

**Sablefish (*Anoplopoma fimbria*)
Research and Assessment Surveys
Conducted in British Columbia Waters
From 1996 through 2000**

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V9T 6N7

2003

**Canadian Data Report of
Fisheries and Aquatic Sciences 1116**



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Canadian Data Report of
Fisheries and Aquatic Sciences 1116

2003

SABLEFISH (*Anoplopoma fimbria*) RESEARCH AND
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COLUMBIA WATERS FROM 1996 THROUGH 2000

by

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Cat. No. Fs 97-13/1116E ISSN 0706-6465

Correct citation for this publication:

Wyeth, M.R., and A.R. Kronlund, 2003. Sablefish (*Anoplopoma fimbria*) research and assessment surveys conducted in British Columbia waters from 1996 through 2000. Can. Data Rep. Fish. Aquat. Sci. 1116: 130 p.

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ABSTRACT

Wyeth, M.R., and A.R. Kronlund. 2003. Sablefish (*Anoplopoma fimbria*) research and assessment surveys conducted in British Columbia waters from 1996 through 2000. Can. Data Rep. Fish. Aquat. Sci. 1116: 130p.

This document provides a summary of the methodology and results of sablefish research and assessment surveys conducted in British Columbia waters from 1996 through 2000. Fishing of longline trap gear was conducted at selected offshore and mainland inlet localities. The two main components of the survey were indexing and tagging. The indexing survey began in 1988 and fishing protocols have been standardized beginning in 1990. Indexing sets were used to obtain standardized catch rate data for indexing stock abundance and biological samples. Sablefish tagging began in 1977 and continued through 1987. Tagging became part of the annual research and assessment survey in 1991. Designated tagging sets were conducted to capture sablefish to be tagged and released. These tag releases were augmented by fish tagged and released during index sets. In this document a summary of the results of the 1996 to 2000 surveys is presented. Detailed results for each survey year can be found in the appendices. To provide context for the 1996 to 2000 surveys a synopsis of the methodologies of surveys from 1988 through to 1995 is included.

From 1996 through 2000, surveys were conducted each fall. In 1996 the fall survey was split between two vessels while in all other years a single vessel conducted the entire survey. In addition to the fall surveys, spring tagging surveys were conducted in 1996 and 1997. Over the five years, a total of 568 sets were made, 1,830 tagged sablefish were recovered during the surveys, 119,267 sablefish were tagged and released, and 19,415 sablefish were sampled for biological data.

RÉSUMÉ

Wyeth, M.R., and A.R. Kronlund. 2003. Sablefish (*Anoplopoma fimbria*) research and assessment surveys conducted in British Columbia waters from 1996 through 2000. Can. Data Rep. Fish. Aquat. Sci. 1116: 130p.

Est présenté dans ce document un résumé des méthodes de recherche et d'évaluation de la morue charbonnière et des résultats des relevés effectués dans les eaux de la Colombie-Britannique de 1996 à 2000. L'objet de ces relevés, effectués à la palangre à divers endroits en haute mer et dans les inlets continentaux, étaient l'indexation et l'étiquetage de ce poisson. Les relevés d'indexation, visant à obtenir des données normalisées sur les taux de capture pour indexer l'abondance des stocks et les échantillons biologiques, ont commencé en 1988. Les protocoles de pêche ont été normalisés à partir de 1990. L'étiquetage, commencé en 1977 et mené jusqu'en 1987, est devenu un élément du relevé annuel de recherche et d'évaluation en 1991. Des traits dédiés uniquement à la capture de morues aux fins de l'étiquetage et de la remise à l'eau ont été effectués. D'autres morues ont aussi été étiquetées et relâchées lors des traits d'indexation. Un résumé des résultats des relevés effectués de 1996 à 2000 est aussi présenté. Les résultats détaillés de chaque relevé sont présentés en annexe. Un sommaire des méthodes utilisés de 1988 à 1995 permet d'établir le contexte de ces derniers relevés.

De 1996 à 2000, des relevés ont été effectués chaque automne. En 1996, le relevé a été effectué par deux bateaux, tandis que toutes les autres années, un seul bateau a été utilisé. En plus des relevés d'automne, des relevés d'étiquetage ont été effectués au printemps en 1996 et 1997. Au cours de ces cinq années, un total de 568 traits ont été effectués, 1 830 morues étiquetées ont été recapturées lors des relevés, 119 267 morues ont été étiquetées et relâchées et 19 415 autres ont été l'objet d'un prélèvement de données biologiques.

1.0 INTRODUCTION

Sablefish (*Anoplopoma fimbria*) are an abundant and commercially valuable species throughout their range in the North Pacific. They have a long history of commercial exploitation in Canadian waters with significant landings recorded as early as the beginning of the 1800's (McFarlane and Beamish 1983a). British Columbia fishers harvest sablefish with longline (hook and trap) and trawl gear along the continental shelf at depths of 200 to 1800 m. The Canadian sablefish fishery averaged approximately 4000 metric tonnes (t) for the period 1996 to 2000 with the majority (>85%) of the fish captured with trap gear.

Beginning in 1988, fishery-independent sablefish research and assessment surveys of the British Columbia Coast have been conducted annually using longline trap gear. Survey data have been used to monitor abundance and to examine geographical and bathymetric variation in population and biological parameters. Sablefish tagging began in the late 1970's to provide data on movement patterns and growth. Tag releases continued until 1987, when the tagging program was discontinued (Murie et al. 1995). Tagging was re-initiated as a component of the annual research and assessment survey in 1991. Tag release and recovery information collected from 1991 onwards has been used to compute relative estimates of the trap vulnerable sablefish biomass (Haist et al, 2001).

The annual sablefish research and assessment survey has changed and expanded following its inception in 1988. The survey protocol from 1996 to 2000 mandated sets of standardized trap gear at selected offshore and mainland inlet localities. Sets were of two types: 1) "indexing" sets had rigorous gear requirements and were used to obtain standardized catch rate data for indexing stock abundance and biological samples; 2) "tagging" sets served specifically to capture sablefish for tag and release and had less rigorous gear requirements. For details on surveys conducted from 1988 through 1993, see Smith et al. (1996) and for surveys in 1994 and 1995 see Downes et al. (1997). For details concerning tag releases from 1977 through 1981 see Beamish et al. (1978, 1979, 1980, and 1983) and for tag releases from 1982 through 1987 see Murie et al. (1995).

This document consists of a main body of text with supporting appendices. A brief synopsis of survey methodology from 1988 through 1995 is included in section 2.0. The methodology for the 1996 to 2000 surveys is presented in sections 3.0 and 4.0. Section 5.0 contains a summary of the results of the 1996 to 2000 surveys while detailed results can be found in the appendices. Tables and Figures referred to in the main text are sequentially numbered. Tables and Figures in appendices are labelled with the letter code of the appendix and a sequential number, e.g. Table A.2 for the second table in Appendix A.

Data from the annual surveys from 1988 through 2000 are stored in the Groundfish Biological database (GFBio) maintained at the Pacific Biological Station in Nanaimo, B.C. (<http://pacpbsgfiis/sql/>). The unique nature of the sablefish survey data in this database is described in Appendix A.

2.0 REVIEW OF 1988 TO 1995 SURVEY METHODOLOGY

2.1 SURVEY VESSELS

A commercial vessel was chartered each year to conduct the surveys from 1988 through 1990. The fisheries research vessel R/V W.E. Ricker completed surveys from 1991 through 1993 with an experienced industry skipper directing fishing operations. Commercial vessels were again chartered in 1994 and 1995. A list of the vessels, skippers, and dates of surveys each year is provided in Table 1.

2.2 SURVEY LOCALITIES

In 1988, eight offshore indexing localities were purposively selected as roughly equidistant, historical commercial fishing localities. These localities spanned the north-south range of the British Columbia coast and could be visited by one vessel within approximately one month under normal weather conditions. From north to south, the sites were Langara Island-North Frederick, Buck Point, Gowgaia Bay, Cape St. James, Triangle Island, Quatsino Sound, Esperanza Inlet, and Barkley Canyon (Figure 1). The eight indexing localities were the only sites occupied from 1988 to 1991 although not all localities were visited each year (Table 2). From 1992 to 1995 the survey gradually expanded to include additional offshore indexing localities and mainland inlet localities on the north and central coast (Figure 1, Table 2).

When tagging became part of the survey in 1991, some of the fish captured during indexing sets were tagged and released. This procedure continued until 1994 when sets in Finlayson and Mathieson Channels were made specifically for tagging fish ("tagging sets", discussed below). A significant increase in the tagging program followed in 1995 with the addition of seven offshore localities specifically for tagging sets ("tagging localities", Figure 2, Table 2).

2.3 DEPTH STRATA

Each year, the skipper of the surveying vessel had discretion over the exact locations of sets within the localities providing the sets were made in specified depth ranges. Beginning in 1988, skippers were directed to target sets within each of three depth strata at each locality: 366-549 m (200-300 fm), 549-732 m (300-400 fm), and 732-915 m (400-500 fm, Table 3). In 1990 five indexing depth strata were introduced with ranges adjusted to 272-457 m (150-250 fm), 457-641 m (250-350 fm), 641-824 m (350-450 fm), 824-1006 m (450-550 fm), and deeper than 1006 m (550 fm, Table 3). Typically one set was made in each depth stratum at each locality.

Sets at the mainland inlet localities were made at the prevailing depth of the set location. Fishing within specific depth strata is not possible because of the steep-sided bathymetry of the inlets.

To maximise the number of releases per set, offshore tagging sets were targeted where the highest catch rates were expected at 457-824 m (250-450 fm).

2.4 FISHING GEAR AND OPERATIONS

All survey sets were made using longline trap gear consistent with that employed in the commercial sablefish trap fishery (either the charter vessels' own fishing gear was used or gear

was specifically prepared for the surveys when conducted using the R/V W.E. Ricker). A set or "string" of longline trap gear consisted of a line resting on the ocean floor (groundline) with baited traps attached at intervals along its length. The groundline was secured to the ocean floor by anchors at each end and the location of the string was marked by floats attached to the groundline by anchorlines. Traps were a modified Korean conical design. Figure 3 is a diagram of the fishing gear and Appendix B provides definitions and dimensions of each component.

After the vessel arrived at a survey locality and located the target depth range, the gear was deployed in the following manner. The first flag pole and buoys were released and then the sinkerline and anchorline were pulled off the drum into the water over the stern of the vessel. When approximately half of the anchorline was released, the vessel turned 180 degrees and returned to the flagpole and buoys. When the vessel was abeam of the flagpole, the first anchor was attached to the first becket and released over the stern of the vessel. Traps were "built" prior to setting: loose hake (if used) was placed into the trap, the bottom mesh was closed, the tunnel was stretched into place, and a bag of frozen squid was fastened to the inside of the mesh at the centre of the top of the trap so as to hang near the tunnel opening. Built traps were placed in the chute, the groundline was stopped briefly and the trap attached to the ring and becket. Becketts were spaced every 46 m (150 ft) along the groundline. When the desired number of traps had been attached to the groundline, the second anchor was attached and released. The vessel continued on a straight course as the anchorline and sinkerline rolled off the drum. Finally, the buoys and flagpole were released. For deep sets, shotline(s) were attached to extend the anchorline. Typically the skippers would set a string from shallow to deep and haul from deep to shallow.

The start and end positions of each set were recorded from either the vessels' LORAN or global positioning system (GPS) when the first and last anchors were set over the stern. The start and end bottom depths were recorded from the vessels' depth sounder when the respective anchors were set. The mean bottom depth was calculated as the average of depths recorded from the vessels' depth sounder at one-minute intervals between the first and last anchors being set. The duration, or soak time, of the set was calculated as the time elapsed between the first anchor (or trap) being set over the stern and the first anchor (or trap) hauled aboard. The time difference between an anchor and the adjacent trap was less than one minute. Figure C.1 shows an example of a completed bridge log data form.

After the desired soak time had elapsed, the vessel located and approached the flagpoles and buoys at one end of the string and began retrieving the gear. The flagpole was retrieved and the flagpole line was placed in the hauler. The hauler was used to pull the sinkerlines, shotlines (if used), and anchorlines aboard and as they came aboard they were rolled onto the drum. When the first anchor approached the hauler, it was detached from the becket and hoisted aboard. Traps were detached from the groundline in a similar manner and then hoisted over a sorting area where the bottom of the trap was opened, dumping the catch into the sorting area. Each trap was examined for significant holes or damage and any necessary repairs effected. After each trap was dumped, it was broken down by removing the bait bag and collapsing the tunnel and bottom mesh which allowed the traps to be stacked on deck.

In 1988 the indexing set strings consisted of approximately 100 traps, each baited with a 1-1.5 kg block of frozen squid in a bait bag and four frozen hake (0.6 to 0.8 kg each) loose in the trap. The length of the strings in 1988 made it difficult to maintain the desired depth stratum for the entire string length. In 1989 the number of traps per string was reduced to 70. A further

reduction in string length to 25 traps occurred in 1990 and traps were baited with squid only. From 1990 onwards, the standard gear used for the indexing sets has been 25 traps, each baited with a 1-1.5 kg block of frozen squid in a bait bag.

As mentioned in section 2.2, "tagging" sets were introduced to the survey in 1994 with the specific intent of capturing sablefish for tagging. In 1994, a tagging set consisted of 75 traps each baited with a 1-1.5 kg block of frozen squid in bait bags. These tagging sets were conducted in mainland inlet locations where very high catch rates could be achieved. In 1995, offshore tagging sets were introduced and the fishing gear that would achieve high catch rates was desired. Based on the results of previous surveys and input from commercial fishers, efficient catch rates at offshore localities necessitated the combination bait of both squid and hake. Tagging sets from 1995 onwards were baited with a combination of a 1-1.5 kg block of frozen squid in a bait bag and 3-4.5kg of loose frozen hake in each trap. Furthermore, the tagging sets were targeted at depths where high catch rates were expected (see section 2.3) and due to this wider target range as compared to indexing sets, the strings could be longer than 25 traps and still remain within the target. This made it possible for the chartered vessels to use their standard commercial fishing gear of 50-70 traps per string.

2.5 CATCH COMPOSITION AND EFFORT DATA COLLECTION

2.5.1 Indexing Sets

In 1988 and 1989 the number of sablefish caught in a set was estimated by systematically sampling every third or fourth trap and then expanding the total count using the fraction of traps sampled on a set. The mean length of fish sampled was converted into an average weight estimate using a length to weight conversion formulae estimated by McFarlane and Beamish. (1983b). The total sablefish weight was estimated by multiplying the average weight by the estimated total number caught. Records of captured species other than sablefish were not kept in 1988 and 1989. For indexing sets from 1990 to 1995, the sablefish catch for each trap was counted and weighed using an Accu-Weigh 50TK bench beam scale. The weight and count of other species was recorded for the entire set but not by individual trap. Effort data was collected by tallying each trap as it was hauled aboard. An example of a completed haul card is shown in Figure C.2.

2.5.2 Tagging Sets

Designated tagging sets were introduced to the annual survey in 1994 with the specific goal of releasing tagged fish. Fishing protocols were chosen to maximise catch rates and gear requirements were less rigorous than for indexing sets. Tagging occurred while the gear was being hauled so traps were not observed during gear retrieval. Hence, the detailed catch and effort data recorded for indexing sets were not recorded for tagging sets. Effort data was recorded as the crew's estimates of the number of traps deployed. Catch composition data was limited to the total number of sablefish and the catch of other species was not recorded. The total number of sablefish caught in each set was determined by summing the number of tagged fish, the number of sampled fish, the number of recovered tagged sablefish, and the number of dead fish. The sablefish catch weight was estimated by either multiplying the total catch by an average weight per fish or by summing the results of applying a length/weight conversion to each fish.

2.6 CATCH PROCESSING

This section contains a description of how fish were selected for biological samples and tagging during surveys conducted from 1988 through 1995. For specifics on the biological sampling and tagging methods, see Smith et al. (1996) and Downes et al. (1997).

2.6.1 Recovered Tagged Sablefish

Tagged sablefish recovered during surveys from 1988 through 1995 were set aside as the traps catches were sorted. Tagged fish recovered during a set were sacrificed and sampled after hauling and tagging was complete.

2.6.2 Biological Samples

In 1988 and 1989 fish from systematically selected (every third or fourth) traps were collected for biological samples. In 1990 the entire catch of each set was used for the biological samples. From 1991 through 1995, fish from selected traps throughout the indexing sets were used for biological samples. The specific method of selecting traps to be sampled depended on the number of sablefish captured. The selected traps varied from every trap, to every second or third trap, to an ad hoc selection of traps spaced throughout the string. If a trap was selected, the entire catch of sablefish from that trap was sampled. Sampling was conducted after all traps in the set were hauled aboard and tagging was completed.

2.6.3 Tagging

2.6.3.1 Indexing Sets. Sablefish were first tagged as part of the research and assessment survey in 1991. Initially, replicate indexing sets were made in some localities and sablefish from the second sets were tagged. As the survey progressed, the protocol shifted to fish in excess of the biological sampling requirements from every set; i.e. if fish from every third trap were sampled, fish from the first and second traps were tagged. This indexing set tagging protocol remained in effect for surveys through 1995.

2.6.3.2 Tagging Sets. In 1994 sets were designated for the purpose of tagging sablefish. Most captured fish were tagged, but fish from an ad hoc selection of traps spaced throughout the strings provided a biological sample of approximately 100 fish per set. In 1995, offshore tagging sets were introduced and, in general, the entire sablefish catch was tagged. At offshore tagging localities (section 2.2), fish from an ad hoc selection of traps spaced throughout one or two of the strings provided a biological sample of approximately 50 fish per set. All the sablefish selected for biological samples were processed after tagging was complete.

3.0 METHODOLOGY FOR 1996 TO 2000 SURVEYS

The 1996 to 2000 surveys were a continuation of the time series that began in 1988. These surveys followed protocols for indexing sets developed over the first few years of the time series and have been standardized beginning in 1990. The protocol for tagging sets followed the methods used in 1995 but there was a change in tagging localities in 1996. A summary of the different localities, set types, and data collection procedures employed during sablefish research and assessment surveys from 1996 through 2000 is provided in Table 5.

3.1 SURVEY VESSELS

A commercial vessel was chartered each year to conduct the surveys from 1996 to 2000 (Table 1). In addition to the fall research and assessment surveys, spring tagging surveys were also conducted using commercial vessels in 1996 and 1997.

3.2 SURVEY LOCALITIES

Nine offshore indexing localities were visited from 1996 through 1999 (Table 2, Figure 1). From north to south they were Langara Island/ North Frederick, Hippa Island, Buck Point, Gowgaia Bay, Cape St. James, Triangle Island, Quatsino Sound, Esperanza Inlet, and Barkley Canyon. In 2000, two new indexing localities off the Queen Charlotte Islands were also visited: 1) from Tasu Sound to Marble Island and 2) Flamingo Inlet.

Indexing sets were also made in the four mainland inlet localities from 1996 to 2000 (Table 2, Figure 1). From north to south they were Portland Inlet, Gil Island, Finlayson Channel, and Dean/ Burke Channel. In 1996 a single set was also made in Mathieson Channel.

The west coast of Vancouver Island and Queen Charlotte Sound tagging localities introduced in 1995 were also visited from 1996 through 2000 (Table 2, Figure 2). From North to South the localities were Middle Ground (previously called Mitchell's Gully), Pisces Canyon, Estevan Point, and Father Charles Canyon. However, the tagging localities off the Queen Charlotte Islands visited in 1995 were not visited again (Table 2, Figure 2). Rather, new localities were chosen which, when combined with the existing indexing localities, provided better coverage of the coast (Figure 1, Figure 2). From north to south these localities were Rennell Sound and Tasu Sound. In 1997 and 1998, two additional tagging localities were also visited: Hogback in 1997 and Kyuquot Sound to Ouokinish Inlet in 1998 (Table 2, Figure 2).

3.3 DEPTH STRATA

Indexing sets made at offshore indexing localities during surveys from 1996 to 2000 were targeted at five depth strata: 272-457 m (150-250 fm), 457-641 m (250-350 fm), 641-824 m (350-450 fm), 824-1006 m (450-550 fm), and deeper than 1006 m (550 fm, Table 3). One indexing set was made in each of the depth strata at each offshore locality. Starting in 1999, the indexing component of the survey was expanded by including sets in deeper water. A single set was made at approximately 1097 m (600 fm) at each of the Queen Charlotte Island localities. The deepwater portion of the survey further expanded in 2000 (Table 4). Sets were targeted at three deep depth strata at the West Coast of Vancouver Island indexing localities: 1188-1280 m (650-700 fm), 1280-1463 m (700-800 fm), and deeper than 1463 m (800 fm). In addition, three sets at depths up to 1463 m (800 fm) were made at most of the Queen Charlotte Island indexing localities (Buck Point was excluded). Two localities off the Queen Charlotte Islands were added to the survey in 2000 (section 3.2). These localities were designated for deep sets up to 1463 m (800 fm) and six sets were made between Tasu Sound and Marble Island while three were made at Flamingo Inlet.

As with previous surveys, indexing sets from 1996 to 2000 at mainland inlet localities were made at the prevailing depths of the locality. Offshore tagging sets were targeted at depths where the highest catch rates were expected, i.e. 457-824 m (250-450 fm).

3.4 FISHING GEAR AND OPERATIONS

From 1996 to 2000, all sets were made using gear and operations consistent with the protocol of surveys from 1990 onwards (section 2.4). All indexing sets were made using strings of 25 traps, each trap baited with a 1-1.5 kg block of frozen squid in a bait bag.

Tagging sets consisted of strings of 50-65 traps baited with a combination of a 1-1.5 kg block of frozen squid in a bait bag and 3-4.5 kg of loose frozen hake. During tagging sets, the squid bait was added to every trap but in some years the hake bait was only added to every third trap or every two of three traps. During the fall 1996 north coast survey, every third trap was baited with hake while during the fall surveys of 1997 and 1998 one or two out of every three traps were baited with hake. The hake bait was added to every trap in all other surveys.

Deep sets were first completed in 1999 and at that time the reason was not indexing the deep component of the stock but rather to explore whether sablefish were found at deeper depths. These sets were baited with what was considered the most effective bait: a combination of a 1-1.5 kg block of frozen squid in a bait bag and 3-4.5 kg of loose frozen hake in each trap. Following the initial exploration in 1999, the emphasis of the deep sets in 2000 shifted to providing an indexing comparable to the standard indexing depth strata. Deep sets in 2000 were baited following the standard indexing set protocol which is a 1-1.5 kg block of frozen squid in a bait bag in each trap.

Chartered vessels' used their own fishing gear each year. In 1998, the fishers initiated the use of escape rings on traps in the commercial fishery in an attempt to reduce catch rates of small sablefish. In 1999, the use of escape rings in the commercial fishery became mandatory. Therefore, beginning in 1998, the traps used during the survey have had stainless steel escape rings sewn shut. Prior to 1998 the traps used in the surveys did not have escape rings.

The position, time, and depth data collected for survey sets from 1996 through 2000 were consistent with protocols used for surveys from 1988 through 1995 (section 2.4).

3.5 CATCH COMPOSITION AND EFFORT DATA COLLECTION

The catch composition data collected during surveys from 1996 through 2000 followed the same protocol as surveys from 1991 onwards.

3.5.1 Indexing Sets

For indexing sets, the sablefish catch for each trap was counted and weighed while the weight and count of other species was recorded for the entire set. However small animals weighing less than 1 kg were not always weighed. Further, large catches of small animals were not always counted. Unlike the 1990 to 1995 surveys where the fish were weighed using a beam balance, all weights from 1996 through 2000 were taken using a Marel M2000 portable, motion-compensating electronic platform balance. Effort data were collected by tallying each trap as it was hauled aboard.

3.5.2 Tagging Sets

For tagging sets, the total catch of sablefish was determined by summing the number of tagged fish, the number of sampled fish, the number of recovered tagged sablefish, and the number of dead fish. The sablefish catch weight was estimated by either multiplying the total catch by an average weight per fish or by summing the results of applying a length/weight conversion to each fish. Other species caught were not recorded and effort data were recorded as the crew's estimates of the number of traps deployed.

3.6 CATCH PROCESSING

The catch processing methods of surveys from 1996 through 2000 followed the same protocols as surveys from 1991 onwards (section 2.5).

3.6.1 Recovered Tagged Sablefish

As with earlier surveys (section 2.6.1), tagged sablefish recovered during survey sets from 1996 through 2000 were set aside as the catch was sorted and sablefish were directed to either biological sampling or tagging. In most years, the tagged recoveries were sacrificed and sampled after hauling and tagging for each set had finished. The fork length (mm), sex, and a visual estimate of the state of maturity (Appendix D) were recorded and otoliths were collected for subsequent age determination. However, in some years the fork length was measured, the tag identification numbers were recorded, and the fish were re-released. In 1997 the round body weights of recovered fish were also recorded.

3.6.2 Biological Samples

As with surveys from 1991 to 1995 (section 2.6.1), fish from selected traps throughout the indexing sets were used for biological samples. The goal was to obtain a sample of at least 50 fish per set. The specific selection method depended on the sablefish catch rate and varied from every trap, to every second or third trap, to an ad hoc selection of traps spaced throughout the string. The entire catches of sablefish from the selected traps were sampled. Sampling was conducted after all traps in the set were hauled aboard and tagging was completed. Sablefish were measured for fork length in millimetres (mm). The abdominal cavities of the fish were opened and the gonads were examined and the sex and a visual estimate of the state of maturity (Appendix D) were recorded. Otoliths were collected for subsequent age determination. Otoliths were excised from the fish, cleaned, and stored in 50% glycerine and 3% thymol solution in Scotty Plastics (www.scotty.com, 2065 Henry Ave West, Sidney, B.C. Canada V8L 5Z6) Tres Bien plastic trays. In addition to the length, sex, maturity, and otolith (LSMO) data, other morphometric attributes such as girth (largest circumference of the fish in mm) and round weights (g) were measured for fish from some sets. The girth data were collected to support analysis of the effectiveness of the trap escape rings. In addition to the morphometric measurements, the stomachs of selected fish were opened and the contents examined and identified to the lowest possible taxon along with an estimate of the volume and relative digestion (fresh, $\frac{1}{4}$ digested, $\frac{1}{2}$ digested, $\frac{3}{4}$ digested, or fully digested). Figure C.3 shows an example of a completed biological sampling form.

3.6.3 Tagging

3.6.3.1 Indexing Sets. As with surveys from 1991 onwards (section 2.6.3.1), sablefish in excess of the biological sampling requirements for indexing sets were tagged. Fish to be tagged were transferred from the sorting area using plastic baskets to a 2400 litre fibreglass holding tank secured to the vessels' deck. The tank received a continuous supply of fresh seawater from the vessels' fire pump system. Fish were removed by hand or with a dip-net from the tank and then measured for fork length to the nearest millimetre on a wooden measuring board. A Floy FD-68BC T-bar anchor tag was inserted on the left side of the fish at the base of the dorsal fin using a Mark II Long Tagging gun. The tag was injected approximately 1 cm below, and 2-3 cm behind the anterior insertion of the first dorsal fin. The tag was angled into the fish so the tag could stream and the vertebral column and internal organs would not be damaged. Any significant injuries to the fish were recorded prior to the fish being released. Figure C.4 shows an example of a completed tagging form.

3.6.3.2 Tagging Sets. During tagging sets from 1996 through 2000, sablefish were transferred directly from the sorting area to the holding tank using either plastic baskets or PVC pipe slides with running seawater. Fish from an ad hoc selection of traps spaced throughout one of the strings in each locality provided a biological sample of approximately 50 fish per set. All the sablefish from selected traps were sampled after tagging was complete.

Each year, guidelines specified how many tagged sablefish should be released at each tagging locality. In the spring and fall of 1996 and of 1997, the goal was to tag 1000 fish at each locality. In 1998, the goal was increased to 1500 fish, and in 1999 and 2000 the goal was 2000 fish. Occasionally, the tagging goal was reached prior to hauling the last set in a locality. In this situation, the "extra" catch was retained and processed by the survey vessel to be landed as commercial catch.

3.7 OCEANOGRAPHIC SAMPLING

From 1996 to 2000, VEMCO MiniLog TD and TDR temperature and temperature/depth recorders were attached to a trap on selected sets. These data will be summarised elsewhere.

4.0 SPECIFICS OF THE 1996 TO 2000 SURVEYS

4.1 1996

The fall research and assessment survey was split between two vessels in 1996 with the F/V Ocean Pearl visiting the south coast localities (west coast of Vancouver Island and Queen Charlotte Sound) and the F/V Viking Star visiting the north coast localities (Queen Charlotte Islands and mainland inlets). In addition to the fall survey, a spring tagging survey was also conducted aboard the F/V Viking Sunrise.

4.1.1 Spring Tagging

The F/V Viking Sunrise completed a total of 42 sets at 14 localities from May 10 to 30 (Table 2, Figure 4, and Table E.1). Three tagging sets were completed at each offshore locality. No mainland inlet localities were visited. This survey had the single goal of releasing tagged fish and catch and effort data were not collected for any species, including sablefish. Rather, tagging was conducted at each locality until approximately 1000 sablefish were released. A single biological sample was taken from one of the sets at most localities (Table H.1). However, no biological samples were taken at the Esperanza Inlet and Estevan Point localities. A total of 15,139 sablefish were tagged and released, 689 sablefish were sampled, and 54 tagged sablefish were recovered (Table 8). Most of the tagged sablefish recovered during this survey were measured for fork length, the tag identification number was recorded, and the fish was re-released. However, dead fish and those in poor condition were sacrificed and sampled. The length frequency distributions of male, female, and unknown sex sablefish is shown for each locality in Figure G.1.

The goal of releasing 1000 fish at each locality was frequently achieved prior to completing hauling the last set at that locality. At the Buck Point, Rennell Sound, Langara Island, Cape St. James, and Middle Ground localities the goal was reached during the second set so only a portion of sets 8, 11, 14, 17, and 20 were tagged (Table E.1 and Table H.1). No tagging was conducted during the last sets hauled at these localities (sets 9, 12, 15, 18, and 21) but biological samples were collected. The tagging goal for the Pisces Canyon locality was reached during the last set (30) so only fish from the first 7 traps hauled aboard were tagged or collected for biological sampling. The 1000 tag goal was not achieved at either the Esperanza Inlet or Estevan Point localities but no additional sets were made.

4.1.2 Fall Survey: South Coast

The F/V Ocean Pearl completed a total of 32 sets at 8 localities offshore of Vancouver Island and Queen Charlotte Sound from September 26 to October 10 (Table 2, Figure 5, and Table E.2). A summary of the species captured during the survey is shown in Table F.1. Of the 7,326 sablefish captured, 1,359 were sampled and 5,910 were tagged and released (Table 8). Round body weights were recorded for a total of 215 fish from sets 11 and 14 through 16 (Table H.2). The length frequency distributions of male, female, and unknown sex sablefish are shown for each locality in Figure G.2. Most of the tagged sablefish recovered during this survey were measured for fork length, the tag identification number was recorded, and the fish was re-released. However, dead fish and those in poor condition were sacrificed for biological samples.

The goal of releasing 1000 fish at each tagging locality was achieved at the Estevan Point locality after the second set so no fish were tagged from the last set hauled at that locality (set 11). The total catch was not recorded or estimated but 57 fish were collected for biological samples.

Following the survey, the F/V Ocean Pearl also completed a charter to conduct a bait loading experiment to examine the effect of the amount of bait on trap catch rates. The data from that experiment will be presented elsewhere.

4.1.3 Fall Survey: North Coast

The F/V Viking Star completed a total of 49 sets at 12 localities off the Queen Charlotte Islands and in the mainland inlets from September 30 to October 22 (Table 2, Figure 7, and Table E.3). A summary of the species captured during the survey is shown in Table F.2. Of the 8,393 sablefish captured, 2,154 were sampled and 6,286 were tagged and released (Table 8 and Table H.3). The length frequency distributions of male, female, and unknown sex sablefish are shown for each locality in Figure G.3.

Although the goal of releasing 1000 tags in each tagging locality was not achieved at either of the tagging localities visited during this survey, no additional sets were made.

4.2 1997

4.2.1 Spring Tagging

In addition to the fall survey, a spring tagging survey was conducted in 1997. The F/V Viking Sunrise completed a total of 42 sets at 14 offshore localities from May 20 to June 10 (Table 2, Figure 8, and Table E.4). Similar to the spring 1996 tagging survey, the single objective of this survey was to release tagged fish. Three tagging sets were completed at each locality. In contrast to 1996 when tagging was discontinued after 1000 fish had been released, all the sablefish captured in 1997 were either tagged or sampled. Biological samples were collected from one or two sets in each locality (Table H.4). Of the 10,298 sablefish captured, 942 were sampled and 9,356 were tagged and released (Table 9). All of the sampled fish, excluding fish from set 27, were measured for girth in addition to the standard LSMO data. The length frequency distributions of male, female, and unknown sex sablefish are shown for each locality in Figure G.4. Most of the tagged sablefish recovered during this survey were measured for fork length, the tag identification number was recorded, and the fish was re-released (Table H.4). However, dead fish and those in poor condition were sacrificed for biological samples.

4.2.2 Fall Survey

For the 1997 fall survey, the F/V Ocean Pearl completed a total of 74 sets at 20 localities from September 26 to October 10 (Table 2 and Figure 10, and Table E.5). A summary of the species captured during the survey is shown in Table F.3. At the Esperanza Inlet locality (sets 10-14), significant numbers of sablefish were attacked by amphipods and reduced to skeleton frames. These dead fish were not weighed so the catch weight is an underestimate of the weight of all fish captured. Of the 13,622 sablefish captured, 3,125 were sampled and 10,283 were tagged and released (Table 9). In addition to the LSMO sample, the stomach contents of some fish were examined and some fish were weighed and measured for girth (Table H.5). The length frequency distributions of male, female, and unknown sex sablefish is shown for each locality in Figure G.5.

At the Estevan Point locality, sets 8 and 9 (tagging) were actually commercial strings of 70 traps set by the Nopsa and then hauled by the Ocean Pearl. The sablefish from approximately 50 traps from set 8 were tagged and released. The sablefish from approximately 35 traps from set 9 were tagged and released and fish from 3 additional traps were sampled. The baiting of these two sets (8 and 9) is unclear as each trap may have been baited with both squid and hake. In contrast to the usual catch monitoring of tagging sets, counts of sablefish by trap were

recorded as the traps of sets 39, 40, and 46-49 were hauled aboard. The detailed catch was recorded for these sets due to concerns that some of the traps had heavier green or orange web as opposed to the standard black web. Interpretation of these data is confounded as the trap-specific baiting practices (hake or no hake) were not recorded. It should also be noted that some of the traps used during indexing sets also had the orange web.

The hauling of set 27 was interrupted when the groundline broke and the flagpole at the other end of the string could not be found until later in the day.

In addition to the spring tagging survey and the fall survey, a survey was also conducted to examine the effectiveness of escape rings at reducing the catch rates of smaller fish. The F/V Ocean Pearl completed the experimental sets from November 29 to December 6, 1997. The data from this experiment will be presented elsewhere.

4.3 1998

For the 1998 fall survey, the F/V Ocean Pearl completed a total of 89 sets at 19 localities from September 1998 to October 17 (Table 2, Figure 13, and Table E.6). A summary of the species captured during the survey is shown in Table F.4. Of the 25,994 sablefish captured, 3,529 were sampled and 21,965 were tagged and released (Table 10). Some stomach contents were examined (Table H.6). The length frequency distributions of male, female, and unknown sex sablefish are shown for each locality in Figure G.6.

The goal of releasing 1500 tagged fish in each area was achieved for the Pisces Canyon locality midway through set 30 so only a portion of the catch from this set was tagged and sampled. The tagging goal was also achieved at the Middle Ground locality during set 38 so only biological samples were taken from the remaining sets at that locality (sets 39 and 36). At the Tasu Sound locality, the 1500 fish goal was reached after set 52 and a biological sample had already been collected from set 52 so sets 53 and 54 were neither tagged nor sampled but were processed as commercial catch.

A hydraulic line broke while retrieving both sets 2 and 3 which briefly interrupted hauling. The effort data for set 13 are uncertain as it is possible that either missed or empty traps were not recorded or that 3 traps were lost. The catch per unit effort data for set 57 may be compromised as the set was tangled with another string.

4.4 1999

For the 1999 fall survey, the F/V Ocean Pearl completed a total of 109 sets at 20 localities from September 29 to October 30 (Table 2, Figure 14, and Table E.7). A summary of the species captured during the survey is shown in Table F.5. Of the 32,375 sablefish captured, 3,569 were sampled and 27,413 were tagged and released (Table 11). The length frequency distributions of male, female, and unknown sex sablefish are shown for each locality in Figure G.7.

The goal of releasing 2000 fish in each tagging locality was achieved at the Father Charles Canyon locality during set 3 so only a biological sample was taken from set 4 (Table H.7). The goal was also achieved at the Cape St James locality during set 43, so only sablefish from the first half (30 to 35 traps) of the set were tagged.

Sets 30, 42, and 58 were used to collect preliminary data for a study designed to examine the effects of installing excluder devices on the traps. The excluder devices were intended to prevent large fish from entering the traps. Fifteen randomly placed traps on each of these sets had two 6-inch stainless steel rings attached 1/3 of the way into the trap tunnel. Sablefish from sets 30 and 58 were tagged and released whereas fish from set 42 were retained by the vessel as commercial catch and neither tagged nor sampled. Following the completion of the offshore portion of the survey, and prior to moving to the inlets, the excluder device experiment was conducted at the Langara Island-North Frederick locality. The data from the excluder experiment sets will be presented elsewhere.

The inlets portion of the standard survey began on October 23. A recording error occurred for set 97 and the number of traps may be incorrect. There was significant amphipod damage to some of the fish from sets 98 and 99 at the Gil Island locality. These fish were neither tagged nor sampled. The catch was estimated for trap 22 on set 105 after the trap was dumped without being brought aboard due to the presence of a very large Pacific Sleeper shark.

4.5 2000

For the 2000 fall survey, the F/V Pacific Viking completed a total of 131 sets at 22 localities from October 8 to November 14 (Table 2, Figure 15, and Table E.8). Some commercial sets were made during the charter when time permitted. A summary of the species captured during the survey is shown in Table F.6. Of the 30,061 sablefish captured, 4,041 were sampled and 22,915 were tagged and released (Table 12 and Table H.8). The length frequency distributions of male, female, and unknown sex sablefish are shown for each locality in Figure G.8.

The goal of releasing 2000 fish in each tagging locality was achieved at the Estevan Point locality during set 16 so the sablefish catch of the last 4 traps was not tagged and was processed by the vessel as commercial catch. The sablefish catch from set 17 was also processed as commercial catch and neither tagged nor sampled.

Until 1999, sablefish were tagged with a Floy "B99-type" tag with a number of the structure B99##### printed on one side and "REWARD PACIFIC BIO. STATION NANAIMO, B.C. CANADA" printed on the other. In 2000, a new "CSA-type" tag was introduced with different printed information. The tag number had the structure CSA##### and "REWARD CANADIAN SABLEFISH ASSOC. NANAIMO, B.C. CANADA" printed on the back. In an effort to test for a difference in tag return rates between the two tag types, the two tag types were released in equal numbers during tagging sets off the West Coast of Vancouver Island. Approximately half of the fish from the Father Charles Canyon and Estevan Point localities as well as the Esperanza locality tagging set were tagged with each tag type. In each set, the tag types were applied in alternating batches of 100 tags. After one hundred fish were tagged with the first tag type, the tag type was switched and 100 tags of the second type were applied. The next set would start with the second tag type. In an effort to reduce other variables, one technician tagged all the sablefish in this comparison. Analyses of recoveries of tagged fish to date indicate no significant difference in return rates between the two tag types (Haist et al. 2001).

5.0 RESULTS OF THE 1996 TO 2000 SURVEYS

5.1 CATCH RATES

The distribution of catch rates (number of sablefish/ number of traps) achieved for each set is summarized by a boxplot by year for each of the offshore indexing, offshore tagging and inlet indexing set types (Figure 16). The lower bound of the box indicates the first quartile (25th percentile) of the data and the upper bound of the box indicates the third quartile (75th percentile). The horizontal line that divides the box is the median (50th percentile). The upper and lower whiskers are positioned at 1.5 times the inter-quartile range. Open circles indicate data values that fall outside the whiskers, or outliers. A filled circle represents the mean value of the data summarized in the boxplot. The lightly shaded rectangle positioned in each box represents an approximate 95 percent confidence interval for the sample median. We present the nominal data here with no attempt to standardize any sets. Traps that were open, holed or fouled were excluded from the calculation of catch rates. In addition, some specific sets were also excluded (Appendix I). It is important to note that the survey protocol has changed over the time period shown. Specifically, the most recent surveys spanned a greater range of depths than the early surveys. In addition, baiting practices have not been consistent. Offshore indexing sets in 1988 and 1989 as well as deep indexing sets in 1999 were baited with both squid and hake. The amount of hake used in tagging sets has also varied. Only 1/3rd to 2/3rds of the traps receiving hake during tagging sets during the 1996 fall north coast survey, and the fall surveys of 1997 and 1998. In all other surveys the hake bait was added to every trap during tagging sets.

High catch rates were achieved during indexing sets in the first 6 years of the survey but catch rates from 1994 onwards have been at a consistent, lower level. In years when both offshore indexing and offshore tagging sets, the catch rates for tagging sets were greater. Catch rates at the mainland inlet localities were greater than at any of the offshore localities. There was a sharp increase in catch rates at the inlet localities in 1999.

5.2 CATCH COMPOSITION

Forty-four species or taxonomic groups other than sablefish have been captured during surveys conducted between 1996 and 2000 (Table 6). Less than half of these species are routinely encountered and a summary of the most frequently occurring species is shown in Table 7. Other than sablefish, the most frequent species is the Arrowtooth flounder (*Atheresthes stomias*), which accounts for approximately 40% of all other species in both numbers and weight for all years combined. The second most common species in numbers is the Rougheyeye rockfish (*Sebastes aleutianus*) while Pacific halibut (*Hippoglossus stenolepsis*) is the second most common by weight. The next most common species are the rattails (Macrouridae) and Tanner crabs (*Chionoecetes tanneri* and *C. bairdi*). Pacific sleeper sharks (*Somniosus pacificus*) account for a disproportionate weight of the non-sablefish species as a few, very large specimens are captured each year. Other species account for only a small fraction of the total catch.

5.3 SABLEFISH SAMPLING AND TAGGING

The total numbers of sablefish tagged and sampled at each locality for each survey from 1996 through 2000 are shown in Table 8 through Table 12. A total of 1,830 previously tagged sablefish were recovered, 119,267 sablefish were tagged and released, and 19,415 sablefish were

sampled over the five years. The majority of the tagged fish have been released in the tagging localities and of the tags released in the indexing localities, most were released from tagging sets (Table 13). All sampled sablefish were processed for length, sex, maturity and otoliths (LSMO) and some fish had up to three additional characteristics recorded: round weight, girth, and stomach contents. From 1996 through 2000, a total of 924 sablefish were weighed, 2030 were measured for girth, and 11,489 sablefish stomachs were examined. The frequency distributions of sablefish sampled and tagged during surveys from 1996 through 2000 are shown by year in Figure 17. The mean fork lengths of male and female sablefish are shown in Table 14 by locality and year. The mean fork length of females was always larger than that of the males and the mean fork length of fish of both sexes from offshore localities was larger than that of fish from the mainland inlet localities. For the offshore localities, the mean fork length of fish from the north was larger than that of fish from the south. The sex ratios also showed trends (Table 14). There were always more females than males at the inlet localities. At the offshore indexing localities there were typically more females than males but the reverse was true at the tagging localities where there were typically more males than females.

Regression equations were fit to the weight-length and girth-length data of sablefish sampled during surveys in 1996 and 1997. All calculations were performed using S-Plus 6 statistical software (Insightful 2001). The girth-length relationships were fit to male and female fish for each survey using a simple linear regression of the form

$$G_i = a + bL_i + \varepsilon_i$$

where G_i is the girth (mm) and L_i is the length (mm) of the i th fish and ε_i is a random error term. The weight-length relationships were fit to male and female fish for each survey using a nonlinear least squares regression of the form

$$W_i = aL_i^b \varepsilon_i$$

where W_i is the weight (mm) and L_i is the length (mm) of the i th fish and ε_i is a random error term. The weight-length relationships are shown in Figure 6 and Figure 11 while the girth-length relationships are shown in Figure 9 and Figure 12. Parameter estimates and statistical summaries are shown in Table 15.

ACKNOWLEDGEMENTS

We are grateful for the careful review provided by Mark Saunders. This document reflects the contributions of many individuals. The Canadian Sablefish Association provided coordination and support for the surveys. We are grateful for the conscientious work of numerous individuals in the collation and preparation of data for this document. In particular the contributions of Wendy Mitton, Bill Andrews and Mike Smith are greatly appreciated. Mark Saunders was the Fisheries and Oceans, Canada scientific authority at the time of the 1996 to 2000 surveys. The scientific staff that conducted the survey onboard the charter vessels include Mike Smith, Bill Andrews, Dwight Heritage, Barb Campbell, Ashleen Downes, Neil Surry, Gail Jewsbury, Brian Krishka, Margo Elfert, Claude Dykstra, Kendra Houghton, Dean Gaidica, and Bruce Young. A special thanks to the skippers and crews of the survey vessels: Albert (Deacon) Melnychuck and the crew of the Viking Sunrise in the spring of 1996 and 1997; Michael Derry and the crew of the Ocean Pearl in the fall of 1996, 1997, 1998, and 1999; Otto Elvan and the crew of the Viking Sunrise in the fall of 1996; and Albert (Deacon) Melnychuck and the crew of the Pacific Viking in the fall of 2000.

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Table 1. Summary of surveys conducted from 1988 to 2000.

| Year | Vessel | Skipper | Dates | Sets | GFBio Trip ID |
|-------------|--------------------|--------------------|------------------|-------------|----------------------|
| 1988 | F/V Vicious Fisher | Vance Fletcher | 28 Oct - 24 Nov | 16 | 43990 |
| 1989 | F/V La Porsche | Sigurd Brynjolfson | 19 Oct - 18 Nov | 29 | 43910 |
| 1990 | F/V Viking Star | Doug Farrington | 08 Nov - 18 Nov | 24 | 43750 |
| 1991 | R/V W. E. Ricker | Alan Farrington | 09 Oct - 29 Oct | 32 | 43673 |
| 1992 | R/V W. E. Ricker | Ron Roberts | 13 Oct - 04 Nov | 38 | 43670 |
| 1993 | R/V W. E. Ricker | Alan Farrington | 19 Oct - 11 Nov | 42 | 43650 |
| 1994 | F/V La Porsche | Richard Beauvais | 13 Oct - 31 Oct | 39 | 43630 |
| | F/V Western Viking | Rick Jones | 18 Oct - 13 Nov | 27 | 43390 |
| 1995 | F/V Ocean Pearl | Robert Fraumeni | 08 Oct - 20 Oct | 29 | 43270 |
| | F/V Victor F | Michael Derry | 11 Oct - 28 Oct | 34 | 43330 |
| | F/V Viking Sunrise | Jason Olsen | 01 Oct - 31 Oct | 40 | 43350 |
| 1996 | F/V Viking Sunrise | Albert Melnychuck | 10 May - 30 May | 42 | 43024 |
| | F/V Ocean Pearl | Michael Derry | 26 Sept - 10 Oct | 32 | 43039 |
| | F/V Viking Star | Otto Elvan | 30 Sept - 22 Oct | 49 | 43210 |
| 1997 | F/V Viking Sunrise | Albert Melnychuck | 20 May - 10 Jun | 42 | 42760 |
| | F/V Ocean Pearl | Michael Derry | 26 Sept - 21 Oct | 74 | 42699 |
| 1998 | F/V Ocean Pearl | Michael Derry | 22 Sept - 17 Oct | 89 | 41122 |
| 1999 | F/V Ocean Pearl | Michael Derry | 29 Sept - 30 Oct | 109 | 40589 |
| 2000 | F/V Pacific Viking | Albert Melnychuck | 08 Oct - 14 Nov | 131 | 40517 |

Table 2. Localities visited during sablefish research and assessment surveys from 1988 through 2000 showing the number of indexing (I) and tagging (T) sets completed at each locality.

| Year | 1988 | | 1989 | | 1990 | | 1991 | | 1992 | | 1993 | | 1994 | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | |
|--------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | I | T | I | T | I | T | I | T | I | T | I | T | I | T | I | T | I | T | I | T | I | T | I | T | I | T | |
| Offshore Indexing Locality | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Langara Island-North Frederick | - | 3 | - | 3 | - | 3 | 4 | 5 | 4 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 1 | 8 |
| Hippa Island | - | - | - | - | - | - | 4 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | - | - | - | - | - | - | - | - | 6 | 6 | 1 | 8 |
| Buck Point | - | 3 | - | 3 | - | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 1 | 5 | |
| Tasu Sound-Marble Island | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Gowgaia Bay | - | 3 | - | 3 | - | 3 | 4 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 1 | 8 | |
| Flamingo Inlet | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Cape St. James | 3 | 3 | - | 3 | - | 3 | - | - | - | - | - | - | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | - | - | - | - | 5 |
| Triangle Island | 2 | 3 | - | 3 | - | 3 | 4 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 |
| Quatsino Sound | 2 | 3 | 8 | 3 | 8 | 8 | 8 | 8 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 8 |
| Solander Island | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Esperanza Inlet | 3 | 3 | 8 | 3 | 8 | 8 | 8 | 8 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 8 |
| Barkley Canyon | 6 | 3 | 8 | 3 | 8 | 8 | 8 | 8 | 5 | 5 | 9 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 8 |
| Total | 16 | 24 | 24 | 24 | 24 | 24 | 32 | 32 | 38 | 38 | 42 | 42 | 50 | 50 | 50 | 5 | 24 | 45 | 45 | 40 | 40 | 45 | 45 | 49 | 49 | 72 | 9 |
| Offshore Tagging Locality | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frederick Island | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 | - | - | - | - | - | - | - | - | - | - | - |
| Hogback | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Rennell Sound | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | - | 2 | 3 | - | 2 | - | - | - | 8 | 5 |
| Chads Point | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 | - | - | - | - | - | - | - | - | - | - | - |
| Tasu Sound | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | - | 2 | 3 | - | 2 | - | 5 | - | 5 | 3 |
| Anthony Island | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | - | - | - | - | - | - | - | - | - | - | - |
| Mitchell's Gully/Middle Ground | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 3 | - | 3 | 3 | - | 2 | - | 4 | - | 3 | 4 |
| Pisces Canyon | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 3 | - | 3 | 3 | - | 2 | - | 4 | - | 6 | 4 |
| Kyuquot Sound-Ouokinish Inlet | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Estevan Point | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 3 | - | 3 | 3 | - | 2 | - | 4 | - | 4 | 4 |
| Father Charles Canyon | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 | 3 | - | 3 | 3 | - | 2 | - | 3 | - | 4 | 4 |
| Total | - | 27 | 18 | - | 16 | 18 | - | 14 | - | 24 | - | 30 | - | 24 |
| Mainland Inlet | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Portland Inlet | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 5 | - | 5 | - | 5 | - | 5 | - | 5 | - | 5 | - | 5 | - |
| Gil Island | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 5 | - | 5 | - | 5 | - | 5 | - | 5 | - | 5 | - | 5 | - |
| Finlayson Channel | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 3 | - | 4 | - | 4 | - | 5 | - | 5 | - | 5 | - | 5 | - |
| Mathieson Channel | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | - | 1 | - | 1 | - | 1 | - | 1 | - | 1 | - | 1 | - |
| Dean/Burke Channel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 | - | 5 | - | 5 | - | 5 | - | 5 | - | 5 | - |
| Total | - | 10 | 2 | 18 | - | 20 |
| Grand Total | 16 | 24 | 24 | 24 | 24 | 32 | 32 | 38 | 38 | 42 | 42 | 60 | 2 | 68 | 22 | 42 | 65 | 16 | 42 | 60 | 14 | 65 | 24 | 69 | 37 | 92 | 33 |

Table 3. Sablefish research and assessment survey depth strata.

| Year | Stratum | Minimum depth m (fm) | Maximum depth m (fm) |
|-------------|----------------|-----------------------------|-----------------------------|
| 1988-1989 | 1 | 366 (200) | 549 (300) |
| | 2 | 549 (300) | 732 (400) |
| | 3 | 732 (400) | 915 (500) |
| 1990-2000 | 1 | 275 (150) | 457 (250) |
| | 2 | 457 (250) | 641 (350) |
| | 3 | 641 (350) | 824 (450) |
| | 4 | 824 (450) | 1006 (550) |
| | 5 | 1006 (550) | Deeper |

Table 4. Sablefish research and assessment survey depth strata for deepwater sets..

| Year | Minimum depth m (fm) | Maximum depth m (fm) |
|-------------|-----------------------------|-----------------------------|
| 1999 | 1097 (600) | |
| 2000 | 1188 (650) | 1280 (700) |
| | 1280 (700) | 1463 (800) |
| | 1463 (800) | Deeper |

Table 5. Types of localities and sets conducted during sablefish surveys from 1996 through 2000 showing the differences in gear, catch monitoring, and catch processing. Bait types: squid = 1-1.5 kg block of frozen squid in a bait bag; hake = 3-4.5 kg of frozen hake loose in the trap. All sets were made using modified Korean traps employed in the commercial fishery.

| Locality | Set Type | Depth | Bait | Traps | Sablefish Catch Monitoring | Other Species Catch Monitoring | Effort Data |
|-------------------|----------|-----------------------------|--------------|-------|--|--|------------------------------|
| Offshore Indexing | indexing | 1 set in each depth stratum | squid | 25 | trap-by-trap number and weight | set total numbers and weights by species | traps observed at hauling |
| | tagging | 457-824 m (250-450 fm) | squid & hake | 25-75 | total count of tagged, dead, and sampled sablefish | not examined | crew's estimate of traps set |
| Offshore Tagging | tagging | 457-824 m (250-450 fm) | squid & hake | 25-75 | total count of tagged, dead, and sampled sablefish | not examined | crew's estimate of traps set |
| Inlet | indexing | prevailing | squid | 25 | trap-by-trap number and weight | set total numbers and weights by species | traps observed at hauling |

Table 6. List of common and scientific names of species captured during surveys from 1996 through 2000.

| Common Name | Scientific name | Common Name | Scientific name |
|-----------------------|---------------------------------|-----------------------|--|
| Boney fish | Osteichthyes | Cartilaginous fish | Chondrichthyes |
| Sablefish | <i>Anoplopoma fimbria</i> | Pacific sleeper shark | <i>Somniosus pacificus</i> |
| Roughscale rattail | <i>Coryphaenoides acrolepis</i> | Spiny dogfish | <i>Squalus acanthias</i> |
| Pectoral rattail | <i>Albatrossia pectoralis</i> | Spotted ratfish | <i>Hydrolagus collieri</i> |
| Other Rattails | Macrouridae (family) | Sandpaper skate | <i>Bathyraja interrupta</i> |
| Pacific flatnose | <i>Animora microlepis</i> | Invertebrates | |
| Lingcod | <i>Ophiodon elongatus</i> | Crabs | |
| Black hagfish | <i>Eptatretus deani</i> | Tanner crabs | Bracyura (section) |
| Walleye Pollock | <i>Theragra chalcogramma</i> | Golden king crab | <i>Chionoecetes tanneri</i> and <i>C. bairdi</i> |
| Pacific cod | <i>Gadus macrocephalus</i> | Scarlet king crab | <i>Lithodes aequispina</i> |
| Blacktail snailfish | <i>Careproctus melanurus</i> | | <i>Lithodes couesi</i> |
| Other Snailfish | Liparinae (subfamily) | | Other <i>Lithodes</i> sp. |
| Sculpins | Cottidae (family) | | <i>Paralithodes</i> sp. |
| Rockfish | Sebastinae (subfamily) | Alaskan king crabs | <i>Paralithodes camtschatica</i> |
| Rougheye rockfish | <i>Sebastes aleutianus</i> | Red king crab | <i>Paralomis multispina</i> |
| Redbanded rockfish | <i>Sebastes babcocki</i> | Oregon hair crab | <i>Lopholithodes foraminatus</i> |
| Shortraker rockfish | <i>Sebastes borealis</i> | Brown box crab | Actiniaria (order) |
| Pacific ocean perch | <i>Sebastes alutus</i> | Anemones | Asteriodes (subclass) |
| Rosethorn rockfish | <i>Sebastes helvomaculatus</i> | Starfish | Gastropoda (class) |
| Blackgill rockfish | <i>Sebastes melanostomus</i> | Gastropods | Octopoda (order) |
| Shortspine thornyhead | <i>Sebastolobus alascanus</i> | Octopus | Sedentaria (subclass) |
| Longspine thornyhead | <i>Sebastolobus altivelis</i> | Tube worms | |
| Flatfish | Pleuronectiformes | | |
| Arrowtooth flounder | <i>Atheresthes stomias</i> | | |
| Pacific halibut | <i>Hippoglossus stenolepis</i> | | |
| Dover sole | <i>Microstomus pacificus</i> | | |
| Roughscale sole | <i>Clidoderma asperrimum</i> | | |
| Deepsea sole | <i>Embassichthys bathybius</i> | | |
| Petrale sole | <i>Eopsetta jordani</i> | | |

Table 7. Summary of species other than sablefish captured during fall surveys from 1996 through 2000 showing the number (#) and weight in kilograms (kg) by year.

| Group | Species | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | All years | | |
|--------------------|-----------------------|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|-------|--------|
| | | # | kg | # | kg | # | kg | # | kg | # | kg | # | kg | |
| Chondrichthyes | Pacific sleeper shark | 3 | dumped | 8 | 1,245 | 2 | 140 | 5 | 490 | 8 | 393 | 26 | 2,268 | |
| | Spiny dogfish | 4 | 7 | 49 | 84 | 22 | 42 | 13 | 25 | 8 | 15 | 96 | 173 | |
| | Spotted ratfish | | | 1 | 1 | | | 1 | 2 | 1 | 1 | 3 | 4 | |
| | Sandpaper skate | | | | | | | 1 | 1 | | | 1 | 1 | |
| Round fish | Roughscale rattail | 64 | 53 | 106 | 81 | 169 | 125 | 165 | 129 | 799 | 675 | 1,303 | 1,063 | |
| | Pectoral rattail | 15 | 44 | 34 | 105 | 100 | 325 | 54 | 184 | 224 | 974 | 427 | 1,632 | |
| | Other rattails | | | | | 3 | 4 | | | | | 3 | 4 | |
| | Pacific flatnose | | | | | 2 | 1 | 6 | 5 | 43 | 45 | 51 | 51 | |
| | Lingcod | 1 | 14 | 25 | 307 | 9 | 82 | 27 | 308 | 5 | 30 | 67 | 741 | |
| | Other round fish | 6 | 2 | 2 | 5 | 2 | 2 | 1 | 1 | 12 | 13 | 23 | 23 | |
| Rockfish | Rougheye rockfish | 343 | 595 | 136 | 238 | 483 | 816 | 304 | 520 | 234 | 373 | 1,500 | 2,542 | |
| | Redbanded rockfish | 19 | 24 | 18 | 28 | 40 | 67 | 35 | 51 | 26 | 33 | 138 | 203 | |
| | Shortraker rockfish | 7 | 17 | 11 | 37 | 55 | 161 | 12 | 39 | 6 | 31 | 91 | 285 | |
| | Thornyheads | | | | | | | | | 9 | 9 | 9 | 9 | |
| | Shortspine thornyhead | 20 | 17 | 13 | 12 | 30 | 39 | 18 | 17 | 26 | 31 | 107 | 116 | |
| | Longspine thornyhead | | | | | | | 5 | 5 | 6 | 5 | 11 | 10 | |
| | Other rockfish | | | 5 | 4 | 1 | 2 | 1 | 1 | 17 | 13 | 24 | 20 | |
| | Flatfish | Arrowtooth flounder | 456 | 1,247 | 819 | 1,977 | 1,325 | 3,128 | 872 | 2,101 | 704 | 1,707 | 4,176 | 10,160 |
| | | Pacific halibut | 64 | 511 | 102 | 1,014 | 216 | 2,066 | 85 | 855 | 72 | 906 | 539 | 5352 |
| | | Dover sole | 21 | 26 | 17 | 24 | 13 | 14 | 20 | 24 | 19 | 30 | 90 | 118 |
| Other flatfish | | | | | | 3 | 2 | 5 | 13 | 2 | 2 | 10 | 17 | |
| Invertebrates | | Tanner crabs | 70 | 33 | 263 | 43 | 213 | 236 | 129 | 62 | 90 | 55 | 765 | 429 |
| | King crabs | 44 | 22 | 56 | 32 | 98 | 44 | 60 | 22 | 128 | 50 | 386 | 170 | |
| | Oregon hair crab | | | 20 | 10 | 41 | 19 | | | 51 | 28 | 112 | 57 | |
| | Other crabs | | | | | 1 | 1 | 1 | 1 | 11 | 1 | 13 | 3 | |
| | Other invertebrates | 2 | 1 | 3 | 1 | 3 | 5 | 23 | trace | 7 | 27 | 38 | 34 | |
| All species | 1,139 | 2,613 | 1,688 | 5,248 | 2,831 | 7,321 | 1,843 | 4,856 | 2,508 | 5,447 | 10,009 | 25,485 | | |

Table 8. Total number of sablefish tagged and sampled during surveys in 1996.

| Locality | Recovered | Tagged | LSMO | +Weight | +Girth | +Stomach | Total |
|---------------------------|------------|---------------|--------------|------------|----------|----------|---------------|
| Spring | | | | | | | |
| Langara Island-North | 5 | 1,266 | 67 | 0 | 0 | 0 | 1,338 |
| Frederick | | | | | | | |
| Rennell Sound | 2 | 1,022 | 63 | 0 | 0 | 0 | 1,087 |
| Buck Point | 2 | 1,145 | 52 | 0 | 0 | 0 | 1,199 |
| Tasu Sound | 2 | 1,093 | 64 | 0 | 0 | 0 | 1,159 |
| Gowgaia Bay | 7 | 1,170 | 58 | 0 | 0 | 0 | 1,235 |
| Cape St. James | 2 | 1,012 | 50 | 0 | 0 | 0 | 1,064 |
| Middle Ground | 21 | 1,085 | 48 | 0 | 0 | 0 | 1,154 |
| Triangle Island | 1 | 1,004 | 68 | 0 | 0 | 0 | 1,073 |
| Pisces Canyon | 1 | 1,131 | 56 | 0 | 0 | 0 | 1,188 |
| Quatsino Sound | 4 | 1,038 | 50 | 0 | 0 | 0 | 1,092 |
| Esperanza Inlet | 1 | 754 | 0 | 0 | 0 | 0 | 755 |
| Estevan Point | 2 | 880 | 0 | 0 | 0 | 0 | 882 |
| Father Charles Canyon | 1 | 1,224 | 52 | 0 | 0 | 0 | 1,277 |
| Barkley Canyon | 3 | 1,315 | 61 | 0 | 0 | 0 | 1,379 |
| Spring Grand Total | 54 | 15,139 | 689 | 0 | 0 | 0 | 15,882 |
| Fall | | | | | | | |
| Langara Island-North | 1 | 138 | 77 | 0 | 0 | 0 | 216 |
| Frederick | | | | | | | |
| Rennell Sound | 0 | 698 | 51 | 0 | 0 | 0 | 749 |
| Hippa Island | 2 | 325 | 203 | 0 | 0 | 0 | 530 |
| Buck Point | 2 | 230 | 172 | 0 | 0 | 0 | 404 |
| Tasu Sound | 11 | 715 | 19 | 0 | 0 | 0 | 745 |
| Gowgaia Bay | 1 | 139 | 136 | 0 | 0 | 0 | 276 |
| Cape St. James | 3 | 147 | 174 | 0 | 0 | 0 | 324 |
| Middle Ground | 33 | 1,578 | 99 | 0 | 0 | 0 | 1,710 |
| Triangle Island | 0 | 178 | 239 | 0 | 0 | 0 | 417 |
| Pisces Canyon | 5 | 1,277 | 62 | 0 | 0 | 0 | 1,344 |
| Quatsino Sound | 1 | 0 | 234 | 0 | 0 | 0 | 235 |
| Esperanza Inlet | 0 | 196 | 272 | 158 | 0 | 0 | 468 |
| Estevan Point | 0 | 1,238 | 57 | 57 | 0 | 0 | 1,295 |
| Father Charles Canyon | 13 | 945 | 132 | 0 | 0 | 0 | 1,090 |
| Barkley Canyon | 4 | 498 | 264 | 0 | 0 | 0 | 766 |
| Offshore Total | 76 | 8,302 | 2,191 | 215 | 0 | 0 | 10,569 |
| Portland Inlet | 11 | 1,010 | 259 | 0 | 0 | 0 | 1,280 |
| Gil Island | 53 | 1,540 | 385 | 0 | 0 | 0 | 1,978 |
| Finlayson Channel | 12 | 345 | 176 | 0 | 0 | 0 | 533 |
| Mathieson Channel | 8 | 81 | 63 | 0 | 0 | 0 | 152 |
| Dean/Burke Channel | 96 | 918 | 439 | 0 | 0 | 0 | 1,453 |
| Inlet Total | 180 | 3,894 | 1,322 | 0 | 0 | 0 | 5,396 |
| Fall Grand Total | 256 | 12,196 | 3,513 | 215 | 0 | 0 | 16,180 |

Table 9. Total number of sablefish tagged and sampled during surveys in 1997.

| Locality | Recovered | Tagged | LSMO | +Weight | +Girth | +Stomach | Total |
|-----------------------------------|------------|---------------|--------------|------------|--------------|--------------|---------------|
| Spring | | | | | | | |
| Langara Island-North Frederick | 8 | 537 | 59 | 0 | 59 | 0 | 604 |
| Rennell Sound | 4 | 373 | 57 | 0 | 57 | 0 | 434 |
| Buck Point | 4 | 588 | 76 | 0 | 76 | 0 | 668 |
| Tasu Sound | 6 | 536 | 53 | 0 | 53 | 0 | 595 |
| Gowgaia Bay | 5 | 407 | 70 | 0 | 70 | 0 | 482 |
| Cape St. James | 6 | 744 | 66 | 0 | 0 | 0 | 816 |
| Middle Ground | 19 | 812 | 83 | 0 | 82 | 0 | 914 |
| Triangle Island | 22 | 755 | 80 | 0 | 80 | 0 | 857 |
| Pisces Canyon | 12 | 702 | 87 | 0 | 87 | 0 | 801 |
| Quatsino Sound | 9 | 676 | 83 | 0 | 83 | 0 | 768 |
| Esperanza Inlet | 3 | 644 | 84 | 0 | 84 | 0 | 731 |
| Estevan Point | 31 | 1,284 | 58 | 0 | 58 | 0 | 1,373 |
| Father Charles Canyon | 12 | 728 | 42 | 0 | 42 | 0 | 782 |
| Barkley Canyon | 2 | 570 | 44 | 0 | 44 | 0 | 616 |
| Spring Grand Total | 143 | 9,356 | 942 | 0 | 875 | 0 | 10,441 |
| Fall | | | | | | | |
| Langara Island-North Frederick | 0 | 0 | 233 | 0 | 0 | 153 | 233 |
| Hogback | 1 | 309 | 181 | 0 | 0 | 0 | 491 |
| Rennell Sound | 1 | 508 | 39 | 0 | 38 | 0 | 548 |
| Buck Point | 2 | 64 | 100 | 0 | 0 | 0 | 166 |
| Tasu Sound | 3 | 487 | 37 | 0 | 36 | 0 | 527 |
| Gowgaia Bay | 1 | 109 | 142 | 0 | 36 | 92 | 252 |
| Cape St. James | 0 | 0 | 211 | 0 | 0 | 210 | 211 |
| Middle Ground | 9 | 1,082 | 73 | 0 | 27 | 0 | 1,164 |
| Triangle Island | 0 | 66 | 182 | 0 | 0 | 181 | 248 |
| Pisces Canyon | 7 | 1,119 | 54 | 0 | 54 | 0 | 1,180 |
| Quatsino Sound | 0 | 0 | 105 | 0 | 0 | 105 | 105 |
| Esperanza Inlet | 2 | 297 | 252 | 0 | 0 | 121 | 551 |
| Estevan Point | 11 | 1,476 | 79 | 0 | 0 | 0 | 1,566 |
| Father Charles Canyon | 5 | 1,087 | 56 | 0 | 0 | 0 | 1,148 |
| Barkley Canyon | 7 | 535 | 290 | 0 | 62 | 0 | 832 |
| Offshore Total | 49 | 7,139 | 2,034 | 0 | 253 | 862 | 9,222 |
| Portland Inlet | 9 | 527 | 302 | 193 | 298 | 0 | 838 |
| Gil Island | 33 | 1,240 | 282 | 273 | 269 | 206 | 1,555 |
| Finlayson Channel | 9 | 662 | 243 | 243 | 242 | 0 | 914 |
| Dean/Burke Channel | 29 | 715 | 264 | 0 | 93 | 0 | 1,008 |
| Inlet Total | 80 | 3,144 | 1,091 | 709 | 902 | 206 | 4,315 |
| Fall Grand Total | 129 | 10,283 | 3,125 | 709 | 1,155 | 1,068 | 13,537 |

Table 10. Total number of sablefish tagged and sampled during surveys in 1998

| Locality | Recovered | Tagged | LSMO | +Weight | +Girth | +Stomach | Total |
|-----------------------------------|------------|---------------|--------------|----------|----------|--------------|---------------|
| Langara Island-North Frederick | 0 | 258 | 264 | 0 | 0 | 264 | 522 |
| Hippa Island | 4 | 262 | 199 | 0 | 0 | 197 | 465 |
| Buck Point | 1 | 194 | 224 | 0 | 0 | 222 | 419 |
| Tasu Sound | 14 | 2,013 | 63 | 0 | 0 | 0 | 2,090 |
| Gowgaia Bay | 3 | 236 | 248 | 0 | 0 | 247 | 487 |
| Cape St. James | 2 | 47 | 198 | 0 | 0 | 0 | 247 |
| Middle Ground | 61 | 2,048 | 119 | 0 | 0 | 0 | 2,228 |
| Triangle Island | 4 | 277 | 191 | 0 | 0 | 32 | 472 |
| Pisces Canyon | 13 | 2,051 | 56 | 0 | 0 | 0 | 2,120 |
| Quatsino Sound | 3 | 156 | 265 | 0 | 0 | 55 | 424 |
| Kyuquot Sound- Ouokinish Inlet | 0 | 2,339 | 57 | 0 | 0 | 0 | 2,396 |
| Esperanza Inlet | 0 | 302 | 207 | 0 | 0 | 87 | 509 |
| Estevan Point | 70 | 4,321 | 49 | 0 | 0 | 0 | 4,440 |
| Father Charles Canyon | 9 | 1,171 | 47 | 0 | 0 | 0 | 1,227 |
| Barkley Canyon | 2 | 281 | 261 | 0 | 0 | 129 | 544 |
| Offshore Total | 186 | 15,956 | 2,448 | 0 | 0 | 1,233 | 18,590 |
| Portland Inlet | 9 | 2,112 | 323 | 0 | 0 | 323 | 2,444 |
| Gil Island | 32 | 2,296 | 287 | 0 | 0 | 287 | 2,615 |
| Finlayson Channel | 26 | 1,029 | 231 | 0 | 0 | 231 | 1,286 |
| Dean/Burke Channel | 21 | 572 | 245 | 0 | 0 | 245 | 838 |
| Inlet Total | 88 | 6,009 | 1,086 | 0 | 0 | 1,086 | 7,183 |
| Grand Total | 274 | 21,965 | 3,534 | 0 | 0 | 2,319 | 25,773 |

Table 11. Total number of sablefish tagged and sampled during surveys in 1999.

| Locality | Recovered | Tagged | LSMO | +Weight | +Girth | +Stomach | Total |
|-----------------------------------|------------------|---------------|--------------|----------------|---------------|-----------------|---------------|
| Langara Island-North Frederick | 2 | 846 | 450 | 0 | 0 | 218 | 1,298 |
| Rennell Sound | 19 | 2,139 | 50 | 0 | 0 | 0 | 2,208 |
| Hippa Island | 1 | 380 | 247 | 0 | 0 | 163 | 628 |
| Buck Point | 1 | 289 | 404 | 0 | 0 | 204 | 694 |
| Tasu Sound | 36 | 1,664 | 45 | 0 | 0 | 0 | 1,745 |
| Gowgaia Bay | 5 | 469 | 110 | 0 | 0 | 110 | 584 |
| Cape St. James | 7 | 839 | 186 | 0 | 0 | 186 | 1,032 |
| Middle Ground | 132 | 2,108 | 62 | 0 | 0 | 0 | 2,302 |
| Triangle Island | 0 | 784 | 218 | 0 | 0 | 218 | 1,002 |
| Pisces Canyon | 14 | 2,016 | 61 | 0 | 0 | 0 | 2,091 |
| Quatsino Sound | 3 | 582 | 236 | 0 | 0 | 235 | 821 |
| Esperanza Inlet | 3 | 292 | 248 | 0 | 0 | 247 | 543 |
| Estevan Point | 42 | 1,712 | 0 | 0 | 0 | 0 | 1,733 |
| Father Charles Canyon | 22 | 2,294 | 55 | 0 | 0 | 0 | 2,371 |
| Barkley Canyon | 7 | 1,379 | 239 | 0 | 0 | 237 | 1,625 |
| Offshore Total | 294 | 17,793 | 2,611 | 0 | 0 | 1,818 | 20,677 |
| Portland Inlet | 23 | 3,799 | 248 | 0 | 0 | 248 | 4,070 |
| Gil Island | 64 | 3,606 | 251 | 0 | 0 | 251 | 3,921 |
| Finlayson Channel | 40 | 1,356 | 225 | 0 | 0 | 225 | 1,621 |
| Dean/Burke Channel | 20 | 859 | 236 | 0 | 0 | 236 | 1,115 |
| Inlet Total | 147 | 9,620 | 960 | 0 | 0 | 960 | 10,727 |
| Grand Total | 441 | 27,413 | 3,571 | 0 | 0 | 2,778 | 31,404 |

Table 12. Total number of sablefish tagged and sampled during surveys in 2000.

| Locality | Recovered | Tagged | LSMO | +Weight | +Girth | +Stomach | Total |
|-----------------------------------|------------------|---------------|--------------|----------------|---------------|-----------------|---------------|
| Langara Island-North Frederick | 2 | 442 | 201 | 0 | 0 | 201 | 645 |
| Rennell Sound | 42 | 2,428 | 52 | 0 | 0 | 52 | 2,522 |
| Hippa Island | 4 | 366 | 218 | 0 | 0 | 218 | 588 |
| Buck Point | 5 | 678 | 207 | 0 | 0 | 207 | 890 |
| Tasu Sound-Marble Island | 0 | 10 | 169 | 0 | 0 | 169 | 179 |
| Tasu Sound | 10 | 1,731 | 54 | 0 | 0 | 54 | 1,795 |
| Gowgaia Bay | 7 | 561 | 242 | 0 | 0 | 242 | 810 |
| Flamingo Inlet | 1 | 0 | 91 | 0 | 0 | 91 | 92 |
| Cape St. James | 2 | 522 | 192 | 0 | 0 | 192 | 716 |
| Middle Ground | 211 | 1,953 | 44 | 0 | 0 | 44 | 2,208 |
| Triangle Island | 12 | 994 | 211 | 0 | 0 | 211 | 1,217 |
| Pisces Canyon | 14 | 1,991 | 63 | 0 | 0 | 0 | 2,068 |
| Quatsino Sound | 5 | 744 | 333 | 0 | 0 | 333 | 1,082 |
| Esperanza Inlet | 2 | 1,034 | 349 | 0 | 0 | 348 | 1,385 |
| Estevan Point | 98 | 2,271 | 65 | 0 | 0 | 0 | 2,434 |
| Father Charles Canyon | 12 | 2,256 | 61 | 0 | 0 | 0 | 2,329 |
| Barkley Canyon | 11 | 1,820 | 487 | 0 | 0 | 142 | 2,318 |
| Offshore Total | 438 | 19,801 | 3,039 | 0 | 0 | 2,504 | 23,278 |
| Portland Inlet | 12 | 541 | 218 | 0 | 0 | 218 | 771 |
| Gil Island | 58 | 1,792 | 278 | 0 | 0 | 278 | 2,128 |
| Finlayson Channel | 20 | 327 | 251 | 0 | 0 | 251 | 598 |
| Dean/Burke Channel | 26 | 454 | 255 | 0 | 0 | 255 | 735 |
| Inlet Total | 116 | 3,114 | 1,002 | 0 | 0 | 1,002 | 4,232 |
| Grand Total | 554 | 22,915 | 4,041 | 0 | 0 | 3,506 | 27,510 |

Table 13. Summary of sablefish tagged and released during surveys from 1991 to 2000 showing totals for indexing (I) and tagging (T) sets completed by locality and year.

| Survey Set Type | 1991 | | 1992 | | 1993 | | 1994 | | 1995 | | 1996 | | 1997 | | 1998 | | 1999 | | 2000 | | |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|--------|-------|-------|-------|-------|--------|--------|--------|-------|--------|
| | fall | fall | fall | fall | fall | fall | fall | fall | fall | fall | fall | fall | |
| Langara Island-North Frederick | 507 | 217 | 483 | 227 | 154 | 138 | 537 | 1,266 | 138 | 154 | 138 | 537 | 1,266 | 138 | 258 | 189 | 657 | 11 | 431 | | |
| Hippa Island | - | 258 | 504 | 279 | 198 | 325 | - | - | 325 | 198 | 325 | - | - | 262 | - | - | 380 | 8 | 358 | | |
| Buck Point | 170 | 483 | 570 | 346 | 155 | 230 | 588 | 1,145 | 230 | 155 | 230 | 588 | 1,145 | 194 | - | - | 289 | 86 | 592 | | |
| Tasu Sound-Marble Island | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 | | |
| Gowgaia Bay | 281 | 350 | 930 | 469 | 379 | 139 | 407 | 1,170 | 139 | 379 | 139 | 407 | 1,170 | 236 | - | - | 469 | 62 | 499 | | |
| Flamingo Inlet | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| Cape St. James | - | - | - | 301 | 145 | 147 | 744 | 1,012 | 147 | 145 | 147 | 744 | 1,012 | 47 | - | - | 163 | 676 | 87 | 435 | |
| Triangle Island | 69 | 420 | 575 | 238 | 499 | 178 | 755 | 1,004 | 178 | 499 | 178 | 755 | 1,004 | 277 | - | - | 41 | 743 | 187 | 807 | |
| Quatsino Sound | 466 | 528 | 687 | 198 | 290 | - | 676 | 1,038 | - | 290 | - | 676 | 1,038 | 156 | - | - | 218 | 364 | 280 | 464 | |
| Solander Island | - | - | - | 200 | 280 | - | - | - | 280 | 280 | - | - | - | - | - | - | - | - | - | - | |
| Esperanza Inlet | - | 587 | 1,396 | 464 | 567 | 196 | 644 | 754 | 196 | 567 | 196 | 644 | 754 | 297 | - | - | 122 | 170 | 345 | 689 | |
| Barkley Canyon | 954 | 741 | 1,873 | 882 | 696 | 498 | 570 | 1,315 | 498 | 696 | 498 | 570 | 1,315 | 535 | - | - | 212 | 1,167 | 1,181 | 639 | |
| Frederick Island | - | - | - | - | - | - | - | - | 1,953 | - | - | - | - | - | - | - | - | - | - | - | |
| Hogback | - | - | - | - | - | - | - | - | - | - | - | - | - | 309 | - | - | - | - | - | - | |
| Rennell Sound | - | - | - | - | - | - | 698 | 1,022 | - | - | - | 698 | 1,022 | 508 | - | - | 2,139 | - | 2,428 | | |
| Chads Point | - | - | - | - | - | - | - | 954 | - | - | - | - | - | - | - | - | - | - | - | - | |
| Tasu Sound | - | - | - | - | - | - | - | - | - | - | - | 715 | 536 | 487 | - | - | 1,664 | - | 1,731 | | |
| Anthony Island | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Mitchell's Gully/Middle Ground | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Pisces Canyon | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Kyuquot Sound-Ouokinish Inlet | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Estevan Point | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Father Charles Canyon | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Portland Inlet | - | - | - | 646 | 416 | 1,010 | - | - | 1,010 | 416 | 1,010 | - | - | 527 | - | - | 3,799 | - | 541 | | |
| Gil Island | - | - | - | 1,439 | 679 | 1,540 | - | - | 1,540 | 679 | 1,540 | - | - | 1,240 | - | - | 3,606 | - | 1,792 | | |
| Finlayson Channel | - | - | - | - | 693 | 345 | - | - | 345 | 693 | 345 | - | - | 662 | - | - | 1,356 | - | 327 | | |
| Mathieson Channel | - | - | - | - | 656 | 81 | - | - | 81 | 656 | 81 | - | - | - | - | - | - | - | - | | |
| Dean/Burke Channel | - | - | - | - | 1,431 | 918 | - | - | 918 | 1,431 | 918 | - | - | 715 | - | - | 859 | - | 454 | | |
| Total | 2,447 | 3,584 | 7,018 | 5,689 | 1,349 | 5,745 | 6,451 | 9,348 | 15,139 | 6,561 | 9,348 | 15,139 | 5,745 | 4,215 | 6,068 | 8,022 | 13,943 | 10,565 | 16,848 | 5,371 | 17,544 |

Table 14. Summary of sablefish sampled during surveys from 1996 through 2000 showing the mean fork length of males and females and the proportion of males by locality and year.

| Locality | Male Mean Fork Length (mm) | | | Female Mean Fork Length (mm) | | | Proportion Males | | | | | | | | |
|--------------------------------|----------------------------|------|------|------------------------------|------|------|------------------|------|------|------|------|------|------|------|------|
| | 1996 | 1997 | 1998 | 1999 | 2000 | 1996 | 1997 | 1998 | 1999 | 2000 | | | | | |
| Offshore Indexing | | | | | | | | | | | | | | | |
| Langara Island-North Frederick | 623 | 632 | 633 | 626 | 632 | 751 | 768 | 751 | 716 | 709 | 0.53 | 0.45 | 0.39 | 0.48 | 0.53 |
| Hippa Island | 657 | | 630 | 616 | 610 | 740 | | 726 | 696 | 698 | 0.34 | | 0.36 | 0.28 | 0.36 |
| Buck Point | 619 | 623 | 629 | 634 | 618 | 694 | 675 | 712 | 686 | 687 | 0.62 | 0.63 | 0.52 | 0.59 | 0.55 |
| Tasu Sound-Marble Island | | | | | 714 | | | | | 769 | | | | | 0.12 |
| Gowgaia Bay | 646 | 635 | 651 | 590 | 625 | 730 | 707 | 729 | 686 | 716 | 0.46 | 0.52 | 0.39 | 0.32 | 0.45 |
| Flamingo Inlet | | | | | 703 | | | | | 754 | | | | | 0.07 |
| Cape St. James | 631 | 621 | 618 | 617 | 620 | 748 | 706 | 730 | 682 | 685 | 0.45 | 0.59 | 0.47 | 0.45 | 0.56 |
| Triangle Island | 625 | 627 | 616 | 613 | 608 | 723 | 718 | 711 | 685 | 689 | 0.40 | 0.35 | 0.44 | 0.51 | 0.45 |
| Quatsino Sound | 592 | 603 | 605 | 611 | 574 | 704 | 661 | 703 | 702 | 690 | 0.42 | 0.55 | 0.45 | 0.42 | 0.43 |
| Esperanza Inlet | 589 | 591 | 576 | 576 | 576 | 672 | 680 | 652 | 658 | 652 | 0.42 | 0.55 | 0.59 | 0.46 | 0.41 |
| Barkley Canyon | 571 | 578 | 572 | 581 | 564 | 673 | 659 | 663 | 659 | 659 | 0.50 | 0.47 | 0.69 | 0.51 | 0.40 |
| Offshore Tagging | | | | | | | | | | | | | | | |
| Hogback | | 608 | | | | | 674 | | | | | 0.45 | | | |
| Rennell Sound | 615 | 638 | | 587 | 550 | 710 | 712 | | 610 | 601 | 0.71 | 0.44 | | 0.68 | 0.83 |
| Tasu Sound | 656 | 633 | 620 | 618 | 643 | 746 | 714 | 718 | 681 | 767 | 0.47 | 0.57 | 0.29 | 0.40 | 0.52 |
| Middle Ground | 544 | 592 | 594 | 562 | 574 | 624 | 669 | 679 | 607 | 690 | 0.80 | 0.62 | 0.77 | 0.77 | 0.73 |
| Pisces Canyon | 631 | 636 | 635 | 624 | 595 | 693 | 735 | 696 | 696 | 678 | 0.53 | 0.45 | 0.55 | 0.40 | 0.28 |
| Kyuquot Sound-Ouokinish Inlet | | | 604 | | | | | 683 | | | | | 0.63 | | |
| Estevan Point | 585 | 561 | 584 | | 569 | 681 | 654 | 656 | | 622 | 0.54 | 0.72 | 0.63 | | 0.69 |
| Father Charles Canyon | 597 | 599 | 583 | 566 | 623 | 700 | 676 | 623 | 629 | 675 | 0.46 | 0.54 | 0.72 | 0.67 | 0.48 |
| Mainland Inlet | | | | | | | | | | | | | | | |
| Portland Inlet | 575 | 549 | 556 | 535 | 530 | 638 | 605 | 581 | 598 | 593 | 0.19 | 0.22 | 0.25 | 0.25 | 0.18 |
| Gil Island | 564 | 548 | 540 | 530 | 529 | 653 | 631 | 596 | 577 | 591 | 0.39 | 0.36 | 0.32 | 0.39 | 0.41 |
| Finlayson Channel | 586 | 576 | 574 | 575 | 538 | 654 | 630 | 619 | 610 | 612 | 0.33 | 0.29 | 0.43 | 0.34 | 0.31 |
| Mathieson Channel | 585 | | | | | 679 | | | | | 0.44 | | | | |
| Dean/Burke Channel | 556 | 547 | 545 | 528 | 524 | 589 | 622 | 587 | 575 | 576 | 0.42 | 0.39 | 0.37 | 0.34 | 0.36 |

Table 15. Regression equations fitted to the length-weight and length-girth relationships of fish sampled during sablefish surveys from 1996 through 2000.

| Survey | Sex | Model and Parameter estimates | Mean Squared Error | | R ² | Degrees of Freedom | |
|-----------------------------------|--------|----------------------------------|--------------------|-----------|----------------|--------------------|-----|
| | | | \hat{a} | \hat{b} | | | |
| Girth-length relationship | | | | | | | |
| 1997 Spring | Male | $G_i = a + bL_i + \varepsilon_i$ | -8.35 | 0.4997 | 13.81 | 0.8061 | 489 |
| | Female | | -38.08 | 0.5470 | 16.68 | 0.8619 | 381 |
| 1997 Fall | Male | | -52.67 | 0.5935 | 15.47 | 0.8513 | 390 |
| | Female | | -61.33 | 0.6067 | 16.78 | 0.9016 | 754 |
| Weight-length relationship | | | | | | | |
| 1996 Fall | Male | $W_i = aL_i^b \varepsilon_i$ | | | | | |
| | Female | | $8.76 * 10^{-5}$ | 3.03 | 298.66 | | 96 |
| 1997 Fall | Male | | $4.92 * 10^{-5}$ | 2.77 | 365.05 | | 114 |
| | Female | | $4.50 * 10^{-7}$ | 3.51 | 200.13 | | 209 |
| | Female | | $2.06 * 10^{-6}$ | 3.26 | 255.13 | | 492 |

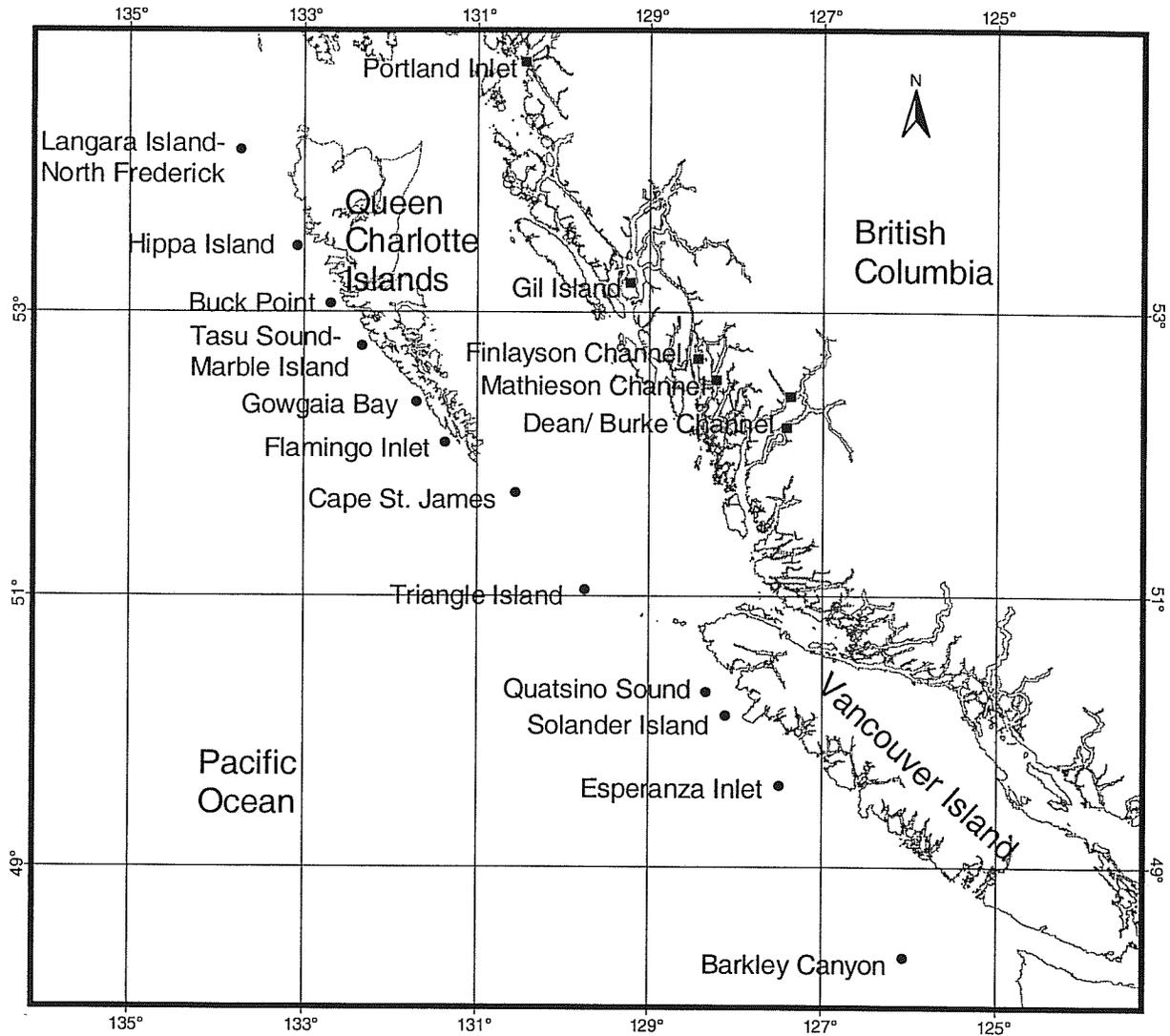


Figure 1. Offshore indexing and mainland inlet localities visited during sablefish research and assessment surveys from 1988 through 2000. Black circles indicate the indexing localities while mainland inlet localities are indicated by black squares.

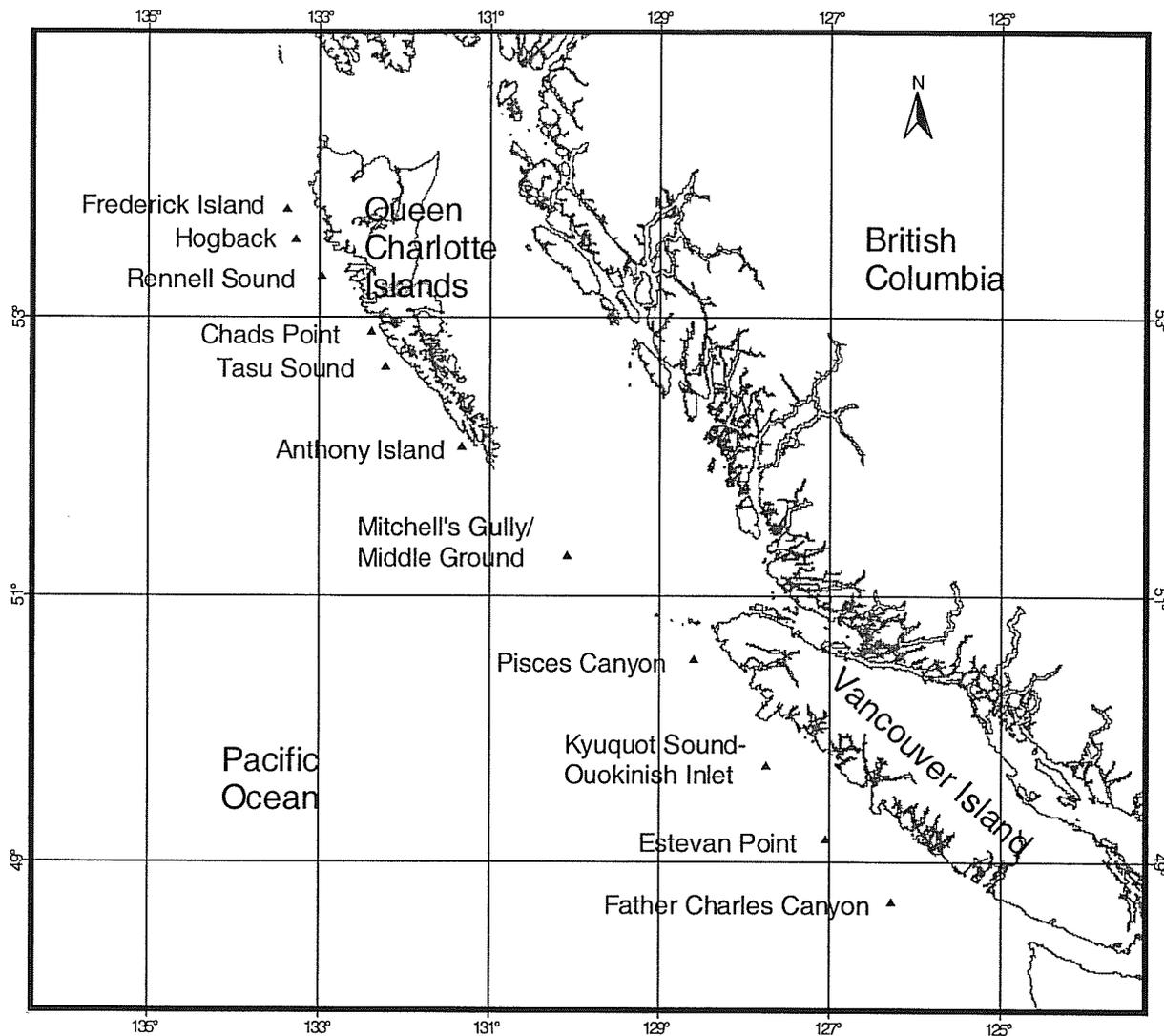


Figure 2. Offshore tagging localities visited during sablefish research and assessment surveys from 1995 through 2000 (tagging localities did not exist prior to 1995).

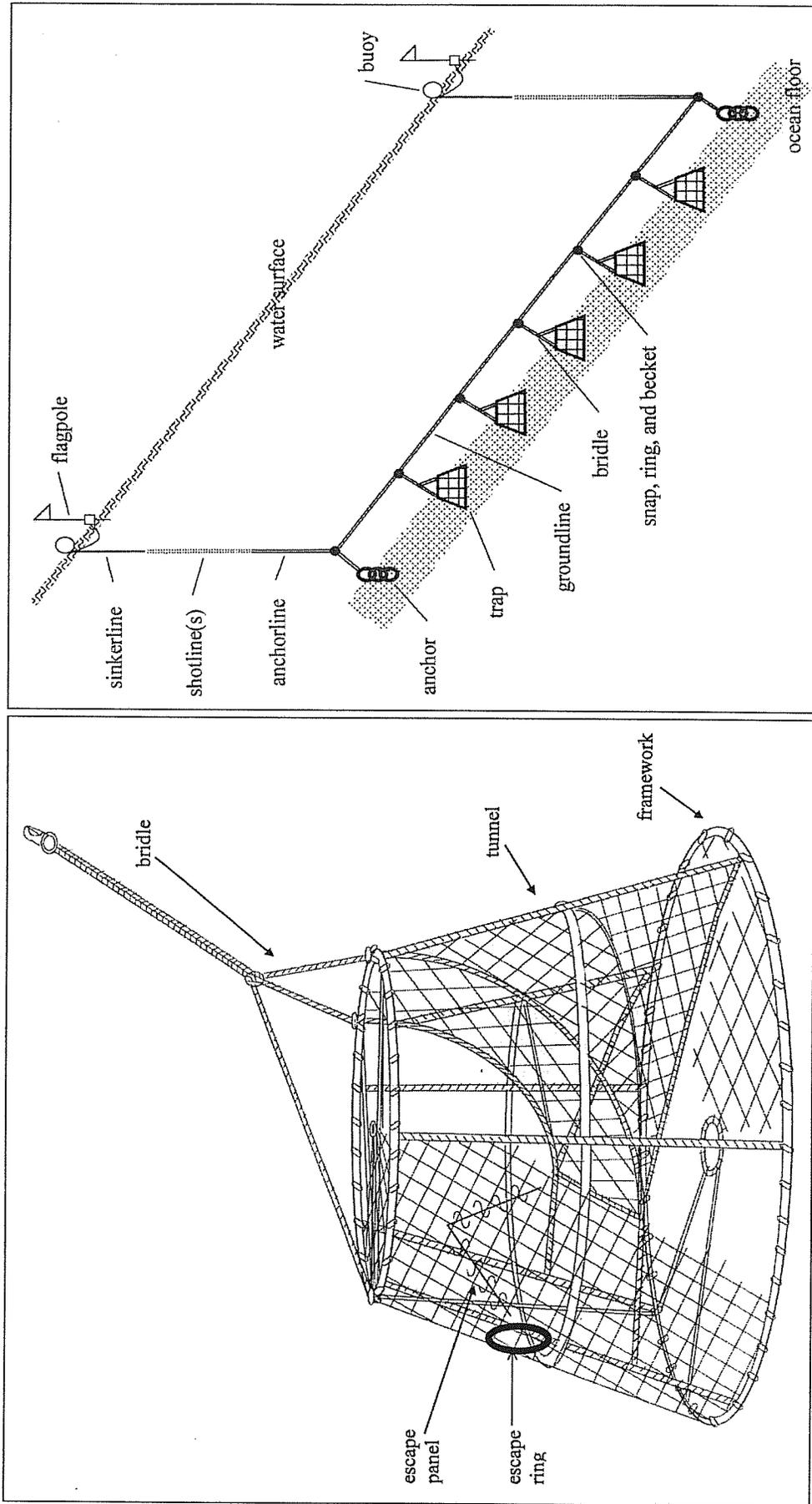


Figure 3. Diagrams of fishing gear used during sablefish research and assessment surveys. The left panel shows a modified Korean trap. The right panel shows the components of a string of trap gear.

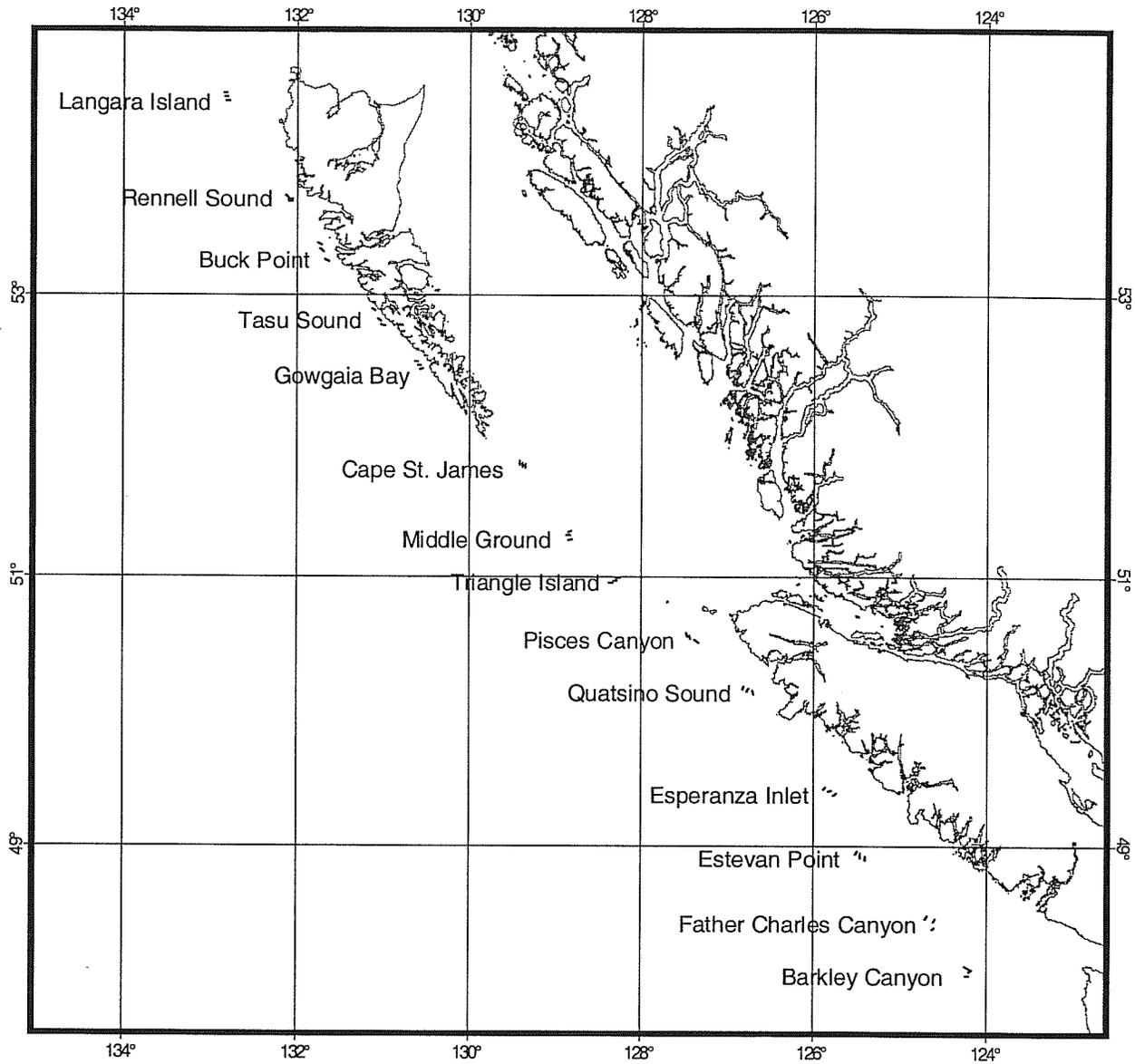


Figure 4. Locations of sets completed by the Viking Sunrise during the 1996 spring sablefish tagging survey.

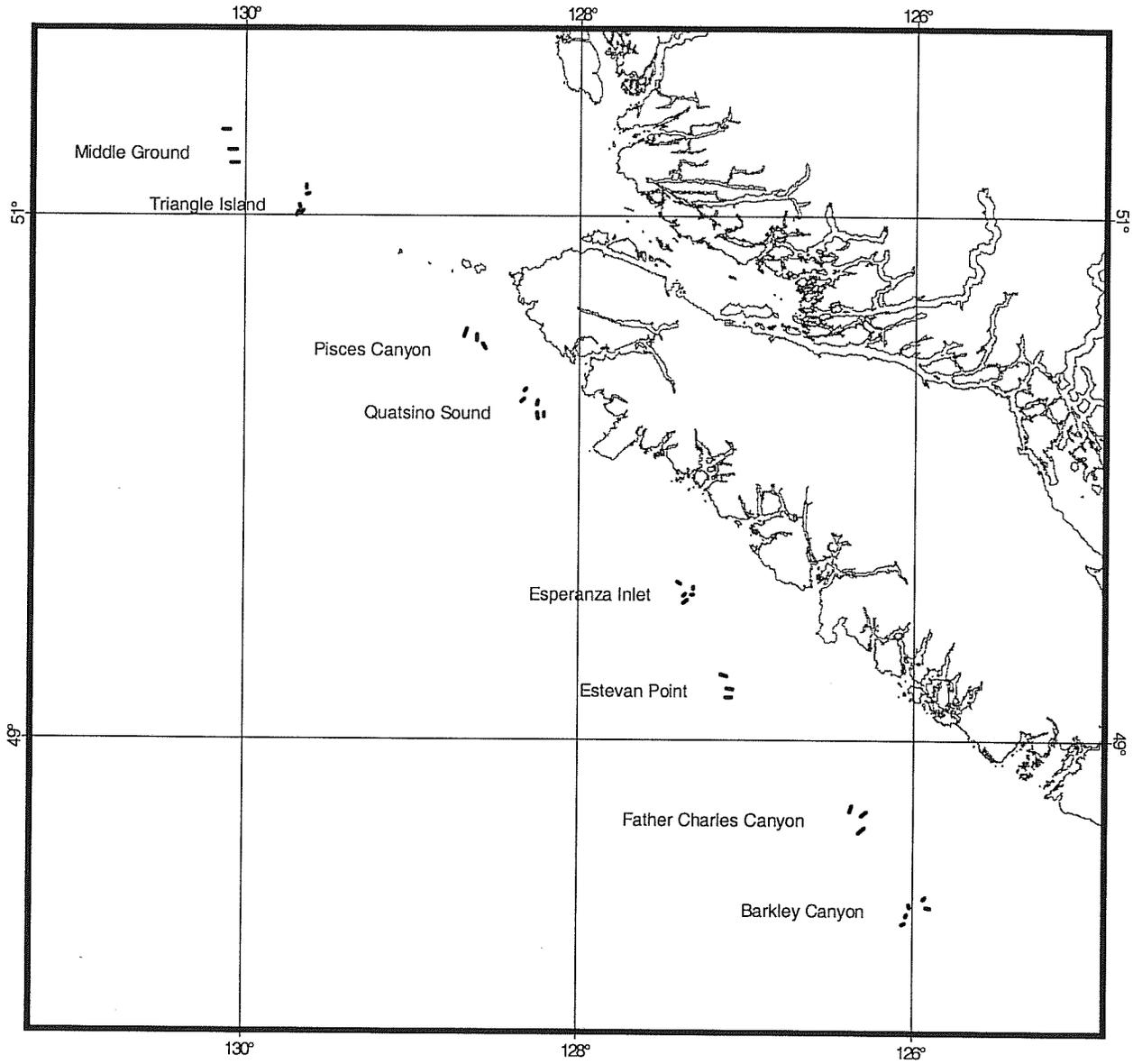


Figure 5. Locations of sets completed by the Ocean Pearl during the 1996 fall sablefish survey south coast charter.

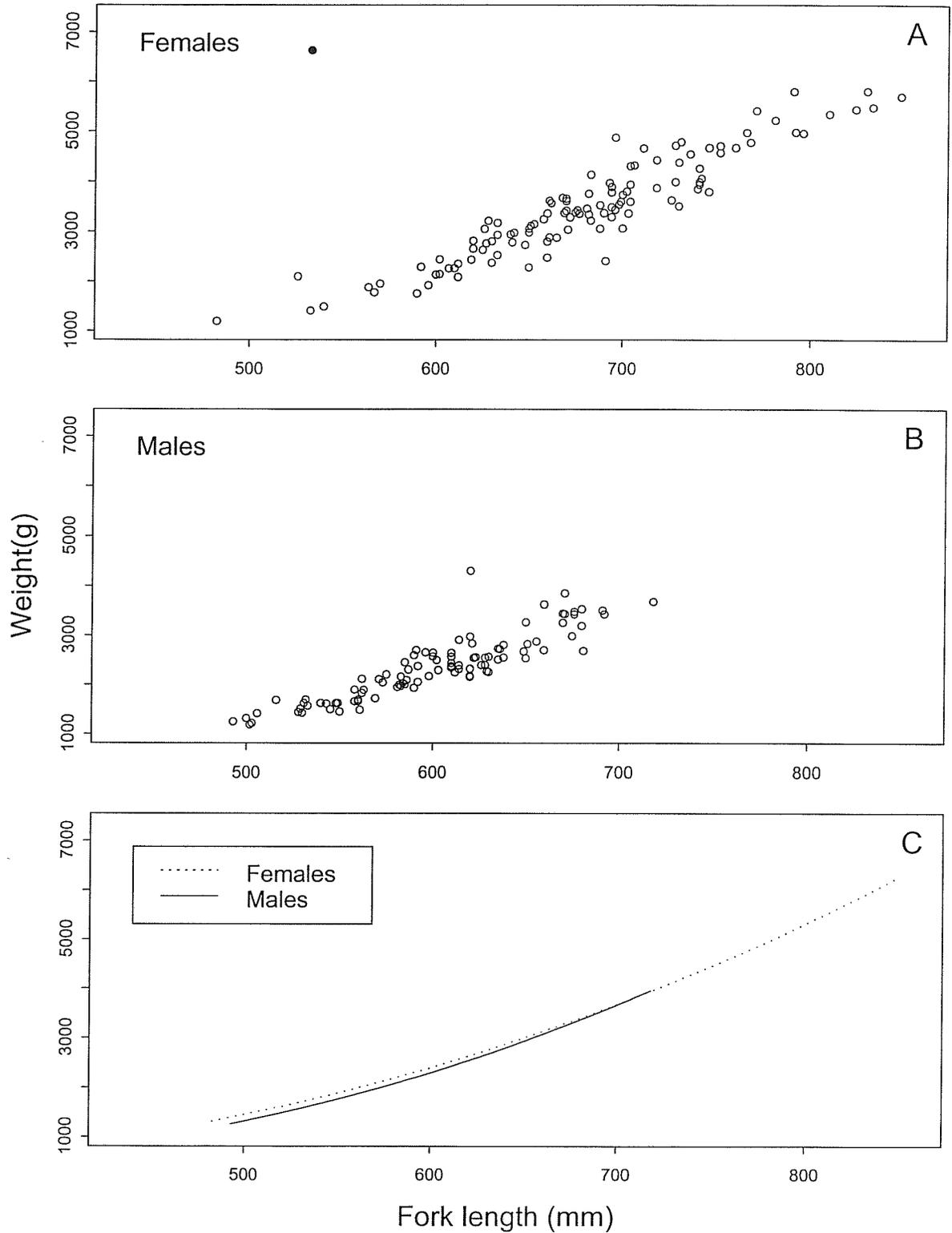


Figure 6. Weight-length relationships of sablefish sampled during the 1996 fall survey south coast charter. Panel A shows females, panel B shows males, and Panel C shows the fitted regressions by sex. The filled circle in panel A indicates a data point judged to be a transcription error and excluded from the regression analysis.

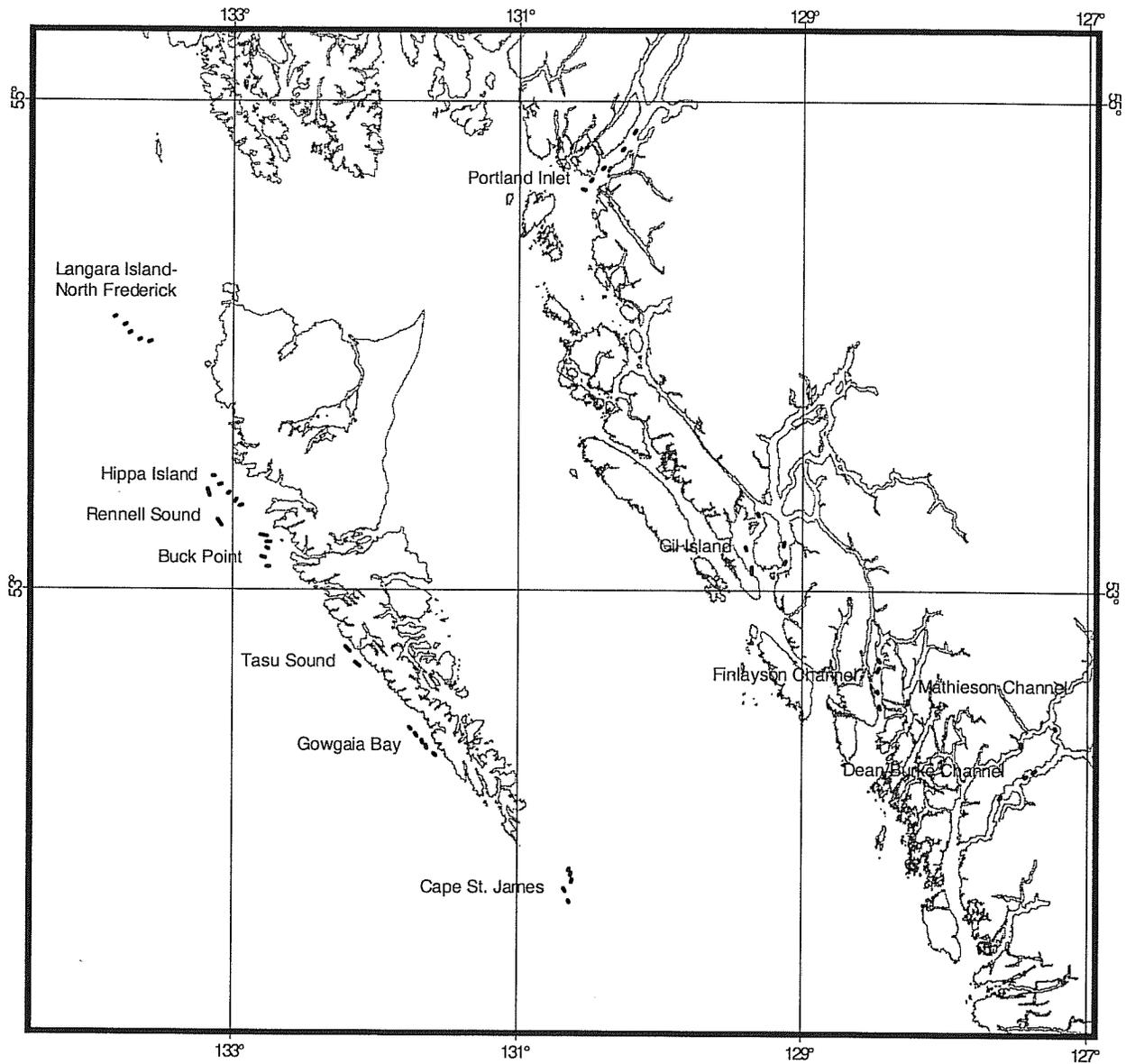


Figure 7. Localities of sets completed by the Viking Sunrise during the 1996 fall sablefish survey north coast charter.

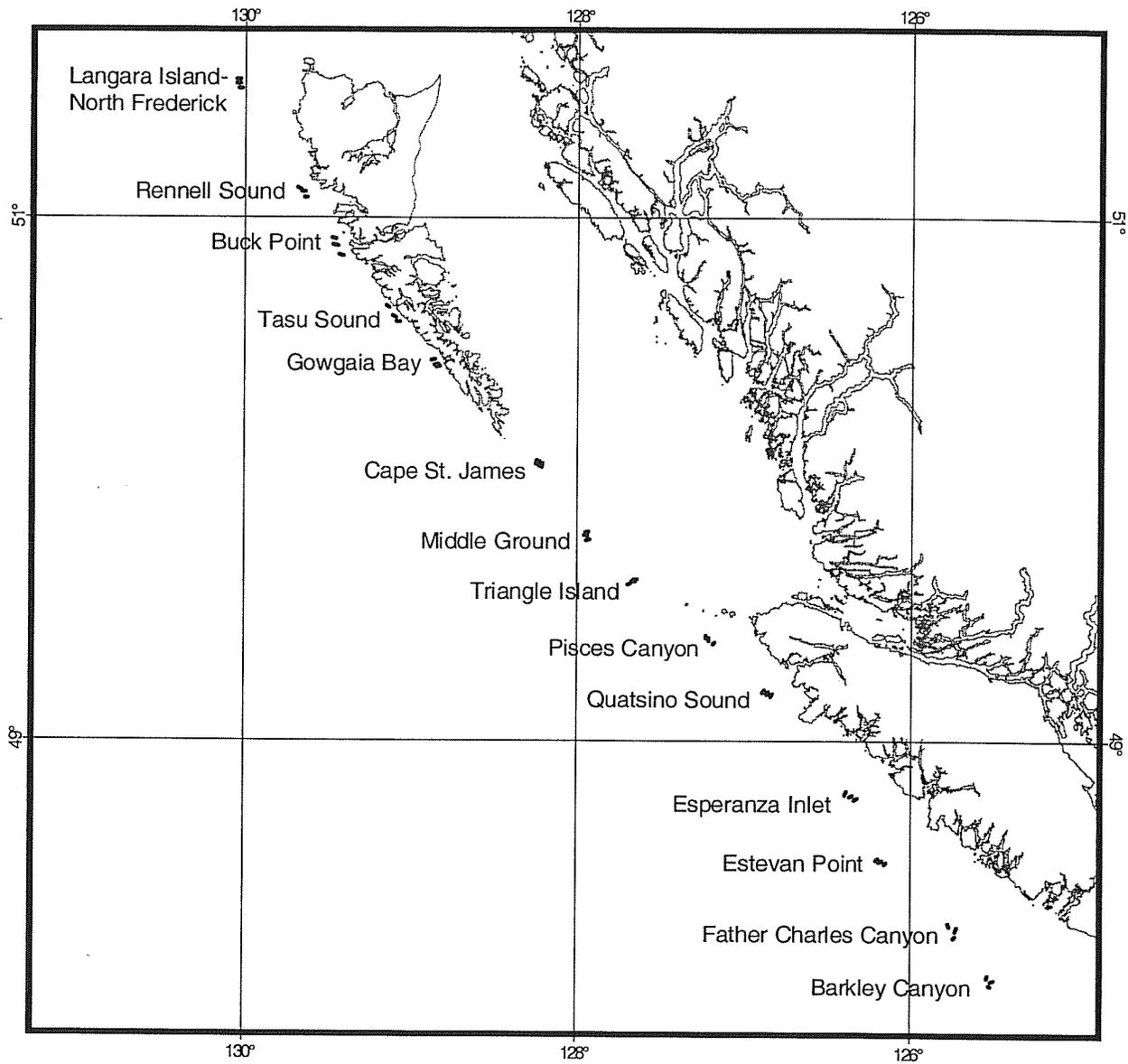


Figure 8. Locations of sets completed by the Viking Sunrise during the 1997 spring sablefish tagging survey.

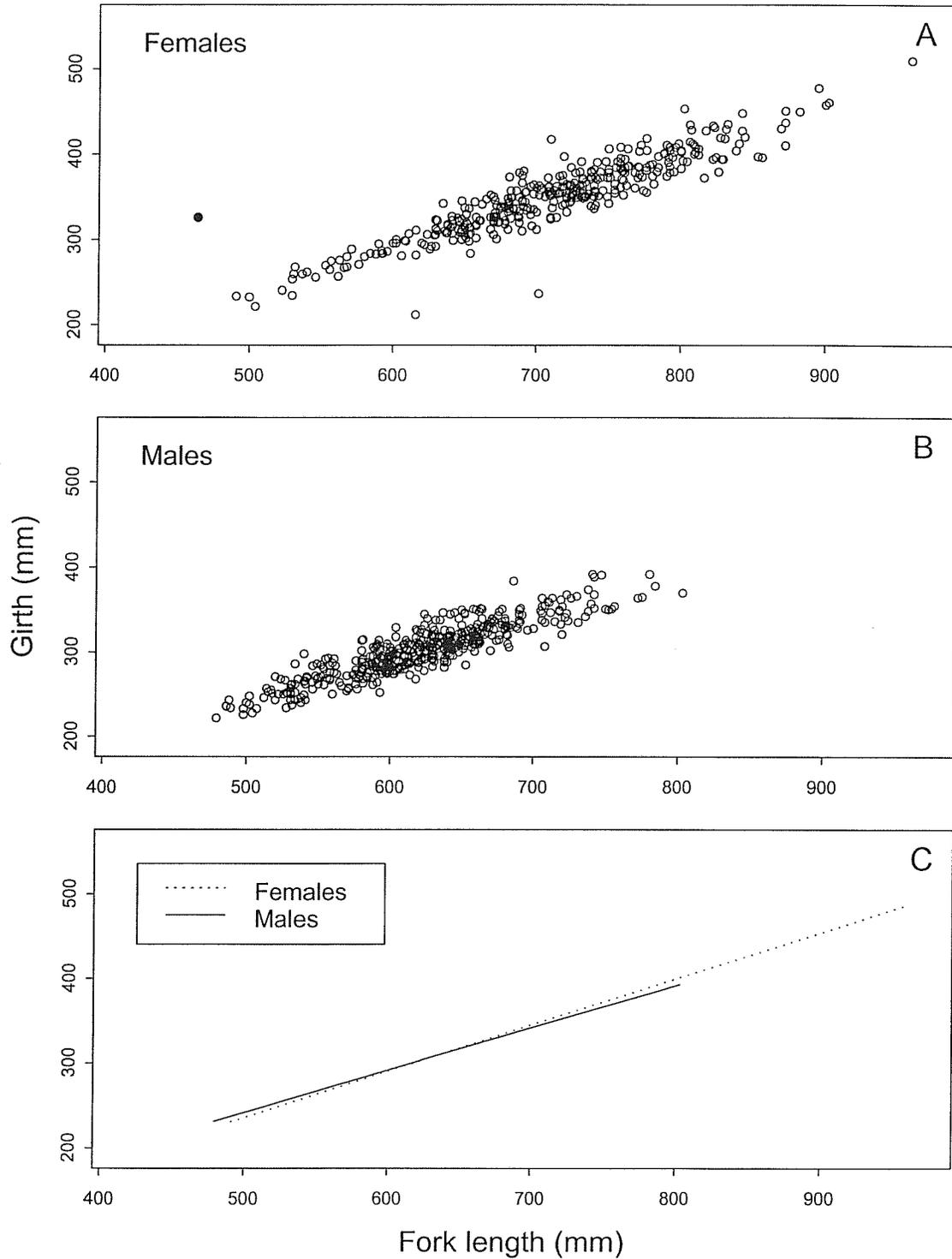


Figure 9. Girth-length relationships of sablefish sampled during the 1997 spring sablefish tagging survey. Panel A shows females, panel B shows males, and Panel C shows the fitted regressions for each sex. The filled circle in panel A indicates a data point judged to be a transcription error and excluded from the regression analysis.

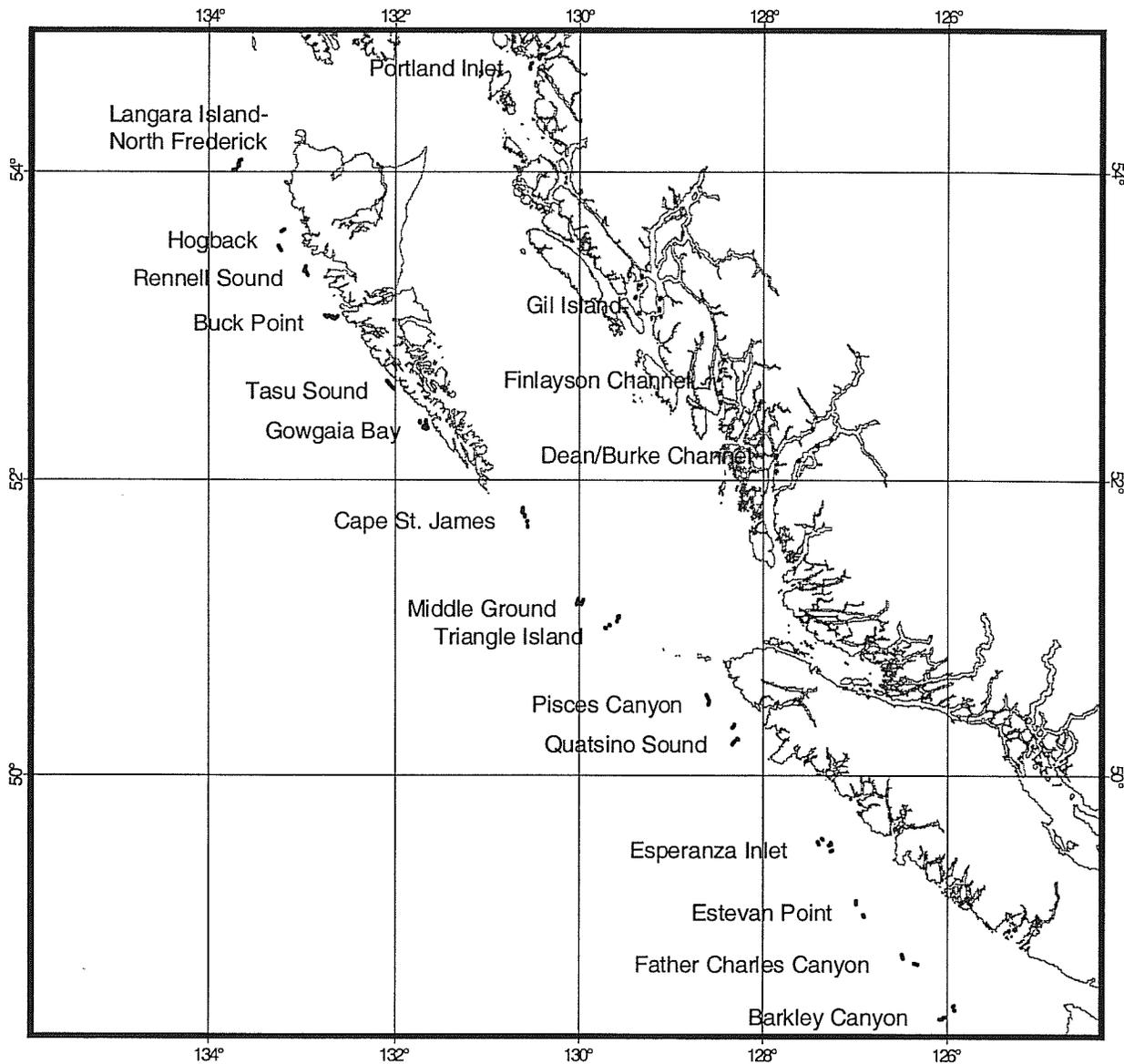


Figure 10. Locations of sets completed by the Ocean Pearl during the 1997 fall sablefish survey.

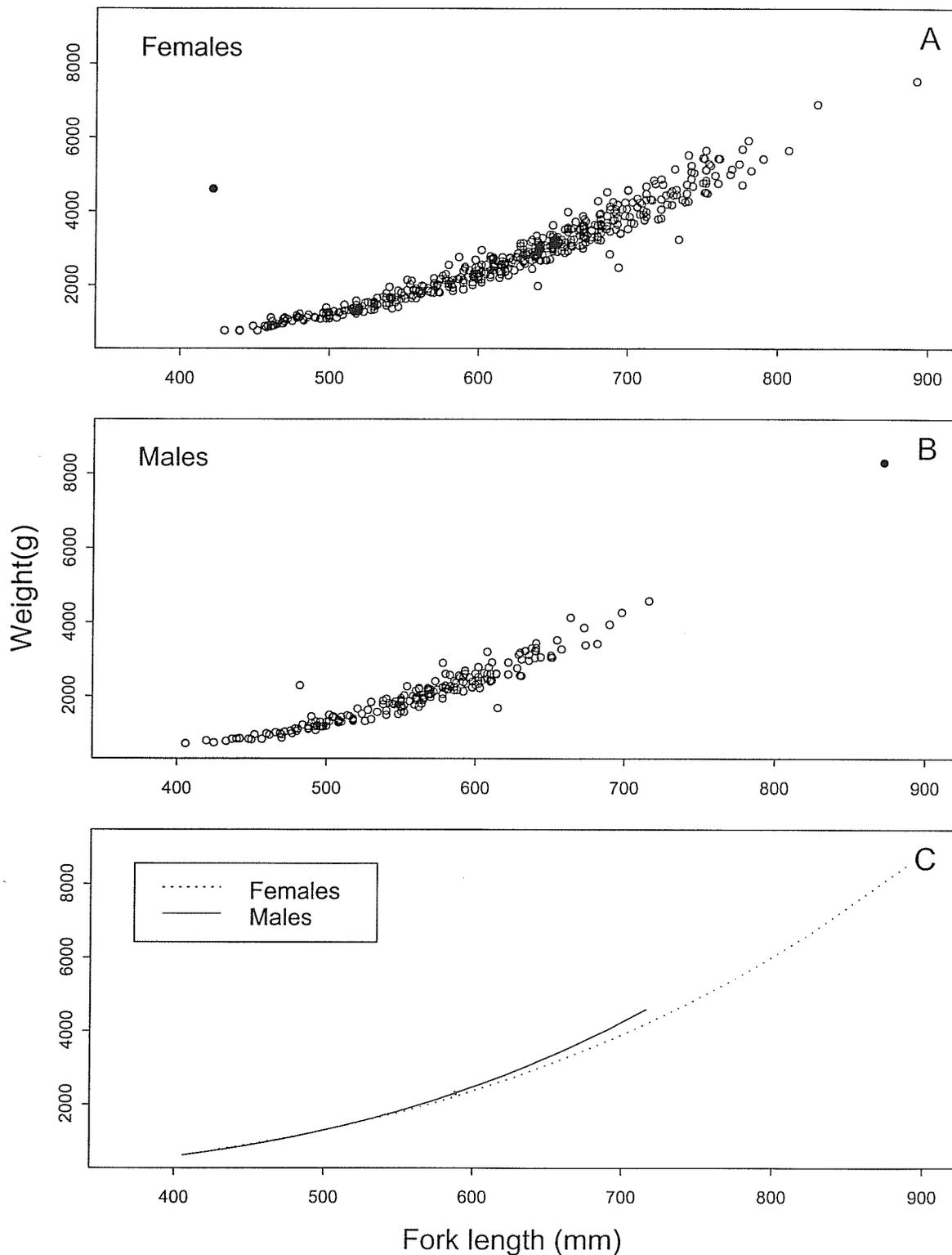


Figure 11. Weight-length relationship for sablefish sampled during the 1997 fall sablefish survey. Panel A shows females, panel B shows males, and Panel C the fitted regressions for each sex. In panels A and B filled circles indicate data points that were judged to be transcription errors and excluded from the regression analysis.

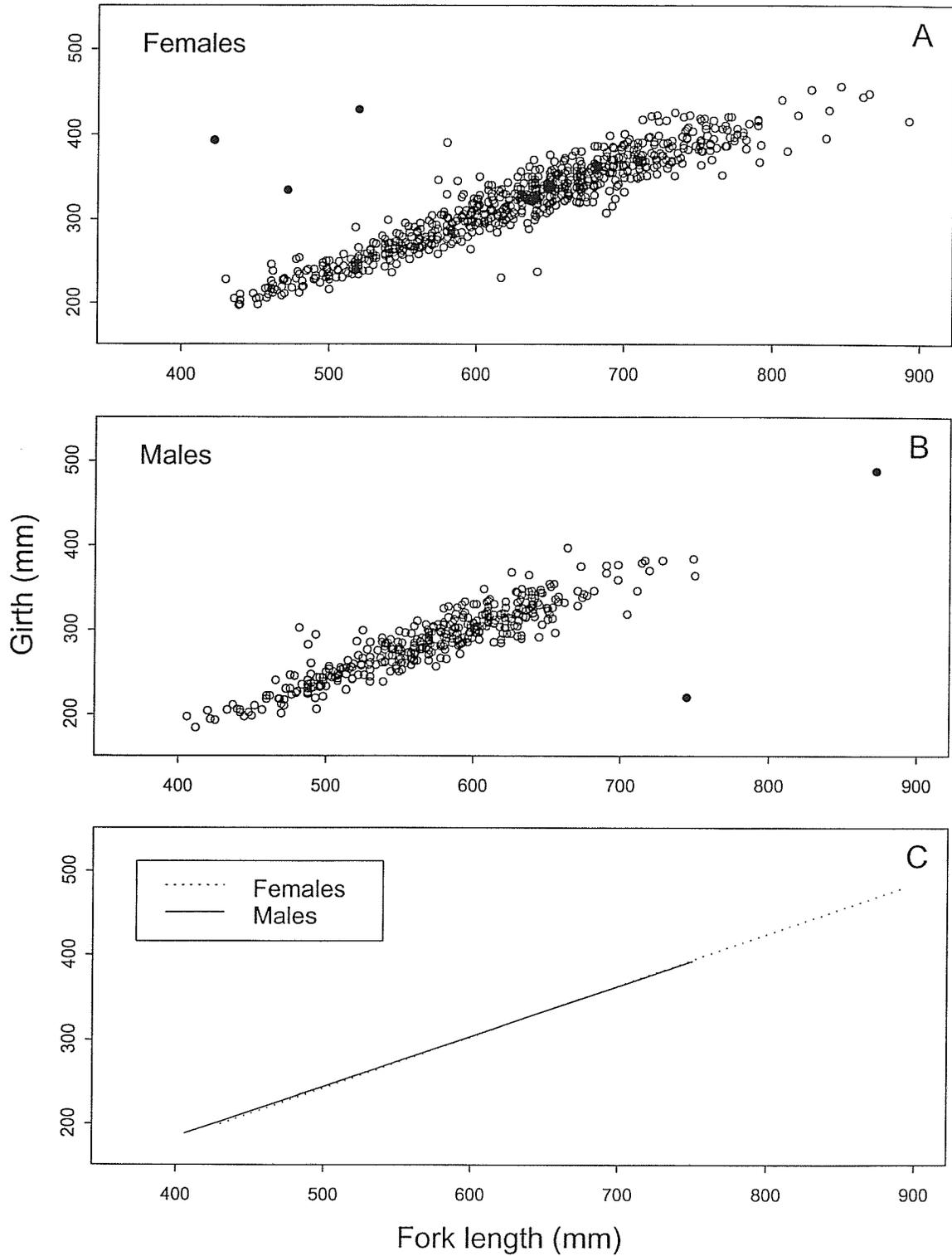


Figure 12. Girth-length relationship for sablefish sampled during the 1997 fall sablefish survey. Panel A shows females, panel B shows males, and Panel C the fitted regressions for each sex. In panels A and B filled circles indicate data points judged to be transcription errors and excluded from the regression analysis.

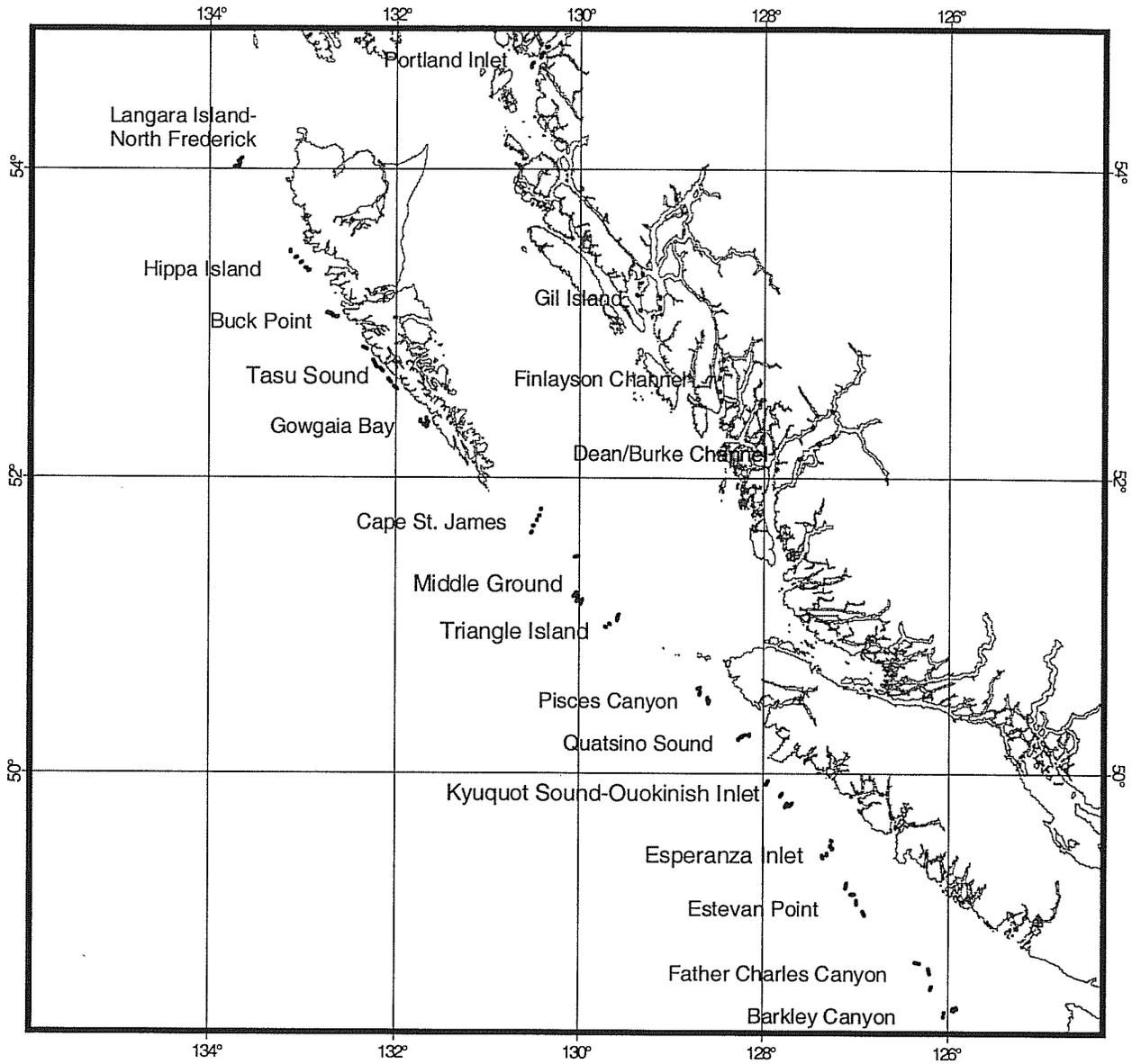


Figure 13. Locations of sets completed by the Ocean Pearl during the 1998 fall sablefish survey.

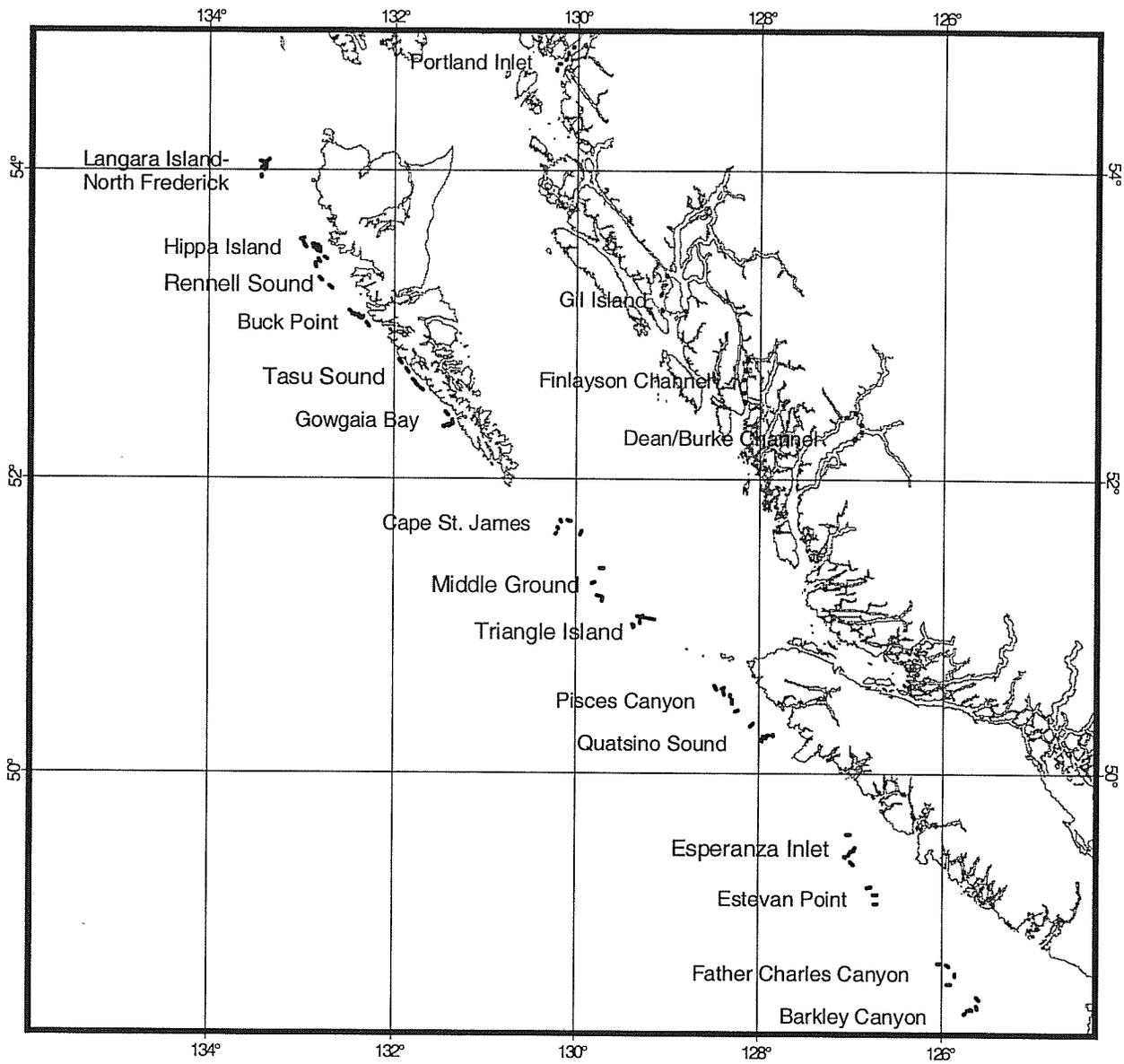


Figure 14. Locations of sets completed by the Ocean Pearl during the 1999 fall sablefish survey.

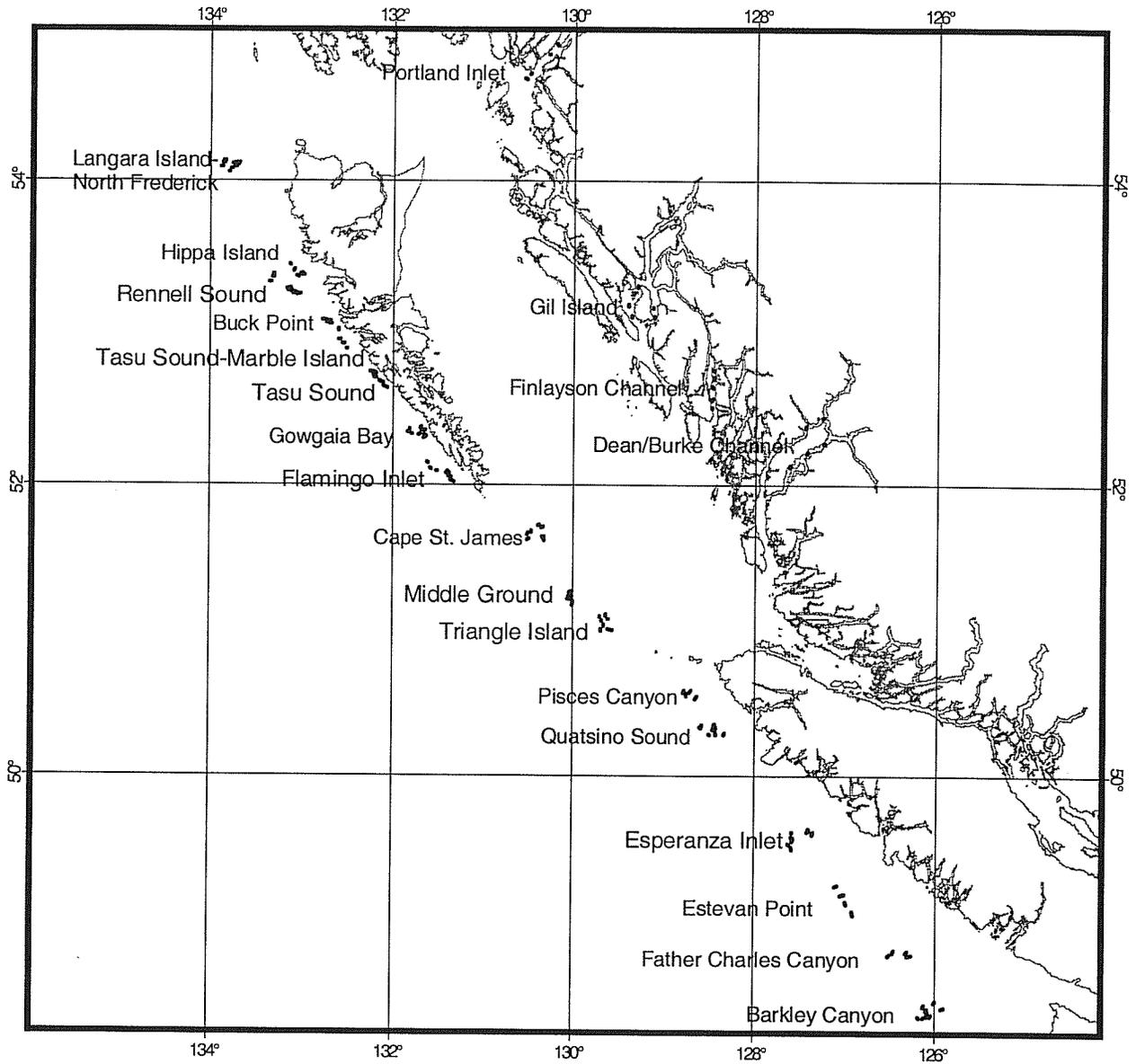


Figure 15. Localities of sets completed by the Pacific Viking during the 2000 fall sablefish survey.

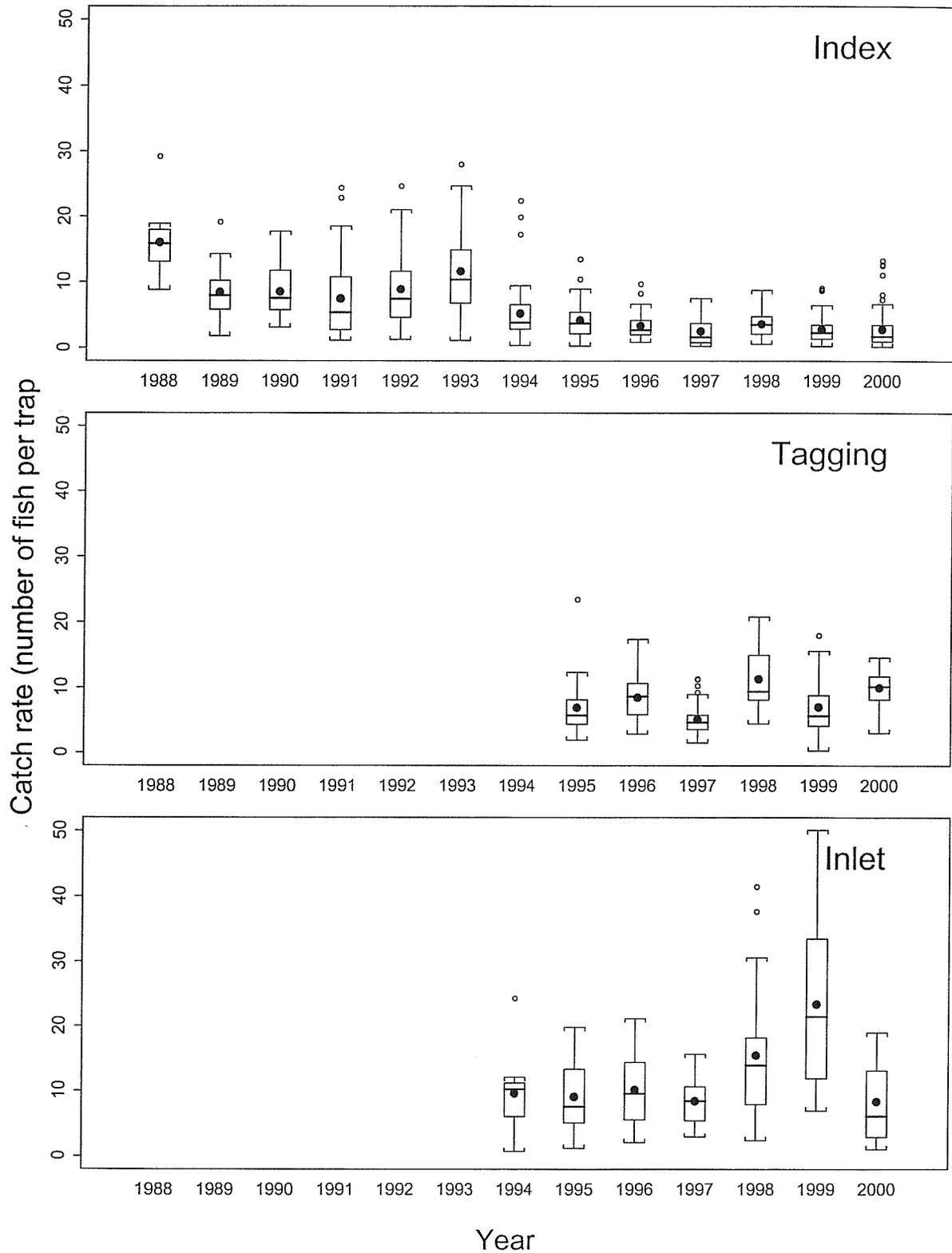


Figure 16. Distribution of catch rates for indexing, tagging, and inlet sets summarized by boxplots for each year. The filled circles show the mean annual catch rates. The shaded rectangle indicates an approximate 95 percent confidence interval on the median annual catch rate.

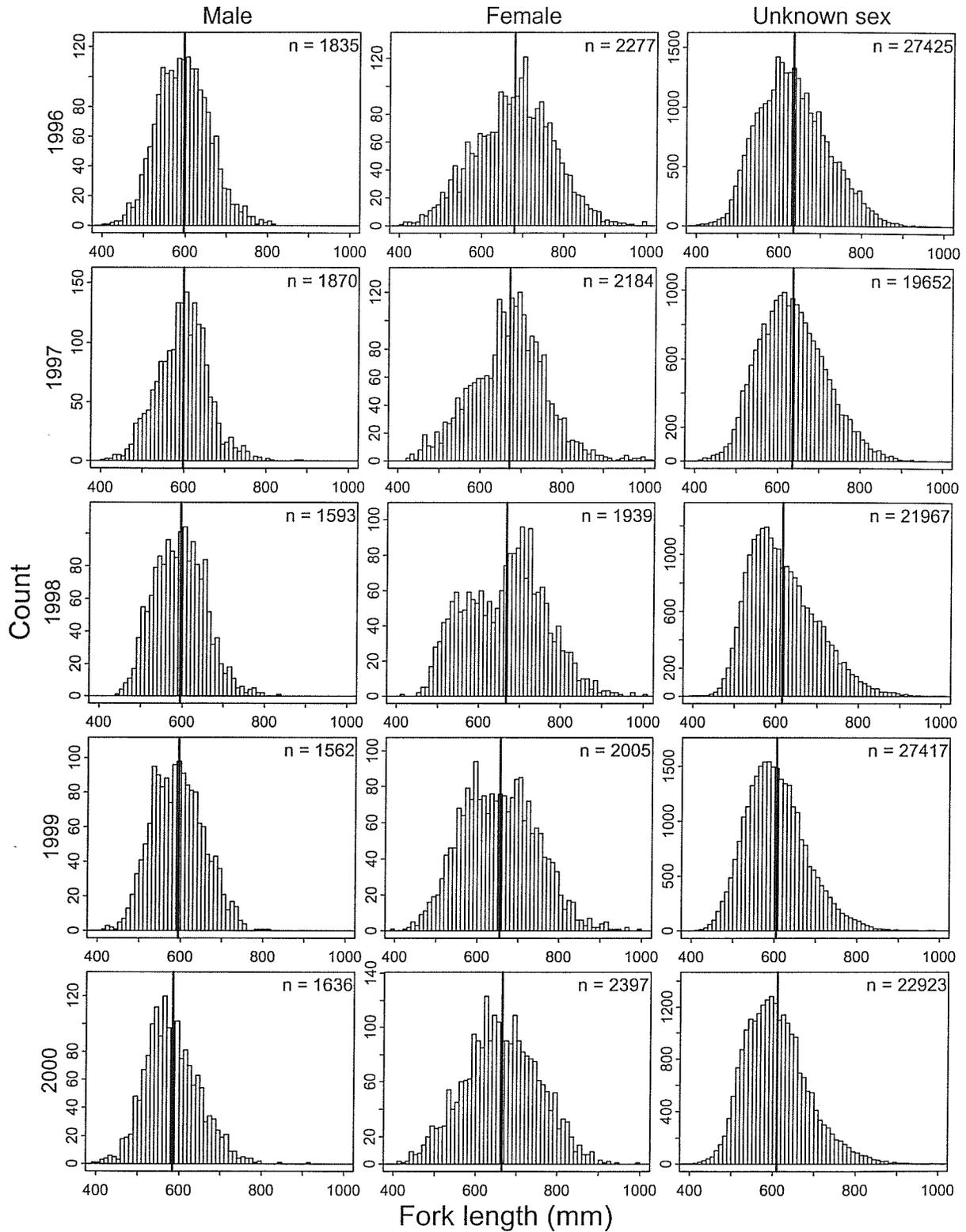


Figure 17. Fork length frequency distributions of male, female, and unknown sex sablefish sampled and tagged during surveys from 1996 through 2000. The solid vertical line represents the mean fork length for each cell.

APPENDIX A: DATA STORAGE AND EXTRACTION

This appendix is a brief description of the unique nature of the sablefish research and assessment survey data stored in the GFBio database and is intended for experienced users. The relationships of the major GFBio tables are diagrammed in Figure A.1. Extraction of sablefish survey catch data from GFBio requires special care as there is duplication of the catch data. During the survey, sablefish catch data are recorded for each trap, but the sampling and tagging data are only recorded to the set level. Similarly, the catch composition data of species other than sablefish are often only recorded to the set level. Thus, in GFBio, each set (FE_MAJOR_LEVEL_ID) is associated with a FISHING_EVENT_ID, a CATCH_ID, and one or more SAMPLE_ID(s). Further, each trap (FE_SUB_LEVEL_ID) is also associated with a FISHING_EVENT_ID and a CATCH_ID. Thus there are two records in the B03_CATCH table for each catch that was recorded to the trap level. These trap-level fishing event records can be linked to the set level fishing event records by the FE_PARENT_EVENT_ID field.

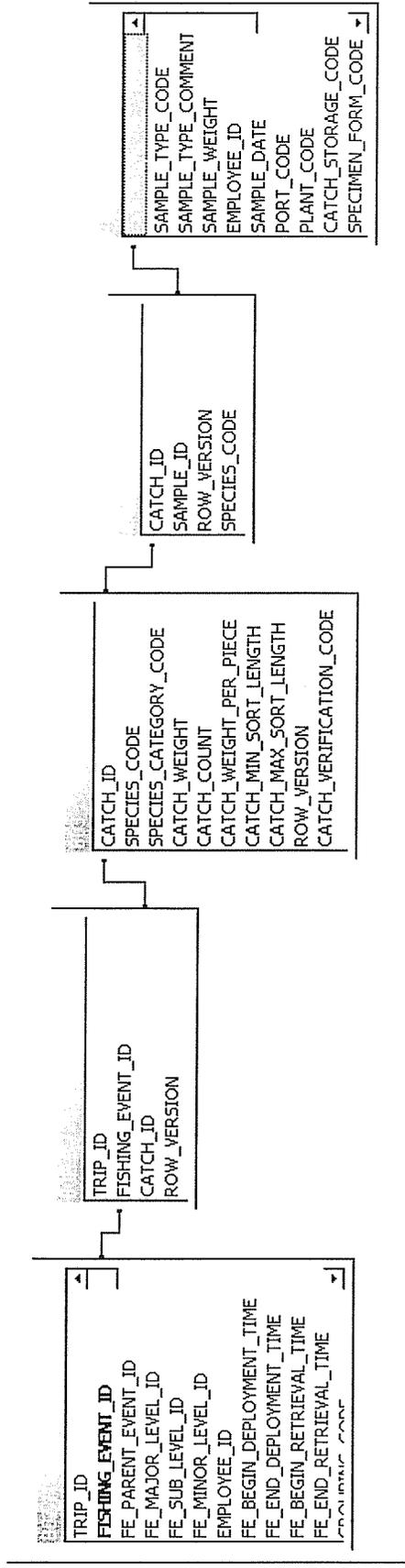


Figure A.1. Diagram of the GFBio database table relationships.

APPENDIX B: GLOSSARY OF LONGLINE TRAP FISHING GEAR TERMS

Anchor: Bundle of chains weighing approximately 60 kg (90 lb) that are attached to the groundline on the becket before the first trap and after the last trap. Prevents drifting and sliding of the groundline.

Anchorline or bouyline: A 549 m (300 fm) long 22 mm (7/8 in.) 3-ply polypropylene rope permanently attached to the groundline at the first and last becket. This line retrieves the anchor and groundline.

Baitbag: 15 x 20 cm (6 x 8 in.) fine mesh bag with a nylon drawstring and no. 72 stainless steel halibut longline snap.

Becket: 13 mm (1/2 in.) diameter 2 in 1 braided nylon rope spliced into the groundline every 46 m (150 ft). Each becket forms a loop of approximately 15 cm (6 in.).

Bouy: 60 to 90 cm (2 to 3 ft) diameter Bright orange inflatable plastic bladders used in combinations of two or three to suspend the sinkerline and bouyline.

Bridle: 13 mm (1/2 in.) 3-ply polypropylene rope "double" fastened at three points to the top hoop of the trap and knotted at a single point to form a loop of approximately 158 cm (62 in.) long with a snap bent on to the end. This bridle is fastened onto the top hoop in such a manner that pressure is inward on the tunnel when the trap is being retrieved.

Drum: Large capacity spool or drum that stores 3 to 5 complete anchor and groundline combinations.

Escape panel: 12 meshes of the trap web located in the upper half of one of the panels opposite the tunnel and cut along the horizontal bar to make a triangular opening of approximately 25 cm (10 in.) when allowed to hang loose. The cut is laced closed with a single piece of 2 mm cotton "butcher" twine. The purpose of the panel is to open when the cotton twine rots if the trap is lost while fishing, i.e. to prevent ghost fishing.

Flagpole: Attached to buoys and helps to locate the end of the string.

Groundline: 22 mm (7/8 in.) 3 ply polypropylene rope, 1327 m (725 fm) long on the research vessel, and 3660 m (2000 fm) to 4575 m (2500 fm) long on commercial vessels.

Hauler or power block: Hydraulic powered pulley that hauls all the line (approximately 30 m (100 ft) per minute) aboard the vessel prior to winding or storing on the drum.

Ring: 52 mm (2 in.) diameter 8 mm (5/16 in.) stainless steel ring bent or knotted onto becket.

Shotline: Additional pieces of 22 mm (7/8 in.) polypropylene rope used to extend the anchor or bouyline, usually 91 m (50 fm) or 183 m (100 fm) long.

Sinkerline: 19 mm (3/4 in.) 3-ply nylon rope attached to the top of the bouyines or shotlines. The purpose of this line is to prevent the polypropylene anchor or bouyline from floating and "puddling" on the surface and posing a hazard to navigation. The line is usually 91 m (50 fm) or 183 m (100 fm) long.

Snap: Galvanised cast steel device with ring on one end and a spring loaded enclosure on the other end strong enough to withstand a 1400 kg (3000 lb) strain.

Traps: The traps are a Korean design adopted and modified by local fishers to local conditions. They are designed and constructed to stack into each other when transported or stored. The traps are constructed of mild steel rod welded at all junctures. The top hoop diameter is 84 cm (33 in.), the bottom hoop diameter is 137.2 cm (54 in.), and the 6 vertical members are 79 cm (31 in.) long giving the trap a 74 cm (29 in.) vertical height. Horizontal bars are attached midway between the top and bottom hoops in 5 of the 6 vertical panels. The trap is covered or capped with a single piece of black nylon 70 mm (#42) web (stretch measure inside the knots). This is fastened to the frame so that the top is permanently closed and the bottom can be opened and closed with a draw string. The one side panel without a horizontal bar is not covered with web and accommodates the trap entrance or tunnel. The tunnel is constructed of two pieces of green 44 mm (#18) knotless braided web. The two seams of the tunnel are fastened together prior to attaching to the frame of the trap. When the tunnel is fastened to the trap it slopes downward with a 36 cm (14 in.) opening or slit. The bottom part of the slit will be taut and the top will be loose when the tunnel is stretched into place from the opposite panel of the trap. The tunnel extends 64 cm (25 in.) into the trap. When the trap is prepared for fishing both the tunnel lines and the bottom closing line (4 mm braided single-ply polypropylene twine) are pulled taut, looped together and knotted at a single point. The tunnel and bottom closing lines are of sufficient length to allow the bottom and the tunnel to collapse completely against the inside of the trap to allow for stacking. One of the panels opposite the tunnel contains the escape panel (defined above). Chafing line (10 mm (3/8 in.) and 13 mm (1/2 in.) diameter 3-ply polypropylene) is wrapped around all the frame members to protect the web after the trap is covered.

(Descriptions were modified from Smith et al. 1996)

APPENDIX C: EXAMPLE DATA FORMS

BRIDGE LOG

VESSEL Pacific Viking DATE ^{yr} 2000 ^{mo} 10 ^{day} 02 HAUL/SET NO ¹⁰ 01
 LOCATION: major ¹³ Barkley Canyon minor ¹⁵ SECF locality ¹⁷ _____

GEAR ¹⁹ Trawl NO. OF HOOKS OR TRAPS ²¹ 25
 EFFECTIVE (cm) ²² _____ CIRCLE ²⁵ codend _____ liner _____
 CODEND MESH (in) _____ other _____

START lat ²⁶ 48° 15.90' long ³¹ 126° 10.64' LORAN ⁽²⁶¹⁾ _____
 (31) _____
 END lat ³⁶ 48° 16.07' long ⁴¹ 126° 11.30' LORAN ⁽³⁶⁾ _____
 (41) _____

TIME (PDT) start ⁴⁶ 0750 finish 0910 DURATION: (min) ⁵⁰ 1460
 DIRECTION OF SET: (°T) ⁵⁴ 250
 DISTANCE TRAVELLED (n. mi.) ⁵⁷ _____ VESSEL SPEED: (kn) ⁶⁰ _____
 BOTTOM DEPTH: modal depth (m) ⁶² 1487 start (m) ⁶⁶ 1504 finish (m) ⁷⁰ 1455
 (fms) 822 (fms) 795

REMARKS 822 828 876 814 812 810 802 800
295

CAPTURE DEPTH: modal depth (m) ⁷⁴ _____ /OI/ start (m) ¹⁹ _____ finish (m) ²³ _____
 (fms) _____ (fms) _____

REMARKS set between 800 - 840m

MOUTH OPENING (m) ²⁷ _____ WARP LGTH (m) ²⁹ _____ SWEEP LGTH (m) _____
 (vertical) (fms) _____ (fms) _____ (fms) _____

TARGET DEPTH: modal dist. (m) ³² _____ start (m) ³⁶ _____ finish (m) ⁴⁰ _____
 (fms) _____ (fms) _____ (fms) _____

REMARKS fine weather

WIND DIRECTION (°T) ⁵² _____ WIND SPEED (kn) ⁵⁵ _____ WEATHER _____
 SEA STATE ⁵⁸ _____ TIDE ⁶⁰ _____ SWELL _____
 TEMP. (°C): surface ⁶¹ _____ bottom ⁶⁴ _____ ASSOC. DEPTH (m) ⁶⁷ _____
 OCEANOGRAPHIC DATA (circle) ⁷¹ _____ XBT - BT - STD - TDM - TTM - PT - ISK - CTD
 OTHER (specify) _____

REASON FOR SET ⁷³ _____ RECORDER ⁷⁵ _____
 REMARKS Thermocline 97m
see 972.000

| | | | | | | | | | | | | | | | | | |
|----|----|-----|-----|-----|-----|--|--|--|--|--|--|--|--|--|--|--|--|
| 1 | 4 | 10 | 13 | 15 | 17 | COLUMNS 1-18 ARE THE SAME FOR CARD TYPES 01 & 02 | | | | | | | | | | | |
| 47 | 00 | 100 | 900 | 103 | 230 | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | |
|------|-----|----|-----|----|------|------|------|-----|-----|------|--|--|--|--|--|--|--|--|--|--|
| 19 | 21 | 22 | 25 | 26 | 31 | 36 | 41 | 46 | | | | | | | | | | | | |
| 47 | 25 | 48 | 159 | 26 | 106 | 48 | 16 | 126 | 117 | 0750 | | | | | | | | | | |
| 50 | 54 | 57 | 60 | 62 | 66 | 70 | 74 | 78 | 79 | 01 | | | | | | | | | | |
| 1460 | 280 | | | | 1487 | 1504 | 1455 | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|--|--|
| 19 | 23 | 27 | 29 | 32 | 36 | 40 | 44 | 46 | | | | | | | | | | | | | | |
| 50 | 52 | 55 | 58 | 60 | 61 | 64 | 67 | 71 | 73 | 75 | 77 | 79 | | | | | | | | | | |
| | | | | | | | | | | MS | | 02 | | | | | | | | | | |

WA-91

Sampled 68 Tagged 15 2 169 100

Figure C.1. Example of a completed bridge log data form of the format used during sablefish surveys from 1996 through 2000.

Stomach Samples

SHEET 1 OF 3

VESSEL
1 2 3
7 3 2

YEAR
4 5 6 7 8 9
9 8 0 9 2 5

MONTH
4 5 6 7 8 9

DAY
22 10 11 12

SET NUMBER
00 0 1

STATISTICAL AREA
MAJOR MINOR
13 14 5 16 17 18
0 3 2 3 1 0

SPECIES NAME
19 20 21
4 5 5

SEX
1 - MALE
2 - FEMALE
3 - UNKNOWN

MATURITY
01 -
02 - L
03 - R
04 - B
05 - R
06 - R
07 - R
08 - SP
09 - SP
10 - RD
11 - RC
12 - RT

SAMPLE TYPE
0 2 2 0 2 0 2

FISH STATE
36 37
2 0

FISH LENGTH
43 44
0 2

SCALE TYPE
50 51
4 3

NET DEPTH (M)
79 80
0 4

CAD TYPE
0 4

SAMPLE TYPE 02 1/3 top OBSERVER MS & DH R.F.
1076

LOCATION BARKLEY CANNON

| FISH NO. | LENGTH (mm) | SEX | MATURITY | BODY WEIGHT (gm) | STOMACH CONTENT IDENTIFICATION | | | REMARKS |
|----------|-------------|-----|----------|------------------|--------------------------------|--------------------------|--------------------------|----------|
| | | | | | 1° PREY 1° VOL (cc) 1° D | 2° PREY 2° VOL (cc) 2° D | 3° PREY 3° VOL (cc) 3° D | |
| 23 | 45 | 0 | 55 | 75 | 76 | 77 | 78 | |
| 24 | 47 | 0 | 56 | 67 | 68 | 69 | 29 | |
| 25 | 47 | 0 | 20 | 36 | | | 5 5 | |
| 26 | 59 | 0 | 10 | 36 | | | 0 | INV. UID |
| 27 | 56 | 0 | 10 | 32 | | | 2 5 | INV. UID |
| 28 | 51 | 4 | 11 | 32 | | | 2 5 | |
| 29 | 56 | 6 | 10 | 32 | | | 0 | FISA UID |
| 30 | 55 | 3 | 10 | 32 | | | 0 | |
| 31 | 52 | 9 | 10 | 32 | | | 5 4 | MYCT. |
| 32 | 53 | 2 | 10 | 23 | | | 0 | SDUD |
| 33 | 53 | 1 | 10 | 3 | | | 5 0 1 | |
| 34 | 53 | 1 | 10 | 3 | | | 0 | |
| 35 | 49 | 0 | 10 | 3 | | | 0 | |
| 36 | 71 | 0 | 20 | 3 | | | 0 | |
| 37 | 110 | 0 | 20 | 3 | | | 0 | |
| 38 | 51 | 9 | 10 | 3 | | | 0 | |
| 39 | 59 | 2 | 10 | 3 | | | 0 | |
| 40 | 54 | 9 | 10 | 3 | | | 2 3 | MYCT. |
| 41 | 55 | 5 | 10 | 3 | | | 0 1 | 1 0 1 0 |
| 42 | 56 | 2 | 10 | 3 | | | 0 1 | |
| 43 | 59 | 1 | 20 | 3 | | | 0 1 | |
| 44 | 54 | 9 | 10 | 3 | | | 0 1 | |
| 45 | 55 | 5 | 10 | 3 | | | 2 3 | |
| 46 | 56 | 2 | 10 | 3 | | | 0 1 | |
| 47 | 59 | 1 | 20 | 3 | | | 2 7 | HAKE |
| 48 | 53 | 8 | 10 | 3 | | | 1 5 0 | SELL |
| 49 | 53 | 8 | 10 | 3 | | | 1 3 | HAKE |
| 50 | 52 | 0 | 10 | 3 | | | 2 7 | |
| 51 | 52 | 9 | 10 | 3 | | | 2 7 | |
| 52 | 52 | 9 | 10 | 3 | | | 2 7 | |
| 53 | 60 | 2 | 10 | 3 | | | 1 5 | |

Figure C.3. Example of a completed biological sampling form of the format used during sablefish surveys from 1996 through 2000.

TAGGING SHEETS

PAGE

VESSEL: Ocean Pearl DATE: yr. 95 mo. 09 day 25 SET NO. 1 ✓
 SPECIES: SABLE FISH SAMPLE TYPE: 16 GEAR: 19
 TAG TYPES: 1° 2° RECORDER: 25

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | |
| 7 | 3 | 2 | 9 | 8 | 0 | 9 | 2 | 5 | 0 | 0 | 1 | 4 | 5 | 5 | | 2 | 3 | 4 | 3 | 1 | 0 | | | | 1 | 5 |

RELEASE AREA: 35 N. LAT. 48°16'9" W. LONG. 126°03'0" DEPTH: 1076 (m)

LOCALITY: Barkley TAGGER: Richard

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 0 | 3 | 2 | 3 | 1 | 0 | R | F | 0 | 6 |

| SEQUENCE | PRIMARY TAG NO. | | | FORK LENGTH (cm) | ERROR | CONDITION | REC. TANK | INJURY | SEQUENCE | PRIMARY TAG NO. | | | FORK LENGTH (cm) | ERROR | CONDITION | REC. TANK | INJURY | |
|----------|-----------------|----|----|------------------|-------|-----------|-----------|--------|----------|-----------------|----|----|------------------|-------|-----------|-----------|--------|----------|
| | 28 | 29 | 30 | | | | | | | 28 | 29 | 30 | | | | | | |
| 27 | B | 9 | 7 | | | | | | 27 | B | 9 | 7 | | | | | | |
| 0 | 2 | 0 | 4 | 3 | 0 | | | | 2 | 0 | 4 | 6 | 0 | | | | | |
| | | | | 1 | 5 | 3 | | | | | | 1 | 5 | 4 | 5 | | | |
| | | | | 2 | 5 | 6 | | | | | | 2 | 5 | 3 | 0 | | | |
| | | | | 3 | 5 | 1 | | | | | | 3 | 5 | 8 | 1 | | | |
| | | | | 4 | 6 | 0 | | | | | | 4 | 5 | 3 | 2 | | | |
| | | | | 5 | 5 | 9 | T | SA | | | | 5 | 5 | 5 | 6 | | | |
| | | | | 6 | 5 | 6 | | | 0 | | | 6 | 5 | 4 | 6 | | | |
| | | | | 7 | 7 | 1 | | | | | | 7 | 5 | 4 | 9 | | | |
| | | | | 8 | 5 | 8 | | | | | | 8 | 5 | 2 | 9 | | | |
| | | | | 9 | 5 | 3 | | | | | | 9 | 7 | 5 | 6 | | | |
| | | | | 4 | 0 | 5 | | | | | | 7 | 0 | 4 | 9 | | | |
| | | | | 1 | 5 | 1 | | | 0 | | | 1 | 6 | 0 | 3 | | | |
| | | | | 2 | 5 | 0 | | | | | | 2 | 5 | 6 | 6 | | | |
| | | | | 3 | 6 | 8 | | | | | | 3 | 5 | 5 | 8 | | | |
| | | | | 4 | 7 | 3 | | | | | | 4 | 5 | 8 | 6 | | | |
| | | | | 5 | 5 | 1 | | | 0 | | | 5 | 5 | 6 | 4 | | | |
| | | | | 6 | 5 | 6 | | | 0 | | | 6 | 5 | 3 | 7 | | | |
| | | | | 7 | 5 | 5 | | | | | | 7 | 5 | 9 | 8 | | | |
| | | | | 8 | 5 | 8 | | | | | | 8 | 5 | 5 | 3 | | | |
| | | | | 9 | 5 | 4 | | | | | | 9 | 5 | 7 | 2 | | | |
| | | | | 5 | 0 | 5 | | | | | | 8 | 0 | 6 | 0 | | | |
| | | | | 1 | 7 | 5 | | | | | | 1 | 5 | 6 | 3 | | | |
| | | | | 2 | 5 | 2 | | | | | | 2 | 7 | 6 | 0 | | | |
| | | | | 3 | 5 | 5 | | | | | | 3 | 5 | 6 | 8 | | | |
| | | | | 4 | 5 | 6 | | | | | | 4 | 5 | 3 | 7 | | | |
| | | | | 5 | 6 | 4 | | | | | | 5 | 5 | 5 | 1 | | | bad tail |
| | | | | 6 | 5 | 6 | | | | | | 6 | 6 | 0 | 6 | | | |
| | | | | 7 | 6 | 1 | | | | | | 7 | 6 | 1 | 9 | | | |
| | | | | 8 | 6 | 9 | | | | | | 8 | 6 | 1 | 5 | | | |
| | | | | 2 | 0 | 4 | | | | | | 2 | 0 | 4 | 8 | | | |
| | | | | 9 | 6 | 1 | | | | | | 9 | 5 | 5 | 4 | | | |

SEQUENCE: 0 = fish data corresponds to tag no. 1 = fish data may not correspond to tag no.
 ERROR: U = length unknown T = tag not well implanted B = broken tag P = paired tag (2 tags in 1 fish) D = dead fish R = release of OTC from needle hole
 CONDITION: 1 = poor
 RECOVERY TANK: T = put in r. tank K = kept in r. tank overnight
 INJURY: B = bleeding C = cut, lesion or flesh wound D = dropped on deck E = eye G = gas J = jaw S = scar or healing wound I = other injury M = multiple injury F = fin L = scale loss R = raw around tag O = bleeding at OTC hole N = scrapes, abrasions

AGE VALIDATION: 0 = no injection 3 = 1cc OTC / kg
 4 = 1/2 cc OTC + 1/2 cc 1% saline / kg 5 = 1 cc 1% saline / kg

10

Figure C.4. Example of a completed tagging form of the format used during sablefish surveys from 1996 through 2000.

APPENDIX D: SABLEFISH GONAD MATURITY STAGES

| Maturity Stage | Code | Males | Females |
|----------------|------|---|--|
| Immature 1 | 01 | very thin string-like >1 mm thick, translucent white colour | thin string-like =1.5mm thick mid-section, translucent-white colour |
| Immature 2 | 02 | thin string-like 3mm thick, extends length of cavity, white-translucent colour | thickened >5mm, does not extend length of cavity, some folds sausage like translucent-white colour |
| Ripening 1 | 03 | thick >10mm visible folds, white smooth texture, =20% body cavity | eggs present, white opaque colour encased in translucent sock, <25% of body cavity |
| Ripening 2 | 04 | as above but with blood vessels present on surface, >30% body cavity | eggs larger =1mm diameter, white in colour, blood vessels present on surface, >25% of body cavity |
| Ripe | 05 | as above blood vessels present, folds delicate, some sperm may flow, >40% of body cavity | eggs at least 1mm diameter, white in colour, gonad full size, >50% of body cavity |
| Ripe 1 | 06 | no stage in males | gonad same size as above but at least 25% of eggs have become translucent |
| Ripe 2 | 07 | no stage in males | gonad same size as above but at least 50% of eggs have become translucent |
| Running Ripe | 08 | lobes fully developed, sperm is released when slight pressure is applied to external posterior region of body cavity | stream of translucent eggs released when slight-moderate pressure is applied to external posterior region of body cavity |
| Spent | 09 | lobes or folds are bloodshot, some sperm may be present when moderate pressure is applied to external posterior region of body cavity | gonad is red-purple in colour, residual eggs may be present, outer wall of gonad flaccid |
| Resorbing | 10 | no stage in males | eggs present but did not function normally (not normal) |
| Recovering | 11 | lobes flat, brown in colour, bloodshot appearance on edges and ends of lobes | still some red purple colour, not flaccid, whitish sheen to exterior surface |
| Resting | 12 | firm, light brown colour, some wrinkles on surface | smooth elongated and round in shape, brown purple pulp interior, exterior surface has whitish sheen |

APPENDIX E: DETAILS OF THE 1996 TO 2000 SURVEY SETS

Tables in this appendix provide detailed information for sets conducted during each survey from 1996 through 2000. Tables are presented for each year and survey. Sets are listed sequentially within each table by the start date. The locality name, the reason for the set (indexing, tagging, commercial fishing, etc), the start date and time, as well as the duration in minutes are shown for each set. Position data include the Groundfish Research Major, Minor, and Locality coding as well as the start and end latitude and longitude in degrees and decimal minutes. The bottom depth (m) at the start and end of the set are shown. The mean bottom depth is calculated from recordings at one minute intervals between the start and the end of the set. The number of traps effectively fishing is also shown and excludes traps open, holed, or fouled. Baiting practices are indicated as follows: a single asterisk (*) for approximately 1 kg of frozen squid in a bait bag or a double asterisk (**) for a combination of approximately 1 kg of frozen squid in a bait bag with 3-4.5 kg of frozen hake loose in the trap. However, hake bait was not always added to every trap in a set. During the fall 1996 north coast survey, every third trap was baited with hake while during the fall surveys of 1997 and 1998 one or two out of every three traps were baited with hake. The hake bait was added to every trap during sets for all other surveys.

Table E.1. Summary of sets completed during the 1996 spring sablefish tagging survey onboard the F/V Viking Sunrise.

| Locality | Set | Reason | Date | Start Time | Duration (min.) | Area Code | | Start | | End | | Bottom Depth (m) | | Traps Fished | Bait |
|--------------------------------|-----|---------|-----------|------------|-----------------|---------------|---------------|----------|-----------|----------|-----------|------------------|-----|--------------|------|
| | | | | | | (Maj-Min-Loc) | (Maj-Min-Loc) | Latitude | Longitude | Latitude | Longitude | Start | End | | |
| Gowgaia Bay | 1 | Tagging | 10-May-96 | 2010 | 6380 | 09-34-3 | 09-34-3 | 52 22.4 | 131 40.0 | 52 22.1 | 131 42.2 | 457 | 970 | 713 | ** |
| | 2 | Tagging | 10-May-96 | 1345 | 6975 | 09-34-3 | 09-34-3 | 52 23.4 | 131 41.5 | 52 23.5 | 131 43.6 | 494 | 952 | 723 | ** |
| | 3 | Tagging | 10-May-96 | 1715 | 6945 | 09-34-3 | 09-34-3 | 52 25.2 | 131 43.3 | 52 25.2 | 131 45.4 | 494 | 970 | 732 | ** |
| Tasu Sound | 4 | Tagging | 15-May-96 | 1612 | 1293 | 09-34-4 | 09-34-4 | 52 38.9 | 132 04.2 | 52 39.3 | 132 06.7 | 476 | 957 | 715 | ** |
| | 5 | Tagging | 15-May-96 | 1655 | 1420 | 09-31-13 | 09-31-13 | 52 40.6 | 132 06.3 | 52 41.3 | 132 08.4 | 432 | 897 | 646 | ** |
| | 6 | Tagging | 15-May-96 | 1710 | 1490 | 09-31-13 | 09-31-13 | 52 44.3 | 132 10.5 | 52 45.2 | 132 12.4 | 476 | 774 | 672 | ** |
| Buck Point | 7 | Tagging | 16-May-96 | 2230 | 1290 | 09-31-3 | 09-31-3 | 53 03.5 | 132 39.9 | 53 04.0 | 132 42.1 | 659 | 915 | 769 | ** |
| | 8 | Tagging | 16-May-96 | 2322 | 1378 | 09-31-3 | 09-31-3 | 53 07.2 | 132 43.1 | 53 08.1 | 132 45.1 | 655 | 705 | 658 | ** |
| | 9 | Tagging | 17-May-96 | 0011 | 1504 | 09-31-7 | 09-31-7 | 53 09.8 | 132 44.2 | 53 10.4 | 132 46.5 | 620 | 723 | 686 | ** |
| Rennell Sound | 10 | Tagging | 18-May-96 | 0330 | 1335 | 09-31-1 | 09-31-1 | 53 26.1 | 133 02.9 | 53 26.1 | 133 05.3 | 556 | 915 | 715 | ** |
| | 11 | Tagging | 18-May-96 | 0425 | 1490 | 09-31-1 | 09-31-1 | 53 26.9 | 133 02.9 | 53 27.1 | 133 05.4 | 591 | 897 | 756 | ** |
| | 12 | Tagging | 18-May-96 | 0515 | 1560 | 09-31-1 | 09-31-1 | 53 27.8 | 133 05.6 | 53 28.6 | 133 07.3 | 518 | 796 | 749 | ** |
| Langara Island-North Frederick | 13 | Tagging | 19-May-96 | 1150 | 1205 | 09-35-6 | 09-35-6 | 54 03.1 | 133 41.6 | 54 03.2 | 133 44.2 | 586 | 798 | 703 | ** |
| | 14 | Tagging | 19-May-96 | 1242 | 1263 | 09-35-6 | 09-35-6 | 54 04.6 | 133 42.7 | 54 04.6 | 133 44.9 | 610 | 761 | 700 | ** |
| | 15 | Tagging | 19-May-96 | 1333 | 1337 | 09-35-6 | 09-35-6 | 54 06.2 | 133 43.4 | 54 06.2 | 133 45.8 | 659 | 824 | 718 | ** |
| Cape St. James | 16 | Tagging | 21-May-96 | 1121 | 1249 | 06-08-6 | 06-08-6 | 51 46.8 | 130 38.9 | 51 45.2 | 130 38.8 | 604 | 715 | 657 | ** |
| | 17 | Tagging | 21-May-96 | 1215 | 1315 | 06-08-6 | 06-08-6 | 51 46.2 | 130 36.9 | 51 44.7 | 130 37.0 | 624 | 769 | 706 | ** |
| | 18 | Tagging | 21-May-96 | 1310 | 1350 | 06-08-6 | 06-08-6 | 51 45.6 | 130 34.8 | 51 44.3 | 130 35.3 | 646 | 805 | 739 | ** |
| Middle Ground | 19 | Tagging | 22-May-96 | 1647 | 793 | 06-08-10 | 06-08-10 | 51 19.7 | 130 06.3 | 51 19.2 | 130 08.2 | 626 | 780 | 680 | ** |
| | 20 | Tagging | 22-May-96 | 1736 | 884 | 06-08-10 | 06-08-10 | 51 18.2 | 130 06.8 | 51 18.0 | 130 09.1 | 618 | 769 | 688 | ** |
| | 21 | Tagging | 22-May-96 | 1840 | 910 | 06-08-10 | 06-08-10 | 51 16.4 | 130 05.5 | 51 16.0 | 130 07.9 | 620 | 780 | 694 | ** |
| Triangle Island | 22 | Tagging | 23-May-96 | 1400 | 945 | 05-11-7 | 05-11-7 | 51 01.4 | 129 35.7 | 51 01.3 | 129 38.1 | 622 | 878 | 717 | ** |
| | 23 | Tagging | 23-May-96 | 1446 | 989 | 05-11-7 | 05-11-7 | 51 00.0 | 129 37.2 | 51 00.0 | 129 39.5 | 503 | 585 | 586 | ** |
| | 24 | Tagging | 23-May-96 | 1548 | 1032 | 05-11-7 | 05-11-7 | 50 59.2 | 129 39.9 | 50 59.3 | 129 42.3 | 454 | 842 | 665 | ** |
| Pisces Canyon | 25 | Tagging | 24-May-96 | 1454 | 986 | 05-11-11 | 05-11-11 | 50 39.4 | 128 52.8 | 50 37.9 | 128 52.5 | 549 | 878 | 675 | ** |
| | 26 | Tagging | 24-May-96 | 1530 | 1070 | 05-11-11 | 05-11-11 | 50 38.4 | 128 51.0 | 50 37.0 | 128 50.7 | 475 | 814 | 672 | ** |
| | 27 | Tagging | 24-May-96 | 1620 | 1140 | 05-11-6 | 05-11-6 | 50 36.7 | 128 47.9 | 50 35.3 | 128 45.1 | 510 | 797 | 772 | ** |
| Quatsino Sound | 28 | Tagging | 25-May-96 | 1550 | 925 | 04-27-6 | 04-27-6 | 50 17.8 | 128 17.0 | 50 16.6 | 128 17.9 | 512 | 805 | 637 | ** |
| | 29 | Tagging | 25-May-96 | 1646 | 1004 | 04-27-6 | 04-27-6 | 50 17.2 | 128 13.9 | 50 16.0 | 128 15.3 | 430 | 732 | 624 | ** |
| | 30 | Tagging | 25-May-96 | 1748 | 1062 | 04-27-6 | 04-27-6 | 50 16.2 | 128 11.7 | 50 14.7 | 128 11.0 | 521 | 878 | 675 | ** |
| Esperanza Inlet | 31 | Tagging | 26-May-96 | 1718 | 907 | 04-25-4 | 04-25-4 | 49 37.4 | 127 26.0 | 49 36.3 | 127 27.1 | 478 | 672 | 587 | ** |
| | 32 | Tagging | 26-May-96 | 1824 | 961 | 04-25-4 | 04-25-4 | 49 36.1 | 127 22.1 | 49 35.4 | 127 23.9 | 544 | 695 | 628 | ** |
| | 33 | Tagging | 26-May-96 | 1932 | 993 | 04-25-4 | 04-25-4 | 49 34.7 | 127 18.8 | 49 34.1 | 127 20.6 | 562 | 732 | 646 | ** |
| Estevan Point | 34 | Tagging | 27-May-96 | 1545 | 1040 | 04-25-1 | 04-25-1 | 49 11.0 | 127 05.7 | 49 09.9 | 127 07.2 | 604 | 796 | 705 | ** |
| | 35 | Tagging | 27-May-96 | 1648 | 1082 | 04-25-1 | 04-25-1 | 49 10.1 | 127 03.6 | 49 08.4 | 127 03.9 | 553 | 710 | 635 | ** |
| | 36 | Tagging | 27-May-96 | 1800 | 1110 | 04-25-1 | 04-25-1 | 49 09.2 | 127 00.9 | 49 07.6 | 127 01.0 | 547 | 675 | 628 | ** |
| Father Charles Canyon | 37 | Tagging | 28-May-96 | 1740 | 830 | 03-24-6 | 03-24-6 | 48 44.4 | 126 22.0 | 48 43.1 | 126 22.9 | 586 | 662 | 615 | ** |
| | 38 | Tagging | 28-May-96 | 1840 | 865 | 03-23-12 | 03-23-12 | 48 43.0 | 126 16.6 | 48 41.8 | 126 17.9 | 518 | 657 | 534 | ** |
| | 39 | Tagging | 28-May-96 | 1940 | 935 | 03-23-12 | 03-23-12 | 48 39.5 | 126 17.4 | 48 38.5 | 126 18.7 | 450 | 602 | 551 | ** |
| Barkley Canyon | 40 | Tagging | 29-May-96 | 1520 | 805 | 03-23-10 | 03-23-10 | 48 23.3 | 125 58.1 | 48 21.7 | 125 54.5 | 483 | 637 | 534 | ** |
| | 41 | Tagging | 29-May-96 | 1615 | 870 | 03-23-10 | 03-23-10 | 48 21.5 | 125 53.6 | 48 20.9 | 125 55.6 | 437 | 518 | 464 | ** |
| | 42 | Tagging | 29-May-96 | 1710 | 920 | 03-23-10 | 03-23-10 | 48 19.1 | 125 55.3 | 48 19.2 | 125 57.2 | 472 | 474 | 470 | ** |

Table E.2. Summary of sets completed during the 1996 fall south coast sablefish survey onboard the F/V Ocean Pearl. Traps were baited with either approximately 1kg of frozen squid in bait bags (*) or a combination of 1 kg of frozen squid in bait bags and 3-4 kg of frozen hake loose in the trap (**). The depth recordings for sets 18 through 21 were poor due to rough weather.

| Locality | Set | Reason | Strata | Date | Start Time | Duration (min.) | Area Code | Start | | | End | | | Bottom Depth (m) | | Traps |
|-----------------------|-----|----------|--------|-----------|------------|-----------------|-----------|---------------|----------|-----------|----------|-----------|----------|------------------|-----|-------|
| | | | | | | | | (Maj-Min-Loc) | Latitude | Longitude | Latitude | Longitude | Latitude | Start | End | |
| Barkley Canyon | 1 | Indexing | 5 | 27-Sep-96 | 1144 | 1494 | 03-23-10 | 48 16.4 | 126 03.9 | 48 16.8 | 126 02.8 | 1174 | 1017 | 1114 | 25 | * |
| | 2 | Indexing | 4 | 27-Sep-96 | 1242 | 1538 | 03-23-10 | 48 18.4 | 126 02.5 | 48 18.9 | 126 02.2 | 1006 | 864 | 930 | 25 | * |
| | 3 | Indexing | 3 | 27-Sep-96 | 1337 | 1558 | 03-23-10 | 48 20.6 | 126 00.9 | 48 21.1 | 126 01.4 | 813 | 631 | 725 | 25 | * |
| | 4 | Indexing | 1 | 27-Sep-96 | 1450 | 1570 | 03-23-10 | 48 20.6 | 125 55.2 | 48 20.3 | 125 53.9 | 454 | 315 | 368 | 25 | * |
| | 5 | Indexing | 2 | 27-Sep-96 | 1551 | 1589 | 03-23-10 | 48 22.4 | 125 56.4 | 48 22.9 | 125 55.7 | 640 | 476 | 544 | 25 | * |
| Father Charles Canyon | 6 | Tagging | | 27-Sep-96 | 1945 | 1635 | 03-23-12 | 48 39.4 | 126 17.5 | 48 38.1 | 126 19.4 | 457 | 672 | 609 | 50 | ** |
| | 7 | Tagging | | 27-Sep-96 | 2119 | 1676 | 03-23-12 | 48 43.1 | 126 16.6 | 48 42.1 | 126 18.6 | 494 | 699 | 634 | 50 | ** |
| | 8 | Tagging | | 27-Sep-96 | 2232 | 1728 | 03-24-6 | 48 44.5 | 126 21.9 | 48 43.0 | 126 22.8 | 538 | 659 | 597 | 50 | ** |
| Estevan Point | 9 | Tagging | | 29-Sep-96 | 1256 | 2614 | 04-25-1 | 49 10.0 | 127 07.3 | 49 10.0 | 127 05.0 | 824 | 668 | 741 | 50 | ** |
| | 10 | Tagging | | 29-Sep-96 | 1420 | 2665 | 04-25-1 | 49 12.0 | 127 06.9 | 49 11.8 | 127 04.7 | 679 | 468 | 573 | 50 | ** |
| | 11 | Tagging | | 29-Sep-96 | 1559 | 2911 | 04-25-2 | 49 15.4 | 127 09.0 | 49 14.8 | 127 06.8 | 727 | 545 | 622 | 50 | ** |
| Esperanza Inlet | 12 | Indexing | 5 | 29-Sep-96 | 2220 | 1425 | 04-25-4 | 49 32.5 | 127 21.0 | 49 31.7 | 127 22.4 | 1058 | 1080 | 1060 | 25 | * |
| | 13 | Indexing | 4 | 29-Sep-96 | 2325 | 1460 | 04-25-4 | 49 33.7 | 127 21.6 | 49 33.3 | 127 22.5 | 824 | 952 | 911 | 25 | * |
| | 14 | Indexing | 1 | 30-Sep-96 | 0105 | 1460 | 04-25-3 | 49 35.5 | 127 19.0 | 49 34.9 | 127 18.9 | 293 | 531 | 414 | 25 | * |
| | 15 | Indexing | 3 | 30-Sep-96 | 0150 | 1490 | 04-25-4 | 49 33.6 | 127 18.8 | 49 33.5 | 127 19.7 | 679 | 684 | 695 | 25 | * |
| | 16 | Indexing | 2 | 30-Sep-96 | 0420 | 1435 | 04-25-4 | 49 36.6 | 127 24.7 | 49 36.2 | 127 23.6 | 622 | 595 | 558 | 25 | * |
| Quatsino Sound | 17 | Indexing | 5 | 02-Oct-96 | 1320 | 1500 | 04-27-6 | 50 14.2 | 128 15.2 | 50 15.4 | 128 15.5 | 1043 | 1025 | 1096 | 25 | * |
| | 18 | Indexing | 4 | 02-Oct-96 | 1449 | 1511 | 04-27-6 | 50 14.6 | 128 12.9 | 50 15.4 | 128 12.9 | 970 | 805 | 878 | 25 | * |
| | 19 | Indexing | 1 | 02-Oct-96 | 1535 | 1550 | 04-27-3 | 50 17.4 | 128 15.4 | 50 18.1 | 128 15.1 | 439 | 370 | 390 | 25 | * |
| | 20 | Indexing | 3 | 02-Oct-96 | 1657 | 1563 | 04-27-6 | 50 17.9 | 128 21.3 | 50 18.7 | 128 20.1 | | | 824 | 25 | * |
| | 21 | Indexing | 2 | 02-Oct-96 | 1800 | 1595 | 04-27-3 | 50 20.4 | 128 20.2 | 50 21.0 | 128 19.5 | 641 | 512 | 569 | 25 | * |
| Pisces Canyon | 22 | Tagging | | 03-Oct-96 | 0745 | 1555 | 05-11-11 | 50 34.4 | 128 40.7 | 50 32.8 | 128 41.6 | 481 | 796 | 692 | 50 | ** |
| | 23 | Tagging | | 03-Oct-96 | 0912 | 1613 | 05-11-11 | 50 33.1 | 128 37.1 | 50 31.8 | 128 37.3 | 494 | 906 | 743 | 50 | ** |
| | 24 | Tagging | | 03-Oct-96 | 1012 | 1728 | 05-11-11 | 50 31.0 | 128 35.0 | 50 29.9 | 128 34.0 | 371 | 421 | 549 | 50 | ** |
| | 25 | Indexing | 5 | 05-Oct-96 | 0750 | 1540 | 05-11-7 | 51 00.8 | 129 41.3 | 50 59.9 | 129 41.8 | 1010 | 1103 | 1091 | 25 | * |
| Triangle Island | 26 | Indexing | 4 | 05-Oct-96 | 0850 | 1620 | 05-11-7 | 51 00.5 | 129 40.2 | 51 01.0 | 129 39.4 | 824 | 988 | 950 | 25 | * |
| | 27 | Indexing | 3 | 05-Oct-96 | 0949 | 1676 | 05-11-7 | 51 01.8 | 129 40.4 | 51 02.4 | 129 40.7 | 809 | 803 | 788 | 25 | * |
| | 28 | Indexing | 2 | 05-Oct-96 | 1042 | 1743 | 05-11-7 | 51 04.5 | 129 38.3 | 51 04.9 | 129 37.3 | 637 | 501 | 558 | 25 | * |
| | 29 | Indexing | 1 | 05-Oct-96 | 1132 | 1793 | 05-11-12 | 51 06.0 | 129 38.4 | 51 06.8 | 129 38.3 | 246 | 200 | 384 | 25 | * |
| | 30 | Tagging | | 05-Oct-96 | 1508 | 2432 | 06-08-10 | 51 19.0 | 130 05.6 | 51 19.0 | 130 08.2 | 487 | 741 | 622 | 50 | ** |
| Middle Ground | 31 | Tagging | | 05-Oct-96 | 1648 | 2492 | 05-11-12 | 51 14.6 | 130 03.1 | 51 14.7 | 130 06.0 | 545 | 791 | 664 | 50 | ** |
| | 32 | Tagging | | 05-Oct-96 | 1815 | 2670 | 05-11-12 | 51 11.7 | 130 02.6 | 51 11.7 | 130 05.4 | 608 | 705 | 658 | 50 | ** |

Table E.3. Summary of sets completed during the 1996 fall north coast sablefish survey onboard the F/V Viking Star. Traps were baited with either approximately 1kg of frozen squid in bait bags (*) or a combination of 1 kg of frozen squid in bait bags and 3-4 kg of frozen hake loose in every third trap (**).

| Locality | Set | Reason | Strata | Target | Date | Start Time | Duration (min.) | Area Code (Maj-Min-Loc) | Start | | End | | Bottom Depth (m) | | Traps Fished | Bait | |
|--------------------------------|-----|----------|--------|--------|-----------|------------|-----------------|-------------------------|----------|-----------|----------|-----------|------------------|------|--------------|------|-------|
| | | | | | | | | | Latitude | Longitude | Latitude | Longitude | Start | End | | | Start |
| Dean/Burke Channel | 1 | Indexing | | | 01-Oct-96 | 1046 | 692 | 06-08-8 | 52 07.3 | 127 36.9 | 52 08.1 | 127 36.1 | 366 | 443 | 448 | 25 | * |
| | 2 | Indexing | | | 01-Oct-96 | 1214 | 827 | 06-08-8 | 52 12.8 | 127 25.9 | 52 13.1 | 127 25.3 | 587 | 591 | 589 | 25 | * |
| | 3 | Indexing | | | 01-Oct-96 | 1259 | 874 | 06-08-8 | 52 14.1 | 127 22.9 | 52 14.6 | 127 21.7 | 604 | 595 | 595 | 25 | * |
| | 4 | Indexing | | | 01-Oct-96 | 1518 | 1100 | 06-08-8 | 52 25.0 | 127 13.2 | 52 25.7 | 127 13.6 | 468 | 481 | 481 | 25 | * |
| | 5 | Indexing | | | 01-Oct-96 | 1644 | 1150 | 06-08-8 | 52 21.4 | 127 27.6 | 52 20.6 | 127 27.9 | 485 | 412 | 492 | 25 | * |
| Finlayson Channel | 6 | Indexing | | | 02-Oct-96 | 2109 | 794 | 07-07-3 | 52 42.8 | 128 27.9 | 52 42.1 | 128 27.2 | 496 | 450 | 496 | 25 | * |
| | 7 | Indexing | | | 02-Oct-96 | 2135 | 832 | 07-07-3 | 52 40.5 | 128 27.7 | 52 39.4 | 128 28.3 | 578 | 659 | 630 | 25 | * |
| | 8 | Indexing | | | 02-Oct-96 | 2223 | 885 | 07-07-3 | 52 34.8 | 128 28.4 | 52 34.1 | 128 28.0 | 701 | 651 | 659 | 25 | * |
| | 9 | Indexing | | | 02-Oct-96 | 2325 | 919 | 07-07-3 | 52 30.9 | 128 27.5 | 52 30.1 | 128 27.1 | 699 | 677 | 458 | 24 | * |
| Mathieson Channel | 10 | Indexing | | | 03-Oct-96 | 0109 | 955 | 07-07-3 | 52 31.5 | 128 15.5 | 52 32.3 | 128 15.7 | 461 | 458 | 458 | 25 | * |
| | 11 | Indexing | | | 04-Oct-96 | 0351 | 770 | 07-06-6 | 53 11.2 | 129 07.9 | 53 12.0 | 129 07.5 | 569 | 558 | 565 | 25 | * |
| Gil Island | 12 | Indexing | | | 04-Oct-96 | 0456 | 822 | 07-06-6 | 53 06.5 | 129 07.5 | 53 07.3 | 129 07.2 | 567 | 558 | 567 | 25 | * |
| | 13 | Indexing | | | 04-Oct-96 | 0634 | 931 | 07-06-6 | 53 04.2 | 129 21.3 | 53 05.9 | 129 21.3 | 673 | 677 | 677 | 25 | * |
| Portland Inlet | 14 | Indexing | | | 04-Oct-96 | 0715 | 1021 | 07-06-6 | 53 10.0 | 129 23.5 | 53 10.8 | 129 23.8 | 525 | 527 | 531 | 25 | * |
| | 15 | Indexing | | | 04-Oct-96 | 0830 | 1130 | 07-06-6 | 53 18.5 | 129 18.2 | 53 19.2 | 129 18.6 | 542 | 540 | 540 | 25 | * |
| | 16 | Indexing | | | 06-Oct-96 | 1640 | 715 | 08-04-10 | 54 38.7 | 130 33.1 | 54 38.5 | 130 31.9 | 631 | 631 | 631 | 25 | * |
| Langara Island-North Frederick | 17 | Indexing | | | 06-Oct-96 | 1717 | 825 | 08-04-10 | 54 40.6 | 130 30.1 | 54 41.1 | 130 29.2 | 628 | 597 | 618 | 25 | * |
| | 18 | Indexing | | | 06-Oct-96 | 1802 | 926 | 08-04-12 | 54 43.5 | 130 24.8 | 54 44.1 | 130 23.9 | 531 | 565 | 560 | 25 | * |
| | 19 | Indexing | | | 06-Oct-96 | 1905 | 1041 | 08-04-12 | 54 48.1 | 130 16.8 | 54 48.5 | 130 15.9 | 494 | 505 | 489 | 25 | * |
| | 20 | Indexing | | | 06-Oct-96 | 2005 | 1076 | 08-04-12 | 54 52.3 | 130 11.5 | 54 52.8 | 130 10.7 | 439 | 430 | 434 | 25 | * |
| | 21 | Indexing | 5 | | 08-Oct-96 | 0825 | 1843 | 09-35-6 | 54 07.5 | 133 49.2 | 54 07.3 | 133 50.0 | 1008 | 1056 | 1049 | 25 | * |
| Hippa Island | 22 | Indexing | 4 | | 08-Oct-96 | 0924 | 1882 | 09-35-6 | 54 05.6 | 133 44.8 | 54 05.3 | 133 45.8 | 778 | 805 | 814 | 25 | * |
| | 23 | Indexing | 3 | | 08-Oct-96 | 1009 | 1912 | 09-35-6 | 54 03.7 | 133 42.7 | 54 03.4 | 133 43.6 | 640 | 778 | 765 | 25 | * |
| | 24 | Indexing | 2 | | 08-Oct-96 | 1102 | 1935 | 09-35-2 | 54 02.0 | 133 38.5 | 54 01.6 | 133 39.7 | 457 | 595 | 567 | 25 | * |
| | 25 | Indexing | 1 | | 08-Oct-96 | 1152 | 1959 | 09-35-2 | 54 01.4 | 133 34.2 | 54 01.1 | 133 35.3 | 285 | 467 | 457 | 24 | * |
| | 26 | Indexing | 5 | | 10-Oct-96 | 0302 | 3593 | 09-31-1 | 53 28.3 | 133 07.4 | 53 28.3 | 133 08.5 | 1006 | 1098 | 1098 | 24 | * |
| Rennell Sound | 27 | Indexing | 4 | | 10-Oct-96 | 0357 | 3644 | 09-31-1 | 53 26.2 | 133 04.8 | 53 26.1 | 133 05.9 | 860 | 988 | 897 | 25 | * |
| | 28 | Indexing | 3 | | 10-Oct-96 | 0446 | 3691 | 09-31-1 | 53 24.2 | 133 01.1 | 53 23.8 | 133 02.2 | 631 | 769 | 778 | 24 | * |
| | 29 | Indexing | 2 | | 10-Oct-96 | 0530 | 3743 | 09-31-1 | 53 22.4 | 132 58.2 | 53 21.9 | 132 59.1 | 461 | 604 | 604 | 24 | * |
| | 30 | Indexing | 1 | | 10-Oct-96 | 0607 | 3778 | 09-31-1 | 53 21.1 | 132 55.8 | 53 20.8 | 132 57.0 | 307 | 476 | 326 | 22 | * |
| | 31 | Tagging | | | 10-Oct-96 | 0750 | 3849 | 09-31-14 | 53 23.3 | 133 09.5 | 53 24.9 | 133 10.6 | 522 | 586 | 549 | 63 | ** |
| Tasu Sound | 32 | Tagging | | | 10-Oct-96 | 0934 | 3905 | 09-31-14 | 53 17.3 | 133 06.3 | 53 15.9 | 133 04.8 | 512 | 661 | 553 | 60 | ** |
| | 33 | Tagging | | | 13-Oct-96 | 1153 | 2857 | 09-31-13 | 52 40.5 | 132 06.4 | 52 41.5 | 132 08.5 | 457 | 805 | 640 | 53 | ** |
| Buck Point | 34 | Tagging | | | 13-Oct-96 | 1253 | 2622 | 09-31-13 | 52 44.2 | 132 10.5 | 52 45.5 | 132 12.6 | 476 | 750 | 695 | 55 | ** |
| | 35 | Indexing | 5 | | 13-Oct-96 | 1738 | 3523 | 09-31-3 | 53 05.5 | 132 44.7 | 53 05.7 | 132 45.9 | 1010 | 1094 | 1094 | 24 | * |
| | 36 | Indexing | 4 | | 13-Oct-96 | 1822 | 3352 | 09-31-3 | 53 07.9 | 132 46.5 | 53 08.0 | 132 47.8 | 809 | 924 | 823 | 25 | * |
| | 37 | Indexing | 3 | | 13-Oct-96 | 1905 | 3188 | 09-31-7 | 53 10.0 | 132 44.9 | 53 10.3 | 132 46.0 | 695 | 705 | 640 | 23 | * |
| | 38 | Indexing | 2 | | 13-Oct-96 | 1945 | 3070 | 09-31-7 | 53 11.9 | 132 44.1 | 53 11.9 | 132 45.7 | 523 | 593 | 523 | 25 | * |
| Gowgaia Bay | 39 | Indexing | 1 | | 13-Oct-96 | 2023 | 2919 | 09-31-7 | 53 13.4 | 132 45.3 | 53 13.5 | 132 48.5 | 274 | 503 | 366 | 21 | * |
| | 40 | Indexing | 5 | | 16-Oct-96 | 1200 | 3390 | 09-34-3 | 52 24.6 | 131 44.6 | 52 25.0 | 131 45.8 | 1006 | 1107 | 1098 | 25 | * |
| | 41 | Indexing | 4 | | 16-Oct-96 | 1255 | 3424 | 09-34-3 | 52 22.9 | 131 42.3 | 52 23.5 | 131 43.2 | 823 | 878 | 842 | 25 | * |
| | 42 | Indexing | 3 | | 16-Oct-96 | 1344 | 3347 | 09-34-3 | 52 21.1 | 131 39.9 | 52 21.8 | 131 40.3 | 695 | 805 | 650 | 25 | * |
| | 43 | Indexing | 2 | | 16-Oct-96 | 1425 | 3512 | 09-34-3 | 52 19.8 | 131 37.9 | 52 20.4 | 131 38.6 | 640 | 512 | 640 | 25 | * |

Table E.3. (cont'd)

| Locality | Set | Reason | Target Strata | Date | Start Time | Duration (min.) | Area Code (Maj-Min-Loc) | Start | | End | | Bottom Depth (m) | | Traps | | |
|----------------|-----|----------|---------------|-----------|------------|-----------------|-------------------------|----------|-----------|----------|-----------|------------------|------|-------|--------|------|
| | | | | | | | | Latitude | Longitude | Latitude | Longitude | Start | End | Mean | Fished | Bait |
| | 44 | Indexing | 1 | 16-Oct-96 | 1513 | 3560 | 09-34-3 | 52 17.9 | 131 34.5 | 52 18.4 | 131 35.2 | 348 | 366 | 329 | 21 | * |
| Cape St. James | 45 | Indexing | 1 | 19-Oct-96 | 0934 | 1440 | 06-08-6 | 51 48.8 | 130 37.9 | 51 48.2 | 130 38.2 | 348 | 439 | 366 | 18 | * |
| | 46 | Indexing | 2 | 19-Oct-96 | 1003 | 1506 | 06-08-6 | 51 47.7 | 130 36.8 | 51 46.9 | 130 37.3 | 476 | 591 | 564 | 25 | * |
| | 47 | Indexing | 3 | 19-Oct-96 | 1037 | 1553 | 06-08-6 | 51 46.0 | 130 36.7 | 51 45.2 | 130 37.1 | 640 | 716 | 681 | 23 | * |
| | 48 | Indexing | 4 | 19-Oct-96 | 1119 | 1610 | 06-08-12 | 51 43.6 | 130 40.1 | 51 42.8 | 130 39.5 | 827 | 877 | 864 | 25 | * |
| | 49 | Indexing | 5 | 19-Oct-96 | 1352 | 1552 | 06-08-15 | 51 40.7 | 130 38.2 | 51 40.0 | 130 37.7 | 1006 | 1061 | 1043 | 25 | * |

Table E.4. Summary of sets completed during the 1997 spring sablefish tagging survey onboard the F/V Viking Sunrise. Each trap was baited with a combination of approximately 1 kg of frozen squid in bait bags and 3-4.5 kg of frozen hake loose in the trap.

| Locality | Set | Date | Start Time | Duration (min.) | Area Code (Maj-Min-Loc) | Start | | End | | Bottom Depth (m) | | Traps | |
|-----------------------|-----|-----------|------------|-----------------|-------------------------|----------|-----------|----------|-----------|------------------|-----|-------|--------|
| | | | | | | Latitude | Longitude | Latitude | Longitude | Start | End | Mean | Fished |
| Barkley Canyon | 1 | 20-May-97 | 1321 | 999 | 03-23-10 | 48 19.1 | 125 55.5 | 48 19.2 | 125 57.3 | 472 | 454 | 459 | 50 |
| | 2 | 20-May-97 | 1430 | 1015 | 03-23-10 | 48 21.4 | 125 53.7 | 48 21.0 | 125 55.7 | 445 | 512 | 467 | 50 |
| | 3 | 20-May-97 | 1530 | 1085 | 03-23-10 | 48 23.4 | 125 57.8 | 48 22.2 | 125 58.4 | 472 | 626 | 534 | 50 |
| Father Charles Canyon | 4 | 21-May-97 | 1258 | 1002 | 03-23-12 | 48 39.5 | 126 17.8 | 48 38.4 | 126 18.9 | 439 | 604 | 567 | 50 |
| | 5 | 21-May-97 | 1413 | 1037 | 03-23-12 | 48 42.9 | 126 16.6 | 48 41.2 | 126 17.8 | 567 | 648 | 485 | 52 |
| | 6 | 21-May-97 | 1522 | 1068 | 03-24-6 | 48 44.6 | 126 21.9 | 48 43.3 | 126 21.7 | 494 | 679 | 656 | 52 |
| Estevan Point | 7 | 22-May-97 | 1423 | 922 | 04-25-1 | 49 09.4 | 127 00.8 | 49 08.4 | 127 02.2 | 505 | 677 | 595 | 52 |
| | 8 | 22-May-97 | 1511 | 1004 | 04-25-1 | 49 10.1 | 127 03.5 | 49 09.1 | 127 05.2 | 589 | 728 | 648 | 52 |
| Esperanza Inlet | 9 | 22-May-97 | 1601 | 1069 | 04-25-1 | 49 11.0 | 127 05.6 | 49 10.0 | 127 07.3 | 593 | 805 | 712 | 52 |
| | 10 | 23-May-97 | 1403 | 921 | 04-25-4 | 49 34.7 | 127 18.7 | 49 34.2 | 127 20.5 | 542 | 688 | 646 | 52 |
| | 11 | 23-May-97 | 1452 | 988 | 04-25-4 | 49 36.1 | 127 22.0 | 49 35.3 | 127 23.7 | 512 | 695 | 638 | 52 |
| Quatsino Sound | 12 | 23-May-97 | 1548 | 1022 | 04-25-4 | 49 37.5 | 127 25.8 | 49 36.2 | 127 26.8 | 459 | 695 | 571 | 52 |
| | 13 | 24-May-97 | 1548 | 917 | 04-27-6 | 50 16.2 | 128 11.6 | 50 15.1 | 128 12.9 | 520 | 783 | 755 | 52 |
| | 14 | 24-May-97 | 1639 | 961 | 04-27-6 | 50 17.1 | 128 14.0 | 50 15.9 | 128 15.3 | 454 | 769 | 654 | 52 |
| Pisces Canyon | 15 | 24-May-97 | 1734 | 1001 | 04-27-6 | 50 17.9 | 128 16.6 | 50 16.7 | 128 18.0 | 423 | 783 | 639 | 52 |
| | 16 | 25-May-97 | 1436 | 919 | 05-11-1 | 50 36.6 | 128 47.1 | 50 35.8 | 128 48.6 | 446 | 650 | 613 | 52 |
| | 17 | 25-May-97 | 1533 | 957 | 05-11-1 | 50 38.5 | 128 50.9 | 50 37.2 | 128 50.7 | 512 | 748 | 665 | 52 |
| Triangle Island | 18 | 25-May-97 | 1635 | 970 | 05-11-1 | 50 39.3 | 128 52.7 | 50 38.1 | 128 52.5 | 487 | 761 | 663 | 52 |
| | 19 | 30-May-97 | 0753 | 1297 | 05-11-7 | 50 59.6 | 129 39.9 | 50 59.3 | 129 42.0 | 573 | 814 | 684 | 52 |
| Middle Ground | 20 | 30-May-97 | 0856 | 1344 | 05-11-7 | 51 00.3 | 129 37.0 | 51 00.6 | 129 39.4 | 448 | 750 | 654 | 52 |
| | 21 | 30-May-97 | 0955 | 1365 | 05-11-7 | 51 01.3 | 129 35.8 | 51 01.2 | 129 38.3 | 333 | 435 | 685 | 52 |
| | 22 | 31-May-97 | 1228 | 1022 | 06-08-10 | 51 16.6 | 130 05.2 | 51 16.3 | 130 07.6 | 571 | 739 | 652 | 52 |
| Cape St. James | 23 | 31-May-97 | 1320 | 1095 | 06-08-10 | 51 18.3 | 130 06.5 | 51 18.2 | 130 09.2 | 597 | 780 | 676 | 52 |
| | 24 | 31-May-97 | 1419 | 1121 | 06-08-10 | 51 19.6 | 130 06.1 | 51 19.3 | 130 08.1 | 591 | 748 | 683 | 52 |
| | 25 | 01-Jun-97 | 1347 | 1008 | 06-08-6 | 51 45.6 | 130 34.8 | 51 44.3 | 130 35.3 | 646 | 785 | 712 | 52 |
| Gowgaia Bay | 26 | 01-Jun-97 | 1446 | 1044 | 06-08-6 | 51 46.3 | 130 36.7 | 51 44.7 | 130 37.2 | 606 | 774 | 665 | 52 |
| | 27 | 01-Jun-97 | 1549 | 1066 | 06-08-6 | 51 46.8 | 130 38.7 | 51 45.2 | 130 39.1 | 602 | 725 | 661 | 52 |
| | 28 | 02-Jun-97 | 1715 | 1035 | 09-34-3 | 52 22.2 | 131 39.0 | 52 21.9 | 131 41.4 | 496 | 761 | 646 | 52 |
| Tasu Sound | 29 | 02-Jun-97 | 1819 | 1066 | 09-34-3 | 52 22.9 | 131 39.9 | 52 22.8 | 131 42.6 | 448 | 917 | 693 | 52 |
| | 30 | 02-Jun-97 | 1915 | 1160 | 09-34-3 | 52 24.8 | 131 41.6 | 52 24.7 | 131 44.0 | 404 | 723 | 630 | 52 |
| | 31 | 03-Jun-97 | 1809 | 1031 | 09-34-4 | 52 39.0 | 132 04.1 | 52 39.0 | 132 06.1 | 403 | 886 | 641 | 52 |
| Buck Point | 32 | 03-Jun-97 | 1855 | 1145 | 09-31-13 | 52 40.7 | 132 06.3 | 52 41.2 | 132 08.7 | 386 | 995 | 751 | 52 |
| | 33 | 03-Jun-97 | 1950 | 1220 | 09-31-13 | 52 44.4 | 132 10.4 | 52 45.0 | 132 12.7 | 430 | 924 | 752 | 52 |
| | 34 | 04-Jun-97 | 2105 | 990 | 09-31-3 | 53 03.7 | 132 39.5 | 53 04.1 | 132 42.1 | 529 | 897 | 736 | 52 |
| Rennell Sound | 35 | 04-Jun-97 | 2202 | 1063 | 09-31-3 | 53 07.5 | 132 42.8 | 53 07.7 | 132 45.5 | 631 | 723 | 661 | 52 |
| | 36 | 04-Jun-97 | 2258 | 1112 | 09-31-7 | 53 09.9 | 132 43.9 | 53 10.3 | 132 46.3 | 564 | 728 | 659 | 52 |
| | 37 | 05-Jun-97 | 2020 | 1435 | 09-31-1 | 53 24.9 | 133 01.4 | 53 24.8 | 133 03.6 | 521 | 801 | 683 | 51 |
| Langara Island | 38 | 06-Jun-97 | 0524 | 991 | 09-31-1 | 53 27.1 | 133 02.9 | 53 27.2 | 133 05.4 | 593 | 878 | 789 | 52 |
| | 39 | 06-Jun-97 | 0620 | 1045 | 09-31-1 | 53 27.8 | 133 05.5 | 53 28.6 | 133 07.7 | 511 | 933 | 731 | 52 |
| | 40 | 07-Jun-97 | 0528 | 1357 | 09-35-6 | 54 04.7 | 133 42.3 | 54 04.6 | 133 44.9 | 542 | 761 | 680 | 52 |
| | 41 | 07-Jun-97 | 0622 | 1403 | 09-35-6 | 54 06.3 | 133 43.2 | 54 06.3 | 133 46.1 | 564 | 778 | 713 | 52 |
| | 42 | 07-Jun-97 | 0721 | 1439 | 09-35-6 | 54 07.7 | 133 43.4 | 54 07.7 | 133 46.0 | 509 | 646 | 622 | 52 |

Table E.5. Summary of sets completed during the 1997 fall sablefish survey onboard the F/V Ocean Pearl. Sets were baited with either approximately 1kg of frozen squid in bait bags in each trap (*) or a combination of 1 kg of frozen squid in bait bags in each trap and 3-4 kg of frozen hake loose in every third trap (***)

| Locality | Set | Reason | Target Strata | Date | Time | Duration (min.) | Area Code (Maj-Min-Loc) | Start | | | End | | | Bottom Depth (m) | | | Traps | |
|-----------------------|-----|----------|---------------|-----------|------|-----------------|-------------------------|----------|-----------|----------|-----------|----------|-----------|------------------|-----|------|--------|------|
| | | | | | | | | Latitude | Longitude | Latitude | Longitude | Latitude | Longitude | Start | End | Mean | Fished | Bait |
| Barkley Canyon | 1 | Indexing | 1 | 27-Sep-97 | 0733 | 1427 | 03-23-10 | 48 20.7 | 125 54.6 | 48 20.5 | 125 55.3 | 284 | 458 | 397 | 25 | * | | |
| | 2 | Indexing | 2 | 27-Sep-97 | 0900 | 1500 | 03-23-10 | 48 22.6 | 125 55.6 | 48 22.0 | 125 56.3 | 450 | 572 | 555 | 25 | * | | |
| | 3 | Indexing | 3 | 27-Sep-97 | 1052 | 1553 | 03-23-10 | 48 17.7 | 126 01.0 | 48 17.6 | 126 02.0 | 653 | 759 | 682 | 25 | * | | |
| | 4 | Indexing | 4 | 27-Sep-97 | 1140 | 1625 | 03-23-10 | 48 17.3 | 126 02.3 | 48 16.7 | 126 03.0 | 884 | 1007 | 932 | 25 | * | | |
| | 5 | Indexing | 5 | 27-Sep-97 | 1323 | 1657 | 03-23-10 | 48 16.8 | 126 05.0 | 48 16.6 | 126 04.0 | 1155 | 1169 | 1153 | 25 | * | | |
| Father Charles Canyon | 6 | Tagging | | 28-Sep-97 | 2210 | 1470 | 03-23-12 | 48 40.0 | 126 19.4 | 48 40.6 | 126 22.1 | 448 | 683 | 545 | 70 | ** | | |
| | 7 | Tagging | | 28-Sep-97 | 2359 | 1591 | 03-24-6 | 48 44.6 | 126 29.8 | 48 42.9 | 126 29.2 | 445 | 569 | 471 | 35 | ** | | |
| Estevan Point | 8 | Tagging | | 28-Sep-97 | 0710 | 1700 | 04-25-1 | 49 05.8 | 126 59.0 | 49 07.1 | 126 59.4 | 586 | 536 | 557 | 50 | ** | | |
| | 9 | Tagging | | 28-Sep-97 | 0916 | 1764 | 04-25-1 | 49 01.4 | 126 54.6 | 49 00.3 | 126 54.0 | 578 | 644 | 611 | 38 | ** | | |
| Esperanza Inlet | 10 | Indexing | 2 | 30-Sep-97 | 1330 | 3390 | 04-25-2 | 49 28.9 | 127 14.9 | 49 28.1 | 127 15.8 | 439 | 646 | 534 | 25 | * | | |
| | 11 | Indexing | 1 | 30-Sep-97 | 1431 | 3434 | 04-25-2 | 49 31.2 | 127 15.5 | 49 31.9 | 127 15.8 | 280 | 373 | 382 | 26 | * | | |
| | 12 | Indexing | 3 | 30-Sep-97 | 1556 | 3474 | 04-25-4 | 49 30.8 | 127 16.6 | 49 30.9 | 127 17.6 | 622 | 653 | 639 | 25 | * | | |
| | 13 | Indexing | 4 | 30-Sep-97 | 1703 | 3552 | 04-25-4 | 49 33.8 | 127 21.7 | 49 33.2 | 127 21.2 | 796 | 1008 | 913 | 26 | * | | |
| | 14 | Indexing | 5 | 30-Sep-97 | 1800 | 3630 | 04-25-4 | 49 32.4 | 127 24.2 | 49 31.0 | 127 24.0 | 1032 | 1120 | 1060 | 27 | * | | |
| Quatsino Sound | 15 | Indexing | 5 | 03-Oct-97 | 1620 | 1247 | 04-27-6 | 50 12.7 | 128 19.7 | 50 13.5 | 128 19.5 | 1061 | 1107 | 1080 | 25 | * | | |
| | 16 | Indexing | 4 | 03-Oct-97 | 1732 | 1279 | 04-27-6 | 50 14.6 | 128 18.2 | 50 13.5 | 128 19.5 | 1006 | 842 | 924 | 25 | * | | |
| | 17 | Indexing | 3 | 03-Oct-97 | 1816 | 1329 | 04-27-6 | 50 15.1 | 128 16.8 | 50 15.0 | 128 16.1 | 841 | 677 | 756 | 24 | * | | |
| | 18 | Indexing | 2 | 03-Oct-97 | 1925 | 1443 | 04-27-3 | 50 20.1 | 128 19.3 | 50 19.8 | 128 19.9 | 458 | 659 | 562 | 25 | * | | |
| | 19 | Indexing | 1 | 03-Oct-97 | 2015 | 1472 | 04-27-3 | 50 21.0 | 128 18.4 | 50 20.7 | 128 18.8 | 256 | 465 | 368 | 24 | * | | |
| Pisces Canyon | 20 | Tagging | | 03-Oct-97 | 2300 | 1560 | 05-11-11 | 50 33.2 | 128 36.5 | 50 31.6 | 128 35.2 | 399 | 498 | 573 | 70 | ** | | |
| | 21 | Tagging | | 04-Oct-97 | 0011 | 1659 | 05-11-11 | 50 30.9 | 128 34.6 | 50 29.3 | 128 35.1 | 329 | 631 | 635 | 70 | ** | | |
| Triangle Island | 22 | Indexing | 1 | 05-Oct-97 | 1200 | 1357 | 05-11-7 | 51 05.6 | 129 34.2 | 51 05.0 | 129 34.5 | 292 | 445 | 384 | 23 | * | | |
| | 23 | Indexing | 2 | 05-Oct-97 | 1245 | 1370 | 05-11-7 | 51 04.9 | 129 33.8 | 51 04.5 | 129 34.0 | 467 | 549 | 300 | 25 | * | | |
| | 24 | Indexing | 3 | 05-Oct-97 | 1328 | 1397 | 05-11-7 | 51 03.6 | 129 35.4 | 51 03.1 | 129 35.5 | 651 | 739 | 695 | 25 | * | | |
| | 25 | Indexing | 4 | 05-Oct-97 | 1431 | 1431 | 05-11-7 | 51 01.8 | 129 40.2 | 51 01.3 | 129 39.5 | 834 | 988 | 928 | 25 | * | | |
| | 26 | Indexing | 5 | 05-Oct-97 | 1530 | 1485 | 05-11-7 | 51 00.5 | 129 43.0 | 51 00.1 | 129 42.1 | 1001 | 1142 | 1109 | 27 | * | | |
| Middle Ground | 27 | Tagging | | 05-Oct-97 | 1912 | 2448 | 05-11-12 | 51 11.8 | 129 57.2 | 51 09.9 | 129 58.5 | 458 | 666 | 565 | 70 | ** | | |
| | 28 | Tagging | | 05-Oct-97 | 2021 | 1599 | 05-11-12 | 51 12.3 | 130 00.4 | 51 10.1 | 130 01.8 | 494 | 611 | 558 | 70 | ** | | |
| Cape St. James | 29 | Indexing | 1 | 08-Oct-97 | 1226 | 1336 | 06-08-6 | 51 48.7 | 130 36.6 | 51 48.0 | 130 36.5 | 168 | 235 | 356 | 25 | * | | |
| | 30 | Indexing | 2 | 08-Oct-97 | 1249 | 1381 | 06-08-6 | 51 47.3 | 130 36.9 | 51 46.7 | 130 36.7 | 556 | 598 | 318 | 25 | * | | |
| | 31 | Indexing | 3 | 08-Oct-97 | 1321 | 1436 | 06-08-6 | 51 45.9 | 130 35.0 | 51 45.3 | 130 35.2 | 646 | 692 | 673 | 25 | * | | |
| | 32 | Indexing | 4 | 08-Oct-97 | 1407 | 1474 | 06-08-6 | 51 43.8 | 130 33.6 | 51 43.2 | 130 33.7 | 814 | 869 | 847 | 25 | * | | |
| | 33 | Indexing | 5 | 08-Oct-97 | 1437 | 1538 | 06-08-14 | 51 41.7 | 130 33.4 | 51 41.1 | 130 33.4 | 1028 | 1058 | 1045 | 25 | * | | |
| Gowgaia Bay | 34 | Indexing | 5 | 10-Oct-97 | 0210 | 1395 | 09-34-3 | 52 22.5 | 131 43.7 | 52 23.3 | 131 43.3 | 1162 | 968 | 1021 | 25 | * | | |
| | 35 | Indexing | 4 | 10-Oct-97 | 0300 | 1455 | 09-34-3 | 52 20.7 | 131 41.8 | 52 21.3 | 131 41.0 | 1003 | 824 | 915 | 25 | * | | |
| | 36 | Indexing | 3 | 10-Oct-97 | 0337 | 1498 | 09-34-3 | 52 20.2 | 131 39.7 | 52 20.6 | 131 38.7 | 825 | 598 | 708 | 25 | * | | |
| | 37 | Indexing | 2 | 10-Oct-97 | 0405 | 1540 | 09-34-3 | 52 21.1 | 131 39.6 | 52 21.7 | 131 39.3 | 609 | 514 | 564 | 25 | * | | |
| | 38 | Indexing | 1 | 10-Oct-97 | 0440 | 1573 | 09-34-3 | 52 23.5 | 131 39.7 | 52 22.8 | 131 39.5 | 381 | 331 | 389 | 25 | * | | |
| Tasu Sound | 39 | Tagging | | 10-Oct-97 | 0842 | 1738 | 09-34-4 | 52 39.1 | 132 04.8 | 52 37.4 | 132 02.9 | 476 | 659 | 628 | 72 | ** | | |
| | 40 | Tagging | | 10-Oct-97 | 0931 | 1499 | 09-34-4 | 52 37.2 | 132 02.5 | 52 35.8 | 132 00.6 | 598 | 668 | 692 | 68 | ** | | |
| Buck Point | 41 | Indexing | 1 | 11-Oct-97 | 1955 | 1385 | 09-31-3 | 53 04.2 | 132 37.1 | 53 03.7 | 132 38.1 | 210 | 344 | 276 | 25 | * | | |
| | 42 | Indexing | 2 | 11-Oct-97 | 2030 | 1410 | 09-31-8 | 53 03.1 | 132 39.1 | 53 03.4 | 132 40.0 | 467 | 701 | 600 | 25 | * | | |
| | 43 | Indexing | 3 | 11-Oct-97 | 2050 | 1460 | 09-31-3 | 53 03.5 | 132 40.9 | 53 04.2 | 132 40.6 | 783 | 646 | 715 | 25 | * | | |

Table E.5 (cont'd)

| Locality | Set | Reason | Target | | Start Date | Start Time | Duration (min.) | Area Code (Maj-Min-Loc) | Start | | | End | | | Bottom Depth (m) | | | Traps Fished | Bait |
|--------------------|----------|----------|-----------|-----------|------------|------------|-----------------|-------------------------|----------|-----------|----------|-----------|----------|-----------|------------------|-----|------|--------------|------|
| | | | Strata | Strata | | | | | Latitude | Longitude | Latitude | Longitude | Latitude | Longitude | Start | End | Mean | | |
| Rennell Sound | 44 | Indexing | 4 | 11-Oct-97 | 2127 | 1503 | 09-31-3 | 53 04.2 | 132 42.6 | 53 04.5 | 132 42.6 | 1021 | 851 | 966 | 25 | * | | | |
| | 45 | Indexing | 5 | 11-Oct-97 | 2200 | 1565 | 09-31-3 | 53 04.0 | 132 44.3 | 53 04.6 | 132 45.3 | 1085 | 1230 | 1167 | 25 | * | | | |
| | 46 | Tagging | | 12-Oct-97 | 0103 | 1622 | 09-31-1 | 53 23.6 | 132 57.7 | 53 21.7 | 132 58.7 | 388 | 578 | 485 | 69 | ** | | | |
| | 47 | Tagging | | 12-Oct-97 | 0207 | 1703 | 09-31-1 | 53 21.8 | 132 57.5 | 53 20.0 | 132 56.3 | 483 | 525 | 501 | 73 | ** | | | |
| | 48 | Tagging | | 13-Oct-97 | 1020 | 1250 | 09-31-12 | 53 29.8 | 133 13.7 | 53 31.7 | 133 15.7 | 567 | 595 | 598 | 64 | ** | | | |
| Inside Hogback | 49 | Tagging | | 13-Oct-97 | 1155 | 1305 | 09-31-6 | 53 37.7 | 133 12.1 | 53 37.0 | 133 14.0 | 681 | 657 | 608 | 68 | ** | | | |
| | 50 | Indexing | 5 | 13-Oct-97 | 1624 | 1381 | 09-35-6 | 54 00.7 | 133 44.1 | 54 00.4 | 133 45.0 | 1074 | 1113 | 1089 | 25 | * | | | |
| | 51 | Indexing | 4 | 13-Oct-97 | 1656 | 1439 | 09-35-6 | 54 00.4 | 133 43.2 | 54 01.0 | 133 42.5 | 988 | 942 | 971 | 25 | * | | | |
| | 52 | Indexing | 4 | 13-Oct-97 | 1730 | 1475 | 09-35-6 | 54 02.1 | 133 40.9 | 54 01.8 | 133 41.8 | 642 | 761 | 728 | 25 | * | | | |
| | 53 | Indexing | 2 | 13-Oct-97 | 1806 | 1509 | 09-35-6 | 54 03.3 | 133 40.8 | 54 03.0 | 133 41.7 | 463 | 597 | 313 | 24 | * | | | |
| Portland Inlet | 54 | Indexing | 1 | 13-Oct-97 | 1830 | 1656 | 09-35-6 | 54 04.0 | 133 40.7 | 54 04.2 | 133 39.5 | 412 | 326 | 344 | 25 | * | | | |
| | 55 | Indexing | | 15-Oct-97 | 1537 | 1060 | 08-04-10 | 54 38.1 | 130 32.1 | 54 39.0 | 130 31.9 | 597 | 646 | 630 | 25 | * | | | |
| | 56 | Indexing | | 15-Oct-97 | 1605 | 1100 | 08-04-10 | 54 39.9 | 130 31.4 | 54 40.4 | 130 30.8 | 604 | 642 | 626 | 24 | * | | | |
| | 57 | Indexing | | 15-Oct-97 | 1650 | 1168 | 08-04-12 | 54 42.0 | 130 25.9 | 54 43.3 | 130 25.6 | 576 | 534 | 551 | 25 | * | | | |
| | 58 | Indexing | | 15-Oct-97 | 1720 | 1200 | 08-04-12 | 54 43.1 | 130 25.3 | 54 43.7 | 130 24.4 | 520 | 547 | 530 | 25 | * | | | |
| Gil Island | 59 | Indexing | | 15-Oct-97 | 1817 | 1248 | 08-04-12 | 54 46.4 | 130 21.2 | 54 46.1 | 130 20.2 | 496 | 498 | 501 | 24 | * | | | |
| | 60 | Indexing | | 17-Oct-97 | 0550 | 1120 | 07-06-6 | 53 20.1 | 129 19.1 | 53 19.4 | 129 18.9 | 496 | 531 | 523 | 26 | * | | | |
| | 61 | Indexing | | 17-Oct-97 | 0705 | 1165 | 07-06-6 | 53 11.9 | 129 22.8 | 53 11.4 | 129 23.5 | 565 | 520 | 529 | 25 | * | | | |
| | 62 | Indexing | | 17-Oct-97 | 0800 | 1220 | 07-06-6 | 53 06.0 | 129 21.2 | 53 05.6 | 129 20.3 | 673 | 684 | 680 | 26 | * | | | |
| | 63 | Indexing | | 17-Oct-97 | 0925 | 1280 | 07-06-6 | 53 06.5 | 129 07.4 | 53 07.2 | 129 07.3 | 567 | 564 | 568 | 25 | * | | | |
| Finlayson Channel | 64 | Indexing | | 17-Oct-97 | 1015 | 1315 | 07-06-6 | 53 10.8 | 129 07.4 | 53 11.6 | 129 07.1 | 567 | 562 | 564 | 25 | * | | | |
| | 65 | Indexing | | 18-Oct-97 | 1540 | 865 | 07-07-3 | 52 47.7 | 128 25.7 | 52 47.1 | 128 26.0 | 567 | 586 | 574 | 25 | * | | | |
| | 66 | Indexing | | 18-Oct-97 | 1620 | 910 | 07-07-3 | 52 43.2 | 128 27.9 | 52 42.8 | 128 27.8 | 640 | 505 | 535 | 25 | * | | | |
| | 67 | Indexing | | 18-Oct-97 | 1705 | 915 | 07-07-3 | 52 39.9 | 128 28.3 | 52 39.2 | 128 28.6 | 595 | 584 | 600 | 25 | * | | | |
| | 68 | Indexing | | 18-Oct-97 | 1750 | 980 | 07-07-3 | 52 34.9 | 128 27.7 | 52 34.4 | 128 27.3 | 725 | 662 | 688 | 25 | * | | | |
| Dean/Burke Channel | 69 | Indexing | | 18-Oct-97 | 1825 | 1035 | 07-07-3 | 52 31.0 | 128 27.8 | 52 30.2 | 128 27.5 | 787 | 794 | 807 | 25 | * | | | |
| | 70 | Indexing | | 19-Oct-97 | 1815 | 815 | 06-08-8 | 52 09.8 | 127 51.8 | 52 09.0 | 127 52.0 | 591 | 595 | 594 | 25 | * | | | |
| | 71 | Indexing | | 19-Oct-97 | 2125 | 831 | 06-08-8 | 52 20.1 | 127 28.6 | 52 20.6 | 127 28.1 | 476 | 522 | 513 | 25 | * | | | |
| | 72 | Indexing | | 20-Oct-97 | 0036 | 884 | 06-08-8 | 52 16.4 | 127 15.4 | 52 16.0 | 127 16.3 | 586 | 575 | 580 | 25 | * | | | |
| | 73 | Indexing | | 20-Oct-97 | 0128 | 927 | 06-08-8 | 52 13.8 | 127 24.6 | 52 13.4 | 127 25.4 | 600 | 600 | 600 | 25 | * | | | |
| 74 | Indexing | | 20-Oct-97 | 0237 | 973 | 06-08-8 | 52 07.9 | 127 36.4 | 52 07.5 | 127 37.4 | 443 | 413 | 428 | 25 | * | | | | |

Table E.6. Summary of sets completed during the 1998 fall sablefish survey onboard the F/V Ocean Pearl. Sets were baited with either approximately 1kg of frozen squid in bait bags in each trap (*) or a combination of 1 kg of frozen squid in bait bags in each trap and 3-4 kg of frozen hake loose in every third trap (**).

| Locality | Set | Reason | Strata | Target | Date | Start Time | Duration (min) | Area Code (Maj-Min-Loc) | Start | | End | | Bottom Depth (m) | | Traps | | |
|-------------------------------|-----|----------|--------|--------|-----------|------------|----------------|-------------------------|----------|-----------|----------|-----------|------------------|------|-------|--------|------|
| | | | | | | | | | Latitude | Longitude | Latitude | Longitude | Start | End | Mean | Fished | Bait |
| Barkley Canyon | 1 | Indexing | 5 | | 24-Sep-98 | 1000 | 1390 | 03-23-10 | 48 17.3 | 126 03.5 | 48 16.9 | 126 03.0 | 1058 | 1105 | 1076 | 25 | * |
| | 2 | Indexing | 4 | | 24-Sep-98 | 1100 | 1465 | 03-23-10 | 48 19.1 | 126 02.5 | 48 18.7 | 126 02.4 | 935 | 877 | 866 | 24 | * |
| | 3 | Indexing | 3 | | 24-Sep-98 | 1210 | 1575 | 03-23-10 | 48 20.2 | 125 57.2 | 48 19.8 | 125 56.4 | 747 | 677 | 694 | 25 | * |
| | 4 | Indexing | 2 | | 24-Sep-98 | 1256 | 1669 | 03-23-10 | 48 20.8 | 125 56.7 | 48 20.4 | 125 56.1 | 562 | 470 | 527 | 25 | * |
| | 5 | Indexing | 1 | | 24-Sep-98 | 1338 | 1687 | 03-23-10 | 48 21.2 | 125 54.6 | 48 20.5 | 125 54.4 | 463 | 302 | 350 | 24 | * |
| Father Charles Canyon | 6 | Tagging | | | 24-Sep-98 | 1840 | 1585 | 03-23-12 | 48 40.4 | 126 21.9 | 48 40.0 | 126 18.9 | 637 | 417 | 512 | 65 | ** |
| | 7 | Tagging | | | 24-Sep-98 | 1955 | 1665 | 03-23-12 | 48 37.8 | 126 13.2 | 48 36.0 | 126 12.4 | 436 | 602 | 476 | 65 | ** |
| | 8 | Tagging | | | 24-Sep-98 | 2120 | 1425 | 03-23-10 | 48 30.5 | 126 11.1 | 48 28.9 | 126 11.7 | 419 | 421 | 401 | 65 | ** |
| | 9 | Tagging | | | 26-Sep-98 | 1140 | 1375 | 04-25-1 | 49 00.6 | 126 53.9 | 49 02.3 | 126 55.2 | 611 | 547 | 543 | 65 | ** |
| Estevan Point | 10 | Tagging | | | 26-Sep-98 | 1256 | 1494 | 04-25-1 | 49 05.1 | 126 59.2 | 49 06.8 | 126 59.5 | 662 | 560 | 604 | 65 | ** |
| | 11 | Tagging | | | 26-Sep-98 | 1400 | 1650 | 04-25-1 | 49 09.3 | 127 00.4 | 49 09.2 | 127 03.0 | 523 | 589 | 533 | 65 | ** |
| | 12 | Tagging | | | 26-Sep-98 | 1520 | 1810 | 04-25-1 | 49 12.1 | 127 06.2 | 49 13.8 | 127 05.8 | 580 | 591 | 599 | 65 | ** |
| | 13 | Indexing | 1 | | 27-Sep-98 | 0105 | 1630 | 04-25-2 | 49 31.6 | 127 15.6 | 49 31.9 | 127 16.0 | 351 | 476 | 385 | 26 | * |
| Esperanza Inlet | 14 | Indexing | 2 | | 27-Sep-98 | 1405 | 1582 | 04-25-2 | 49 28.8 | 127 14.6 | 49 28.1 | 127 15.3 | 357 | 505 | 437 | 24 | * |
| | 15 | Indexing | 3 | | 27-Sep-98 | 0255 | 1590 | 04-25-4 | 49 30.0 | 127 16.2 | 49 29.5 | 127 16.8 | 659 | 824 | 754 | 27 | * |
| | 16 | Indexing | 4 | | 27-Sep-98 | 0355 | 1615 | 04-25-4 | 49 26.4 | 127 18.8 | 49 25.9 | 127 18.8 | 824 | 1061 | 960 | 21 | * |
| | 17 | Indexing | 5 | | 27-Sep-98 | 0447 | 1728 | 04-25-4 | 49 24.6 | 127 21.3 | 49 25.7 | 127 21.9 | 1007 | 1114 | 1063 | 26 | * |
| | 18 | Tagging | | | 28-Sep-98 | 1605 | 1310 | 04-26-4 | 49 47.3 | 127 44.6 | 49 45.7 | 127 45.5 | 586 | 1074 | 866 | 65 | ** |
| Kyuquot Sound-Ouokinish Inlet | 19 | Tagging | | | 28-Sep-98 | 1720 | 1095 | 04-26-4 | 49 46.2 | 127 43.0 | 49 47.5 | 127 41.4 | 597 | 628 | 575 | 65 | ** |
| | 20 | Tagging | | | 29-Sep-98 | 1915 | 1290 | 04-26-4 | 49 51.8 | 127 47.6 | 49 50.4 | 127 49.0 | 598 | 584 | 617 | 65 | ** |
| | 21 | Tagging | | | 28-Sep-98 | 2124 | 1340 | 04-26-5 | 49 57.1 | 127 56.7 | 49 55.4 | 127 58.1 | 448 | 534 | 512 | 65 | ** |
| | 22 | Indexing | 1 | | 30-Sep-98 | 0026 | 1339 | 04-27-2 | 50 16.3 | 128 09.0 | 50 15.5 | 128 09.0 | 306 | 450 | 325 | 24 | * |
| | 23 | Indexing | 2 | | 30-Sep-98 | 0117 | 1364 | 04-27-6 | 50 16.2 | 128 11.2 | 50 16.1 | 128 12.1 | 461 | 594 | 559 | 25 | * |
| Quatsino Sound | 24 | Indexing | 3 | | 30-Sep-98 | 0159 | 1385 | 04-27-6 | 50 15.7 | 128 13.5 | 50 15.2 | 128 13.7 | 651 | 662 | 710 | 25 | * |
| | 25 | Indexing | 4 | | 30-Sep-98 | 0249 | 1411 | 04-27-6 | 50 15.3 | 128 14.9 | 50 14.8 | 128 14.8 | 811 | 841 | 928 | 25 | * |
| | 26 | Indexing | 5 | | 30-Sep-98 | 0330 | 1450 | 04-27-6 | 50 14.5 | 128 15.9 | 50 14.0 | 128 16.0 | 1007 | 1151 | 1096 | 25 | * |
| | 27 | Tagging | | | 30-Sep-98 | 0645 | 1545 | 04-27-3 | 50 30.3 | 128 34.8 | 50 29.2 | 128 35.6 | 512 | 791 | 697 | 65 | ** |
| | 28 | Tagging | | | 30-Sep-98 | 0755 | 1600 | 05-11-11 | 50 31.8 | 128 35.8 | 50 30.4 | 128 35.7 | 476 | 714 | 678 | 65 | ** |
| Pisces Canyon | 29 | Tagging | | | 30-Sep-98 | 0920 | 1640 | 05-11-11 | 50 34.3 | 128 40.6 | 50 32.8 | 128 41.4 | 501 | 895 | 709 | 65 | ** |
| | 30 | Tagging | | | 30-Sep-98 | 1037 | 1743 | 05-11-6 | 50 35.8 | 128 40.5 | 50 35.2 | 128 42.7 | 468 | 630 | 549 | 65 | ** |
| | 31 | Indexing | 5 | | 02-Oct-98 | 0004 | 1616 | 05-11-7 | 51 00.5 | 129 43.0 | 51 00.2 | 129 42.3 | 997 | 1149 | 1108 | 25 | * |
| | 32 | Indexing | 4 | | 02-Oct-98 | 0057 | 1388 | 05-11-7 | 51 01.8 | 129 40.2 | 51 01.4 | 129 40.0 | 829 | 981 | 936 | 25 | * |
| | 33 | Indexing | 3 | | 02-Oct-98 | 0154 | 1416 | 05-11-7 | 51 03.6 | 129 35.5 | 51 03.1 | 129 35.5 | 641 | 743 | 697 | 25 | * |
| Triangle Island | 34 | Indexing | 2 | | 02-Oct-98 | 0240 | 1425 | 05-11-7 | 51 04.2 | 129 35.1 | 51 03.7 | 129 34.6 | 459 | 642 | 581 | 25 | * |
| | 35 | Indexing | 1 | | 02-Oct-98 | 0324 | 1436 | 05-11-7 | 51 05.6 | 129 34.2 | 51 05.0 | 129 34.5 | 315 | 467 | 369 | 25 | * |
| | 36 | Tagging | | | 02-Oct-98 | 0855 | 1950 | 06-08-10 | 51 29.0 | 130 00.4 | 51 28.3 | 130 02.8 | 490 | 587 | 599 | 65 | ** |
| | 37 | Tagging | | | 02-Oct-98 | 1135 | 1160 | 05-11-12 | 51 14.3 | 130 01.8 | 51 12.9 | 130 03.6 | 474 | 626 | 543 | 65 | ** |
| | 38 | Tagging | | | 02-Oct-98 | 1231 | 1339 | 05-11-12 | 51 12.6 | 130 00.6 | 51 10.8 | 130 01.5 | 505 | 582 | 548 | 65 | ** |
| Middle Ground | 39 | Tagging | | | 02-Oct-98 | 1335 | 1375 | 05-11-12 | 51 11.4 | 129 57.9 | 51 09.7 | 129 59.4 | 496 | 630 | 602 | 65 | ** |
| | 40 | Indexing | 1 | | 03-Oct-98 | 2300 | 1425 | 06-08-6 | 51 47.7 | 130 25.1 | 51 47.1 | 130 24.9 | 307 | 425 | 369 | 23 | * |
| | 41 | Indexing | 2 | | 05-Oct-98 | 2340 | 1465 | 06-08-6 | 51 44.9 | 130 25.4 | 51 45.0 | 130 26.3 | 468 | 597 | 560 | 25 | * |
| | 42 | Indexing | 3 | | 04-Oct-98 | 0025 | 1505 | 06-08-14 | 51 43.4 | 130 27.5 | 51 42.8 | 130 27.8 | 659 | 845 | 757 | 24 | * |
| Cape St. James | 43 | Indexing | 4 | | 04-Oct-98 | 0105 | 1570 | 06-08-14 | 51 40.7 | 130 29.8 | 51 40.9 | 130 29.7 | 869 | 1083 | 1017 | 23 | * |

Table E.6 (cont'd)

| Locality | Set | Reason | Target Strata | Date | Start Time | Duration (min) | Area Code (Maj-Min-Loc) | Start | | End | | Bottom Depth (m) | | Traps Fished | Bait | |
|--------------------------------|----------|----------|---------------|-----------|------------|----------------|-------------------------|----------|-----------|----------|-----------|------------------|------|--------------|------|-------|
| | | | | | | | | Latitude | Longitude | Latitude | Longitude | Start | End | | | Start |
| Gowgaia Bay | 44 | Indexing | 5 | 04-Oct-98 | 0150 | 1630 | 06-08-15 | 51 38.4 | 130 30.7 | 51 38.0 | 130 31.3 | 1025 | 1138 | 1110 | 26 | * |
| | 45 | Indexing | 5 | 05-Oct-98 | 1540 | 1330 | 09-34-3 | 52 23.1 | 131 43.4 | 52 22.3 | 131 43.8 | 1032 | 1171 | 1088 | 24 | * |
| | 46 | Indexing | 4 | 05-Oct-98 | 1630 | 1374 | 09-34-3 | 52 21.3 | 131 41.1 | 52 20.8 | 131 41.7 | 860 | 994 | 927 | 24 | * |
| | 47 | Indexing | 3 | 05-Oct-98 | 1714 | 1416 | 09-34-3 | 52 20.5 | 131 38.9 | 52 20.1 | 131 39.7 | 642 | 862 | 749 | 25 | * |
| | 48 | Indexing | 2 | 05-Oct-98 | 1803 | 1434 | 09-34-3 | 52 22.2 | 131 38.7 | 52 21.8 | 131 39.3 | 458 | 533 | 558 | 25 | * |
| | 49 | Indexing | 1 | 05-Oct-98 | 1839 | 1459 | 09-34-3 | 52 23.6 | 131 39.7 | 52 22.9 | 131 39.7 | 337 | 452 | 390 | 25 | * |
| | 50 | Tagging | | 05-Oct-98 | 2121 | 1519 | 09-34-4 | 52 35.2 | 131 58.9 | 52 36.3 | 132 01.2 | 529 | 684 | 603 | 65 | ** |
| | 51 | Tagging | | 05-Oct-98 | 2212 | 1648 | 09-34-4 | 52 37.8 | 132 02.8 | 52 39.0 | 132 05.0 | 507 | 536 | 595 | 65 | ** |
| | 52 | Tagging | | 05-Oct-98 | 2316 | 2144 | 09-31-13 | 52 42.1 | 132 08.2 | 52 43.4 | 132 09.9 | 523 | 661 | 560 | 65 | ** |
| Buck Point | 53 | Tagging | | 06-Oct-98 | 0006 | 1466 | 09-31-13 | 52 43.7 | 132 12.2 | 52 46.6 | 132 14.2 | 525 | 824 | 709 | 65 | ** |
| | 54 | Tagging | | 06-Oct-98 | 0100 | 1448 | 09-31-5 | 52 50.5 | 132 18.5 | 52 51.3 | 132 20.7 | 531 | 743 | 682 | 65 | ** |
| | 55 | Indexing | 1 | 07-Oct-98 | 2047 | 1313 | 09-31-8 | 53 03.7 | 132 37.8 | 53 03.1 | 132 38.1 | 275 | 476 | 386 | 26 | * |
| | 56 | Indexing | 2 | 07-Oct-98 | 2143 | 1331 | 09-31-8 | 53 03.7 | 132 39.0 | 53 03.2 | 132 39.3 | 472 | 637 | 566 | 25 | * |
| | 57 | Indexing | 3 | 07-Oct-98 | 2223 | 1473 | 09-31-3 | 53 04.2 | 132 40.7 | 53 03.6 | 132 40.7 | 641 | 814 | 713 | 25 | * |
| | 58 | Indexing | 4 | 07-Oct-98 | 2314 | 1466 | 09-31-3 | 53 04.7 | 132 42.5 | 53 04.2 | 132 43.0 | 825 | 1007 | 930 | 25 | * |
| | 59 | Indexing | 5 | 08-Oct-98 | 0007 | 1448 | 09-31-3 | 53 05.0 | 132 44.1 | 53 04.7 | 132 44.9 | 1007 | 1190 | 1105 | 25 | * |
| | 60 | Indexing | 1 | 08-Oct-98 | 0330 | 1445 | 09-31-1 | 53 21.3 | 132 56.0 | 53 21.0 | 132 56.9 | 276 | 452 | 360 | 24 | * |
| | 61 | Indexing | 2 | 08-Oct-98 | 0415 | 1460 | 09-31-1 | 53 22.2 | 132 57.9 | 53 21.9 | 132 58.7 | 492 | 593 | 559 | 26 | * |
| Langara Island-North Frederick | 62 | Indexing | 3 | 08-Oct-98 | 0505 | 1480 | 09-31-1 | 53 24.2 | 133 01.1 | 53 23.9 | 133 02.0 | 659 | 816 | 752 | 25 | * |
| | 63 | Indexing | 4 | 08-Oct-98 | 0555 | 1575 | 09-31-1 | 53 26.1 | 133 04.3 | 53 26.0 | 133 05.3 | 847 | 961 | 896 | 25 | * |
| | 64 | Indexing | 5 | 08-Oct-98 | 0700 | 1550 | 09-31-1 | 53 28.3 | 133 08.9 | 53 29.0 | 133 08.8 | 1008 | 1140 | 1100 | 24 | * |
| | 65 | Indexing | 5 | 09-Oct-98 | 1455 | 1201 | 09-35-6 | 54 00.9 | 133 44.0 | 54 00.4 | 133 44.5 | 1050 | 1103 | 1080 | 25 | * |
| | 66 | Indexing | 4 | 09-Oct-98 | 1540 | 1244 | 09-35-6 | 54 00.8 | 133 42.6 | 54 01.1 | 133 41.7 | 955 | 834 | 893 | 25 | * |
| | 67 | Indexing | 3 | 09-Oct-98 | 1610 | 1283 | 09-35-6 | 54 01.7 | 133 41.8 | 54 02.1 | 133 41.0 | 783 | 672 | 737 | 25 | * |
| | 68 | Indexing | 2 | 09-Oct-98 | 1642 | 1313 | 09-35-6 | 54 02.9 | 133 41.9 | 54 03.2 | 133 41.0 | 641 | 503 | 563 | 24 | * |
| | 69 | Indexing | 1 | 09-Oct-98 | 1706 | 1340 | 09-35-6 | 54 03.8 | 133 40.9 | 54 03.9 | 133 39.9 | 250 | 174 | 379 | 25 | * |
| | 70 | Indexing | | 11-Oct-98 | 0858 | 1225 | 08-04-10 | 54 38.0 | 130 31.9 | 54 38.8 | 130 32.0 | 587 | 646 | 625 | 24 | * |
| Portland Inlet | 71 | Indexing | | 11-Oct-98 | 0933 | 1351 | 08-04-10 | 54 39.8 | 130 31.5 | 54 40.1 | 130 31.0 | 648 | 650 | 607 | 25 | * |
| | 72 | Indexing | | 11-Oct-98 | 1123 | 1528 | 08-04-12 | 54 46.0 | 130 21.2 | 54 45.6 | 130 22.1 | 511 | 538 | 525 | 24 | * |
| | 73 | Indexing | | 11-Oct-98 | 1157 | 1403 | 08-04-12 | 54 43.6 | 130 24.5 | 54 42.9 | 130 25.3 | 542 | 520 | 528 | 25 | * |
| | 74 | Indexing | | 11-Oct-98 | 1220 | 1317 | 08-04-12 | 54 42.4 | 130 25.6 | 54 41.8 | 130 26.5 | 302 | 324 | 578 | 25 | * |
| | 75 | Indexing | | 13-Oct-98 | 0345 | 1021 | 07-06-6 | 53 20.0 | 129 19.0 | 53 19.3 | 129 19.0 | 520 | 529 | 527 | 24 | * |
| | 76 | Indexing | | 13-Oct-98 | 0520 | 1050 | 07-06-6 | 53 12.2 | 129 23.2 | 53 11.7 | 129 22.5 | 531 | 529 | 531 | 25 | * |
| | 77 | Indexing | | 13-Oct-98 | 0627 | 1094 | 07-06-6 | 53 06.2 | 129 21.0 | 53 05.8 | 129 20.6 | 679 | 683 | 683 | 24 | * |
| | 78 | Indexing | | 13-Oct-98 | 0803 | 1123 | 07-06-6 | 53 06.5 | 129 07.5 | 53 07.2 | 129 07.5 | 575 | 578 | 578 | 25 | * |
| | 79 | Indexing | | 13-Oct-98 | 0847 | 1159 | 07-06-6 | 53 10.6 | 129 07.4 | 53 11.4 | 129 07.4 | 576 | 575 | 576 | 25 | * |
| Finlayson Channel | 80 | Indexing | | 14-Oct-98 | 1115 | 770 | 07-07-3 | 52 47.3 | 128 26.2 | 52 46.6 | 128 26.6 | 571 | 622 | 600 | 25 | * |
| | 81 | Indexing | | 14-Oct-98 | 1159 | 799 | 07-07-3 | 52 43.2 | 128 27.8 | 52 42.7 | 128 27.6 | 551 | 529 | 538 | 25 | * |
| | 82 | Indexing | | 14-Oct-98 | 1237 | 833 | 07-07-3 | 52 39.8 | 128 28.2 | 52 39.3 | 128 28.6 | 591 | 606 | 609 | 25 | * |
| | 83 | Indexing | | 14-Oct-98 | 1330 | 930 | 07-07-3 | 52 34.7 | 128 28.3 | 52 34.1 | 128 28.2 | 662 | 651 | 653 | 25 | * |
| | 84 | Indexing | | 14-Oct-98 | 1408 | 910 | 07-07-3 | 52 31.0 | 128 27.9 | 52 30.5 | 128 27.6 | 769 | 820 | 796 | 24 | * |
| | 85 | Indexing | | 15-Oct-98 | 1425 | 830 | 06-08-8 | 52 20.0 | 127 28.7 | 52 20.5 | 127 28.3 | 430 | 525 | 486 | 21 | * |
| | 86 | Indexing | | 15-Oct-98 | 1605 | 865 | 06-08-8 | 52 26.8 | 127 16.0 | 52 26.5 | 127 15.1 | 514 | 476 | 525 | 25 | * |
| | 87 | Indexing | | 15-Oct-98 | 1745 | 900 | 06-08-8 | 52 16.8 | 127 15.0 | 52 16.4 | 127 15.5 | 586 | 587 | 587 | 23 | * |
| | 88 | Indexing | | 15-Oct-98 | 1840 | 938 | 06-08-8 | 52 13.7 | 127 24.0 | 52 13.5 | 127 25.0 | 452 | 598 | 553 | 25 | * |
| 89 | Indexing | | 15-Oct-98 | 2003 | 957 | 06-08-8 | 52 08.0 | 127 35.9 | 52 07.7 | 127 37.1 | 447 | 423 | 439 | 23 | * | |

Table E.7. Summary of sets completed during the 1999 fall sablefish survey onboard the F/V Ocean Pearl. Sets were baited with either approximately 1kg of frozen squid in bait bags in each trap (*) or a combination of 1 kg of frozen squid in bait bags and 3-4 kg of frozen hake loose in each trap (**).

| Locality | Set | Reason | Target Strata | Date | Start | | Area Code | | End | | Bottom Depth (m) | | Traps | | | |
|-----------------------|-----|---------------|---------------|-----------|-------|-----------------|---------------|----------|-----------|----------|------------------|-------|-------|------|--------|------|
| | | | | | Time | Duration (min.) | (Maj-Min-Loc) | Latitude | Longitude | Latitude | Longitude | Start | End | Mean | Fished | Bait |
| Father Charles Canyon | 1 | Tagging | | 27-Sep-99 | 0915 | 3305 | 03-23-12 | 48 40.1 | 126 18.5 | 48 40.2 | 126 21.2 | 388 | 565 | 477 | 65 | ** |
| | 2 | Tagging | | 27-Sep-99 | 1102 | 3019 | 03-23-12 | 48 39.7 | 126 15.2 | 48 38.9 | 126 13.2 | 331 | 329 | 330 | 65 | ** |
| | 3 | Tagging | | 27-Sep-99 | 1210 | 3300 | 03-23-12 | 48 36.0 | 126 09.7 | 48 34.4 | 126 09.4 | 238 | 205 | 222 | 65 | ** |
| | 4 | Tagging | | 28-Sep-99 | 0325 | 2995 | 03-23-12 | 48 31.0 | 126 14.4 | 48 31.0 | 126 11.8 | 706 | 536 | 621 | 65 | ** |
| Barkley Canyon | 5 | Tagging | | 29-Sep-99 | 0510 | 1495 | 03-23-10 | 48 25.8 | 125 55.2 | 48 24.3 | 125 53.7 | 187 | 198 | 192 | 65 | ** |
| | 6 | Indexing | 1 | 29-Sep-99 | 0650 | 1640 | 03-23-10 | 48 20.5 | 125 54.5 | 48 21.1 | 125 54.6 | 224 | 425 | 351 | 26 | * |
| | 7 | Indexing | 2 | 29-Sep-99 | 0747 | 1643 | 03-23-10 | 48 21.2 | 125 54.9 | 48 21.6 | 125 55.6 | 478 | 630 | 562 | 25 | * |
| | 8 | Indexing | 3 | 29-Sep-99 | 0827 | 1678 | 03-23-10 | 48 20.5 | 125 59.1 | 48 20.0 | 125 58.1 | 813 | 675 | 748 | 23 | * |
| | 9 | Indexing | 4 | 29-Sep-99 | 0920 | 1695 | 03-23-10 | 48 20.0 | 125 59.7 | 48 20.0 | 126 00.9 | 831 | 906 | 878 | 24 | * |
| Estevan Point | 10 | Indexing | 5 | 29-Sep-99 | 0955 | 1750 | 03-23-10 | 48 18.9 | 126 02.6 | 48 18.3 | 126 02.9 | 915 | 1025 | 1003 | 25 | * |
| | 11 | Tagging | | 01-Oct-99 | 0455 | 1040 | 04-25-1 | 49 05.4 | 127 02.2 | 49 05.6 | 127 00.2 | 988 | 710 | 873 | 65 | ** |
| | 12 | Tagging | | 01-Oct-99 | 0613 | 1112 | 04-25-1 | 49 09.3 | 127 00.4 | 49 09.2 | 127 02.9 | 512 | 573 | 492 | 65 | ** |
| | 13 | Tagging | | 01-Oct-99 | 0735 | 2025 | 04-25-1 | 49 12.6 | 127 04.4 | 49 12.3 | 127 06.9 | 388 | 642 | 505 | 65 | ** |
| | 14 | Tagging | | 01-Oct-99 | 1000 | 2095 | 04-25-4 | 49 21.8 | 127 16.2 | 49 23.1 | 127 17.5 | 595 | 587 | 580 | 65 | ** |
| Esperanza Inlet | 15 | Indexing | 5 | 01-Oct-99 | 1055 | 1215 | 04-25-4 | 49 24.9 | 127 21.0 | 49 25.2 | 127 21.7 | 1043 | 1142 | 1102 | 18 | * |
| | 16 | Indexing | 4 | 01-Oct-99 | 1137 | 1358 | 04-25-4 | 49 25.9 | 127 19.0 | 49 26.7 | 127 18.5 | 1054 | 741 | 878 | 25 | * |
| | 17 | Indexing | 3 | 01-Oct-99 | 1220 | 1410 | 04-25-4 | 49 27.5 | 127 16.5 | 49 27.3 | 127 17.5 | 648 | 770 | 739 | 25 | * |
| | 18 | Indexing | 2 | 01-Oct-99 | 1305 | 1430 | 04-25-4 | 49 28.0 | 127 15.1 | 49 28.2 | 127 15.9 | 487 | 580 | 564 | 24 | * |
| | 19 | Indexing | 1 | 01-Oct-99 | 1343 | 1462 | 04-25-2 | 49 29.0 | 127 14.3 | 49 28.6 | 127 15.0 | 275 | 439 | 375 | 24 | * |
| Quatsino Sound | 20 | Tagging | | 01-Oct-99 | 1510 | 1990 | 04-25-4 | 49 34.7 | 127 20.2 | 49 34.5 | 127 17.9 | 494 | 569 | 518 | 65 | ** |
| | 21 | Indexing | 1 | 03-Oct-99 | 0935 | 1270 | 04-27-3 | 50 16.3 | 128 09.0 | 50 15.5 | 128 09.0 | 275 | 465 | 364 | 24 | * |
| | 22 | Indexing | 2 | 03-Oct-99 | 1015 | 1310 | 04-27-3 | 50 16.2 | 128 11.3 | 50 16.0 | 128 12.3 | 468 | 575 | 578 | 25 | * |
| | 23 | Indexing | 3 | 03-Oct-99 | 1040 | 1350 | 04-27-6 | 50 15.8 | 128 15.4 | 50 15.0 | 128 13.5 | 646 | 778 | 694 | 25 | * |
| | 24 | Indexing | 4 | 03-Oct-99 | 1117 | 1383 | 04-27-6 | 50 14.7 | 128 14.8 | 50 15.1 | 128 14.3 | 875 | 803 | 909 | 25 | * |
| Pisces Canyon | 25 | Indexing | 5 | 03-Oct-99 | 1155 | 1435 | 04-27-6 | 50 14.4 | 128 16.3 | 50 13.6 | 128 15.9 | 1005 | 1226 | 1116 | 24 | * |
| | 26 | Tagging | | 03-Oct-99 | 1340 | 1800 | 04-27-3 | 50 21.0 | 128 21.9 | 50 19.6 | 128 23.4 | 597 | 728 | 624 | 65 | ** |
| | 27 | Tagging | | 03-Oct-99 | 1525 | 3020 | 04-27-0 | 50 26.5 | 128 31.6 | 50 25.8 | 128 33.1 | 476 | 694 | 614 | 65 | ** |
| | 28 | Tagging | | 03-Oct-99 | 1630 | 3095 | 05-11-11 | 50 29.2 | 128 35.1 | 50 30.7 | 128 35.2 | 595 | 388 | 536 | 65 | ** |
| | 29 | Tagging | | 03-Oct-99 | 1723 | 3187 | 05-11-11 | 50 32.0 | 128 36.3 | 50 33.0 | 128 36.7 | 507 | 549 | 546 | 65 | ** |
| Triangle Island | 30 | Multi-purpose | | 03-Oct-99 | 1830 | 3265 | 05-11-6 | 50 35.6 | 128 40.3 | 50 35.4 | 128 42.4 | 410 | 533 | 502 | 65 | ** |
| | 31 | Tagging | | 06-Oct-99 | 0328 | 1242 | 05-11-11 | 50 32.9 | 128 40.1 | 50 34.6 | 128 41.0 | 458 | 447 | 546 | 65 | ** |
| | 32 | Tagging | | 06-Oct-99 | 0440 | 1310 | 05-11-11 | 50 34.8 | 128 45.5 | 50 36.4 | 128 46.5 | 569 | 646 | 540 | 65 | ** |
| | 33 | Indexing | 5 | 06-Oct-99 | 1044 | 1421 | 05-11-7 | 51 01.2 | 129 39.6 | 51 00.8 | 129 40.4 | 996 | 1052 | 1025 | 7 | * |
| | 34 | Indexing | 4 | 06-Oct-99 | 1122 | 1533 | 05-11-7 | 51 01.7 | 129 40.6 | 51 01.6 | 129 39.5 | 824 | 964 | 906 | 25 | * |
| Middle Ground | 35 | Indexing | 3 | 06-Oct-99 | 1205 | 1580 | 05-11-7 | 51 02.2 | 129 35.6 | 51 03.6 | 129 35.7 | 752 | 653 | 699 | 21 | * |
| | 36 | Indexing | 2 | 06-Oct-99 | 1230 | 1690 | 05-11-7 | 51 04.2 | 129 35.1 | 51 04.2 | 129 35.1 | 458 | 619 | 576 | 25 | * |
| | 37 | Indexing | 1 | 06-Oct-99 | 1305 | 1660 | 05-11-7 | 51 05.0 | 129 34.4 | 51 05.6 | 129 34.1 | 458 | 313 | 365 | 25 | * |
| | 38 | Tagging | | 06-Oct-99 | 1355 | 1680 | 05-11-7 | 51 03.7 | 129 26.3 | 51 05.2 | 129 37.7 | 516 | 514 | 523 | 65 | ** |
| | 39 | Tagging | | 07-Oct-99 | 2205 | 1290 | 05-11-12 | 51 11.0 | 130 00.6 | 51 12.6 | 130 00.1 | 523 | 474 | 544 | 65 | ** |
| Cape St. James | 40 | Tagging | | 07-Oct-99 | 2300 | 1380 | 05-11-12 | 51 13.2 | 130 01.8 | 51 13.6 | 130 04.3 | 509 | 626 | 573 | 65 | ** |
| | 41 | Tagging | | 08-Oct-99 | 0031 | 1429 | 06-08-10 | 51 18.6 | 130 05.6 | 51 18.3 | 130 07.4 | 456 | 646 | 569 | 65 | ** |
| | 42 | Multi-purpose | | 08-Oct-99 | 0235 | 1480 | 06-08-10 | 51 24.6 | 129 59.3 | 51 24.4 | 130 01.9 | 494 | 620 | 602 | 66 | ** |
| | 43 | Tagging | | 08-Oct-99 | 0550 | 1665 | 06-08-14 | 51 37.8 | 130 14.8 | 51 39.3 | 130 13.7 | 531 | 485 | 447 | 65 | ** |
| | 44 | Indexing | 1 | 08-Oct-99 | 0730 | 1725 | 06-08-14 | 51 43.1 | 130 20.6 | 51 43.4 | 130 21.7 | 275 | 421 | 359 | 23 | * |

Table E.7 (cont'd)

| Locality | Set | Reason | Target Strata | Date | Start Time | Duration (min.) | Area Code (Maj-Min-Loc) | Start | | | End | | | Bottom Depth (m) | | | Traps Fished | Bait |
|--------------------------------|-----|---------------|---------------|-----------|------------|-----------------|-------------------------|----------|-----------|----------|-----------|----------|-----------|------------------|-----|------|--------------|------|
| | | | | | | | | Latitude | Longitude | Latitude | Longitude | Latitude | Longitude | Start | End | Mean | | |
| Gowgaia Bay | 45 | Indexing | 2 | 08-Oct-99 | 0805 | 1755 | 06-08-14 | 51 43.4 | 130 22.4 | 51 43.6 | 130 23.3 | 467 | 617 | 549 | 19 | * | | |
| | 46 | Indexing | 3 | 08-Oct-99 | 0850 | 1800 | 06-08-14 | 51 43.0 | 130 27.6 | 51 43.6 | 130 27.7 | 825 | 575 | 668 | 25 | * | | |
| | 47 | Indexing | 4 | 08-Oct-99 | 0950 | 1860 | 06-08-14 | 51 40.7 | 130 29.8 | 51 40.0 | 130 29.5 | 825 | 1030 | 988 | 24 | * | | |
| | 48 | Indexing | 5 | 08-Oct-99 | 1030 | 2015 | 06-08-15 | 51 38.4 | 130 30.6 | 51 37.9 | 130 31.0 | 975 | 1021 | 1052 | 24 | * | | |
| | 49 | Deepwater | | 10-Oct-99 | 0445 | 1310 | 09-34-3 | 52 20.8 | 131 45.4 | 52 20.5 | 131 44.4 | 1080 | 1100 | 1089 | 25 | * | | |
| | 50 | Indexing | 5 | 10-Oct-99 | 0550 | 1340 | 09-34-3 | 52 21.7 | 131 42.4 | 52 21.3 | 131 43.3 | 1016 | 1168 | 1020 | 25 | * | | |
| | 51 | Indexing | 4 | 10-Oct-99 | 0720 | 1320 | 09-34-3 | 52 21.3 | 131 41.0 | 52 20.8 | 131 41.8 | 809 | 996 | 824 | 25 | * | | |
| | 52 | Indexing | 3 | 10-Oct-99 | 0840 | 1315 | 09-34-3 | 52 22.2 | 131 39.7 | 52 21.7 | 131 40.3 | 624 | 864 | 773 | 12 | * | | |
| | 53 | Indexing | 2 | 10-Oct-99 | 0935 | 1390 | 09-34-3 | 52 22.2 | 131 38.7 | 52 21.7 | 131 39.4 | 461 | 651 | 567 | 23 | * | | |
| | 54 | Indexing | 1 | 10-Oct-99 | 0955 | 1435 | 09-34-3 | 52 22.5 | 131 39.6 | 52 23.3 | 131 39.4 | 437 | 364 | 377 | 25 | * | | |
| Tasu Sound | 55 | Tagging | | 10-Oct-99 | 1045 | 1475 | 09-34-3 | 52 25.3 | 131 41.9 | 52 26.5 | 131 44.2 | 489 | 485 | 440 | 65 | ** | | |
| | 56 | Tagging | | 10-Oct-99 | 1250 | 1570 | 09-34-4 | 52 35.0 | 131 58.5 | 52 36.2 | 132 00.6 | 415 | 474 | 506 | 65 | ** | | |
| | 57 | Tagging | | 10-Oct-99 | 1345 | 1650 | 09-34-4 | 52 36.8 | 132 01.3 | 52 38.0 | 132 03.3 | 415 | 496 | 466 | 65 | ** | | |
| | 58 | Multi-purpose | | 10-Oct-99 | 1450 | 1570 | 09-34-4 | 52 38.3 | 132 03.5 | 52 39.3 | 132 05.3 | 489 | 549 | 504 | 68 | ** | | |
| | 59 | Tagging | | 10-Oct-99 | 1600 | 2675 | 09-31-13 | 52 42.1 | 132 08.1 | 52 43.6 | 132 10.0 | 421 | 509 | 512 | 65 | ** | | |
| | 60 | Tagging | | 10-Oct-99 | 1720 | 2775 | 09-31-13 | 52 45.7 | 132 12.2 | 52 47.0 | 132 14.1 | 511 | 527 | 516 | 65 | ** | | |
| | 61 | Tagging | | 12-Oct-99 | 2045 | 1335 | 09-31-8 | 53 00.1 | 132 33.8 | 53 01.7 | 132 35.8 | 381 | 425 | 401 | 65 | ** | | |
| | 62 | Indexing | 1 | 12-Oct-99 | 2150 | 1415 | 09-31-3 | 53 03.2 | 132 38.1 | 53 03.8 | 132 37.7 | 459 | 238 | 373 | 23 | * | | |
| | 63 | Indexing | 2 | 12-Oct-99 | 2245 | 1420 | 09-31-3 | 53 03.2 | 132 39.3 | 53 04.0 | 132 39.4 | 637 | 454 | 511 | 25 | * | | |
| | 64 | Indexing | 3 | 12-Oct-99 | 0025 | 1370 | 09-31-3 | 53 03.6 | 132 40.8 | 53 04.5 | 132 40.7 | 813 | 571 | 673 | 25 | * | | |
| Rennell Sound | 65 | Indexing | 4 | 12-Oct-99 | 0125 | 1405 | 09-31-3 | 53 04.2 | 132 43.2 | 53 04.6 | 132 42.4 | 1014 | 756 | 888 | 25 | * | | |
| | 66 | Indexing | 5 | 13-Oct-99 | 0235 | 1435 | 09-31-3 | 53 04.7 | 132 45.1 | 53 05.1 | 132 44.1 | 1188 | 1010 | 1103 | 26 | * | | |
| | 67 | Deepwater | | 13-Oct-99 | 0345 | 1525 | 09-31-3 | 53 06.1 | 132 47.1 | 53 05.8 | 132 46.1 | 1129 | 1089 | 1114 | 25 | ** | | |
| | 68 | Tagging | | 13-Oct-99 | 0640 | 2135 | 09-31-14 | 53 16.0 | 133 00.1 | 53 14.8 | 132 58.4 | 414 | 436 | 432 | 65 | ** | | |
| | 69 | Tagging | | 13-Oct-99 | 0820 | 2215 | 09-31-14 | 53 17.7 | 133 04.7 | 53 19.0 | 133 06.6 | 410 | 419 | 410 | 65 | ** | | |
| | 70 | Tagging | | 13-Oct-99 | 0945 | 2290 | 09-31-14 | 53 22.8 | 133 08.4 | 53 24.2 | 133 09.3 | 329 | 419 | 404 | 65 | ** | | |
| | 71 | Tagging | | 13-Oct-99 | 1105 | 2320 | 09-31-1 | 53 26.0 | 133 07.5 | 53 24.7 | 133 06.1 | 503 | 478 | 450 | 65 | ** | | |
| | 72 | Tagging | | 13-Oct-99 | 1210 | 2390 | 09-31-1 | 53 26.7 | 133 03.1 | 53 25.7 | 133 01.1 | 527 | 514 | 448 | 65 | ** | | |
| | 73 | Deepwater | | 14-Oct-99 | 1245 | 1310 | 09-31-12 | 53 29.0 | 133 08.1 | 53 29.6 | 133 08.7 | 1082 | 1043 | 1061 | 24 | ** | | |
| | 74 | Indexing | 5 | 14-Oct-99 | 1320 | 1360 | 09-31-12 | 53 30.3 | 133 10.1 | 53 30.1 | 133 09.9 | 996 | 1114 | 1094 | 25 | * | | |
| Hippra Island | 75 | Indexing | 4 | 14-Oct-99 | 1350 | 1400 | 09-31-12 | 53 30.5 | 133 09.1 | 53 30.6 | 133 09.8 | 800 | 1058 | 769 | 25 | * | | |
| | 76 | Indexing | 2 | 14-Oct-99 | 1427 | 1428 | 09-31-12 | 53 31.8 | 133 11.0 | 53 31.8 | 133 09.9 | 692 | 468 | 509 | 25 | * | | |
| | 77 | Indexing | 3 | 14-Oct-99 | 1500 | 1470 | 09-31-12 | 53 31.0 | 133 09.3 | 53 31.1 | 133 10.4 | 659 | 824 | 758 | 25 | * | | |
| | 78 | Indexing | 1 | 14-Oct-99 | 1535 | 1500 | 09-31-12 | 53 31.4 | 133 08.5 | 53 31.1 | 133 07.4 | 450 | 311 | 388 | 25 | * | | |
| | 79 | Tagging | | 14-Oct-99 | 1615 | 1535 | 09-31-12 | 53 30.3 | 133 06.0 | 53 28.6 | 133 06.2 | 439 | 445 | 410 | 65 | ** | | |
| | 80 | Tagging | | 15-Oct-99 | 0713 | 2957 | 09-31-12 | 53 34.0 | 133 16.2 | 53 33.6 | 133 18.6 | 359 | 756 | 536 | 65 | ** | | |
| | 81 | Tagging | | 15-Oct-99 | 0800 | 2760 | 09-31-12 | 53 32.4 | 133 16.9 | 53 31.3 | 133 15.3 | 692 | 604 | 617 | 65 | ** | | |
| | 82 | Tagging | | 15-Oct-99 | 0845 | 2570 | 09-31-12 | 53 31.1 | 133 16.5 | 53 30.3 | 133 14.8 | 549 | 565 | 556 | 65 | ** | | |
| | 83 | Indexing | 1 | 16-Oct-99 | 1215 | 1770 | 09-35-6 | 54 03.9 | 133 39.2 | 54 03.7 | 133 40.1 | 322 | 346 | 324 | 25 | * | | |
| | 84 | Indexing | 2 | 16-Oct-99 | 1255 | 1800 | 09-35-6 | 54 03.1 | 133 45.0 | 54 03.0 | 133 41.5 | 461 | 560 | 509 | 25 | * | | |
| Langara Island-North Frederick | 85 | Indexing | 3 | 16-Oct-99 | 1320 | 1895 | 09-35-6 | 54 02.5 | 133 41.2 | 54 01.9 | 133 41.5 | 620 | 781 | 648 | 25 | * | | |
| | 86 | Indexing | 4 | 16-Oct-99 | 1350 | 1895 | 09-35-6 | 54 01.0 | 133 41.2 | 54 00.0 | 133 42.9 | 838 | 985 | 926 | 25 | * | | |
| | 87 | Indexing | 5 | 16-Oct-99 | 1420 | 1950 | 09-35-6 | 54 00.9 | 133 43.8 | 54 00.4 | 133 44.5 | 851 | 1089 | 1047 | 25 | * | | |
| | 88 | Deepwater | | 18-Oct-99 | 0108 | 3452 | 09-31-2 | 53 57.2 | 133 44.8 | 53 57.8 | 133 44.8 | 1244 | 1241 | 1248 | 25 | ** | | |
| | 89 | Tagging | | 18-Oct-99 | 0210 | 1865 | 09-35-6 | 54 03.2 | 133 41.0 | 54 02.3 | 133 43.1 | 496 | 869 | 716 | 65 | ** | | |
| | 90 | Indexing | | 23-Oct-99 | 0845 | 1600 | 08-04-12 | 54 46.2 | 130 21.1 | 54 46.7 | 130 20.0 | 500 | 485 | 494 | 25 | * | | |
| | 91 | Indexing | | 23-Oct-99 | 0935 | 1640 | 08-04-12 | 54 44.4 | 130 23.8 | 54 43.8 | 130 24.4 | 564 | 545 | 554 | 24 | * | | |
| | 92 | Indexing | | 24-Oct-99 | 0955 | 1415 | 08-04-12 | 54 42.3 | 130 25.6 | 54 41.8 | 130 25.9 | 547 | 490 | 538 | 25 | * | | |
| | 93 | Indexing | | 23-Oct-99 | 1030 | 1300 | 08-04-12 | 54 40.4 | 130 29.2 | 54 40.5 | 130 30.5 | 538 | 635 | 586 | 25 | * | | |

Table E.7. (cont'd)

| Locality | Set | Reason | Target Strata | Date | Start Time | Duration (min.) | Area Code (Maj-Min-Loc) | Start | | End | | Bottom Depth (m) | | Traps Fished | | Bait |
|--------------------|-----|----------|------------------|-----------|---------------|--------------------|----------------------------|----------|-----------|----------|-----------|------------------|-----|-----------------|--------|------|
| | | | | | | | | Latitude | Longitude | Latitude | Longitude | Start | End | Mean | Fished | |
| Gill Island | 94 | Indexing | | 23-Oct-99 | 1100 | 1100 | 08-04-12 | 54 38.5 | 130 31.6 | 54 37.9 | 130 31.8 | 598 | 545 | 564 | 24 | * |
| | 95 | Indexing | | 25-Oct-99 | 0510 | 1470 | 07-06-6 | 53 20.3 | 129 18.8 | 53 19.6 | 129 18.4 | 522 | 533 | 529 | 25 | * |
| | 96 | Indexing | | 25-Oct-99 | 0620 | 1520 | 07-06-6 | 53 13.0 | 129 22.3 | 53 12.4 | 129 23.0 | 507 | 531 | 520 | 25 | * |
| | 97 | Indexing | | 25-Oct-99 | 0720 | 1590 | 07-06-6 | 53 07.0 | 129 22.1 | 53 06.4 | 129 21.9 | 639 | 661 | 655 | 21 | * |
| | 98 | Indexing | | 25-Oct-99 | 0910 | 1645 | 07-06-6 | 53 06.1 | 129 07.0 | 53 06.6 | 129 06.5 | 496 | 542 | 507 | 25 | * |
| Finlayson Channel | 99 | Indexing | | 25-Oct-99 | 0950 | 1730 | 07-06-6 | 53 10.2 | 129 07.6 | 53 10.2 | 129 07.6 | 565 | 567 | 565 | 25 | * |
| | 100 | Indexing | | 26-Oct-99 | 2155 | 1075 | 07-07-3 | 52 47.8 | 128 25.8 | 52 46.9 | 128 26.1 | 553 | 582 | 562 | 25 | * |
| | 101 | Indexing | | 26-Oct-99 | 1040 | 1100 | 07-07-3 | 52 43.8 | 128 27.6 | 52 42.7 | 128 27.5 | 593 | 458 | 549 | 26 | * |
| | 102 | Indexing | | 26-Oct-99 | 2310 | 1140 | 07-07-3 | 52 39.8 | 128 28.2 | 52 39.2 | 128 28.5 | 598 | 594 | 613 | 24 | * |
| | 103 | Indexing | | 27-Oct-99 | 0005 | 1170 | 07-07-3 | 52 34.7 | 128 28.0 | 52 34.1 | 128 28.3 | 659 | 646 | 648 | 24 | * |
| Dean/Burke Channel | 104 | Indexing | | 27-Oct-99 | 0045 | 1210 | 07-07-3 | 52 31.2 | 128 27.8 | 52 30.5 | 128 27.6 | 758 | 813 | 785 | 23 | * |
| | 105 | Indexing | | 28-Oct-99 | 0735 | 1390 | 06-08-8 | 52 24.8 | 127 22.0 | 52 24.7 | 127 20.9 | 503 | 496 | 494 | 24 | * |
| | 106 | Indexing | | 28-Oct-99 | 0830 | 1440 | 06-08-8 | 52 26.6 | 127 15.9 | 52 26.3 | 127 15.0 | 525 | 503 | 516 | 25 | * |
| | 107 | Indexing | | 28-Oct-99 | 0915 | 1475 | 06-08-8 | 52 22.3 | 127 12.4 | 52 21.8 | 127 11.6 | 518 | 536 | 523 | 24 | * |
| | 108 | Indexing | | 28-Oct-99 | 0945 | 1535 | 06-08-8 | 52 19.5 | 127 11.6 | 52 18.9 | 127 11.9 | 564 | 567 | 565 | 24 | * |
| | 109 | Indexing | | 28-Oct-99 | 1020 | 1590 | 06-08-8 | 52 16.5 | 127 15.5 | 52 16.0 | 127 16.5 | 578 | 569 | 575 | 25 | * |

Table E.8. Summary of sets completed during the 2000 fall sablefish survey onboard the F/V Pacific Viking. Sets were baited with either approximately 1kg of frozen squid in bait bags in each trap (*) or a combination of 1 kg of frozen squid in bait bags and 3-4 kg of frozen hake loose in each trap (**).

| Locality | Set | Reason | Target Strata | Date | Start Time | Duration (min.) | Area Code (Maj-Min-Loc) | Start | | | End | | | Bottom Depth (m) | | | Traps Fished | Bait |
|-----------------------|-----|-----------|------------------|-----------|---------------|--------------------|----------------------------|----------|-----------|----------|-----------|----------|-----------|------------------|-----|------|-----------------|------|
| | | | | | | | | Latitude | Longitude | Latitude | Longitude | Latitude | Longitude | Start | End | Mean | | |
| Barkley Canyon | 1 | Deepwater | | 09-Oct-00 | 0750 | 1460 | 03-23-0 | 48 15.9 | 126 11.3 | 48 16.1 | 126 10.6 | 1504 | 1455 | 1487 | 25 | * | | |
| | 2 | Deepwater | | 09-Oct-00 | 0855 | 1520 | 03-23-10 | 48 16.5 | 126 07.2 | 48 16.0 | 126 07.6 | 1318 | 1373 | 1352 | 25 | * | | |
| | 3 | Deepwater | | 09-Oct-00 | 0951 | 1541 | 03-23-10 | 48 16.8 | 126 05.3 | 48 16.3 | 126 05.9 | 1153 | 1274 | 1190 | 25 | * | | |
| | 4 | Indexing | 5 | 09-Oct-00 | 1050 | 1594 | 03-23-10 | 48 17.1 | 126 02.7 | 48 16.5 | 126 03.2 | 1043 | 1091 | 1069 | 25 | * | | |
| | 5 | Tagging | | 09-Oct-00 | 1227 | 1625 | 03-23-10 | 48 20.2 | 125 54.1 | 48 20.0 | 125 56.0 | 351 | 483 | 412 | 60 | ** | | |
| | 6 | Indexing | 4 | 08-Oct-00 | 1350 | 1805 | 03-23-10 | 48 18.4 | 126 04.7 | 48 17.8 | 126 05.2 | 780 | 970 | 895 | 25 | * | | |
| | 7 | Indexing | 3 | 09-Oct-00 | 1437 | 1853 | 03-23-10 | 48 19.6 | 126 05.5 | 48 18.8 | 126 05.7 | 641 | 829 | 717 | 25 | * | | |
| | 8 | Indexing | 2 | 09-Oct-00 | 1532 | 1909 | 03-23-10 | 48 21.4 | 126 07.0 | 48 20.8 | 126 07.6 | 421 | 503 | 453 | 25 | * | | |
| | 9 | Indexing | 1 | 09-Oct-00 | 1652 | 1928 | 03-23-10 | 48 23.2 | 125 59.9 | 48 22.5 | 126 00.4 | 293 | 408 | 350 | 25 | * | | |
| Father Charles Canyon | 10 | Tagging | | 11-Oct-00 | 0620 | 1400 | 03-23-12 | 48 43.0 | 126 15.7 | 48 42.9 | 126 18.0 | 339 | 533 | 505 | 60 | ** | | |
| | 11 | Tagging | | 11-Oct-00 | 0736 | 1464 | 03-24-6 | 48 45.0 | 126 18.1 | 48 43.9 | 126 19.5 | 393 | 468 | 399 | 60 | ** | | |
| | 12 | Tagging | | 11-Oct-00 | 0905 | 1540 | 03-24-6 | 48 45.4 | 126 27.4 | 48 44.1 | 126 28.3 | 432 | 553 | 509 | 60 | ** | | |
| Estevan Point | 13 | Tagging | | 11-Oct-00 | 1005 | 1450 | 03-24-6 | 48 43.8 | 126 30.0 | 48 42.7 | 126 31.5 | 494 | 613 | 555 | 60 | ** | | |
| | 14 | Tagging | | 12-Oct-00 | 2005 | 980 | 04-25-1 | 49 00.6 | 126 54.3 | 49 02.2 | 126 55.0 | 604 | 531 | 566 | 60 | ** | | |
| | 15 | Tagging | | 12-Oct-00 | 2119 | 1126 | 04-25-1 | 49 05.1 | 126 59.2 | 49 06.6 | 126 59.5 | 641 | 549 | 590 | 60 | ** | | |
| Esperanza Inlet | 16 | Tagging | | 12-Oct-00 | 2212 | 1248 | 04-25-1 | 49 09.3 | 127 00.3 | 49 09.1 | 127 02.8 | 514 | 576 | 507 | 56 | ** | | |
| | 17 | Tagging | | 12-Oct-00 | 2328 | 1385 | 04-25-1 | 49 13.3 | 127 04.5 | 49 12.6 | 127 06.7 | 430 | 595 | 491 | 60 | ** | | |
| | 18 | Indexing | 1 | 14-Oct-00 | 0505 | 2767 | 04-25-4 | 49 37.2 | 127 23.6 | 49 37.3 | 127 24.6 | 275 | 445 | 357 | 25 | * | | |
| Quatsino Sound | 19 | Indexing | 2 | 14-Oct-00 | 0545 | 2782 | 04-25-4 | 49 36.6 | 127 24.0 | 49 36.4 | 127 25.2 | 458 | 602 | 542 | 24 | * | | |
| | 20 | Indexing | 3 | 14-Oct-00 | 0710 | 2170 | 04-26-8 | 49 36.0 | 127 34.6 | 49 36.3 | 127 34.9 | 633 | 860 | 778 | 24 | * | | |
| | 21 | Indexing | 4 | 14-Oct-00 | 0737 | 2193 | 04-26-8 | 49 34.3 | 127 35.4 | 49 33.8 | 127 35.0 | 827 | 1007 | 910 | 24 | * | | |
| Piscis Canyon | 22 | Tagging | | 14-Oct-00 | 0905 | 2655 | 04-25-4 | 49 36.4 | 127 21.1 | 49 35.0 | 127 21.7 | 443 | 512 | 498 | 60 | ** | | |
| | 23 | Indexing | 5 | 14-Oct-00 | 1046 | 2124 | 04-26-8 | 49 33.6 | 127 34.1 | 49 33.0 | 127 34.3 | 1007 | 1190 | 1109 | 25 | * | | |
| | 24 | Deepwater | | 14-Oct-00 | 1122 | 2093 | 04-26-8 | 49 32.4 | 127 34.9 | 49 31.9 | 127 34.9 | 1190 | 1281 | 1257 | 24 | * | | |
| Dean/Burke Channel | 25 | Deepwater | | 14-Oct-00 | 1200 | 2135 | 04-26-8 | 49 31.3 | 127 37.2 | 49 30.8 | 127 36.6 | 1265 | 1385 | 1299 | 25 | * | | |
| | 26 | Deepwater | | 14-Oct-00 | 1250 | 2160 | 04-25-4 | 49 30.0 | 127 35.3 | 49 28.5 | 127 35.1 | 1464 | 1556 | 1541 | 23 | * | | |
| | 27 | Tagging | | 16-Oct-00 | 1440 | 2820 | 04-27-6 | 50 20.3 | 128 26.5 | 50 19.1 | 128 26.9 | 490 | 842 | 624 | 60 | ** | | |
| Esperanza Inlet | 28 | Indexing | 2 | 16-Oct-00 | 1600 | 2895 | 04-27-6 | 50 20.2 | 128 25.2 | 50 19.5 | 128 25.4 | 458 | 641 | 518 | 25 | * | | |
| | 29 | Indexing | 1 | 16-Oct-00 | 1620 | 2935 | 04-27-3 | 50 21.8 | 128 25.8 | 50 21.3 | 128 26.3 | 274 | 372 | 324 | 24 | * | | |
| | 30 | Deepwater | | 16-Oct-00 | 1730 | 2720 | 04-27-0 | 50 21.4 | 128 34.2 | 50 20.9 | 128 34.4 | 1501 | 1427 | 1466 | 25 | * | | |
| Piscis Canyon | 31 | Deepwater | | 16-Oct-00 | 1805 | 2170 | 04-27-0 | 50 20.4 | 128 35.9 | 50 19.9 | 128 35.3 | 1290 | 1354 | 1296 | 25 | * | | |
| | 32 | Deepwater | | 16-Oct-00 | 1900 | 2220 | 04-27-6 | 50 17.6 | 128 29.5 | 50 16.9 | 128 29.1 | 1116 | 1244 | 1197 | 25 | * | | |
| | 33 | Indexing | 5 | 16-Oct-00 | 1942 | 2268 | 04-27-6 | 50 18.0 | 128 25.2 | 50 17.2 | 128 25.1 | 1006 | 1098 | 1061 | 25 | * | | |
| Dean/Burke Channel | 34 | Indexing | 4 | 16-Oct-00 | 2232 | 2182 | 04-27-6 | 50 16.0 | 128 22.2 | 50 16.2 | 128 21.8 | 824 | 1007 | 899 | 22 | * | | |
| | 35 | Indexing | 3 | 16-Oct-00 | 2121 | 2209 | 04-27-6 | 50 18.0 | 128 19.3 | 50 17.1 | 128 19.7 | 648 | 805 | 758 | 25 | * | | |
| | 36 | Tagging | | 18-Oct-00 | 1930 | 2930 | 05-11-11 | 50 33.2 | 128 37.4 | 50 31.9 | 128 37.9 | 311 | 752 | 597 | 60 | ** | | |
| Dean/Burke Channel | 37 | Tagging | | 18-Oct-00 | 2050 | 2850 | 05-11-6 | 50 35.9 | 128 41.8 | 50 34.7 | 128 42.9 | 522 | 615 | 564 | 60 | ** | | |
| | 38 | Tagging | | 18-Oct-00 | 2150 | 2970 | 05-11-11 | 50 35.9 | 128 46.4 | 50 34.5 | 128 46.5 | 489 | 849 | 688 | 60 | ** | | |
| | 39 | Tagging | | 18-Oct-00 | 2043 | 3182 | 05-11-11 | 50 34.7 | 128 44.9 | 50 33.3 | 128 45.0 | 549 | 727 | 748 | 60 | ** | | |
| Dean/Burke Channel | 40 | Indexing | | 21-Oct-00 | 2105 | 1010 | 06-08-8 | 52 07.4 | 127 37.5 | 52 07.9 | 127 36.7 | 412 | 436 | 430 | 25 | * | | |
| | 41 | Indexing | | 21-Oct-00 | 2237 | 823 | 06-08-8 | 52 12.7 | 127 26.1 | 52 13.2 | 127 25.4 | 430 | 593 | 572 | 24 | * | | |
| | 42 | Indexing | | 21-Oct-00 | 2350 | 1017 | 06-08-8 | 52 16.3 | 127 15.5 | 52 16.9 | 127 14.6 | 582 | 578 | 580 | 25 | * | | |
| Dean/Burke Channel | 43 | Indexing | | 22-Oct-00 | 0142 | 1038 | 06-08-8 | 52 27.4 | 127 15.3 | 52 26.8 | 127 15.8 | 505 | 549 | 535 | 25 | * | | |
| | 44 | Indexing | | 22-Oct-00 | 0252 | 1078 | 06-08-8 | 52 23.5 | 127 26.7 | 52 22.8 | 127 27.1 | 496 | 478 | 488 | 25 | * | | |

Table E.8. (cont'd)

| Locality | Set Reason | Target Strata | Start Date | Start Time | Start Duration (min.) | Area Code (Maj-Min-Loc) | Start | | | End | | | Bottom Depth (m) | | | Traps Fished | Bait |
|-------------------|------------|---------------|------------|------------|-----------------------|-------------------------|----------|-----------|----------|-----------|----------|-----------|------------------|-----|------|--------------|------|
| | | | | | | | Latitude | Longitude | Latitude | Longitude | Latitude | Longitude | Start | End | Mean | | |
| Triangle Island | 45 | Indexing | 23-Oct-00 | 1726 | 1196 | 05-11-7 | 51 05.3 | 129 36.6 | 51 05.0 | 129 37.3 | 458 | 481 | 432 | 25 | * | | |
| | 46 | Commercial | 23-Oct-00 | 1810 | 1340 | 05-11-12 | 51 06.4 | 129 42.5 | 51 05.8 | 129 42.7 | 436 | 306 | 500 | 30 | ** | | |
| | 47 | Indexing | 23-Oct-00 | 1843 | 1315 | 05-11-0 | 51 04.8 | 129 41.4 | 51 04.1 | 129 41.2 | 635 | 697 | 664 | 25 | * | | |
| | 48 | Indexing | 23-Oct-00 | 1935 | 1002 | 05-11-12 | 51 07.1 | 129 38.2 | 51 06.5 | 129 38.3 | 293 | 339 | 326 | 25 | * | | |
| | 49 | Indexing | 23-Oct-00 | 2025 | 1283 | 05-11-7 | 51 02.9 | 129 40.1 | 51 02.2 | 129 40.1 | 824 | 889 | 867 | 25 | * | | |
| Middle Ground | 50 | Indexing | 23-Oct-00 | 2011 | 1384 | 05-11-7 | 51 00.8 | 129 41.8 | 51 00.3 | 129 41.7 | 1047 | 1109 | 1083 | 24 | * | | |
| | 51 | Tagging | 23-Oct-00 | 2215 | 1345 | 05-11-7 | 51 00.6 | 129 34.0 | 51 00.8 | 129 37.2 | 478 | 628 | 290 | 60 | ** | | |
| | 52 | Tagging | 25-Oct-00 | 0302 | 733 | 05-11-12 | 51 11.0 | 130 00.8 | 51 12.3 | 129 60.0 | 549 | 498 | 522 | 60 | ** | | |
| | 53 | Tagging | 25-Oct-00 | 0404 | 826 | 05-11-12 | 51 13.2 | 130 01.7 | 51 13.5 | 130 04.2 | 439 | 593 | 560 | 60 | ** | | |
| | 54 | Tagging | 25-Oct-00 | 0508 | 932 | 05-11-12 | 51 14.5 | 130 00.9 | 51 14.6 | 130 03.4 | 417 | 560 | 499 | 60 | ** | | |
| Finlayson Channel | 55 | Tagging | 25-Oct-00 | 0620 | 990 | 06-08-10 | 51 16.4 | 130 00.6 | 51 16.2 | 130 03.0 | 329 | 501 | 414 | 60 | ** | | |
| | 56 | Indexing | 27-Oct-00 | 1230 | 1000 | 07-07-3 | 52 30.7 | 128 28.2 | 52 31.3 | 128 28.2 | 622 | 717 | 692 | 25 | * | | |
| | 57 | Indexing | 27-Oct-00 | 1328 | 957 | 07-07-3 | 52 34.2 | 128 28.6 | 52 34.8 | 128 28.1 | 620 | 688 | 652 | 25 | * | | |
| | 58 | Indexing | 27-Oct-00 | 1415 | 990 | 07-07-3 | 52 39.0 | 128 27.8 | 52 39.6 | 128 28.4 | 542 | 600 | 597 | 25 | * | | |
| | 59 | Indexing | 27-Oct-00 | 1459 | 1026 | 07-07-3 | 52 42.3 | 128 27.2 | 52 43.0 | 128 27.5 | 465 | 514 | 476 | 25 | * | | |
| Gil Island | 60 | Indexing | 27-Oct-00 | 1534 | 1056 | 07-07-3 | 52 45.5 | 128 27.3 | 52 46.1 | 128 27.4 | 503 | 606 | 598 | 25 | * | | |
| | 61 | Indexing | 28-Oct-00 | 1636 | 839 | 07-06-6 | 53 19.2 | 129 18.3 | 53 18.4 | 129 18.4 | 540 | 542 | 542 | 25 | * | | |
| | 62 | Indexing | 28-Oct-00 | 1742 | 888 | 07-06-6 | 53 11.9 | 129 23.9 | 53 11.2 | 129 24.2 | 532 | 532 | 534 | 25 | * | | |
| | 63 | Indexing | 28-Oct-00 | 1823 | 932 | 07-06-6 | 53 07.6 | 129 22.3 | 53 07.0 | 129 21.8 | 576 | 652 | 620 | 25 | * | | |
| | 64 | Indexing | 28-Oct-00 | 2013 | 1002 | 07-06-6 | 53 06.5 | 129 07.0 | 53 07.1 | 129 07.0 | 525 | 540 | 532 | 25 | * | | |
| Cape St. James | 65 | Indexing | 28-Oct-00 | 2055 | 1060 | 07-06-6 | 53 10.2 | 129 07.7 | 53 10.8 | 129 07.7 | 566 | 569 | 465 | 24 | * | | |
| | 66 | Indexing | 31-Oct-00 | 1205 | 755 | 06-08-14 | 51 43.9 | 130 23.2 | 51 43.6 | 130 23.9 | 470 | 617 | 505 | 22 | * | | |
| | 67 | Indexing | 31-Oct-00 | 1245 | 1079 | 06-08-14 | 51 43.1 | 130 20.3 | 51 42.7 | 130 21.4 | 291 | 286 | 309 | 24 | * | | |
| | 68 | Indexing | 31-Oct-00 | 1349 | 738 | 06-08-14 | 51 41.3 | 130 28.4 | 51 40.7 | 130 28.3 | 622 | 844 | 796 | 24 | * | | |
| | 69 | Indexing | 31-Oct-00 | 1440 | 758 | 06-08-14 | 51 40.6 | 130 30.4 | 51 40.0 | 130 30.5 | 988 | 1103 | 1036 | 23 | * | | |
| Cape St. James | 70 | Indexing | 31-Oct-00 | 1521 | 809 | 06-08-15 | 51 38.1 | 130 29.7 | 51 37.8 | 130 30.6 | 855 | 889 | 886 | 23 | * | | |
| | 71 | Commercial | 31-Oct-00 | 1635 | 945 | 06-08-14 | 51 39.0 | 130 20.7 | 51 38.1 | 130 20.5 | 404 | 565 | 479 | 30 | ** | | |
| | 72 | Tagging | 31-Oct-00 | 1720 | 975 | 06-08-14 | 51 39.0 | 130 19.8 | 51 37.2 | 130 19.6 | 456 | 540 | 463 | 60 | ** | | |
| | 73 | Commercial | 01-Nov-00 | 2247 | 1253 | 09-34-1 | 52 01.4 | 131 19.4 | 52 02.2 | 131 21.5 | 487 | 802 | 686 | 60 | ** | | |
| | 74 | Commercial | 01-Nov-00 | 2341 | 1314 | 09-34-1 | 52 03.2 | 131 20.9 | 52 03.8 | 131 23.4 | 426 | 829 | 672 | 60 | ** | | |
| Flamingo Inlet | 75 | Commercial | 02-Nov-00 | 0043 | 1407 | 09-34-1 | 52 04.2 | 131 22.3 | 52 04.9 | 131 24.6 | 489 | 820 | 668 | 60 | ** | | |
| | 76 | Commercial | 02-Nov-00 | 0137 | 1523 | 09-34-1 | 52 05.0 | 131 22.7 | 52 05.5 | 131 24.0 | 582 | 646 | 634 | 15 | ** | | |
| | 77 | Deepwater | 02-Nov-00 | 0248 | 1587 | 09-34-1 | 52 05.5 | 131 30.0 | 52 05.5 | 131 31.1 | 1144 | 1431 | 1325 | 25 | * | | |
| | 78 | Deepwater | 02-Nov-00 | 0324 | 1651 | 09-34-1 | 52 06.6 | 131 34.1 | 52 06.8 | 131 35.1 | 1098 | 1389 | 1272 | 25 | * | | |
| | 79 | Deepwater | 02-Nov-00 | 0401 | 1717 | 09-34-5 | 52 08.8 | 131 36.3 | 52 09.2 | 131 37.1 | 1080 | 1493 | 1338 | 25 | * | | |
| Gowgaia Bay | 80 | Deepwater | 03-Nov-00 | 1055 | 1305 | 09-34-3 | 52 20.3 | 131 46.6 | 52 20.5 | 131 47.6 | 1043 | 999 | 1024 | 25 | * | | |
| | 81 | Deepwater | 03-Nov-00 | 1130 | 1355 | 09-34-0 | 52 21.2 | 131 48.6 | 52 21.1 | 131 49.7 | 1140 | 1190 | 1157 | 25 | * | | |
| | 82 | Deepwater | 03-Nov-00 | 1215 | 1375 | 09-34-3 | 52 21.7 | 131 48.5 | 52 22.4 | 131 48.7 | 1222 | 1261 | 1244 | 25 | * | | |
| | 83 | Indexing | 03-Nov-00 | 1320 | 1415 | 09-34-3 | 52 23.3 | 131 40.8 | 52 22.8 | 131 41.4 | 439 | 710 | 560 | 16 | * | | |
| | 84 | Indexing | 03-Nov-00 | 1357 | 1513 | 09-34-3 | 52 22.0 | 131 39.4 | 52 21.9 | 131 40.6 | 659 | 752 | 692 | 23 | * | | |
| Tasu Sound | 85 | Indexing | 03-Nov-00 | 1436 | 1417 | 09-34-3 | 52 22.1 | 131 38.2 | 52 21.6 | 131 38.6 | 304 | 364 | 352 | 24 | * | | |
| | 86 | Indexing | 03-Nov-00 | 1505 | 1561 | 09-34-3 | 52 20.5 | 131 41.5 | 52 20.0 | 131 42.5 | 990 | 1065 | 1026 | 25 | * | | |
| | 87 | Indexing | 03-Nov-00 | 1554 | 1589 | 09-34-3 | 52 19.3 | 131 38.4 | 52 18.9 | 131 39.3 | 842 | 902 | 876 | 25 | * | | |
| | 88 | Tagging | 03-Nov-00 | 1640 | 1610 | 09-34-3 | 52 19.8 | 131 37.3 | 52 20.1 | 131 39.0 | 458 | 904 | 688 | 62 | ** | | |
| | 89 | Tagging | 05-Nov-00 | 0045 | 1260 | 09-34-4 | 52 38.9 | 132 04.0 | 52 39.5 | 132 06.0 | 512 | 796 | 688 | 60 | ** | | |
| Tasu Sound to | 90 | Tagging | 05-Nov-00 | 0130 | 1230 | 09-31-13 | 52 40.7 | 132 06.3 | 52 41.5 | 132 08.6 | 458 | 933 | 690 | 60 | ** | | |
| | 91 | Tagging | 05-Nov-00 | 0244 | 1344 | 09-31-13 | 52 44.4 | 132 10.6 | 52 45.3 | 132 12.6 | 602 | 884 | 728 | 60 | ** | | |
| | 92 | Deepwater | 05-Nov-00 | 0337 | 1437 | 09-31-13 | 52 45.2 | 132 13.4 | 52 45.2 | 132 14.5 | 1136 | 1360 | 1268 | 25 | * | | |

Table E.8. (cont'd)

| Locality | Set | Reason | Target Strata | Date | Start Time | Duration (min.) | Area Code (Maj-Min-Loc) | Start | | | End | | | Bottom Depth (m) | | | Traps Fished | Bait |
|---------------|--------------------------------|-----------|---------------|-----------|------------|-----------------|-------------------------|----------|-----------|----------|-----------|----------|-----------|------------------|-----|------|--------------|------|
| | | | | | | | | Latitude | Longitude | Latitude | Longitude | Latitude | Longitude | Start | End | Mean | | |
| Marble Island | 93 | Deepwater | | 05-Nov-00 | 0428 | 1465 | 09-31-13 | 52 43.8 | 132 11.7 | 52 43.8 | 132 12.8 | 1140 | 1343 | 1235 | 25 | * | | |
| | 94 | Deepwater | | 05-Nov-00 | 0513 | 1496 | 09-31-13 | 52 42.9 | 132 10.8 | 52 42.8 | 132 11.9 | 1124 | 1385 | 1279 | 25 | * | | |
| | 95 | Deepwater | | 06-Nov-00 | 0900 | 1325 | 09-31-5 | 52 54.4 | 132 29.6 | 52 54.3 | 132 30.6 | 1135 | 1477 | 1292 | 25 | * | | |
| | 96 | Deepwater | | 06-Nov-00 | 0943 | 1382 | 09-31-5 | 52 56.1 | 132 31.9 | 52 56.1 | 132 33.0 | 1102 | 1418 | 1285 | 25 | * | | |
| | 97 | Deepwater | | 06-Nov-00 | 1022 | 1388 | 09-31-8 | 52 57.8 | 132 34.3 | 52 57.8 | 132 35.5 | 1091 | 1248 | 1219 | 25 | * | | |
| | 98 | Indexing | 2 | 06-Nov-00 | 1207 | 1433 | 09-31-8 | 53 03.4 | 132 38.5 | 53 03.1 | 132 38.4 | 478 | 673 | 560 | 25 | * | | |
| | 99 | Indexing | 3 | 06-Nov-00 | 1232 | 1508 | 09-31-3 | 53 03.9 | 132 40.3 | 53 04.1 | 132 41.4 | 653 | 792 | 736 | 25 | * | | |
| Buck Point | 100 | Indexing | 4 | 06-Nov-00 | 1300 | 1510 | 09-31-3 | 53 04.5 | 132 42.2 | 53 04.5 | 132 43.4 | 792 | 992 | 915 | 25 | * | | |
| | 101 | Indexing | 5 | 06-Nov-00 | 1329 | 1561 | 09-31-3 | 53 05.7 | 132 44.3 | 53 05.7 | 132 46.1 | 1017 | 1109 | 1069 | 25 | * | | |
| | 102 | Tagging | | 06-Nov-00 | 1426 | 1574 | 09-31-3 | 53 05.2 | 132 40.7 | 53 05.1 | 132 43.3 | 446 | 847 | 677 | 60 | ** | | |
| | 103 | Indexing | 1 | 06-Nov-00 | 1605 | 1130 | 09-31-8 | 53 02.0 | 132 35.6 | 53 01.3 | 132 35.6 | 282 | 487 | 417 | 25 | * | | |
| | 104 | Tagging | | 07-Nov-00 | 2040 | 922 | 09-31-14 | 53 15.8 | 133 00.5 | 53 15.4 | 133 03.3 | 468 | 666 | 578 | 60 | ** | | |
| Rennell Sound | 105 | Tagging | | 07-Nov-00 | 2140 | 1000 | 09-31-14 | 53 16.8 | 133 07.1 | 53 16.6 | 133 07.2 | 478 | 730 | 595 | 60 | ** | | |
| | 106 | Tagging | | 07-Nov-00 | 2228 | 1437 | 09-31-14 | 53 18.2 | 133 07.1 | 53 17.9 | 133 09.8 | 516 | 734 | 649 | 60 | ** | | |
| | 107 | Deepwater | | 07-Nov-00 | 2353 | 1087 | 09-31-0 | 53 20.6 | 133 20.4 | 53 20.7 | 133 21.7 | 1190 | 1415 | 1325 | 25 | * | | |
| | 108 | Deepwater | | 08-Nov-00 | 0048 | 1185 | 09-31-0 | 53 22.4 | 133 18.3 | 53 22.5 | 133 19.6 | 1190 | 1281 | 1234 | 25 | * | | |
| | 109 | Deepwater | | 08-Nov-00 | 0131 | 1076 | 09-31-0 | 53 23.6 | 133 18.0 | 53 23.6 | 133 19.1 | 1131 | 1254 | 1204 | 25 | * | | |
| | 110 | Tagging | | 08-Nov-00 | 1330 | 830 | 09-31-14 | 53 16.2 | 133 03.3 | 53 15.7 | 133 06.1 | 531 | 725 | 651 | 60 | ** | | |
| Hippan Island | 111 | Tagging | | 08-Nov-00 | 1555 | 570 | 09-31-14 | 53 17.4 | 133 06.4 | 53 17.2 | 133 09.2 | 523 | 641 | 648 | 60 | ** | | |
| | 112 | Tagging | | 09-Nov-00 | 0542 | 1155 | 09-31-1 | 53 23.2 | 132 58.2 | 53 23.1 | 133 00.6 | 531 | 597 | 563 | 60 | ** | | |
| | 113 | Indexing | 3 | 09-Nov-00 | 0630 | 1312 | 09-31-14 | 53 22.9 | 133 03.2 | 53 22.6 | 133 01.9 | 673 | 765 | 731 | 25 | * | | |
| | 114 | Indexing | 1 | 09-Nov-00 | 0714 | 1146 | 09-31-1 | 53 22.4 | 132 57.8 | 53 22.3 | 132 58.0 | 298 | 456 | 386 | 25 | * | | |
| | 115 | Indexing | 2 | 09-Nov-00 | 0756 | 1162 | 09-31-1 | 53 24.2 | 132 59.5 | 53 23.8 | 133 00.3 | 514 | 706 | 635 | 25 | * | | |
| | 116 | Indexing | 4 | 09-Nov-00 | 0838 | 1247 | 09-31-1 | 53 24.9 | 133 04.9 | 53 25.5 | 133 04.8 | 871 | 946 | 936 | 25 | * | | |
| | 117 | Indexing | 5 | 09-Nov-00 | 0936 | 1257 | 09-31-1 | 53 27.1 | 133 07.2 | 53 27.6 | 133 07.5 | 1027 | 1005 | 1038 | 25 | * | | |
| | 118 | Indexing | 5 | 10-Nov-00 | 1233 | 1002 | 09-35-0 | 54 03.4 | 133 47.5 | 54 03.4 | 133 48.5 | 1006 | 1039 | 1027 | 25 | * | | |
| | 119 | Indexing | 4 | 10-Nov-00 | 1325 | 1028 | 09-35-6 | 54 04.5 | 133 45.5 | 54 04.5 | 133 46.7 | 844 | 935 | 490 | 25 | * | | |
| | 120 | Indexing | 3 | 10-Nov-00 | 1415 | 1365 | 09-35-6 | 54 05.5 | 133 43.1 | 54 05.4 | 133 44.4 | 651 | 767 | 714 | 24 | * | | |
| | Langara Island-North Frederick | 121 | Indexing | 2 | 10-Nov-00 | 1459 | 1366 | 09-35-6 | 54 06.2 | 133 42.1 | 54 06.1 | 133 43.3 | 463 | 580 | 514 | 25 | * | |
| 122 | | Indexing | 1 | 10-Nov-00 | 1540 | 1367 | 09-35-6 | 54 07.0 | 133 41.1 | 54 06.7 | 133 42.2 | 293 | 489 | 397 | 24 | * | | |
| 123 | | Tagging | | 10-Nov-00 | 1605 | 940 | 09-35-6 | 54 06.9 | 133 42.7 | 54 06.4 | 133 45.4 | 468 | 792 | 622 | 60 | ** | | |
| 124 | | Deepwater | | 10-Nov-00 | 1655 | 1137 | 09-35-6 | 54 07.7 | 133 50.5 | 54 07.6 | 133 51.6 | 1098 | 1190 | 1147 | 25 | * | | |
| 125 | | Deepwater | | 10-Nov-00 | 1730 | 1034 | 09-35-0 | 54 06.8 | 133 51.2 | 54 06.8 | 133 52.3 | 1164 | 1222 | 1200 | 24 | * | | |
| 126 | | Deepwater | | 10-Nov-00 | 1823 | 1034 | 09-35-0 | 54 05.6 | 133 52.0 | 54 05.6 | 133 53.5 | 1124 | 1268 | 1213 | 24 | * | | |
| 127 | | Indexing | | 12-Nov-00 | 1430 | 1315 | 08-04-10 | 54 38.9 | 130 33.2 | 54 38.6 | 130 32.2 | 565 | 635 | 603 | 25 | * | | |
| 128 | | Indexing | | 12-Nov-00 | 1501 | 1374 | 08-04-10 | 54 40.5 | 130 30.4 | 54 40.8 | 130 29.5 | 633 | 619 | 621 | 25 | * | | |
| 129 | | Indexing | | 12-Nov-00 | 1547 | 1673 | 08-04-12 | 54 42.9 | 130 25.6 | 54 42.9 | 130 25.6 | 509 | 529 | 521 | 25 | * | | |
| 130 | | Indexing | | 12-Nov-00 | 1658 | 1506 | 08-04-12 | 54 48.0 | 130 18.0 | 54 48.0 | 130 16.8 | 463 | 487 | 477 | 25 | * | | |
| 131 | Indexing | | 12-Nov-00 | 1803 | 1347 | 08-04-12 | 54 52.0 | 130 12.4 | 54 51.5 | 130 11.8 | 436 | 436 | 436 | 25 | * | | | |

APPENDIX F: DETAILED CATCH OF THE 1996 TO 2000 SURVEYS

Table F.1. Species captured during the 1996 fall south coast sablefish survey.

| Common Name | Scientific Name | Total Count | Total Weight (kg) |
|------------------------|-----------------------------------|-------------|-------------------|
| <u>Round fish</u> | | | |
| Sablefish | <i>Anoplopoma fimbria</i> | 7,326 | 18,749 |
| Roughscale rattail | <i>Coryphaenoides acrolepis</i> | 36 | 30 |
| Black hagfish | <i>Eptatretus deani</i> | 3 | 1 |
| Pectoral rattail | <i>Albatrossia pectoralis</i> | 3 | 3 |
| Lumpfish and snailfish | Cyclopteridae (family) | 1 | not weighed |
| <u>Rockfish</u> | | | |
| Rougeye rockfish | <i>Sebastes aleutianus</i> | 53 | 75 |
| Redbanded rockfish | <i>Sebastes babcocki</i> | 15 | 19 |
| Shortspine thornyhead | <i>Sebastolobus alascanus</i> | 13 | 10 |
| Shorthead rockfish | <i>Sebastes borealis</i> | 7 | 17 |
| <u>Flatfish</u> | | | |
| Arrowtooth flounder | <i>Atheresthes stomias</i> | 281 | 830 |
| Pacific halibut | <i>Hippoglossus stenolepis</i> | 20 | 120 |
| Dover sole | <i>Microstomus pacificus</i> | 18 | 22 |
| <u>Invertebrates</u> | | | |
| Grooved tanner crab | <i>Chionoecetes tanneri</i> | 44 | 24 |
| Golden king crab | <i>Lithodes aequispina</i> | 22 | 13 |
| Red king crab | <i>Paralithodes cammischatica</i> | 20 | 8 |
| Sea stars | Asteriidea (subclass) | 2 | 1 |
| Scarlet king crab | <i>Lithodes couesi</i> | 2 | 1 |

Table F.2. Species captured during the 1996 fall survey north coast charter.

| <u>Common Name</u> | <u>Scientific Name</u> | <u>Total Count</u> | <u>Total Weight (kg)</u> |
|-----------------------|---------------------------------|--------------------|--------------------------|
| <u>Round fish</u> | | | |
| Sablefish | <i>Anoplopoma fimbria</i> | 8,393 | 23,181 |
| Roughscale rattail | <i>Coryphaenoides acrolepis</i> | 28 | 23 |
| Pectoral rattail | <i>Albatrossia pectoralis</i> | 12 | 41 |
| Spiny dogfish | <i>Squalus acanthias</i> | 4 | 7 |
| Pacific sleeper shark | <i>Somniosus pacificus</i> | 3 | not weighed |
| Lingcod | <i>Ophiodon elongatus</i> | 1 | 14 |
| Sculpins | Cottidae (family) | 1 | not weighed |
| Blacktail snailfish | <i>Careproctus melanurus</i> | 1 | 1 |
| <u>Rockfish</u> | | | |
| Rougeye rockfish | <i>Sebastes aleutianus</i> | 290 | 520 |
| Shortspine thornyhead | <i>Sebastolobus alascanus</i> | 7 | 7 |
| Redbanded rockfish | <i>Sebastes babcocki</i> | 4 | 5 |
| <u>Flatfish</u> | | | |
| Arrowtooth flounder | <i>Atheresthes stomias</i> | 175 | 417 |
| Pacific halibut | <i>Hippoglossus stenolepis</i> | 44 | 391 |
| Dover sole | <i>Microstomus pacificus</i> | 3 | 4 |
| <u>Invertebrates</u> | | | |
| Grooved tanner crab | <i>Chionoecetes tanneri</i> | 26 | 9 |

Table F.3. Species captured during the fall 1997 sablefish survey.

| Common Name | Scientific Name | Total Count | Total Weight (kg) |
|-----------------------|---------------------------------|--------------------|--------------------------|
| <u>Round fish</u> | | | |
| Sablefish | <i>Anoplopoma fimbria</i> | 13,622 | 29,659 |
| Roughscale rattail | <i>Coryphaenoides acrolepis</i> | 106 | 81 |
| Spiny dogfish | <i>Squalus acanthias</i> | 49 | 84 |
| Pectoral rattail | <i>Albatrossia pectoralis</i> | 34 | 105 |
| Lingcod | <i>Ophiodon elongatus</i> | 25 | 307 |
| Pacific sleeper shark | <i>Somniosus pacificus</i> | 8 | 1,245 |
| Pacific cod | <i>Gadus macrocephalus</i> | 2 | 5 |
| Spotted ratfish | <i>Hydrolagus colliei</i> | 1 | 1 |
| <u>Rockfish</u> | | | |
| Rougeye rockfish | <i>Sebastes aleutianus</i> | 136 | 238 |
| Redbanded rockfish | <i>Sebastes babcocki</i> | 18 | 28 |
| Shortspine thornyhead | <i>Sebastolobus alascanus</i> | 13 | 12 |
| Shortraker rockfish | <i>Sebastes borealis</i> | 11 | 37 |
| Rosethorn rockfish | <i>Sebastes helvomaculatus</i> | 4 | 3 |
| Rockfish spp. | Sebastinae (subfamily) | 1 | 1 |
| <u>Flatfish</u> | | | |
| Arrowtooth flounder | <i>Atheresthes stomias</i> | 819 | 1,977 |
| Pacific halibut | <i>Hippoglossus stenolepis</i> | 102 | 1,014 |
| Dover sole | <i>Microstomus pacificus</i> | 17 | 24 |
| <u>Invertebrates</u> | | | |
| Grooved tanner crab | <i>Chionoecetes tanneri</i> | 263 | 43 |
| Scarlet king crab | <i>Lithodes couesi</i> | 48 | 26 |
| Oregon hair crab | <i>Paralomis multispina</i> | 20 | 10 |
| Golden king crab | <i>Lithodes aequispina</i> | 8 | 6 |
| Sea stars | Asteriodea (subclass) | 3 | 1 |

Table F.4. Species captured during the 1998 fall sablefish survey.

| <u>Common Name</u> | <u>Scientific Name</u> | <u>Total Count</u> | <u>Total Weight (kg)</u> |
|-----------------------|----------------------------------|--------------------|--------------------------|
| <u>Round fish</u> | | | |
| Sablefish | <i>Anoplopoma fimbria</i> | 25,994 | 68,183 |
| Roughscale rattail | <i>Coryphaenoides acrolepis</i> | 169 | 125 |
| Pectoral rattail | <i>Albatrossia pectoralis</i> | 100 | 325 |
| Spiny dogfish | <i>Squalus acanthias</i> | 22 | 42 |
| Lingcod | <i>Ophiodon elongatus</i> | 9 | 82 |
| Grenadiers | Macrouridae (family) | 3 | 4 |
| Pacific sleeper shark | <i>Somniosus pacificus</i> | 2 | 140 |
| Pacific flatnose | <i>Antimora microlepis</i> | 2 | 1 |
| Snailfish | Liparinae (subfamily) | 2 | not weighed |
| <u>Rockfish</u> | | | |
| Rougheye rockfish | <i>Sebastes aleutianus</i> | 483 | 816 |
| Shortraker rockfish | <i>Sebastes borealis</i> | 55 | 161 |
| Redbanded rockfish | <i>Sebastes babcocki</i> | 40 | 67 |
| Shortspine thornyhead | <i>Sebastolobus alascanus</i> | 30 | 39 |
| Rockfish spp. | Sebastinae (subfamily) | 1 | 2 |
| <u>Flatfish</u> | | | |
| Arrowtooth flounder | <i>Atheresthes stomias</i> | 1,325 | 3,128 |
| Pacific halibut | <i>Hippoglossus stenolepis</i> | 216 | 2,066 |
| Dover sole | <i>Microstomus pacificus</i> | 13 | 14 |
| Deepsea sole | <i>Embassichthys bathybius</i> | 3 | 2 |
| <u>Invertebrates</u> | | | |
| Grooved tanner crab | <i>Chionoecetes tanneri</i> | 209 | 232 |
| Scarlet king crab | <i>Lithodes couesi</i> | 81 | 35 |
| Oregon hair crab | <i>Paralomis multispina</i> | 41 | 19 |
| Golden king crab | <i>Lithodes aequispina</i> | 17 | 9 |
| Tanner crab | <i>Chionoecetes bairdi</i> | 4 | 4 |
| Sea stars | Asteriodea (subclass) | 2 | 1 |
| Octopus | Octopoda (order) | 1 | 2 |
| Brown box crab | <i>Lopholithodes foraminatus</i> | 1 | 1 |
| Gastropods | Gastropoda (class) | not counted | 2 |

Table F.5. Species captured during the fall 1999 sablefish survey.

| Common Name | Scientific Name | Total Count | Total Weight (kg) |
|-----------------------|---------------------------------|--------------------|--------------------------|
| <u>Round fish</u> | | | |
| Sablefish | <i>Anoplopoma fimbria</i> | 32,375 | 77,426 |
| Roughscale rattail | <i>Coryphaenoides acrolepis</i> | 165 | 129 |
| Pectoral rattail | <i>Albatrossia pectoralis</i> | 54 | 184 |
| Lingcod | <i>Ophiodon elongatus</i> | 27 | 308 |
| Spiny dogfish | <i>Squalus acanthias</i> | 13 | 25 |
| Pacific flatnose | <i>Antimora microlepis</i> | 6 | 5 |
| Pacific sleeper shark | <i>Somniosus pacificus</i> | 5 | 490 |
| Sandpaper skate | <i>Bathyraja interrupta</i> | 1 | 1 |
| Spotted ratfish | <i>Hydrolagus colliei</i> | 1 | 2 |
| Eelpouts | Zoarcidae (family) | 1 | 1 |
| <u>Rockfish</u> | | | |
| Rougeye rockfish | <i>Sebastes aleutianus</i> | 304 | 520 |
| Redbanded rockfish | <i>Sebastes babcocki</i> | 35 | 51 |
| Shortspine thornyhead | <i>Sebastes alascanus</i> | 18 | 17 |
| Shortraker rockfish | <i>Sebastes borealis</i> | 12 | 39 |
| Longspine thornyhead | <i>Sebastes altivelis</i> | 5 | 5 |
| Pacific ocean perch | <i>Sebastes alutus</i> | 1 | 1 |
| <u>Flatfish</u> | | | |
| Arrowtooth flounder | <i>Atheresthes stomias</i> | 872 | 2,101 |
| Pacific halibut | <i>Hippoglossus stenolepis</i> | 85 | 855 |
| Dover sole | <i>Microstomus pacificus</i> | 20 | 24 |
| Roughscale sole | <i>Clidoderma asperrimum</i> | 3 | 11 |
| Deepsea sole | <i>Embassichthys bathybius</i> | 2 | 2 |
| <u>Invertebrates</u> | | | |
| Grooved tanner crab | <i>Chionoecetes tanneri</i> | 122 | 59 |
| Scarlet king crab | <i>Lithodes couesi</i> | 60 | 22 |
| Sea stars | Asteriodea (subclass) | 23 | not weighed |
| Tanner crab | <i>Chionoecetes bairdi</i> | 7 | 3 |
| King crabs | <i>Lithodes spp</i> | 1 | 1 |

Table F.6. Species captured during the 2000 fall sablefish survey.

| Common Name | Scientific Name | Total Count | Total Weight (kg) |
|-----------------------|---------------------------------|-------------|-------------------|
| <u>Round fish</u> | | | |
| Sablefish | <i>Anoplopoma fimbria</i> | 30,061 | 71,020 |
| Roughscale rattail | <i>Coryphaenoides acrolepis</i> | 799 | 675 |
| Pectoral rattail | <i>Albatrossia pectoralis</i> | 224 | 974 |
| Pacific flatnose | <i>Antimora microlepis</i> | 43 | 45 |
| Snailfish | Liparinae (subfamily) | 9 | 8 |
| Pacific sleeper shark | <i>Somniosus pacificus</i> | 8 | 393 |
| Spiny dogfish | <i>Squalus acanthias</i> | 8 | 151 |
| Lingcod | <i>Ophiodon elongatus</i> | 5 | 30 |
| Walleye pollock | <i>Theragra chalcogramma</i> | 3 | 5 |
| Spotted ratfish | <i>Hydrolagus colliei</i> | 1 | |
| <u>Rockfish</u> | | | |
| Rougeye rockfish | <i>Sebastes aleutianus</i> | 234 | 373 |
| Redbanded rockfish | <i>Sebastes babcocki</i> | 26 | 33 |
| Shortspine thornyhead | <i>Sebastolobus alascanus</i> | 26 | 31 |
| Rosethorn rockfish | <i>Sebastes helvomaculatus</i> | 14 | 7 |
| Thornyheads | Sebastolobinae (subfamily) | 9 | 9 |
| Shortraker rockfish | <i>Sebastes borealis</i> | 6 | 31 |
| Longspine thornyhead | <i>Sebastolobus altivelis</i> | 6 | 5 |
| Blackgill rockfish | <i>Sebastes melanostomus</i> | 3 | 6 |
| <u>Flatfish</u> | | | |
| Arrowtooth flounder | <i>Atheresthes stomias</i> | 704 | 1,707 |
| Pacific halibut | <i>Hippoglossus stenolepis</i> | 72 | 906 |
| Dover sole | <i>Microstomus pacificus</i> | 19 | 30 |
| Deepsea sole | <i>Embassichthys bathybius</i> | 1 | 1 |
| Petrале sole | <i>Eopsetta jordani</i> | 1 | 1 |
| <u>Invertebrates</u> | | | |
| Tanner crabs | <i>Chionoecetes</i> spp | 90 | 55 |
| Alaskan king crabs | <i>Paralithodes</i> spp | 60 | 15 |
| Oregon hair crab | <i>Paralomis multispina</i> | 51 | 28 |
| Scarlet king crab | <i>Lithodes couesi</i> | 35 | 22 |
| Golden king crab | <i>Lithodes aequispina</i> | 33 | 13 |
| True crabs | Bracyura (section) | 11 | 1 |
| Sea stars | Asteriodea (subclass) | 4 | 1 |
| Octopus | Octopoda (order) | 2 | 2 |
| Sea anemones | Actiniaria (order) | 1 | 1 |
| Tube worms | Sedentaria (subclass) | not counted | 1 |
| Gastropods | Gastropoda (class) | not counted | 22 |

**APPENDIX G: FORK LENGTH FREQUENCY DISTRIBUTIONS OF SABLEFISH
SAMPLED AND TAGGED DURING THE 1996 TO 2000 SURVEYS**

The following figures show fork length frequency distributions of sablefish sampled and tagged during the 1996 to 2000 surveys. Figures are arranged in order by year and survey. Each panel in a figure shows a histogram for males, females, or unknown sex sablefish at the indicated locality. The solid vertical line in each panel represents the mean fork length. The sample size for the length frequency is indicated in the upper right of each panel.

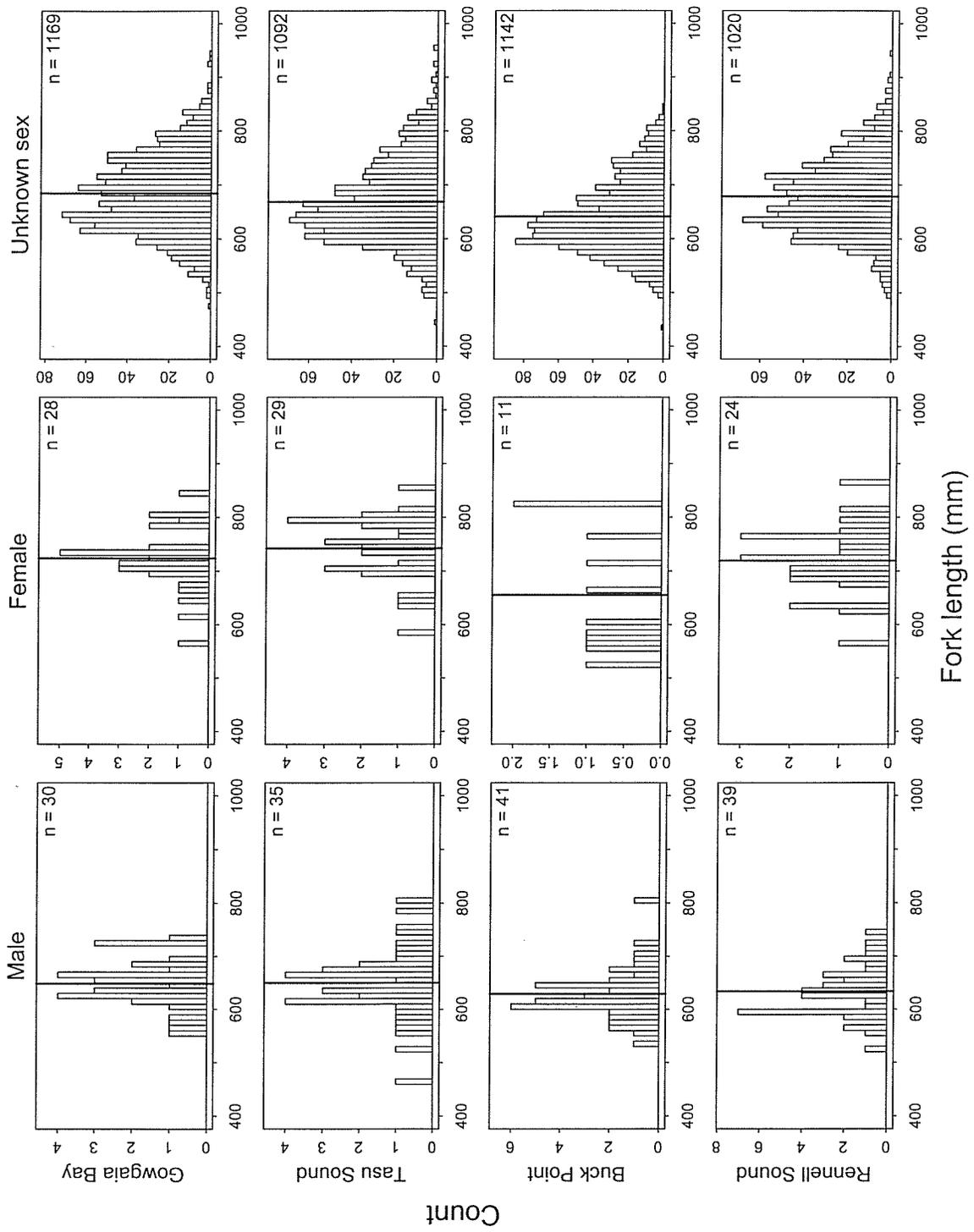


Figure G.1. 1996 spring tagging survey.

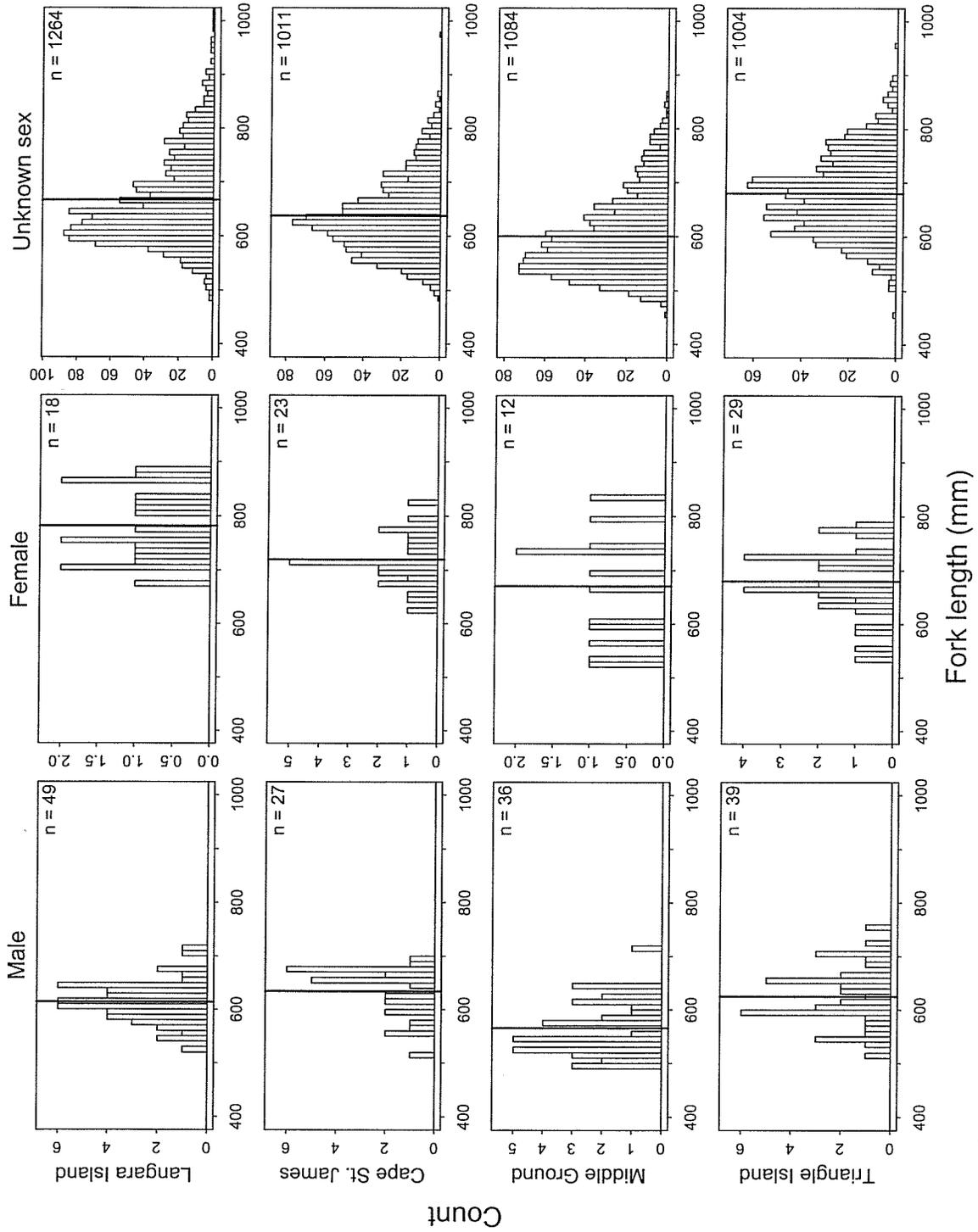


Figure G.1 continued.

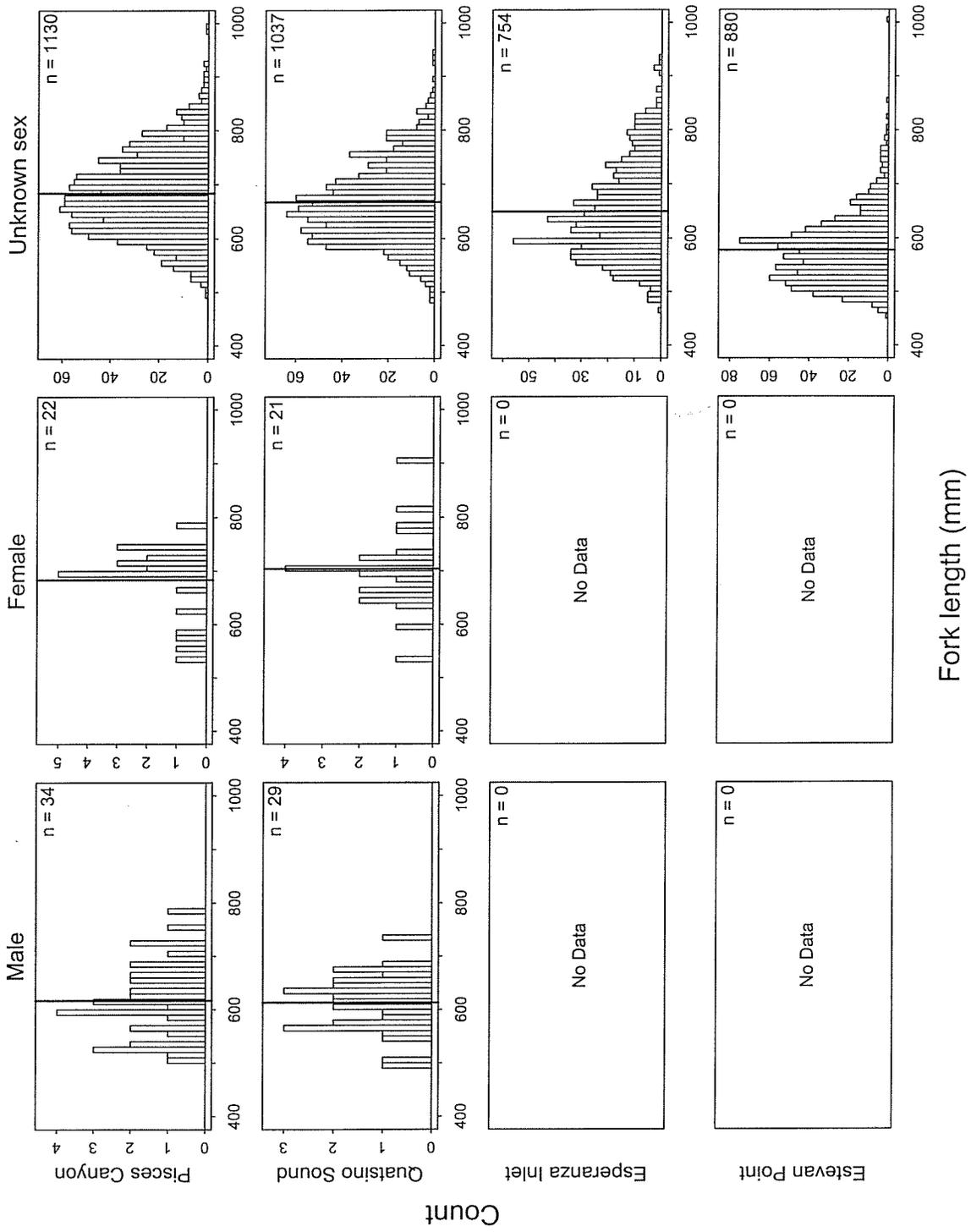
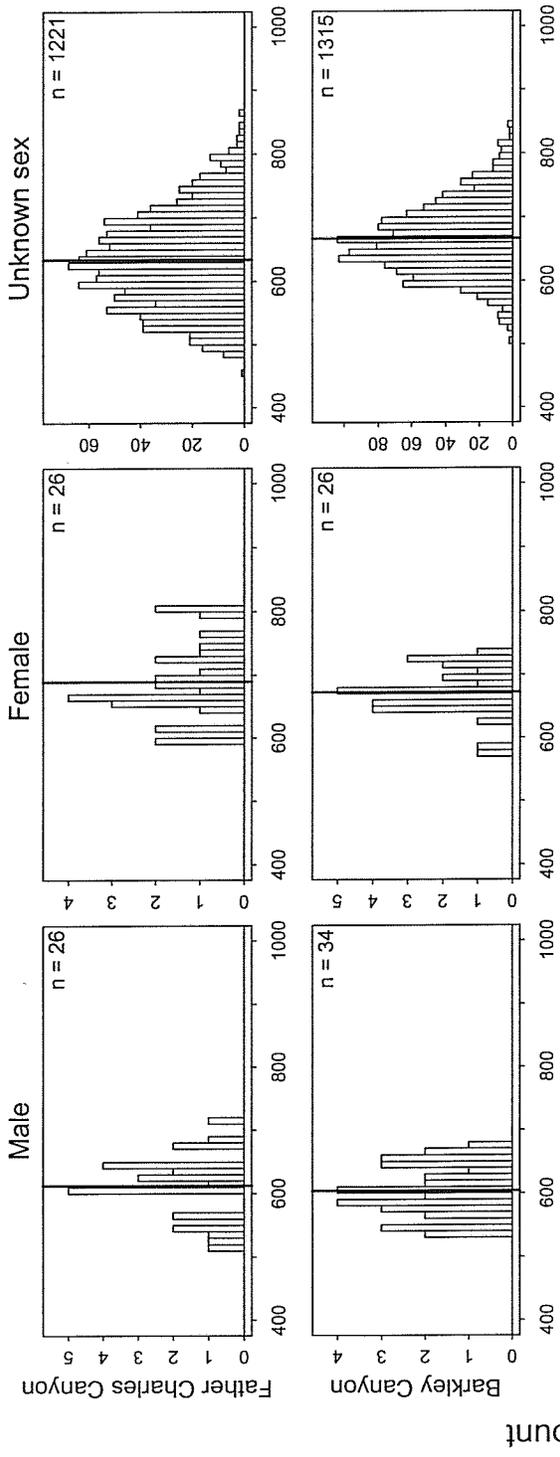


Figure G.1 continued.



Fork length (mm)

Figure G.1 continued.

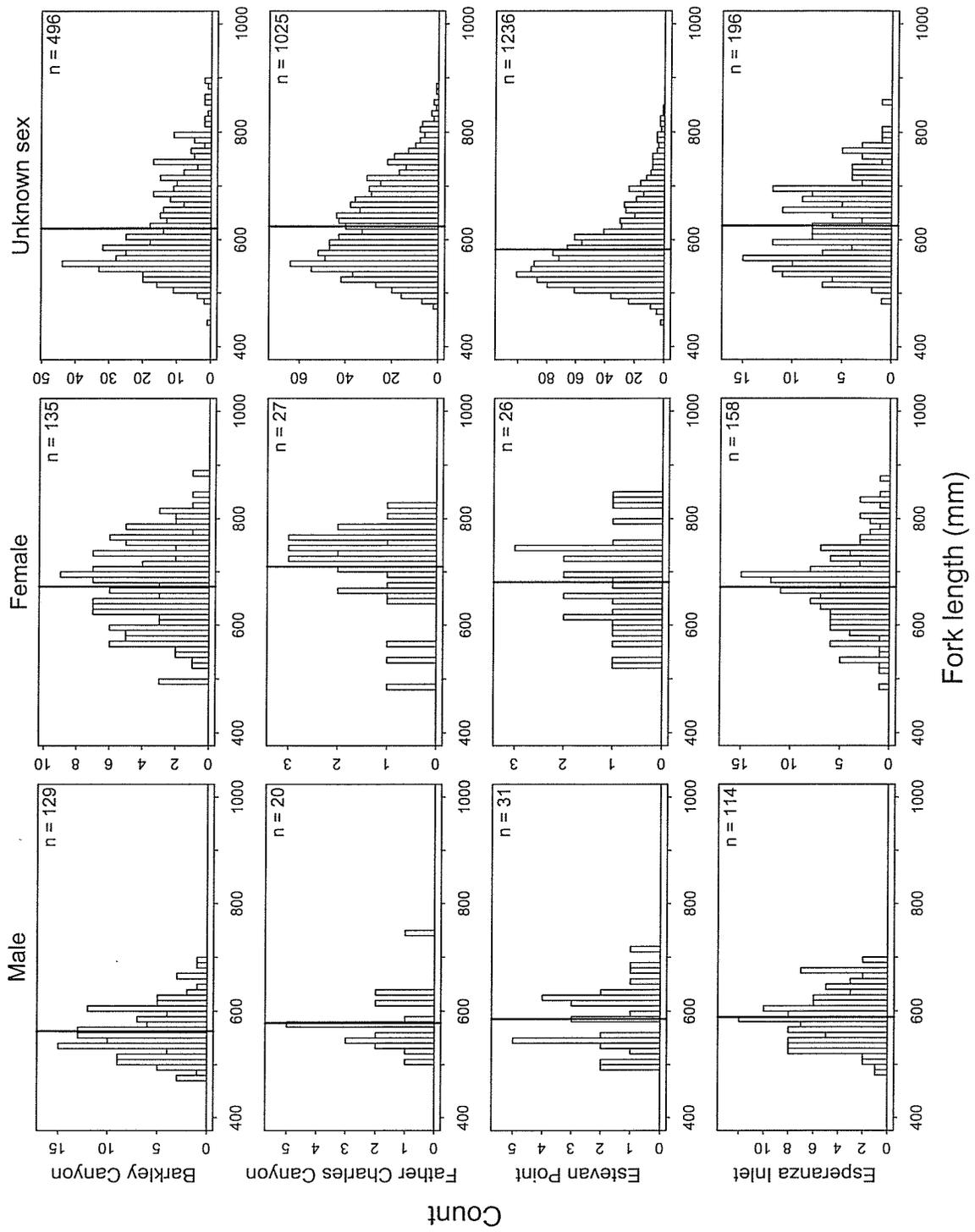


Figure G.2. 1996 fall survey south coast.

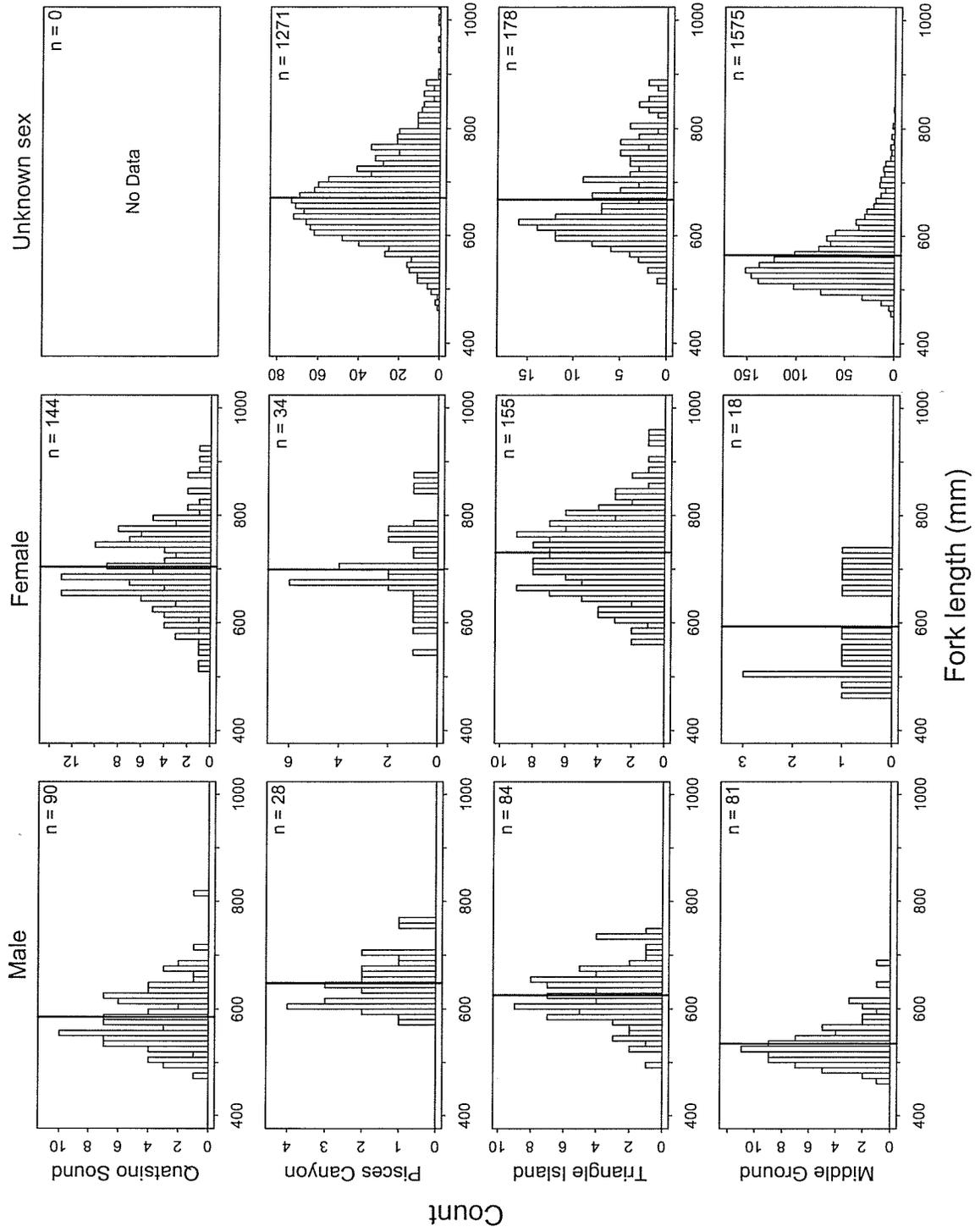


Figure G.2. continued.

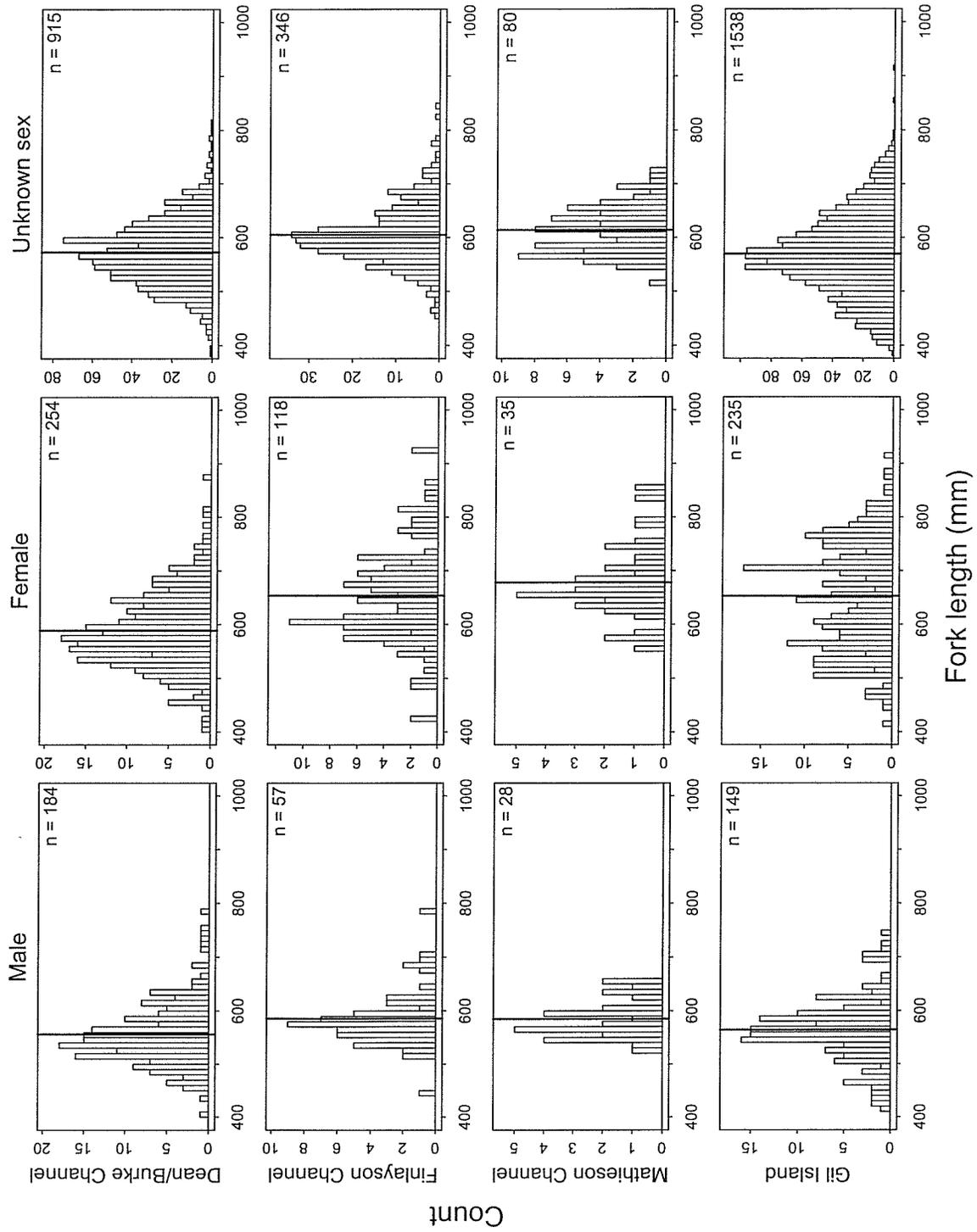


Figure G.3. 1996 fall survey north coast

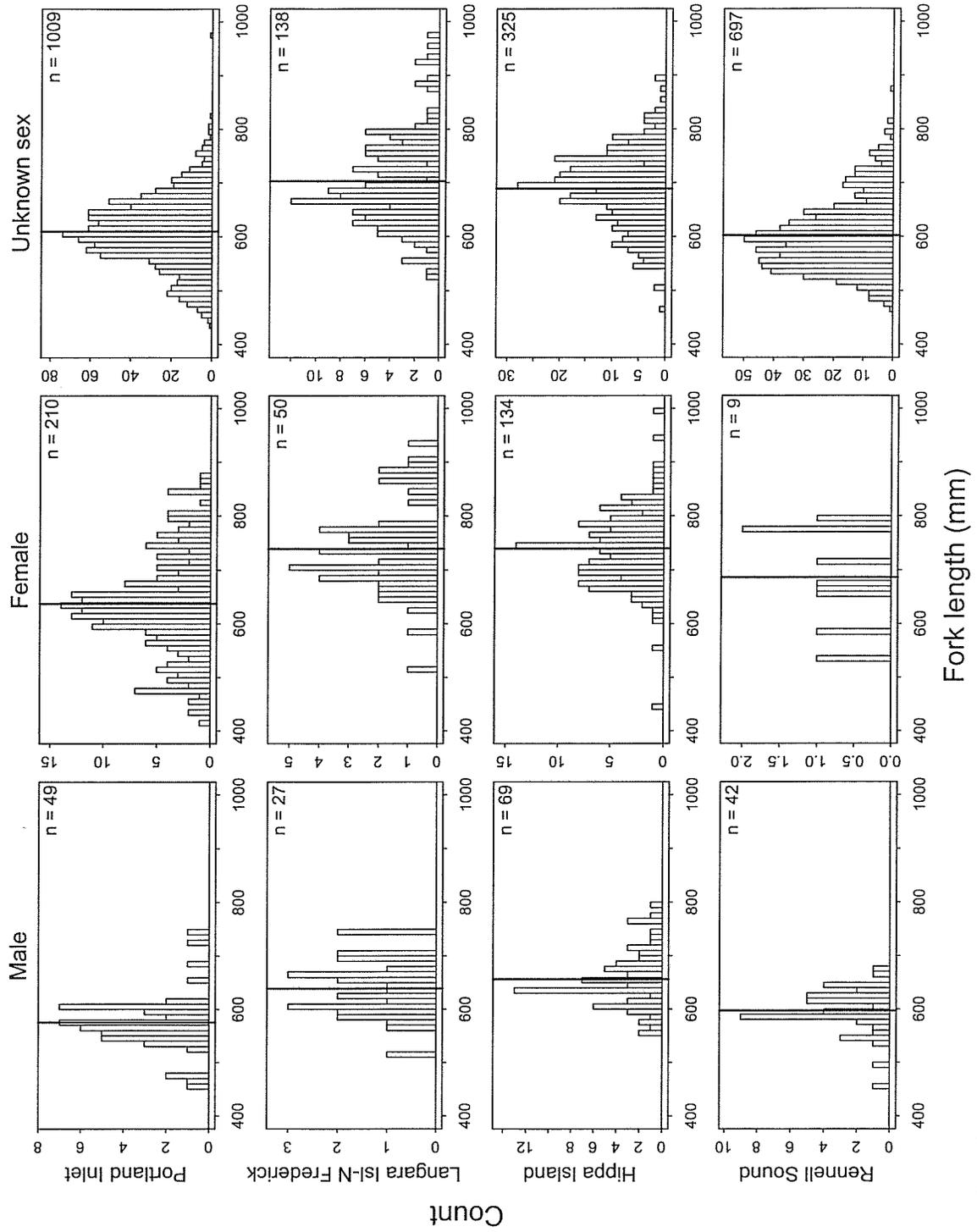


Figure G.3 continued.

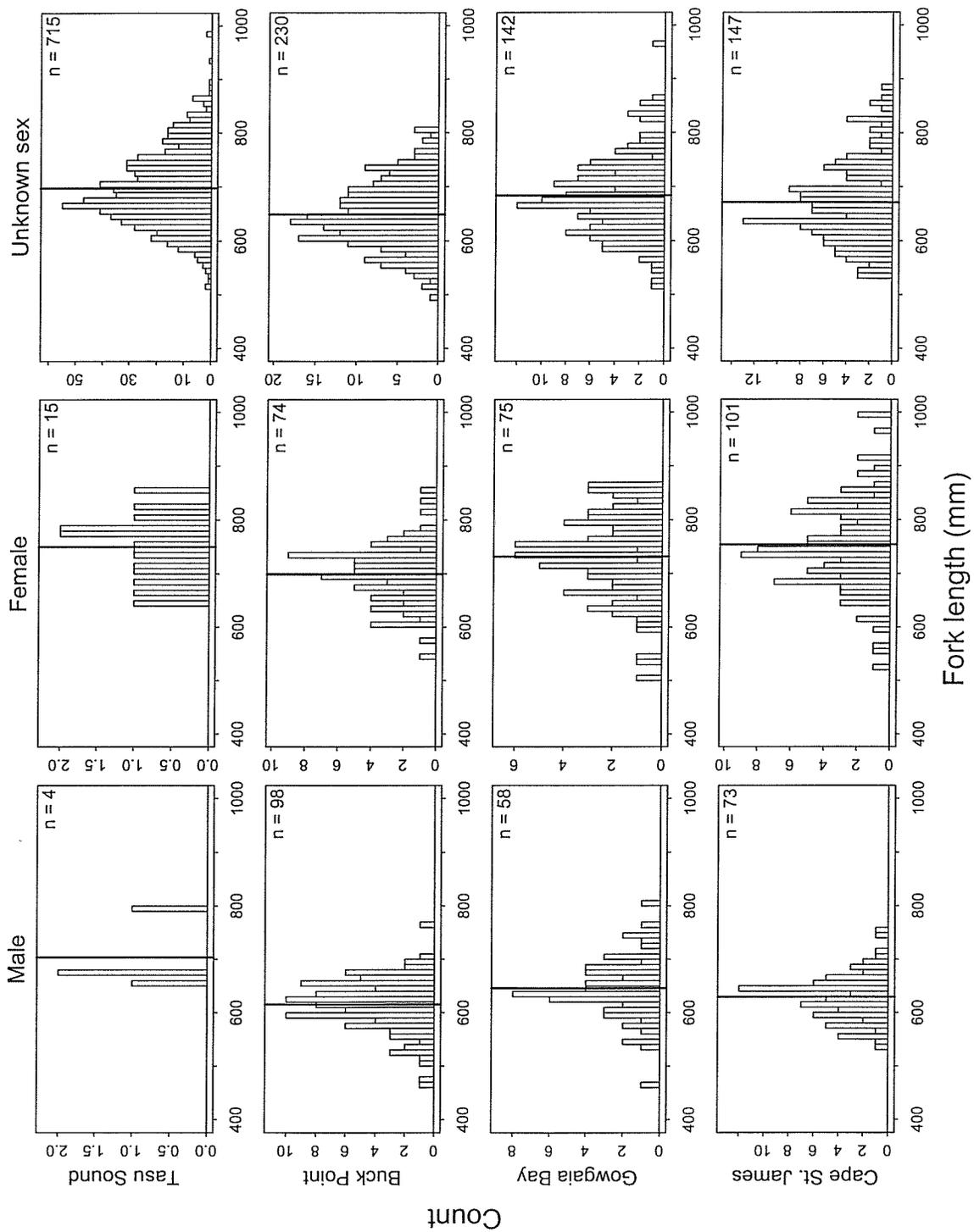


Figure G.3 continued.

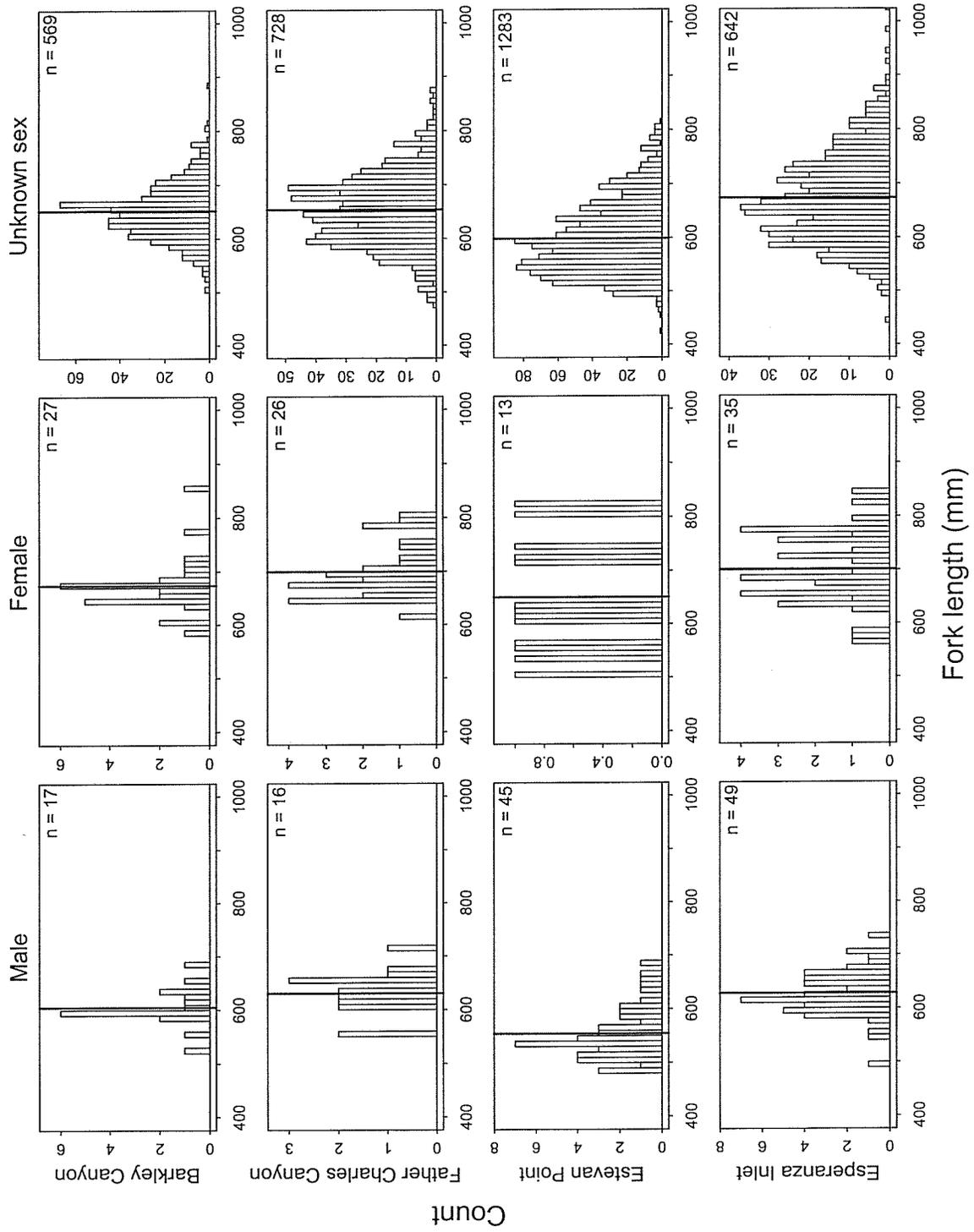


Figure G.4. 1997 spring tagging survey.

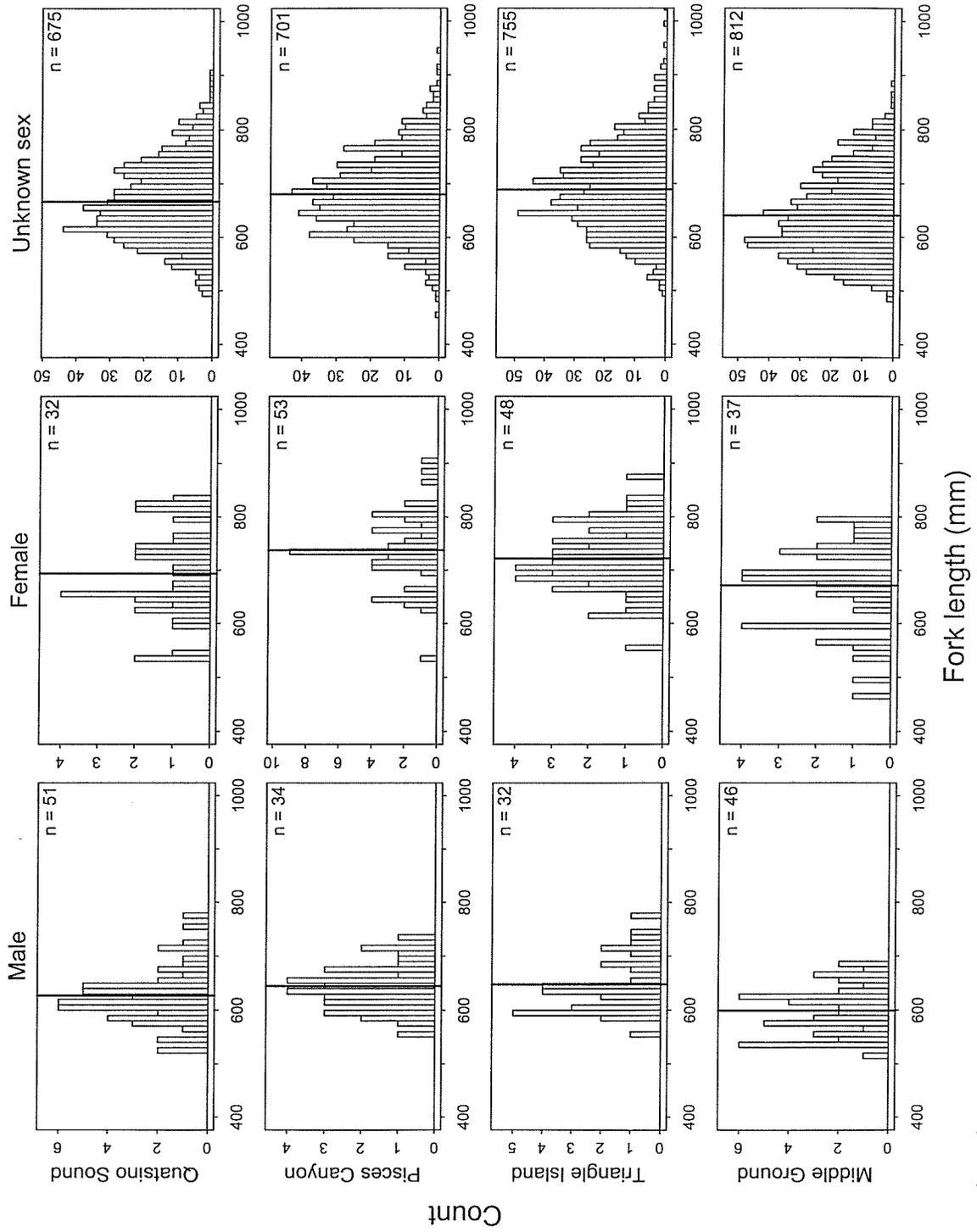


Figure G.4. continued.

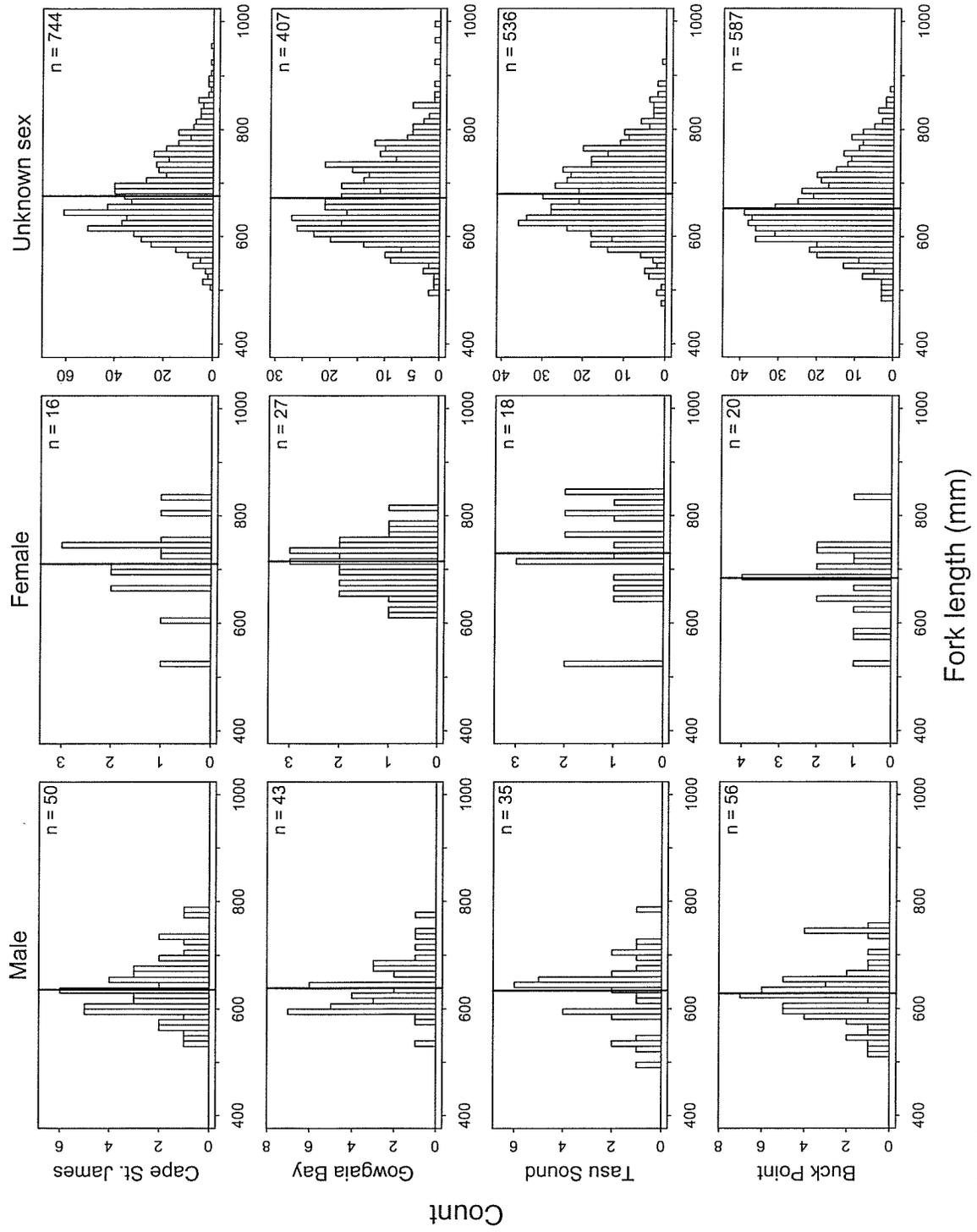
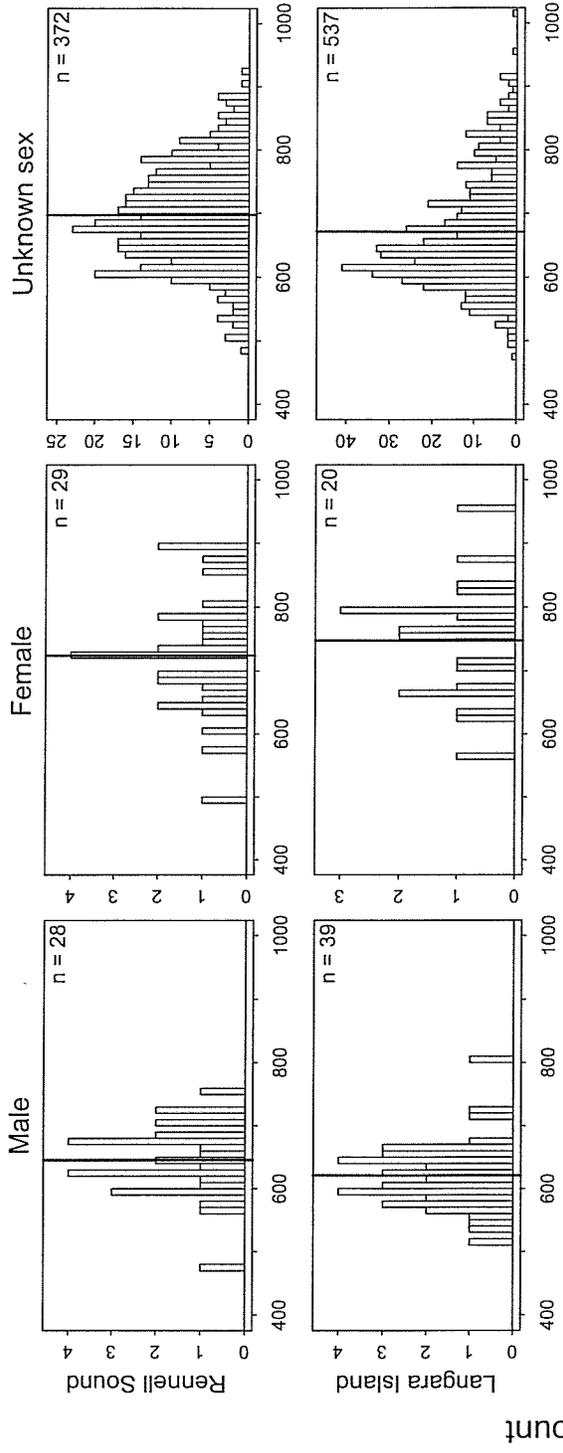


Figure G.4. continued.



Fork length (mm)

Figure G.4. continued.

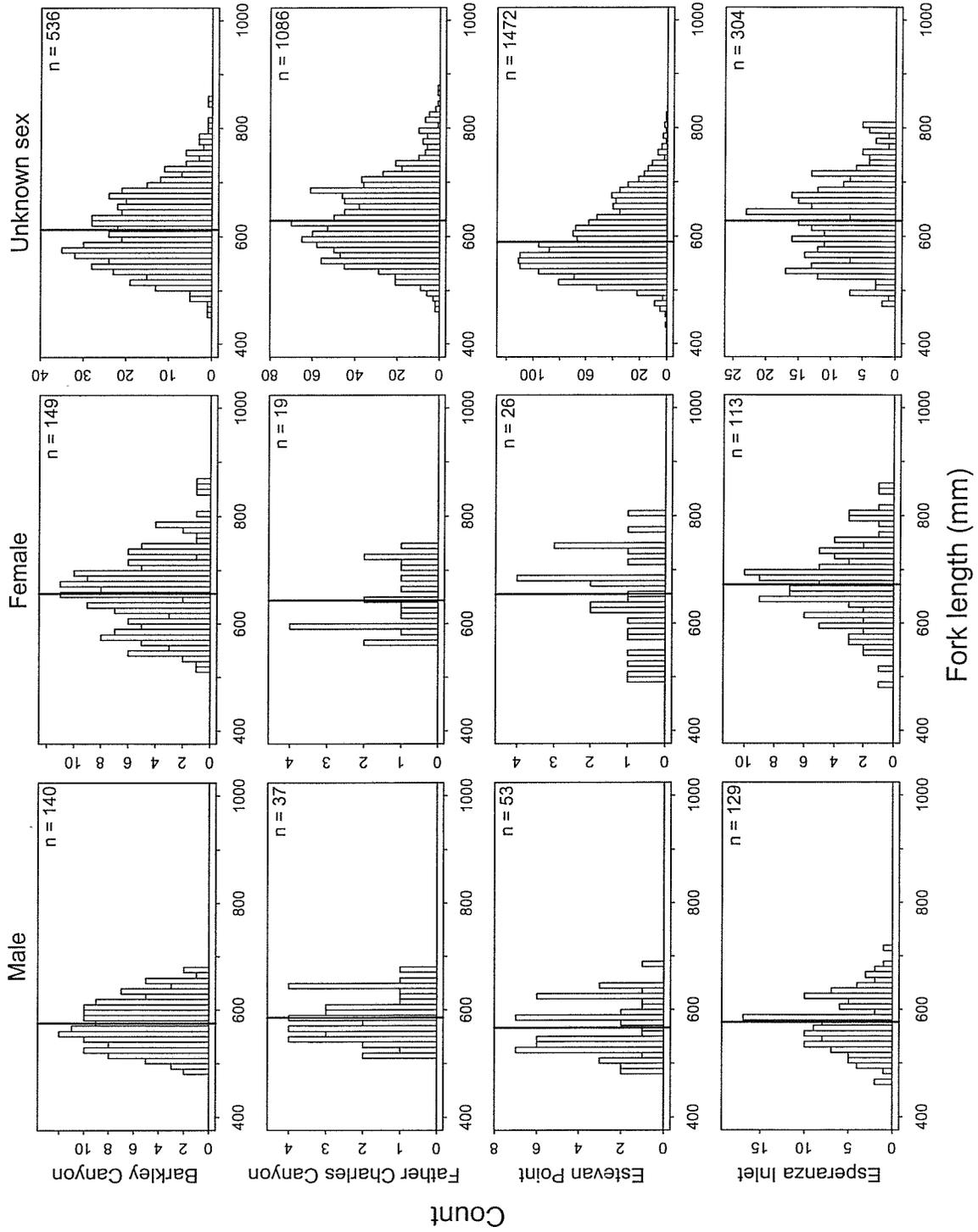


Figure G.5. 1997 fall survey.

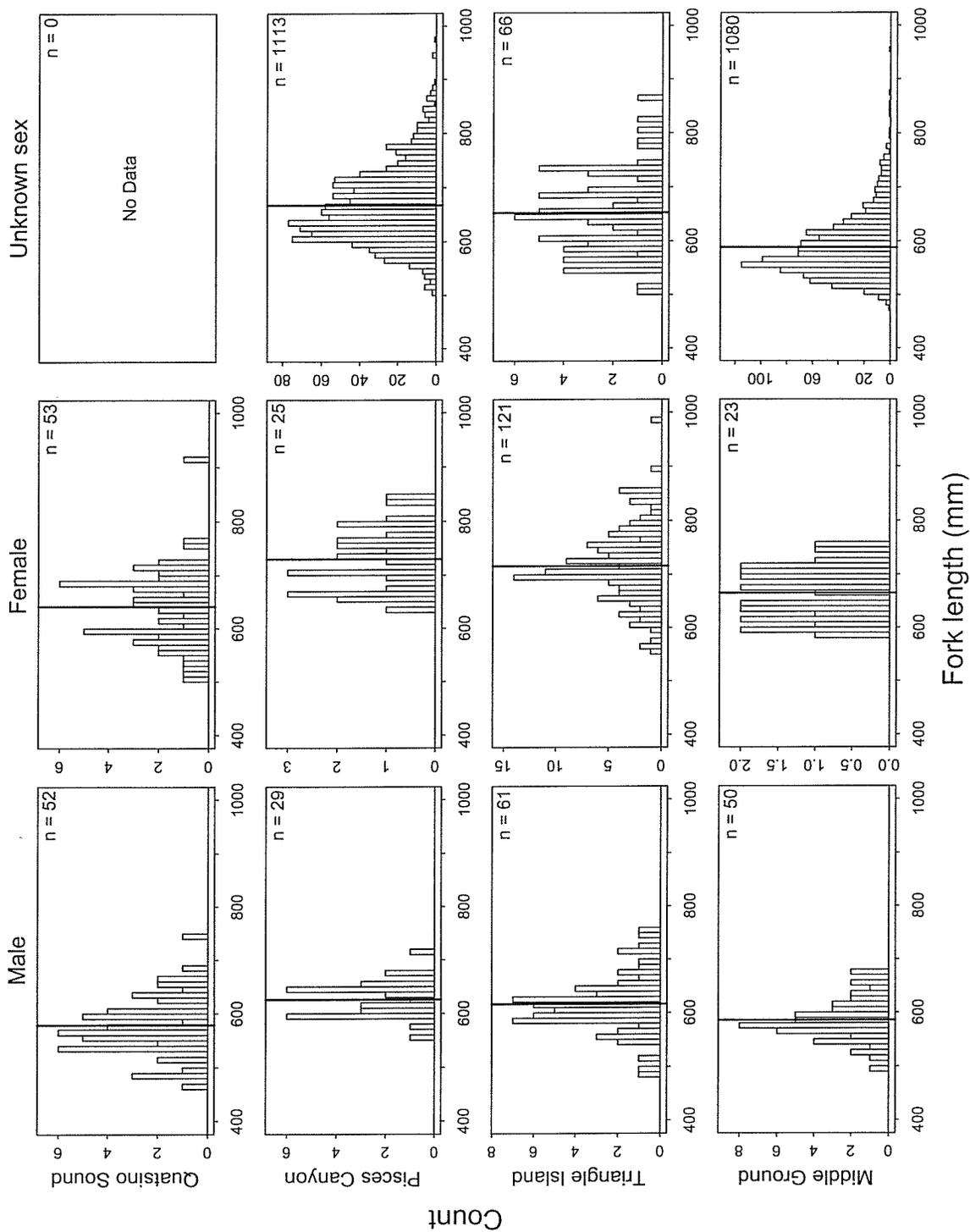


Figure G.5. continued.

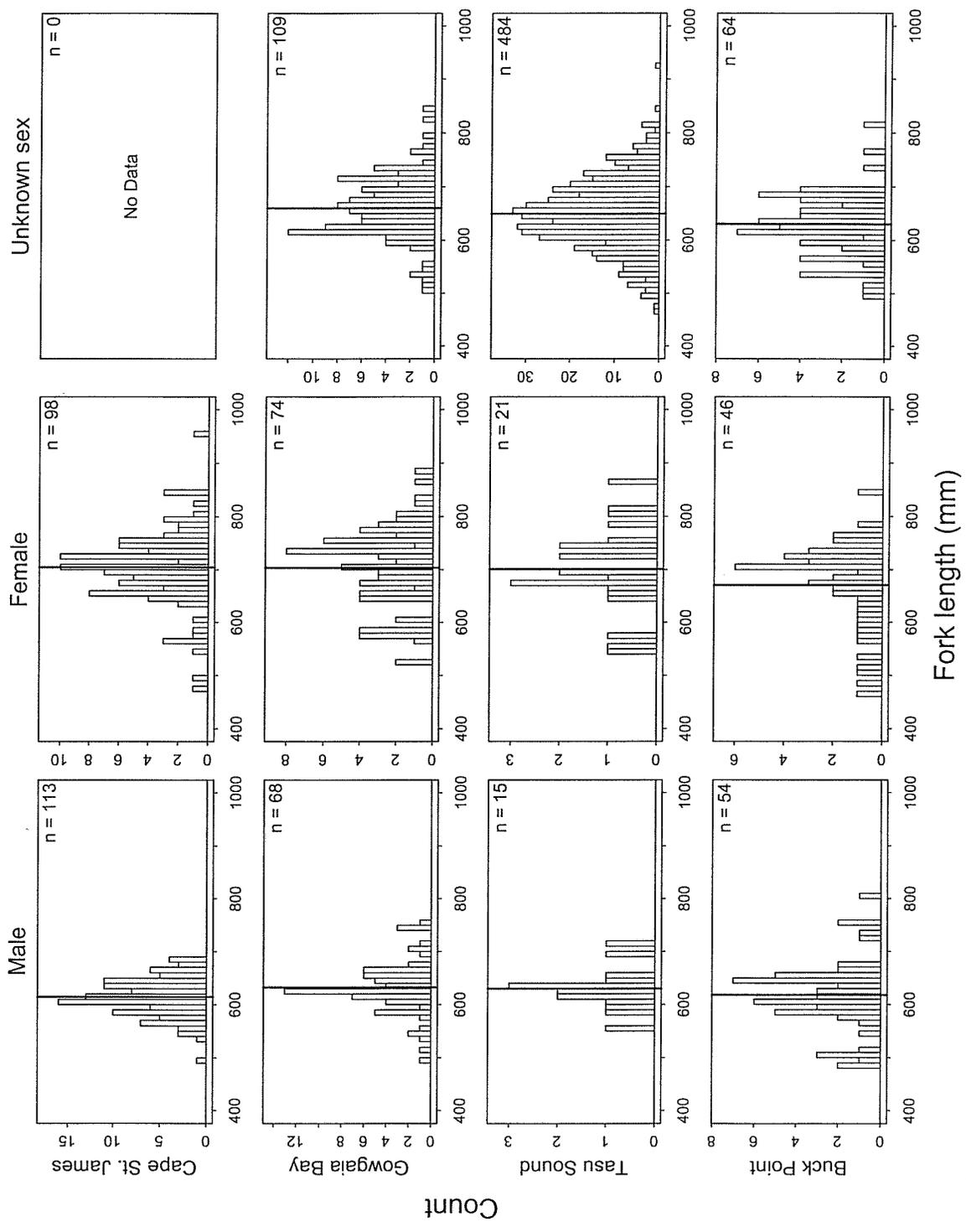


Figure G.5. continued.

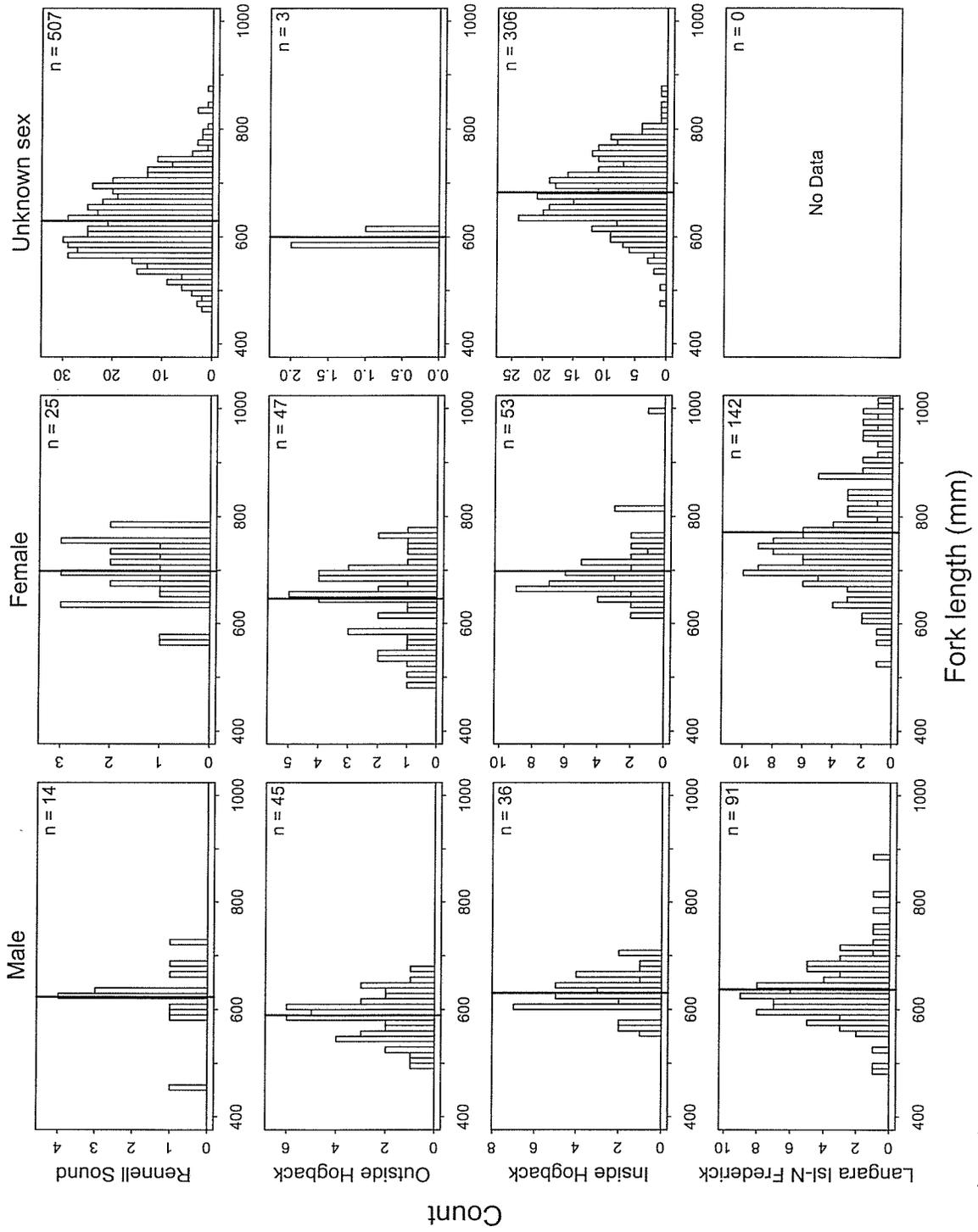


Figure G.5. continued.

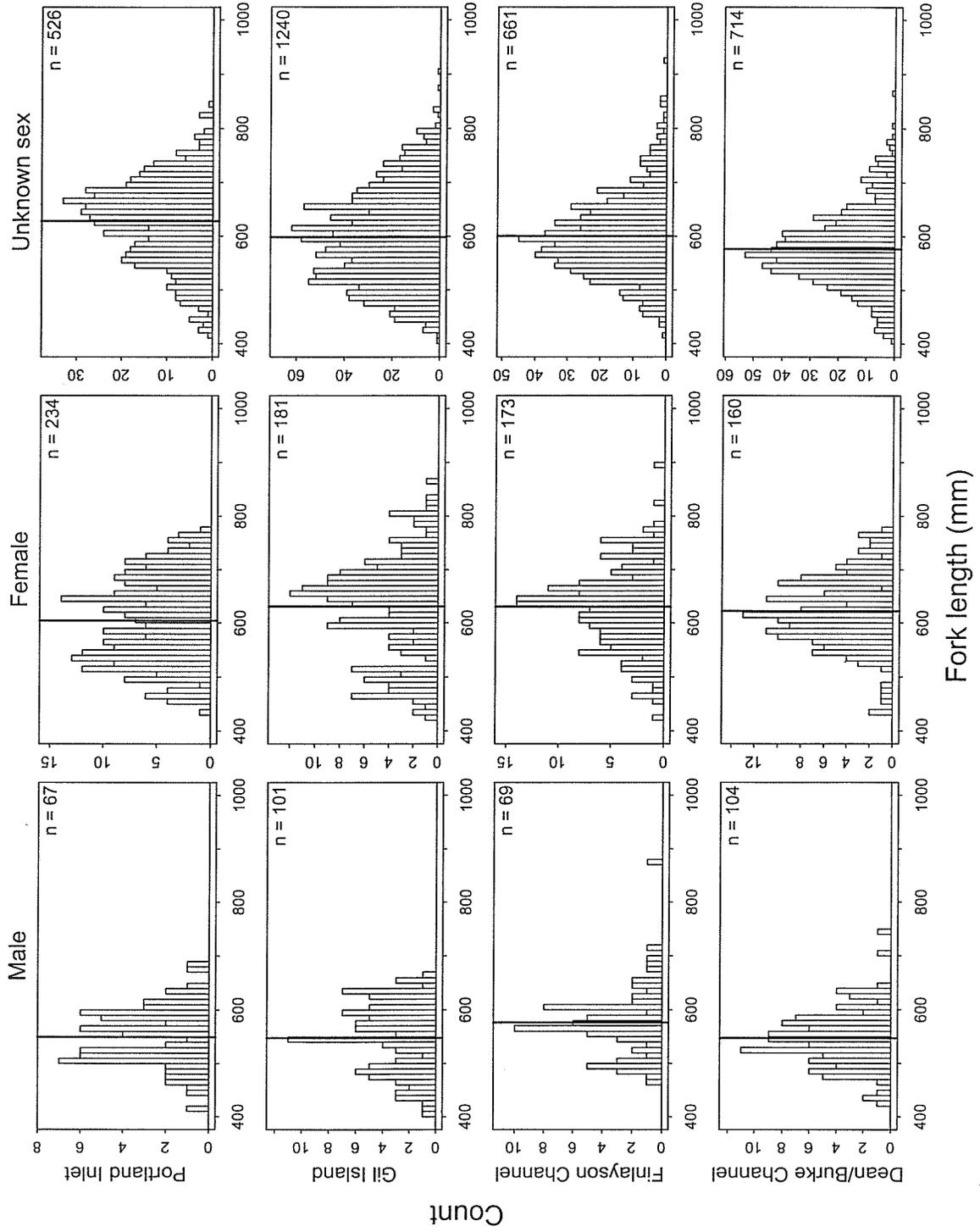


Figure G.5. continued.

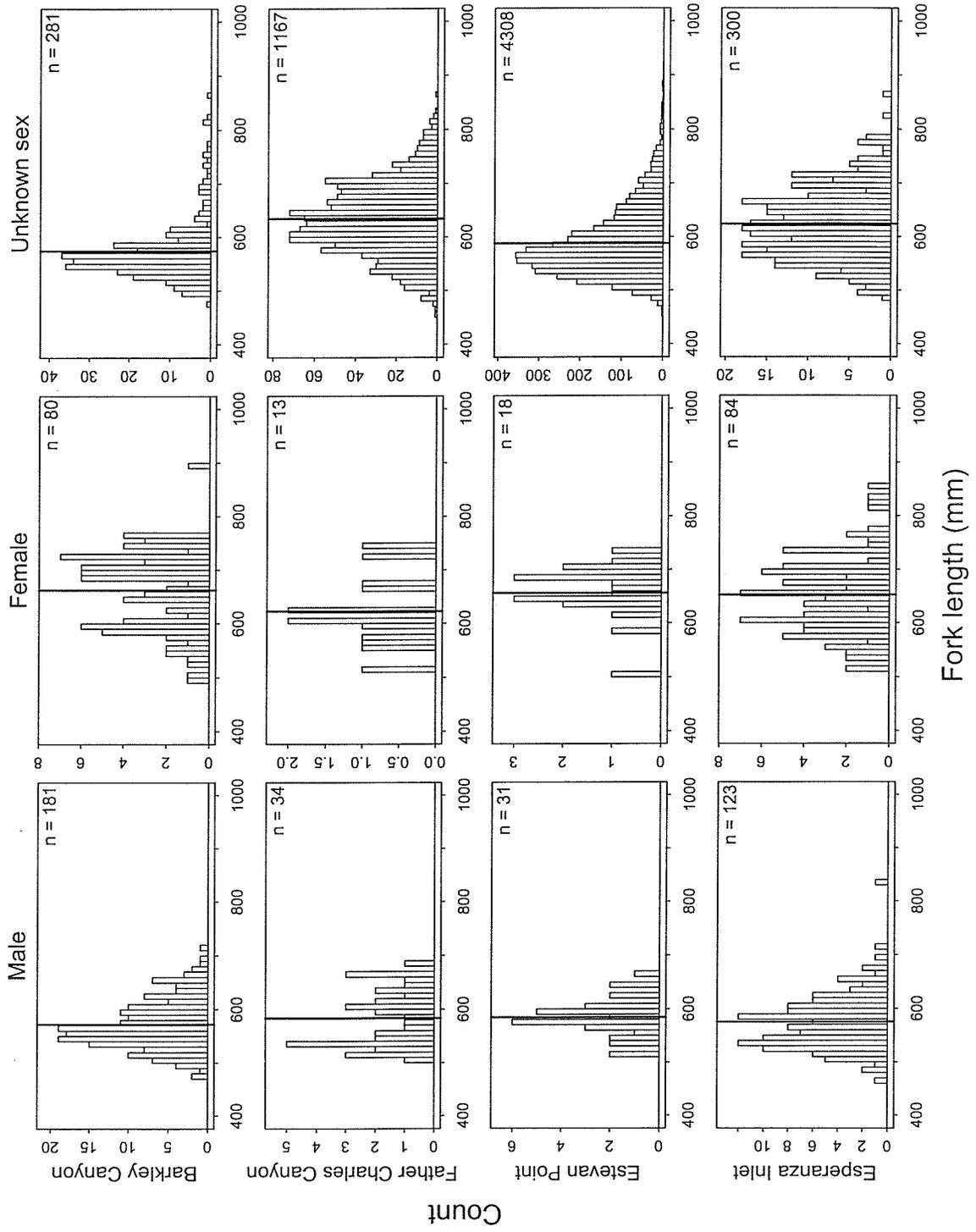


Figure G.6. 1998 fall survey.

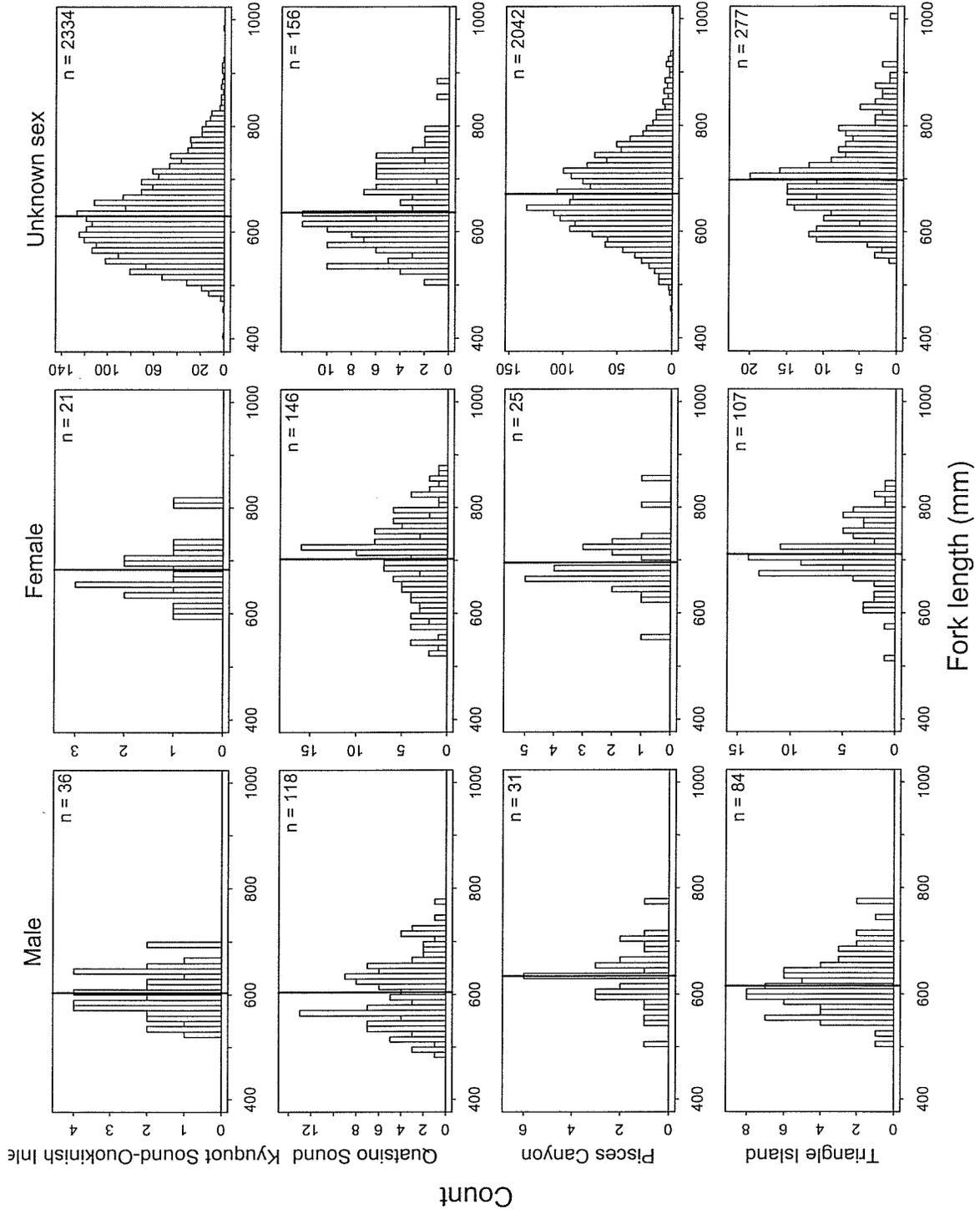


Figure G.6. continued.

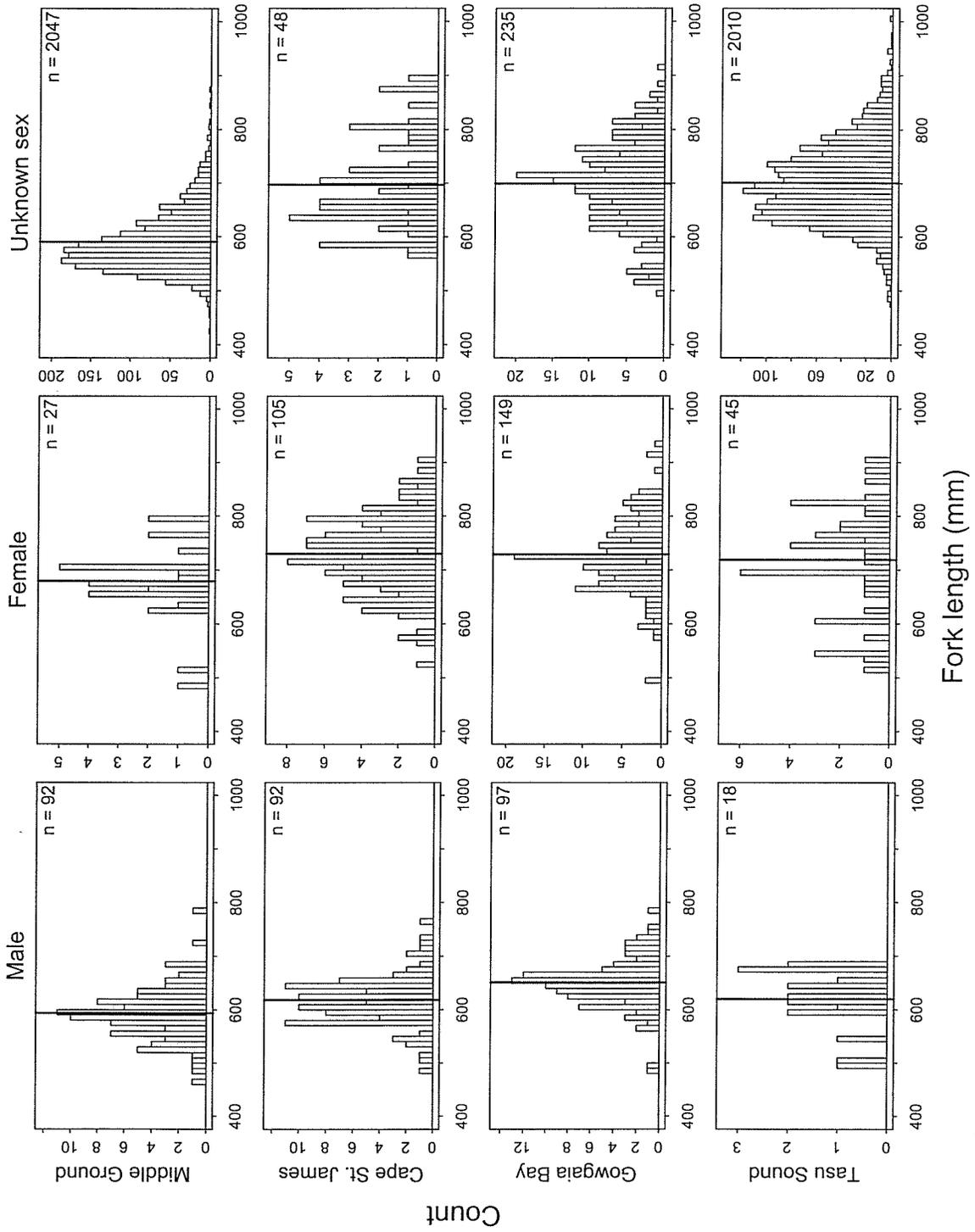


Figure G.6. continued.

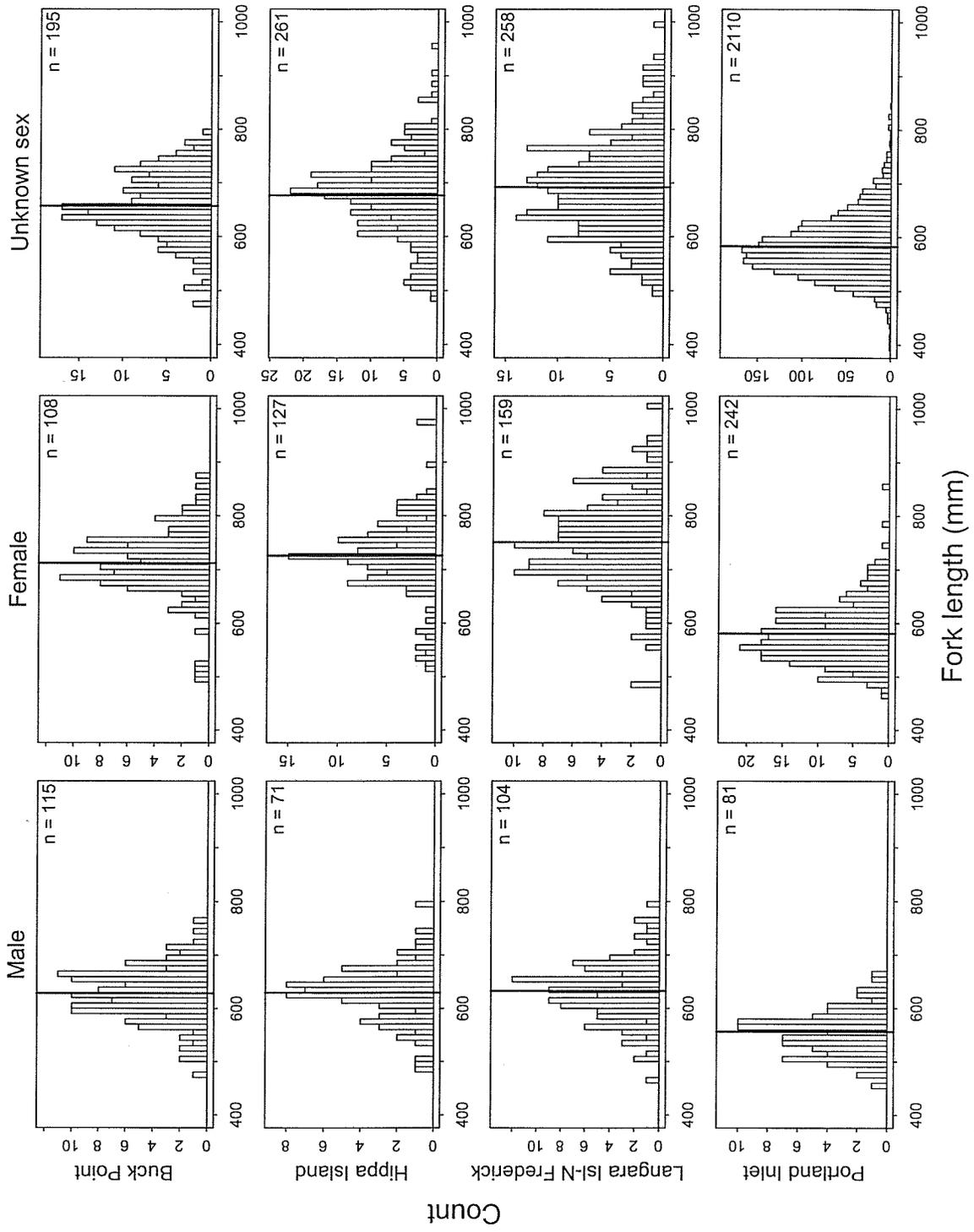
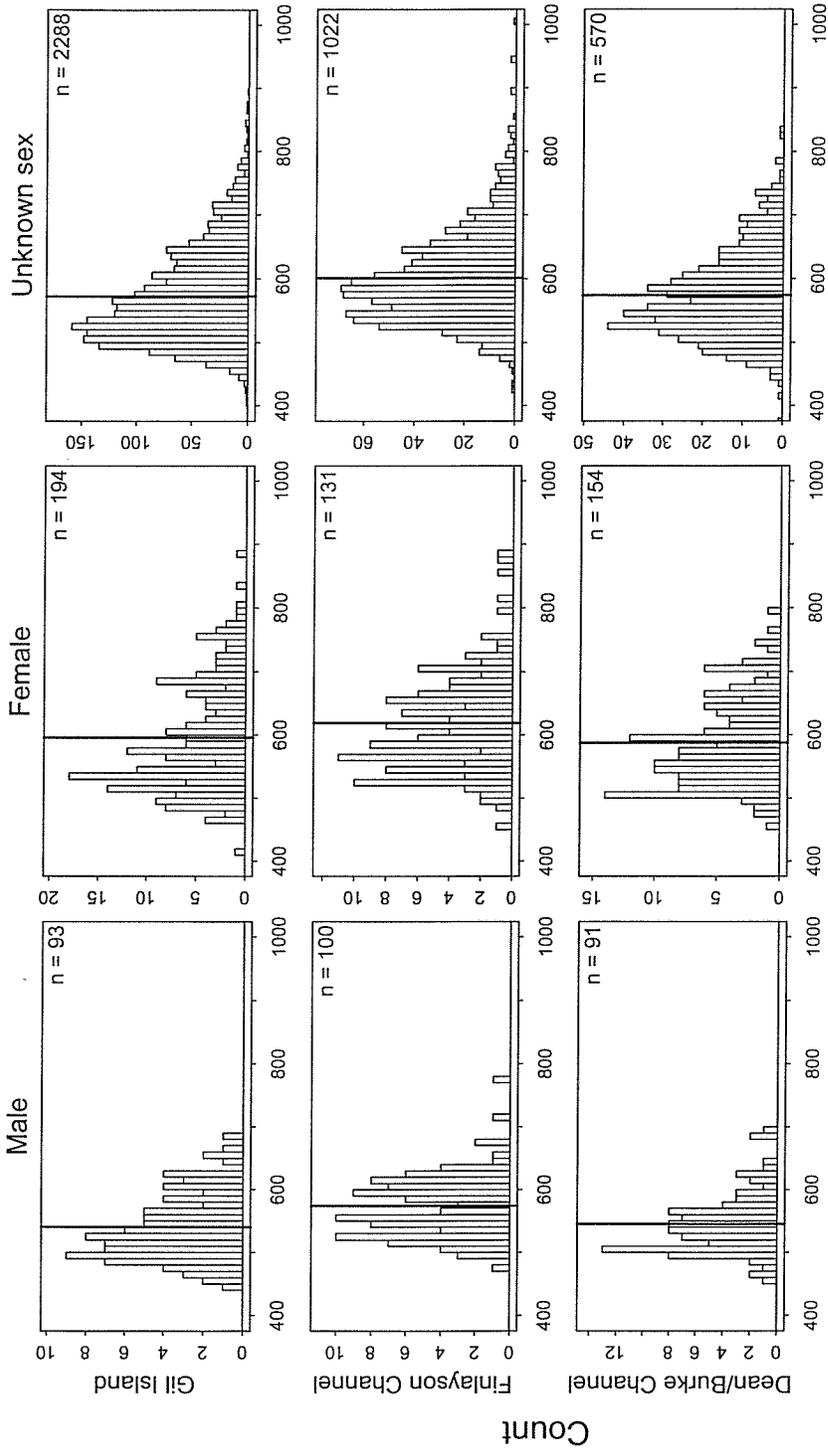


Figure G.6. continued.



Fork length (mm)

Figure G.6. continued.

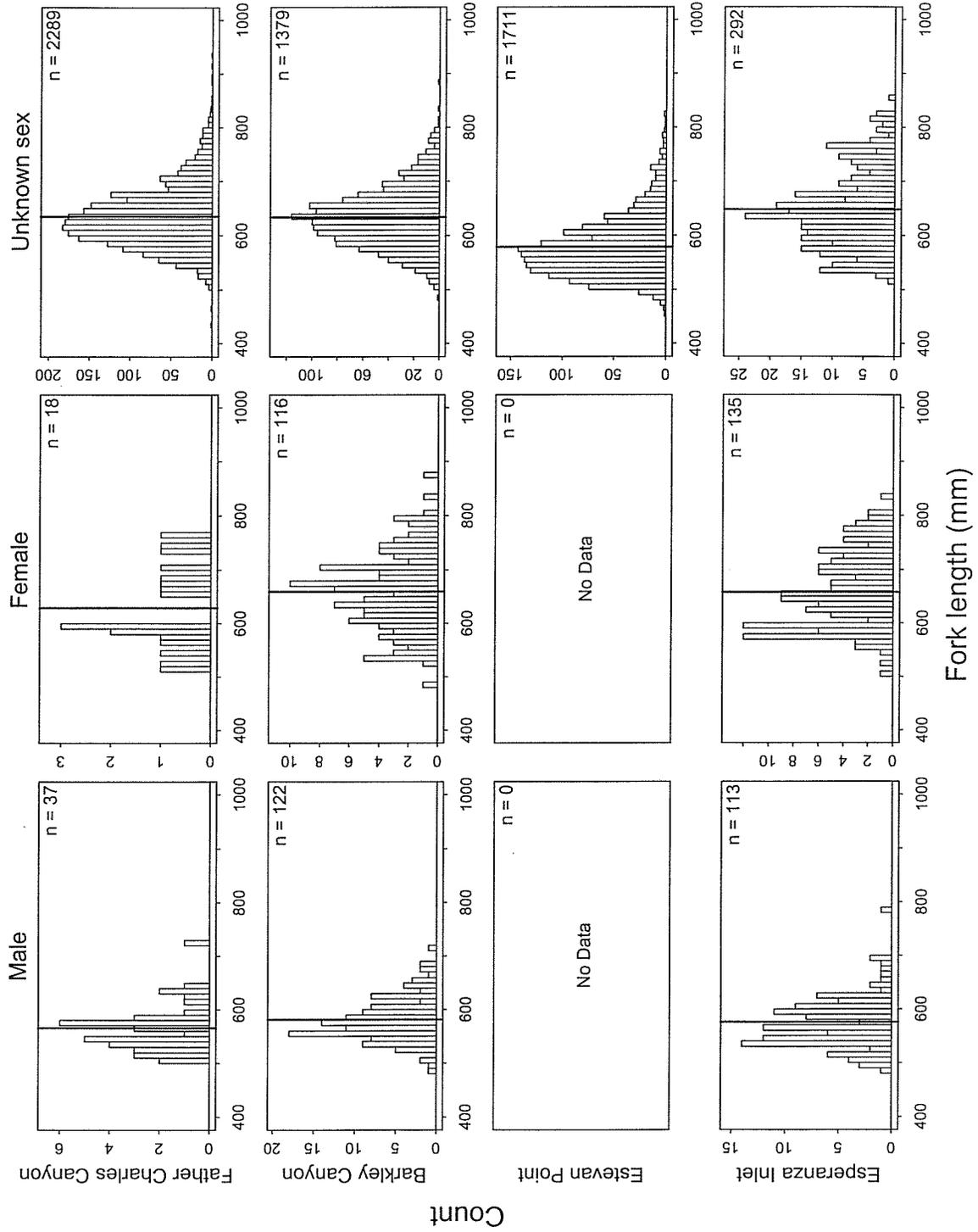


Figure G.7. 1999 fall survey.

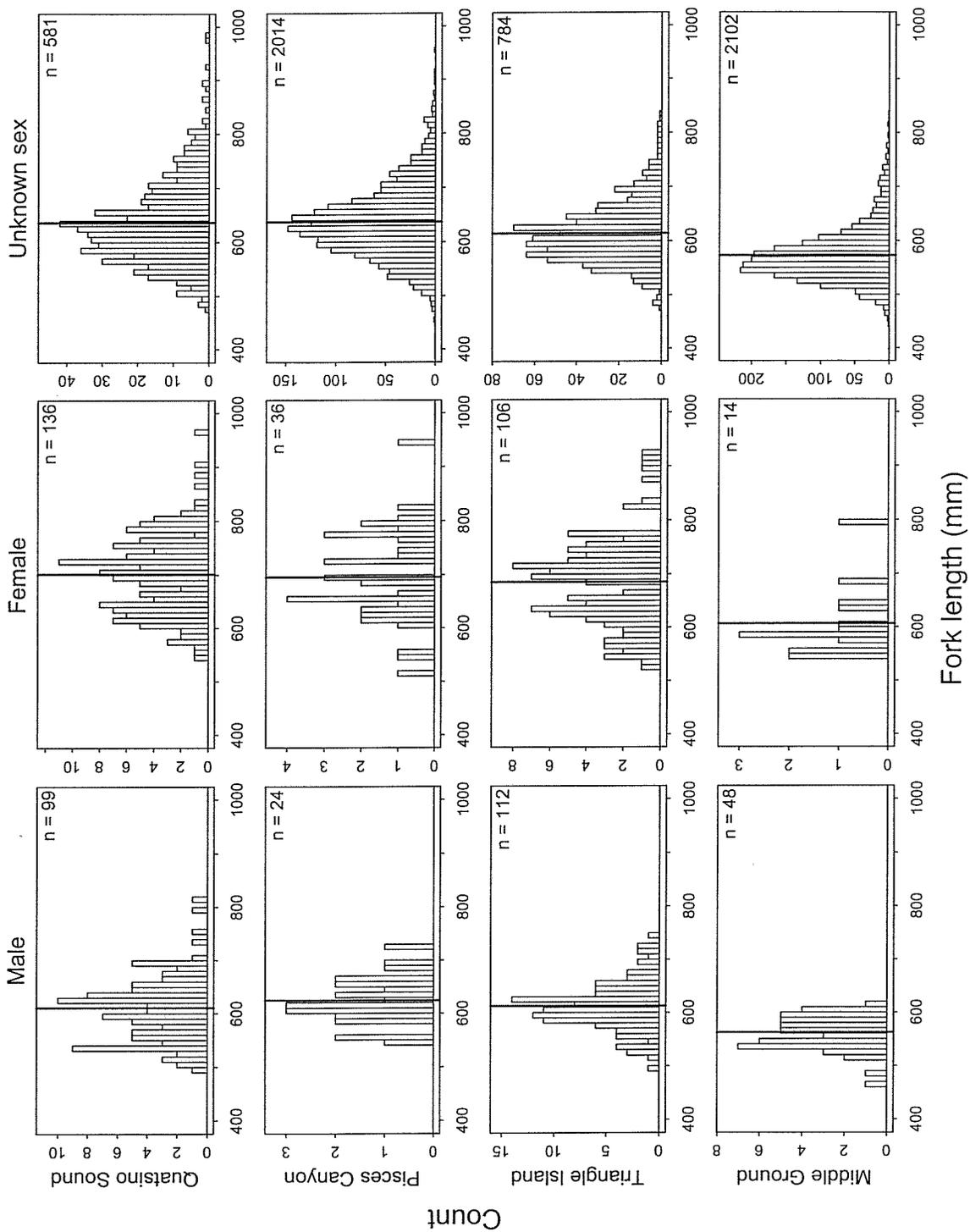


Figure G.7. continued.

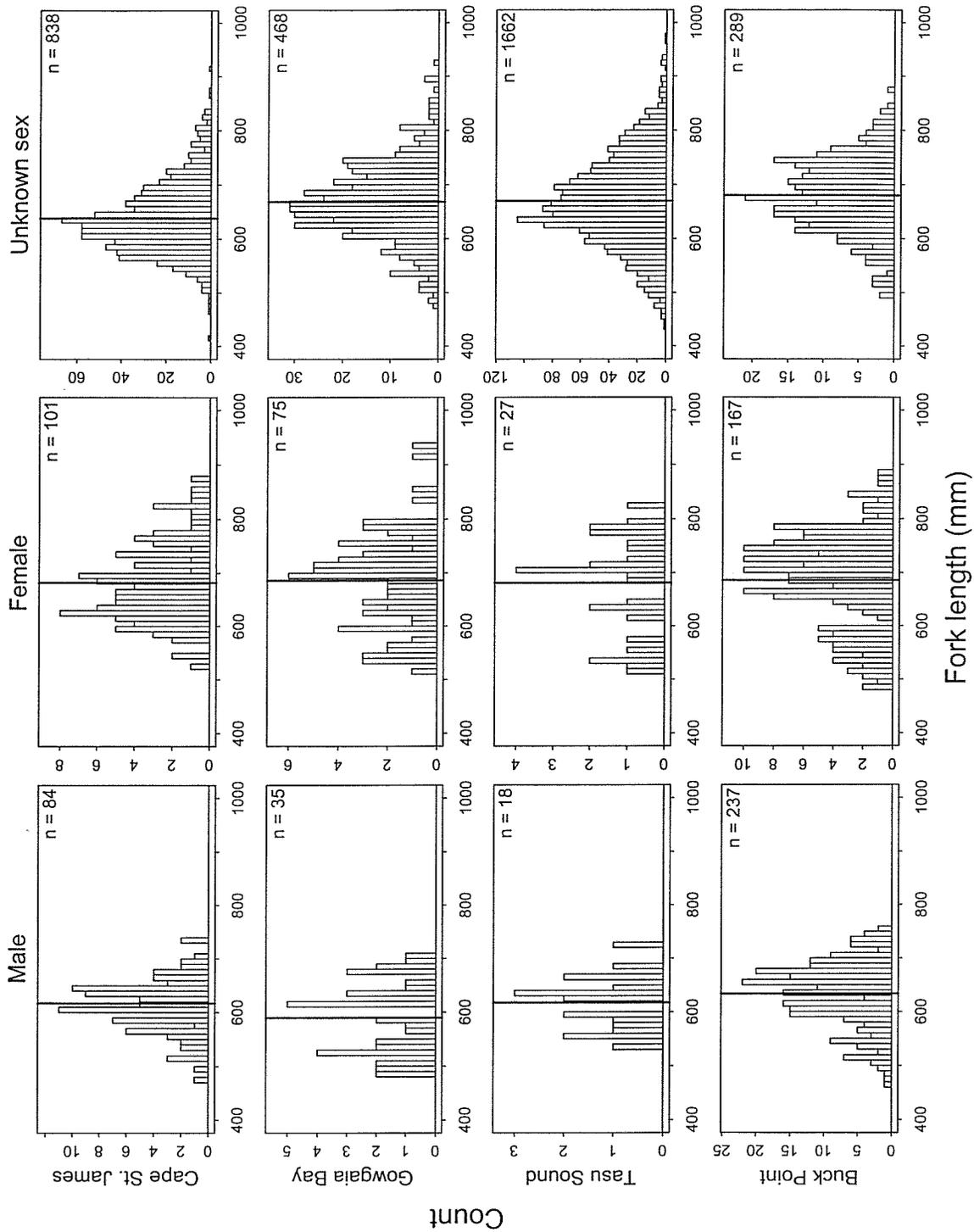


Figure G.7. continued.

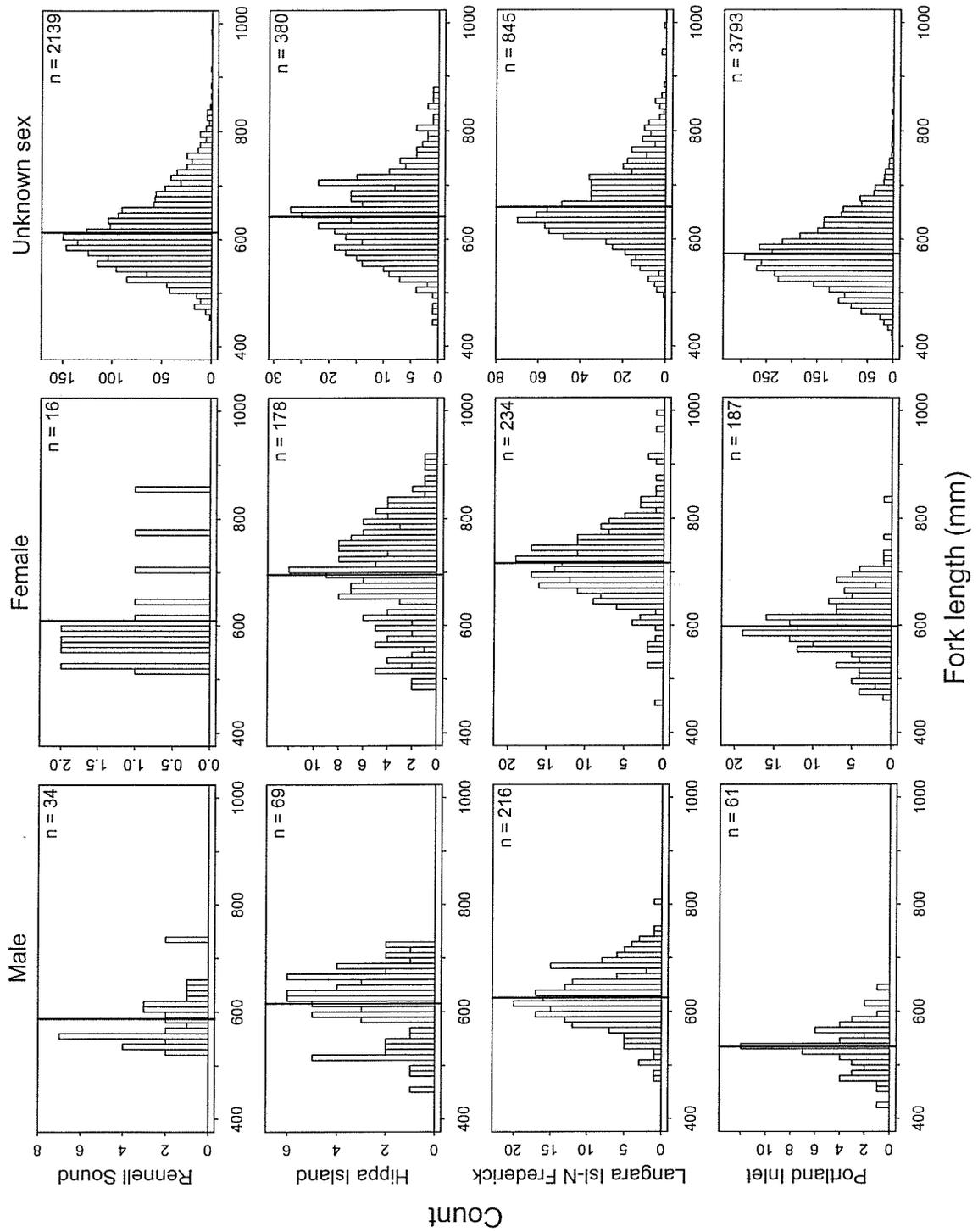
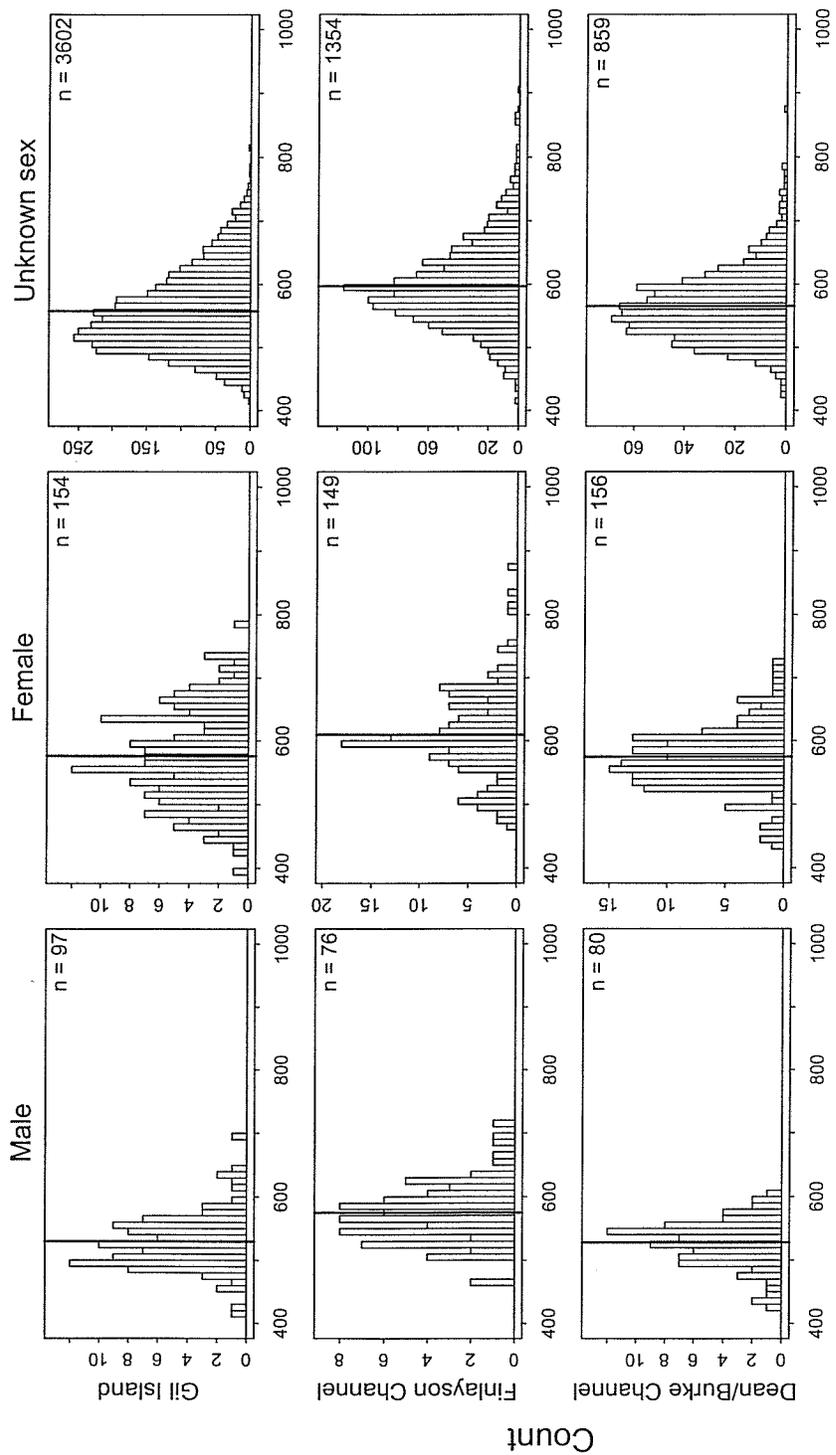


Figure G.7. continued.



Fork length (mm)

Figure G.7. continued.

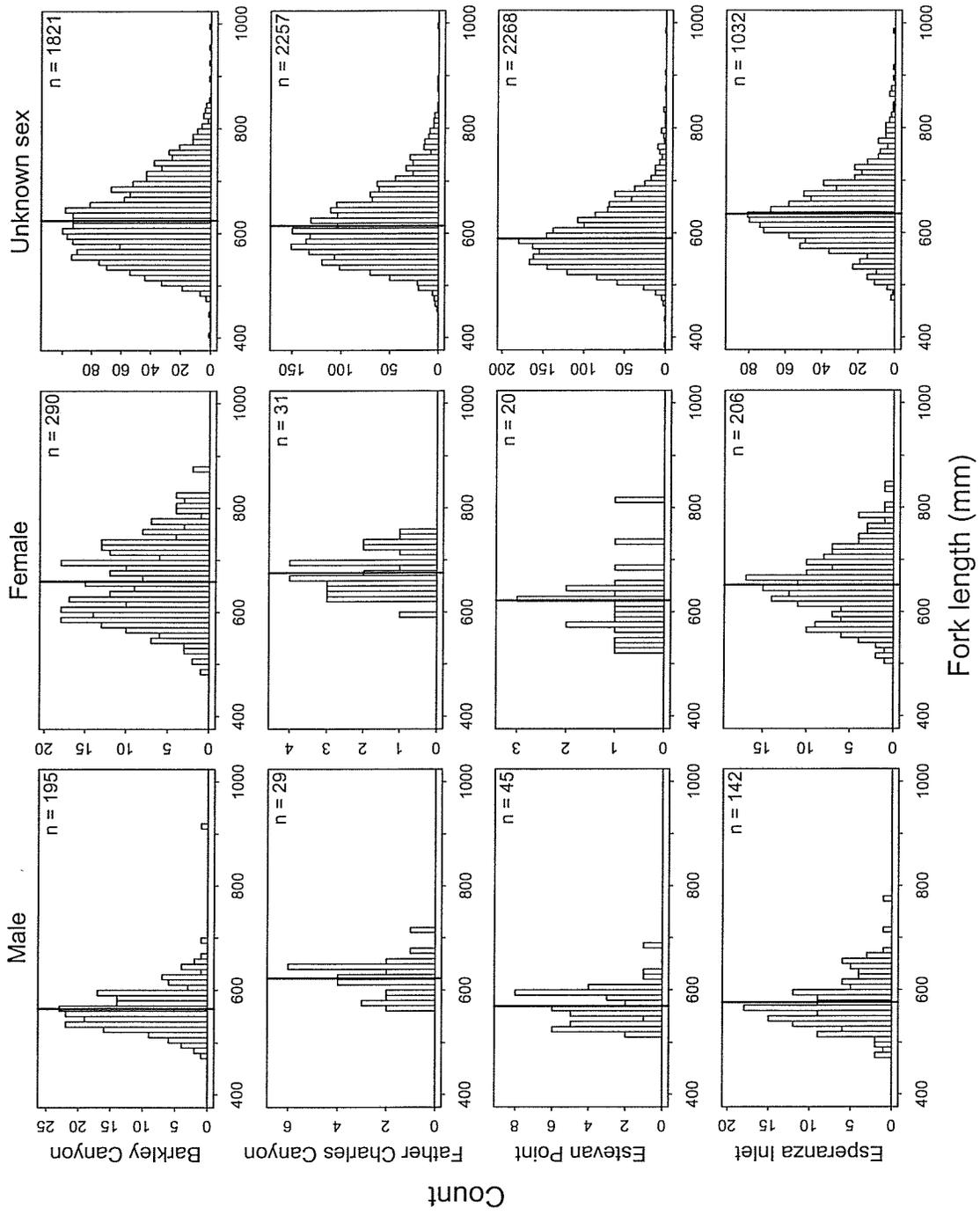


Figure G.8. 2000 fall survey.

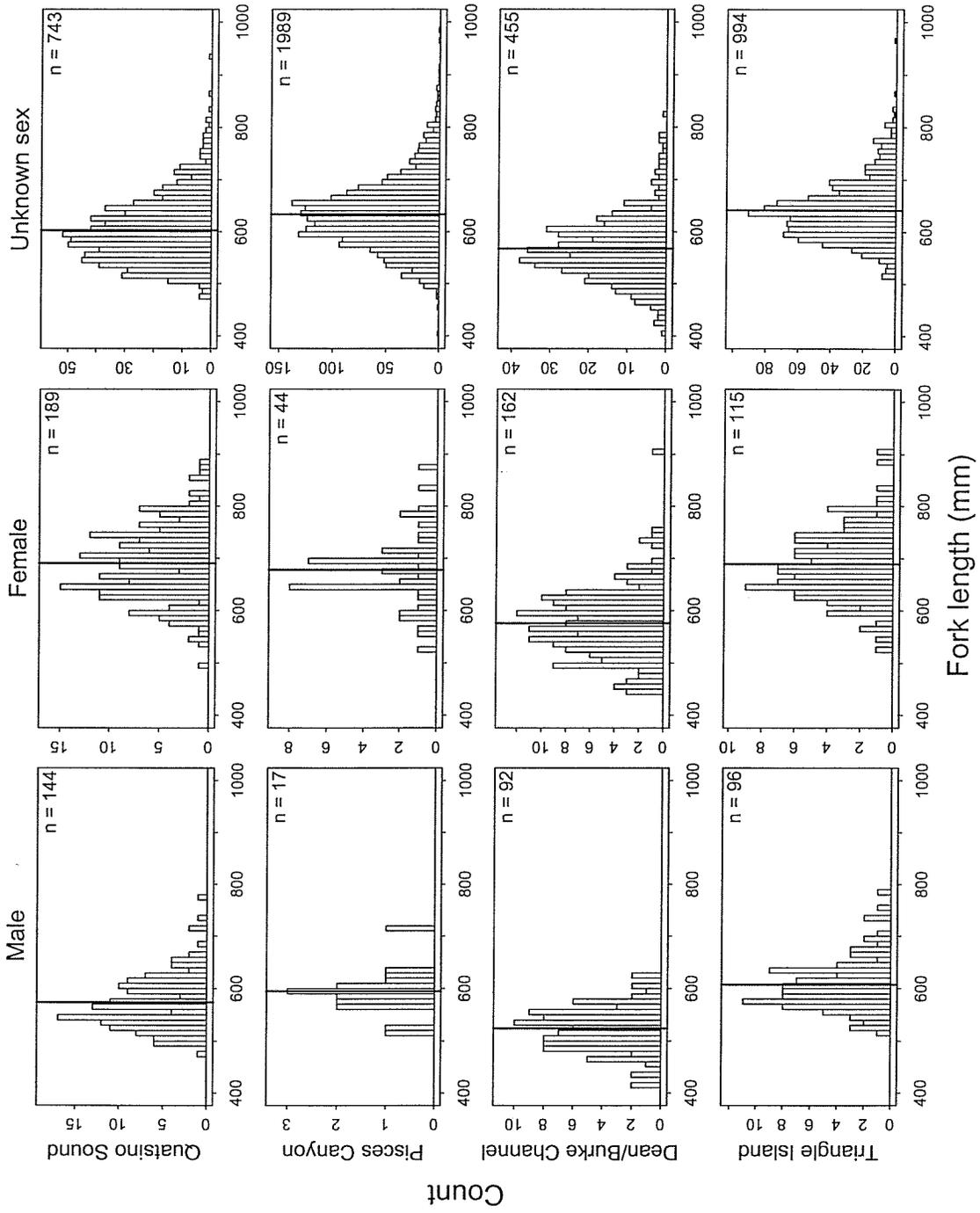


Figure G.8. continued.

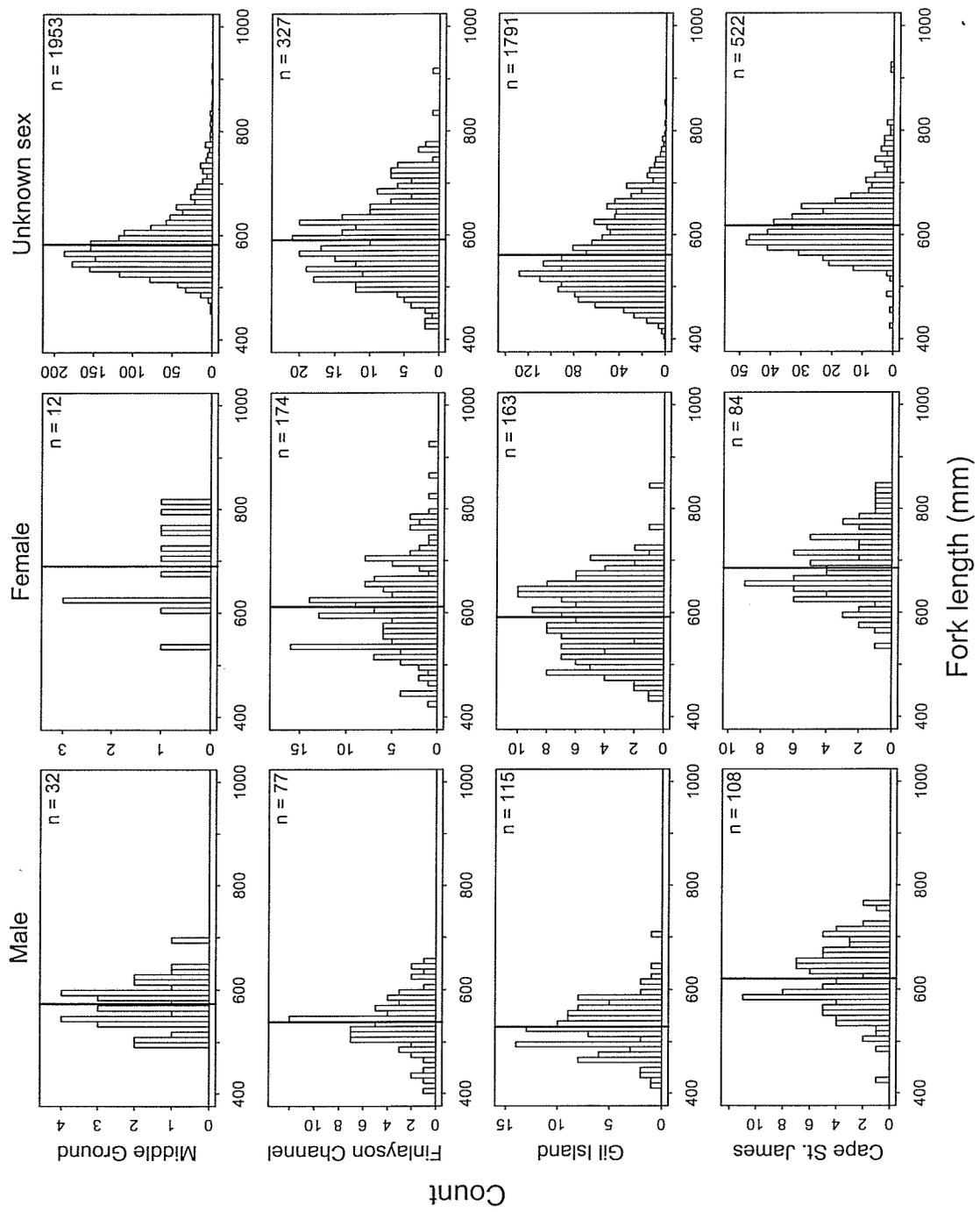


Figure G.8. continued.

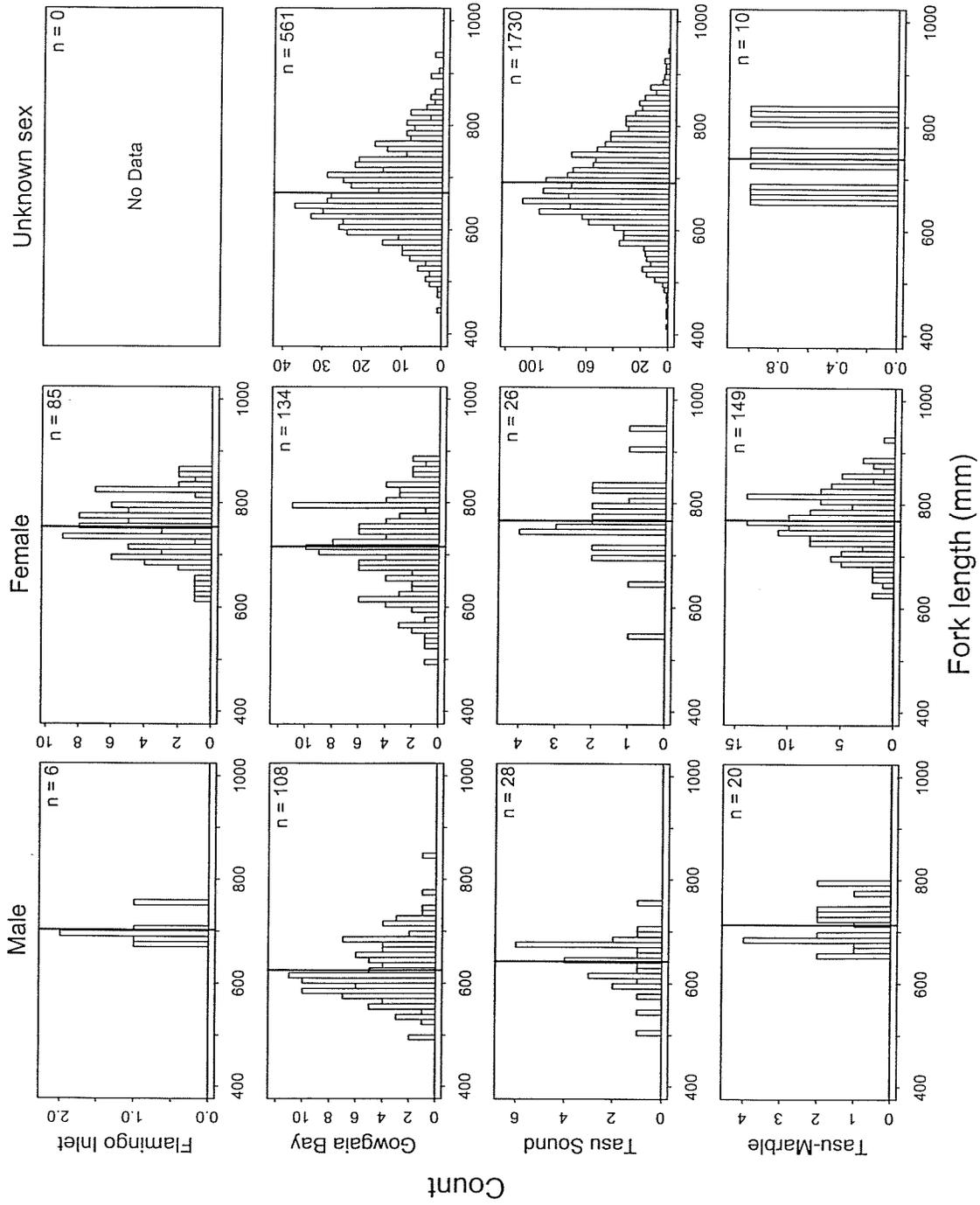


Figure G.8. continued.

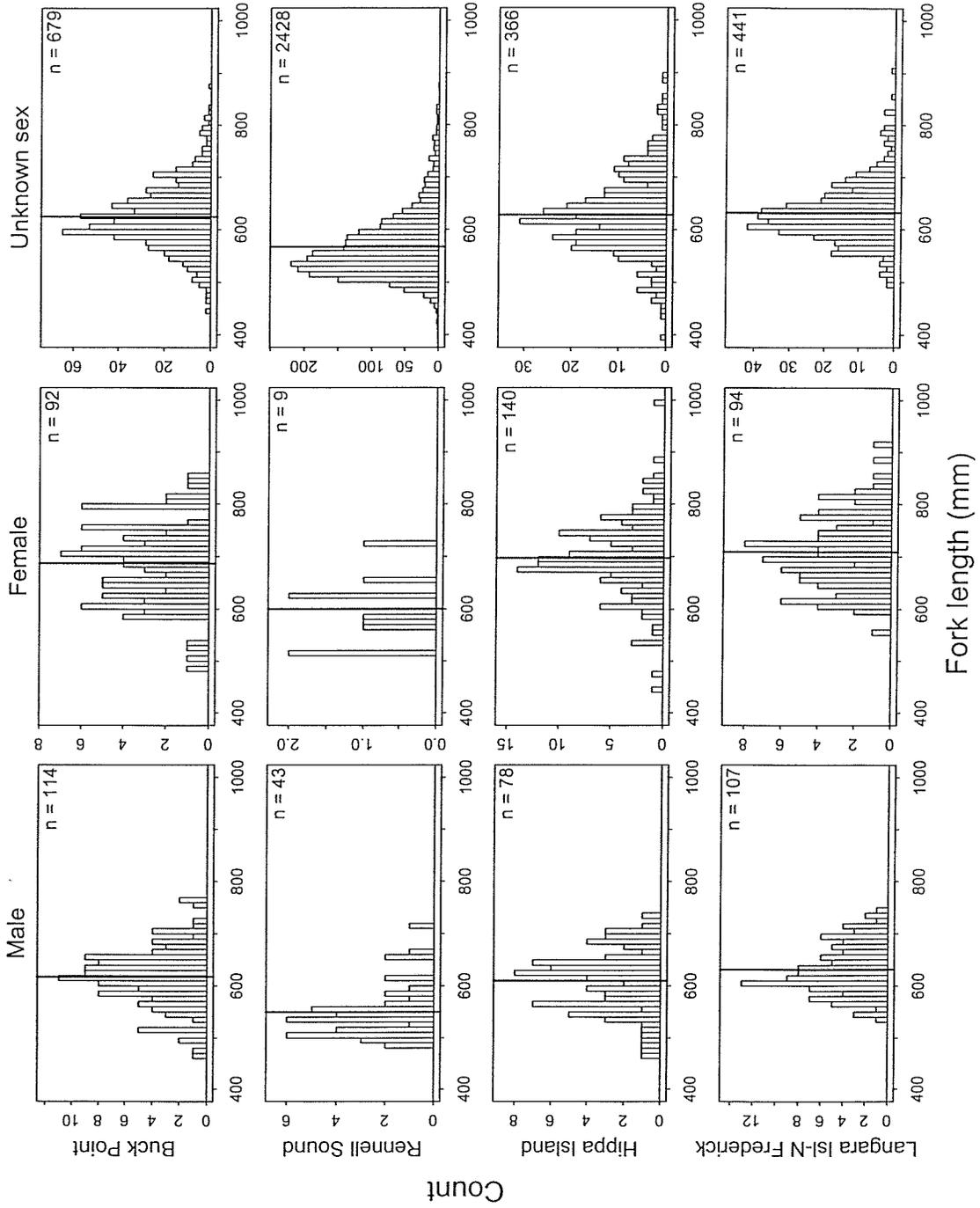
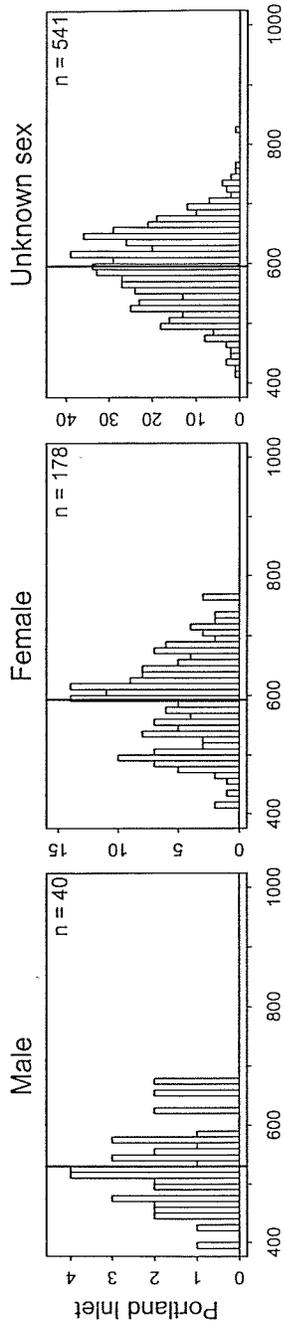


Figure G.8. continued.



Fork length (mm)

Figure G.8. continued.

APPENDIX H: DETAILS OF SABLEFISH TAGGED AND SAMPLED DURING THE 1996 TO 2000 SURVEYS

The following tables provide details on the number of sablefish recovered, tagged, and sampled during the 1996 to 2000 surveys. Tables are in order by year and survey. All sablefish sampled during the surveys were sampled for length, sex, maturity and otoliths (LSMO). Fork length was measured in millimetres (mm). The gonads were examined and the sex and a visual estimate of the maturity state (Appendix D) were recorded. Otoliths were collected for subsequent ageing. In addition to the standard LSMO data, other morphometric attributes such as girth (largest circumference of the fish in mm) and round weights (g) were measured for fish from some sets. In addition to the morphometric measurements, the stomachs of selected fish were opened and the contents examined and identified to the lowest possible taxon along with an estimate of the volume and relative digestion (fresh, $\frac{1}{4}$ digested, $\frac{1}{2}$ digested, $\frac{3}{4}$ digested, or fully digested).

Table H.1. 1996 spring tagging survey.

| Set | Recovered | | Tagged | LSMO | Proportion Males |
|--------------|-------------|----------|---------------|------------|---------------------|
| | Re-released | Sampled | | | |
| 1 | 4 | | 624 | 0 | - |
| 2 | | 1 | 546 | 0 | - |
| 3 | | 2 | 0 | 58 | 0.52 |
| 4 | 1 | | 268 | 0 | - |
| 5 | | | 397 | 0 | - |
| 6 | | | 428 | 64 | 0.55 |
| 7 | 1 | | 666 | 0 | - |
| 8 | | | 479 | 0 | - |
| 9 | | 1 | 0 | 52 | 0.79 |
| 10 | 1 | | 596 | 0 | - |
| 11 | | | 426 | 0 | - |
| 12 | | 1 | 0 | 63 | 0.62 |
| 13 | | | 574 | 0 | - |
| 14 | 1 | | 692 | 0 | - |
| 15 | 3 | 1 | 0 | 67 | 0.73 |
| 16 | 1 | | 603 | 0 | - |
| 17 | 1 | | 409 | 0 | - |
| 18 | | | 0 | 50 | 0.54 |
| 19 | 1 | | 709 | 0 | - |
| 20 | 1 | | 376 | 0 | - |
| 21 | 19 | | 0 | 48 | 0.75 |
| 22 | | | 308 | 0 | - |
| 23 | 1 | | 416 | 0 | - |
| 24 | | | 280 | 68 | 0.57 |
| 25 | | | 579 | 0 | - |
| 26 | 1 | | 552 | 0 | - |
| 27 | | | 0 | 56 | 0.61 |
| 28 | 1 | | 560 | 0 | - |
| 29 | 3 | | 378 | 0 | - |
| 30 | | | 100 | 50 | 0.58 |
| 31 | 1 | | 294 | 0 | - |
| 32 | | | 225 | 0 | - |
| 33 | | | 235 | 0 | - |
| 34 | 1 | | 155 | 0 | - |
| 35 | 1 | | 364 | 0 | - |
| 36 | | | 361 | 0 | - |
| 37 | 1 | | 243 | 0 | - |
| 38 | | | 568 | 0 | - |
| 39 | | | 413 | 52 | 0.50 |
| 40 | 1 | | 574 | 0 | - |
| 41 | 2 | | 741 | 0 | - |
| 42 | | | 0 | 61 | 0.57 |
| Total | 47 | 6 | 15,139 | 689 | 0.61 |

Table H.2. 1996 fall south coast survey.

| Set | Catch | | Recovered | | Tagged | LSMO | Weights | Proportion Males |
|--------------|---------------|--------------|-------------|----------|--------------|--------------|------------|---------------------|
| | Weight (kg) | Count | Re-released | Sampled | | | | |
| 1 | 582 | 242 | 1 | | 170 | 70 | 0 | 0.51 |
| 2 | 532 | 206 | 1 | | 143 | 61 | 0 | 0.51 |
| 3 | 405 | 152 | 2 | | 95 | 55 | 0 | 0.53 |
| 4 | 302 | 78 | | | 43 | 35 | 0 | 0.20 |
| 5 | 326 | 93 | | | 47 | 43 | 0 | 0.60 |
| 6 | 690 | 261 | 1 | | 260 | 0 | 0 | - |
| 7 | 510 | 181 | 2 | | 179 | 0 | 0 | - |
| 8 | 1660 | 638 | 7 | 3 | 506 | 132 | 0 | 0.43 |
| 9 | 640 | 370 | | | 370 | 0 | 0 | - |
| 10 | 1980 | 868 | | | 868 | 0 | 0 | - |
| 11 | N/A | N/A | | | 0 | 57 | 57 | 0.54 |
| 12 | 350 | 166 | | | 103 | 63 | 0 | 0.40 |
| 13 | 184 | 68 | | | 21 | 47 | 0 | 0.47 |
| 14 | 476 | 133 | | | 72 | 60 | 59 | 0.25 |
| 15 | 113 | 43 | | | 0 | 43 | 43 | 0.56 |
| 16 | 195 | 60 | | | 0 | 59 | 56 | 0.48 |
| 17 | 218 | 63 | | | 0 | 56 | 0 | 0.27 |
| 18 | 147 | 44 | | | 0 | 39 | 0 | 0.41 |
| 19 | 201 | 63 | 1 | | 0 | 38 | 0 | 0.34 |
| 20 | 125 | 47 | | | 0 | 42 | 0 | 0.67 |
| 21 | 215 | 64 | | | 0 | 59 | 0 | 0.30 |
| 22 | 1470 | 470 | 4 | | 466 | 0 | 0 | - |
| 23 | 1560 | 496 | 1 | | 495 | 0 | 0 | - |
| 24 | 1270 | 378 | | | 316 | 62 | 0 | 0.45 |
| 25 | 234 | 60 | | | 11 | 49 | 0 | 0.33 |
| 26 | 188 | 40 | | | 7 | 33 | 0 | 0.18 |
| 27 | 231 | 71 | | | 18 | 53 | 0 | 0.47 |
| 28 | 373 | 118 | | | 72 | 48 | 0 | 0.40 |
| 29 | 432 | 127 | | | 70 | 56 | 0 | 0.32 |
| 30 | 980 | 488 | 16 | | 472 | 0 | 0 | - |
| 31 | 1010 | 542 | 10 | | 532 | 0 | 0 | - |
| 32 | 1150 | 680 | 7 | | 574 | 99 | 0 | 0.82 |
| Total | 18,749 | 7,310 | 53 | 3 | 5,910 | 1,359 | 215 | 0.44 |

Table H.3. 1996 fall north coast survey.

| Set | Catch | | Recovered | Tagged | LSMO | Proportion |
|-----|-------------|-------|-----------|--------|------|------------|
| | Weight (kg) | Count | | | | Males |
| 1 | 649 | 268 | 17 | 158 | 109 | 0.47 |
| 2 | 665 | 268 | 36 | 186 | 112 | 0.39 |
| 3 | 551 | 311 | 31 | 223 | 89 | 0.46 |
| 4 | 306 | 157 | 7 | 112 | 46 | 0.35 |
| 5 | 810 | 323 | 5 | 239 | 83 | 0.39 |
| 6 | 165 | 61 | 3 | 51 | 19 | 0.21 |
| 7 | 400 | 162 | 5 | 112 | 58 | 0.36 |
| 8 | 210 | 102 | 3 | 80 | 27 | 0.39 |
| 9 | 412 | 165 | 1 | 102 | 72 | 0.31 |
| 10 | 315 | 123 | 8 | 81 | 63 | 0.44 |
| 11 | 739 | 357 | 13 | 304 | 89 | 0.37 |
| 12 | 1002 | 484 | 25 | 405 | 73 | 0.40 |
| 13 | 867 | 362 | 3 | 272 | 102 | 0.40 |
| 14 | 1039 | 529 | 10 | 456 | 72 | 0.38 |
| 15 | 330 | 146 | 2 | 103 | 49 | 0.41 |
| 16 | 1331 | 472 | | 408 | 72 | 0.15 |
| 17 | 1039 | 386 | 2 | 302 | 83 | 0.15 |
| 18 | 505 | 211 | 9 | 162 | 50 | 0.26 |
| 19 | 303 | 135 | | 93 | 46 | 0.22 |
| 20 | 88 | 53 | | 45 | 8 | 0.38 |
| 21 | 220 | 68 | | 42 | 23 | 0.52 |
| 22 | 95 | 21 | | 13 | 6 | 0.50 |
| 23 | 92 | 28 | 1 | 15 | 13 | 0.23 |
| 24 | 296 | 63 | | 46 | 16 | 0.25 |
| 25 | 184 | 45 | | 22 | 19 | 0.26 |
| 26 | 450 | 123 | | 64 | 54 | 0.33 |
| 27 | 393 | 100 | 1 | 54 | 40 | 0.33 |
| 28 | 627 | 153 | | 106 | 56 | 0.34 |
| 29 | 438 | 101 | 1 | 79 | 24 | 0.29 |
| 30 | 172 | 50 | | 22 | 29 | 0.41 |
| 31 | 1049 | 369 | | 320 | 51 | 0.82 |
| 32 | 884 | 382 | | 378 | 0 | - |
| 33 | 1194 | 310 | | 248 | 19 | 0.21 |
| 34 | 1811 | 474 | 11 | 467 | 0 | - |
| 35 | 265 | 85 | | 34 | 49 | 0.67 |
| 36 | 111 | 40 | 1 | 14 | 26 | 0.73 |
| 37 | 356 | 128 | | 88 | 40 | 0.68 |
| 38 | 305 | 101 | 1 | 58 | 38 | 0.40 |
| 39 | 193 | 55 | | 36 | 19 | 0.21 |
| 40 | 165 | 42 | | 18 | 19 | 0.63 |
| 41 | 188 | 50 | 1 | 20 | 24 | 0.54 |
| 42 | 251 | 69 | | 32 | 33 | 0.58 |
| 43 | 218 | 64 | | 32 | 27 | 0.35 |
| 44 | 315 | 77 | | 37 | 33 | 0.18 |
| 45 | 146 | 44 | 1 | 30 | 14 | 0.43 |

| Set | Catch | | Recovered | Tagged | LSMO | Proportion |
|--------------|---------------|--------------|------------|--------------|--------------|-------------|
| | Weight (kg) | Count | | | | Males |
| 46 | 330 | 88 | 2 | 30 | 57 | 0.44 |
| 47 | 335 | 102 | | 70 | 33 | 0.64 |
| 48 | 164 | 45 | | 8 | 38 | 0.42 |
| 49 | 208 | 41 | | 9 | 32 | 0.16 |
| Total | 23,181 | 8,393 | 200 | 6,286 | 2,154 | 0.39 |

Table H.4. 1997 spring tagging survey.

| Set | Catch Count | Recovered | | Tagged | LSMO | Girth | Proportion Males |
|--------------|----------------|-------------|----------|--------------|------------|------------|---------------------|
| | | Re-released | Sampled | | | | |
| 1 | 194 | | | 194 | 0 | 0 | - |
| 2 | 258 | 1 | | 257 | 0 | 0 | - |
| 3 | 164 | 1 | | 119 | 44 | 44 | 0.39 |
| 4 | 223 | 3 | | 220 | 0 | 0 | - |
| 5 | 290 | 7 | | 283 | 0 | 0 | - |
| 6 | 269 | 1 | 1 | 225 | 42 | 42 | 0.38 |
| 7 | 491 | 12 | | 479 | 0 | 0 | - |
| 8 | 439 | 9 | | 430 | 0 | 0 | - |
| 9 | 443 | 10 | | 375 | 58 | 58 | 0.78 |
| 10 | 209 | 1 | | 208 | 0 | 0 | - |
| 11 | 253 | 1 | | 212 | 40 | 40 | 0.63 |
| 12 | 269 | 1 | | 224 | 44 | 44 | 0.55 |
| 13 | 230 | 2 | | 228 | 0 | 0 | - |
| 14 | 218 | 4 | | 174 | 40 | 40 | 0.60 |
| 15 | 320 | 3 | | 274 | 43 | 43 | 0.63 |
| 16 | 236 | | | 236 | 0 | 0 | - |
| 17 | 295 | 7 | | 247 | 41 | 41 | 0.49 |
| 18 | 270 | 5 | | 219 | 46 | 46 | 0.30 |
| 19 | 384 | 10 | | 374 | 0 | 0 | - |
| 20 | 206 | 5 | | 163 | 38 | 38 | 0.32 |
| 21 | 267 | 7 | | 218 | 42 | 42 | 0.48 |
| 22 | 393 | 4 | | 389 | 0 | 0 | - |
| 23 | 264 | 8 | | 214 | 42 | 41 | 0.55 |
| 24 | 257 | 6 | 1 | 209 | 41 | 41 | 0.56 |
| 25 | 192 | | | 192 | 0 | 0 | - |
| 26 | 237 | 1 | | 236 | 0 | 0 | - |
| 27 | 387 | 5 | | 316 | 66 | 0 | 0.76 |
| 28 | 131 | 2 | | 129 | 0 | 0 | - |
| 29 | 188 | 1 | | 187 | 0 | 0 | - |
| 30 | 163 | 2 | | 91 | 70 | 70 | 0.61 |
| 31 | 147 | 1 | | 146 | 0 | 0 | - |
| 32 | 272 | 2 | | 270 | 0 | 0 | - |
| 33 | 176 | 3 | | 120 | 53 | 53 | 0.66 |
| 34 | 255 | 2 | | 253 | 0 | 0 | - |
| 35 | 280 | 2 | | 237 | 41 | 41 | 0.76 |
| 36 | 133 | | | 98 | 35 | 35 | 0.71 |
| 37 | 154 | | | 154 | 0 | 0 | - |
| 38 | 155 | 4 | | 151 | 0 | 0 | - |
| 39 | 125 | | | 68 | 57 | 57 | 0.49 |
| 40 | 223 | 7 | | 216 | 0 | 0 | - |
| 41 | 226 | 1 | | 225 | 0 | 0 | - |
| 42 | 155 | | | 96 | 59 | 59 | 0.66 |
| Total | 10,441 | 141 | 2 | 9,356 | 942 | 875 | 0.57 |

Table H.5. 1997 fall survey.

| Set | Catch | | Recovered | Tagged | LSMO | Weight | Girth | Stomachs | Proportion |
|-----|-------------|-------|-----------|--------|------|--------|-------|----------|------------|
| | Weight (kg) | Count | | | | | | | Males |
| 1 | 597 | 188 | 2 | 126 | 59 | 0 | 0 | 0 | 0.20 |
| 2 | 519 | 173 | | 114 | 58 | 0 | 0 | 0 | 0.54 |
| 3 | 366 | 172 | 3 | 114 | 54 | 0 | 0 | 0 | 0.70 |
| 4 | 328 | 136 | 2 | 77 | 57 | 0 | 0 | 0 | 0.51 |
| 5 | 393 | 166 | | 104 | 62 | 0 | 62 | 0 | 0.48 |
| 6 | 2130 | 786 | 4 | 751 | 0 | 0 | - | 0 | - |
| 7 | 890 | 396 | 1 | 336 | 56 | 0 | 0 | 0 | 0.66 |
| 8 | N/A | N/A | 9 | 779 | 0 | 0 | - | 0 | - |
| 9 | N/A | N/A | 2 | 697 | 79 | 0 | 0 | 0 | 0.67 |
| 10 | 164 | 56 | | 35 | 35 | 0 | 0 | 0 | 0.32 |
| 11 | 752 | 227 | 1 | 151 | 79 | 0 | 0 | 0 | 0.31 |
| 12 | 151 | 58 | | 19 | 44 | 0 | 0 | 27 | 0.69 |
| 13 | 75 | 36 | | 0 | 35 | 0 | 0 | 35 | 0.69 |
| 14 | 293 | 150 | 1 | 92 | 59 | 0 | 0 | 59 | 0.75 |
| 15 | 22 | 12 | | 0 | 12 | 0 | 0 | 12 | 0.92 |
| 16 | 10 | 6 | | 0 | 6 | 0 | 0 | 6 | 0.83 |
| 17 | 12 | 5 | | 0 | 5 | 0 | 0 | 5 | 0.40 |
| 18 | 68 | 26 | | 0 | 26 | 0 | 0 | 26 | 0.58 |
| 19 | 161 | 56 | | 0 | 56 | 0 | 0 | 56 | 0.34 |
| 20 | 1860 | 554 | 3 | 551 | 0 | 0 | - | 0 | - |
| 21 | 1850 | 626 | 4 | 568 | 54 | 0 | 54 | 0 | 0.54 |
| 22 | 134 | 34 | | 0 | 34 | 0 | 0 | 34 | 0.38 |
| 23 | 270 | 78 | | 21 | 56 | 0 | 0 | 56 | 0.25 |
| 24 | 268 | 89 | | 45 | 45 | 0 | 0 | 45 | 0.51 |
| 25 | 31 | 11 | | 0 | 11 | 0 | 0 | 11 | 0.64 |
| 26 | 153 | 37 | | 0 | 36 | 0 | 0 | 35 | 0.11 |
| 27 | 1020 | 438 | 4 | 365 | 73 | 0 | 27 | 0 | 0.69 |
| 28 | 1500 | 717 | 5 | 717 | 0 | 0 | - | 0 | - |
| 29 | 171 | 44 | | 0 | 44 | 0 | 0 | 44 | 0.16 |
| 30 | 99 | 34 | | 0 | 34 | 0 | 0 | 34 | 0.71 |
| 31 | 222 | 81 | | 0 | 79 | 0 | 0 | 78 | 0.68 |
| 32 | 119 | 38 | | 0 | 40 | 0 | 0 | 40 | 0.63 |
| 33 | 59 | 14 | | 0 | 14 | 0 | 0 | 14 | 0.21 |
| 34 | 69 | 15 | | 0 | 16 | 0 | 0 | 16 | 0.19 |
| 35 | 57 | 16 | | 0 | 16 | 0 | 10 | 16 | 0.63 |
| 36 | 99 | 34 | | 0 | 34 | 0 | 26 | 34 | 0.62 |
| 37 | 306 | 100 | 1 | 58 | 41 | 0 | 0 | 0 | 0.59 |
| 38 | 303 | 87 | | 51 | 35 | 0 | 0 | 26 | 0.29 |
| 39 | N/A | 296 | 2 | 260 | 37 | 0 | 36 | 0 | 0.43 |
| 40 | N/A | 232 | 1 | 227 | 0 | 0 | - | 0 | - |
| 41 | 52 | 16 | | 0 | 15 | 0 | 0 | 0 | 0.40 |
| 42 | 276 | 98 | 2 | 64 | 33 | 0 | 0 | 0 | 0.55 |
| 43 | 62 | 24 | | 0 | 25 | 0 | 0 | 0 | 0.60 |
| 44 | 39 | 12 | | 0 | 12 | 0 | 0 | 0 | 0.42 |
| 45 | 48 | 15 | | 0 | 15 | 0 | 0 | 0 | 0.67 |

Table H.5. (cont'd)

| Set | Catch | | Recovered | Tagged | LSMO | Weight | Girth | Stomachs | Proportion Males |
|--------------|---------------|---------------|------------|---------------|--------------|------------|--------------|--------------|---------------------|
| | Weight (kg) | Count | | | | | | | |
| 46 | N/A | 303 | | 312 | 0 | 0 | - | 0 | - |
| 47 | N/A | 237 | 1 | 196 | 39 | 0 | 38 | 0 | 0.36 |
| 48 | N/A | 96 | 1 | 3 | 92 | 0 | 0 | 0 | 0.49 |
| 49 | N/A | 394 | | 306 | 89 | 0 | 0 | 0 | 0.40 |
| 50 | 171 | 52 | | 0 | 52 | 0 | 0 | 0 | 0.58 |
| 51 | 87 | 28 | | 0 | 28 | 0 | 0 | 0 | 0.61 |
| 52 | 112 | 31 | | 0 | 31 | 0 | 0 | 31 | 0.52 |
| 53 | 387 | 72 | | 0 | 73 | 0 | 0 | 73 | 0.37 |
| 54 | 246 | 49 | | 0 | 49 | 0 | 0 | 49 | 0.02 |
| 55 | 636 | 215 | 6 | 158 | 54 | 0 | 54 | 0 | 0.20 |
| 56 | 859 | 259 | 2 | 201 | 59 | 59 | 58 | 0 | 0.25 |
| 57 | 481 | 178 | | 117 | 61 | 61 | 58 | 0 | 0.12 |
| 58 | 224 | 107 | 1 | 51 | 55 | 0 | 55 | 0 | 0.26 |
| 59 | 128 | 71 | | 0 | 73 | 73 | 73 | 0 | 0.28 |
| 60 | 980 | 387 | 3 | 308 | 75 | 72 | 71 | 0 | 0.35 |
| 61 | 1015 | 392 | 11 | 353 | 43 | 43 | 42 | 42 | 0.35 |
| 62 | 702 | 280 | 4 | 228 | 53 | 52 | 51 | 53 | 0.43 |
| 63 | 675 | 265 | 1 | 209 | 44 | 41 | 41 | 44 | 0.25 |
| 64 | 589 | 202 | 14 | 142 | 67 | 65 | 64 | 67 | 0.39 |
| 65 | 279 | 134 | | 81 | 52 | 52 | 52 | 0 | 0.25 |
| 66 | 463 | 220 | 2 | 183 | 37 | 37 | 37 | 0 | 0.30 |
| 67 | 553 | 214 | 5 | 163 | 51 | 51 | 51 | 0 | 0.26 |
| 68 | 376 | 129 | 1 | 72 | 56 | 56 | 56 | 0 | 0.35 |
| 69 | 775 | 211 | 1 | 163 | 47 | 47 | 46 | 0 | 0.28 |
| 70 | 283 | 102 | 1 | 42 | 58 | 0 | 57 | 0 | 0.24 |
| 71 | 339 | 141 | 5 | 101 | 36 | 0 | 36 | 0 | 0.39 |
| 72 | 556 | 244 | 4 | 175 | 70 | 0 | 0 | 0 | 0.51 |
| 73 | 445 | 201 | 11 | 148 | 51 | 0 | 0 | 0 | 0.35 |
| 74 | 610 | 304 | 8 | 249 | 49 | 0 | 0 | 0 | 0.45 |
| Total | 27,969 | 11,907 | 129 | 10,283 | 3,125 | 709 | 1,155 | 1,068 | 0.44 |

Table H.6. 1998 fall survey.

| Set | Catch | | Recovered | Tagged | LSMO | Stomachs | Proportion |
|-----|-------------|-------|-----------|--------|------|----------|------------|
| | Weight (kg) | Count | | | | | Males |
| 1 | 428 | 219 | 1 | 161 | 58 | 36 | 0.85 |
| 2 | 351 | 173 | 1 | 117 | 58 | 21 | 0.79 |
| 3 | 167 | 59 | | 3 | 56 | 19 | 0.63 |
| 4 | 146 | 54 | | 0 | 54 | 30 | 0.69 |
| 5 | 125 | 35 | | 0 | 35 | 23 | 0.40 |
| 6 | 1360 | 586 | 8 | 531 | 47 | 0 | 0.72 |
| 7 | 990 | 351 | 1 | 350 | 0 | 0 | - |
| 8 | 900 | 290 | | 290 | 0 | 0 | - |
| 9 | 2350 | 1217 | 11 | 1206 | 0 | 0 | - |
| 10 | 2570 | 1257 | 15 | 1242 | 0 | 0 | - |
| 11 | 3110 | 1338 | 25 | 1313 | 0 | 0 | - |
| 12 | 1380 | 628 | 19 | 560 | 49 | 0 | 0.63 |
| 13 | 433 | 137 | | 98 | 42 | 25 | 0.52 |
| 14 | 312 | 97 | | 57 | 41 | 19 | 0.49 |
| 15 | 126 | 44 | | 0 | 42 | 7 | 0.60 |
| 16 | 70 | 32 | | 0 | 32 | 17 | 0.72 |
| 17 | 422 | 193 | | 147 | 50 | 19 | 0.66 |
| 18 | 2250 | 870 | | 870 | 0 | 0 | - |
| 19 | 1530 | 525 | | 525 | 0 | 0 | - |
| 20 | 1410 | 528 | | 528 | 0 | 0 | - |
| 21 | 1080 | 473 | | 416 | 57 | 0 | 0.63 |
| 22 | 258 | 66 | 1 | 0 | 64 | 15 | 0.38 |
| 23 | 334 | 105 | | 65 | 40 | 10 | 0.43 |
| 24 | 370 | 142 | 2 | 91 | 49 | 12 | 0.57 |
| 25 | 200 | 59 | | 0 | 59 | 7 | 0.49 |
| 26 | 157 | 53 | | 0 | 53 | 11 | 0.38 |
| 27 | 1860 | 536 | 4 | 532 | 0 | 0 | - |
| 28 | 1930 | 599 | 4 | 595 | 0 | 0 | - |
| 29 | 2220 | 731 | 5 | 726 | 0 | 0 | - |
| 30 | N/A | N/A | | 198 | 56 | 0 | 0.55 |
| 31 | 650 | 157 | 1 | 108 | 46 | 5 | 0.13 |
| 32 | 414 | 122 | 1 | 88 | 33 | 8 | 0.49 |
| 33 | 194 | 59 | | 5 | 54 | 7 | 0.59 |
| 34 | 283 | 96 | 1 | 52 | 42 | 8 | 0.62 |
| 35 | 137 | 41 | 1 | 24 | 16 | 4 | 0.25 |
| 36 | N/A | N/A | 1 | 0 | 56 | 0 | 0.68 |
| 37 | 2990 | 1368 | 17 | 1351 | 0 | 0 | - |
| 38 | 1460 | 732 | 35 | 697 | 0 | 0 | - |
| 39 | N/A | N/A | 8 | 0 | 63 | 0 | 0.86 |
| 40 | 166 | 49 | 1 | 0 | 48 | 0 | 0.44 |
| 41 | 330 | 95 | 1 | 47 | 47 | 0 | 0.54 |
| 42 | 134 | 47 | | 0 | 47 | 0 | 0.64 |
| 43 | 107 | 30 | | 0 | 30 | 0 | 0.43 |
| 44 | 125 | 26 | | 0 | 26 | 0 | 0.12 |
| 45 | 402 | 94 | 1 | 39 | 53 | 52 | 0.28 |

Table H.6. (cont'd)

| Set | Catch | | Recovered | Tagged | LSMO | Stomachs | Proportion |
|--------------|---------------|---------------|------------|---------------|--------------|--------------|-------------|
| | Weight (kg) | Count | | | | | Males |
| 46 | 318 | 79 | | 28 | 50 | 50 | 0.48 |
| 47 | 427 | 118 | | 64 | 55 | 55 | 0.50 |
| 48 | 455 | 121 | 1 | 70 | 51 | 51 | 0.31 |
| 49 | 269 | 75 | 1 | 35 | 39 | 39 | 0.40 |
| 50 | 2890 | 808 | 3 | 805 | 0 | 0 | - |
| 51 | 3660 | 977 | 5 | 972 | 0 | 0 | - |
| 52 | 1030 | 301 | 2 | 236 | 63 | 0 | 0.29 |
| 53 | N/A | N/A | 3 | 0 | | | - |
| 54 | N/A | N/A | 1 | 0 | | | - |
| 55 | 373 | 100 | | 41 | 58 | 58 | 0.22 |
| 56 | 403 | 120 | | 81 | 38 | 37 | 0.55 |
| 57 | 125 | 46 | | 7 | 38 | 38 | 0.61 |
| 58 | 155 | 43 | | 0 | 43 | 43 | 0.49 |
| 59 | 351 | 113 | 1 | 65 | 47 | 46 | 0.80 |
| 60 | 176 | 47 | | 0 | 46 | 46 | 0.13 |
| 61 | 455 | 128 | | 78 | 50 | 50 | 0.32 |
| 62 | 563 | 165 | 1 | 115 | 55 | 54 | 0.53 |
| 63 | 395 | 98 | | 69 | 34 | 34 | 0.53 |
| 64 | 63 | 14 | 3 | 0 | 14 | 13 | 0.15 |
| 65 | 295 | 88 | | 35 | 53 | 53 | 0.69 |
| 66 | 389 | 119 | | 69 | 56 | 56 | 0.55 |
| 67 | 297 | 74 | | 25 | 49 | 49 | 0.35 |
| 68 | 629 | 151 | | 101 | 51 | 51 | 0.28 |
| 69 | 429 | 85 | | 28 | 55 | 55 | 0.11 |
| 70 | 2284 | 994 | 2 | 931 | 57 | 57 | 0.30 |
| 71 | 1845 | 764 | 7 | 461 | 75 | 75 | 0.31 |
| 72 | 360 | 186 | | 143 | 50 | 50 | 0.24 |
| 73 | 741 | 398 | | 320 | 76 | 76 | 0.20 |
| 74 | 988 | 457 | | 257 | 65 | 65 | 0.22 |
| 75 | 1762 | 903 | 7 | 837 | 51 | 51 | 0.41 |
| 76 | 1144 | 454 | 6 | 367 | 63 | 63 | 0.21 |
| 77 | 961 | 397 | 2 | 331 | 67 | 67 | 0.31 |
| 78 | 883 | 419 | 13 | 353 | 47 | 47 | 0.30 |
| 79 | 965 | 472 | 4 | 408 | 59 | 59 | 0.41 |
| 80 | 624 | 279 | 1 | 216 | 56 | 56 | 0.29 |
| 81 | 798 | 382 | 7 | 312 | 52 | 52 | 0.48 |
| 82 | 924 | 317 | 9 | 262 | 46 | 46 | 0.46 |
| 83 | 263 | 102 | 2 | 76 | 25 | 25 | 0.60 |
| 84 | 669 | 223 | 7 | 163 | 52 | 52 | 0.44 |
| 85 | 97 | 51 | 1 | 10 | 40 | 40 | 0.40 |
| 86 | 396 | 193 | 4 | 135 | 52 | 52 | 0.37 |
| 87 | 421 | 191 | 4 | 136 | 53 | 53 | 0.47 |
| 88 | 604 | 272 | 9 | 187 | 69 | 69 | 0.36 |
| 89 | 326 | 138 | 3 | 104 | 31 | 31 | 0.19 |
| Total | 67,433 | 25,775 | 274 | 21,965 | 3,534 | 2,319 | 0.45 |

Table H.7. 1999 fall survey.

| Set | Catch | | Recovered | Tagged | LSMO | Stomachs | Proportion Males |
|-----|-------------|-------|-----------|--------|------|----------|---------------------|
| | Weight (kg) | Count | | | | | |
| 1 | 1530 | 565 | 1 | 564 | 0 | 0 | - |
| 2 | 1880 | 736 | 21 | 715 | 0 | 0 | - |
| 3 | 2760 | 1015 | | 1015 | 0 | 0 | - |
| 4 | 120 | 55 | | 0 | 55 | 0 | 0.67 |
| 5 | 3180 | 1166 | | 1167 | 0 | 0 | - |
| 6 | 196 | 56 | | 0 | 54 | 53 | 0.22 |
| 7 | 124 | 39 | | 0 | 38 | 37 | 0.54 |
| 8 | 105 | 45 | | 0 | 45 | 45 | 0.67 |
| 9 | 225 | 106 | 2 | 54 | 50 | 50 | 0.64 |
| 10 | 522 | 216 | 5 | 158 | 52 | 52 | 0.54 |
| 11 | 1030 | 572 | 1 | 572 | 0 | 0 | - |
| 12 | 1090 | 524 | 23 | 501 | 0 | 0 | - |
| 13 | 950 | 551 | 15 | 436 | 0 | 0 | - |
| 14 | 430 | 206 | 3 | 203 | 0 | 0 | - |
| 15 | 260 | 102 | | 63 | 39 | 39 | 0.36 |
| 16 | 119 | 51 | | 0 | 50 | 50 | 0.56 |
| 17 | 146 | 58 | | 0 | 58 | 58 | 0.47 |
| 18 | 173 | 64 | | 15 | 49 | 48 | 0.59 |
| 19 | 336 | 99 | 2 | 44 | 52 | 52 | 0.29 |
| 20 | 510 | 171 | 1 | 170 | 0 | 0 | - |
| 21 | 346 | 84 | 2 | 36 | 47 | 47 | 0.23 |
| 22 | 240 | 82 | | 30 | 51 | 51 | 0.51 |
| 23 | 226 | 84 | 1 | 35 | 48 | 48 | 0.54 |
| 24 | 314 | 90 | | 49 | 41 | 41 | 0.37 |
| 25 | 347 | 117 | | 68 | 49 | 48 | 0.44 |
| 26 | 930 | 370 | | 364 | 0 | 0 | - |
| 27 | 1100 | 408 | | 408 | 0 | 0 | - |
| 28 | 990 | 331 | 3 | 268 | 61 | 0 | 0.40 |
| 29 | 970 | 354 | 2 | 351 | 0 | 0 | - |
| 30 | 950 | 351 | 2 | 349 | 0 | 0 | - |
| 31 | 920 | 359 | 5 | 354 | 0 | 0 | - |
| 32 | 780 | 288 | 2 | 286 | 0 | 0 | - |
| 33 | 70 | 13 | | 0 | 13 | 13 | 0.15 |
| 34 | 102 | 34 | | 0 | 34 | 34 | 0.62 |
| 35 | 194 | 65 | | 0 | 65 | 65 | 0.59 |
| 36 | 206 | 79 | | 20 | 59 | 59 | 0.61 |
| 37 | 221 | 67 | | 21 | 47 | 47 | 0.32 |
| 38 | 1810 | 743 | | 743 | 0 | 0 | - |
| 39 | 1850 | 974 | 62 | 911 | 0 | 0 | - |
| 40 | 1570 | 912 | 58 | 792 | 62 | 0 | 0.77 |
| 41 | 850 | 417 | 11 | 405 | 0 | 0 | - |
| 42 | N/A | N/A | 1 | | | | |
| 43 | 1850 | 681 | 3 | 676 | 0 | 0 | - |
| 44 | 315 | 97 | 1 | 49 | 47 | 47 | 0.47 |
| 45 | 367 | 123 | 3 | 78 | 41 | 41 | 0.42 |

Table H.7. (cont'd)

| Set | Catch | | Recovered | Tagged | LSMO | Stomachs | Proportion Males |
|-----|-------------|-------|-----------|--------|------|----------|---------------------|
| | Weight (kg) | Count | | | | | |
| 46 | 233 | 84 | | 36 | 48 | 48 | 0.52 |
| 47 | 126 | 41 | | 0 | 41 | 41 | 0.48 |
| 48 | 37 | 9 | | 0 | 9 | 9 | 0.11 |
| 49 | 28 | 6 | | 0 | 6 | 6 | 0.00 |
| 50 | 29 | 7 | | 0 | 7 | 7 | 0.29 |
| 51 | 64 | 14 | | 0 | 14 | 14 | 0.14 |
| 52 | 52 | 18 | | 0 | 18 | 18 | 0.39 |
| 53 | 124 | 48 | | 0 | 48 | 48 | 0.38 |
| 54 | 60 | 17 | | 0 | 17 | 17 | 0.35 |
| 55 | 1490 | 475 | 5 | 469 | 0 | 0 | - |
| 56 | 1400 | 497 | 18 | 479 | 0 | 0 | - |
| 57 | 1040 | 336 | 10 | 282 | 45 | 0 | 0.40 |
| 58 | 1520 | 431 | 5 | 426 | 0 | 0 | - |
| 59 | 640 | 222 | 3 | 219 | 0 | 0 | - |
| 60 | 920 | 258 | | 258 | 0 | 0 | - |
| 61 | 960 | 290 | 1 | 289 | 0 | 0 | - |
| 62 | 152 | 48 | | 0 | 48 | 48 | 0.46 |
| 63 | 147 | 58 | | 0 | 59 | 59 | 0.61 |
| 64 | 104 | 51 | | 0 | 51 | 51 | 0.51 |
| 65 | 60 | 20 | | 0 | 20 | 20 | 0.60 |
| 66 | 31 | 8 | | 0 | 8 | 8 | 0.50 |
| 67 | 730 | 219 | | 0 | 218 | 18 | 0.63 |
| 68 | 540 | 224 | 1 | 223 | 0 | 0 | - |
| 69 | 1250 | 585 | 5 | 530 | 50 | 0 | 0.68 |
| 70 | 700 | 267 | 9 | 258 | 0 | 0 | - |
| 71 | 60 | 19 | | 19 | 0 | 0 | - |
| 72 | 800 | 259 | 4 | 255 | 0 | 0 | - |
| 73 | 334 | 83 | | 0 | 84 | 0 | 0.23 |
| 74 | 280 | 66 | | 0 | 66 | 66 | 0.29 |
| 75 | 47 | 21 | | 0 | 21 | 21 | 0.38 |
| 76 | 103 | 37 | | 0 | 36 | 36 | 0.36 |
| 77 | 40 | 21 | | 0 | 21 | 21 | 0.33 |
| 78 | 66 | 22 | | 0 | 19 | 19 | 0.16 |
| 79 | 1070 | 381 | 1 | 380 | 0 | 0 | - |
| 80 | 750 | 314 | | 314 | 0 | 0 | - |
| 81 | 840 | 364 | | 364 | 0 | 0 | - |
| 82 | 430 | 176 | | 176 | 0 | 0 | - |
| 83 | 20 | 6 | | 0 | 6 | 6 | 0.17 |
| 84 | 591 | 161 | 1 | 114 | 46 | 45 | 0.46 |
| 85 | 331 | 105 | | 51 | 52 | 52 | 0.52 |
| 86 | 222 | 77 | 1 | 24 | 53 | 53 | 0.59 |
| 87 | 221 | 62 | | 0 | 62 | 62 | 0.45 |
| 88 | 746 | 226 | | 0 | 231 | 0 | 0.47 |
| 89 | 2020 | 657 | | 657 | 0 | 0 | - |
| 90 | 1179 | 642 | 1 | 619 | 55 | 55 | 0.22 |
| 91 | 1482 | 775 | 5 | 740 | 43 | 43 | 0.23 |

Table H.7. (cont'd)

| Set | Catch | | Recovered | Tagged | LSMO | Stomachs | Proportion |
|--------------|---------------|---------------|------------|---------------|--------------|--------------|-------------|
| | Weight (kg) | Count | | | | | Males |
| 92 | 1479 | 781 | 2 | 731 | 49 | 49 | 0.22 |
| 93 | 2400 | 988 | 7 | 956 | 49 | 49 | 0.22 |
| 94 | 1704 | 811 | 8 | 753 | 52 | 52 | 0.33 |
| 95 | 1717 | 900 | 10 | 858 | 52 | 52 | 0.37 |
| 96 | 1738 | 836 | 14 | 747 | 60 | 60 | 0.27 |
| 97 | 1402 | 727 | 20 | 710 | 36 | 36 | 0.39 |
| 98 | 2064 | 1252 | 16 | 977 | 42 | 42 | 0.48 |
| 99 | 1508 | 851 | 4 | 314 | 61 | 61 | 0.46 |
| 100 | 406 | 181 | 3 | 128 | 45 | 45 | 0.27 |
| 101 | 754 | 352 | 8 | 306 | 45 | 45 | 0.27 |
| 102 | 776 | 333 | 14 | 262 | 54 | 54 | 0.46 |
| 103 | 780 | 354 | 4 | 308 | 39 | 39 | 0.41 |
| 104 | 1150 | 396 | 11 | 352 | 42 | 42 | 0.26 |
| 105 | 342 | 178 | 5 | 118 | 49 | 49 | 0.37 |
| 106 | 592 | 298 | | 257 | 39 | 39 | 0.36 |
| 107 | 428 | 209 | 1 | 159 | 50 | 50 | 0.28 |
| 108 | 340 | 168 | 6 | 111 | 50 | 50 | 0.28 |
| 109 | 573 | 272 | 8 | 214 | 48 | 48 | 0.42 |
| Total | 77,426 | 32,114 | 441 | 27,413 | 3,571 | 2,778 | 0.41 |

Table H.8. 2000 fall survey.

| Set | Catch | | Recovered | Tagged | LSMO | Stomachs | Proportion Males |
|-----|-------------|-------|-----------|--------|------|----------|---------------------|
| | Weight (kg) | Count | | | | | |
| 1 | 647 | 166 | | 95 | 68 | 0 | 0.03 |
| 2 | 464 | 138 | | 82 | 54 | 54 | 0.04 |
| 3 | 797 | 317 | 2 | 231 | 87 | 16 | 0.33 |
| 4 | 687 | 276 | | 204 | 72 | 72 | 0.53 |
| 5 | 1930 | 642 | | 639 | 0 | 0 | - |
| 6 | 640 | 312 | 4 | 248 | 54 | 0 | 0.57 |
| 7 | 642 | 332 | | 269 | 62 | 0 | 0.84 |
| 8 | 147 | 60 | | 4 | 52 | 0 | 0.57 |
| 9 | 268 | 79 | 5 | 48 | 38 | 0 | 0.34 |
| 10 | 510 | 181 | 3 | 112 | 61 | 0 | 0.48 |
| 11 | 1750 | 592 | 1 | 590 | 0 | 0 | - |
| 12 | 1800 | 742 | 2 | 740 | 0 | 0 | - |
| 13 | 1690 | 820 | 6 | 814 | 0 | 0 | - |
| 14 | 1390 | 697 | 28 | 603 | 65 | 0 | 0.69 |
| 15 | 1430 | 748 | 27 | 721 | 0 | 0 | - |
| 16 | 2260 | 980 | 34 | 947 | 0 | 0 | - |
| 17 | N/A | N/A | 9 | | | | |
| 18 | 523 | 162 | | 100 | 62 | 62 | 0.26 |
| 19 | 370 | 120 | | 51 | 68 | 68 | 0.40 |
| 20 | 125 | 58 | 1 | 10 | 47 | 47 | 0.68 |
| 21 | 371 | 176 | 1 | 109 | 62 | 62 | 0.63 |
| 22 | 1940 | 687 | | 689 | 0 | 0 | - |
| 23 | 195 | 75 | | 41 | 34 | 34 | 0.44 |
| 24 | 66 | 25 | | 0 | 25 | 25 | 0.28 |
| 25 | 234 | 74 | | 34 | 42 | 41 | 0.14 |
| 26 | 42 | 9 | | 0 | 9 | 9 | 0.00 |
| 27 | 1090 | 466 | 3 | 464 | 0 | 0 | - |
| 28 | 250 | 102 | | 64 | 35 | 35 | 0.63 |
| 29 | 204 | 74 | 1 | 39 | 35 | 35 | 0.34 |
| 30 | 128 | 29 | | 6 | 23 | 23 | 0.00 |
| 31 | 157 | 36 | | 0 | 36 | 36 | 0.06 |
| 32 | 155 | 43 | | 0 | 43 | 43 | 0.28 |
| 33 | 149 | 56 | | 0 | 57 | 57 | 0.42 |
| 34 | 339 | 177 | | 115 | 61 | 61 | 0.82 |
| 35 | 233 | 96 | 1 | 56 | 43 | 43 | 0.51 |
| 37 | 2360 | 874 | 10 | 811 | 63 | 0 | 0.28 |
| 38 | 1650 | 586 | 2 | 584 | 0 | 0 | - |
| 39 | 1540 | 598 | 2 | 596 | 0 | 0 | - |
| 40 | 693 | 321 | 4 | 263 | 55 | 55 | 0.29 |
| 41 | 327 | 137 | 10 | 74 | 52 | 52 | 0.40 |
| 42 | 134 | 61 | 5 | 13 | 44 | 44 | 0.27 |
| 43 | 279 | 151 | 5 | 93 | 52 | 52 | 0.40 |
| 44 | 119 | 65 | 2 | 11 | 52 | 52 | 0.43 |
| 45 | 319 | 110 | 1 | 58 | 51 | 51 | 0.41 |
| 46 | N/A | N/A | 5 | | | | |

Table H.8. (cont'd)

| Set | Catch | | Recovered | Tagged | LSMO | Stomachs | Proportion Males |
|-----|-------------|-------|-----------|--------|------|----------|---------------------|
| | Weight (kg) | Count | | | | | |
| 47 | 288 | 128 | | 76 | 50 | 50 | 0.84 |
| 48 | 346 | 108 | 1 | 53 | 54 | 54 | 0.37 |
| 49 | 103 | 28 | 1 | 0 | 27 | 27 | 0.33 |
| 50 | 115 | 29 | | 0 | 29 | 29 | 0.14 |
| 51 | 2300 | 811 | 4 | 807 | 0 | 0 | - |
| 52 | 1510 | 743 | 77 | 622 | 44 | 44 | 0.73 |
| 53 | 1440 | 832 | 83 | 749 | 0 | 0 | - |
| 54 | 1260 | 618 | 36 | 582 | 0 | 0 | - |
| 55 | N/A | N/A | 15 | | | | |
| 56 | 478 | 158 | 8 | 101 | 52 | 52 | 0.17 |
| 57 | 145 | 74 | 1 | 35 | 40 | 40 | 0.40 |
| 58 | 328 | 150 | 6 | 95 | 50 | 50 | 0.44 |
| 59 | 330 | 133 | 3 | 76 | 58 | 58 | 0.21 |
| 60 | 161 | 73 | 2 | 20 | 51 | 51 | 0.35 |
| 61 | 581 | 249 | 5 | 195 | 48 | 48 | 0.33 |
| 62 | 864 | 458 | 9 | 385 | 70 | 70 | 0.47 |
| 63 | 1092 | 475 | 18 | 411 | 52 | 52 | 0.29 |
| 64 | 867 | 463 | 17 | 401 | 56 | 56 | 0.48 |
| 65 | 762 | 452 | 9 | 400 | 52 | 52 | 0.46 |
| 66 | 314 | 109 | 1 | 60 | 50 | 50 | 0.58 |
| 67 | 157 | 49 | | 0 | 47 | 47 | 0.34 |
| 68 | 211 | 74 | | 27 | 47 | 47 | 0.72 |
| 69 | 28 | 8 | | 0 | 8 | 8 | 0.75 |
| 70 | 145 | 40 | | 0 | 40 | 40 | 0.58 |
| 72 | 1070 | 436 | 1 | 435 | 0 | 0 | - |
| 77 | 58 | 12 | | 0 | 12 | 12 | 0.25 |
| 78 | 199 | 47 | | 0 | 47 | 47 | 0.06 |
| 79 | 150 | 33 | 1 | 0 | 32 | 32 | 0.00 |
| 80 | 73 | 18 | | 0 | 18 | 18 | 0.44 |
| 81 | 120 | 22 | | 0 | 22 | 22 | 0.05 |
| 82 | 51 | 10 | | 0 | 10 | 10 | 0.00 |
| 83 | 282 | 98 | 2 | 49 | 45 | 45 | 0.56 |
| 84 | 185 | 60 | | 9 | 50 | 50 | 0.48 |
| 85 | 50 | 14 | | 0 | 14 | 14 | 0.21 |
| 86 | 113 | 33 | | 0 | 34 | 34 | 0.44 |
| 87 | 159 | 52 | | 4 | 49 | 49 | 0.65 |
| 88 | 1630 | 504 | 5 | 499 | 0 | 0 | - |
| 89 | 1740 | 520 | 2 | 464 | 54 | 54 | 0.52 |
| 90 | 2250 | 644 | 5 | 639 | 0 | 0 | - |
| 91 | 2340 | 631 | 3 | 628 | 0 | 0 | - |
| 92 | 140 | 31 | | 0 | 31 | 31 | 0.03 |
| 93 | 295 | 64 | | 10 | 55 | 55 | 0.18 |
| 94 | 172 | 33 | | 0 | 33 | 33 | 0.12 |
| 95 | 75 | 15 | | 0 | 15 | 15 | 0.13 |
| 96 | 116 | 21 | | 0 | 21 | 21 | 0.00 |
| 97 | 53 | 14 | | 0 | 14 | 14 | 0.21 |

Table H.8. (cont'd)

| Set | Catch | | Recovered | Tagged | LSMO | Stomachs | Proportion |
|--------------|---------------|---------------|------------|---------------|--------------|--------------|-------------|
| | Weight (kg) | Count | | | | | Males |
| 98 | 331 | 115 | | 66 | 51 | 51 | 0.38 |
| 99 | 74 | 30 | | 0 | 30 | 30 | 0.77 |
| 100 | 125 | 43 | | 0 | 43 | 43 | 0.77 |
| 101 | 99 | 31 | 1 | 0 | 30 | 30 | 0.57 |
| 102 | 1520 | 595 | 3 | 592 | 0 | 0 | - |
| 103 | 251 | 74 | 1 | 20 | 53 | 53 | 0.42 |
| 104 | 1010 | 497 | 6 | 439 | 52 | 52 | 0.83 |
| 105 | 1050 | 556 | 16 | 540 | 0 | 0 | - |
| 106 | 1450 | 703 | | 702 | 0 | 0 | - |
| 107 | 11 | 4 | | 0 | 4 | 4 | 0.25 |
| 108 | 47 | 11 | | 0 | 11 | 11 | 0.09 |
| 109 | 57 | 13 | | 0 | 13 | 13 | 0.08 |
| 110 | 590 | 355 | 3 | 351 | 0 | 0 | - |
| 111 | 720 | 413 | 17 | 396 | 0 | 0 | - |
| 112 | 940 | 358 | | 358 | 0 | 0 | - |
| 113 | 139 | 49 | | 0 | 49 | 49 | 0.59 |
| 114 | 118 | 39 | 3 | 0 | 40 | 40 | 0.30 |
| 115 | 242 | 61 | 1 | 8 | 51 | 51 | 0.28 |
| 116 | 127 | 35 | | 0 | 37 | 37 | 0.38 |
| 117 | 50 | 13 | | 0 | 13 | 13 | 0.46 |
| 118 | 44 | 11 | 1 | 0 | 11 | 11 | 0.36 |
| 119 | 104 | 30 | | 0 | 30 | 30 | 0.63 |
| 120 | 86 | 32 | | 0 | 32 | 32 | 0.66 |
| 121 | 117 | 45 | | 0 | 45 | 45 | 0.73 |
| 122 | 234 | 64 | | 11 | 52 | 52 | 0.54 |
| 123 | 1140 | 433 | 1 | 431 | 0 | 0 | - |
| 124 | 44 | 11 | | 0 | 11 | 11 | 0.09 |
| 125 | 27 | 5 | | 0 | 5 | 5 | 0.20 |
| 126 | 81 | 15 | | 0 | 15 | 15 | 0.00 |
| 127 | 901 | 336 | 6 | 271 | 60 | 60 | 0.10 |
| 128 | 514 | 199 | 5 | 143 | 53 | 53 | 0.13 |
| 129 | 307 | 179 | 1 | 127 | 52 | 52 | 0.25 |
| 130 | 44 | 26 | | 0 | 26 | 26 | 0.12 |
| 131 | 46 | 28 | | 0 | 27 | 27 | 0.41 |
| Total | 68,830 | 27,433 | 554 | 22,915 | 4,041 | 3,506 | 0.37 |

APPENDIX I: SETS EXCLUDED FROM THE CATCH RATE PLOTS

The following sets were excluded from the catch rate plots.

| Year | Sets | Reason |
|--|--|--|
| 1989 | 13, 14, 15 | Commercial sets |
| | 25, 27 | Sablefish captured live for culturing experiments |
| 1990 | 23 | Only two traps hauled, rest lost |
| 1994 Fall South Coast 1 | | String lost |
| 1994 Fall North Coast 3, 6, 11, 18, 24 | | Additional traps added to the end of the string for vessel |
| | 38 | Lost track of traps |
| 1995 Fall South Coast 8, 9, 11, 12, 28 | | Tagging set and the total sablefish catch was not recorded |
| | 6, 7, 10 | Physiology study |
| 1995 Fall North Coast 11 | | Trap set every second bucket |
| | 15 | Gear parted, gear lost, unknown how many traps hauled |
| | 27 | Tagging set and the total sablefish catch was not recorded |
| 1996 Spring | 3, 8, 9, 11, 12, 14, 15, 17, 18, 20, 21, 27, 30, 42, | Tagging set and the total sablefish catch was not recorded |
| 1996 Fall South Coast 11 | | Tagging set and the total sablefish catch was not recorded |
| 1997 Fall | 8, 9 | Tagging set and the total sablefish catch was not recorded |
| 1998 | 30, 36, 39, 53, 54 | Tagging set and the total sablefish catch was not recorded |
| | 13 | Lost track of traps |
| | 57 | Tangled with another string |
| 1999 | 105 | Trap 22 dumped and catch estimated due to large shark |
| | 97 | Lost track of traps |
| | 4, 43 | Tagging set and the total sablefish catch was not recorded |
| | 30, 42, 58 | Preliminary excluder sets |
| 2000 | 16, 17, 55 | Tagging set and the total sablefish catch was not recorded |
| | 46, 71, 73, 74, 75, 76 | Commercial sets |