUNE 1981

Area of Landing	No. of Interviews (Boat Trips)	Boat Trip Average			Percent Fishing Effort Directed At				
		Hours Fished	Lines Employed	Party Size	Salmon	Groundfish	Shellfish	Other	Non-Specific
Campbell River	572	3.58	1.90	2.53	94.0	.9	-	.5	4.6
Chemainus	74	3.57	1.90	2.51	63.0	12.3	-	-	24.7
Central Comox	406	3.10	2.22	2.15	98.5	1.0	-	-	.5
North Comox	601	3.17	2.23	2.27	96.4	2.2	-	-	1.4
South Comox									
Cowichan Bay	66	4.89	2.05	2.42	79.3	11.1	1.6	3.2	4.8
Delta	18	3.89	2.28	2.78	94.4	-	-	-	5.6
Egmont									
Gibson's Landing	81	4.99	2.55	2.41	58.3	1.4	-	-	40.3
Ladysmith	35	3.73	1.97	2.57	82.4	2.9	-	-	14.7
Lund	34	3.29	1.97	2.09	84.4	-	-	-	15.6
Nanaimo	213	3.36	2.10	2.47	81.3	2.4	.5	-	15.8
Pender Harbour	91	3.26	2.30	2.51	81.2	-	-	-	18.8
Powell River	222	3.57	2.09	2.48	90.1	-	-	2.8	7.1
Qualicum North	158	3.33	1.96	1.97	99.4	-	-	-	.6
Qualicum South	343	3.21	2.11	2.13	98.2	1.5	.3	-	-
Richmond	64	4.87	2.17	2.70	98.4	-	-	-	1.6
Saanich Inlet	262	3.87	2.07	2.20	85.0	2.7	-	-	12.3
Sooke	818	4.34	2.18	2.12	92.4	1.8	-	-	5.8
Vancouver	73	5.66	2.21	2.40	90.1	1.4	-	-	8.5
West Vancouver	392	5.27	2.27	2.50	89.8	3.1	-	.3	6.8
Victoria	130	3.35	2.00	2.10	71.3	13.2	-	-	15.5
Sidney	67	3.74	2.22	2.54	67.1	7.5	1.5	-	23.9
Total	4,720	3.81	2.13	2.30	90.6	2.3	.1	.3	6.7

APPENDIX Q

FISHING METHOD AND TACKLE SUMMARIES FROM
GEORGIA STRAIT CREEL SURVEY RAW DATA

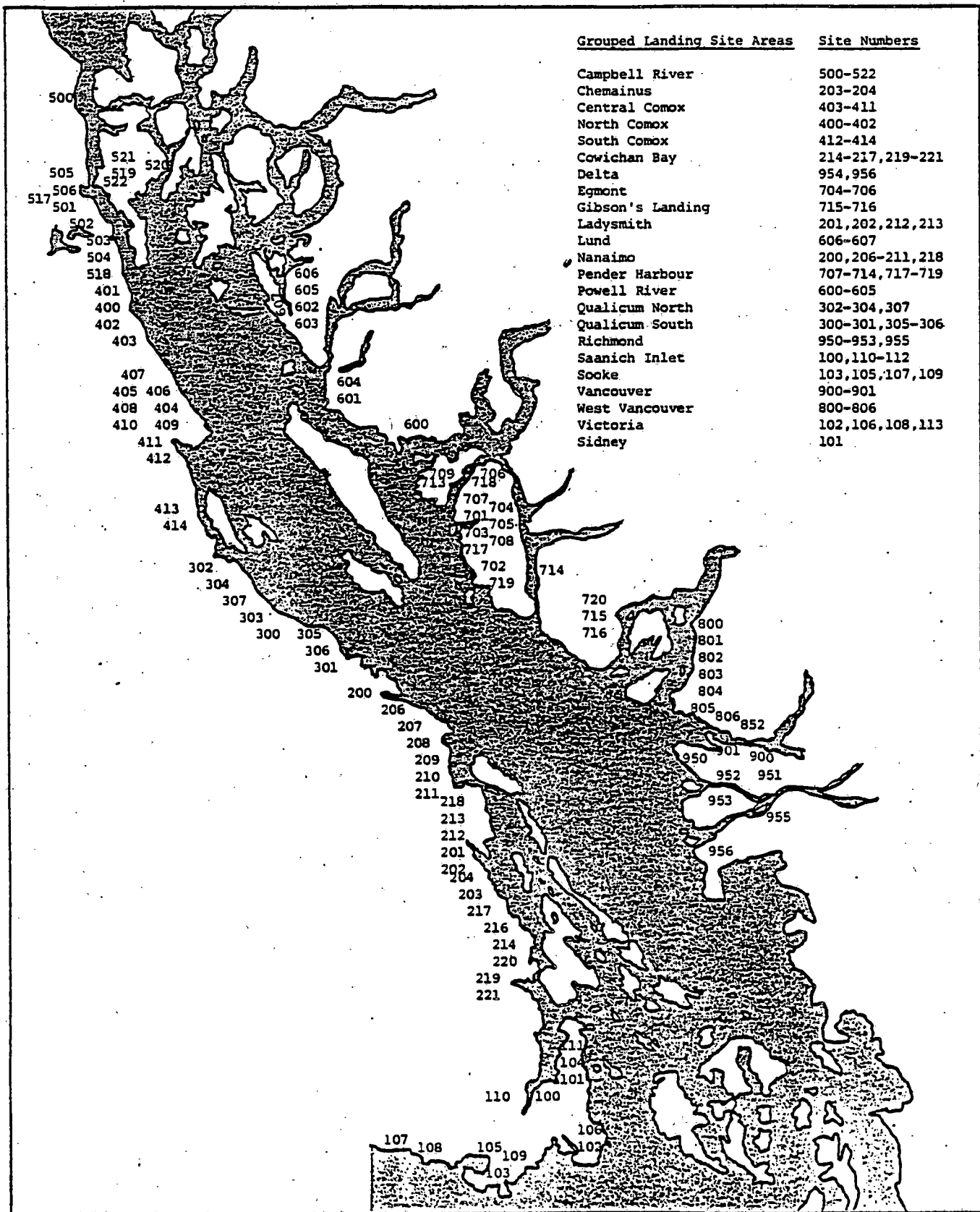


TABLE Q-1: FISHING METHOD AND TACKLE SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JULY 1980.

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution													
		Fishing Method									Fishing Tackle				
		TR	MO	CA	PL	DR	JI	OTH	TR/MO	TR/DR or PL	OTH COMB	BAIT	LURE	OTH	COMB
Campbell River	2,229	57.7	21.6	2.7	.1	.2	.4	.8	8.8	4.1	3.6	53.9	24.3	1.3	20.5
Chemainus	166	27.9	9.7	—	—	1.2	—	1.2	26.1	20.6	13.3	29.7	24.8	—	45.5
Central Comox	824	40.3	12.4	.1	2.9	2.6	—	.1	7.1	30.0	4.5	17.9	40.6	.1	41.4
North Comox	630	51.2	3.5	1.0	4.2	2.7	.2	—	2.4	32.4	2.4	12.3	51.9	—	35.8
South Comox	65	43.1	6.2	—	10.8	—	—	—	7.7	29.2	3.0	15.4	27.7	—	56.9
Cowichan Bay	224	30.2	56.8	1.4	—	—	—	1.8	8.6	.5	.7	49.1	32.4	2.7	15.8
Delta	159	62.9	17.6	—	—	—	—	1.9	11.3	4.4	1.9	40.9	34.0	.6	24.5
Egmont	159	20.1	67.3	—	—	—	—	.6	7.5	4.4	.1	81.8	10.1	1.9	6.2
Gibson's Landing	139	35.0	54.7	—	—	—	—	—	8.0	1.5	.8	68.6	13.1	.7	17.6
Ladysmith	124	44.7	14.6	—	—	4.9	—	.8	10.6	21.9	2.5	25.4	44.3	.8	29.5
Lund	139	64.0	.7	2.9	—	—	1.4	—	5.0	20.9	5.1	10.2	75.2	—	14.6
Nanaimo	962	64.2	3.0	5.3	.6	3.4	.3	1.3	2.9	14.7	4.3	18.1	56.2	1.1	24.6
Pender Harbour	948	32.2	57.4	—	—	.5	2	—	7.8	1.3	.6	69.6	18.4	.6	11.4
Powell River	790	68.0	2.7	2.6	—	.4	.5	.8	2.9	14.8	7.3	3.9	87.6	.7	7.8
Qualicum North	430	74.2	4.2	—	—	.5	1.2	—	6.1	10.5	3.3	11.3	76.1	—	12.6
Qualicum South	923	80.6	1.2	2.6	.2	.9	.8	—	1.9	10.4	1.4	8.0	82.1	.1	9.8
Richmond	136	67.7	14.3	—	—	1.5	—	.8	7.5	6.1	2.1	43.2	20.5	2.3	34.0
Saanich Inlet	647	38.8	4.8	3.3	6.2	3.7	2.0	.6	3.6	31.6	5.4	32.1	25.2	.6	42.1
Sooke	1,047	60.4	3.4	1.4	.3	1.3	1.6	.8	2.3	23.6	4.9	48.1	18.0	.1	33.8
Vancouver	235	60.7	21.8	.9	—	3.8	—	—	7.7	5.1	—	51.9	22.7	—	25.4
West Vancouver	1,047	50.0	30.0	.5	.3	.3	.2	1.5	12.5	3.1	1.6	67.6	13.3	1.1	18.0
Victoria	382	30.6	20.9	1.6	—	.8	7.3	.3	7.3	21.0	10.2	14.7	57.6	—	27.7
Sidney	212	24.1	15.1	2.4	—	3.8	14.2	1.4	3.8	22.1	13.1	24.1	47.6	—	28.3
Total	12,517	53.6	16.9	1.8	.9	1.3	1.0	.7	6.4	13.7	3.7	36.4	39.4	.7	23.5

Legend: TR - trolling MO - mooching CA - casting PL - planing DR - downrigger JI - jigging OTH - other single OTH COMB - other combination COMB - combination

TR/DR or PL - includes TR/DR, DR/PL, TR/PL and TR/DR/PL.

TABLE Q-2: FISHING METHOD AND TACKLE SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, AUGUST 1980.

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution													
		Fishing Method									Fishing Tackle				
		TR	MO	CA	PL	DR	JI	OTH	TR/MO	TR/DR or PL	OTH COMB	BAIT	LURE	OTH	COMB
Campbell River	1,834	51.9	26.3	1.6	.2	—	5.4	—	8.8	1.9	3.9	52.6	29.7	1.3	16.4
Chemainus	107	10.3	—	—	—	1.9	.9	.9	16.8	13.0	56.2	24.8	24.8	1.0	49.4
Central Comox	630	49.5	7.5	4.1	2.5	.2	10.4	—	2.4	14.2	9.2	25.2	46.8	—	28.0
North Comox	639	68.4	10.2	—	.3	.2	6.3	—	3.9	5.5	5.2	19.1	62.9	—	18.0
South Comox	63	57.1	7.9	—	1.6	—	11.2	—	3.2	15.9	3.1	27.0	57.1	—	15.9
Cowichan Bay	260	33.5	42.7	—	—	—	4.2	.8	16.2	.4	2.2	45.8	31.5	.4	22.3
Delta	285	71.9	18.9	.4	—	1.1	.7	.4	5.3	.4	.9	27.6	38.7	.4	33.3
Egmont	116	15.5	77.6	—	—	—	2.6	—	3.4	.9	—	87.9	8.6	—	3.5
Gibson's Landing	65	42.2	53.1	—	—	—	—	—	4.7	—	—	61.5	24.6	—	13.9
Ladysmith	118	59.3	13.6	1.7	—	—	—	.8	16.1	6.8	1.7	24.8	37.6	—	37.6
Lund	38	34.2	—	—	—	2.6	2.6	—	5.3	44.7	10.6	2.6	65.8	—	31.6
Nanaimo	585	48.4	6.4	7.6	.3	2.6	1.5	2.1	2.2	19.0	9.9	24.8	45.6	—	29.6
Pender Harbour	771	25.7	64.9	.1	—	.3	.4	—	7.3	.7	.6	80.8	11.8	.4	7.0
Powell River	475	50.2	2.7	6.5	—	—	2.5	—	3.0	17.0	18.1	7.8	75.8	—	16.4
Qualicum North	503	59.2	4.2	.8	.8	.6	4.6	—	11.1	7.4	11.3	19.0	62.1	—	18.9
Qualicum South	584	69.5	2.9	2.7	.2	.5	1.0	—	5.0	12.4	5.8	13.2	70.5	—	16.3
Richmond	136	60.4	14.2	—	—	.7	—	—	14.2	8.2	2.3	34.1	32.6	—	33.3
Saanich Inlet	587	45.1	1.7	6.2	1.5	1.2	3.3	.9	2.2	28.9	9.0	26.5	36.5	.9	36.1
Sooke	681	58.7	3.6	3.4	.7	1.0	2.8	.7	1.2	20.6	7.3	35.2	23.6	—	41.2
Vancouver	241	58.4	23.1	.4	—	.8	—	—	8.0	6.7	2.6	42.6	20.6	—	36.8
West Vancouver	1,031	45.4	33.9	.8	—	—	.5	.1	14.9	2.0	2.4	64.6	15.0	.1	20.3
Victoria	309	26.9	11.0	.3	—	—	17.9	—	3.2	22.0	18.7	14.2	64.4	—	21.4
Sidney	141	33.6	7.9	2.9	—	2.1	30.0	—	3.6	7.1	12.8	11.4	68.6	—	20.0
Total	10,199	49.8	19.6	2.2	.4	.5	4.2	.3	6.9	9.3	6.8	38.3	38.8	.4	22.5

Legend: TR - trolling MO - mooching CA - casting PL - planing DR - downrigger JI - jigging OTH - other single OTH COMB - other combination
COMB - combination

TR/DR or PL - includes TR/DR, DR/PL, TR/PL and TR/DR/PL.

TABLE Q-3: FISHING METHOD AND TACKLE SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, SEPTEMBER 1980.

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution													
		Fishing Method									Fishing Tackle				
		TR	MO	CA	PL	DR	JI	OTH	TR/MO	TR/DR or PL	OTH COMB	BAIT	LURE	OTH	COMB
Campbell River	559	53.7	24.3	5.8	2.7	-	2.3	-	6.5	.2	4.5	60.4	26.8	.9	11.9
Chemainus	36	69.4	-	-	-	-	5.6	-	16.7	2.8	5.5	19.4	30.6	-	50.0
Central Comox	186	53.5	3.8	20.0	-	1.1	10.8	-	.5	2.2	8.1	18.5	73.4	-	8.1
North Comox	146	73.8	1.4	8.3	-	-	.7	-	-	7.6	8.2	6.2	88.3	-	5.5
South Comox															
Cowichan Bay	124	30.9	26.8	1.6	-	1.6	1.6	1.6	13.8	11.3	10.8	27.9	41.0	.8	30.3
Delta	50	79.6	8.2	-	-	4.1	-	-	6.1	2.0	-	34.0	34.0	-	32.0
Egmont															
Gibson's Landing	50	24.0	60.0	-	-	12.0	-	-	4.0	-	-	59.4	37.5	-	3.1
Ladysmith	65	76.9	3.1	-	-	-	-	1.5	12.3	4.6	1.6	20.6	36.5	-	42.9
Lund	7	28.6	14.3	-	-	-	-	-	-	42.9	14.2	33.3	66.7	-	-
Nanaimo	139	47.1	2.2	9.4	.7	2.9	5.1	-	4.3	12.3	16.0	16.3	51.1	-	32.6
Pender Harbour	115	16.5	73.9	-	-	1.7	-	.9	5.2	.9	.9	77.1	21.0	-	1.9
Powell River	78	46.2	1.3	10.3	-	-	2.6	-	1.3	21.8	16.5	5.2	77.9	-	16.9
Qualicum North	124	73.4	1.6	1.6	4.0	-	3.2	.8	4.8	4.0	6.6	16.3	62.6	-	21.1
Qualicum South	221	62.9	2.7	2.7	.5	-	2.7	3.2	4.1	15.0	6.2	15.5	58.9	-	25.6
Richmond	98	78.6	10.2	-	-	-	1.0	-	6.1	2.0	2.1	36.7	42.9	1.0	19.4
Saanich Inlet	356	38.2	8.2	2.8	4.0	.6	5.7	4.5	4.2	17.2	14.6	15.4	43.8	.6	40.2
Sooke	289	40.5	1.7	3.1	.3	-	3.1	.7	1.4	37.0	12.2	17.8	22.4	.3	59.5
Vancouver	154	52.0	20.0	-	-	-	-	-	9.3	13.3	5.4	52.9	15.4	-	31.7
West Vancouver	322	35.4	33.1	1.0	-	-	.6	-	20.4	2.2	7.3	58.1	18.4	-	23.5
Victoria	164	36.8	8.0	1.2	-	-	22.1	-	1.8	14.8	15.3	14.9	58.4	-	26.7
Sidney	54	35.2	14.8	3.7	-	-	18.5	3.7	1.9	14.8	7.4	22.2	46.3	1.9	29.6
Total	3,337	48.8	15.4	4.2	1.1	.1	4.1	1.0	6.3	9.8	9.2	32.6	41.3	.3	25.8

Legend: TR - trolling MO - mooching CA - casting PL - planing DR - downrigger JI - jigging OTH - other single OTH COMB - other combination
COMB - combination

TR/DR or PL - includes TR/DR, DR/PL, TR/PL and TR/DR/PL.

4-0

TABLE Q-4: FISHING METHOD AND TACKLE SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, OCTOBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution													
		Fishing Method									Fishing Tackle				
		TR	MO	CA	PL	DR	JI	OTH	TR/MO	TR/DR or PL	OTH COMB	BAIT	LURE	OTH	COMB
Campbell River	179	52.0	27.9	3.4	2.8	-	.6	-	9.5	1.1	2.4	59.2	32.4	.6	7.8
Chemainus															
Central Comox	46	37.0	-	37.0	-	-	4.3	-	2.2	-	19.5	8.7	84.8	-	7.5
North Comox	5	80.0	-	-	-	-	-	-	-	20.0	-	-	100.0	-	-
South Comox															
Cowichan Bay	6	50.0	-	16.7	-	-	-	16.7	-	16.6	-	-	100.0	-	-
Delta															
Egmont															
Gibson's Landing	23	30.4	69.6	-	-	-	-	-	-	-	-	100.0	-	-	-
Ladysmith															
Lund															
Nanaimo	301	58.5	1.0	4.3	-	.7	3.7	4.0	3.7	16.4	-	21.6	50.0	.7	27.7
Pender Harbour	67	16.7	72.7	1.5	1.5	1.5	1.5	-	3.0	-	1.6	76.6	17.2	-	6.2
Powell River	113	31.0	3.5	8.0	.9	.9	.9	-	.9	33.6	20.3	10.6	76.1	-	13.3
Qualicum North															
Qualicum South	94	58.5	1.1	1.1	-	-	-	2.1	10.6	20.2	6.4	5.4	46.2	-	48.4
Richmond	21	76.2	-	-	-	4.8	-	-	4.8	9.5	4.7	23.8	33.3	-	42.9
Saanich Inlet	319	45.1	5.0	4.1	4.4	2.2	7.3	-	3.2	14.2	14.5	11.9	54.2	-	33.9
Sooke	588	44.8	6.6	4.1	-	2.9	9.5	.9	3.7	20.2	7.3	46.8	46.8	.5	5.9
Vancouver	28	71.4	21.4	-	-	-	-	-	3.6	3.6	-	32.1	32.1	-	35.8
West Vancouver	166	32.1	38.4	-	-	-	7.5	-	19.5	-	2.5	19.5	19.5	-	61.0
Victoria	132	37.1	6.8	4.5	.8	3.8	17.4	-	4.5	9.8	15.3	14.7	58.9	.8	25.6
Sidney	41	57.5	10.0	-	-	-	12.5	5.0	2.5	10.0	2.5	19.5	56.1	-	24.4
Total	2,129	45.6	12.2	4.3	1.0	1.6	6.4	1.0	5.4	13.3	9.2	26.0	47.2	.3	26.5

Legend: TR - trolling MO - mooching CA - casting PL - planing DR - downrigger JI - jigging OTH - other single OTH COMB - other combination
COMB - combination

TR/DR or PL - includes TR/DR, DR/PL, TR/PL and TR/DR/PL.

C-5

TABLE Q-5 FISHING METHOD AND TACKLE SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, NOVEMBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution													
		Fishing Method									Fishing Tackle				
		TR	MO	CA	PL	DR	JI	OTH	TR/MO	TR/DR or PL	OTH COMB	BAIT	LURE	OTH	COMB
Campbell River	16	37.5	12.5	18.8	-	-	-	-	12.5	12.6	6.1	12.5	75.0	-	12.5
Chemainus															
Central Comox	38	10.5	7.9	44.7	-	-	-	-	2.6	-	34.3	15.8	55.3	-	28.9
North Comox															
South Comox															
Cowichan Bay	32	16.1	3.2	61.3	-	-	3.2	6.5	-	-	9.7	12.9	80.6	-	6.5
Delta															
Egmont															
Gibson's Landing															
Ladysmith															
Lund															
Nanaimo	41	17.1	2.4	2.4	-	2.4	2.4	-	-	68.3	5.0	19.5	73.2	-	7.3
Pender Harbour	43	16.7	78.6	-	-	-	-	-	2.4	2.3	-	81.0	14.3	-	4.7
Powell River	12	16.7	-	-	-	-	-	-	-	83.3	-	-	83.3	-	16.7
Qualicum North															
Qualicum South	6	-	-	-	-	-	-	-	-	66.7	33.3	-	16.7	-	83.3
Richmond															
Saanich Inlet	93	33.3	-	1.1	17.2	3.2	8.6	2.2	-	28.0	6.4	7.5	54.8	2.2	35.5
Sooke	99	33.3	1.0	1.0	1.0	13.1	5.1	3.0	-	39.4	3.1	12.1	58.6	2.0	27.3
Vancouver	44	31.8	29.5	-	-	-	11.4	4.5	9.1	-	13.7	59.1	38.6	-	2.3
West Vancouver	57	28.1	-	-	-	-	-	-	1.8	-	70.1	94.7	3.5	-	1.8
Victoria	28	35.7	-	-	-	3.6	7.1	3.6	-	32.1	17.9	14.3	46.4	3.6	35.7
Sidney	24	12.5	16.7	-	-	16.7	12.5	4.2	-	33.3	4.1	8.3	62.5	4.2	25.0
Total	533	26.0	18.6	7.9	3.2	4.1	4.7	2.1	1.7	23.9	7.8	29.9	49.2	1.1	19.8

Legend: TR - trolling MO - mooching CA - casting PL - planing DR - downrigger JI - jigging OTH - other single OTH COMB - other combination COMB - combination

TR/DR or PL - includes TR/DR, DR/PL, TR/PL and TR/DR/PL.

10-9

TABLE Q-6: FISHING METHOD AND TACKLE SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, DECEMBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution													
		Fishing Method								Fishing Tackle					
		TR	MO	CA	PL	DR	JI	OTH	TR/MO	TR/DR or PL	OTH COMB	BAIT	LURE	OTH	COMB
Campbell River	16	81.3	-	-	-	-	-	-	6.3	-	12.4	-	81.3	-	18.7
Chemainus															
Central Comox	11	-	36.4	45.5	-	-	-	-	9.1	-	9.0	36.4	45.5	-	18.1
North Comox															
South Comox															
Cowichan Bay	8	75.0	-	-	-	-	-	-	-	25.0	-	-	100.0	-	-
Delta															
Egmont															
Gibson's Landing															
Ladysmith															
Lund															
Nanaimo	51	26.0	-	4.0	-	-	-	4.0	-	60.0	6.0	8.0	86.0	-	6.0
Pender Harbour	31	-	100.0	-	-	-	-	-	-	-	-	100.0	-	-	-
Powell River	7	57.1	-	-	-	14.3	-	-	-	-	28.6	-	71.4	-	28.6
Qualicum North															
Qualicum South															
Richmond															
Saanich Inlet	70	20.0	-	-	14.3	4.3	5.7	-	-	45.7	10.0	7.1	54.3	-	38.6
Sooke	116	38.8	.9	1.7	-	13.8	.9	6.0	-	35.3	2.6	13.4	52.7	3.6	30.3
Vancouver	13	46.2	53.8	-	-	-	-	-	-	-	-	61.5	30.8	-	7.7
West Vancouver	46	17.4	82.6	-	-	-	-	-	-	-	-	97.8	2.2	-	-
Victoria	33	30.3	3.0	-	3.0	18.2	-	-	-	36.4	9.1	3.0	72.7	-	24.3
Sidney	5	20.0	-	-	-	20.0	20.0	-	-	20.0	20.0	20.0	60.0	-	20.0
Total	407	29.6	20.2	2.2	2.7	6.7	1.5	2.2	.5	29.1	5.3	28.4	50.5	1.0	21.1

Legend: TR - trolling MO - mooching CA - casting PL - planing DR - downrigger JI - jigging OTH - other single OTH COMB - other combination
COMB - combination

TR/DR or PL - includes TR/DR, DR/PL, TR/PL and TR/DR/PL.

Q-7

TABLE Q-7: FISHING METHOD AND TACKLE SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JANUARY 1981

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution													
		Fishing Method									Fishing Tackle				
		TR	MO	CA	PL	DR	JI	OTH	TR/MO	TR/DR or PL	OTH COMB	BAIT	LURE	OTH	COMB
Campbell River	33	81.8	-	-	-	-	-	-	3.0	12.1	3.1	9.1	72.7	-	18.2
Chemainus															
Central Comox	38	34.2	-	31.6	-	-	-	-	2.6	-	31.6	7.9	65.8	-	26.3
North Comox															
South Comox															
Cowichan Bay	61	37.7	9.8	-	-	-	1.6	1.6	4.9	31.2	13.2	13.3	71.7	1.7	13.3
Delta															
Egmont															
Gibson's Landing															
Ladysmith	33	39.4	-	-	-	-	-	-	6.1	45.5	9.0	3.0	78.8	-	18.2 ⁰⁰
Lund															
Nanaimo	95	45.2	-	1.1	-	6.5	1.1	-	1.1	43.0	2.0	8.6	77.4	-	14.0
Pender Harbour	38	18.4	73.7	-	-	-	2.6	-	-	-	5.3	81.1	13.5	-	5.4
Powell River	9	66.7	-	11.1	-	-	-	-	-	11.1	11.1	-	88.9	-	11.1
Qualicum North															
Qualicum South	8	50.0	-	-	-	-	12.5	-	25.0	12.5	-	-	75.0	-	25.0
Richmond															
Saanich Inlet	230	31.0	-	4.4	7.4	3.5	8.3	.9	.4	38.0	6.1	13.1	49.8	1.3	35.8
Sooke	239	33.5	1.3	.8	.8	9.2	3.3	1.3	.8	43.5	5.5	17.3	43.5	.8	38.4
Vancouver	85	21.4	76.2	-	-	-	-	2.4	-	-	-	94.0	6.0	-	-
West Vancouver	98	13.4	86.6	-	-	-	-	-	-	-	-	97.9	2.1	-	-
Victoria	98	33.7	-	-	-	6.1	2.0	-	1.0	50.0	7.2	15.3	42.9	-	41.8
Sidney	58	27.6	3.4	1.7	-	22.4	1.7	1.7	-	37.9	3.6	31.6	33.3	1.8	33.3
Total	1,123	32.7	16.7	2.4	1.7	4.9	3.0	.8	1.3	30.7	5.8	29.7	44.4	.6	25.3

Legend: TR - trolling MO - mooching CA - casting PL - planing DR - downrigger JI - jigging OTH - other single OTH COMB - other combination
COMB - combination

TR/DR or PL - includes TR/DR, DR/PL, TR/PL and TR/DR/PL.

TABLE Q-8: FISHING METHOD AND TACKLE SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, FEBRUARY 1981

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution													
		Fishing Method									Fishing Tackle				
		TR	MO	CA	PL	DR	JI	OTH	TR/MO	TR/DR or PL	OTH COMB	BAIT	LURE	OTH	COMB
Campbell River Chemainus	27	81.5	-	-	-	-	-	-	11.1	-	7.4	22.2	55.6	-	22.2
Central Comox North Comox South Comox	21	40.0	-	20.0	-	-	-	-	-	-	40.0	15.0	75.0	-	10.0
Cowichan Bay Delta Egmont Gibson's Landing	26	7.7	11.5	3.8	-	-	34.6	3.8	-	19.2	19.4	19.2	69.2	3.8	7.8
Ladysmith Lund	26	28.0	8.0	4.0	-	-	12.0	-	8.0	32.0	8.0	-	92.0	-	8.0
Nanaimo Pender Harbour	87 42	28.7 9.5	1.1 83.5	3.4 -	- -	- -	2.3 -	1.1 2.4	- 4.8	62.1 -	1.3 -	19.5 87.8	58.6 7.3	1.1 2.4	20.8 2.5
Powell River Qualicum North Qualicum South	4 10	50.0 50.0	- -	- -	- -	- -	- -	- -	- -	50.0 50.0	- -	- 20.0	100.0 50.0	- -	- 30.0
Richmond Saanich Inlet Sooke	198 182	29.6 62.1	2.6 -	3.1 1.1	11.7 -	2.6 4.4	7.1 2.2	.5 .5	1.0 .5	33.7 25.8	8.1 3.4	14.2 25.9	38.6 50.0	.5 -	46.7 24.1
Vancouver West Vancouver	68 83	58.8 19.3	38.2 78.3	- 2.4	- -	- -	- -	2.9 -	- -	- -	.1 -	95.6 100.0	4.4 -	- -	- -
Victoria Sidney	120 51	48.3 33.3	1.7 6.3	- -	- -	9.2 4.2	5.8 14.6	.8 8.3	- 2.1	32.5 25.0	1.7 6.2	21.6 22.9	37.9 47.9	.9 8.3	39.6 20.9
Total	945	40.1	15.1	2.0	2.5	2.8	4.9	1.3	1.2	25.3	4.8	35.2	39.6	1.0	24.2

Legend: TR - trolling MO - mooching CA - casting PL - planing DR - downrigger JI - jigging OTH - other single OTH COMB - other combination
COMB - combination

TR/DR or PL - includes TR/DR, DR/PL, TR/PL and TR/DR/PL.

TABLE Q-9: FISHING METHOD AND TACKLE SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, MARCH 1981

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution													
		Fishing Method									Fishing Tackle				
		TR	MO	CA	PL	DR	JI	OTH	TR/MO	TR/DR or PL	OTH COMB	BAIT	LURE	OTH	COMB
Campbell River	22	81.8	4.5	4.5	-	-	-	-	4.5	-	4.7	18.2	68.2	-	13.6
Chemainus															
Central Comox	13	50.0	16.7	16.7	-	-	-	8.3	-	-	8.3	15.4	69.2	7.7	15.4
North Comox															
South Comox															
Cowichan Bay	18	66.7	11.1	-	-	-	11.1	-	5.6	-	5.5	23.5	52.9	-	23.6
Delta															
Egmont															
Gibson's Landing															
Ladysmith	5	80.0	-	-	-	-	20.0	-	-	-	-	-	80.0	-	20.0
Lund															
Nanaimo	85	98.4	-	1.2	-	-	-	1.2	-	2.4	5.8	8.3	63.1	1.2	27.4
Pender Harbour	46	45.7	52.1	-	-	-	-	-	-	2.2	-	54.3	41.3	-	4.4
Powell River	3	66.7	-	-	-	-	-	-	-	-	33.3	-	100.0	-	-
Qualicum North															
Qualicum South	15	93.3	6.7	-	-	-	-	-	-	-	-	-	71.4	-	28.6
Richmond															
Saanich Inlet	183	48.3	1.1	1.1	13.9	-	6.7	1.7	-	20.0	7.2	19.4	33.9	1.7	45.0
Sooke	164	85.4	1.8	-	.6	-	6.1	-	.6	.6	4.9	48.1	26.0	-	25.9
Vancouver	58	56.9	34.5	-	-	-	1.7	-	6.9	-	-	69.0	5.2	5.2	25.8
West Vancouver	107	24.3	72.9	.9	-	-	-	-	1.9	-	-	69.0	5.2	-	25.8
Victoria	61	68.3	-	3.3	-	-	15.0	-	-	-	13.4	37.5	39.3	-	23.2
Sidney	25	56.0	-	-	-	-	28.0	4.0	-	-	12.0	24.0	62.0	4.0	20.0
Total	805	61.8	16.6	1.1	3.3	-	5.3	.7	1.1	4.9	5.2	41.3	33.4	.8	24.5

Legend: TR - trolling MO - mooching CA - casting PL - planing DR - downrigger JI - jigging OTH - other single OTH COMB - other combination
COMB - combination

TR/DR or PL - includes TR/DR, DR/PL, TR/PL and TR/DR/PL.

Q-10

TABLE Q-10: FISHING METHOD AND TACKLE SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, APRIL 1981

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution													
		Fishing Method									Fishing Tackle				
		TR	MO	CA	PL	DR	JI	OTH	TR/MO	TR/DR or PL	OTH COMB	BAIT	LURE	OTH	COMB
Campbell River	46	67.4	8.7	-	-	-	10.9	-	8.7	-	4.3	18.2	72.7	-	9.1
Chemainus															
Central Comox	52	75.0	-	3.8	-	3.8	-	-	-	3.8	13.6	4.2	91.7	-	4.1
North Comox															
South Comox															
Cowichan Bay	12	50.0	-	-	-	-	41.7	8.3	-	-	-	33.3	58.3	8.3	.1
Delta															
Egmont															
Gibson's Landing															
Ladysmith	5	80.0	-	-	-	-	-	-	-	-	20.0	-	60.0	-	40.0
Lund															
Nanaimo	71	68.6	-	2.9	-	-	4.3	1.4	1.4	12.8	8.6	4.2	60.6	-	35.2
Pender Harbour	60	68.3	25.0	-	-	5.0	-	1.7	-	-	-	30.0	68.3	1.7	-
Powell River	8	62.5	-	-	-	-	-	-	-	-	37.5	-	100.0	-	-
Qualicum North															
Qualicum South	20	85.0	-	-	-	-	-	-	5.0	10.0	-	-	55.0	-	45.0
Richmond															
Saanich Inlet	95	31.5	1.1	2.2	16.3	-	10.9	-	1.1	32.6	4.3	18.5	43.5	-	38.0
Sooke	242	68.2	1.7	-	-	.4	11.6	.4	.8	7.8	9.1	39.5	33.6	-	26.9
Vancouver	29	62.1	27.6	-	-	-	3.4	-	3.4	-	3.5	65.5	27.6	-	6.9
West Vancouver	65	34.9	65.1	-	-	-	-	-	-	-	-	100.0	-	-	-
Victoria	11	20.0	-	-	-	-	50.0	-	10.0	10.0	10.0	57.1	42.9	-	-
Sidney	17	23.5	-	-	-	-	23.5	5.9	-	5.9	41.2	33.3	20.0	20.0	26.7
Total	733	59.4	10.1	.8	2.1	.4	8.4	.7	1.5	8.6	8.0	33.3	45.4	.7	20.6

Legend: TR - trolling MO - mooching CA - casting PL - planing DR - downrigger JI - jigging OTH - other single OTH COMB - other combination
COMB - combination

TR/DR or PL - includes TR/DR, DR/PL, TR/PL and TR/DR/PL.

O-11

TABLE Q-11: FISHING METHOD AND TACKLE SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, MAY 1981

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution													
		Fishing Method									Fishing Tackle				
		TR	MO	CA	PL	DR	JI	OTH	TR/MO	TR/DR or PL	OTH COMB	BAIT	LURE	OTH	COMB
Campbell River	394	34.6	34.1	.5	5.1	.3	5.1	1.0	4.8	10.6	3.9	52.0	39.0	1.3	7.7
Chemainus															
Central Comox	293	47.1	-	14.3	1.7	.7	1.0	.3	-	18.9	16.0	3.3	88.8	.4	7.5
North Comox	196	92.9	-	-	-	.5	.5	.5	-	.5	5.1	.5	99.0	.5	-
South Comox															
Cowichan Bay	31	54.8	9.7	-	-	-	22.6	3.2	-	-	9.7	16.1	64.5	3.2	16.2
Delta															
Egmont															
Gibson's Landing	28	17.9	71.4	-	-	-	-	-	3.6	7.1	-	92.9	7.1	-	-
Ladysmith	2	50.0	-	-	-	-	50.0	-	-	-	-	-	50.0	-	50.0
Lund	12	81.8	-	-	-	-	9.1	-	-	9.1	-	9.1	63.6	9.1	18.2
Nanaimo	122	63.9	4.1	-	-	.8	3.3	2.5	.8	18.9	5.7	6.6	78.7	2.5	12.2
Pender Harbour	62	45.7	39.0	-	-	8.5	1.7	-	5.1	-	-	75.9	22.4	-	1.7
Powell River	93	71.0	7.5	2.2	1.1	2.2	1.1	2.2	1.1	7.6	4.0	17.8	71.1	6.7	4.4
Qualicum North	63	66.1	-	-	1.6	-	-	-	-	27.4	4.9	1.7	90.0	-	8.3
Qualicum South	549	82.6	.4	-	-	-	.7	-	-	15.6	.7	1.3	94.5	-	4.2
Richmond															
Saanich Inlet	320	31.9	.9	.6	2.2	1.9	4.1	.6	.3	45.6	11.9	40.7	27.6	.6	31.1
Sooke	505	73.3	2.0	.4	-	3.4	3.2	.4	3.4	8.4	5.5	37.0	23.2	.2	39.6
Vancouver	107	62.3	24.5	-	-	2.8	.9	.9	8.5	-	.1	15.1	20.8	-	63.2
West Vancouver	325	45.0	39.0	.3	.3	1.3	-	.9	11.0	1.3	.9	3.5	8.5	.9	87.1
Victoria	149	42.3	2.7	1.3	-	1.3	15.4	.7	3.4	11.4	21.5	39.5	44.2	-	16.3
Sidney	136	22.8	5.9	.7	-	1.5	33.1	1.5	-	12.5	22.0	31.1	52.3	1.5	15.1
Total	3,387	57.2	11.0	1.6	1.0	1.4	4.2	.7	2.7	13.7	6.5	30.2	52.6	.8	16.4

Legend: TR - trolling MO - mooching CA - casting PL - planing DR - downrigger JI - jigging OTH - other single OTH COMB - other combination
COMB - combination

TR/DR or PL - includes TR/DR, DR/PL, TR/PL and TR/DR/PL.

Q-12

TABLE Q-12: FISHING METHOD AND TACKLE SUMMARY FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JUNE 1981

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution													
		Fishing Method									Fishing Tackle				
		TR	MO	CA	PL	DR	Jl'	OTH	TR/MO	TR/DR or PL	OTH COMB	BAIT	LURE	OTH	COMB
Campbell River	572	49.6	23.2	.7	3.2	1.6	2.5	.5	7.4	8.0	3.8	51.7	35.8	-	12.5
Chemainus	74	46.6	8.2	1.4	-	4.1	11.0	-	1.4	24.7	2.6	29.4	47.1	-	23.5
Central Comox	406	39.7	-	4.7	3.7	-	5.0	-	-	38.9	8.0	3.5	78.7	-	17.8
North Comox	601	94.5	.2	-	.2	-	1.7	-	.5	.2	2.7	1.3	97.2	-	1.5
South Comox															
Cowichan Bay	66	40.0	33.8	-	-	-	13.8	1.5	3.1	6.2	1.6	40.3	43.5	1.6	14.6
Delta	18	55.5	22.2	-	-	-	5.6	-	16.7	-	-	55.6	27.8	-	16.6
Egmont															
Gibson's Landing	81	19.0	75.9	-	-	-	-	-	5.1	-	-	94.0	1.5	-	4.5 ⁰
Ladysmith	35	82.4	-	-	-	2.9	2.9	-	5.9	2.9	3.0	23.5	38.2	-	38.3 ⁰
Lund	34	82.4	2.9	2.9	2.9	2.9	-	-	-	5.9	.1	2.9	85.3	2.9	8.9
Nanaimo	213	73.9	3.8	-	.5	.9	2.8	.5	.9	10.0	6.7	21.4	62.9	.5	15.2
Pender Harbour	91	47.2	46.2	-	-	-	-	-	5.5	1.1	-	69.2	27.5	-	3.3
Powell River	222	79.2	1.4	-	-	.9	1.4	-	1.4	13.7	2.0	3.2	83.6	5.5	13.2
Qualicum North	158	84.8	-	-	-	-	-	.6	-	12.7	1.9	-	97.5	-	2.5
Qualicum South	343	85.7	.9	-	-	-	1.5	.3	.9	8.8	1.9	1.8	93.6	.3	4.3
Richmond	64	68.8	10.9	-	-	-	-	-	18.8	-	1.5	37.5	25.0	-	37.5
Saanich Inlet	262	43.5	-	.4	.4	-	6.5	-	1.1	37.0	11.1	27.4	25.1	-	47.5
Sooke	818	55.0	.7	.5	-	.1	3.8	.2	1.8	30.4	7.5	58.9	7.6	.2	33.3
Vancouver	73	69.9	21.9	-	-	1.4	-	-	4.1	1.4	1.3	64.4	21.9	-	13.7
West Vancouver	392	34.5	48.9	-	.5	2.6	.3	.3	11.8	1.1	-	76.6	12.1	-	11.3
Victoria	130	38.5	3.1	-	-	-	27.7	.8	2.3	10.8	16.8	15.7	44.9	.8	38.6
Sidney	67	16.4	4.5	1.5	-	-	37.3	1.5	3.0	20.9	14.9	17.9	58.2	1.5	22.4
Total	4,720	59.7	10.7	.7	.8	.6	4.0	.3	3.3	15.1	4.8	32.4	49.9	.4	17.3

Legend: TR - trolling MO - mooching CA - casting PL - planing DR - downrigger JI - jigging OTH - other single OTH COMB - other combination
COMB - combination

TR/DR or PL - includes TR/DR, DR/PL, TR/PL and TR/DR/PL.

APPENDIX R

DISTRIBUTIONS OF SALMONID CATCH FROM
GEORGIA STRAIT CREEL SURVEY RAW DATA

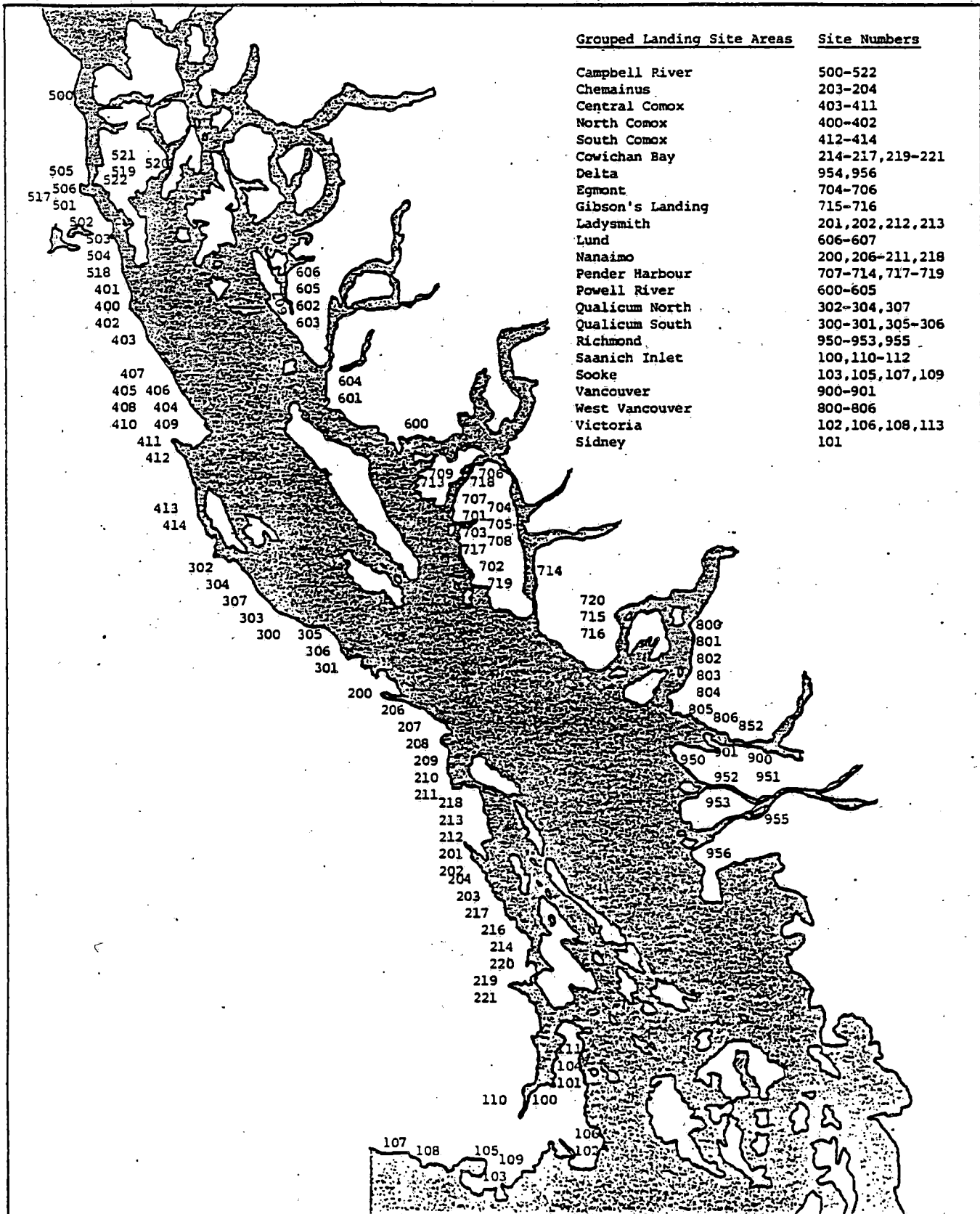


TABLE R-1: DISTRIBUTION OF SALMONID CATCH FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JULY 1980

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution Total Salmonid in Creel													% of Boat Trips With Limit of Salmonids (1)
		0	1	2	3	4	5	6	7	8	9	10	11	12+	
Campbell River	2,229	36.4	21.4	13.2	9.7	7.7	3.6	2.7	1.8	2.1	.4	.4	.1	.5	2.6
Chemainus Area	166	57.3	10.9	9.6	8.4	4.2	2.4	2.4	.6	3.0	-	.6	-	.6	3.6
Central Comox	824	45.2	22.2	13.5	6.8	4.7	1.8	1.9	1.3	1.8	.1	.4	-	.3	2.7
North Comox	630	27.4	19.1	19.3	12.6	9.1	2.9	3.2	2.5	2.4	.3	-	.3	.9	2.7
South Comox	65	30.8	20.0	16.9	9.2	12.3	1.5	4.6	1.5	1.5	1.5	-	-	-	1.5
Cowichan Bay	224	72.8	16.1	5.4	2.7	1.3	.4	.4	-	.4	-	.4	-	-	-
Delta	159	51.6	18.9	11.9	6.3	3.8	1.9	1.3	2.5	1.3	-	.6	-	-	2.5
Egmont	159	81.1	10.1	2.5	3.1	1.3	-	.6	.6	-	.6	-	-	-	.6
Gibson's Landing	139	70.5	11.5	7.2	4.3	2.9	1.4	.7	-	-	.7	-	-	.7	.7
Ladysmith	124	59.7	15.3	6.5	6.5	4.8	2.4	1.6	.8	2.4	-	-	-	-	4.8
Lund	139	61.9	18.7	7.2	6.5	2.9	.7	.7	-	1.4	-	-	-	-	2.9
Nanaimo	962	36.8	20.5	13.9	9.7	6.4	3.5	2.6	2.9	2.7	.3	-	.1	.5	3.8
Pender Harbour	848	47.7	17.2	9.6	7.0	5.7	2.2	3.0	2.0	2.6	.2	.5	-	2.3	3.0
Powell River	790	48.9	18.4	13.9	7.2	5.3	1.8	2.4	.6	.9	.3	.1	-	.3	1.6
Qualicum North	430	49.8	18.1	11.2	7.7	6.0	1.9	.7	2.6	1.9	-	-	.2	-	3.7
Qualicum South	923	38.2	18.0	15.2	8.2	6.6	4.1	2.8	1.4	3.6	.5	.4	.1	.9	4.8
Richmond	136	61.1	19.9	5.1	6.6	3.7	1.5	.7	.7	.7	-	-	-	-	2.2
Saanich Inlet	647	69.8	17.9	5.1	3.9	1.9	.6	.5	.3	-	-	-	-	-	.5
Sooke	1,047	54.6	20.6	11.3	6.5	3.2	1.3	1.1	.7	.6	-	-	-	.1	1.9
Vancouver	235	53.9	19.6	8.9	6.4	3.0	2.6	1.7	.9	2.6	.4	-	-	-	3.4
West Vancouver	1,047	70.0	17.7	6.0	2.8	1.1	1.1	.3	.3	.4	.1	-	-	.2	.8
Victoria	382	72.3	19.7	2.9	1.6	1.6	.8	.3	.3	.5	-	-	-	-	1.2
Sidney	212	76.4	12.7	6.1	1.9	-	-	.9	.5	.9	.5	-	-	-	.9
Total	12,517	49.6	19.0	11.1	7.1	5.0	2.3	1.9	1.3	1.7	.2	.2	.1	.5	2.4

(1) Refers to % of boat trips where the number of Salmonids in creel was equal to or greater than four per person.

TABLE R-2: DISTRIBUTION OF SALMONID CATCH FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, AUGUST 1980

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution Total Salmonid in Creel													% of Boat Trips With Limit of Salmonids (1)
		0	1	2	3	4	5	6	7	8	9	10	11	12+	
Campbell River	1,834	39.2	24.2	14.6	8.2	6.6	2.7	1.8	.8	1.4	.1	.1	.1	.3	1.9
Chemainus Area	107	64.5	17.8	7.5	2.8	2.8	3.7	.9	-	-	-	-	-	-	-
Central Comox	630	54.8	20.0	11.1	5.9	5.1	.8	1.6	.5	.2	-	-	-	-	1.9
North Comox	639	41.2	23.6	15.5	7.7	4.7	2.2	1.3	.9	1.3	.2	.8	.3	.6	2.7
South Comox	63	50.8	19.0	7.9	14.3	1.6	-	4.8	1.6	-	-	-	-	-	1.6
Cowichan Bay	260	74.6	13.1	6.2	3.8	1.9	-	-	.4	-	-	-	-	-	-
Delta	285	16.1	18.2	9.8	5.3	2.5	.7	1.4	.7	-	-	-	-	.4	-
Egmont	116	88.7	9.6	.9	.9	-	-	-	-	-	-	-	-	-	-
Gibson's Landing	65	50.8	23.1	7.7	10.8	6.2	-	1.5	-	-	-	-	-	-	3.1
Ladysmith	118	75.4	14.4	3.4	2.5	.8	2.5	.8	-	-	-	-	-	-	-
Lund	38	50.0	21.1	23.7	-	5.3	-	-	-	-	-	-	-	-	-
Nanaimo	585	56.9	25.5	8.7	3.9	2.9	.3	.9	.5	.2	.2	-	-	-	1.4
Pender Harbour	771	61.5	13.7	9.6	3.5	3.8	2.5	1.2	1.0	1.7	.3	.1	.1	1.0	1.4
Powell River	475	58.3	21.7	9.1	4.6	2.3	1.7	.6	-	.8	.4	-	-	.4	1.5
Qualicum North	503	58.4	19.1	10.9	6.0	3.6	1.4	.2	-	.4	-	-	-	-	1.0
Qualicum South	584	49.0	23.5	13.0	7.0	2.1	1.2	1.2	1.0	1.5	-	.2	-	.4	1.9
Richmond	136	57.4	22.8	9.6	5.9	2.2	.7	1.5	-	-	-	-	-	-	.7
Saanich Inlet	587	60.5	18.6	10.2	4.3	3.2	1.0	.5	.5	.5	.2	-	.3	.2	1.9
Sooke	681	58.5	23.4	8.5	4.0	2.4	.7	.7	.4	.7	.3	.1	.1	-	2.1
Vancouver	241	49.0	19.5	11.2	9.5	5.8	.8	1.7	1.2	.8	-	-	-	.4	2.5
West Vancouver	1,031	66.1	17.7	7.0	4.3	2.6	1.0	.7	.4	.3	.1	-	-	-	.7
Victoria	309	70.6	16.2	4.5	5.5	1.3	.6	.6	.3	.3	-	-	-	-	1.0
Sidney	141	75.2	14.9	5.0	1.4	2.1	.7	-	.7	-	-	-	-	-	-
Total	10,199	55.5	20.4	10.4	5.6	3.7	1.4	1.1	.6	.8	.1	.1	.1	.2	1.5

(1) Refers to % of boat trips where the number of Salmonids in creel was equal to or greater than four per person.

TABLE R-3 : DISTRIBUTION OF SALMONID CATCH FROM GEORGIA STRAIGHT CREEL SURVEY RAW DATA, SEPTEMBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution Total Salmonid in Creel													% of Boat Trips With Limit of Salmonids (1)
		0	1	2	3	4	5	6	7	8	9	10	11	12+	
Campbell River	559	34.2	28.1	12.7	8.9	7.9	4.8	1.4	.5	.5	-	.2	.2	.6	2.3
Chemainus Area	36	52.8	19.4	22.2	2.8	-	-	-	-	2.8	-	-	-	-	2.8
Central Comox	186	68.6	16.1	5.9	4.3	2.2	1.1	.5	-	.5	-	-	-	.5	.5
North Comox	146	47.3	24.7	14.4	5.5	2.7	3.4	.7	-	.7	.7	-	-	-	2.1
South Comox															
Cowichan Bay	124	73.4	14.5	8.9	3.2	-	-	-	-	-	-	-	-	-	-
Delta	50	64.0	26.0	4.0	-	-	-	2.0	2.0	-	-	-	-	2.0	2.0
Egmont															
Gibson's Landing	50	64.0	16.0	8.0	4.0	4.0	-	2.0	-	-	2.0	-	-	-	-
Ladysmith	65	52.3	24.6	7.7	10.8	1.5	1.5	-	1.5	-	-	-	-	-	1.5
Lund	7	71.4	28.6	-	-	-	-	-	-	-	-	-	-	-	-
Nanaimo	139	51.8	32.4	8.6	5.0	1.4	.7	-	-	-	-	-	-	-	-
Pender Harbour	115	53.0	18.3	13.0	7.0	1.7	2.6	.9	-	2.6	-	-	-	.9	.9
Powell River	78	55.1	24.4	10.3	5.1	1.3	2.6	1.3	-	-	-	-	-	-	-
Qualicum North	124	54.0	26.6	8.1	4.8	1.6	2.4	1.6	.8	-	-	-	-	-	-
Qualicum South	221	53.4	24.4	9.5	6.3	2.3	.5	2.3	.9	-	-	-	-	.5	.9
Richmond	98	60.2	19.4	9.2	4.1	2.0	2.0	2.0	-	1.0	-	-	-	-	-
Saanich Inlet	356	51.1	20.8	11.0	5.9	4.5	3.1	.8	1.1	1.4	-	-	-	.3	2.5
Sooke	289	47.1	17.0	16.3	7.6	6.2	1.4	1.7	1.4	1.0	-	.3	-	-	2.1
Vancouver	154	63.8	14.5	11.8	4.6	2.0	1.3	2.0	-	-	-	-	-	-	-
West Vancouver	322	65.2	17.1	7.8	4.0	2.8	1.2	.6	-	.9	-	.3	-	-	1.2
Victoria	164	72.6	15.2	7.3	3.7	-	-	.6	-	-	-	-	-	.6	.6
Sidney	54	75.9	16.7	7.4	-	-	-	-	-	-	-	-	-	-	-
Total	3,337	54.2	21.3	10.6	5.8	3.4	2.0	1.1	.5	.6	.1	.1	-	.3	1.3

(1) Refers to % of boat trips where the number of Salmonids in creel was equal to or greater than four per person.

TABLE R-4.: DISTRIBUTION OF SALMONID CATCH FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, OCTOBER 1980

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution Total Salmonid in Creel													% of Boat Trips With Limit of Salmonids (1)
		0	1	2	3	4	5	6	7	8	9	10	11	12+	
Campbell River	179	42.5	21.8	16.8	8.4	5.0	2.8	1.1	-	1.1	-	-	-	.6	1.1
Chemainus Area															
Central Comox	46	78.3	6.5	6.5	2.2	2.2	2.2	-	-	-	-	-	-	2.2	2.2
North Comox	5	40.0	40.0	20.0	-	-	-	-	-	-	-	-	-	-	-
South Comox															
Cowichan Bay	6	50.0	33.3	16.7	-	-	-	-	-	-	-	-	-	-	-
Delta															
Egmont															
Gibson's Landing	23	78.3	8.7	8.7	-	-	4.3	-	-	-	-	-	-	-	-
Ladysmith															
Lund															
Nanaimo	301	48.2	24.3	10.6	5.3	5.3	3.3	.3	1.3	.7	.3	.3	-	-	3.7
Pender Harbour	67	74.6	17.9	4.5	1.5	1.5	-	-	-	-	-	-	-	-	-
Powell River	113	37.2	22.1	12.4	10.6	6.2	1.8	2.7	2.7	3.5	-	-	.9	-	3.5
Qualicum North															
Qualicum South	94	46.8	21.3	18.1	6.4	2.1	2.1	1.1	-	2.1	-	-	-	-	2.1
Richmond	21	61.9	28.6	4.8	4.8	-	-	-	-	-	-	-	-	-	-
Saanich Inlet	319	57.4	18.2	9.4	6.3	4.1	1.6	1.9	.6	.3	-	.3	-	-	2.5
Sooke	588	54.4	19.9	11.1	5.4	4.3	1.0	1.4	.5	1.7	-	-	.2	.2	3.1
Vancouver	28	75.0	17.9	7.1	-	-	-	-	-	-	-	-	-	-	-
West Vancouver	166	80.0	12.0	5.4	1.8	-	-	-	-	-	-	-	-	-	-
Victoria	132	79.5	15.2	1.5	2.3	1.5	-	-	-	-	-	-	-	-	.8
Sidney	41	82.9	4.9	12.2	-	-	-	-	-	-	-	-	-	-	-
Total	2,129	57.6	19.1	10.1	5.2	3.6	1.5	1.0	.6	.9	.1	.1	.1	.1	2.2

(1) Refers to % of boat trips where the number of Salmonids in creel was equal to or greater than four per person.

TABLE R-5: DISTRIBUTION OF SALMONID CATCH FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, NOVEMBER, 1980

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution Total Salmonid in Creel												% of Boat Trips With Limit of Salmonids (1)	
		0	1	2	3	4	5	6	7	8	9	10	11		12+
Campbell River	16	62.5	31.3	-	6.3	-	-	-	-	-	-	-	-	-	-
Chemainus Area															
Central Comox	38	73.7	10.5	2.6	10.5	2.6	-	-	-	-	-	-	-	-	-
North Comox															
South Comox															
Cowichan Bay	32	46.9	3.1	15.6	9.4	6.3	6.3	6.3	-	6.3	-	-	-	-	9.4
Delta															
Egmont															
Gibson's Landing															
Ladysmith															
Lund															
Nanaimo	41	34.1	26.8	12.2	2.4	7.3	-	4.9	-	12.2	-	-	-	-	17.1
Pender Harbour	43	39.5	30.2	14.0	2.3	11.6	2.3	-	-	-	-	-	-	-	2.3
Powell River	12	41.7	16.7	33.3	-	-	-	-	-	8.3	-	-	-	-	8.3
Qualicum North															
Qualicum South	6	66.7	16.7	-	16.7	-	-	-	-	-	-	-	-	-	-
Richmond															
Saanich Inlet	93	48.4	17.2	7.5	7.5	6.5	4.3	-	1.1	4.3	-	1.1	-	2.2	7.5
Sooke	99	42.4	17.2	11.1	10.1	7.1	7.1	1.0	-	2.0	-	2.0	-	-	6.0
Vancouver	44	68.2	15.9	6.8	4.5	4.5	-	-	-	-	-	-	-	-	-
West Vancouver	57	57.9	28.1	3.5	3.5	5.3	-	-	-	1.8	-	-	-	-	5.3
Victoria	28	32.1	17.9	14.3	10.7	14.3	3.6	-	-	7.1	-	-	-	-	10.7
Sidney	24	79.2	4.2	12.5	4.2	-	-	-	-	-	-	-	-	-	-
Total	533	50.8	18.6	8.8	7.5	6.2	2.8	.9	.2	3.2	-	.6	-	.4	5.8

(1) Refers to % of boat trips where the number of Salmonids in creel was equal to or greater than four per person.

TABLE R-6: DISTRIBUTION OF SALMONID CATCH FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, DECEMBER, 1980

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution Total Salmonid in Creel													% of Boat Trips With Limit of Salmonids (1)
		0	1	2	3	4	5	6	7	8	9	10	11	12+	
Campbell River	16	43.8	18.8	12.5	6.3	6.3	-	-	6.3	6.3	-	-	-	-	-
Chemainus Area															
Central Comox	11	27.3	36.4	27.3	-	9.1	-	-	-	-	-	-	-	-	-
North Comox															
South Comox															
Cowichan Bay	8	12.5	12.5	25.0	37.5	12.5	-	-	-	-	-	-	-	-	-
Delta															
Egmont															
Gibson's Landing															
Ladysmith															
Lund															
Nanaimo	51	35.3	13.7	17.6	13.7	13.7	3.9	2.0	-	-	-	-	-	-	11.7
Pender Harbour	31	58.1	22.6	12.9	3.2	3.2	-	-	-	-	-	-	-	-	3.2
Powell River	7	42.9	28.6	14.3	-	-	-	-	-	14.3	-	-	-	-	14.3
Qualicum North															
Qualicum South															
Richmond															
Saanich Inlet	70	30.0	12.9	15.7	10.0	11.4	5.7	2.9	2.9	7.1	1.4	-	-	-	12.8
Sooke	116	46.6	18.1	9.5	13.8	6.0	2.6	.9	1.7	-	-	.9	-	-	4.3
Vancouver	13	69.2	7.7	15.4	-	-	7.7	-	-	-	-	-	-	-	-
West Vancouver	46	58.7	21.7	2.2	10.9	4.3	-	2.2	-	-	-	-	-	-	4.3
Victoria	33	33.3	21.2	21.2	9.1	9.1	-	3.0	-	3.0	-	-	-	-	6.0
Sidney	5	40.0	20.0	20.0	20.0	-	-	-	-	-	-	-	-	-	-
Total	407	42.8	17.2	13.5	10.8	7.9	2.7	1.5	1.2	2.0	.2	.2	-	-	6.4

(1) Refers to % of boat trips where the number of Salmonids in creel was equal to or greater than four per person.

TABLE R-7: DISTRIBUTION OF SALMONID CATCH FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JANUARY, 1981

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution Total Salmonid in Creel												% of Boat Trips With Limit of Salmonids (1)	
		0	1	2	3	4	5	6	7	8	9	10	11		12+
Campbell River	33	45.5	15.2	18.2	6.1	6.1	-	-	3.0	6.1	-	-	-	-	9.1
Chemainus Area															
Central Comox	38	42.1	15.8	15.8	5.3	10.5	2.6	5.3	-	2.6	-	-	-	-	5.2
North Comox															
South Comox															
Cowichan Bay	61	41.0	13.1	19.7	19.7	3.3	1.6	-	-	1.6	-	-	-	-	3.3
Delta															
Egmont															
Gibson's Landing															
Ladysmith	33	18.2	18.2	12.1	12.1	21.2	3.0	6.1	3.0	3.0	-	-	-	3.0	21.2
Lund															
Nanaimo	95	36.8	9.5	7.4	12.6	16.8	-	4.2	4.2	6.3	-	-	-	2.1	14.7
Pender Harbour	38	73.7	15.8	10.5	-	-	-	-	-	-	-	-	-	-	-
Powell River	9	44.4	11.1	22.2	11.1	11.1	-	-	-	-	-	-	-	-	-
Qualicum North															
Qualicum South	8	37.5	12.5	-	-	12.5	-	12.5	-	25.0	-	-	-	-	25.0
Richmond															
Saanich Inlet	230	38.3	16.1	13.5	9.1	6.1	5.2	3.5	1.3	5.2	.4	-	.9	.4	6.0
Sooke	239	54.8	17.6	8.4	7.9	6.3	2.5	.4	.4	1.7	-	-	-	-	4.2
Vancouver	85	64.7	15.3	4.7	7.1	4.7	2.4	1.2	-	-	-	-	-	-	1.2
West Vancouver	98	70.4	18.4	2.0	1.0	5.1	1.0	1.0	-	1.0	-	-	-	-	2.0
Victoria	98	39.8	21.4	17.3	10.2	6.1	3.1	-	-	1.0	-	-	-	1.0	5.1
Sidney	58	32.8	20.7	13.8	8.6	13.8	1.7	-	3.4	3.4	-	-	-	1.7	6.9
Total	1,123	47.5	16.5	10.9	8.4	7.6	2.5	1.8	1.1	2.9	.1	-	.2	.5	5.9

(1) Refers to % of boat trips where the number of Salmonids in creel was equal to or greater than four per person.

TABLE R-8: DISTRIBUTION OF SALMONID CATCH FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, FEBRUARY, 1981

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution Total Salmonid in Creel												% of Boat Trips With Limit of Salmonids (1)	
		0	1	2	3	4	5	6	7	8	9	10	11		12+
Campbell River	27	40.7	25.9	11.1	14.8	3.7	-	3.7	-	-	-	-	-	-	-
Chemainus Area															
Central Comox	21	71.4	9.5	14.3	4.8	-	-	-	-	-	-	-	-	-	-
North Comox															
South Comox															
Cowichan Bay	26	80.8	11.5	-	3.8	3.8	-	-	-	-	-	-	-	-	-
Delta															
Egmont															
Gibson's Landing															
Ladysmith	26	61.5	15.4	7.7	7.7	7.7	-	-	-	-	-	-	-	-	3.8
Lund															
Nanaimo	87	27.6	14.9	6.9	12.6	5.7	6.9	3.4	2.3	12.6	1.1	-	1.1	4.6	18.4
Pender Harbour	42	81.0	14.3	4.8	-	-	-	-	-	-	-	-	-	-	-
Powell River	4	25.0	25.0	25.0	25.0	-	-	-	-	-	-	-	-	-	-
Qualicum North															
Qualicum South	10	30.0	10.0	20.0	20.0	10.0	-	-	-	10.0	-	-	-	-	-
Richmond															
Saanich Inlet	198	61.1	21.2	6.6	5.6	2.5	.5	1.0	-	1.0	-	-	-	.5	1.0
Sooke	182	34.6	18.1	19.8	10.4	7.7	2.2	3.3	1.6	1.6	-	-	-	.5	6.0
Vancouver	68	70.6	14.7	7.4	5.9	-	1.5	-	-	-	-	-	-	-	-
West Vancouver	83	66.3	18.1	7.2	4.8	3.6	-	-	-	-	-	-	-	-	1.2
Victoria	120	42.5	26.7	8.3	14.2	5.0	2.5	-	-	.8	-	-	-	-	4.2
Sidney	51	66.7	13.7	5.9	7.8	2.0	-	2.0	2.0	-	-	-	-	-	1.9
Total	945	52.7	18.6	9.7	8.6	4.1	1.6	1.4	.6	1.9	.1	-	.1	.6	3.8

(1) Refers to % of boat trips where the number of Salmonids in creel was equal to or greater than four per person.

TABLE R-9: DISTRIBUTION OF SALMONID CATCH FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, MARCH, 1981

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution Total Salmonid in Creel													% of Boat Trips With Limit of Salmonids (1)
		0	1	2	3	4	5	6	7	8	9	10	11	12+	
Campbell River	22	54.5	27.3	4.5	4.5	9.1	-	-	-	-	-	-	-	-	4.5
Chemainus Area															
Central Comox	13	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-
North Comox															
South Comox															
Cowichan Bay	18	72.2	11.1	5.6	5.6	-	-	5.6	-	-	-	-	-	-	5.6
Delta															
Egmont															
Gibson's Landing															
Ladysmith	5	40.0	40.0	20.0	-	-	-	-	-	-	-	-	-	-	-
Lund															
Nanaimo	85	37.6	21.2	15.3	10.6	9.4	2.4	2.4	-	-	1.2	-	-	-	1.2
Pender Harbour	46	67.4	15.2	15.2	-	-	2.2	-	-	-	-	-	-	-	-
Powell River	3	66.7	-	-	33.3	-	-	-	-	-	-	-	-	-	-
Qualicum North															
Qualicum South	15	26.7	20.0	33.3	13.3	-	-	-	-	-	-	-	-	6.7	6.7
Richmond															
Saanich Inlet	183	73.2	13.7	6.0	2.2	2.2	1.1	-	.5	.5	.5	-	-	-	1.1
Sooke	164	50.0	14.0	17.1	6.7	6.7	1.8	1.2	.6	.6	.6	-	.6	-	3.0
Vancouver	58	77.6	8.6	8.6	-	3.4	-	-	1.7	-	-	-	-	-	1.7
West Vancouver	107	72.0	16.8	2.8	3.7	4.7	-	-	-	-	-	-	-	-	4.7
Victoria	61	36.1	23.0	6.6	4.9	9.8	9.8	-	-	9.8	-	-	-	-	11.5
Sidney	25	72.0	4.0	20.0	4.0	-	-	-	-	-	-	-	-	-	-
Total	805	60.6	15.4	10.3	4.7	4.7	1.7	.6	.4	1.0	.4	-	.1	.1	3.0

(1) Refers to % of boat trips where the number of Salmonids in creel was equal to or greater than four per person.

R-10

TABLE R-10: DISTRIBUTION OF SALMONID CATCH FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, APRIL, 1981

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution Total Salmonid in Creel												% of Boat Trips With Limit of Salmonids (1)	
		0	1	2	3	4	5	6	7	8	9	10	11		12+
Campbell River	46	71.7	13.0	6.5	4.3	-	4.3	-	-	-	-	-	-	-	-
Chemainus Area															
Central Comox	52	44.2	17.3	9.6	7.7	9.6	1.9	1.9	1.9	-	-	1.9	-	3.8	5.8
North Comox															
South Comox															
Cowichan Bay	12	91.7	-	8.3	-	-	-	-	-	-	-	-	-	-	-
Delta															
Egmont															
Gibson's Landing															
Ladysmith	5	80.0	-	20.0	-	-	-	-	-	-	-	-	-	-	-
Lund															
Nanaimo	71	43.7	21.1	14.1	8.5	8.5	2.8	-	1.4	-	-	-	-	-	2.8
Pender Harbour	60	61.7	18.3	11.7	1.7	3.3	1.7	-	1.7	-	-	-	-	-	-
Powell River	8	50.0	-	50.0	-	-	-	-	-	-	-	-	-	-	-
Qualicum North															
Qualicum South	20	45.0	25.0	10.0	-	10.0	5.0	-	-	-	-	-	-	5.0	5.0
Richmond															
Saanich Inlet	95	66.3	16.8	6.3	7.4	1.1	1.1	1.1	-	-	-	-	-	-	-
Sooke	242	59.5	20.2	11.2	5.4	1.2	2.1	.4	-	-	-	-	-	-	-
Vancouver	29	65.5	17.2	13.8	-	3.4	-	-	-	-	-	-	-	-	-
West Vancouver	65	81.5	12.3	4.6	1.5	-	-	-	-	-	-	-	-	-	-
Victoria	11	63.6	9.1	9.1	9.1	-	-	9.1	-	-	-	-	-	-	-
Sidney	17	76.5	17.6	5.9	-	-	-	-	-	-	-	-	-	-	-
Total	733	61.6	17.5	10.2	4.8	2.7	1.8	.5	.4	-	-	.1	-	.4	.8

(1) Refers to % of boat trips where the number of Salmonids in creel was equal to or greater than four per person.

TABLE R-11: DISTRIBUTION OF SALMONID CATCH FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, MAY, 1981

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution Total Salmonid in Creel													% of Boat Trips With Limit of Salmonids (1)
		0	1	2	3	4	5	6	7	8	9	10	11	12+	
Campbell River	394	50.0	18.0	13.5	9.4	4.6	1.0	1.5	-	1.0	.3	.5	-	.3	1.3
Chemainus Area															
Central Comox	293	30.7	20.1	15.4	8.5	12.6	1.4	4.1	1.0	4.8	.3	.7	-	.3	8.5
North Comox	196	11.7	11.7	15.8	16.3	17.3	8.7	4.1	1.0	9.2	2.0	-	-	2.0	15.3
South Comox															
Cowichan Bay	31	71.0	19.4	6.5	3.2	-	-	-	-	-	-	-	-	-	-
Delta															
Egmont															
Gibson's Landing	28	28.6	32.1	21.4	7.1	7.1	-	-	-	3.6	-	-	-	-	7.1
Ladysmith	2	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Lund	12	58.3	33.3	8.3	-	-	-	-	-	-	-	-	-	-	-
Nanaimo	122	43.4	18.0	9.0	10.7	7.4	4.9	3.3	.8	1.6	-	-	-	.8	3.3
Pender Harbour	62	48.4	21.0	12.9	6.5	-	6.5	-	3.2	-	-	-	-	1.6	-
Powell River	93	53.8	18.3	11.8	8.6	1.1	4.3	1.1	-	1.1	-	-	-	-	-
Qualicum North	63	22.2	9.5	15.9	12.7	22.2	3.2	6.3	-	7.9	-	-	-	-	19.0
Qualicum South	549	31.1	17.1	14.4	14.6	7.7	4.2	3.6	1.3	5.1	.5	.2	-	.2	6.7
Richmond															
Saanich Inlet	320	58.4	19.1	12.5	3.7	2.8	1.2	1.2	.3	.3	.3	-	-	-	1.3
Sooke	505	62.8	24.4	9.3	1.6	1.4	-	.2	.4	-	-	-	-	-	.4
Vancouver	107	64.5	14.0	9.3	4.7	3.7	1.9	.9	-	.9	-	-	-	-	.9
West Vancouver	325	65.8	19.7	7.7	3.4	.9	1.5	.3	.3	.3	-	-	-	-	.6
Victoria	149	66.4	20.8	5.4	4.0	1.3	1.3	.7	-	-	-	-	-	-	.7
Sidney	136	68.4	19.1	4.4	2.2	3.7	-	-	.7	.7	-	-	.7	-	.7
Total	3,387	48.6	19.0	11.6	7.5	5.5	2.3	1.9	.6	2.3	.3	.1	-	.3	3.7

(1) Refers to % of boat trips where the number of Salmonids in creel was equal to or greater than four per person.

TABLE R-12: DISTRIBUTION OF SALMONID CATCH FROM GEORGIA STRAIT CREEL SURVEY RAW DATA, JUNE, 1981

Area of Landing	No. of Interviews (Boat Trips)	Percent Distribution Total Salmonid in Creel													% of Boat Trips With Limit of Salmonids (1)
		0	1	2	3	4	5	6	7	8	9	10	11	12+	
Campbell River	572	44.2	19.8	11.0	7.5	6.8	2.4	3.0	1.6	1.7	.3	.7	.5	.4	1.9
Chemainus Area	74	54.1	16.2	8.1	5.4	8.1	4.1	1.4	1.4	1.4	-	-	-	-	4.0
Central Comox	406	35.0	18.5	13.3	8.1	11.6	2.7	3.4	1.5	3.4	.5	.5	.2	1.1	8.4
North Comox	601	17.5	18.1	12.1	11.8	13.0	4.8	4.3	4.2	9.3	.8	1.0	.8	2.1	14.5
South Comox															
Cowichan Bay	66	56.1	28.8	10.6	1.5	3.0	-	-	-	-	-	-	-	-	-
Delta	18	72.2	16.7	5.6	5.6	-	-	-	-	-	-	-	-	-	-
Egmont															
Gibson's Landing	81	22.2	49.4	17.3	3.7	3.7	1.2	-	1.2	-	-	-	-	1.2	2.5
Ladysmith	35	54.3	14.3	11.4	11.4	2.9	2.9	2.9	-	-	-	-	-	-	-
Lund	34	29.4	20.6	29.4	11.8	2.9	-	-	-	5.9	-	-	-	-	5.9
Nanaimo	213	54.5	17.8	10.3	7.0	4.7	3.3	.5	.9	.5	-	-	-	.5	.5
Pender Harbour	91	49.5	23.1	13.2	3.3	4.4	2.2	1.1	-	2.2	-	-	1.1	-	1.1
Powell River	222	30.2	14.0	16.7	9.5	12.2	3.2	2.7	6.8	2.7	.9	-	-	1.4	5.4
Qualicum North	158	48.1	16.5	10.1	3.8	7.0	3.8	2.5	2.5	4.4	-	.6	-	.6	8.9
Qualicum South	343	36.4	21.6	16.9	9.6	6.1	3.8	2.3	.6	1.7	.3	-	.3	.3	3.2
Richmond	64	62.5	21.9	7.8	6.3	-	1.6	-	-	-	-	-	-	-	-
Saanich Inlet	262	66.0	20.2	8.4	2.7	1.9	.4	.4	-	-	-	-	-	-	.8
Sooke	818	70.3	20.2	7.7	1.2	.5	.1	-	-	-	-	-	-	-	.1
Vancouver	73	60.3	16.4	12.3	5.5	1.4	2.7	-	1.4	-	-	-	-	-	-
West Vancouver	392	69.9	16.6	7.1	3.6	.8	1.3	.5	-	-	-	-	-	.3	.3
Victoria	130	80.0	9.2	7.7	2.3	.8	-	-	-	-	-	-	-	-	-
Sidney	67	73.1	20.9	4.5	-	-	-	-	-	-	-	1.5	-	-	-
Total	4,720	49.3	19.2	11.0	6.0	5.6	2.2	1.7	1.4	2.2	.3	.3	.2	.6	3.9

(1) Refers to % of boat trips where the number of Salmonids in creel was equal to or greater than four per person.

TABLE R-13: DISTRIBUTION OF SALMONID CATCH FROM GEORGIA STRAIT CREEEL SURVEY RAW DATA, ALL REGIONS.

Month	No. of Interviews (Boat Trips)														% of Boat Trips (1) With Limit of Salmonids
		0	1	2	3	4	5	6	7	8	9	10	11	12+	
July 1980	12,517	49.6	19.0	11.1	7.1	5.0	2.3	1.9	1.3	1.7	.2	.2	.1	.5	2.4
August 1980	10,199	55.5	20.4	10.4	5.6	3.7	1.4	1.1	.6	.8	.1	.1	.1	.2	1.5
September 1980	3,337	54.2	21.3	10.6	5.8	3.4	2.0	1.1	.5	.6	.1	.1	-	.3	1.3
October 1980	2,129	57.6	19.1	10.1	5.2	3.6	1.5	1.0	.6	.9	.1	.1	.1	.1	2.2
November 1980	533	50.8	18.6	8.8	7.5	6.2	2.8	.9	.2	3.2	-	.6	-	.4	5.8
December 1980	407	42.8	17.2	13.5	10.8	7.9	2.7	1.5	1.2	2.0	.2	.2	-	-	6.4
January 1981	1,123	47.5	16.5	10.9	8.4	7.6	2.5	1.8	1.1	2.9	.1	-	.2	.5	5.9
February 1981	945	52.7	18.6	9.7	8.6	4.1	1.6	1.4	.6	1.9	.1	-	.1	.6	3.8
March 1981	805	60.6	15.4	10.3	4.7	4.7	1.7	.6	.4	1.0	.4	-	.1	.1	3.0
April 1981	733	61.6	17.5	10.2	4.8	2.7	1.8	.5	.4	-	-	.1	-	.4	.8
May 1981	3,387	48.6	19.0	11.6	7.5	5.5	2.3	1.9	.6	2.3	.3	.1	-	.3	3.7
June 1981	4,720	49.3	19.2	11.0	6.0	5.6	2.2	1.7	1.4	2.2	.3	.3	.2	.6	3.9
TOTAL	40,835	52.1	19.4	10.8	6.5	4.6	2.0	1.5	.9	1.5	.2	.1	-	.4	2.5

(1) Refers to % of boat trips where the number of Salmonids in creel was equal to or greater than four per person.