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NOAA Technical Memorandum NMFS-AFSC-115

The 1999 Pacific West Coast Upper Continental Slope Trawl Survey of Groundfish Resources off Washington, Oregon, and California: Estimates of Distribution, Abundance, and Length Composition

by
R. R. Lauth

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Alaska Fisheries Science Center

May 2000

NOAA Technical Memorandum NMFS

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U.S. DEPARTMENT OF COMMERCE
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ABSTRACT

The Alaska Fisheries Science Center's Resource Assessment and Conservation Engineering Division (RACE) conducted a groundfish bottom trawl survey of the West Coast upper continental slope (WCUCS) in 1999. The survey area stretched from the U.S.-Canada border (near Nitinat Canyon) to 34°30'N lat. (near Pt. Arguello) in waters from 183 to 1,280 m deep. This was the eleventh survey in an ongoing series to monitor long-term trends in the distribution and abundance of WCUCS groundfish populations. This was the second year that spatial coverage of the WCUCS groundfish trawl survey was expanded to include all of the International North Pacific Fisheries Commission (INPFC) statistical areas between Point Conception (34°30'N lat.) and the U.S./Canada border. Sampling was conducted aboard the NOAA ship *Miller Freeman*. We successfully sampled 199 of the 208 stations that we established during the 1997 and previous WCUCS surveys. Survey catches included 142 different species of fishes from 55 fish families and 246 different invertebrates representing 12 phyla and 24 classes. Only 146 of the invertebrates were identified to the species level. With all depth strata and INPFC areas combined, Dover sole (*Microstomus pacificus*), longspine thornyhead (*Sebastoblobus altivelis*), and spiny dogfish (*Squalus acanthias*) had the highest catch rates. Spiny dogfish were the most abundant in the U.S.-Vancouver and Columbia INPFC areas and Dover sole and longspine thornyhead had higher catch rates in the Eureka, Monterey, and Conception INPFC areas when all depths were combined. The biomass estimates for Dover sole, sablefish,

longspine thornyhead, and shortspine thornyhead (*Sebastolobus alascanus*) varied by stratum and INPFC area. The total biomass estimates for all INPFC areas and strata combined were 105,520 metric tons (t), 46,230 t, 95,795 t, and 25,295 t for Dover sole, sablefish, longspine thornyhead, and shortspine thornyhead, respectively.

The survey design and the methods used are described, the data collected are summarized, and the results of analyses of distribution, abundance, and biological parameters are presented. Data on water temperature, catch composition, relative abundance, and geographic distribution are reported. Estimates of biomass, population abundance, and length composition are also presented. Appendices include position and catch listings for each haul and catch rates of fish and invertebrates.

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INTRODUCTION

Fishery-independent data obtained from the Alaska Fisheries Science Center's (AFSC) West Coast upper continental slope (WCUCS) groundfish trawl surveys are used by fishery managers to assess stock conditions and to establish annual harvest guidelines for the commercially valuable fish species inhabiting the WCUCS. These species, referred to as the deepwater complex (DWC), include sablefish (*Anoplopoma fimbria*), shortspine thornyhead (*Sebastolobus alascanus*), longspine thornyhead (*S. altivelis*), and Dover sole (*Microstomus pacificus*). The Resource Assessment and Conservation Engineering (RACE) Division conducted its first groundfish assessment survey of the WCUCS in 1984 and has done so annually since 1988. The WCUCS covers habitat 183-1,280 m deep from the U.S.-Canada border to 34°30'N lat. and is divided into five International North Pacific Fisheries Commission (INPFC) statistical areas including the U.S.-Vancouver, Columbia, Eureka, Monterey, and Conception areas (Fig. 1).

The spatial coverage of annual slope surveys has varied. Prior to 1997, WCUCS groundfish bottom trawl surveys were limited in their spatial coverage of INPFC areas because of limited vessel time and other logistic considerations. The 1996 survey was the most extensive and covered the U.S.-Vancouver and Columbia INPFC areas (Lauth 1997a). The U.S.-Vancouver INPFC area was surveyed once before in 1993 in addition to the northern portion of the Columbia INPFC area (Lauth et al. 1997). Central

and/or southern sections of the Columbia INPFC area (45°30' to 43°00'N lat.) were also surveyed in 1984, 1988, 1989, and 1992 (Raymore et al. 1990, Parks et al. 1993, Lauth et al. 1997). The Eureka INPFC area was surveyed in 1990 (Lauth et al. 1997) and again in 1995 (Lauth 1997b), and the northern section of the Monterey INPFC area (38°20' to 40°30'N lat.) was surveyed in 1991 (Lauth et al. 1997). The Southwest Fisheries Science Center (SWFSC) conducted two other groundfish bottom trawl surveys in 1987 and 1988 which covered parts of the Conception and Monterey INPFC areas between 34°30' and 36°30' N lat. (Butler et al. 1989).

During the 1993 AFSC survey, concerns were raised about the performance of the slope survey trawl and, consequently, the validity of slope survey data. These concerns prompted an external review of the slope survey by a panel of fishery scientists in July 1995. The panel criticized the lack of synopticity in survey coverage and the performance of survey gear (Parma et al. 1995). Survey gear performance was investigated during an experimental gear cruise aboard the NOAA ship *Miller Freeman* in 1994. During that cruise, we experimented with ways to stabilize the sampling trawl, learned more about how to evaluate trawl performance, and investigated alternative methods of surveying groundfish resources using a video camera sled. Regular survey work resumed in 1995 after several changes were made to the sampling trawl and to towing protocol. The changes

stabilized the slope trawl and resulted in more consistent trawl performance (Lauth et al., 1998).

The spatial coverage of WCUCS groundfish trawl surveys was expanded in 1997 (Lauth 1999) to include all of the INPFC areas between Point Conception (N. 34°30' lat.) and the U.S.-Canada border. Sampling density was reduced compared to previous surveys so that the expanded area could be surveyed within a 5-week period.

To extend the life of the NOAA ship *Miller Freeman,* it was necessary to make repairs and updates during the 1998 fall/winter period so the vessel was not available; hence, no WCUCS survey was done. During the same year, the Fisheries Resource Analysis and Monitoring (FRAM) Division of the Northwest Fisheries Science Center (NWFSC) initiated its own WCUCS bottom trawl survey using local West Coast fishing vessels. The new survey effort is the beginning of a new time series to augment fishery independent data on the DWC.

In 1999, we resumed the WCUCS survey aboard the NOAA ship *Miller Freeman*. The objective of this report is to document the survey design and field procedures, summarize the survey data, and present the results of the standard RACE analyses for the 1999 WCUCS survey for each of the INPFC statistical areas. Included are summaries of catches, distribution, abundance, and size composition for major components of the community, as well as analyses of length-weight relationships of selected species.

SURVEY METHODS

Survey Period and Sampling Area

The U.S.-Vancouver, Columbia, Eureka, Monterey, and Conception INPFC statistical areas (U.S.-Canada border to 34°30'N lat.) were surveyed between 14 October and 19 November. Survey sampling began near Cape Arguello (34°30'N lat.) and progressed northward to Nitinat Canyon (48°05'N lat., Fig. 1). Water depth at survey stations ranged between 183 and 1,280 m (100-700 fm).

Vessels and Sampling Gear

The NOAA ship *Miller Freeman* is a 65.5 m stern trawler powered by a 2,200 continuous horsepower engine. The ship is equipped with dual net reels, a Rapp-Hydema warp tensioning system, Wesmar Fish Eye net sonar system, Furuno netsonde, EQ-50 depth sounder, and global positioning system (GPS) navigational aids. A high-opening Poly Nor'Eastern trawl (Fig. 2) constructed of polyethylene mesh and equipped with mudsweep roller gear (Fig. 3) was used to collect all samples. This trawl, built and rigged to RACE Division gear standards, has a 27.2 m headrope and a 37.4 m footrope. The body is constructed of 127 mm stretched-mesh polyethylene netting, 89 mm stretched-mesh web in the codend, and a 32 mm stretched-mesh codend liner. Three 55 m dandylines made of 16 mm galvanized steel cable lead from each wing to a pair of

1.8 × 2.7 m steel V-doors weighing 1,000 kg each. Each door has a 4-point bridle on its backside made with 13-mm long-link chain having 33 links forward and 22 links aft in both the top and bottom. Instruments attached to the trawl gear to monitor gear performance included the SCANMAR equipment for measuring net dimensions, a Furuno wireless netsonde for real-time monitoring of the headrope height, and one bottom contact sensor on the footrope. A Wesmar net sonar was attached to the net headrope and used to ensure that the trawl gear was performing to engineering specifications during the wire marking procedure and during the initial gear calibration. A Richard Brancker XL-200 submersible data logger was attached to the trawl and used in conjunction with a Rockwell GPS unit to record data on the time, depth, water temperature, and geodetic position during each trawl. These data were combined with fishing dimensions of the net, producing a comprehensive set of haul data describing gear performance in space and time.

Trawl Station Allocation

There were 208 stations along 32 east-west tracklines spaced 50 km apart between the U.S.-Canada border and 34°30'N lat. near Cape Arguello. Stations were basically the same as those sampled during 1997 WCUCS survey (Lauth 1999). A combined systematic and random design was used for selecting the survey bottom trawl stations. Sampling was conducted between 183 and 1,280 m in six

strata of 183 m (100 fm) depth intervals (183-365 m, 366-547 m, 548-730 m, 731-913 m, 914-1,095 m, and 1,096-1,280 m). The number of sampling stations within each depth stratum was allocated proportional to the trackline length across each depth interval at the rate of one station per 13.0 km of linear trackline length (e.g., a stratum with a trackline length of 30 km would be allocated 3 stations). Tracklines were positioned roughly perpendicular to the coastline. To ensure even depth coverage within a stratum, the depth range of each stratum was divided into a number of bins equal to the number of stations scheduled to be surveyed that year. Nominally, a bin was identified by its midpoint target depth. Stations were then randomly assigned to tracklines by picking target depths without replacement.

Trawling Procedures

Sampling was done on a 24-hour basis. Stations were located by GPS and echosounder and then surveyed prior to towing. If the terrain was determined to be too rough or too steep to allow the successful completion of a tow, we searched for an alternate site with a similar target depth within a 10 km radius of the original. If no favorable ground was located the station was declared untrawlable and abandoned. If the gear was damaged during the tow severely enough to affect catch composition, or if the gear performance was in any way judged to be unacceptable

(e.g., mud, large trap entangled in the net), the haul was considered unsatisfactory and the station was either repeated or abandoned. Unsuccessful tows were not used in the analyses.

Scientists, officers, and deck crew worked together to standardize fishing procedures. A scientist familiar with trawling was always present in the trawl house during fishing operations to monitor adherence to standardized protocols. Also, AFSC gear experts participated in the cruise to ensure that the trawl gear and associated rigging were properly maintained. The scope ratio varied with depth and ranged from 2.5:1 at shallower depths to 1.6:1 at the deepest depths (Table 1). Vessel speed while the trawl was being set was between 5.5 and 6.5 km/hr. Vessel speed gradually decreased to 4.3 km/hr (2.3 knots) at brakeset and this speed was maintained as closely as possible throughout each haul. The target duration of a trawl sample was 30 minutes. A haul began when the ground-gear first touched bottom and ended when it lost contact with the bottom. The Furuno netsounder was used to monitor ground-gear contact during a haul, but actual bottom time was determined from the bottom contact sensor data upon completion of the tow. Position data were collected at 2-second intervals for each haul using a GPS receiver. The position data were used to monitor ground speed, track the trawl's path, and estimate distance fished. Average vessel speed over ground and distance fished were calculated from the position data and the trawl's actual bottom time.

Catch Sampling Procedures and Biological Data Collection

Standard RACE catch sampling procedures were followed as described by Smith and Bakkala (1982). All catches less than one metric ton (t) were dumped directly onto a sorting table and processed. Catches larger than 1 t were weighed by an electronic load cell and then dumped onto the sorting table in a series of splits. Large catches were made more manageable for processing by weighing and measuring a random subsample of the dominant fish species (e.g., Pacific whiting or spiny dogfish) and discarding the remainder of that species overboard. The estimated non-subsample catch weight for that species was the difference between the total catch weight measured by the electronic load cell and the sum of the subsample weight for that species and the catch weights for all other species. Fishes and invertebrates were identified to species as time and expertise permitted. After the catches were sorted by species, weighed, and enumerated, biological data and specimens were collected. Samples of all fish species were measured to characterize their size composition. Sex determination and fork length measurements were done for up to 200 specimens of each of the primary target species, rockfishes, and flatfishes from each haul. The same was done for grenadiers except they were measured from the tip of their snout to the insertion of the anal fin ray. Other non-target species were measured as unsexed. This was the first year that all skates and rays were measured using total length. Wingtip-to-wingtip measurements were made on a subsample of

skates and rays so that comparisons could be made with measurements from prior years. Otoliths were collected for age determination from arrowtooth flounder (*Atheresthes stomias*), Dover sole, Pacific grenadier (*Coryphaenoides acrolepis*), sablefish, shortspine thornyhead, and longspine thornyhead. Otolith collections were depth-, area-, and size-stratified so that sampling effort was more evenly spread over the entire survey area. There were three depth zones (183-549 m, 550-914 m, and 915-1,280 m) and three geographical areas (southern [south of 38°30'N lat.], central [38°30'to 43°20'N lat.], and northern [north of 43°20'N lat.]). Otoliths were collected from size-stratified samples of 5 fish per sex/centimeter interval in each depth zone and geographical area.

Additional biological collections were made at the request of other scientists from a number of laboratories, agencies, and universities interested in West Coast fishery resources. These collections were taken for studies involving age and growth, genetics, and other fish life history parameters.

Oceanographic Data Collection

Sea surface temperatures were taken at all stations using a bucket thermometer. Bottom temperatures and water column temperature profiles were measured using a Richard Brancker XL-200 data logger mounted on the trawl headrope. Additional

information on temperature profiles from this cruise is available on request from the author.

Data Analysis

Several analyses are performed routinely on RACE survey data. These include:

1) estimation of relative abundance,
2) estimation of population biomass,
3) estimation of population numbers, and
4) estimation of the population's size composition.

We used the area-swept method as described by Gunderson and Sample (1980) to estimate population biomass and numbers. Briefly, this method entails standardizing samples from each station into catch per unit of effort (CPUE) in terms of either kilograms or numbers per hectare (kg/ha, no./ha) and calculating the arithmetic mean CPUE for each sampling stratum. Length-frequency data were weighted by CPUE (no./ha) and expanded to the total estimated population abundance to estimate the population size composition for each species. No age data were available for this report so age composition analysis was not done.

RESULTS

Haul, Catch, and Biological Data

Several stations that were abandoned during the 1997 WCUCS survey were successfully surveyed and sampled during this year's survey. A new transect line in the U.S.-Vancouver INPFC area was also added to increase the sample size of trawl stations for each depth stratum. During the 1999 survey, 207 tows were attempted. Out of 208 possible stations, 199 stations were sampled successfully (Fig. 1). Nine stations were abandoned because they were too rough or steep to tow. The remainder of the attempted tows were unsuccessful due to trawl hang-ups, net rips, excessive mud in the tows, crossing into an adjacent depth stratum, or gear deployment problems. SCANMAR net mensuration data were obtained from 173 tows, submersible bathythermograph data from 201 tows, bottom contact sensor data from 201 tows, and GPS course and position data from 207 tows. Sampling densities ranged from 2.1 hauls/1,000 km^2 in the Conception INPFC area to 7.3 hauls/1,000 km^2 in the U.S-Vancouver INPFC area (Table 2).

Mean net widths were calculated for each trawl haul. The best predictor for tows with missing net width was inverse scope (Fig. 4). Inverse scope alone accounted for 34% of the variation. Additional variation was explained by the net height effect; however, it was not practical to use this in the final analysis because most of the 27 tows with missing net width measurements were deep tows where net height data was not

collected either. The test statistic for zero slope for the straight line regression of inverse scope as a predictor for net width was rejected ($P < 0.001$). The range of mean net widths for these 173 tows was 13.8 to 18.4 m and the standard deviation was 0.81 m. For area-swept calculations, the predicted mean path width for hauls where actual width measurements were unavailable was calculated using the equation in Figure 4.

Table 3 summarizes the biological data collected from fish species. Specimen ages from collected otoliths will be determined by researchers from the Pacific States Marine Fisheries Commission and Oregon Department of Fish and Wildlife. Results from collected data and specimens for several special studies requested by colleagues in other agencies or institutions will be reported elsewhere.

A total of 149 fish species representing 55 fish families were identified over the course of the survey. Table 4 lists the frequencies of occurrence, depth range, and the latitudinal range for all fishes identified in trawl samples. Similarly, Table 5 shows ranges and frequencies of occurrence for invertebrates representing 12 phyla and 24 classes. Of the 247 invertebrates listed, 146 were identified to species. Appendix A presents detailed station information for each haul and catch weights of the major fish and invertebrate species caught in each haul. The number of individual fish length observations of each fish species are reported in Tables 6 to 11 by depth stratum and INPFC area.

Temperature Data

Sea surface temperatures ranged from 10.2° to 16.8°C and bottom temperatures ranged from 2.9° to 9.0°C (Fig. 5). Mean sea surface temperature was 12.6°C and mean bottom temperature was 4.8°C. Sea surface temperatures generally decreased and were more variable with increasing latitude. Bottom temperatures generally decreased with increasing depth within the survey area.

Relative Density and Distribution of Species

The 20 most abundant groundfish and selected crab species are presented with all depth strata combined by INPFC area (Table 12), with all INPFC areas combined by depth stratum (Table 13), and by INPFC area and depth stratum (Tables 14-18). Spiny dogfish (*Squalus acanthias*) had the highest catch rates in the U.S.-Vancouver and Columbia INPFC areas with all depth strata combined (Table 12). In the Eureka and Conception INPFC areas, longspine thornyhead had the highest catch rates when all depths were combined, as did Dover sole in the Monterey INPFC area and when all INPFC areas were combined (Table 12). With all INPFC areas combined, spiny dogfish had the highest catch rates in the shallowest stratum (Table 13), Dover sole the highest in Strata 2 and 3, longspine thornyhead in Strata 4 and 5, and Pacific grenadier in the deepest stratum.

Catch rates by depth stratum varied among the INPFC areas (Tables 14-18). In general, the fish at the top of the rank list varied most for Stratum 1. Spiny dogfish had the highest CPUE in

the U.S.-Vancouver and Columbia INPFC areas and rex sole (*Glyptocephalus zachirus*), shortbelly rockfish (*Sebastes jordani*), and Pacific whiting (*Merluccius productus*) were highest in the Eureka, Monterey, and Conception INPFC areas, respectively. In contrast, the highest CPUEs for Strata 2 and 4 were consistent across all INPFC areas with Dover sole topping the list in Stratum 2 and longspine thornyhead in Stratum 4. Longspine thornyhead also topped the list in Stratum 5 for all INPFC areas except the Monterey area, where Dover sole was highest. In the Monterey INPFC area, Dover sole also ranked highest in Strata 3 and 6. One of four species had the highest catch rates in the deepest stratum, depending on the INPFC area. Longspine thornyhead was highest in the U.S-Vancouver and Eureka INPFC areas, Dover sole in the Monterey INPFC area, giant grenadier (*Albatrossia pectoralis*) in the INPFC Columbia area, and Pacific grenadier (*Coryphaenoides acrolepis*) in the Conception INPFC area.

One notable catch was a large number of a rare king crab, *Neolithodes diomedae* (Family Lithodidae), at a depth of 1,268 m (Stratum 6) in the Conception INPFC area at lat. 34°59'N. Ninety-eight percent of the 670 *N. diomedae* captured were females. Its range to date has only been reported as far north as lat. 23°39'N at a depth of 1,382 m (MacPherson 1988).

Complete listings of the relative abundance of all fish and invertebrate species ranked by mean CPUE, depth stratum, and INPFC area are presented in Appendix B.

Maps of the geographical distribution and relative catch

rates of selected important groundfish species and true Tanner crab (*Chionoecetes tanneri)* are presented in Figures 6-19 in alphabetical order. These maps show the locations of hauls where these species were caught. Catch rates were categorized as: 1) greater than zero and less than or equal to the mean CPUE; 2) greater than the mean CPUE and less than or equal to one standard deviation from the mean; 3) between one and two standard deviations greater than the mean CPUE; and 4) over two standard deviations greater than the mean CPUE.

Biomass and Population Estimates

Abundance estimates of biomass in metric tons and associated coefficients of variation (CV) are presented for selected taxa by stratum and area in Tables 19 through 24. Similarly, estimates of population numbers with associated CVs are presented for important species groups in Tables 25 through 30. The total number of hauls and hauls with catch weight, catch number, and length data by stratum and area for the various taxa are represented in Tables 31 through 36.

The biomass and population estimates for the deepwater complex (DWC) varied by species, stratum, and INPFC area. The total biomass estimates for all INPFC areas and strata combined were 46,230 t, 105,520 t, 95,795 t, and 25,295 t for sablefish, Dover sole, longspine thornyhead, and shortspine thornyhead, respectively (Table 19). The stratum with the greatest estimated

biomass for each DWC species was Stratum 3 for sablefish (23%), Stratum 2 for Dover sole (35%), Stratum 4 for longspine thornyhead (34%), and Stratum 2 for shortspine thornyhead (23%). The INPFC area with the highest proportion of total estimated biomass for each DWC species was the Columbia area for sablefish (34%), and the Monterey area for Dover sole (35%), longspine thornyhead (30%), and shortspine thornyhead (22%). The total population estimates for all INPFC areas and strata combined were 3.168×10^7 for sablefish, 2.436×10^8 for Dover sole, 1.026×10^9 for longspine thornyhead, and 7.708×10^7 for shortspine thornyhead (Table 25). The stratum with the greatest estimated population numbers for each DWC species was Stratum 1 for sablefish (33%), Stratum 2 for Dover sole (45%), Stratum 4 for longspine thornyhead (36%), and Stratum 2 for shortspine thornyhead (52%).

Readers should be aware that the biomass and population estimates presented here are not absolute estimates since herding by doors and bridles and escapement underneath the trawl's footrope, around the net's opening, and through the net's meshes can affect the bottom trawl catches (Gunderson 1993). For lack of data on species-by-species catchability, abundance calculations are based on the assumption that all fish in front of the trawl and between the wingtips are captured. The degree of bias introduced by this assumption probably varies among species. For instance, the ability of a fish to avoid the net will depend on the fish's shape, size, swimming speed, and its reaction to the part of the net encountered. Furthermore, the

survey covers limited portions of the depth and geographic range of some of these species. As mentioned previously, this survey targets many species and provides general information where it lacks in specific information. These surveys are the only fishery-independent source of information on the abundance, distribution, and length and age-composition for many of these species. Stock assessment scientists utilize our survey results, along with commercial catch data, in order to estimate acceptable biological catch levels.

Size Composition

Estimated population length compositions for several groundfish species are presented in Figures 20-73 by species and by depth stratum. At the time this report was prepared, no age data was available for analyses.

Length-Weight Relationships

From the individual fish weight samples, we determined length-weight relationships for arrowtooth flounder, Dover sole, sablefish, shortspine thornyhead, longspine thornyhead, Pacific grenadier, and splitnose rockfish using a non-linear least squares regression model. Table 37 summarizes the length-weight relationships by sex and for all INPFC areas and sexes combined (including unsexed fish).

Requests for Other Data Analyses

To avoid unnecessary detail and excessive printing costs, appendices listing estimated length compositions for major species and abundance estimates for less commercially important species were not included in this report. However, if the reader requires these or other more detailed analyses, they can be obtained as either printed pages or as computer files upon request from Robert Lauth at (206) 526-4121 (phone) or bob.lauth@noaa.gov (email).

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Bottom trawling was conducted in the Olympic Coast, Gulf of the Farallones, Cordell Bank, and Monterey Bay National Marine Sanctuaries in accordance with permits OCNMS-07-99 and GFNMS/CBNMS/MBNMS-01-99.

TABLES

Table 1.--Amount of wire to pay out by depth range using the West Coast upper continental slope Poly Nor'Eastern trawl with mudsweep roller gear, one inch die-formed trawl warps, and a 2.3 knot towing speed.

Depth Range (meters)			Wire Out (meters)	Ratio Wire Out/Depth
183	To	203	450	2.22
204	To	234	500	2.14
235	To	265	550	2.08
266	To	296	600	2.03
297	To	328	650	1.98
329	To	359	700	1.95
360	To	390	750	1.92
391	To	421	800	1.90
422	To	453	850	1.88
454	To	484	900	1.86
485	To	515	950	1.84
516	To	546	1000	1.83
547	To	578	1050	1.82
579	To	609	1100	1.81
610	To	640	1150	1.80
641	To	671	1200	1.79
672	To	703	1250	1.78
704	To	734	1300	1.77
735	To	765	1350	1.76
766	To	796	1400	1.76
797	To	828	1450	1.75
829	To	859	1500	1.75
860	To	890	1550	1.74
891	To	921	1600	1.74
922	To	953	1650	1.73
954	To	984	1700	1.73
985	To	1015	1750	1.72
1016	To	1046	1800	1.72
1047	To	1078	1850	1.72
1079	To	1109	1900	1.71
1110	To	1140	1950	1.71
1141	To	1171	2000	1.71
1172	To	1202	2000	1.66
1203	To	1234	2000	1.62
1235	To	1265	2000	1.58

Table 2.--Latitude boundaries, depth stratum areas (km^2), and sampling densities by International North Pacific Fisheries Commission (INPFC) statistical area based on successful tows during the 1999 West Coast upper continental slope bottom trawl surveys.

	Stratum 1 (183-366 m)			Stratum 2 (367-549 m)			Stratum 3 (550-732 m)			Stratum 4 (733-914 m)		
INPFC Area/ Latitude bounds	**Area (km^2)**	**No. Hauls**	**Hauls/ 1,000km^2**	**Area (km^2)**	**No. Hauls**	**Hauls/ 1,000km^2**	**Area (km^2)**	**No. Hauls**	**Hauls/ 1,000km^2**	**Area (km^2)**	**No. Hauls**	**Hauls/ 1,000km**
U.S.-Vancouver 47°30' - Border	1,181	3	2.5	412	3	7.3	517	3	5.8	611	4	6.5
Columbia 43°00' - 47°30'	4,025	13	3.2	3,741	12	3.2	2,610	11	4.2	2,354	10	4.2
Eureka 40°30' - 43°00'	1,076	5	4.6	1,103	5	4.5	1,671	5	3.0	1,719	5	2.9
Monterey 36°00' - 40°30'	1,771	9	5.1	1,727	9	5.2	2,010	9	4.5	2,074	8	3.9
Conception 34°30' - 36°00'	1,198	4	3.3	2,288	6	2.6	2,417	5	2.1	1,547	4	2.6
Entire Survey Area 34°30' - Border	9,250	34	3.7	9,272	35	3.8	9,224	33	3.6	8,305	31	3.7

	Stratum 5 (915-1,097 m)			Stratum 6 (1,098-1,280 m)			All Strata Combined (183-1,280 m)		
INPFC Area/ Latitude bounds	**Area (km^2)**	**No. Hauls**	**Hauls/ 1,000km^2**	**Area (km^2)**	**No. Hauls**	**Hauls/ 1,000km^2**	**Area (km^2)**	**No. Hauls**	**Hauls/ 1,000km^2**
U.S.-Vancouver 47°30' - Border	668	3	4.5	529	3	5.7	3,919	19	4.8
Columbia 43°00' - 47°30'	2,383	11	4.6	2,393	10	4.2	17,506	67	3.8
Eureka 40°30' - 43°00'	1,951	5	2.6	1,399	6	4.3	8,918	31	3.5
Monterey 36°00' - 40°30'	2,250	8	3.6	2,359	10	4.2	12,191	53	4.3
Conception 34°30' - 36°00'	1,869	5	2.7	1,279	5	3.9	10,597	29	2.7
Entire Survey area 34°30' - Border	9,121	32	3.5	7,957	34	4.3	53,130	199	3.7

Table 3.--Biological data collected during the 1999 West Coast upper continental slope groundfish trawl survey.

Common Name of Fish Species	Age Structures	Fish Weights	Maturity	Ovary Samples	DNA Tissue Samples	Stomach Samples	Blood Samples
Brown cat shark	-	81	-	-	-	-	-
Filetail cat shark	-	5	-	-	-	-	-
Deepsea skate	-	16	-	-	-	-	-
Big skate	-	3	-	-	-	-	-
Bering skate	-	314	-	-	-	-	-
Longnose skate	-	461	-	-	-	-	-
Black skate	-	141	-	-	-	-	-
Arrowtooth flounder	247	247	-	23	-	-	-
Slender sole	-	35	-	-	-	-	-
Dover sole	1,628	1,628	-	-	-	-	-
Threadfin slickhead	-	46	-	-	-	-	-
Sablefish	1,395	1,395	1,176	-	-	-	-
Pacific grenadier	861	861	-	-	-	-	-
Giant grenadier	-	287	-	-	-	-	-
Pacific flatnose	-	186	-	-	-	-	-
Lingcod	-	-	-	-	25	-	-
Pacific hake	-	-	-	-	-	1,119	-
Shortspine thornyhead	1,938	1,938	-	234	-	-	-
Longspine thornyhead	1,513	1,513	-	79	-	-	-
Silvergray rockfish	-	-	-	-	1	-	-
Greenstriped rockfish	-	-	-	-	25	-	-
Widow rockfish	-	-	-	-	25	-	-
Shortbelly rockfish	-	-	-	-	4	-	-
Blackgill rockfish	128	128	-	-	1	-	-
Bocaccio	9	9	-	-	9	-	-
Canary rockfish	-	-	-	-	1	-	-
Redstripe rockfish	-	-	-	-	25	-	-
Redbanded rockfish	-	-	-	-	1	-	-
Sharpchin rockfish	-	-	-	-	25	-	-
True Tanner crab	-	-	-	-	-	-	248

Table 4.--Frequency of occurrence, depth, and latitude ranges for fish species caught during the 1999 West Coast upper continental slope bottom trawl survey.

Family and Scientific Name[a]	Common Name[a]	Frequency of Occurrence	Depth (m) Min.	Max.	Mean	Latitude Range (ddmm)[e] South	North
Myxinidae							
Eptatretus sp.	Hagfish unidentified	116	196	1,268	821	3429	4805
Eptatretus deani	Black hagfish	20	300	1,161	800	3430	4805
Eptatretus stouti	Pacific hagfish	1	454	454	454	4806	4806
Petromyzontidae							
Lampetra tridentata	Pacific lamprey	5	276	922	530	3552	4550
Chimeridae							
Hydrolagus colliei	Spotted ratfish	42	189	526	295	3432	4807
Scyliorhinidae							
Apristurus brunneus	Brown cat shark	152	189	1,268	693	3429	4807
Parmaturus xaniurus	Filetail cat shark	18	196	906	483	3429	3808
Apristurus kampae[b]	Longnose cat shark	25	242	1,268	961	3459	4617
Carcharinidae							
Galeorhinus galeus	Soupfin shark						
Squalidae							
Squalus acanthias	Spiny dogfish	56	189	1,161	425	3502	4807
Somniosus pacificus	Pacific sleeper shark	1	1034	1,034	1,034	4647	4647
Rajidae							
Bathyraja abyssicola[b]	Deepsea skate	12	971	1,268	1,150	3432	4458
Bathyraja aleutica	Aleutian skate	1	428	428	428	4210	4210
Bathyraja interrupta	Bering skate	70	189	832	373	3430	4807
Bathyraja trachura	Black skate	76	250	1,400	956	3431	4805
Raja binoculata	Big skate	2	198	242	220	4027	4207
Raja rhina	Longnose skate	87	189	1,066	425	3429	4807
Torpedinidae							
Torpedo californica	Pacific electric ray	6	190	906	441	3502	3648
Nemichthyidae							
Avocettina infans[b]	Blackline snipe eel	1	1161	1,161	1,161	4736	4736
Avocettina sp.		1	789	789	789	4746	4746
Nemichthyidae	Snipe eel unident.	13	750	1,237	1,046	3643	4548
Nemichthys scolopaceus	Slender snipe eel	8	339	1,125	833	3715	4746
Serrivomeridae[b]							
Serrivomer sector	Sawtooth eel	11	871	1,268	1,099	3459	4026
Saccopharyngidae[b]							
Saccopharynx sp.		1	971	971	971	3457	3457
Clupeidae							
Alosa sapidissima	American shad	3	190	300	228	3648	4750
Argentinidae							
Argentina sialis	Pacific argentine	7	190	1,072	333	3432	4209
Bathylagidae							
Bathylagidae unident.	Deepsea smelt unident.	45	496	1,239	921	3432	4521
Bathylagus sp.	Blacksmelt unident.	88	481	1,400	923	3429	4807
Bathylagus ochotensis	Popeye blacksmelt	1	1140	1,140	1,140	4619	4619
Leuroglossus sp.		7	486	1,177	660	3429	4331
Leuroglossus schmidti	Northern smoothtongue	2	569	1,116	843	3526	4716
Leuroglossus stilbius	California smoothtongue	1	596	596	596	3500	3500

Table 4.--Continued.

Family and Scientific Name[a]	Common Name[a]	Frequency of Occurrence	Depth (m) Min.	Max.	Mean	Latitude Range (ddmm)[e] South	North
Opisthoproctidae[b]							
Dolichopteryx sp.		5	196	1,237	737	3525	4547
Macropinna microstoma	Barreleye						
Osmeridae							
Thaleichthys pacificus	Eulachon	2	242	339	291	4207	4617
Salmonidae							
Oncorhynchus tshawytscha	Chinook salmon	9	189	460	282	3930	4405
Alepocephalidae[b]							
Alepocephalus tenebrosus	California slickhead	124	526	1,268	923	3429	4807
Talismania bifurcata	Threadfin slickhead	75	589	1,198	869	3431	4807
Searsiidae[b]							
Sagamichthys abei	Shining tubeshoulder	26	570	1,400	897	3433	4647
Sternoptychidae							
Argyropelecus lychnus	Tropical hatchetfish	1	1047	1,047	1,047	3431	3431
Argyropelecus sp.		3	434	1,066	824	3457	3715
Sternoptyx diaphana	Longspine hatchetfish	6	788	1,268	1,030	3432	4617
Sternoptyx sp.		5	592	1,167	880	3457	4432
Sternoptychidae unident.	Hatchetfish unident.	2	799	1,268	1,034	3459	3708
Gonostomatidae							
Cyclothone sp.[b]		3	934	1,214	1,063	3547	4643
Stomiidae							
Aristostomias scintillans	Shining loosejaw	27	471	1,268	874	3429	4716
Bathophilus flemingi	Highfin dragonfish	1	592	592	592	3429	3429
Chauliodus macouni	Pacific viperfish	109	212	1,400	903	3431	4807
Idiacanthus antrostomus	Pacific blackdragon	4	765	1,171	914	3433	4548
Melanostomiidae	Scaleless dragonfish unident	1	1152	1,152	1,152	3623	3623
Tactostoma macropus	Longfin dragonfish	104	366	1,400	908	3432	4807
Scopelarchidae							
Benthalbella sp.		1	592	592	592	3429	3429
Benthalbella dentata	Northern pearleye	4	666	940	859	4053	4805
Notosudidae[b]							
Scopelosaurus harryi	Scaly paperbone	3	661	1,268	1,048	3459	4645
Scopelosaurus unident.		1	799	799	799	3708	3708
Paralepididae							
Notolepsis risso	Ribbon barracudina	4	489	765	598	3503	4521
Alepisauridae							
Alepisaurus ferox	Longnose lancetfish	2	788	1,186	987	3954	4422
Myctophidae							
Diaphus sp.		1	1400	1,400	1,400	4537	4537
Diaphus theta	California headlightfish	1	1140	1,140	1,140	4619	4619
Lampanyctus jordani[b]	Brokenline lampfish	2	813	955	884	3432	4738
Lampanyctus regalis	Pinpoint lampfish	2	1116	1,140	1,128	4619	4716
Lampanyctus ritteri[d]	Broadfin lanternfish	1	465	465	465	3648	3648
Lampanyctus sp.		98	479	1,400	920	3431	4807
Myctophidae	Lanternfish unident.	102	212	1,268	799	3429	4805
Stenobrachius leucopsarus	Northern lampfish	1	1140	1,140	1,140	4619	4619
Stenobrachius nannochir	Garnet lampfish	1	366	366	366	3957	3957
Stenobrachius sp.		17	489	1,239	896	3431	4117
Symbolophorus californiensis[b]	California lanternfish	1	922	922	922	4550	4550
Tarletonbeania crenularis	Blue lanternfish	7	460	1,198	759	3453	4550
Tarletonbeania sp.		16	198	1,177	723	3433	4805

Table 4.--Continued.

Family and Scientific Name[a]	Common Name[a]	Frequency of Occurrence	Depth (m) Min.	Max.	Mean	Latitude Range (ddmm)[e] South	North
Moridae							
Antimora microlepis	Pacific flatnose	138	250	1,400	898	3431	4807
Halagyreus johnsoni[c]		1	1152	1,152	1,152	3623	3623
Gadidae							
Merluccius productus	Pacific hake	126	189	1,400	562	3429	4807
Microgadus proximus	Pacific tomcod	1	276	276	276	4146	4146
Gadus macrocephalus	Pacific cod	3	193	250	218	4642	4807
Theragra chalcogramma	Walleye pollock	1	211	211	211	4807	4807
Macrouridae							
Albatrossia pectoralis	Giant grenadier	133	250	1,400	911	3431	4807
Coryphaenoides acrolepis[b]	Pacific grenadier	124	250	1,400	934	3431	4807
Coryphaenoides cinereus	Popeye grenadier	10	619	1,400	994	3951	4807
Nezumia liolepis	Smooth grenadier	8	788	1,047	900	3431	3708
Nezumia stelgidolepis	California grenadier	13	418	636	515	3430	4714
Ophidiidae							
Chilara taylori	Spotted cusk-eel	11	196	636	309	3429	4048
Dicrolene filamentosa	Threadfin cusk-eel						
Lamprogrammus niger[b]	Paperbone cusk-eel	3	497	920	700	3929	3929
Ophidiidae	Cusk-eel unident.	1	592	592	592	3429	3429
Ophidion scrippsae	Basketweave cusk-eel	1	832	832	832	4240	4240
Batrachoididae							
Porichthys notatus	Plainfin midshipman	1	214	214	214	3806	3806
Oneirodidae[c]							
Oneirodes sp.		5	677	1,400	1,109	3646	4800
Oneirodidae	Dreamer unident.	2	1044	1,090	1,067	3622	4334
Melanocetidae[c]							
Melanocetus johnsonii	Common blackdevil	4	789	1,072	923	4209	4805
Scomberesocidae							
Cololabis saira	Pacific saury	2	212	250	231	4048	4738
Trachipteridae							
Trachipterus altivelis	King-of-the-salmon	3	526	942	717	3454	3645
Anoplogastridae[b]							
Anoplogaster cornuta	Fangtooth	19	799	1,239	1,021	3431	4427
Melamphaidae[b]							
Melamphaes lugubris	Highsnout bigscale	2	1078	1,116	1,097	4716	4805
Melamphaidae	Bigscale unident.	11	592	1,239	987	3429	4552
Poromitra crassiceps	Crested bigscale	6	922	1,167	1,026	4209	4643
Scorpaenidae							
Sebastolobus alascanus	Shortspine thornyhead	196	189	1,400	743	3429	4807
Sebastolobus altivelis	Longspine thornyhead	152	250	1,400	865	3429	4807
Sebastes aleutianus	Rougheye rockfish	11	296	466	369	4306	4806
Sebastes alutus	Pacific ocean perch	21	211	466	346	3957	4807
Sebastes aurora	Aurora rockfish	44	189	597	420	3430	4806
Sebastes babcocki	Redbanded rockfish	23	193	1,055	349	3526	4807
Sebastes borealis	Shortraker rockfish	5	315	481	436	4711	4806
Sebastes brevispinis	Silvergray rockfish	4	211	366	287	3957	4807
Sebastes chlorostictus	Greenspotted rockfish	5	196	252	212	3432	4027
Sebastes crameri	Darkblotched rockfish	32	197	485	329	3833	4807
Sebastes diploproa	Splitnose rockfish	43	193	569	318	3432	4807
Sebastes elongatus	Greenstriped rockfish	16	189	257	215	3432	4807
Sebastes entomelas	Widow rockfish	17	193	765	292	3902	4807

Table 4.--Continued.

Family and Scientific Name[a]	Common Name[a]	Frequency of Occurrence	Depth (m) Min.	Max.	Mean	Latitude Range (ddmm)[e] South	North
Scorpaenidae (continued)							
Sebastes flavidus	Yellowtail rockfish	3	190	388	257	3648	4642
Sebastes goodei	Chilipepper	11	190	291	221	3432	4207
Sebastes helvomaculatus	Rosethorn rockfish	11	193	454	287	3620	4807
Sebastes jordani	Shortbelly rockfish	15	190	392	254	3432	4547
Sebastes levis	Cowcod	4	190	252	214	3432	3836
Sebastes melanostomus	Blackgill rockfish	15	242	659	442	3430	4207
Sebastes paucispinis	Bocaccio	7	190	252	218	3432	4240
Sebastes pinniger	Canary rockfish	5	190	315	222	3648	4711
Sebastes proriger	Redstripe rockfish	10	189	356	236	4027	4807
Sebastes reedi	Yellowmouth rockfish	2	257	356	307	4405	4454
Sebastes rufus	Bank rockfish	4	333	418	357	3552	3958
Sebastes saxicola	Stripetail rockfish	21	189	356	240	3432	4642
Sebastes sp.	Rockfish unident.	2	250	847	549	4455	4547
Sebastes wilsoni	Pygmy rockfish	2	189	242	216	4207	4307
Sebastes zacentrus	Sharpchin rockfish	22	193	454	266	3714	4807
Anoplopomatidae							
Anoplopoma fimbria	Sablefish	199	190	1,400	727	3429	4807
Hexagrammidae							
Hexagrammos decagrammus	Kelp greenling	1	242	242	242	4207	4207
Ophiodon elongatus	Lingcod	18	190	408	254	3432	4738
Cottidae							
Icelinus filamentosus	Threadfin sculpin	11	197	1,161	359	3836	4738
Icelinus oculatus	Frogmouth sculpin	2	209	257	233	3836	4454
Malacocottus zonurus	Darkfin sculpin	1	257	257	257	4454	4454
Paricelinus hopliticus	Thornback sculpin	1	198	198	198	4027	4027
Psychrolutes phrictus	Blob sculpin	11	1045	1,400	1,168	3459	4619
Radulinus asprellus	Slim sculpin	4	211	242	223	4048	4807
Agonidae							
Bathyagonus nigripinnis	Blackfin poacher	6	466	813	636	4334	4751
Bathyagonus pentacanthus	Bigeye poacher	9	193	454	303	4048	4806
Bathyagonus sp.	Starsnout poacher unident.	6	189	589	300	4115	4426
Xeneretmus latifrons	Blacktip poacher	10	197	418	260	3432	4711
Xeneretmus leiops	Smootheye poacher	2	257	408	333	3833	4454
Cyclopteridae							
Careproctus colletti	Alaska snailfish	14	813	1,400	1,135	3842	4800
Careproctus cypselurus	Blackfin snailfish	4	817	1,400	1,036	3929	4800
Careproctus gilberti	Smalldisk snailfish	1	339	339	339	4617	4617
Careproctus melanurus	Blacktail snailfish	99	197	1,237	623	3429	4807
Careproctus sp.		42	334	1,239	796	3429	4738
Liparidinae	Snailfish unident.						
Liparis sp.		1	1040	1,040	1,040	3547	3547
Paraliparus rosaceus		2	1034	1,198	1,116	4647	4807
Paraliparis sp.		3	1047	1,211	1,148	3431	4051
Carangidae							
Trachurus symmetricus	Jack mackerel	7	193	563	350	4521	4807
Embiotocidae							
Cymatogaster aggregata	Shiner perch	1	212	212	212	4048	4048
Bathymasteridae							
Ronquilus jordani	Northern ronquil	1	683	683	683	3454	3454

Table 4.--Continued.

Family and Scientific Name[a]	Common Name[a]	Frequency of Occurrence	Depth (m) Min.	Max.	Mean	Latitude Range (ddmm)[e] South	North
Zoarcidae							
Bothrocara brunneum	Twoline eelpout	119	466	1,268	874	3429	4807
Bothrocara remigerum	Longfin eelpout	2	1186	1,400	1,293	4458	4537
Embryx crotalinus	Snakehead eelpout	79	583	1,268	932	3431	4807
Lycenchelys camchatica	Kamchatka eelpout	1	611	611	611	4051	4051
Lycodes cortezianus	Bigfin eelpout	76	189	636	386	3430	4807
Lycodes diapterus	Black eelpout	53	300	983	548	3430	4760
Lycodes pacificus	Blackbelly eelpout	6	198	346	272	3432	4738
Lycodapus fierasfer	Blackmouth eelpout	11	336	1,400	987	3526	4807
Lycodapus mandibularis	Pallid eelpout	2	800	1,237	1,019	3433	4025
Lycodapus sp.		3	300	1,090	691	3454	4750
Melanostigma pammelas	Midwater eelpout	1	1090	1,090	1,090	3622	3622
Zoarcidae	Eelpout unident.	2	526	569	548	3526	3552
Chiasmodontidae[b]							
Chiasmodontidae	Swallowers						
Chiasmodon niger		2	1040	1,090	1,065	3547	3622
Pseudoscopelus sp.							
Icosteidae							
Icosteus aenigmaticus	Ragfish	4	432	1,214	851	3527	4426
Trichiuridae							
Benthodesmus sp.		3	822	1,116	923	3929	4240
Centrolophidae							
Icichthys lockingtoni	Medusafish	13	468	1,133	877	3429	4544
Bothidae							
Citharichthys sordidus	Pacific sanddab	7	189	227	201	3502	4307
Pleuronectidae							
Atheresthes stomias	Arrowtooth flounder	43	189	589	359	4026	4807
Embassichthys bathybius	Deepsea sole	126	418	1,400	920	3431	4807
Eopsetta exilis	Slender sole	61	189	500	336	3432	4807
Eopsetta jordani	Petrale sole	38	189	465	286	3432	4807
Glyptocephalus zachirus	Rex sole	82	189	750	391	3430	4807
Hippoglossoides elassodon	Flathead sole	1	339	339	339	4617	4617
Hippoglossus stenolepis	Pacific halibut	6	257	481	393	4454	4806
Microstomus pacificus	Dover sole	170	189	1,268	650	3429	4807
Parophrys vetulus	English sole	28	189	408	255	3432	4807
Pleuronichthys decurrens	Curlfin sole	3	190	214	200	3648	3806
Molidae							
Mola mola	Ocean sunfish						

[a] Nomenclature from Robins (1990) unless otherwise noted.
[b] Nomenclature from Eschmeyer and Herald (1983).
[c] Nomenclature from Nelson (1984).
[d] Nomenclature from Hart (1973).
[e] Degrees and minutes of latitude.

Table 5.--Frequency of occurrence and depth and latitude ranges for invertebrate species caught during the 1997 West Coast upper continental slope bottom trawl survey.

Phylum and Class	Scientific Name	Frequency of Occurrence	Depth (m) Min.	Max.	Mean	Latitude Range (ddmm)* South	North
Porifera							
	Porifera unident.	18	198	1,185	629	3457	4806
	Aphrocallistes vastus	36	296	1,268	647	3457	4806
	Hexactinellida unident.	4	418	1,185	822	3619	4743
	Hylonema sp.	10	661	1,186	1,014	4458	4741
Cnideria							
Scyphozoa							
	Chrysaora melanaster	31	196	1,216	869	3524	4736
	Cyanea capillata	1	1,116	1,116	1,116	4716	4716
	Periphylla periphylla	19	212	1,167	741	3432	4805
	Periphylla sp.	25	468	1,177	872	3432	4760
	Phacellophora camtchatica	2	661	1,116	889	4645	4716
	Scyphozoa unident.	40	197	1,239	817	3431	4806
Anthozoa							
	Actinauge verrillii	43	297	1,400	851	3457	4806
	Actinernus sp.	7	257	1,115	766	3432	4454
	Actiniaria unident.	35	300	1,268	817	3431	4806
	Actinostolidae unident.	92	257	1,400	840	3429	4805
	Actinostola sp.	33	315	1,200	828	4117	4807
	Anthomastus sp.	10	257	1,237	564	3457	4617
	Antipathes sp.	9	651	1,400	1,048	4357	4736
	Bathypathes sp.	8	250	1,198	800	4458	4807
	Calcigorgia sp.	2	471	1,400	936	4306	4800
	Corallimorphus sp.	4	257	1,088	634	3708	4454
	Euplexaura marki	2	1,088	1,200	1,144	3903	4145
	Gorgonacea unident.	2	1,185	1,400	1,293	4537	4648
	Hormathiidae unident.	38	206	1,400	675	3429	4807
	Liponema brevicorne	99	189	1,400	675	3429	4807
	Metridium giganteum	10	212	460	303	3526	4617
	Metridium sp.	6	198	485	295	3432	4027
	Paractinostola faeculenta	182	250	1,400	770	3429	4807
	Parantipathes sp.	1	1,120	1,120	1,120	4520	4520
	Paraphelliactis pabista	1	471	471	471	3430	3430
	Pennatulacea unident.	31	389	1,239	878	3431	4746
	Ptilosarcus gurneyi	2	206	922	564	3714	4550
	Stylatula sp.	86	206	1,400	826	3429	4806
	Stomphia sp.	3	198	764	390	3502	3838
	Stomphia coccinea	5	198	471	318	4027	4330
	Swiftia sp.	5	465	1,400	1,013	4647	4800
	Urticina coriacea	2	212	227	220	4048	4115
	Urtinca crassicornis	1	212	212	212	4048	4048
	Umbellula sp.	29	427	1,214	913	3500	4805
	Virgularia sp.	8	400	1,161	875	4643	4741
	Virgularidae unident.	2	558	1,400	979	4305	4537
Ctenophora							
	Beroe sp.	10	190	1,118	479	3648	4426
	Ctenophora unident.	4	592	1,198	889	3524	3646

Table 5.--Continued.

Phylum and Class	Scientific Name	Frequency of Occurrence	Depth (m) Min.	Max.	Mean	Latitude Range (ddmm)* South	North
Platyhelminthes							
	Platyhelminthes unident.	1	242	242	242	4207	4207
Nemertea							
	Nemertea unident.	1	1,098	1,098	1,098	4358	4358
Annelida							
Polychaeta							
	Aphroditidae unident.	61	189	1,400	608	3429	4807
	Aphrodita sp.	3	300	1,078	772	4735	4805
	Polychaeta unident.	15	198	1,237	721	3433	4712
Sipuncula							
	Sipuncula unident.	2	356	485	421	4026	4405
Arthropoda							
Cirripedia							
	Thoracica unident.	4	198	947	756	3502	4517
Malacostraca							
	Acanthephyra sp.	1	940	940	940	4053	4053
	Acanthephyra curtirostris	3	1,149	1,400	1,234	4117	4800
	Callianassa sp.	3	336	1,185	732	3526	4748
	Cancer magister	10	189	832	342	3714	4738
	Cancer productus	3	190	224	203	3648	3930
	Chionoecetes angulatus	4	830	1,400	1,177	4521	4805
	Chionoecetes tanneri	152	214	1,400	836	3429	4807
	Chorilia longipes	28	196	1,130	651	3453	4738
	Crangon communis	9	189	428	290	4048	4750
	Crangon sp.	1	198	198	198	3502	3502
	Eualus macrophthalmus	14	400	1,149	717	4051	4806
	Eualus sp.	19	356	1,186	776	3433	4737
	Gnathophausia ingens	20	471	1,268	981	3430	4648
	Hyas lyratus	10	418	1,268	879	3430	3646
	Isopoda unident.	10	190	1,268	900	3459	4645
	Lithodes couesi	20	661	1,186	929	3622	4805
	Lopholithodes foraminatus	12	189	983	326	3526	4738
	Munida quadrispina	5	198	1,115	514	3432	4746
	Mursia gaudichaudii	4	190	214	202	3648	3806
	Neolithodes diomedeae	3	1,216	1,268	1,241	3459	3713
	Neotypaera giga	1	432	432	432	3527	3527
	Notostomus japonicus	9	731	1,400	1,026	3713	4800
	Paguridae unident.	6	291	1,216	661	3429	4023
	Paguristes turgidus	1	300	300	300	4750	4750
	Pagurus aleuticus	2	300	388	344	4617	4750
	Pagurus capillatus	3	212	460	300	4048	4118
	Pagurus kennerlyi	1	388	388	388	4617	4617
	Pagurus sp.	70	198	1,400	719	3432	4800
	Pagurus tanneri	35	212	1,237	641	3929	4737
	Pandalidae unident.	3	663	1,200	893	3552	4145
	Pandalopsis ampla	15	1,040	1,400	1,159	3431	4800
	Pandalopsis dispar	2	242	334	288	4207	4330
	Pandalus jordani	8	189	276	225	3502	4807
	Pandalus platyceros	11	193	408	266	3502	4750
	Pandalus sp.	3	212	650	441	4048	4211
	Pandalus tridens	2	257	454	356	4454	4806
	Paralithodes californiensis	4	190	252	209	3432	3648

Table 5.--Continued.

Phylum and Class	Scientific Name	Frequency of Occurrence	Depth (m) Min.	Max.	Mean	Latitude Range (ddmm)* South	North
Malacostraca (continued)							
	Paralithodes rathbuni	5	190	336	237	3432	3836
	Paralomis multispina	37	333	1,400	1,119	3431	4800
	Paralomis verrilli	3	1,177	1,237	1,210	3549	4025
	Pasiphaea pacifica	32	212	827	509	3429	4760
	Pasiphaea tarda	114	366	1,400	917	3429	4805
	Pasiphaeidae unident.	2	596	696	646	3500	3714
	Sclerocrangon sculptus	1	980	980	980	4712	4712
	Stereomastus sculpta	17	788	1,198	1,059	3432	4358
Pycnogonida							
	Pycnogonida unident.	1	1,040	1,040	1,040	3547	3547
Brachipoda							
Inarticulata							
	Brachiopod unident.	2	379	387	383	4428	4500
	Laqueus californianus	3	209	465	330	3836	4714
Mollusca							
Aplacophora							
	Aplacophora unident.	6	335	827	645	3454	4458
	Neomenia sp.	29	212	1,115	661	3432	4806
Gastropoda							
	Antiplanes sp.	5	411	1,149	861	3808	4307
	Bathybembix bairdii	105	378	1,400	883	3429	4807
	Bivalvia unident.	5	463	1,237	998	3432	4358
	Buccinum oedematum	1	922	922	922	4550	4550
	Buccinum sp.	2	339	1,072	706	4209	4617
	Buccinum strigillatum	13	212	1,055	542	3646	4523
	Buccinum viridum	64	250	1,268	957	3431	4807
	Calinaticina oldroyi	5	189	291	228	3502	4307
	Calliostoma platinum	5	379	871	649	3454	4428
	Colus aphelus	9	918	1,152	1,077	3547	4647
	Colus sp.	7	434	1,216	870	3549	4145
	Colus tahwitanus	3	465	1,149	896	3648	4117
	Colus trophius	3	300	1,268	882	3459	4805
	Fusitriton oregonensis	9	257	481	398	4049	4806
	Gastropod unident.	4	198	955	594	3432	4405
	Heteropoda unident.	11	333	1,133	751	3429	4614
	Natica sp.	2	1,152	1,237	1,195	4025	4117
	Neptunea amianta	146	315	1,400	858	3429	4807
	Neptunea ithia	1	366	366	366	3957	3957
	Neptunea lyrata	3	392	597	491	4023	4405
	Neptunea pribiloffensis	36	356	1,198	620	3901	4807
	Neptunea sp.	10	212	597	419	3619	4405
	Neptunea tabulata	2	252	276	264	3432	4146
	Nudibranchia unident.	15	189	1,186	687	3429	4735
	Pleurobranchaea californica	16	189	418	258	3432	4307
	Plicifusus griseus	7	659	940	828	3621	4427
	Plicifusus sp.	1	454	454	454	4806	4806
	Polinices pallidus	2	463	1,034	749	4049	4647
	Polinices sp.	5	189	1,098	699	3713	4358
	Solariella nuda	4	486	830	647	3454	4521
	Tritonia diomedea	36	189	1,400	893	3620	4805
	Tritonia sp.	20	211	1,186	803	3500	4807

Table 5.--Continued.

Phylum and Class	Scientific Name	Frequency of Occurrence	Depth (m) Min.	Max.	Mean	Latitude Range (ddmm)* South	North
Bivalvia							
	Acharax johnsoni	6	844	1,237	1,105	4025	4358
	Delectopecten vancouverensis	8	418	1,140	902	3547	4741
	Pectinid unident.	1	955	955	955	3432	3432
	Yoldia sp.	1	339	339	339	4617	4617
Cephalopoda							
	Benthoctopus sp.	19	242	1,400	818	3431	4800
	Berryteuthis magister	29	209	1,268	777	3454	4736
	Cephalopoda unident.	14	209	1,400	777	3429	4716
	Chiroteuthis sp.	21	214	1,239	892	3526	4807
	Chiroteuthis calyx	8	197	1,198	863	3524	4521
	Cranchia scabra	5	799	1,198	974	3432	3904
	Galiteuthis phyllura	2	588	844	716	4145	4145
	Gonatus onyx	17	526	1,177	793	3547	4614
	Gonatus sp.	2	798	1,198	998	3524	4644
	Grimpoteuthis albatrossi	8	583	1,211	755	4051	4240
	Histioteuthis dofleini	19	356	1,268	739	3430	4805
	Histioteuthis heteropsis	1	583	583	583	4117	4117
	Histioteuthis sp.	14	366	663	504	3500	4547
	Loligo opalescens	25	190	1,268	669	3432	4548
	Moroteuthis robusta	4	411	1,161	605	3619	4736
	Octopoteuthis deletron	19	498	1,400	926	3646	4537
	Octopus californicus	6	214	1,152	502	3430	4117
	Octopus dofleini	14	366	813	502	3713	4738
	Octopus leioderma	26	189	1,167	589	3552	4805
	Octopus sp.	23	190	1,400	714	3432	4807
	Onychoteuthidae unident.	1	227	227	227	4115	4115
	Onychoteuthis borealijaponicus	3	198	906	512	3525	4027
	Opisthoteuthis californiana	45	335	1,216	742	3429	4806
	Rossia pacifica	5	189	252	216	3432	4307
	Taningia danae	48	418	1,268	869	3429	4807
	Taoniinae unident.	1	1,149	1,149	1,149	4117	4117
	Taonius pavo	1	844	844	844	4145	4145
	Vampyroteuthis infernalis	81	197	1,400	949	3431	4805
Scaphopoda							
	Scaphopoda unident.	3	339	471	407	3430	4617
Echinodermata							
Crinoidea							
	Crinoid unident.	4	651	1,130	938	4647	4741
Asteroidea							
	Ampheraster marianus	35	378	1,120	733	3454	4806
	Ampheraster sp.	2	418	696	557	3619	3714
	Asteroidea unident.	9	434	1,400	722	3429	4748
	Astropecten californicus	1	206	206	206	3714	3714
	Brisingella exilis	5	611	774	697	4051	4458
	Brisingella sp.	7	556	906	679	3525	4432
	Ceramaster leptoceramus	8	190	865	656	3453	3958
	Ceramaster patagonicus	2	250	871	561	3549	4738
	Crossaster borealis	124	189	1,400	875	3429	4807
	Crossaster papposus	4	198	465	307	3648	4738
	Cryptopeltaster lepidonotus	3	418	1,177	674	3500	3643
	Ctenodiscus crispatus	13	193	1,171	505	4143	4750
	Diplopteraster multipes	6	257	1,239	631	3713	4806

Table 5.--Continued.

Phylum and Class	Scientific Name	Frequency of Occurrence	Depth (m) Min.	Max.	Mean	Latitude Range (ddmm)* South	North
Asteroidea (continued)							
	Dipsacaster anoplus	2	592	865	729	3453	3619
	Dipsacaster sp.	26	291	1,216	869	3431	4648
	Henricia aspera	1	696	696	696	3714	3714
	Henricia leviuscula	5	198	983	681	4026	4805
	Henricia sp.	4	387	1,140	733	4500	4736
	Heterozonias alternatus	149	193	1,400	841	3431	4807
	Hippasteria californica	109	196	1,400	819	3453	4807
	Hippasteria sp.	1	343	343	343	3552	3552
	Hippasteria spinosa	31	198	1,400	738	3432	4807
	Leptychaster pacificus	1	1,098	1,098	1,098	4358	4358
	Lophaster furcilliger	42	214	1,400	990	3459	4806
	Luidia foliolata	37	189	1,186	353	3648	4807
	Luidiaster dawsoni	7	250	427	363	3500	4711
	Mediaster aequalis	9	190	764	364	3620	4643
	Mediaster sp.	2	343	1,171	757	3552	4548
	Mediaster tenellus	3	427	764	552	3500	3838
	Myoxoderma platyacanthum	45	189	1,098	589	3453	4617
	Myoxoderma sacculatum	64	214	1,268	969	3431	4736
	Nearchaster aciculosus	52	563	1,237	959	3453	4807
	Nearchaster sp.	21	481	1,200	1,025	3526	4743
	Ophiacantus sp.	4	252	666	479	3432	4432
	Orthasterias koehleri	2	198	983	591	4026	4027
	Poraniopsis inflata	7	257	1,032	712	3457	4805
	Pseudarchaster dissonus	5	336	1,268	593	3459	3833
	Pseudarchaster parelii	33	189	1,177	528	3431	4806
	Pseudarchaster parelii alascensis	13	251	1,214	645	3547	4521
	Pseudarchaster pussillus	3	297	1,268	892	3459	4523
	Pseudarchaster sp.	4	411	1,216	845	3432	3808
	Pteraster coscinopeplus	36	315	1,400	789	3524	4800
	Pteraster militaris	2	789	1,198	994	3524	4746
	Pteraster sp.	7	683	1,400	1,057	3454	4741
	Pteraster tesselatus	7	250	1,400	542	3714	4806
	Pycnopodia helianthoides	3	198	774	395	4027	4116
	Rathbunaster californicus	32	190	983	389	3457	4807
	Solaster paxillatus	2	315	400	358	4643	4711
	Solaster sp.	7	663	1,268	1,033	3431	3552
	Stylasterias forreri	17	193	1,098	509	3432	4806
	Thrissacanthias penicillatus	146	193	1,400	825	3429	4807
	Zoraster evermanni	90	250	1,400	868	3431	4807
Echinoidea							
	Allocentrotus fragilis	86	189	1,066	475	3432	4807
	Allocentrotus sp.	1	1,115	1,115	1,115	3432	3432
	Brisaster latifrons	61	189	1,237	593	3429	4807
	Brisaster sp.	5	198	592	376	3432	3902
	Echinoidea unident.	2	418	800	609	3433	3619
Ophiuroidea							
	Amphiophiura ponderosa	19	378	1,118	825	3432	4760
	Amphiophiura sp.	2	1,118	1,216	1,167	3549	3904
	Asteronyx loveni	35	400	1,400	852	3429	4748
	Asteronyx sp.	18	333	1,400	910	3552	4800
	Gorgonocephalus eucnemis	2	333	942	638	3620	3645

Table 5.--Continued.

Phylum and Class	Scientific Name	Frequency of Occurrence	Depth (m) Min.	Max.	Mean	Latitude Range (ddmm)* South	North
Ophiuroidea (continued)							
	Ophiopholis sp.	7	198	1,120	507	3457	4520
	Ophiura sarsi	34	189	1,189	447	3713	4751
	Ophiuroid unident.	24	212	1,198	805	3429	4807
Holothuroidea							
	Holothuroidea unident.	18	300	1,237	725	3429	4750
	Molpadia intermedia	22	189	1,237	677	3431	4807
	Pannychia moseleyi	59	224	1,268	826	3453	4805
	Parastichopus californicus	4	190	597	315	3648	4146
	Parastichopus leucothele	33	196	1,118	462	3432	4751
	Parastichopus sp.	3	206	500	332	3714	3905
	Pentamera sp.	1	252	252	252	3432	3432
	Pineapple cucumber	11	252	636	457	3429	3958
	Pseudostichopus mollis	34	193	1,400	628	3431	4807
	Pseudostichopus sp.	2	296	1,400	848	4458	4537
	Psolus sp.	7	379	1,046	541	3500	4736
	Scotoplanes theeli	38	942	1,400	1,135	3524	4805
Urochordata							
Ascidiacea							
	Ascidian unident.	7	257	1,130	665	3429	4741
Thaliacea							
	Pyrosoma atlanticum	34	190	1,268	704	3431	4115
	Thaliacea unident.	99	189	1,400	752	3429	4805
	Thetys vagina	95	190	1,268	728	3429	4358

* Degrees and minutes of latitude.

Table 6.--Number of length frequency measurements collected by stratum during the 1999 West Coast upper continental slope bottom trawl survey for all of the International North Pacific Fisheries Commission areas combined.

Species	Stratum 1 183-366 m	Stratum 2 367-549 m	Stratum 3 550-732 m	Stratum 4 733-914 m	Stratum 5 915-1,097 m	Stratum 6 1,098-1,280 m
Brown cat shark	196	1,030	1,017	572	178	45
Filetail cat shark	245	157	99	0	0	0
Longnose cat shark	2	4	8	26	24	27
Spiny dogfish	1,263	677	25	10	8	1
Deepsea skate	0	0	0	0	6	19
Big skate	3	0	0	0	0	0
Bering skate	518	344	11	4	0	0
Longnose skate	644	333	43	5	1	0
Black skate	1	1	37	28	78	158
Spotted ratfish	18	59	0	0	0	0
Pacific sanddab	145	0	0	0	0	0
Arrowtooth flounder	161	279	1	0	0	0
Pacific halibut	3	12	0	0	0	0
Flathead sole	1	0	0	0	0	0
Slender sole	2,803	1,067	0	0	0	0
Petrale sole	407	17	0	0	0	0
English sole	776	5	0	0	0	0
Dover sole	2,775	3,372	1,942	1,436	584	389
Deepsea sole	0	18	126	501	556	359
Rex sole	2,661	2,487	355	2	0	0
Bigeye poacher	3	18	0	0	0	0
California slickhead	0	0	819	1,250	1,053	795
Threadfin slickhead	0	0	96	430	116	7
Sablefish	696	397	695	667	521	643
Spotted cusk-eel	8	0	0	0	0	0
Jack mackerel	37	14	1	0	0	0
California grenadier	0	12	17	0	0	0
Smooth grenadier	0	0	0	56	5	0
Pacific grenadier	0	10	664	713	2,438	3,705
Giant grenadier	0	38	388	420	750	1,523
Popeye grenadier	0	0	2	4	2	54
Threadfin sculpin	14	0	0	0	0	0
Pacific cod	7	0	0	0	0	0
Pacific flatnose	17	206	1,049	575	1,466	1,743
Lingcod	30	1	0	0	0	0
Blacktail snailfish	14	57	113	28	3	0
Pacific hake	3,688	3,699	567	97	15	20
Chinook salmon	108	1	0	0	0	0
Twoline eelpout	0	39	161	420	345	400
Snakehead eelpout	0	0	30	233	322	80
Bigfin eelpout	1,297	1,191	117	0	0	0
Black eelpout	229	680	653	73	25	0
Blackbelly eelpout	165	0	0	0	0	0
Shortspine thornyhead	1,518	3,020	1,018	430	427	339
Longspine thornyhead	42	1,424	5,467	6,051	5,525	5,374
Rougheye rockfish	13	12	0	0	0	0
Pacific ocean perch	450	112	0	0	0	0
Aurora rockfish	34	1,085	12	0	0	0
Silvergray rockfish	4	1	0	0	0	0
Greenspotted rockfish	9	0	0	0	0	0
Darkblotched rockfish	222	37	0	0	0	0
Splitnose rockfish	1,833	447	10	0	0	0
Greenstriped rockfish	412	0	0	0	0	0
Widow rockfish	88	1	0	0	0	0
Yellowtail rockfish	166	1	0	0	0	0
Chilipepper	176	0	0	0	0	0
Rosethorn rockfish	72	16	0	0	0	0
Shortbelly rockfish	359	1	0	0	0	0
Cowcod	7	0	0	0	0	0
Blackgill rockfish	21	315	3	0	0	0
Bocaccio	29	0	0	0	0	0
Canary rockfish	9	0	0	0	0	0
Redstripe rockfish	163	0	0	0	0	0
Redbanded rockfish	41	14	0	0	1	0
Stripetail rockfish	1,228	0	0	0	0	0
Pygmy rockfish	6	0	0	0	0	0
Sharpchin rockfish	577	4	0	0	0	0
Bank rockfish	18	5	0	0	0	0
Shortraker rockfish	1	7	0	0	0	0
Yellowmouth rockfish	34	0	0	0	0	0

Table 7.--Number of length frequency measurements collected by stratum during the 1999 West Coast upper continental slope bottom trawl survey of the International North Pacific Fisheries Commission Conception area.

Species	Stratum 1 183-366 m	Stratum 2 367-549 m	Stratum 3 550-732 m	Stratum 4 733-914 m	Stratum 5 915-1,097 m	Stratum 6 1,098-1,280 m
Brown cat shark	41	220	198	54	16	26
Filetail cat shark	245	131	91	0	0	0
Longnose cat shark	0	0	0	0	0	1
Spiny dogfish	7	0	1	0	0	0
Deepsea skate	0	0	0	0	1	7
Bering skate	64	36	0	0	0	0
Longnose skate	303	118	14	1	0	0
Black skate	0	0	0	3	9	5
Spotted ratfish	0	11	0	0	0	0
Pacific sanddab	31	0	0	0	0	0
Slender sole	297	8	0	0	0	0
Petrale sole	10	1	0	0	0	0
English sole	38	0	0	0	0	0
Dover sole	424	678	369	239	127	33
Deepsea sole	0	0	3	79	45	9
Rex sole	239	321	0	0	0	0
California slickhead	0	0	224	233	189	174
Threadfin slickhead	0	0	7	76	59	2
Sablefish	279	109	101	153	135	27
Spotted cusk-eel	3	0	0	0	0	0
California grenadier	0	7	16	0	0	0
Smooth grenadier	0	0	0	19	4	0
Pacific grenadier	0	0	0	15	139	399
Giant grenadier	0	0	1	30	138	118
Pacific flatnose	0	0	11	61	132	236
Lingcod	3	0	0	0	0	0
Blacktail snailfish	1	0	0	4	2	0
Pacific hake	924	1,034	103	3	2	3
Twoline eelpout	0	0	7	161	118	31
Snakehead eelpout	0	0	0	21	7	3
Bigfin eelpout	233	132	6	0	0	0
Black eelpout	226	134	10	0	0	0
Blackbelly eelpout	156	0	0	0	0	0
Shortspine thornyhead	37	345	240	131	146	32
Longspine thornyhead	0	712	672	543	903	476
Aurora rockfish	23	420	7	0	0	0
Greenspotted rockfish	1	0	0	0	0	0
Splitnose rockfish	318	122	10	0	0	0
Greenstriped rockfish	1	0	0	0	0	0
Chilipepper	46	0	0	0	0	0
Shortbelly rockfish	2	0	0	0	0	0
Cowcod	1	0	0	0	0	0
Blackgill rockfish	3	92	0	0	0	0
Bocaccio	8	0	0	0	0	0
Redbanded rockfish	7	0	0	0	0	0
Stripetail rockfish	131	0	0	0	0	0
Bank rockfish	2	0	0	0	0	0

Table 8.--Number of length frequency measurements collected by stratum during the 1999 West Coast upper continental slope bottom trawl survey of the International North Pacific Fisheries Commission Monterey area.

Species	Stratum 1 183-366 m	Stratum 2 367-549 m	Stratum 3 550-732 m	Stratum 4 733-914 m	Stratum 5 915-1,097 m	Stratum 6 1,098-1,280 m
Brown cat shark	22	330	385	204	52	9
Filetail cat shark	0	26	8	0	0	0
Longnose cat shark	0	4	6	25	17	13
Spiny dogfish	150	41	14	0	0	0
Deepsea skate	0	0	0	0	5	10
Big skate	1	0	0	0	0	0
Bering skate	51	191	7	0	0	0
Longnose skate	120	108	18	3	1	0
Black skate	0	0	1	14	23	20
Spotted ratfish	0	48	0	0	0	0
Pacific sanddab	103	0	0	0	0	0
Arrowtooth flounder	0	2	0	0	0	0
Slender sole	536	98	0	0	0	0
Petrale sole	320	13	0	0	0	0
English sole	347	4	0	0	0	0
Dover sole	688	816	700	607	295	310
Deepsea sole	0	13	22	134	229	139
Rex sole	717	772	58	0	0	0
California slickhead	0	0	439	526	533	338
Threadfin slickhead	0	0	20	55	11	0
Sablefish	253	81	91	192	221	151
Spotted cusk-eel	5	0	0	0	0	0
California grenadier	0	5	0	0	0	0
Smooth grenadier	0	0	0	37	1	0
Pacific grenadier	0	9	29	210	668	974
Giant grenadier	0	4	28	112	204	538
Popeye grenadier	0	0	0	0	0	1
Threadfin sculpin	14	0	0	0	0	0
Pacific flatnose	0	57	253	224	443	587
Lingcod	15	1	0	0	0	0
Blacktail snailfish	1	37	83	0	0	0
Pacific hake	1,058	1,121	313	80	9	14
Chinook salmon	1	0	0	0	0	0
Twoline eelpout	0	4	73	130	132	69
Snakehead eelpout	0	0	8	54	102	50
Bigfin eelpout	173	443	71	0	0	0
Black eelpout	0	33	86	71	25	0
Shortspine thornyhead	187	289	197	176	162	165
Longspine thornyhead	0	478	945	1,499	1,190	1,405
Pacific ocean perch	1	1	0	0	0	0
Aurora rockfish	7	442	5	0	0	0
Silvergray rockfish	0	1	0	0	0	0
Greenspotted rockfish	8	0	0	0	0	0
Darkblotched rockfish	15	16	0	0	0	0
Splitnose rockfish	320	302	0	0	0	0
Greenstriped rockfish	139	0	0	0	0	0
Widow rockfish	12	0	0	0	0	0
Yellowtail rockfish	1	0	0	0	0	0
Chilipepper	124	0	0	0	0	0
Rosethorn rockfish	15	0	0	0	0	0
Shortbelly rockfish	348	0	0	0	0	0
Cowcod	6	0	0	0	0	0
Blackgill rockfish	17	223	3	0	0	0
Bocaccio	11	0	0	0	0	0
Canary rockfish	3	0	0	0	0	0
Redstripe rockfish	111	0	0	0	0	0
Redbanded rockfish	1	6	0	0	0	0
Stripetail rockfish	630	0	0	0	0	0
Sharpchin rockfish	115	0	0	0	0	0
Bank rockfish	16	5	0	0	0	0

Table 9.--Number of length frequency measurements collected by stratum during the 1999 West Coast upper continental slope bottom trawl survey of the International North Pacific Fisheries Commission Eureka area.

Species	Stratum 1 183-366 m	Stratum 2 367-549 m	Stratum 3 550-732 m	Stratum 4 733-914 m	Stratum 5 915-1,097 m	Stratum 6 1,098-1,280 m
Brown cat shark	50	250	237	117	25	0
Longnose cat shark	2	0	2	1	5	0
Spiny dogfish	40	10	0	1	0	0
Big skate	2	0	0	0	0	0
Bering skate	205	39	0	4	0	0
Longnose skate	97	42	6	1	0	0
Black skate	0	0	15	1	18	37
Pacific sanddab	2	0	0	0	0	0
Arrowtooth flounder	11	17	0	0	0	0
Slender sole	634	61	0	0	0	0
Petrale sole	33	0	0	0	0	0
English sole	74	0	0	0	0	0
Dover sole	429	495	358	387	80	45
Deepsea sole	0	0	10	72	72	141
Rex sole	574	462	231	2	0	0
California slickhead	0	0	106	128	100	55
Threadfin slickhead	0	0	10	19	5	2
Sablefish	9	36	54	56	69	271
Pacific grenadier	0	1	204	131	460	655
Giant grenadier	0	0	70	68	101	225
Pacific flatnose	0	33	127	138	338	252
Lingcod	5	0	0	0	0	0
Blacktail snailfish	1	12	21	7	1	0
Pacific hake	373	467	36	4	2	1
Chinook salmon	76	1	0	0	0	0
Twoline eelpout	0	9	16	9	11	11
Snakehead eelpout	0	0	8	65	94	6
Bigfin eelpout	316	156	4	0	0	0
Black eelpout	0	297	250	0	0	0
Shortspine thornyhead	218	480	40	23	13	66
Longspine thornyhead	0	55	850	1,080	904	1,218
Pacific ocean perch	0	1	0	0	0	0
Aurora rockfish	0	107	0	0	0	0
Darkblotched rockfish	33	3	0	0	0	0
Splitnose rockfish	406	0	0	0	0	0
Greenstriped rockfish	76	0	0	0	0	0
Widow rockfish	6	1	0	0	0	0
Chilipepper	6	0	0	0	0	0
Shortbelly rockfish	5	0	0	0	0	0
Blackgill rockfish	1	0	0	0	0	0
Bocaccio	10	0	0	0	0	0
Canary rockfish	1	0	0	0	0	0
Redstripe rockfish	16	0	0	0	0	0
Redbanded rockfish	4	0	0	0	0	0
Stripetail rockfish	410	0	0	0	0	0
Pygmy rockfish	2	0	0	0	0	0
Sharpchin rockfish	163	0	0	0	0	0

Table 10.--Number of length frequency measurements collected by stratum during the 1999 West Coast upper continental slope bottom trawl survey of the International North Pacific Fisheries Commission Columbia area.

Species	Stratum 1 183-366 m	Stratum 2 367-549 m	Stratum 3 550-732 m	Stratum 4 733-914 m	Stratum 5 915-1,097 m	Stratum 6 1,098-1,280 m
Brown cat shark	78	151	155	158	83	8
Longnose cat shark	0	0	0	0	2	13
Spiny dogfish	785	578	10	9	3	0
Deepsea skate	0	0	0	0	0	2
Bering skate	174	71	4	0	0	0
Longnose skate	95	47	5	0	0	0
Black skate	0	1	19	5	22	63
Pacific sanddab	9	0	0	0	0	0
Arrowtooth flounder	75	165	1	0	0	0
Pacific halibut	3	6	0	0	0	0
Flathead sole	1	0	0	0	0	0
Slender sole	1,012	668	0	0	0	0
Petrale sole	17	3	0	0	0	0
English sole	247	1	0	0	0	0
Dover sole	956	1,146	444	182	82	1
Deepsea sole	0	3	66	149	162	55
Rex sole	930	858	66	0	0	0
Bigeye poacher	3	10	0	0	0	0
California slickhead	0	0	49	303	197	221
Threadfin slickhead	0	0	56	209	39	2
Sablefish	127	147	305	206	63	174
Jack mackerel	7	14	1	0	0	0
California grenadier	0	0	1	0	0	0
Pacific grenadier	0	0	349	226	915	1,199
Giant grenadier	0	5	250	166	263	462
Popeye grenadier	0	0	2	0	1	0
Pacific cod	1	0	0	0	0	0
Pacific flatnose	0	58	583	127	486	600
Lingcod	4	0	0	0	0	0
Blacktail snailfish	9	8	6	17	0	0
Pacific hake	1,207	922	111	9	2	2
Chinook salmon	31	0	0	0	0	0
Twoline eelpout	0	9	55	42	58	118
Snakehead eelpout	0	0	14	66	107	7
Bigfin eelpout	565	393	36	0	0	0
Black eelpout	0	161	210	0	0	0
Blackbelly eelpout	4	0	0	0	0	0
Shortspine thornyhead	973	1,545	433	58	72	45
Longspine thornyhead	26	179	2,365	2,198	2,049	1,844
Rougheye rockfish	7	3	0	0	0	0
Pacific ocean perch	263	34	0	0	0	0
Aurora rockfish	4	100	0	0	0	0
Silvergray rockfish	2	0	0	0	0	0
Darkblotched rockfish	100	16	0	0	0	0
Splitnose rockfish	443	21	0	0	0	0
Greenstriped rockfish	106	0	0	0	0	0
Widow rockfish	33	0	0	0	0	0
Yellowtail rockfish	165	1	0	0	0	0
Rosethorn rockfish	51	9	0	0	0	0
Shortbelly rockfish	4	1	0	0	0	0
Canary rockfish	5	0	0	0	0	0
Redstripe rockfish	25	0	0	0	0	0
Redbanded rockfish	17	8	0	0	1	0
Stripetail rockfish	57	0	0	0	0	0
Pygmy rockfish	4	0	0	0	0	0
Sharpchin rockfish	286	3	0	0	0	0
Shortraker rockfish	1	2	0	0	0	0
Yellowmouth rockfish	34	0	0	0	0	0

Table 11.--Number of length frequency measurements collected by stratum during the 1999 West Coast upper continental slope bottom trawl survey of the International North Pacific Fisheries Commission U.S.-Vancouver area.

Species	Stratum 1 183-366 m	Stratum 2 367-549 m	Stratum 3 550-732 m	Stratum 4 733-914 m	Stratum 5 915-1,097 m	Stratum 6 1,098-1,280 m
Brown cat shark	5	79	42	39	2	2
Spiny dogfish	281	48	0	0	5	1
Bering skate	24	7	0	0	0	0
Longnose skate	29	18	0	0	0	0
Black skate	1	0	2	5	6	33
Spotted ratfish	18	0	0	0	0	0
Arrowtooth flounder	75	95	0	0	0	0
Pacific halibut	0	6	0	0	0	0
Slender sole	324	232	0	0	0	0
Petrale sole	27	0	0	0	0	0
English sole	70	0	0	0	0	0
Dover sole	278	237	71	21	0	0
Deepsea sole	0	2	25	67	48	15
Rex sole	201	74	0	0	0	0
Bigeye poacher	0	8	0	0	0	0
California slickhead	0	0	1	60	34	7
Threadfin slickhead	0	0	3	71	2	1
Sablefish	28	24	144	60	33	20
Jack mackerel	30	0	0	0	0	0
Pacific grenadier	0	0	82	131	256	478
Giant grenadier	0	29	39	44	44	180
Popeye grenadier	0	0	0	4	1	53
Pacific cod	6	0	0	0	0	0
Pacific flatnose	17	58	75	25	67	68
Lingcod	3	0	0	0	0	0
Blacktail snailfish	2	0	3	0	0	0
Pacific hake	126	155	4	1	0	0
Twoline eelpout	0	17	10	78	26	171
Snakehead eelpout	0	0	0	27	12	14
Bigfin eelpout	10	67	0	0	0	0
Black eelpout	3	55	97	2	0	0
Blackbelly eelpout	5	0	0	0	0	0
Shortspine thornyhead	103	361	108	42	34	31
Longspine thornyhead	16	0	635	731	479	431
Rougheye rockfish	6	9	0	0	0	0
Pacific ocean perch	186	76	0	0	0	0
Aurora rockfish	0	16	0	0	0	0
Silvergray rockfish	2	0	0	0	0	0
Darkblotched rockfish	74	2	0	0	0	0
Splitnose rockfish	346	2	0	0	0	0
Greenstriped rockfish	90	0	0	0	0	0
Widow rockfish	37	0	0	0	0	0
Rosethorn rockfish	6	7	0	0	0	0
Redstripe rockfish	11	0	0	0	0	0
Redbanded rockfish	12	0	0	0	0	0
Sharpchin rockfish	13	1	0	0	0	0
Shortraker rockfish	0	5	0	0	0	0

Table 12.--Mean CPUE (kg/ha) of the 20 most abundant groundfish and selected crab species caught in each of the International North Pacific Fisheries Commission areas for all strata combined during the 1999 West Coast upper continental slope groundfish survey.

U.S-Vancouver Area Species	All Strata 183-1,280m	Columbia Area Species	All Strata 183-1,280m	Eureka Area Species	All Strata 183-1,280m
Spiny dogfish	39.57	Spiny dogfish	30.85	Longspine thornyhead	22.54
Pacific hake	17.00	Dover sole	15.78	Dover sole	10.98
Longspine thornyhead	16.18	Longspine thornyhead	15.38	Sablefish	8.99
Sablefish	11.56	Pacific hake	11.71	True Tanner crab	8.56
Dover sole	8.08	Sablefish	7.87	Rex sole	7.16
Pacific ocean perch	5.81	Giant grenadier	6.35	Pacific grenadier	5.20
Giant grenadier	5.74	True Tanner crab	5.19	Giant grenadier	4.92
Shortspine thornyhead	4.04	Rex sole	5.11	Pacific hake	4.56
True Tanner crab	3.94	Shortspine thornyhead	4.25	Shortspine thornyhead	2.70
Pacific grenadier	3.30	Pacific grenadier	3.08	Stripetail rockfish	2.38
Arrowtooth flounder	3.02	Pacific ocean perch	2.95	Longnose skate	2.04
Longnose skate	2.71	Yellowtail rockfish	2.02	Slender sole	1.58
Spotted ratfish	2.39	Longnose skate	1.92	Deepsea sole	1.24
Slender sole	2.38	Splitnose rockfish	1.65	Brown cat shark	1.12
Twoline eelpout	1.76	Arrowtooth flounder	1.32	Pacific flatnose	1.04
Rex sole	1.48	Sharpchin rockfish	1.23	Black eelpout	1.03
Darkblotched rockfish	1.33	Slender sole	1.21	Splitnose rockfish	1.02
Deepsea sole	1.03	Pacific flatnose	0.97	California slickhead	0.86
Black skate	0.97	Bigfin eelpout	0.97	Bigfin eelpout	0.84
English sole	0.73	Darkblotched rockfish	0.92	Chinook salmon	0.84
Number of hauls	**19**	**Number of hauls**	**67**	**Number of hauls**	**31**

Monterey Area Species	All Strata 183-1,280m	Conception Area Species	All Strata 183-1,280m	All Areas Species	All Strata 183-1,280m
Dover sole	34.86	Longspine thornyhead	18.54	Dover sole	19.77
Shortbelly rockfish	19.45	Dover sole	18.50	Longspine thornyhead	17.95
Longspine thornyhead	18.82	Pacific hake	14.93	Spiny dogfish	15.94
Pacific hake	13.12	Sablefish	8.89	Pacific hake	11.94
Sablefish	8.67	Shortspine thornyhead	7.34	Sablefish	8.76
Pacific grenadier	7.72	Pacific grenadier	6.74	Pacific grenadier	5.20
Spiny dogfish	6.47	Longnose skate	4.89	Shortbelly rockfish	5.18
Rex sole	6.19	*Neolithodes diomedeae*	4.71	Giant grenadier	5.13
Shortspine thornyhead	5.47	Splitnose rockfish	3.86	Rex sole	4.87
Giant grenadier	4.75	California slickhead	3.05	Shortspine thornyhead	4.76
Stripetail rockfish	4.39	Giant grenadier	2.87	True Tanner crab	4.52
California slickhead	4.35	Aurora rockfish	2.17	Longnose skate	2.52
Spotted ratfish	3.98	Rex sole	1.68	Splitnose rockfish	2.30
True Tanner crab	3.76	Brown cat shark	1.32	California slickhead	2.03
Splitnose rockfish	3.71	Filetail cat shark	1.29	Stripetail rockfish	1.71
Pacific sanddab	3.01	Stripetail rockfish	1.00	Spotted ratfish	1.66
Petrale sole	2.21	Spotted ratfish	0.98	Pacific ocean perch	1.55
Longnose skate	2.17	Twoline eelpout	0.94	Slender sole	1.14
Bigfin eelpout	1.80	Bering skate	0.80	Bigfin eelpout	1.07
English sole	1.67	Deepsea sole	0.78	Pacific flatnose	1.04
Number of hauls	**53**	**Number of hauls**	**29**	**Number of hauls**	**199**

Table 13.--Mean CPUE (kg/ha) of the 20 most abundant groundfish and selected crab species caught in all the International North Pacific Fisheries Commission areas combined during the 1999 West Coast upper continental slope groundfish survey.

Species	Stratum 1 183-366 m	Species	Stratum 2 367-549 m	Species	Stratum 3 550-732 m
Spiny dogfish	84.53	Dover sole	40.07	Dover sole	20.12
Pacific hake	39.88	Pacific hake	27.34	Longspine thornyhead	19.21
Shortbelly rockfish	30.34	Rex sole	13.88	Sablefish	11.32
Dover sole	15.07	Spiny dogfish	8.21	True Tanner crab	9.41
Rex sole	13.69	Shortspine thornyhead	6.08	Shortspine thornyhead	5.13
Splitnose rockfish	10.91	Longnose skate	5.88	Giant grenadier	2.75
Stripetail rockfish	9.99	Sablefish	5.49	Pacific hake	1.62
Spotted ratfish	9.17	Bigfin eelpout	3.79	Brown cat shark	1.49
Longnose skate	8.10	Aurora rockfish	3.20	Black eelpout	0.90
Pacific ocean perch	7.04	Arrowtooth flounder	3.00	California slickhead	0.84
Slender sole	5.76	Longspine thornyhead	2.50	Pacific flatnose	0.81
Sablefish	5.40	Splitnose rockfish	2.44	Twoline eelpout	0.55
Pacific sanddab	4.70	Brown cat shark	2.16	Pacific grenadier	0.54
English sole	4.20	Pacific ocean perch	1.98	Rex sole	0.53
Yellowtail rockfish	3.99	Blackgill rockfish	1.96	Longnose skate	0.53
Petrale sole	3.95	Bering skate	1.88	Deepsea sole	0.47
Sharpchin rockfish	2.82	Pacific halibut	0.91	Filetail cat shark	0.41
Shortspine thornyhead	2.80	Slender sole	0.89	Black skate	0.40
Darkblotched rockfish	2.57	Black eelpout	0.76	Bigfin eelpout	0.24
Bering skate	2.18	Longhand hermit	0.58	Blacktail snailfish	0.22
Number of hauls	**34**	**Number of hauls**	**35**	**Number of hauls**	**33**

Species	Stratum 4 733-914 m	Species	Stratum 5 915-1,097 m	Species	Stratum 6 1,098-1,280m
Longspine thornyhead	39.52	Longspine thornyhead	29.97	Pacific grenadier	20.74
Dover sole	19.73	Dover sole	12.57	Longspine thornyhead	19.57
Sablefish	9.92	Pacific grenadier	9.12	Giant grenadier	17.37
True Tanner crab	9.22	Sablefish	8.69	Sablefish	12.00
Shortspine thornyhead	3.70	Giant grenadier	6.82	Dover sole	10.08
Giant grenadier	3.57	Shortspine thornyhead	5.77	Shortspine thornyhead	5.03
California slickhead	2.77	True Tanner crab	5.62	*Neolithodes diomedeae*	4.02
Deepsea sole	1.61	California slickhead	5.22	Pacific flatnose	3.75
Twoline eelpout	1.10	Deepsea sole	2.53	California slickhead	3.65
Brown cat shark	1.05	Pacific flatnose	1.26	True Tanner crab	3.32
Pacific grenadier	0.64	Twoline eelpout	0.93	Black skate	1.67
Threadfin slickhead	0.57	Black skate	0.85	Deepsea sole	1.62
Black skate	0.35	Snakehead eelpout	0.40	Twoline eelpout	1.31
Pacific flatnose	0.27	Brown cat shark	0.37	Deepsea skate	0.83
Hagfish unident.	0.24	Hagfish unident.	0.23	*Paralomis multispina*	0.66
Snakehead eelpout	0.20	Deepsea skate	0.22	Blob sculpin	0.26
Pacific hake	0.18	Spiny dogfish	0.16	Brown cat shark	0.21
Black eelpout	0.15	Blob sculpin	0.15	Popeye grenadier	0.13
Triangle Tanner crab	0.10	Threadfin slickhead	0.15	Blacksmelt unident.	0.11
Blacksmelt unident.	0.09	Blacksmelt unident.	0.11	Longnose cat shark	0.09
Number of hauls	**31**	**Number of hauls**	**32**	**Number of hauls**	**34**

Table 14.--Mean CPUE (kg/ha) of the 20 most abundant groundfish and selected crab species caught in the International North Pacific Fisheries Commission Conception area during the 1999 West Coast upper continental slope groundfish survey.

Species	Stratum 1 183-366 m	Species	Stratum 2 367-549 m	Species	Stratum 3 550-732 m
Pacific hake	77.57	Dover sole	27.76	Dover sole	28.71
Splitnose rockfish	23.79	Pacific hake	18.89	Longspine thornyhead	26.62
Longnose skate	19.04	Aurora rockfish	10.20	Shortspine thornyhead	11.37
Dover sole	10.70	Longnose skate	10.09	Sablefish	7.78
Stripetail rockfish	7.25	Shortspine thornyhead	8.90	Filetail cat shark	2.47
Spotted ratfish	6.73	Longspine thornyhead	8.90	California slickhead	2.03
Sablefish	6.15	Sablefish	6.74	Brown cat shark	1.66
Rex sole	5.42	Rex sole	4.48	Pacific hake	1.59
Bering skate	3.40	Blackgill rockfish	3.66	Longnose skate	0.92
Filetail cat shark	3.30	Splitnose rockfish	2.67	True Tanner crab	0.78
Chilipepper	1.96	Brown cat shark	2.20	Splitnose rockfish	0.16
Slender sole	1.94	Bigfin eelpout	2.05	Deepsea sole	0.13
Blackbelly eelpout	1.89	Filetail cat shark	1.96	Threadfin slickhead	0.13
Bigfin eelpout	1.78	Bering skate	1.60	Aurora rockfish	0.10
Brown cat shark	1.56	Black eelpout	0.95	Hagfish unident.	0.10
English sole	1.25	Spotted ratfish	0.28	Spiny dogfish	0.10
Bocaccio	1.04	True Tanner crab	0.08	King-of-the-salmon	0.07
Pacific electric ray	0.89	Giant grenadier	0.02	California grenadier	0.04
Shortspine thornyhead	0.84	California grenadier	0.02	Twoline eelpout	0.04
Black eelpout	0.73	Petrale sole	0.02	Giant grenadier	0.04
Number of hauls	**4**	**Number of hauls**	**6**	**Number of hauls**	**5**

Species	Stratum 4 733-914 m	Species	Stratum 5 915-1,097 m	Species	Stratum 6 1,098-1,280m
Longspine thornyhead	55.74	Longspine thornyhead	18.31	Pacific grenadier	34.51
Dover sole	32.96	Sablefish	13.27	*Neolithodes diomedeae*	27.30
Sablefish	17.45	Shortspine thornyhead	10.73	Longspine thornyhead	7.36
Shortspine thornyhead	8.21	Giant grenadier	9.00	Giant grenadier	6.09
California slickhead	5.22	Dover sole	8.50	California slickhead	5.73
Twoline eelpout	3.61	California slickhead	5.75	Sablefish	3.55
Deepsea sole	2.88	Pacific grenadier	4.49	Pacific flatnose	3.32
Giant grenadier	1.85	Twoline eelpout	2.14	Shortspine thornyhead	2.56
Brown cat shark	1.17	Deepsea sole	1.79	Dover sole	1.88
True Tanner crab	0.88	Black skate	0.68	Deepsea skate	1.07
Threadfin slickhead	0.77	Pacific flatnose	0.55	Brown cat shark	0.93
Black skate	0.43	True Tanner crab	0.52	Paralomis multispina	0.45
Blacksmelt unident.	0.34	Threadfin slickhead	0.47	Twoline eelpout	0.40
Hagfish unident.	0.31	Deepsea skate	0.42	Blob sculpin	0.34
Snakehead eelpout	0.14	Blacksmelt unident.	0.29	Deepsea sole	0.30
Longnose skate	0.14	Hagfish unident.	0.27	True Tanner crab	0.25
Pacific grenadier	0.12	Brown cat shark	0.26	Deepsea smelt unident.	0.22
Pacific flatnose	0.12	*Paralomis multispina*	0.19	Blacksmelt unident.	0.19
Black hagfish	0.12	Pacific hake	0.07	Black skate	0.19
Pacific hake	0.11	Snakehead eelpout	0.06	Pacific hake	0.09
Number of hauls	**4**	**Number of hauls**	**5**	**Number of hauls**	**5**

Table 15.--Mean CPUE (kg/ha) of the 20 most abundant groundfish and selected crab species caught in the International North Pacific Fisheries Commission Monterey area during the 1999 West Coast upper continental slope groundfish survey.

Species	Stratum 1 183-366 m	Species	Stratum 2 367-549 m	Species	Stratum 3 550-732 m
Shortbelly rockfish	114.56	Dover sole	53.12	Dover sole	27.75
Spiny dogfish	37.28	Pacific hake	37.26	Longspine thornyhead	17.56
Pacific hake	36.68	Rex sole	25.03	Sablefish	4.59
Stripetail rockfish	25.84	Splitnose rockfish	7.50	Shortspine thornyhead	3.99
Spotted ratfish	21.92	Longnose skate	6.94	Pacific hake	2.68
Dover sole	20.67	Bigfin eelpout	6.45	Brown cat shark	2.48
Pacific sanddab	17.73	Blackgill rockfish	5.17	True Tanner crab	2.15
Splitnose rockfish	14.37	Sablefish	4.15	California slickhead	1.31
Petrale sole	12.57	Brown cat shark	3.85	Pacific flatnose	0.87
Rex sole	11.09	Bering skate	3.68	Twoline eelpout	0.85
English sole	9.80	Longspine thornyhead	3.42	Giant grenadier	0.77
Sablefish	7.18	Aurora rockfish	3.09	Longnose skate	0.76
Longnose skate	4.88	Shortspine thornyhead	2.49	Bigfin eelpout	0.56
Slender sole	4.60	Spotted ratfish	1.54	Blacktail snailfish	0.38
Chilipepper	3.78	Soupfin shark	0.84	Hagfish unident.	0.36
Bigfin eelpout	3.58	Spiny dogfish	0.66	Rex sole	0.35
Shortspine thornyhead	1.77	Petrale sole	0.46	Deepsea sole	0.32
Redstripe rockfish	1.38	Filetail cat shark	0.45	Spiny dogfish	0.18
Bocaccio	1.31	Darkblotched rockfish	0.29	Black eelpout	0.15
Greenstriped rockfish	1.26	Deepsea sole	0.21	Bering skate	0.14
Number of hauls	**9**	**Number of hauls**	**9**	**Number of hauls**	**9**

Species	Stratum 4 733-914 m	Species	Stratum 5 915-1,097 m	Species	Stratum 6 1,098-1,280m
Longspine thornyhead	53.26	Dover sole	37.42	Dover sole	32.05
Dover sole	39.21	Longspine thornyhead	31.41	Pacific grenadier	25.81
True Tanner crab	12.43	Pacific grenadier	18.07	Giant grenadier	15.90
Sablefish	11.28	Sablefish	15.04	Longspine thornyhead	13.11
Shortspine thornyhead	6.16	California slickhead	13.39	Sablefish	10.54
California slickhead	5.06	Shortspine thornyhead	9.15	Shortspine thornyhead	9.29
Giant grenadier	3.34	Giant grenadier	7.19	California slickhead	7.09
Deepsea sole	1.44	True Tanner crab	5.27	Pacific flatnose	5.51
Twoline eelpout	1.36	Deepsea sole	4.61	True Tanner crab	3.75
Brown cat shark	1.21	Pacific flatnose	1.72	Deepsea sole	2.38
Pacific grenadier	0.72	Black skate	1.24	Deepsea skate	1.45
Black skate	0.61	Twoline eelpout	1.09	Black skate	1.17
Threadfin slickhead	0.59	Deepsea skate	0.63	*Paralomis multispina*	0.76
Black eelpout	0.57	Brown cat shark	0.43	Twoline eelpout	0.59
Hagfish unident.	0.41	Snakehead eelpout	0.43	Longnose cat shark	0.23
Pacific flatnose	0.39	Hagfish unident.	0.42	Pacific hake	0.18
Pacific hake	0.32	Longnose cat shark	0.34	Snakehead eelpout	0.15
Longnose cat shark	0.23	Ocean sunfish	0.22	Brown cat shark	0.14
Snakehead eelpout	0.19	*Paralomis multispina*	0.15	*Paralomis verrilli*	0.12
Longnose skate	0.18	Pacific hake	0.14	Blacksmelt unident.	0.10
Number of hauls	**8**	**Number of hauls**	**8**	**Number of hauls**	**10**

Table 16.--Mean CPUE (kg/ha) of the 20 most abundant groundfish and selected crab species caught in the International North Pacific Fisheries Commission Eureka area during the 1999 West Coast upper continental slope groundfish survey.

Species	Stratum 1 183-366 m	Species	Stratum 2 367-549 m	Species	Stratum 3 550-732 m
Rex sole	30.25	Dover sole	15.64	Longspine thornyhead	22.19
Pacific hake	14.86	Pacific hake	12.31	True Tanner crab	21.15
Stripetail rockfish	14.76	Rex sole	12.27	Dover sole	17.11
Slender sole	9.68	Longnose skate	5.63	Sablefish	4.80
Longnose skate	6.64	Longhand hermit	4.03	Black eelpout	4.00
Dover sole	6.36	Bigfin eelpout	3.39	Giant grenadier	3.13
Splitnose rockfish	6.35	Aurora rockfish	3.08	Shortspine thornyhead	2.02
Chinook salmon	5.07	Sablefish	3.01	Rex sole	1.83
Bering skate	3.01	Brown cat shark	2.65	Pacific grenadier	1.49
Bocaccio	2.15	Shortspine thornyhead	2.46	Brown cat shark	1.33
Bigfin eelpout	1.78	Black eelpout	2.41	Pacific hake	0.91
Sharpchin rockfish	1.63	Arrowtooth flounder	1.20	California slickhead	0.90
Lingcod	1.49	Bering skate	0.96	Pacific flatnose	0.59
English sole	1.47	Spiny dogfish	0.50	Twoline eelpout	0.42
Shortspine thornyhead	1.39	Hagfish unident.	0.33	Longnose skate	0.39
Arrowtooth flounder	1.19	Aleutian skate	0.30	Deepsea sole	0.30
Brown cat shark	1.13	Longspine thornyhead	0.28	Black skate	0.25
Spiny dogfish	1.09	Twoline eelpout	0.28	Hagfish unident.	0.11
Sablefish	1.04	Darkblotched rockfish	0.24	Blacktail snailfish	0.10
Petrale sole	1.02	True Tanner crab	0.20	Threadfin slickhead	0.08
Number of hauls	**5**	**Number of hauls**	**5**	**Number of hauls**	**5**

Species	Stratum 4 733-914 m	Species	Stratum 5 915-1,097 m	Species	Stratum 6 1,098-1,280m
Longspine thornyhead	41.85	Longspine thornyhead	34.06	Longspine thornyhead	34.49
Dover sole	18.99	True Tanner crab	11.28	Sablefish	28.77
True Tanner crab	13.46	Pacific grenadier	10.42	Pacific grenadier	16.18
Sablefish	5.38	Dover sole	7.42	Giant grenadier	15.68
Giant grenadier	3.29	Sablefish	6.98	Shortspine thornyhead	6.05
Shortspine thornyhead	1.70	Giant grenadier	5.27	True Tanner crab	5.83
Brown cat shark	1.55	Shortspine thornyhead	1.89	Deepsea sole	3.54
Deepsea sole	1.33	Deepsea sole	1.83	Pacific flatnose	2.98
California slickhead	1.14	Pacific flatnose	1.82	Black skate	2.34
Pacific grenadier	0.89	California slickhead	1.77	Dover sole	2.12
Pacific flatnose	0.41	Snakehead eelpout	1.01	California slickhead	1.25
Snakehead eelpout	0.34	Black skate	0.51	*Paralomis multispina*	1.03
Twoline eelpout	0.21	Brown cat shark	0.26	Blob sculpin	0.64
Hagfish unident.	0.12	Twoline eelpout	0.25	Twoline eelpout	0.27
Spiny dogfish	0.11	*Paralomis multispina*	0.11	Hagfish unident.	0.09
Threadfin slickhead	0.08	Hagfish unident.	0.11	Blacksmelt unident.	0.08
Pacific hake	0.08	Pacific hake	0.06	Alaska snailfish	0.05
Deepsea smelt unident.	0.04	Blacksmelt unident.	0.05	Deepsea smelt unident.	0.04
Blacktail snailfish	0.03	Threadfin slickhead	0.03	Snakehead eelpout	0.04
Black skate	0.03	Deepsea smelt unident.	0.02	Pacific hake	0.03
Number of hauls	**5**	**Number of hauls**	**5**	**Number of hauls**	**6**

Table 17.--Mean CPUE (kg/ha) of the 20 most abundant groundfish and selected crab species caught in the International North Pacific Fisheries Commission Columbia area during the 1999 West Coast upper continental slope groundfish survey.

Species	Stratum 1 183-366 m	Species	Stratum 2 367-549 m	Species	Stratum 3 550-732 m
Spiny dogfish	138.38	Dover sole	50.02	Longspine thornyhead	17.04
Pacific hake	27.01	Pacific hake	34.59	Dover sole	14.67
Dover sole	15.80	Spiny dogfish	21.92	True Tanner crab	13.91
Pacific ocean perch	14.76	Rex sole	14.11	Sablefish	12.97
Rex sole	12.90	Shortspine thornyhead	8.53	Giant grenadier	5.08
Yellowtail rockfish	10.40	Sablefish	6.69	Shortspine thornyhead	4.54
Splitnose rockfish	8.36	Arrowtooth flounder	5.14	Pacific hake	1.41
Longnose skate	6.33	Longnose skate	3.55	Pacific flatnose	1.22
Sharpchin rockfish	6.31	Bigfin eelpout	3.33	Black skate	0.88
Sablefish	5.79	Pacific halibut	1.61	Brown cat shark	0.81
Slender sole	5.01	Bering skate	1.38	Deepsea sole	0.73
Shortspine thornyhead	4.82	Slender sole	1.35	Pacific grenadier	0.62
Darkblotched rockfish	4.52	Brown cat shark	0.72	Twoline eelpout	0.59
Spotted ratfish	2.92	Aurora rockfish	0.59	Black eelpout	0.55
Bering skate	2.58	Black eelpout	0.59	Rex sole	0.48
English sole	2.17	Pacific ocean perch	0.50	Longnose skate	0.36
Arrowtooth flounder	2.05	Jack mackerel	0.37	Blacktail snailfish	0.26
Bigfin eelpout	1.74	Spotted ratfish	0.33	Spiny dogfish	0.24
Yellowmouth rockfish	1.02	True Tanner crab	0.30	Bigfin eelpout	0.23
Chinook salmon	0.91	Darkblotched rockfish	0.24	Threadfin slickhead	0.23
Number of hauls	**13**	**Number of hauls**	**12**	**Number of hauls**	**11**

Species	Stratum 4 733-914 m	Species	Stratum 5 915-1,097 m	Species	Stratum 6 1,098-1,280m
Longspine thornyhead	26.79	Longspine thornyhead	33.79	Giant grenadier	24.62
Sablefish	9.26	Giant grenadier	6.91	Longspine thornyhead	20.10
True Tanner crab	8.72	True Tanner crab	6.03	Pacific grenadier	13.59
Dover sole	6.69	Pacific grenadier	5.24	Sablefish	9.84
Giant grenadier	4.62	Sablefish	3.45	True Tanner crab	3.78
California slickhead	1.54	Shortspine thornyhead	3.26	Pacific flatnose	3.54
Shortspine thornyhead	1.29	Dover sole	2.12	Shortspine thornyhead	2.09
Deepsea sole	1.27	California slickhead	1.81	Black skate	1.99
Brown cat shark	0.76	Deepsea sole	1.67	California slickhead	1.62
Threadfin slickhead	0.75	Pacific flatnose	1.17	Twoline eelpout	1.35
Pacific grenadier	0.61	Black skate	0.74	Deepsea skate	0.84
Triangle Tanner crab	0.31	Twoline eelpout	0.66	Deepsea sole	0.64
Twoline eelpout	0.25	Brown cat shark	0.51	*Paralomis multispina*	0.64
Pacific flatnose	0.21	Blob sculpin	0.44	Blob sculpin	0.32
Pacific hake	0.21	Snakehead eelpout	0.33	Blacksmelt unident.	0.12
Snakehead eelpout	0.17	Hagfish unident.	0.16	Brown cat shark	0.08
Spiny dogfish	0.13	Threadfin slickhead	0.16	Pacific viperfish	0.07
Black skate	0.13	Blacksmelt unident.	0.11	Hagfish unident.	0.06
Hagfish unident.	0.10	Black hagfish	0.10	Deepsea smelt unident.	0.04
Blacksmelt unident.	0.07	Pacific viperfish	0.07	Longnose cat shark	0.04
Number of hauls	**10**	**Number of hauls**	**11**	**Number of hauls**	**10**

Table 18.--Mean CPUE (kg/ha) of the 20 most abundant groundfish and selected crab species caught in the International North Pacific Fisheries Commission U.S.-Vancouver area during the 1999 West Coast upper continental slope groundfish survey.

Species	Stratum 1 183-366 m	Species	Stratum 2 367-549 m	Species	Stratum 3 550-732 m
Spiny dogfish	243.85	Dover sole	26.43	Sablefish	42.19
Pacific hake	96.66	Pacific ocean perch	21.04	Longspine thornyhead	14.85
Pacific ocean perch	15.72	Arrowtooth flounder	12.05	True Tanner crab	9.54
Dover sole	15.43	Pacific hake	10.49	Dover sole	7.88
Spotted ratfish	15.11	Shortspine thornyhead	7.48	Shortspine thornyhead	5.48
Longnose skate	13.21	Sablefish	6.33	Giant grenadier	4.04
Slender sole	11.02	Spiny dogfish	5.30	Brown cat shark	1.03
Rex sole	8.36	Pacific halibut	4.17	Pacific grenadier	0.95
Darkblotched rockfish	8.16	Slender sole	4.08	Deepsea sole	0.82
Arrowtooth flounder	7.10	Longnose skate	3.96	Pacific flatnose	0.79
Sablefish	4.66	Giant grenadier	2.89	Black eelpout	0.75
English sole	4.65	Brown cat shark	1.99	Twoline eelpout	0.55
Petrale sole	2.84	Bigfin eelpout	1.78	Black skate	0.51
Widow rockfish	2.72	Shortraker rockfish	1.69	Pacific hake	0.45
Jack mackerel	2.59	True Tanner crab	1.36	Black hagfish	0.13
Greenstriped rockfish	2.25	Rougheye rockfish	1.21	Blacktail snailfish	0.10
Shortspine thornyhead	2.06	Twoline eelpout	1.07	Threadfin slickhead	0.05
Splitnose rockfish	1.95	Rex sole	1.01	Blacksmelt unident.	0.03
Bering skate	1.60	Bering skate	0.53	Hagfish unident.	0.03
Lingcod	1.11	Pacific flatnose	0.41	Pacific viperfish	0.03
Number of hauls	**3**	**Number of hauls**	**3**	**Number of hauls**	**3**

Species	Stratum 4 733-914 m	Species	Stratum 5 915-1,097 m	Species	Stratum 6 1,098-1,280 m
Longspine thornyhead	24.71	Longspine thornyhead	24.73	Longspine thornyhead	29.83
True Tanner crab	7.12	Sablefish	6.14	Giant grenadier	20.24
Sablefish	6.98	Pacific grenadier	5.05	Pacific grenadier	13.81
Giant grenadier	3.50	Giant grenadier	4.49	Twoline eelpout	7.12
Shortspine thornyhead	2.75	Shortspine thornyhead	4.09	Sablefish	4.59
Deepsea sole	1.85	True Tanner crab	4.08	Black skate	3.33
Twoline eelpout	1.32	Deepsea sole	2.51	Shortspine thornyhead	2.79
Dover sole	1.07	Spiny dogfish	1.43	Popeye grenadier	1.46
California slickhead	0.88	Black skate	1.05	Pacific flatnose	0.81
Pacific grenadier	0.80	California slickhead	0.84	Deepsea sole	0.75
Black skate	0.74	Twoline eelpout	0.66	True Tanner crab	0.46
Brown cat shark	0.70	Pacific flatnose	0.62	California slickhead	0.23
Threadfin slickhead	0.47	Hagfish unident.	0.14	Snakehead eelpout	0.20
Hagfish unident.	0.34	Black hagfish	0.13	Blacksmelt unident.	0.09
Snakehead eelpout	0.20	*Lithodes couesi*	0.11	Brown cat shark	0.09
Lithodes couesi	0.16	Snakehead eelpout	0.10	Black hagfish	0.06
Pacific flatnose	0.13	Triangle Tanner crab	0.05	Pacific viperfish	0.04
Pacific hake	0.05	Blacktail snailfish	0.04	Spiny dogfish	0.03
Blacktail snailfish	0.05	Pacific viperfish	0.03	*Lithodes couesi*	0.03
Blacksmelt unident.	0.03	Blacksmelt unident.	0.03	*Lampanyctus* sp.	0.03
Number of hauls	**4**	**Number of hauls**	**3**	**Number of hauls**	**3**

Table 19.--Estimates of fish biomass (metric tons) and coefficient of variation (CV) by stratum for the International North Pacific Fisheries Commission U.S.-Vancouver, Columbia, Eureka Monterey, and Conception areas combined from the 1999 West Coast upper continental slope bottom trawl survey. Differences in totals result from rounding.

Species	Stratum 1 183-366 m		Stratum 2 367-549 m		Stratum 3 550-732 m		Stratum 4 733-914 m	
	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV
Brown cat shark	688	30%	2,005	17%	1,377	14%	870	20%
Spiny dogfish	78,188	43%	7,615	35%	132	51%	50	76%
Bering skate	2,017	22%	1,741	18%	67	61%	3	-
Longnose skate	7,490	16%	5,448	17%	486	24%	56	66%
Black skate	23	-	-	-	370	31%	294	38%
Pacific whiting	36,885	22%	25,347	21%	1,494	22%	151	38%
Pacific grenadier	-	-	9	-	499	35%	536	21%
Giant grenadier	-	-	302	-	2,537	25%	2,968	16%
Shortspine thornyhead	2,589	25%	5,641	13%	4,730	19%	3,070	20%
Longspine thornyhead	26	-	2,322	32%	17,721	15%	32,821	9%
Pacific ocean perch	6,510	60%	1,839	91%	-	-	-	-
Aurora rockfish	41	54%	2,970	27%	33	52%	-	0%
Darkblotched rockfish	2,381	66%	196	30%	-	-	-	0%
Splitnose rockfish	10,088	34%	2,259	56%	23	100%	-	-
Redbanded rockfish	202	41%	52	39%	-	-	-	-
Sablefish	4,997	19%	5,089	16%	10,437	30%	8,238	18%
Twoline eelpout	-	-	184	40%	507	22%	914	30%
Bigfin eelpout	-	-	-	0%	25	46%	169	14%
Black eelpout	110	57%	701	32%	832	33%	124	99%
Lycenchelys spp.	1,950	36%	3,511	19%	222	42%	-	-
Arrowtooth flounder	1,467	28%	2,782	29%	4	100%	-	-
Slender sole	5,324	16%	821	36%	-	0%	-	-
Dover sole	13,940	24%	37,150	19%	18,556	21%	16,387	21%
Deepsea sole	-	-	67	73%	431	20%	1,334	11%
Rex sole	12,663	23%	12,870	23%	493	44%	3	100%

Species	Stratum 5 915-1,097 m		Stratum 6 1,098-1,280 m		All Strata 183-1,280 m	
	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV
Brown cat shark	336	23%	166	53%	5,442	9%
Spiny dogfish	142	86%	2	-	86,129	39%
Bering skate	-	0%	-	-	3,829	14%
Longnose skate	13	100%	-	-	13,493	11%
Black skate	776	19%	1,325	19%	2,789	12%
Pacific whiting	59	37%	64	46%	64,000	15%
Pacific grenadier	8,319	17%	16,502	12%	25,865	9%
Giant grenadier	6,222	15%	13,819	16%	25,848	10%
Shortspine thornyhead	5,260	17%	4,006	20%	25,295	8%
Longspine thornyhead	27,335	6%	15,572	11%	95,795	5%
Pacific ocean perch	-	-	-	-	8,350	51%
Aurora rockfish	-	-	-	-	3,044	27%
Darkblotched rockfish	-	-	-	-	2,578	61%
Splitnose rockfish	-	-	-	-	12,369	29%
Redbanded rockfish	1	-	-	-	256	33%
Sablefish	7,922	17%	9,547	22%	46,230	10%
Twoline eelpout	852	23%	1,039	46%	3,495	17%
Bigfin eelpout	363	25%	63	47%	620	16%
Black eelpout	17	100%	-	-	1,783	21%
Lycenchelys spp.	-	-	-	-	5,683	17%
Arrowtooth flounder	-	-	-	-	4,253	22%
Slender sole	-	-	-	-	6,145	15%
Dover sole	11,464	35%	8,022	59%	105,520	11%
Deepsea sole	2,305	14%	1,292	22%	5,429	9%
Rex sole	-	-	-	-	26,028	16%

Table 20.--Estimates of fish biomass (metric tons) and coefficient of variation (CV) by stratum for the International North Pacific Fisheries Commission Conception area from the 1999 West Coast upper continental slope bottom trawl survey. Differences in totals result from rounding.

Species	Stratum 1 183-366 m		Stratum 2 367-549 m		Stratum 3 550-732 m		Stratum 4 733-914 m	
	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV
Brown cat shark	187	68%	526	47%	391	39%	181	22%
Spiny dogfish	73	39%	-	0%	30	100%	-	0%
Bering skate	407	64%	368	45%	-	0%	-	0%
Longnose skate	2,281	32%	1,932	38%	164	82%	21	100%
Black skate	-	0%	-	0%	-	0%	67	100%
Pacific whiting	9,289	11%	4,387	18%	474	54%	18	58%
Pacific grenadier	-	0%	-	0%	-	0%	19	100%
Giant grenadier	-	0%	7	100%	12	100%	286	22%
Shortspine thornyhead	101	61%	1,732	24%	1,456	15%	1,270	13%
Longspine thornyhead	-	0%	1,993	27%	6,800	47%	8,623	10%
Pacific ocean perch	-	0%	-	0%	-	0%	-	0%
Aurora rockfish	36	53%	2,345	42%	31	100%	-	0%
Darkblotched rockfish	-	0%	-	0%	-	0%	-	0%
Splitnose rockfish	2,850	42%	733	100%	49	100%	-	0%
Redbanded rockfish	53	87%	-	0%	-	0%	-	0%
Sablefish	736	37%	1,587	34%	1,886	37%	2,700	37%
Twoline eelpout	-	0%	-	0%	11	96%	559	48%
Bigfin eelpout	-	0%	-	0%	-	0%	22	47%
Black eelpout	87	61%	211	80%	7	92%	-	0%
Lycenchelys spp.	213	30%	450	68%	9	100%	-	0%
Arrowtooth flounder	-	0%	-	0%	-	0%	-	0%
Slender sole	233	43%	4	97%	-	0%	-	0%
Dover sole	1,282	39%	6,975	25%	6,564	43%	5,099	55%
Deepsea sole	-	0%	-	0%	40	100%	446	25%
Rex sole	649	45%	1,220	28%	-	0%	-	0%

Species	Stratum 5 915-1,097 m		Stratum 6 1,098-1,280 m		All Strata 183-1,280 m	
	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV
Brown cat shark	48	100%	119	76%	1,452	23%
Spiny dogfish	-	0%	-	0%	103	40%
Bering skate	-	0%	-	0%	775	40%
Longnose skate	-	0%	-	0%	4,398	24%
Black skate	128	65%	24	100%	218	50%
Pacific whiting	12	66%	12	69%	14,191	9%
Pacific grenadier	839	39%	4,413	29%	5,270	25%
Giant grenadier	1,683	35%	779	41%	2,766	24%
Shortspine thornyhead	2,007	29%	328	37%	6,893	11%
Longspine thornyhead	3,422	18%	941	26%	21,779	16%
Pacific ocean perch	-	0%	-	0%	-	0%
Aurora rockfish	-	0%	-	0%	2,412	41%
Darkblotched rockfish	-	0%	-	0%	-	0%
Splitnose rockfish	-	0%	-	0%	3,631	38%
Redbanded rockfish	-	0%	-	0%	53	87%
Sablefish	2,480	27%	454	32%	9,843	15%
Twoline eelpout	400	48%	51	61%	1,021	33%
Bigfin eelpout	12	39%	2	100%	35	32%
Black eelpout	-	0%	-	0%	305	58%
Lycenchelys spp.	-	0%	-	0%	672	46%
Arrowtooth flounder	-	0%	-	0%	-	0%
Slender sole	-	0%	-	0%	237	42%
Dover sole	1,588	62%	240	64%	21,747	21%
Deepsea sole	335	21%	39	41%	859	16%
Rex sole	-	0%	-	0%	1,869	24%

Table 21.--Estimates of fish biomass (metric tons) and coefficient of variation (CV) by stratum for the International North Pacific Fisheries Commission Monterey area from the 1999 West Coast upper continental slope bottom trawl survey. Differences in totals result from rounding.

Species	Stratum 1 183-366 m		Stratum 2 367-549 m		Stratum 3 550-732 m		Stratum 4 733-914 m	
	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV
Brown cat shark	28	62%	665	24%	499	16%	251	41%
Spiny dogfish	6,601	100%	115	68%	35	100%	-	0%
Bering skate	141	41%	636	21%	28	96%	-	0%
Longnose skate	865	37%	1,199	32%	153	29%	38	87%
Black skate	-	0%	-	0%	18	100%	126	51%
Pacific whiting	6,496	32%	6,436	38%	539	33%	66	40%
Pacific grenadier	-	0%	7	100%	15	57%	148	53%
Giant grenadier	-	0%	27	76%	155	43%	693	34%
Shortspine thornyhead	313	74%	431	32%	803	26%	1,277	35%
Longspine thornyhead	-	0%	591	57%	3,528	42%	11,047	20%
Pacific ocean perch	4	100%	3	100%	-	0%	-	0%
Aurora rockfish	1	68%	534	35%	15	50%	-	0%
Darkblotched rockfish	21	74%	50	58%	-	0%	-	0%
Splitnose rockfish	2,545	60%	1,296	64%	-	0%	-	0%
Redbanded rockfish	-	100%	13	56%	-	0%	-	0%
Sablefish	1,272	47%	716	46%	923	19%	2,339	45%
Twoline eelpout	-	0%	13	73%	171	39%	282	42%
Bigfin eelpout	-	0%	-	0%	4	100%	39	26%
Black eelpout	-	0%	10	88%	30	41%	119	100%
Lycenchelys spp.	634	80%	1,113	25%	113	54%	-	0%
Arrowtooth flounder	-	0%	23	100%	-	0%	-	0%
Slender sole	815	34%	33	45%	-	0%	-	0%
Dover sole	3,660	58%	9,175	37%	5,576	43%	8,132	19%
Deepsea sole	-	0%	36	93%	63	32%	298	20%
Rex sole	1,963	34%	4,324	30%	71	98%	-	0%

Species	Stratum 5 915-1,097 m		Stratum 6 1,098-1,280 m		All Strata 183-1,280 m	
	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV
Brown cat shark	98	19%	33	43%	1,573	13%
Spiny dogfish	-	0%	-	0%	6,752	98%
Bering skate	-	0%	-	0%	805	18%
Longnose skate	13	100%	-	0%	2,269	22%
Black skate	279	33%	277	43%	699	23%
Pacific whiting	32	55%	42	65%	13,611	24%
Pacific grenadier	4,066	19%	6,087	18%	10,323	13%
Giant grenadier	1,618	47%	3,750	24%	6,244	19%
Shortspine thornyhead	2,060	22%	2,190	29%	7,074	14%
Longspine thornyhead	7,069	11%	3,093	24%	25,328	11%
Pacific ocean perch	-	0%	-	0%	6	72%
Aurora rockfish	-	0%	-	0%	550	34%
Darkblotched rockfish	-	0%	-	0%	71	47%
Splitnose rockfish	-	0%	-	0%	3,841	45%
Redbanded rockfish	-	0%	-	0%	13	55%
Sablefish	3,385	28%	2,486	31%	11,122	16%
Twoline eelpout	246	33%	139	33%	850	19%
Bigfin eelpout	96	31%	36	76%	175	24%
Black eelpout	16	100%	-	0%	175	69%
Lycenchelys spp.	-	0%	-	0%	1,860	31%
Arrowtooth flounder	-	0%	-	0%	23	100%
Slender sole	-	0%	-	0%	848	33%
Dover sole	8,420	38%	7,560	60%	42,523	17%
Deepsea sole	1,038	20%	562	35%	1,998	15%
Rex sole	-	0%	-	0%	6,358	23%

Table 22.--Estimates of fish biomass (metric tons) and coefficient of variation (CV) by stratum for the International North Pacific Fisheries Commission Eureka area from the 1999 West Coast upper continental slope bottom trawl survey. Differences in totals result from rounding.

Species	Stratum 1 183-366 m		Stratum 2 367-549 m		Stratum 3 550-732 m		Stratum 4 733-914 m	
	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV
Brown cat shark	122	44%	292	21%	223	29%	266	67%
Spiny dogfish	118	73%	55	85%	-	0%	19	100%
Bering skate	324	32%	106	59%	-	0%	4	100%
Longnose skate	715	34%	621	35%	65	68%	3	100%
Black skate	-	0%	-	0%	42	100%	5	100%
Pacific whiting	1,598	36%	1,359	14%	152	63%	13	76%
Pacific grenadier	-	0%	-	100%	250	75%	152	48%
Giant grenadier	-	0%	-	0%	522	78%	566	30%
Shortspine thornyhead	150	38%	272	42%	337	25%	293	41%
Longspine thornyhead	-	0%	31	100%	3,706	19%	7,192	9%
Pacific ocean perch	-	0%	4	100%	-	0%	-	0%
Aurora rockfish	-	0%	340	44%	-	0%	-	0%
Darkblotched rockfish	68	64%	26	88%	-	0%	-	0%
Splitnose rockfish	683	45%	-	0%	-	0%	-	0%
Redbanded rockfish	40	80%	-	0%	-	0%	-	0%
Sablefish	111	33%	332	27%	801	27%	924	14%
Twoline eelpout	-	0%	31	100%	71	47%	37	34%
Bigfin eelpout	-	0%	-	0%	13	80%	59	27%
Black eelpout	-	0%	266	34%	668	26%	-	0%
Lycenchelys spp.	192	33%	374	52%	8	73%	-	0%
Arrowtooth flounder	128	30%	133	30%	-	0%	-	0%
Slender sole	1,041	24%	16	48%	-	0%	-	0%
Dover sole	684	48%	1,725	26%	2,859	51%	3,263	30%
Deepsea sole	-	0%	-	0%	49	24%	228	17%
Rex sole	3,254	35%	1,353	28%	306	64%	3	100%

Species	Stratum 5 915-1,097 m		Stratum 6 1,098-1,280 m		All Strata 183-1,280 m	
	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV
Brown cat shark	51	31%	-	0%	954	22%
Spiny dogfish	-	0%	-	0%	192	52%
Bering skate	-	0%	-	0%	434	28%
Longnose skate	-	0%	-	0%	1,403	23%
Black skate	100	51%	327	27%	474	24%
Pacific whiting	12	100%	4	100%	3,138	20%
Pacific grenadier	2,032	44%	2,264	19%	4,697	21%
Giant grenadier	1,027	23%	2,193	22%	4,309	16%
Shortspine thornyhead	369	35%	846	37%	2,266	17%
Longspine thornyhead	6,644	8%	4,823	16%	22,397	6%
Pacific ocean perch	-	0%	-	0%	4	100%
Aurora rockfish	-	0%	-	0%	340	44%
Darkblotched rockfish	-	0%	-	0%	94	52%
Splitnose rockfish	-	0%	-	0%	683	45%
Redbanded rockfish	-	0%	-	0%	40	80%
Sablefish	1,361	38%	4,024	40%	7,555	23%
Twoline eelpout	48	44%	38	59%	224	25%
Bigfin eelpout	196	49%	5	100%	274	36%
Black eelpout	-	0%	-	0%	934	21%
Lycenchelys spp.	-	0%	-	0%	574	36%
Arrowtooth flounder	-	0%	-	0%	260	21%
Slender sole	-	0%	-	0%	1,058	24%
Dover sole	1,448	69%	296	40%	10,276	21%
Deepsea sole	356	46%	495	24%	1,129	18%
Rex sole	-	0%	-	0%	4,917	25%

Table 23.--Estimates of fish biomass (metric tons) and coefficient of variation (CV) by stratum for the International North Pacific Fisheries Commission Columbia area from the 1999 West Coast upper continental slope bottom trawl survey. Differences in totals result from rounding.

Species	Stratum 1 183-366 m		Stratum 2 367-549 m		Stratum 3 550-732 m		Stratum 4 733-914 m	
	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV
Brown cat shark	365	48%	270	28%	210	37%	178	25%
Spiny dogfish	55,696	58%	8,201	31%	63	67%	32	100%
Bering skate	1,038	38%	515	41%	28	76%	-	0%
Longnose skate	2,550	24%	1,328	41%	93	55%	-	0%
Black skate	-	0%	1	100%	229	33%	30	65%
Pacific whiting	10,870	28%	12,940	35%	367	40%	48	90%
Pacific grenadier	-	0%	-	0%	162	24%	145	31%
Giant grenadier	-	0%	36	100%	1,325	29%	1,087	32%
Shortspine thornyhead	1,941	29%	3,190	17%	1,184	20%	305	29%
Longspine thornyhead	19	100%	65	77%	4,446	20%	6,307	8%
Pacific ocean perch	5,943	71%	187	53%	-	0%	-	0%
Aurora rockfish	7	66%	221	47%	-	0%	-	0%
Darkblotched rockfish	1,820	91%	90	37%	-	0%	-	0%
Splitnose rockfish	3,364	83%	48	58%	-	0%	-	0%
Redbanded rockfish	42	35%	41	48%	-	0%	-	0%
Sablefish	2,331	15%	2,502	24%	3,384	26%	2,180	23%
Twoline eelpout	-	0%	51	69%	155	36%	58	32%
Bigfin eelpout	-	0%	-	0%	8	63%	41	31%
Black eelpout	33	100%	221	75%	143	57%	-	0%
Lycenchelys spp.	699	23%	1,244	41%	59	71%	-	0%
Arrowtooth flounder	826	32%	1,923	16%	3	100%	-	0%
Slender sole	2,015	25%	503	45%	-	0%	-	0%
Dover sole	6,361	29%	18,714	29%	3,828	40%	1,575	58%
Deepsea sole	-	0%	19	100%	189	31%	300	20%
Rex sole	5,191	48%	5,278	44%	125	70%	-	0%

Species	Stratum 5 915-1,097 m		Stratum 6 1,098-1,280 m		All Strata 183-1,280 m	
	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV
Brown cat shark	122	40%	19	40%	1,164	19%
Spiny dogfish	15	84%	-	0%	64,007	50%
Bering skate	-	0%	-	0%	1,581	28%
Longnose skate	-	0%	-	0%	3,971	21%
Black skate	177	28%	477	29%	913	18%
Pacific whiting	6	70%	7	67%	24,239	22%
Pacific grenadier	1,249	19%	3,253	14%	4,808	11%
Giant grenadier	1,645	17%	5,891	32%	9,985	20%
Shortspine thornyhead	777	31%	499	22%	7,897	11%
Longspine thornyhead	8,050	8%	4,810	14%	23,697	6%
Pacific ocean perch	-	0%	-	0%	6,129	69%
Aurora rockfish	-	0%	-	0%	228	46%
Darkblotched rockfish	-	0%	-	0%	1,911	87%
Splitnose rockfish	-	0%	-	0%	3,413	82%
Redbanded rockfish	1	100%	-	0%	85	29%
Sablefish	822	16%	2,353	27%	13,573	10%
Twoline eelpout	157	33%	323	50%	744	25%
Bigfin eelpout	79	29%	6	39%	134	20%
Black eelpout	-	0%	-	0%	397	47%
Lycenchelys spp.	-	0%	-	0%	2,002	27%
Arrowtooth flounder	-	0%	-	0%	2,752	14%
Slender sole	-	0%	-	0%	2,519	22%
Dover sole	504	51%	5	100%	30,987	20%
Deepsea sole	397	20%	153	41%	1,058	12%
Rex sole	-	0%	-	0%	10,594	32%

Table 24.--Estimates of fish biomass (metric tons) and coefficient of variation (CV) by stratum for the International North Pacific Fisheries Commission U.S.-Vancouver area from the West Coast upper continental slope bottom trawl survey. Differences in totals result from rounding.

Species	Stratum 1 183-366 m		Stratum 2 367-549 m		Stratum 3 550-732 m		Stratum 4 733-914 m	
	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV
Brown cat shark	9	48%	82	51%	53	9%	43	29%
Spiny dogfish	28,796	71%	218	86%	-	0%	-	0%
Bering skate	189	15%	22	42%	-	0%	-	0%
Longnose skate	1,559	34%	163	19%	-	0%	-	0%
Black skate	33	100%	-	0%	27	88%	45	100%
Pacific whiting	11,415	93%	432	46%	23	100%	3	100%
Pacific grenadier	-	0%	-	0%	49	43%	49	15%
Giant grenadier	-	0%	119	54%	209	36%	214	18%
Shortspine thornyhead	244	45%	308	18%	284	16%	168	44%
Longspine thornyhead	13	100%	-	0%	768	28%	1,511	18%
Pacific ocean perch	1,857	71%	867	100%	-	0%	-	0%
Aurora rockfish	-	0%	8	100%	-	0%	-	0%
Darkblotched rockfish	963	94%	10	100%	-	0%	-	0%
Splitnose rockfish	231	44%	3	100%	-	0%	-	0%
Redbanded rockfish	96	91%	-	0%	-	0%	-	0%
Sablefish	550	63%	261	64%	2,183	82%	427	30%
Twoline eelpout	-	0%	44	51%	28	18%	81	50%
Bigfin eelpout	-	0%	-	0%	-	0%	12	20%
Black eelpout	2	100%	15	61%	39	73%	1	100%
Lycenchelys spp.	35	32%	73	42%	-	0%	-	0%
Arrowtooth flounder	838	29%	496	67%	-	0%	-	0%
Slender sole	1,301	54%	168	51%	-	0%	-	0%
Dover sole	1,823	34%	1,089	36%	408	72%	65	80%
Deepsea sole	-	0%	1	100%	42	35%	113	29%
Rex sole	987	66%	42	36%	-	0%	-	0%

Species	Stratum 5 915-1,097 m		Stratum 6 1,098-1,280 m		All Strata 183-1,280 m	
	Biomass (t)	CV	Biomass (t)	CV	Biomass (t)	CV
Brown cat shark	2	100%	5	100%	193	23%
Spiny dogfish	95	100%	2	100%	29,111	70%
Bering skate	-	0%	-	0%	211	15%
Longnose skate	-	0%	-	0%	1,722	31%
Black skate	70	69%	176	51%	351	34%
Pacific whiting	-	0%	-	0%	11,873	90%
Pacific grenadier	338	35%	730	42%	1,166	29%
Giant grenadier	300	27%	1,070	12%	1,913	10%
Shortspine thornyhead	273	50%	147	20%	1,424	14%
Longspine thornyhead	1,652	24%	1,577	19%	5,521	11%
Pacific ocean perch	-	0%	-	0%	2,724	58%
Aurora rockfish	-	0%	-	0%	8	100%
Darkblotched rockfish	-	0%	-	0%	973	93%
Splitnose rockfish	-	0%	-	0%	233	43%
Redbanded rockfish	-	0%	-	0%	96	91%
Sablefish	410	12%	243	16%	4,074	45%
Twoline eelpout	44	39%	377	90%	574	60%
Bigfin eelpout	7	57%	11	69%	30	29%
Black eelpout	-	0%	-	0%	57	52%
Lycenchelys spp.	-	0%	-	0%	109	30%
Arrowtooth flounder	-	0%	-	0%	1,335	31%
Slender sole	-	0%	-	0%	1,470	48%
Dover sole	-	0%	-	0%	3,384	24%
Deepsea sole	167	46%	39	43%	363	24%
Rex sole	-	0%	-	0%	1,029	63%

Table 25.--Estimates of fish population and coefficient of variation (CV) by stratum for the International North Pacific Fisheries Commission U.S.-Vancouver, Columbia, Eureka, Monterey, and Conception areas combined from the 1999 West Coast upper continental slope bottom trawl survey. Differences in totals result from rounding.

Species	Stratum 1 183-366 m		Stratum 2 367-549 m		Stratum 3 550-732 m		Stratum 4 733-914 m	
	Population (number)	CV	Population (number)	CV	Population (number)	CV	Population (number)	CV
Brown cat shark	1,557,467	28%	8,594,416	17%	7,895,548	16%	4,441,934	24%
Spiny dogfish	87,694,373	42%	8,982,686	35%	193,857	62%	68,357	91%
Bering skate	4,463,283	20%	2,627,103	19%	83,290	62%	26,527	100%
Longnose skate	5,782,384	24%	2,408,990	19%	313,117	28%	35,970	51%
Black skate	7,942	100%	7,055	100%	276,084	43%	196,925	32%
Pacific whiting	237,670,878	41%	55,165,973	22%	6,573,103	47%	678,096	57%
Pacific grenadier	0	0%	70,651	91%	6,033,265	30%	4,959,830	17%
Giant grenadier	0	0%	277,991	52%	2,934,238	24%	2,907,941	15%
Shortspine thornyhead	19,972,854	26%	40,369,355	19%	8,541,053	21%	2,987,902	20%
Longspine thornyhead	307,501	71%	20,874,031	34%	199,031,677	13%	366,990,990	9%
Pacific ocean perch	10,956,849	60%	2,510,099	89%	0	0%	-	0%
Aurora rockfish	310,423	48%	9,895,170	25%	88,912	61%	-	0%
Darkblotched rockfish	5,732,480	65%	268,896	32%	0	0%	-	0%
Splitnose rockfish	96,184,614	31%	6,219,007	56%	71,843	100%	-	0%
Redbanded rockfish	350,953	28%	105,260	39%	0	0%	-	0%
Sablefish	10,591,486	47%	3,084,658	21%	5,855,375	27%	4,611,942	17%
Twoline eelpout	0	0%	265,754	40%	1,236,713	23%	2,997,482	29%
Bigfin eelpout	0	0%	0	0%	239,558	43%	1,642,658	13%
Black eelpout	2,514,540	60%	11,425,289	30%	13,373,485	36%	1,577,268	99%
Lycenchelys spp.	18,479,841	29%	22,476,950	23%	878,265	43%	-	0%
Arrowtooth flounder	1,386,330	32%	2,398,544	36%	6,979	100%	-	0%
Slender sole	106,115,063	17%	16,721,442	36%	0	0%	-	0%
Dover sole	56,867,207	27%	110,597,039	20%	31,623,357	22%	25,524,739	23%
Deepsea sole	0	0%	137,875	62%	963,479	25%	3,451,802	12%
Rex sole	109,606,837	25%	86,517,011	21%	3,699,109	46%	12,533	100%

Species	Stratum 5 915-1,097 m		Stratum 6 1,098-1,280 m		All Strata 183-1,280 m	
	Population (number)	CV	Population (number)	CV	Population (number)	CV
Brown cat shark	1,365,589	26%	283,295	46%	24,138,249	9%
Spiny dogfish	81,346	70%	5,643	100%	97,026,262	38%
Bering skate	0	0%	0	0%	7,200,203	15%
Longnose skate	7,131	100%	0	0%	8,547,592	17%
Black skate	573,372	17%	928,802	22%	1,990,181	13%
Pacific whiting	104,988	37%	117,509	46%	300,310,546	33%
Pacific grenadier	23,919,053	11%	37,532,645	9%	72,515,444	7%
Giant grenadier	6,238,230	16%	10,903,488	14%	23,261,888	8%
Shortspine thornyhead	3,220,216	18%	1,986,976	17%	77,078,357	12%
Longspine thornyhead	270,936,244	7%	167,997,070	12%	1,026,137,515	5%
Pacific ocean perch	0	0%	0	0%	13,466,947	51%
Aurora rockfish	0	0%	0	0%	10,294,505	24%
Darkblotched rockfish	0	0%	0	0%	6,001,376	62%
Splitnose rockfish	0	0%	0	0%	102,475,465	29%
Redbanded rockfish	6,936	100%	0	0%	463,149	23%
Sablefish	3,756,244	17%	3,777,556	22%	31,677,261	17%
Twoline eelpout	2,575,590	26%	2,660,754	47%	9,736,294	17%
Bigfin eelpout	3,153,098	27%	484,044	48%	5,519,357	17%
Black eelpout	174,266	100%	0	0%	29,064,847	22%
Lycenchelys spp.	0	0%	0	0%	41,835,056	18%
Arrowtooth flounder	0	0%	0	0%	3,791,853	25%
Slender sole	0	0%	0	0%	122,836,505	16%
Dover sole	12,224,548	37%	6,781,939	60%	243,618,829	12%
Deepsea sole	4,166,412	12%	2,095,940	20%	10,815,507	7%
Rex sole	0	0%	0	0%	199,835,490	17%

Table 26.--Estimates of fish population and coefficient of variation (CV) by stratum for the International North Pacific Fisheries Commission Conception area from the 1999 West Coast upper continental slope bottom trawl survey. Differences in totals result from rounding.

Species	Stratum 1 183-366 m		Stratum 2 367-549 m		Stratum 3 550-732 m		Stratum 4 733-914 m	
	Population (number)	CV	Population (number)	CV	Population (number)	CV	Population (number)	CV
Brown cat shark	361,067	73%	3,076,403	42%	2,684,776	45%	567,458	41%
Spiny dogfish	60,426	48%	0	0%	15,529	100%	-	0%
Bering skate	574,044	59%	360,527	42%	0	0%	-	0%
Longnose skate	2,713,761	34%	1,032,908	51%	170,320	89%	11,251	100%
Black skate	0	0%	0	0%	0	0%	29,735	100%
Pacific whiting	129,922,282	69%	14,222,155	23%	1,576,344	41%	29,201	63%
Pacific grenadier	0	0%	0	0%	0	0%	144,668	100%
Giant grenadier	0	0%	12,509	100%	16,173	100%	296,865	19%
Shortspine thornyhead	323,850	71%	3,779,463	36%	2,100,684	11%	1,339,754	21%
Longspine thornyhead	0	0%	18,262,846	41%	50,421,401	45%	61,918,136	8%
Pacific ocean perch	0	0%	0	0%	0	0%	-	0%
Aurora rockfish	204,994	58%	6,733,721	37%	108,706	100%	-	0%
Darkblotched rockfish	0	0%	0	0%	0	0%	-	0%
Splitnose rockfish	29,353,138	57%	2,365,468	99%	155,294	100%	-	0%
Redbanded rockfish	60,496	66%	0	0%	0	0%	-	0%
Sablefish	3,194,278	51%	1,123,229	37%	1,281,018	41%	1,501,324	34%
Twoline eelpout	0	0%	0	0%	110,041	59%	1,675,971	41%
Bigfin eelpout	0	0%	0	0%	0	0%	204,614	40%
Black eelpout	2,012,685	68%	3,549,338	78%	186,997	89%	-	0%
Lycenchelys spp.	2,184,026	49%	2,757,362	60%	90,154	100%	-	0%
Arrowtooth flounder	0	0%	0	0%	0	0%	-	0%
Slender sole	5,510,417	46%	99,036	86%	0	0%	-	0%
Dover sole	6,479,702	28%	15,931,152	26%	9,500,243	46%	6,971,962	65%
Deepsea sole	0	0%	0	0%	48,519	100%	779,903	34%
Rex sole	6,167,603	54%	4,986,699	29%	0	0%	-	0%

Species	Stratum 5 915-1,097 m		Stratum 6 1,098-1,280 m		All Strata 183-1,280 m	
	Population (number)	CV	Population (number)	CV	Population (number)	CV
Brown cat shark	146,335	100%	173,563	78%	7,009,602	26%
Spiny dogfish	0	0%	0	0%	75,956	43%
Bering skate	0	0%	0	0%	934,571	40%
Longnose skate	0	0%	0	0%	3,928,241	28%
Black skate	87,944	57%	33,640	100%	151,319	45%
Pacific whiting	19,122	61%	20,153	67%	145,789,257	61%
Pacific grenadier	1,688,233	35%	6,258,313	27%	8,091,214	22%
Giant grenadier	1,740,957	37%	765,169	41%	2,831,672	25%
Shortspine thornyhead	1,455,184	32%	211,709	29%	9,210,644	16%
Longspine thornyhead	29,843,685	11%	6,362,604	29%	166,808,672	15%
Pacific ocean perch	0	0%	0	0%	0	0%
Aurora rockfish	0	0%	0	0%	7,047,421	35%
Darkblotched rockfish	0	0%	0	0%	0	0%
Splitnose rockfish	0	0%	0	0%	31,873,901	53%
Redbanded rockfish	0	0%	0	0%	60,496	66%
Sablefish	1,298,382	25%	177,646	34%	8,575,877	22%
Twoline eelpout	1,182,951	42%	201,338	61%	3,170,301	27%
Bigfin eelpout	78,803	33%	19,181	100%	302,598	29%
Black eelpout	0	0%	0	0%	5,749,019	54%
Lycenchelys spp.	0	0%	0	0%	5,031,542	39%
Arrowtooth flounder	0	0%	0	0%	0	0%
Slender sole	0	0%	0	0%	5,609,452	45%
Dover sole	1,879,965	69%	218,347	67%	40,981,371	19%
Deepsea sole	447,293	7%	59,400	41%	1,335,115	20%
Rex sole	0	0%	0	0%	11,154,301	33%

Table 27.--Estimates of fish population and coefficient of variation (CV) by stratum for the International North Pacific Fisheries Commission Monterey area from the 1999 West Coast upper continental slope bottom trawl survey. Differences in totals result from rounding.

Species	Stratum 1 183-366 m		Stratum 2 367-549 m		Stratum 3 550-732 m		Stratum 4 733-914 m	
	Population (number)	CV	Population (number)	CV	Population (number)	CV	Population (number)	CV
Brown cat shark	152,201	63%	2,366,414	28%	2,686,428	25%	1,379,617	34%
Spiny dogfish	12,145,507	100%	221,832	65%	86,743	100%	-	0%
Bering skate	345,762	39%	1,063,790	20%	42,670	86%	-	0%
Longnose skate	1,031,450	39%	587,477	31%	106,944	31%	20,928	70%
Black skate	0	0%	0	0%	5,967	100%	93,657	48%
Pacific whiting	63,296,249	45%	15,867,062	43%	3,736,732	63%	531,779	67%
Pacific grenadier	0	0%	46,466	100%	168,734	47%	1,416,681	33%
Giant grenadier	0	0%	25,735	80%	171,318	42%	764,205	33%
Shortspine thornyhead	2,169,964	84%	1,565,150	38%	1,208,695	31%	1,177,024	32%
Longspine thornyhead	0	0%	5,124,592	58%	30,408,967	52%	117,893,686	21%
Pacific ocean perch	4,956	100%	5,084	100%	0	0%	-	0%
Aurora rockfish	68,461	83%	2,405,442	38%	30,853	54%	-	0%
Darkblotched rockfish	93,644	71%	82,555	63%	0	0%	-	0%
Splitnose rockfish	16,270,331	61%	3,390,849	66%	0	0%	-	0%
Redbanded rockfish	5,546	100%	31,759	56%	0	0%	-	0%
Sablefish	4,554,543	74%	438,773	42%	552,085	16%	1,288,575	45%
Twoline eelpout	0	0%	20,999	75%	439,948	43%	892,312	54%
Bigfin eelpout	0	0%	0	0%	45,776	100%	399,187	20%
Black eelpout	0	0%	163,887	89%	509,445	44%	1,512,813	100%
Lycenchelys spp.	4,575,415	78%	6,382,089	24%	425,134	55%	-	0%
Arrowtooth flounder	0	0%	10,326	100%	0	0%	-	0%
Slender sole	10,753,403	32%	526,013	43%	0	0%	-	0%
Dover sole	18,146,893	57%	28,201,765	34%	9,415,771	43%	13,363,295	24%
Deepsea sole	0	0%	72,258	82%	133,214	46%	902,926	31%
Rex sole	15,848,340	31%	25,512,803	27%	436,136	97%	-	0%

Species	Stratum 5 915-1,097 m		Stratum 6 1,098-1,280 m		All Strata 183-1,280 m	
	Population (number)	CV	Population (number)	CV	Population (number)	CV
Brown cat shark	378,219	32%	58,895	33%	7,021,774	15%
Spiny dogfish	0	0%	0	0%	12,454,081	98%
Bering skate	0	0%	0	0%	1,452,221	18%
Longnose skate	7,037	100%	0	0%	1,753,836	25%
Black skate	164,535	33%	116,530	43%	380,689	23%
Pacific whiting	61,326	52%	81,613	63%	83,574,762	35%
Pacific grenadier	7,490,801	16%	10,738,768	17%	19,861,450	11%
Giant grenadier	1,736,648	44%	3,504,928	23%	6,202,834	18%
Shortspine thornyhead	1,123,381	19%	948,502	29%	8,192,716	25%
Longspine thornyhead	59,247,603	11%	29,775,747	24%	242,450,595	13%
Pacific ocean perch	0	0%	0	0%	10,040	71%
Aurora rockfish	0	0%	0	0%	2,504,757	37%
Darkblotched rockfish	0	0%	0	0%	176,198	48%
Splitnose rockfish	0	0%	0	0%	19,661,180	52%
Redbanded rockfish	0	0%	0	0%	37,305	50%
Sablefish	1,518,724	29%	876,901	27%	9,229,600	37%
Twoline eelpout	929,949	50%	409,027	28%	2,692,235	26%
Bigfin eelpout	781,999	32%	290,579	75%	1,517,540	23%
Black eelpout	171,977	100%	0	0%	2,358,123	66%
Lycenchelys spp.	0	0%	0	0%	11,382,638	34%
Arrowtooth flounder	0	0%	0	0%	10,326	100%
Slender sole	0	0%	0	0%	11,279,416	31%
Dover sole	8,967,591	41%	6,364,034	62%	84,459,350	19%
Deepsea sole	1,602,217	16%	784,583	34%	3,495,198	14%
Rex sole	0	0%	0	0%	41,797,280	20%

Table 28.--Estimates of fish population and coefficient of variation (CV) by stratum for the International North Pacific Fisheries Commission Eureka area from the 1999 West Coast upper continental slope bottom trawl survey. Differences in totals result from rounding.

Species	Stratum 1 183-366 m		Stratum 2 367-549 m		Stratum 3 550-732 m		Stratum 4 733-914 m	
	Population (number)	CV	Population (number)	CV	Population (number)	CV	Population (number)	CV
Brown cat shark	289,787	57%	1,412,358	22%	1,965,597	25%	1,573,822	71%
Spiny dogfish	240,809	65%	58,760	79%	0	0%	8,509	100%
Bering skate	1,378,548	32%	216,003	62%	0	0%	34,034	100%
Longnose skate	621,410	30%	247,571	20%	49,688	61%	8,401	100%
Black skate	0	0%	0	0%	131,074	100%	8,509	100%
Pacific whiting	5,647,724	74%	3,146,182	15%	294,084	66%	34,376	72%
Pacific grenadier	0	0%	5,419	100%	3,021,754	59%	1,130,993	38%
Giant grenadier	0	0%	0	0%	617,929	75%	585,797	30%
Shortspine thornyhead	1,442,951	36%	2,774,150	39%	332,217	25%	193,245	28%
Longspine thornyhead	0	0%	295,416	100%	44,649,393	22%	97,495,185	10%
Pacific ocean perch	0	0%	5,990	100%	0	0%	-	0%
Aurora rockfish	0	0%	835,850	43%	0	0%	-	0%
Darkblotched rockfish	254,473	63%	19,689	69%	0	0%	-	0%
Splitnose rockfish	17,690,107	53%	0	0%	0	0%	-	0%
Redbanded rockfish	30,732	50%	0	0%	0	0%	-	0%
Sablefish	62,455	34%	209,955	25%	456,832	32%	477,461	13%
Twoline eelpout	0	0%	48,341	100%	132,376	53%	76,236	48%
Bigfin eelpout	0	0%	0	0%	96,493	80%	549,514	26%
Black eelpout	0	0%	4,339,637	31%	11,067,861	31%	-	0%
Lycenchelys spp.	2,383,314	37%	2,616,183	64%	33,005	73%	-	0%
Arrowtooth flounder	91,181	27%	96,682	32%	0	0%	-	0%
Slender sole	27,906,503	26%	351,103	39%	0	0%	-	0%
Dover sole	4,440,092	38%	5,328,630	32%	5,803,760	55%	5,212,665	29%
Deepsea sole	0	0%	0	0%	85,467	29%	615,534	19%
Rex sole	42,172,688	36%	13,355,279	30%	2,739,837	58%	16,079	100%

Species	Stratum 5 915-1,097 m		Stratum 6 1,098-1,280 m		All Strata 183-1,280 m	
	Population (number)	CV	Population (number)	CV	Population (number)	CV
Brown cat shark	261,794	59%	0	0%	5,503,358	23%
Spiny dogfish	0	0%	0	0%	308,077	53%
Bering skate	0	0%	0	0%	1,628,585	28%
Longnose skate	0	0%	0	0%	927,071	21%
Black skate	171,770	54%	214,828	35%	526,181	34%
Pacific whiting	18,562	100%	5,865	100%	9,146,793	46%
Pacific grenadier	7,269,283	33%	5,882,486	25%	17,309,936	19%
Giant grenadier	979,933	24%	1,772,531	26%	3,956,189	18%
Shortspine thornyhead	144,710	28%	383,043	36%	5,270,316	23%
Longspine thornyhead	80,312,685	11%	56,754,153	14%	279,506,831	7%
Pacific ocean perch	0	0%	0	0%	5,990	100%
Aurora rockfish	0	0%	0	0%	835,850	43%
Darkblotched rockfish	0	0%	0	0%	274,162	59%
Splitnose rockfish	0	0%	0	0%	17,690,107	53%
Redbanded rockfish	0	0%	0	0%	30,732	50%
Sablefish	672,604	42%	1,581,729	41%	3,461,036	21%
Twoline eelpout	109,183	35%	64,363	69%	430,499	26%
Bigfin eelpout	1,810,185	54%	35,189	100%	2,491,381	40%
Black eelpout	0	0%	0	0%	15,407,499	24%
Lycenchelys spp.	0	0%	0	0%	5,032,502	38%
Arrowtooth flounder	0	0%	0	0%	187,862	21%
Slender sole	0	0%	0	0%	28,257,606	25%
Dover sole	1,495,334	65%	260,689	34%	22,541,171	19%
Deepsea sole	699,311	44%	819,709	25%	2,220,021	17%
Rex sole	0	0%	0	0%	58,283,883	27%

Table 29.--Estimates of fish population and coefficient of variation (CV) by stratum for the International North Pacific Fisheries Commission Columbia area from the 1999 West Coast upper continental slope bottom trawl survey. Differences in totals result from rounding.

Species	Stratum 1 183-366 m		Stratum 2 367-549 m		Stratum 3 550-732 m		Stratum 4 733-914 m	
	Population (number)	CV	Population (number)	CV	Population (number)	CV	Population (number)	CV
Brown cat shark	688,166	47%	1,319,926	33%	959,268	31%	986,637	33%
Spiny dogfish	49,635,997	53%	9,737,178	30%	66,281	68%	54,241	100%
Bering skate	1,718,116	27%	704,976	38%	25,359	78%	-	0%
Longnose skate	943,741	17%	409,366	28%	30,756	54%	-	0%
Black skate	0	0%	8,303	100%	116,935	31%	32,473	45%
Pacific whiting	16,430,327	24%	21,560,838	37%	721,814	41%	65,758	73%
Pacific grenadier	0	0%	0	0%	2,175,356	29%	1,392,551	33%
Giant grenadier	0	0%	43,281	100%	1,531,828	27%	1,009,171	28%
Shortspine thornyhead	15,796,242	28%	29,742,808	21%	2,764,271	31%	348,736	34%
Longspine thornyhead	205,337	100%	1,408,192	78%	66,871,996	16%	84,701,438	12%
Pacific ocean perch	9,895,996	73%	283,158	50%	0	0%	-	0%
Aurora rockfish	33,544	57%	831,024	42%	0	0%	-	0%
Darkblotched rockfish	4,303,056	92%	135,615	37%	0	0%	-	0%
Splitnose rockfish	24,625,736	81%	179,844	62%	0	0%	-	0%
Redbanded rockfish	184,598	37%	72,281	51%	0	0%	-	0%
Sablefish	1,239,036	17%	1,501,110	42%	1,916,315	26%	1,265,581	24%
Twoline eelpout	0	0%	73,090	70%	352,832	33%	257,767	23%
Bigfin eelpout	0	0%	0	0%	86,174	60%	412,497	28%
Black eelpout	742,884	100%	3,454,887	69%	2,242,113	61%	-	0%
Lycenchelys spp.	8,036,665	24%	9,598,219	52%	234,916	80%	-	0%
Arrowtooth flounder	755,181	37%	1,494,762	17%	5,924	100%	-	0%
Slender sole	44,050,374	25%	11,947,576	44%	0	0%	-	0%
Dover sole	18,740,481	28%	59,444,260	31%	7,107,292	44%	2,355,558	59%
Deepsea sole	0	0%	25,969	100%	416,971	39%	900,611	20%
Rex sole	28,766,261	35%	37,427,725	42%	730,719	74%	-	0%

Species	Stratum 5 915-1,097 m		Stratum 6 1,098-1,280 m		All Strata 183-1,280 m	
	Population (number)	CV	Population (number)	CV	Population (number)	CV
Brown cat shark	505,850	44%	51,653	41%	4,511,501	16%
Spiny dogfish	20,762	69%	0	0%	59,514,459	45%
Bering skate	0	0%	0	0%	2,448,452	22%
Longnose skate	0	0%	0	0%	1,383,863	14%
Black skate	130,676	19%	389,314	34%	677,702	21%
Pacific whiting	11,174	67%	12,473	67%	38,802,385	23%
Pacific grenadier	5,764,539	11%	11,138,511	10%	20,470,958	7%
Giant grenadier	1,564,693	18%	3,884,213	29%	8,033,186	16%
Shortspine thornyhead	431,251	23%	288,769	25%	49,372,076	16%
Longspine thornyhead	80,122,030	8%	56,473,943	13%	289,782,936	6%
Pacific ocean perch	0	0%	0	0%	10,179,154	71%
Aurora rockfish	0	0%	0	0%	864,568	41%
Darkblotched rockfish	0	0%	0	0%	4,438,671	89%
Splitnose rockfish	0	0%	0	0%	24,805,580	81%
Redbanded rockfish	5,271	100%	0	0%	262,150	30%
Sablefish	372,432	15%	1,054,521	24%	7,348,995	13%
Twoline eelpout	354,641	33%	722,865	53%	1,761,195	24%
Bigfin eelpout	679,771	27%	43,869	38%	1,222,311	18%
Black eelpout	0	0%	0	0%	6,439,883	44%
Lycenchelys spp.	0	0%	0	0%	17,869,800	30%
Arrowtooth flounder	0	0%	0	0%	2,255,866	17%
Slender sole	0	0%	0	0%	55,997,950	21%
Dover sole	464,843	49%	6,231	100%	88,118,664	22%
Deepsea sole	966,689	17%	355,038	38%	2,665,278	12%
Rex sole	0	0%	0	0%	66,924,705	28%

Table 30.--Estimates of fish population and coefficient of variation (CV) by stratum for the International North Pacific Fisheries Commission U.S.-Vancouver area from the 1999 West Coast upper continental slope bottom trawl survey. Differences in totals result from rounding.

Species	Stratum 1 183-366 m		Stratum 2 367-549 m		Stratum 3 550-732 m		Stratum 4 733-914 m	
	Population (number)	CV	Population (number)	CV	Population (number)	CV	Population (number)	CV
Brown cat shark	69,179	53%	297,881	44%	201,959	33%	156,139	32%
Spiny dogfish	38,955,128	86%	172,200	81%	0	0%	-	0%
Bering skate	305,117	20%	25,528	36%	0	0%	-	0%
Longnose skate	398,118	51%	67,125	24%	0	0%	-	0%
Black skate	11,490	100%	0	0%	13,072	56%	20,516	100%
Pacific whiting	15,203,502	95%	917,118	54%	33,758	100%	3,822	100%
Pacific grenadier	0	0%	0	0%	451,062	34%	530,293	16%
Giant grenadier	0	0%	102,866	51%	241,003	33%	175,478	13%
Shortspine thornyhead	1,407,990	58%	3,457,803	37%	591,762	6%	168,854	47%
Longspine thornyhead	183,839	100%	0	0%	10,955,309	21%	17,051,464	3%
Pacific ocean perch	3,261,188	52%	1,169,041	100%	0	0%	-	0%
Aurora rockfish	0	0%	66,598	100%	0	0%	-	0%
Darkblotched rockfish	2,170,267	92%	8,325	100%	0	0%	-	0%
Splitnose rockfish	4,352,775	47%	8,325	100%	0	0%	-	0%
Redbanded rockfish	126,223	74%	0	0%	0	0%	-	0%
Sablefish	323,321	57%	94,030	50%	1,098,809	81%	244,141	33%
Twoline eelpout	0	0%	60,451	53%	53,064	14%	320,405	56%
Bigfin eelpout	0	0%	0	0%	0	0%	108,790	20%
Black eelpout	47,364	100%	196,188	68%	461,477	70%	7,944	100%
Lycenchelys spp.	135,225	44%	262,375	49%	0	0%	-	0%
Arrowtooth flounder	878,865	38%	517,376	74%	0	0%	-	0%
Slender sole	17,721,100	59%	2,780,746	62%	0	0%	-	0%
Dover sole	5,506,437	17%	2,526,492	35%	615,393	70%	80,746	87%
Deepsea sole	0	0%	8,325	100%	130,513	48%	270,327	34%
Rex sole	5,052,610	48%	275,652	47%	0	0%	-	0%

Species	Stratum 5 915-1,097 m		Stratum 6 1,098-1,280 m		All Strata 183-1,280 m	
	Population (number)	CV	Population (number)	CV	Population (number)	CV
Brown cat shark	10,812	100%	11,663	100%	747,633	21%
Spiny dogfish	42,223	100%	4,250	100%	39,173,801	85%
Bering skate	0	0%	0	0%	330,645	19%
Longnose skate	0	0%	0	0%	465,243	44%
Black skate	32,931	77%	139,972	52%	217,981	37%
Pacific whiting	0	0%	0	0%	16,158,200	89%
Pacific grenadier	1,676,115	23%	3,274,492	51%	5,931,962	29%
Giant grenadier	293,947	28%	863,360	15%	1,676,655	11%
Shortspine thornyhead	233,809	42%	139,364	21%	5,999,582	25%
Longspine thornyhead	18,783,429	24%	15,365,639	5%	62,339,680	8%
Pacific ocean perch	0	0%	0	0%	4,430,229	46%
Aurora rockfish	0	0%	0	0%	66,598	100%
Darkblotched rockfish	0	0%	0	0%	2,178,592	92%
Splitnose rockfish	0	0%	0	0%	4,361,100	47%
Redbanded rockfish	0	0%	0	0%	126,223	74%
Sablefish	192,138	25%	94,332	10%	2,046,770	45%
Twoline eelpout	144,487	47%	978,152	92%	1,556,558	59%
Bigfin eelpout	65,269	57%	75,257	67%	249,316	27%
Black eelpout	0	0%	0	0%	712,973	50%
Lycenchelys spp.	0	0%	0	0%	397,600	36%
Arrowtooth flounder	0	0%	0	0%	1,396,241	36%
Slender sole	0	0%	0	0%	20,501,846	52%
Dover sole	0	0%	0	0%	8,729,068	16%
Deepsea sole	327,331	36%	69,883	47%	806,377	21%
Rex sole	0	0%	0	0%	5,328,262	46%

Table 31.--Total number of hauls and hauls with weight, number and length data by stratum for the International North Pacific Fisheries Commission Conception, Monterey, Eureka, Columbia, and U.S.-Vancouver areas from the 1999 West Coast upper continental slope bottom trawl survey.

Species	Stratum 1 183-366 m Total hauls = 34			Stratum 2 367-549 m Total hauls = 35			Stratum 3 550-732 m Total hauls = 33		
	Hauls with:			Hauls with:			Hauls with:		
	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.
Brown cat shark	20	20	19	29	29	29	33	33	33
Spiny dogfish	25	25	25	21	21	21	4	4	4
Bering skate	32	32	32	32	32	32	4	4	4
Longnose skate	33	33	33	21	21	21	15	15	15
Black skate	1	1	1	26	26	26	11	11	11
Pacific whiting	33	33	33	35	35	34	25	25	24
Pacific grenadier	0	0	0	2	2	2	22	22	22
Giant grenadier	0	0	0	6	6	5	23	23	23
Shortspine thornyhead	26	26	26	35	35	35	33	33	33
Longspine thornyhead	2	2	2	14	14	14	33	33	33
Pacific ocean perch	11	11	11	10	10	10	0	0	0
Aurora rockfish	8	8	8	30	30	30	4	4	4
Darkblotched rockfish	20	20	20	12	12	12	0	0	0
Splitnose rockfish	29	29	29	12	12	12	1	1	1
Redbanded rockfish	15	15	15	7	7	7	0	0	0
Sablefish	30	30	30	35	35	35	33	33	33
Twoline eelpout	0	0	0	7	7	7	28	28	27
Bigfin eelpout	0	0	0	0	0	0	7	7	7
Black eelpout	4	4	3	22	22	20	24	24	22
Lycenchelys spp.	32	32	30	33	33	32	10	10	10
Arrowtooth flounder	21	21	20	21	21	21	1	1	1
Slender sole	34	34	34	26	26	26	0	0	0
Dover sole	33	33	33	35	35	35	32	32	32
Deepsea sole	0	0	0	4	4	4	24	24	24
Rex sole	34	34	34	33	33	33	12	12	12

Species	Stratum 4 733-914 m Total hauls = 31			Stratum 5 915-1,097 m Total hauls = 32			Stratum 6 1,098-1,280 m Total hauls = 34		
	Hauls with:			Hauls with:			Hauls with:		
	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.
Brown cat shark	30	30	30	23	23	23	15	15	14
Spiny dogfish	2	2	2	3	3	3	1	1	1
Bering skate	1	1	1	0	0	0	0	0	0
Longnose skate	4	4	4	1	1	1	0	0	0
Black skate	12	12	12	26	26	25	22	22	22
Pacific whiting	12	12	11	9	9	9	9	9	9
Pacific grenadier	28	28	28	32	32	32	34	34	34
Giant grenadier	31	31	31	32	32	32	34	34	34
Shortspine thornyhead	29	29	29	32	32	31	34	34	34
Longspine thornyhead	31	31	31	32	32	32	34	34	34
Pacific ocean perch	0	0	0	0	0	0	0	0	0
Aurora rockfish	0	0	0	0	0	0	0	0	0
Darkblotched rockfish	0	0	0	0	0	0	0	0	0
Splitnose rockfish	0	0	0	0	0	0	0	0	0
Redbanded rockfish	0	0	0	1	1	1	0	0	0
Sablefish	31	31	31	31	31	31	33	33	33
Twoline eelpout	29	29	29	29	29	28	23	23	23
Bigfin eelpout	28	28	26	28	28	25	13	13	13
Black eelpout	2	2	2	1	1	1	0	0	0
Lycenchelys spp.	0	0	0	0	0	0	0	0	0
Arrowtooth flounder	0	0	0	0	0	0	0	0	0
Slender sole	0	0	0	0	0	0	0	0	0
Dover sole	29	29	28	22	22	22	16	16	16
Deepsea sole	30	30	30	32	32	32	32	32	32
Rex sole	1	1	1	0	0	0	0	0	0

Table 32.--Total number of hauls and hauls with weight, number and length data by stratum for the International North Pacific Fisheries Commission Conception area from the 1999 West Coast upper continental slope bottom trawl survey.

Species	Stratum 1 183-366 m Total hauls = 4			Stratum 2 367-549 m Total hauls = 6			Stratum 3 550-732 m Total hauls = 5		
	Hauls with:			Hauls with:			Hauls with:		
	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.
Brown cat shark	2	2	2	4	4	4	5	5	5
Spiny dogfish	3	3	3	0	0	0	1	1	1
Bering skate	4	4	4	6	6	6	0	0	0
Longnose skate	4	4	4	0	0	0	3	3	3
Black skate	0	0	0	2	2	2	0	0	0
Pacific whiting	4	4	4	6	6	6	4	4	3
Pacific grenadier	0	0	0	0	0	0	0	0	0
Giant grenadier	0	0	0	0	0	0	1	1	1
Shortspine thornyhead	2	2	2	6	6	6	5	5	5
Longspine thornyhead	0	0	0	5	5	5	5	5	5
Pacific ocean perch	0	0	0	0	0	0	0	0	0
Aurora rockfish	3	3	3	6	6	6	1	1	1
Darkblotched rockfish	0	0	0	0	0	0	0	0	0
Splitnose rockfish	4	4	4	2	2	2	1	1	1
Redbanded rockfish	2	2	2	0	0	0	0	0	0
Sablefish	4	4	4	6	6	6	5	5	5
Twoline eelpout	0	0	0	0	0	0	3	3	2
Bigfin eelpout	0	0	0	0	0	0	0	0	0
Black eelpout	2	2	2	4	4	3	2	2	1
Lycenchelys spp.	4	4	4	5	5	4	1	1	1
Arrowtooth flounder	0	0	0	0	0	0	0	0	0
Slender sole	4	4	4	2	2	2	0	0	0
Dover sole	4	4	4	6	6	6	5	5	5
Deepsea sole	0	0	0	0	0	0	1	1	1
Rex sole	4	4	4	5	5	5	0	0	0

Species	Stratum 4 733-914 m Total hauls = 4			Stratum 5 915-1,097 m Total hauls = 5			Stratum 6 1,098-1,280 m Total hauls = 5		
	Hauls with:			Hauls with:			Hauls with:		
	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.
Brown cat shark	4	4	4	1	1	1	3	3	3
Spiny dogfish	0	0	0	0	0	0	0	0	0
Bering skate	0	0	0	0	0	0	0	0	0
Longnose skate	1	1	1	0	0	0	0	0	0
Black skate	1	1	1	3	3	3	1	1	1
Pacific whiting	2	2	2	2	2	2	2	2	2
Pacific grenadier	1	1	1	5	5	5	5	5	5
Giant grenadier	4	4	4	5	5	5	5	5	5
Shortspine thornyhead	4	4	4	5	5	5	5	5	5
Longspine thornyhead	4	4	4	5	5	5	5	5	5
Pacific ocean perch	0	0	0	0	0	0	0	0	0
Aurora rockfish	0	0	0	0	0	0	0	0	0
Darkblotched rockfish	0	0	0	0	0	0	0	0	0
Splitnose rockfish	0	0	0	0	0	0	0	0	0
Redbanded rockfish	0	0	0	0	0	0	0	0	0
Sablefish	4	4	4	5	5	5	4	4	4
Twoline eelpout	4	4	4	5	5	5	3	3	3
Bigfin eelpout	3	3	3	5	5	4	1	1	1
Black eelpout	0	0	0	0	0	0	0	0	0
Lycenchelys spp.	0	0	0	0	0	0	0	0	0
Arrowtooth flounder	0	0	0	0	0	0	0	0	0
Slender sole	0	0	0	0	0	0	0	0	0
Dover sole	4	4	4	4	4	4	2	2	2
Deepsea sole	4	4	4	5	5	5	4	4	4
Rex sole	0	0	0	0	0	0	0	0	0

Table 33.--Total number of hauls and hauls with weight, number and length data by stratum for the International North Pacific Fisheries Commission Monterey area from the 1999 West Coast upper continental slope bottom trawl survey.

Species	Stratum 1 183-366 m Total hauls = 9			Stratum 2 367-549 m Total hauls = 9			Stratum 3 550-732 m Total hauls = 9		
	Hauls with:			Hauls with:			Hauls with:		
	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.
Brown cat shark	3	3	3	8	8	8	9	9	9
Spiny dogfish	1	1	1	4	4	4	1	1	1
Bering skate	7	7	7	9	9	9	2	2	2
Longnose skate	8	8	8	1	1	1	7	7	7
Black skate	0	0	0	6	6	6	1	1	1
Pacific whiting	8	8	8	9	9	9	8	8	8
Pacific grenadier	0	0	0	1	1	1	4	4	4
Giant grenadier	0	0	0	2	2	2	4	4	4
Shortspine thornyhead	5	5	5	9	9	9	9	9	9
Longspine thornyhead	0	0	0	5	5	5	9	9	9
Pacific ocean perch	1	1	1	1	1	1	0	0	0
Aurora rockfish	2	2	2	9	9	9	3	3	3
Darkblotched rockfish	3	3	3	3	3	3	0	0	0
Splitnose rockfish	5	5	5	5	5	5	0	0	0
Redbanded rockfish	1	1	1	3	3	3	0	0	0
Sablefish	7	7	7	9	9	9	9	9	9
Twoline eelpout	0	0	0	2	2	2	7	7	7
Bigfin eelpout	0	0	0	0	0	0	1	1	1
Black eelpout	0	0	0	2	2	2	6	6	6
Lycenchelys spp.	7	7	6	9	9	9	4	4	4
Arrowtooth flounder	0	0	0	1	1	1	0	0	0
Slender sole	9	9	9	6	6	6	0	0	0
Dover sole	9	9	9	9	9	9	9	9	9
Deepsea sole	0	0	0	2	2	2	6	6	6
Rex sole	9	9	9	9	9	9	3	3	3

Species	Stratum 4 733-914 m Total hauls = 8			Stratum 5 915-1,097 m Total hauls = 8			Stratum 6 1,098-1,280 m Total hauls = 10		
	Hauls with:			Hauls with:			Hauls with:		
	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.
Brown cat shark	7	7	7	7	7	7	6	6	5
Spiny dogfish	0	0	0	0	0	0	0	0	0
Bering skate	0	0	0	0	0	0	0	0	0
Longnose skate	2	2	2	1	1	1	0	0	0
Black skate	5	5	5	6	6	5	6	6	6
Pacific whiting	4	4	4	4	4	4	4	4	4
Pacific grenadier	8	8	8	8	8	8	10	10	10
Giant grenadier	8	8	8	8	8	8	10	10	10
Shortspine thornyhead	8	8	8	8	8	8	10	10	10
Longspine thornyhead	8	8	8	8	8	8	10	10	10
Pacific ocean perch	0	0	0	0	0	0	0	0	0
Aurora rockfish	0	0	0	0	0	0	0	0	0
Darkblotched rockfish	0	0	0	0	0	0	0	0	0
Splitnose rockfish	0	0	0	0	0	0	0	0	0
Redbanded rockfish	0	0	0	0	0	0	0	0	0
Sablefish	8	8	8	7	7	7	10	10	10
Twoline eelpout	7	7	7	7	7	7	7	7	7
Bigfin eelpout	8	8	6	6	6	5	3	3	3
Black eelpout	1	1	1	1	1	1	0	0	0
Lycenchelys spp.	0	0	0	0	0	0	0	0	0
Arrowtooth flounder	0	0	0	0	0	0	0	0	0
Slender sole	0	0	0	0	0	0	0	0	0
Dover sole	8	8	8	8	8	8	7	7	7
Deepsea sole	7	7	7	8	8	8	9	9	9
Rex sole	0	0	0	0	0	0	0	0	0

Table 34.--Total number of hauls and hauls with weight, number and length data by stratum for the International North Pacific Fisheries Commission Eureka area from the 1999 West Coast upper continental slope bottom trawl survey.

Species	Stratum 1 183-366 m Total hauls = 5			Stratum 2 367-549 m Total hauls = 5			Stratum 3 550-732 m Total hauls = 5		
	Hauls with:			Hauls with:			Hauls with:		
	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.
Brown cat shark	4	4	4	5	5	5	5	5	5
Spiny dogfish	5	5	5	2	2	2	0	0	0
Bering skate	5	5	5	4	4	4	0	0	0
Longnose skate	5	5	5	5	5	5	2	2	2
Black skate	0	0	0	4	4	4	1	1	1
Pacific whiting	5	5	5	5	5	5	4	4	4
Pacific grenadier	0	0	0	1	1	1	4	4	4
Giant grenadier	0	0	0	0	0	0	4	4	4
Shortspine thornyhead	4	4	4	5	5	5	5	5	5
Longspine thornyhead	0	0	0	1	1	1	5	5	5
Pacific ocean perch	0	0	0	1	1	1	0	0	0
Aurora rockfish	0	0	0	5	5	5	0	0	0
Darkblotched rockfish	5	5	5	2	2	2	0	0	0
Splitnose rockfish	5	5	5	0	0	0	0	0	0
Redbanded rockfish	3	3	3	0	0	0	0	0	0
Sablefish	4	4	4	5	5	5	5	5	5
Twoline eelpout	0	0	0	1	1	1	5	5	5
Bigfin eelpout	0	0	0	0	0	0	2	2	2
Black eelpout	0	0	0	5	5	5	5	5	4
Lycenchelys spp.	5	5	5	5	5	5	2	2	2
Arrowtooth flounder	5	5	4	5	5	5	0	0	0
Slender sole	5	5	5	4	4	4	0	0	0
Dover sole	5	5	5	5	5	5	5	5	5
Deepsea sole	0	0	0	0	0	0	5	5	5
Rex sole	5	5	5	5	5	5	4	4	4

Species	Stratum 4 733-914 m Total hauls = 5			Stratum 5 915-1,097 m Total hauls = 5			Stratum 6 1,098-1,280 m Total hauls = 6		
	Hauls with:			Hauls with:			Hauls with:		
	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.
Brown cat shark	5	5	5	5	5	5	0	0	0
Spiny dogfish	1	1	1	0	0	0	0	0	0
Bering skate	1	1	1	0	0	0	0	0	0
Longnose skate	1	1	1	0	0	0	0	0	0
Black skate	1	1	1	4	4	4	6	6	6
Pacific whiting	2	2	2	1	1	1	1	1	1
Pacific grenadier	5	5	5	5	5	5	6	6	6
Giant grenadier	5	5	5	5	5	5	6	6	6
Shortspine thornyhead	4	4	4	5	5	4	6	6	6
Longspine thornyhead	5	5	5	5	5	5	6	6	6
Pacific ocean perch	0	0	0	0	0	0	0	0	0
Aurora rockfish	0	0	0	0	0	0	0	0	0
Darkblotched rockfish	0	0	0	0	0	0	0	0	0
Splitnose rockfish	0	0	0	0	0	0	0	0	0
Redbanded rockfish	0	0	0	0	0	0	0	0	0
Sablefish	5	5	5	5	5	5	6	6	6
Twoline eelpout	4	4	4	4	4	4	3	3	3
Bigfin eelpout	5	5	5	4	4	4	1	1	1
Black eelpout	0	0	0	0	0	0	0	0	0
Lycenchelys spp.	0	0	0	0	0	0	0	0	0
Arrowtooth flounder	0	0	0	0	0	0	0	0	0
Slender sole	0	0	0	0	0	0	0	0	0
Dover sole	5	5	5	5	5	5	6	6	6
Deepsea sole	5	5	5	5	5	5	6	6	6
Rex sole	1	1	1	0	0	0	0	0	0

Table 35.--Total number of hauls and hauls with weight, number and length data by stratum for the International North Pacific Fisheries Commission Columbia area from the 1999 West Coast upper continental slope bottom trawl survey.

Species	Stratum 1 183-366 m Total hauls = 13			Stratum 2 367-549 m Total hauls = 12			Stratum 3 550-732 m Total hauls = 11		
	Hauls with:			Hauls with:			Hauls with:		
	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.
Brown cat shark	8	8	7	9	9	9	11	11	11
Spiny dogfish	13	13	13	12	12	12	2	2	2
Bering skate	13	13	13	10	10	10	2	2	2
Longnose skate	13	13	13	12	12	12	3	3	3
Black skate	0	0	0	11	11	11	7	7	7
Pacific whiting	13	13	13	12	12	11	8	8	8
Pacific grenadier	0	0	0	0	0	0	11	11	11
Giant grenadier	0	0	0	1	1	1	11	11	11
Shortspine thornyhead	12	12	12	12	12	12	11	11	11
Longspine thornyhead	1	1	1	3	3	3	11	11	11
Pacific ocean perch	7	7	7	6	6	6	0	0	0
Aurora rockfish	3	3	3	9	9	9	0	0	0
Darkblotched rockfish	10	10	10	6	6	6	0	0	0
Splitnose rockfish	12	12	12	4	4	4	0	0	0
Redbanded rockfish	7	7	7	4	4	4	0	0	0
Sablefish	12	12	12	12	12	12	11	11	11
Twoline eelpout	0	0	0	2	2	2	10	10	10
Bigfin eelpout	0	0	0	0	0	0	4	4	4
Black eelpout	0	0	0	9	9	8	8	8	8
Lycenchelys spp.	13	13	12	11	11	11	3	3	3
Arrowtooth flounder	13	13	13	12	12	12	1	1	1
Slender sole	13	13	13	11	11	11	0	0	0
Dover sole	12	12	12	12	12	12	11	11	11
Deepsea sole	0	0	0	1	1	1	9	9	9
Rex sole	13	13	13	11	11	11	5	5	5

Species	Stratum 4 733-914 m Total hauls = 10			Stratum 5 915-1,097 m Total hauls = 11			Stratum 6 1,098-1,280 m Total hauls = 10		
	Hauls with:			Hauls with:			Hauls with:		
	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.
Brown cat shark	10	10	10	9	9	9	5	5	5
Spiny dogfish	1	1	1	2	2	2	0	0	0
Bering skate	0	0	0	0	0	0	0	0	0
Longnose skate	0	0	0	0	0	0	0	0	0
Black skate	4	4	4	11	11	11	7	7	7
Pacific whiting	3	3	2	2	2	2	2	2	2
Pacific grenadier	10	10	10	11	11	11	10	10	10
Giant grenadier	10	10	10	11	11	11	10	10	10
Shortspine thornyhead	9	9	9	11	11	11	10	10	10
Longspine thornyhead	10	10	10	11	11	11	10	10	10
Pacific ocean perch	0	0	0	0	0	0	0	0	0
Aurora rockfish	0	0	0	0	0	0	0	0	0
Darkblotched rockfish	0	0	0	0	0	0	0	0	0
Splitnose rockfish	0	0	0	0	0	0	0	0	0
Redbanded rockfish	0	0	0	1	1	1	0	0	0
Sablefish	10	10	10	11	11	11	10	10	10
Twoline eelpout	10	10	10	10	10	9	7	7	7
Bigfin eelpout	8	8	8	11	11	10	5	5	5
Black eelpout	0	0	0	0	0	0	0	0	0
Lycenchelys spp.	0	0	0	0	0	0	0	0	0
Arrowtooth flounder	0	0	0	0	0	0	0	0	0
Slender sole	0	0	0	0	0	0	0	0	0
Dover sole	9	9	8	5	5	5	1	1	1
Deepsea sole	10	10	10	11	11	11	10	10	10
Rex sole	0	0	0	0	0	0	0	0	0

Table 36.--Total number of hauls and hauls with weight, number and length data by stratum for the International North Pacific Fisheries Commission U.S.-Vancouver area from the 1999 West Coast upper continental slope bottom trawl survey.

Species	Stratum 1 183-366 m Total hauls = 3			Stratum 2 367-549 m Total hauls = 3			Stratum 3 550-732 m Total hauls = 3		
	Hauls with:			Hauls with:			Hauls with:		
	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.
Brown cat shark	3	3	3	3	3	3	3	3	3
Spiny dogfish	3	3	3	3	3	3	0	0	0
Bering skate	3	3	3	3	3	3	0	0	0
Longnose skate	3	3	3	3	3	3	0	0	0
Black skate	1	1	1	3	3	3	2	2	2
Pacific whiting	3	3	3	3	3	3	1	1	1
Pacific grenadier	0	0	0	0	0	0	3	3	3
Giant grenadier	0	0	0	2	2	2	3	3	3
Shortspine thornyhead	3	3	3	3	3	3	3	3	3
Longspine thornyhead	1	1	1	0	0	0	3	3	3
Pacific ocean perch	3	3	3	2	2	2	0	0	0
Aurora rockfish	0	0	0	1	1	1	0	0	0
Darkblotched rockfish	2	2	2	1	1	1	0	0	0
Splitnose rockfish	3	3	3	1	1	1	0	0	0
Redbanded rockfish	2	2	2	0	0	0	0	0	0
Sablefish	3	3	3	3	3	3	3	3	3
Twoline eelpout	0	0	0	2	2	2	3	3	3
Bigfin eelpout	0	0	0	0	0	0	0	0	0
Black eelpout	1	1	1	2	2	2	3	3	3
Lycenchelys spp.	3	3	3	3	3	3	0	0	0
Arrowtooth flounder	3	3	3	3	3	3	0	0	0
Slender sole	3	3	3	3	3	3	0	0	0
Dover sole	3	3	3	3	3	3	2	2	2
Deepsea sole	0	0	0	1	1	1	3	3	3
Rex sole	3	3	3	3	3	3	0	0	0

Species	Stratum 4 733-914 m Total hauls = 4			Stratum 5 915-1,097 m Total hauls = 3			Stratum 6 1,098-1,280 m Total hauls = 3		
	Hauls with:			Hauls with:			Hauls with:		
	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.	Wgt.	No.	Lgth.
Brown cat shark	4	4	4	1	1	1	1	1	1
Spiny dogfish	0	0	0	1	1	1	1	1	1
Bering skate	0	0	0	0	0	0	0	0	0
Longnose skate	0	0	0	0	0	0	0	0	0
Black skate	1	1	1	2	2	2	2	2	2
Pacific whiting	1	1	1	0	0	0	0	0	0
Pacific grenadier	4	4	4	3	3	3	3	3	3
Giant grenadier	4	4	4	3	3	3	3	3	3
Shortspine thornyhead	4	4	4	3	3	3	3	3	3
Longspine thornyhead	4	4	4	3	3	3	3	3	3
Pacific ocean perch	0	0	0	0	0	0	0	0	0
Aurora rockfish	0	0	0	0	0	0	0	0	0
Darkblotched rockfish	0	0	0	0	0	0	0	0	0
Splitnose rockfish	0	0	0	0	0	0	0	0	0
Redbanded rockfish	0	0	0	0	0	0	0	0	0
Sablefish	4	4	4	3	3	3	3	3	3
Twoline eelpout	4	4	4	3	3	3	3	3	3
Bigfin eelpout	4	4	4	2	2	2	3	3	3
Black eelpout	1	1	1	0	0	0	0	0	0
Lycenchelys spp.	0	0	0	0	0	0	0	0	0
Arrowtooth flounder	0	0	0	0	0	0	0	0	0
Slender sole	0	0	0	0	0	0	0	0	0
Dover sole	3	3	3	0	0	0	0	0	0
Deepsea sole	4	4	4	3	3	3	3	3	3
Rex sole	0	0	0	0	0	0	0	0	0

Table 37.--The length-weight relationships for all the International North Pacific Fisheries Commission areas combined from the 1999 West Coast upper continental slope survey using nonlinear regression fit for the equation:

$$\text{Fish weight (g)} = a \times \text{fork length (cm)}^{b}$$

Species	Sex	Number Sampled	Length-Weight Coefficients a	Length-Weight Coefficients b	Predicted Weight at Length (g)		
					40 cm	60 cm	80 cm
Arrowtooth flounder	M	79	0.005871	3.112847	569.7	2012.9	4928.8
	F	168	0.002845	3.317943	588.3	2258.8	5867.1
	T	247	0.002619	3.336551	580.1	2244.0	5859.9
					20 cm	40 cm	60 cm
Dover sole	M	713	0.003557	3.273759	64.6	624.9	2356.8
	F	947	0.003767	3.259644	65.6	628.3	2355.8
	T	1,662	0.003651	3.267505	65.1	626.8	2357.9
					40 cm	60 cm	80 cm
Sablefish	M	659	0.004586	3.191836	595.6	2172.7	5442.3
	F	736	0.003781	3.244308	595.9	2220.6	5647.0
	T	1,395	0.003962	3.230940	594.4	2203.0	5580.6
					20 cm	40 cm	60 cm
Shortspine thornyhead	M	871	0.004988	3.243471	82.8	783.7	2919.5
	F	946	0.004487	3.274172	81.6	789.5	2978.0
	U	85	0.012948	2.884807	73.4	-	-
	T	1,902	0.004983	3.244861	83.0	787.0	2933.2
					10 cm	20 cm	30 cm
Longspine thornyhead	M	596	0.004264	3.308388	8.7	85.9	328.6
	F	618	0.004731	3.275240	8.9	86.3	325.7
	U	296	0.014765	2.825483	9.9	70.0	-
	T	1,510	0.006170	3.188099	9.5	86.7	315.9
					10 cm	20 cm	30 cm
Pacific grenadier	M	382	0.099064	3.008163	100.9	812.1	2750.0
	F	417	0.112332	2.965863	103.8	811.3	2700.5
	U	60	0.204215	2.513662	66.6	380.6	-
	T	859	0.160400	2.885600	123.3	910.9	2934.8

FIGURES

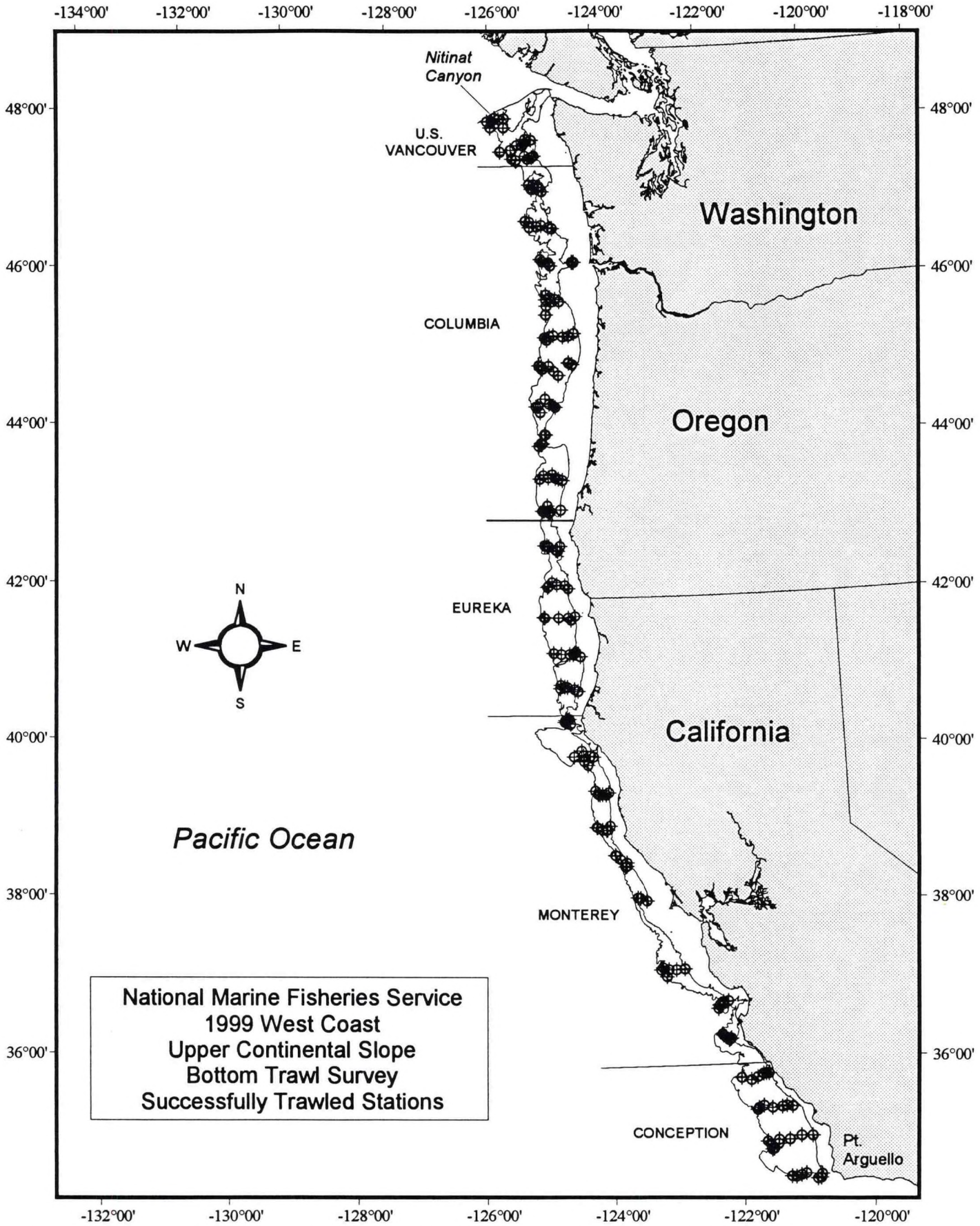
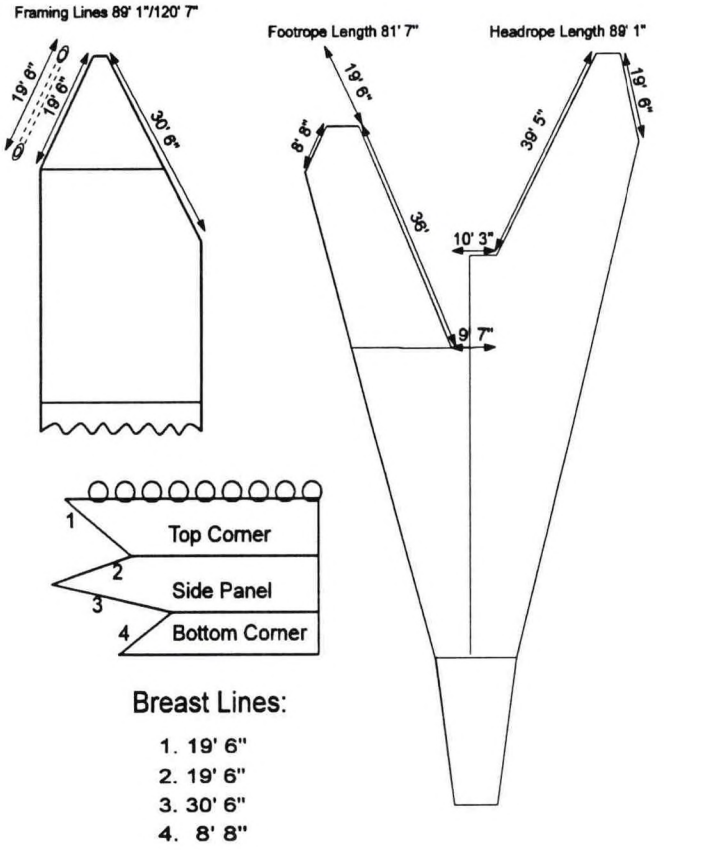


Figure 1.--Map showing the extent of the 1999 West Coast upper continental slope groundfish trawl survey and the location of 199 successful bottom trawl samples.

Poly-Nor'Eastern Trawl



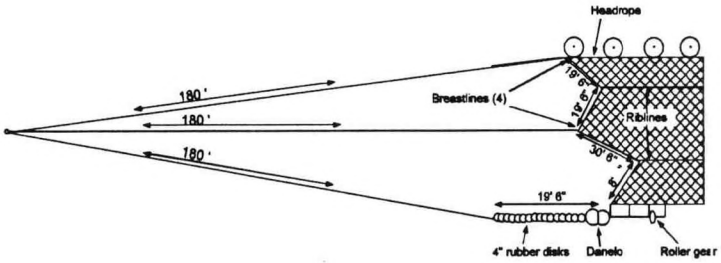
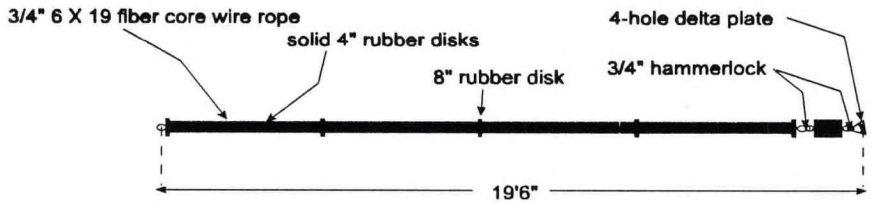


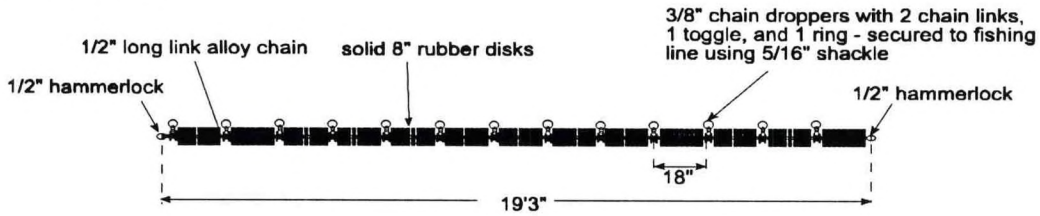
Figure 2.--The standardized Poly-Nor'Eastern trawl used to sample groundfish during the 1999 West Coast upper continental slope bottom trawl survey.

West Coast Upper Continental Slope Bottom Trawl Survey Ground Gear

Outboard section



Middle section



Inboard section

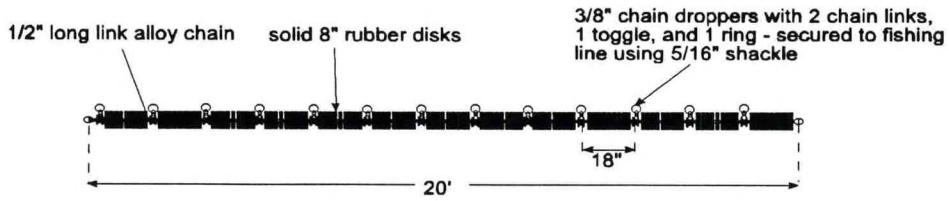


Figure 3.--The groundgear used during the 1999 West Coast upper continental slope bottom trawl survey.

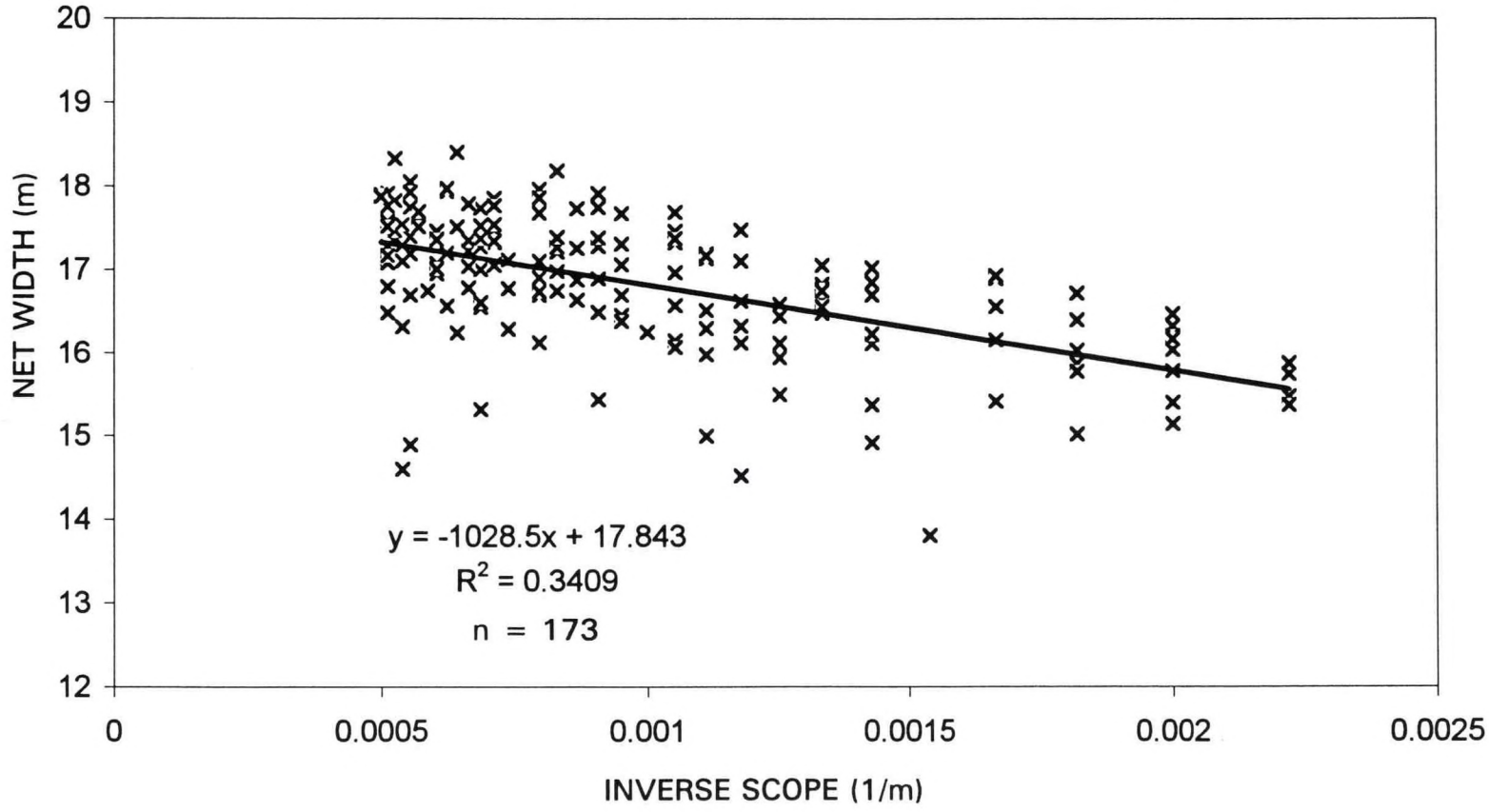


Figure 4.--Mean net widths for each tow during the 1999 West Coast upper continental slope bottom trawl survey plotted against inverse scope.

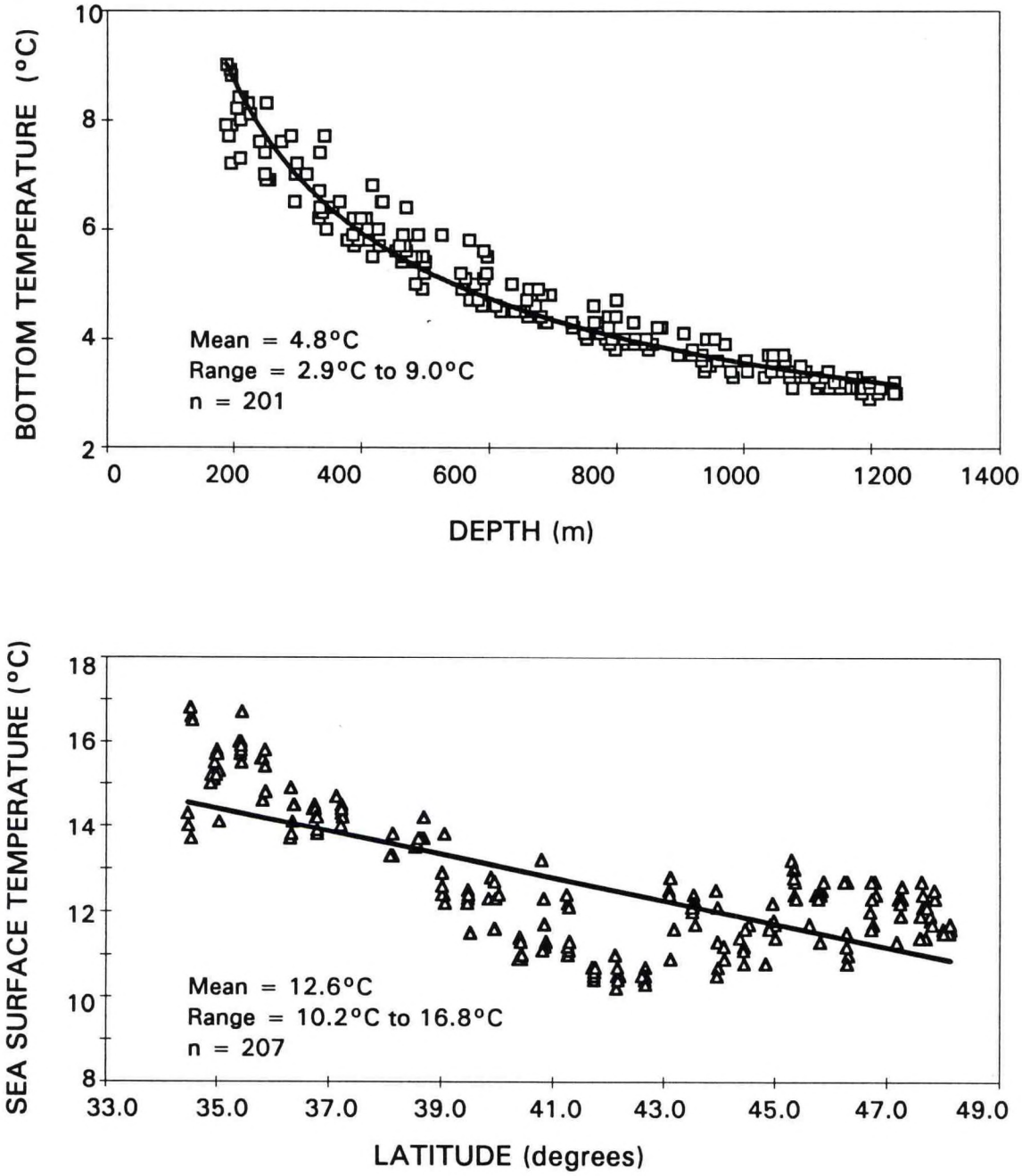


Figure 5.--Bottom and sea surface temperatures observed during the 1999 West Coast upper continental slope bottom trawl survey in relation to tow depth and latitude.

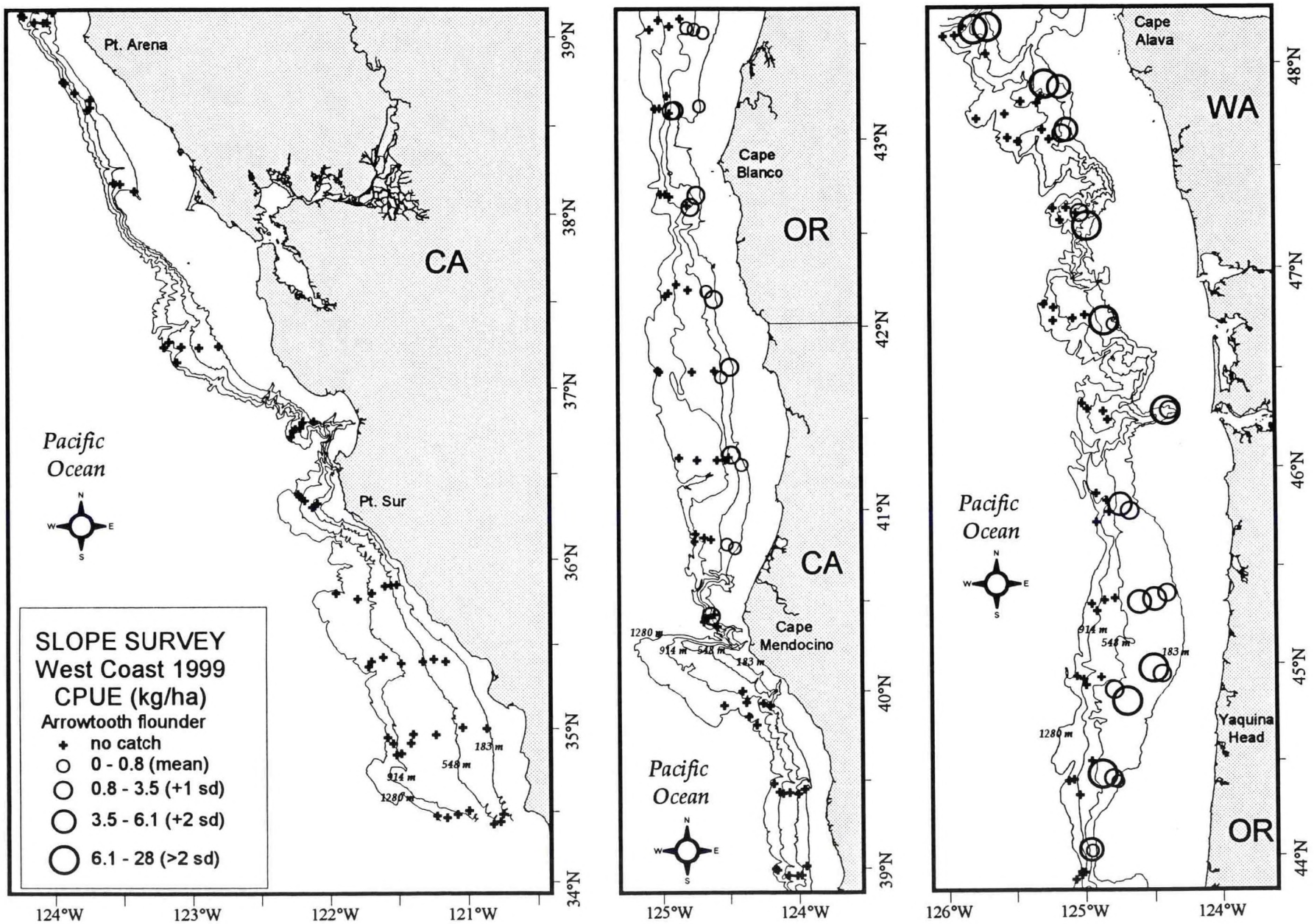


Figure 6.--Arrowtooth flounder distribution and relative abundance (kg/ha) from the 1999 West Coast upper continental slope bottom trawl survey.

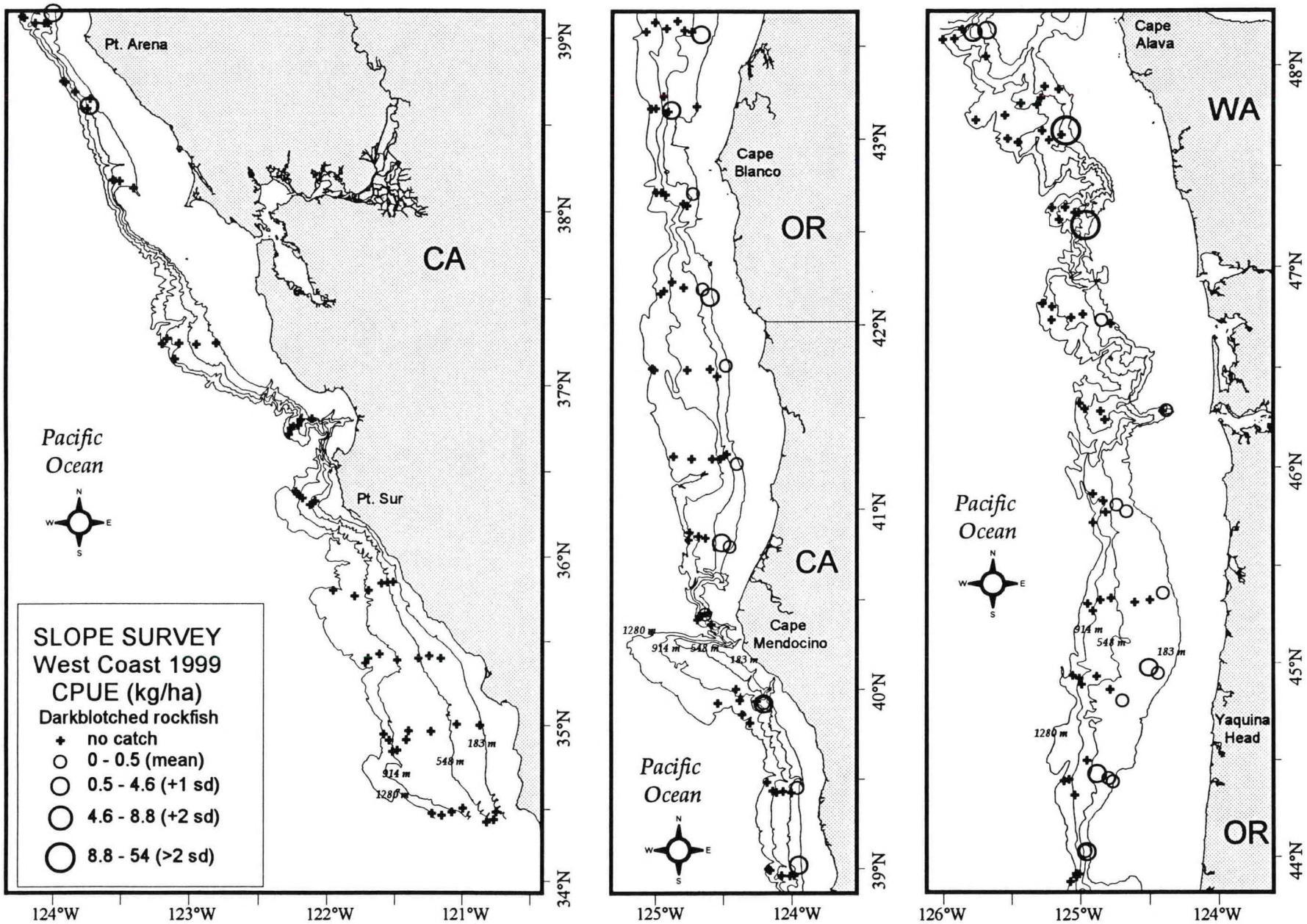


Figure 7.--Darkblotched rockfish distribution and relative abundance (kg/ha) from the 1999 West Coast upper continental slope bottom trawl survey.

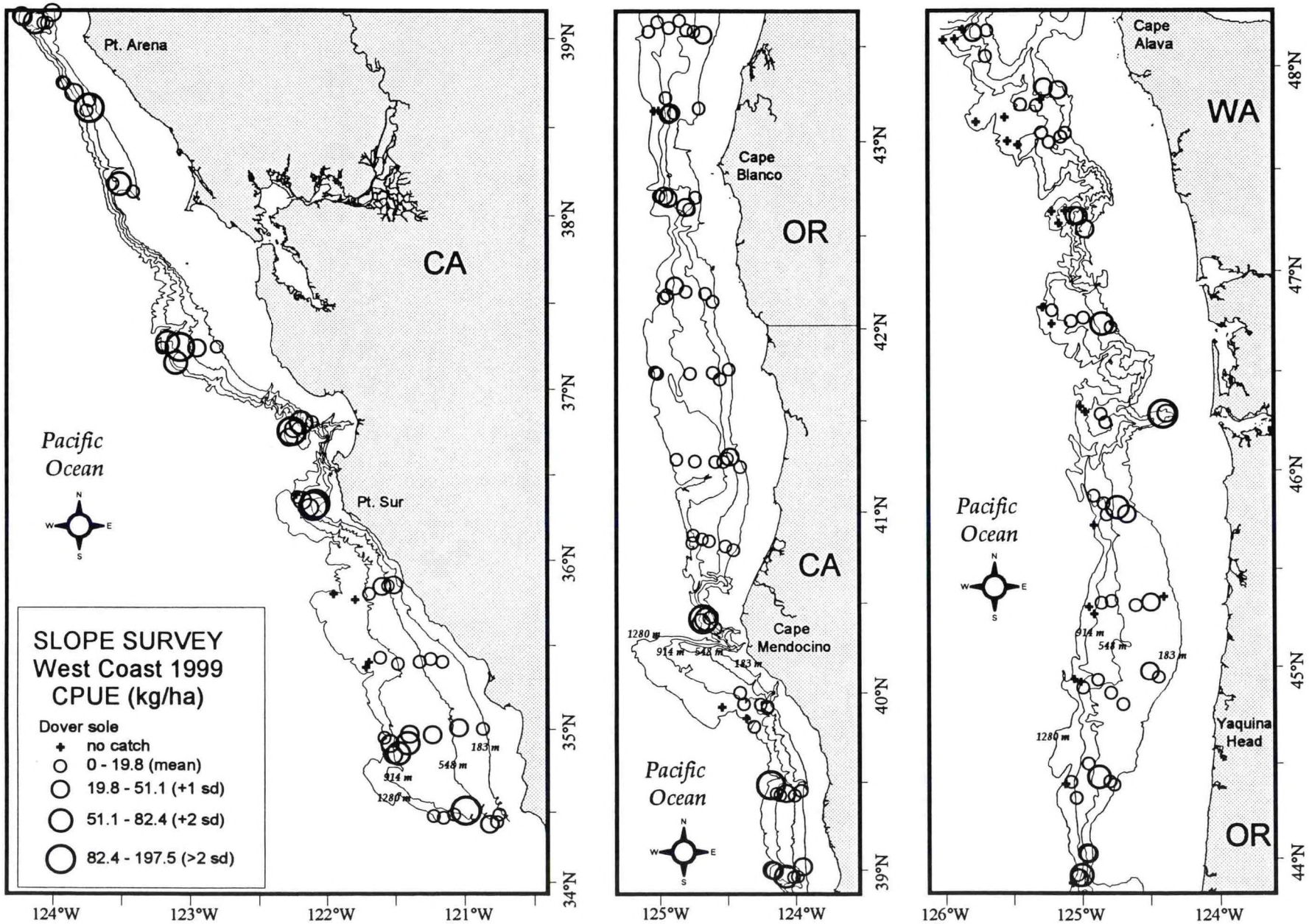


Figure 8.--Dover sole distribution and relative abundance (kg/ha) from the 1999 West Coast upper continental slope bottom trawl survey.

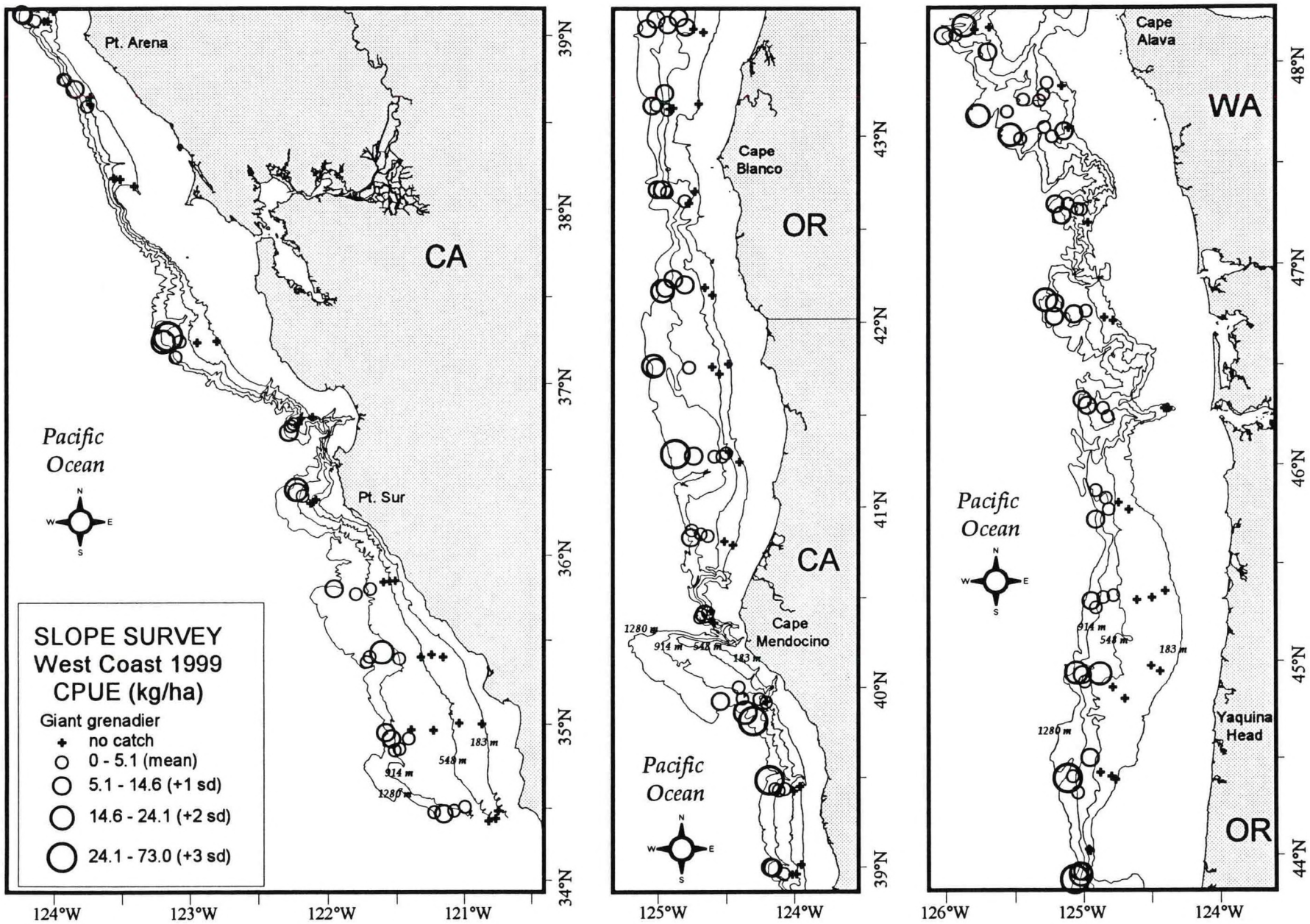


Figure 9.--Giant grenadier distribution and relative abundance (kg/ha) from the 1999 West Coast upper continental slope bottom trawl survey.

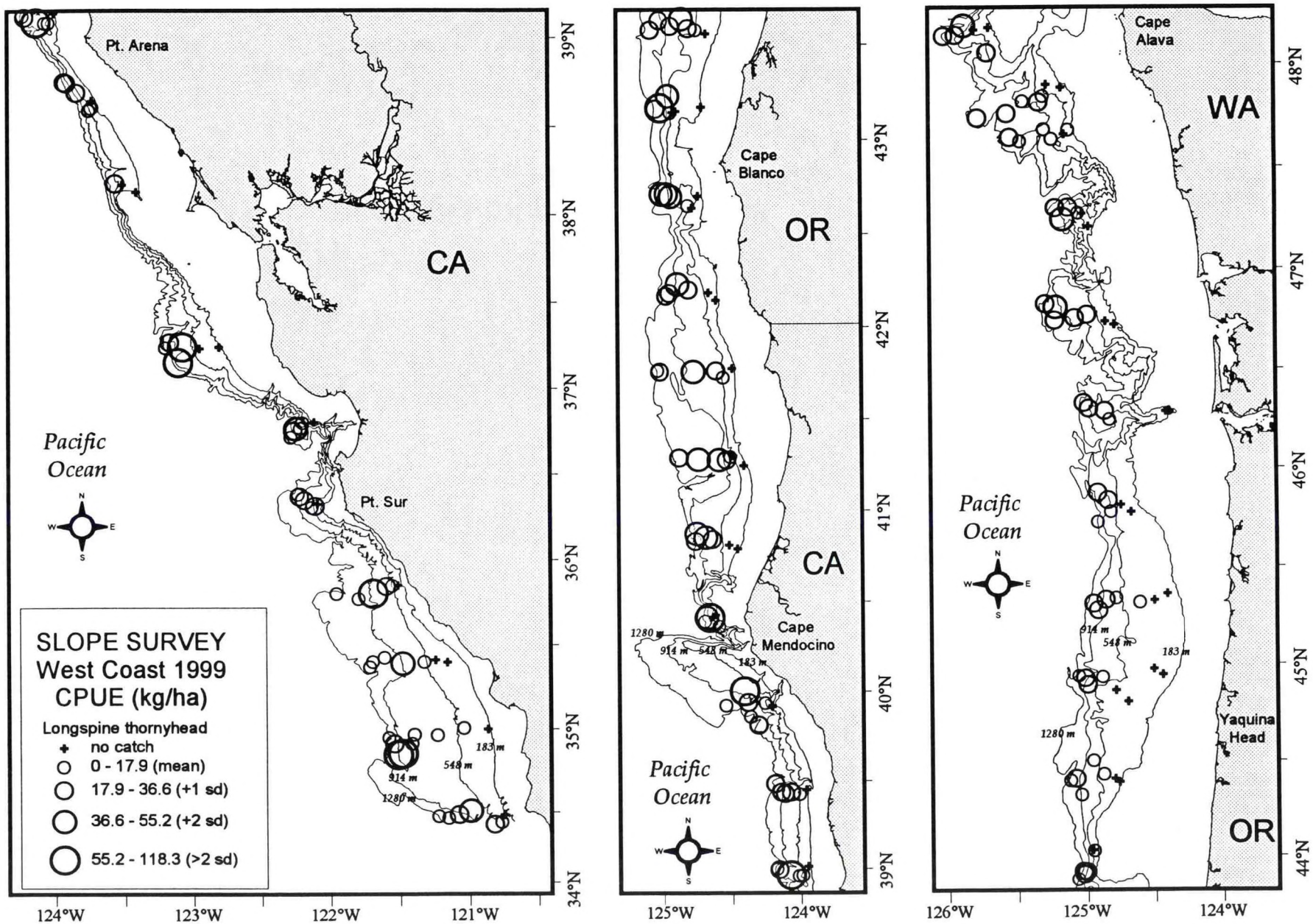


Figure 10.--Longspine thornyhead distribution and relative abundance (kg/ha) from the 1999 West Coast upper continental slope bottom trawl survey.

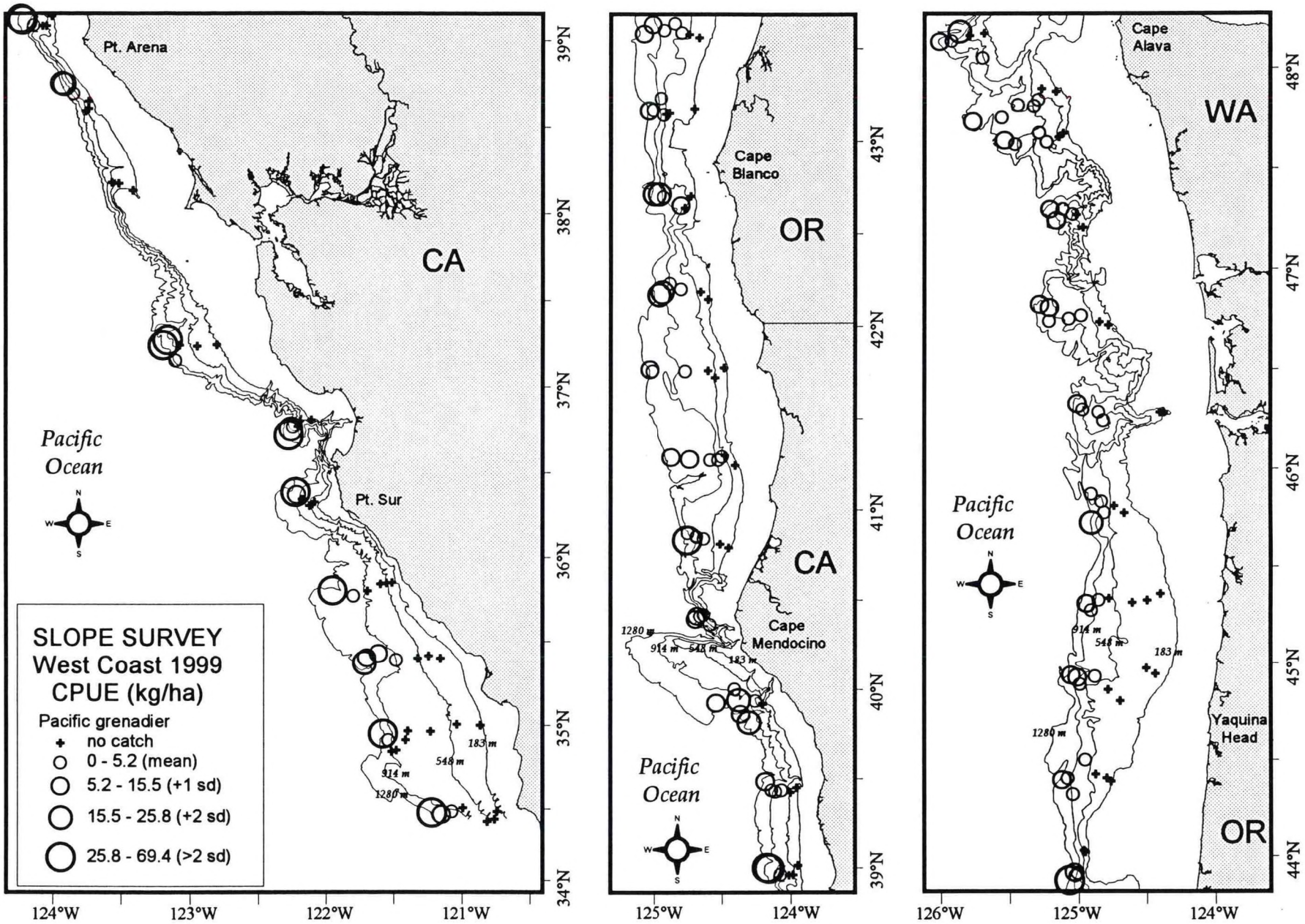


Figure 11.--Pacific grenadier distribution and relative abundance (kg/ha) from the 1999 West Coast upper continental slope bottom trawl survey.

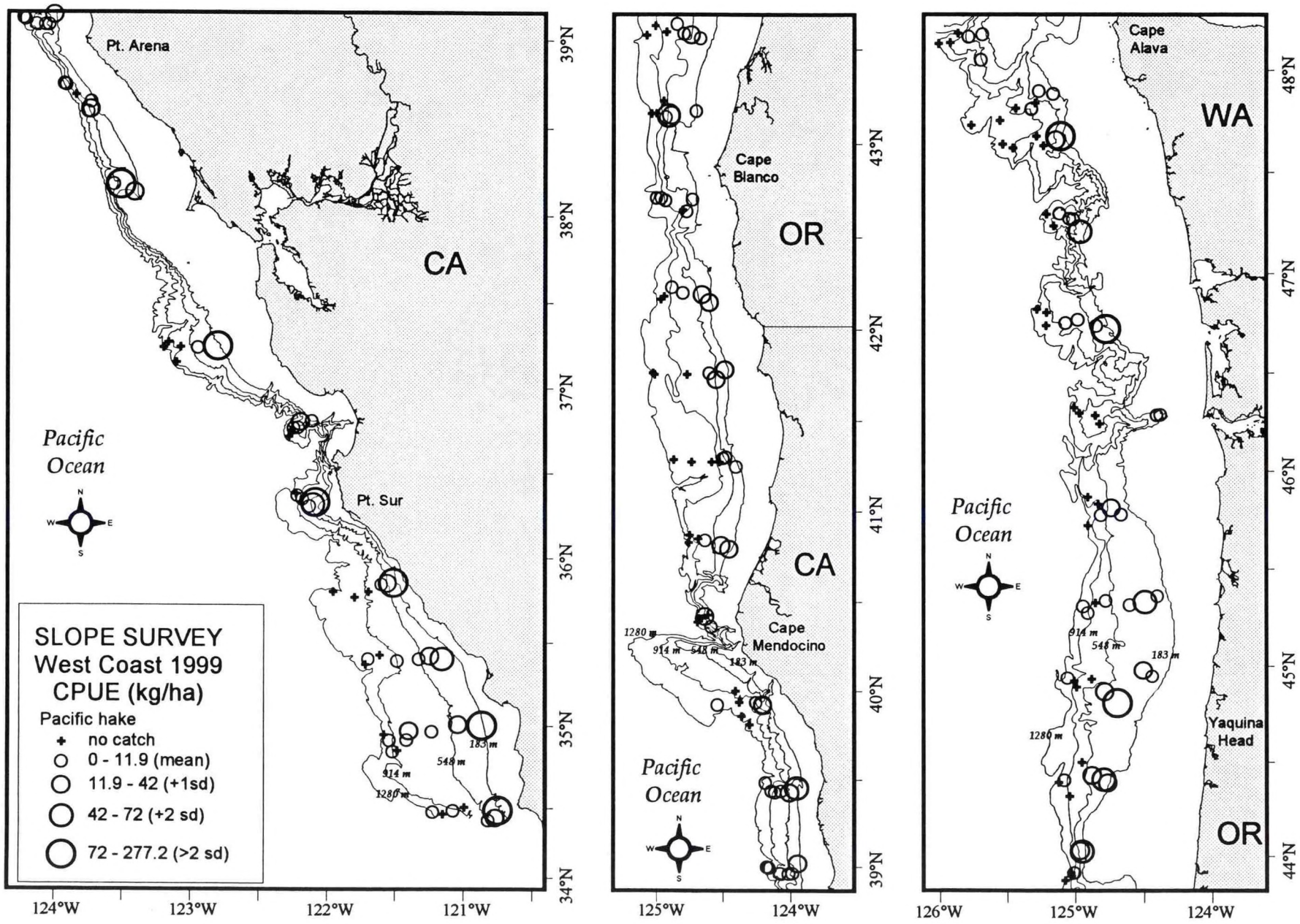


Figure 12.--Pacific hake distribution and relative abundance (kg/ha) from the 1999 West Coast upper continental slope bottom trawl survey.

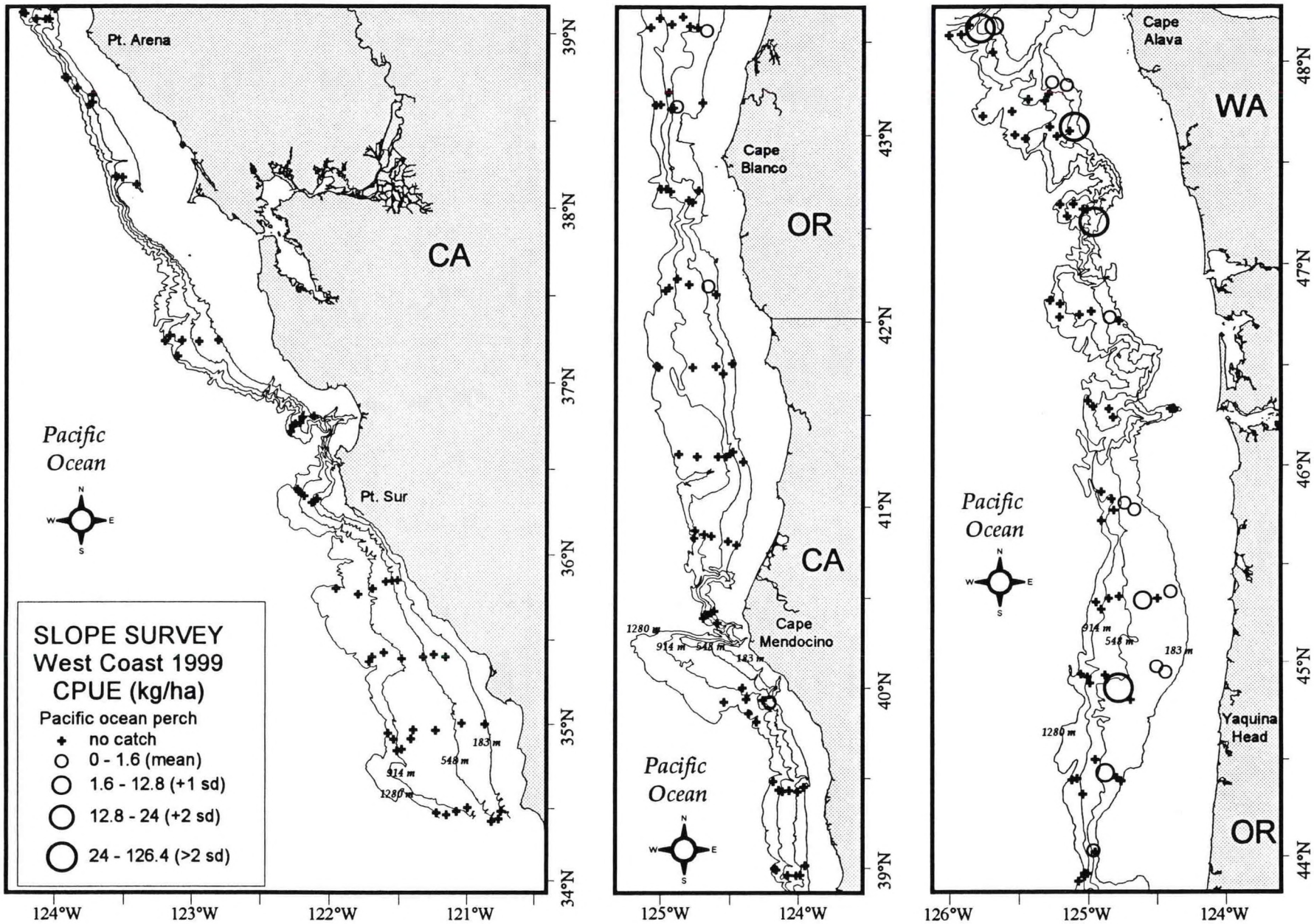


Figure 13.--Pacific ocean perch distribution and relative abundance (kg/ha) from the 1999 West Coast upper continental slope bottom trawl survey.

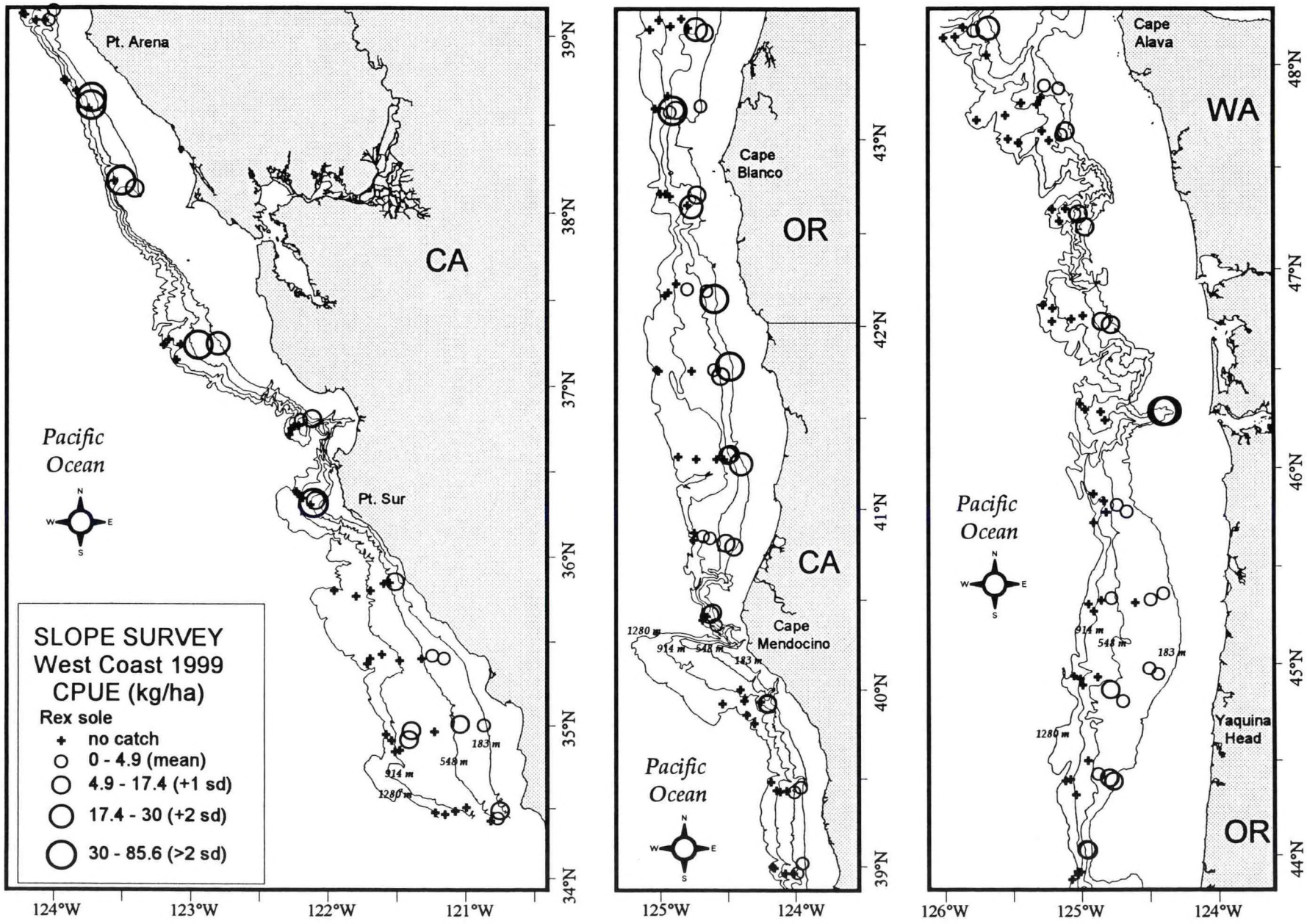


Figure 14.--Rex sole distribution and relative abundance (kg/ha) from the 1999 West Coast upper continental slope bottom trawl survey.

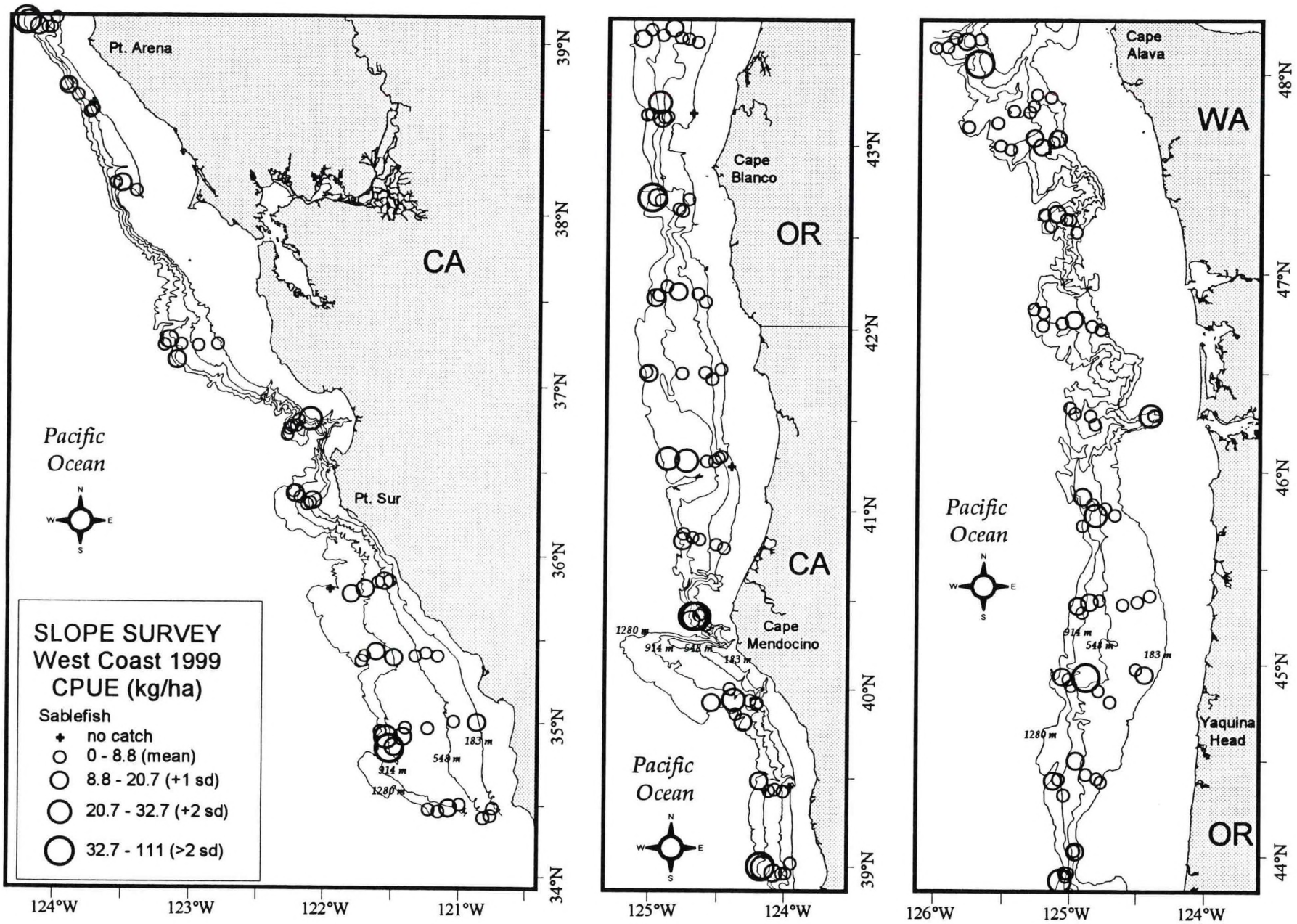


Figure 15.--Sablefish distribution and relative abundance (kg/ha) from the 1999 West Coast upper continental slope bottom trawl survey.

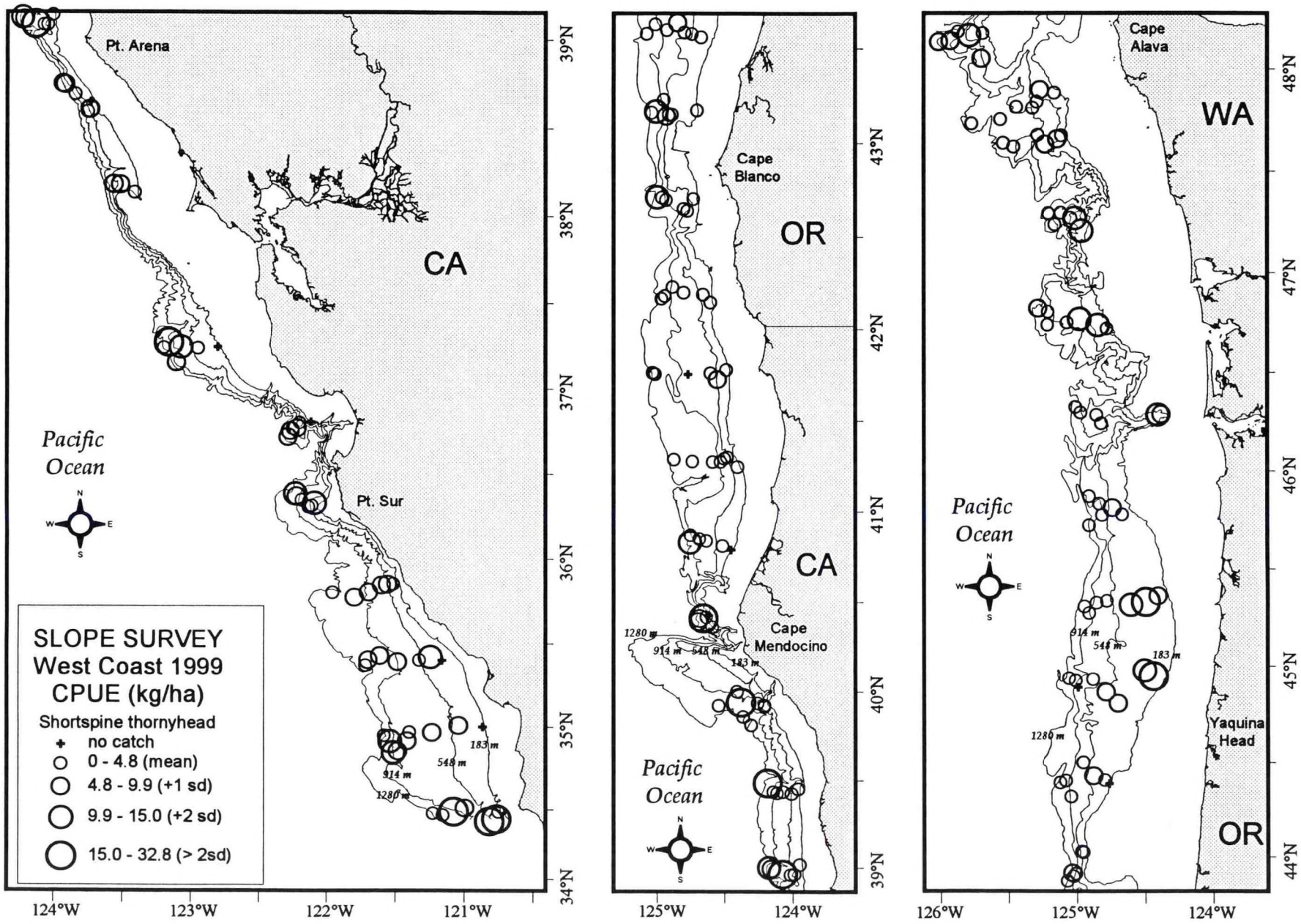


Figure 16.--Shortspine thornyhead distribution and relative abundance (kg/ha) from the 1999 West Coast upper continental slope bottom trawl survey.

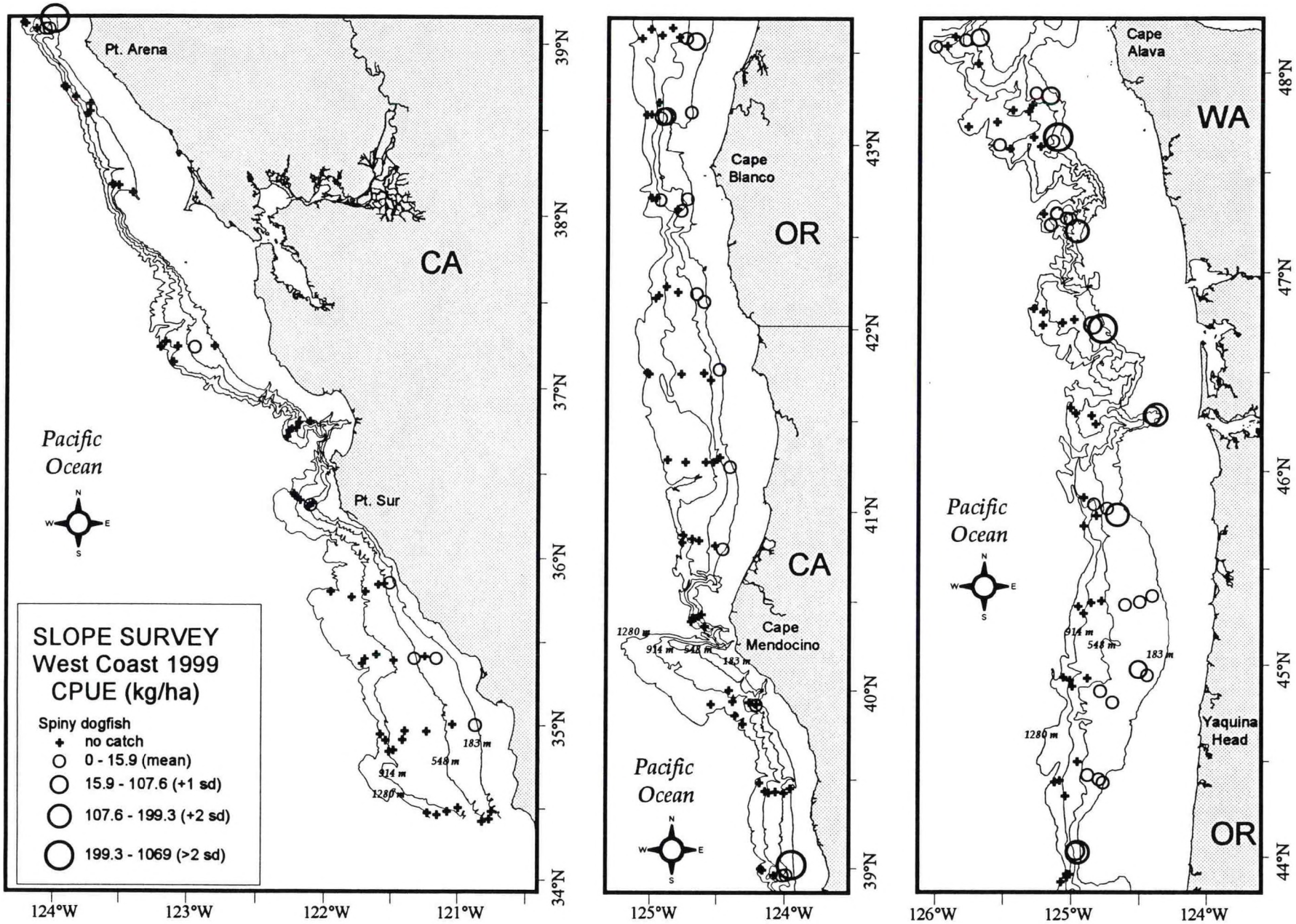


Figure 17.--Spiny dogfish distribution and relative abundance (kg/ha) from the 1999 West Coast upper continental slope bottom trawl survey.

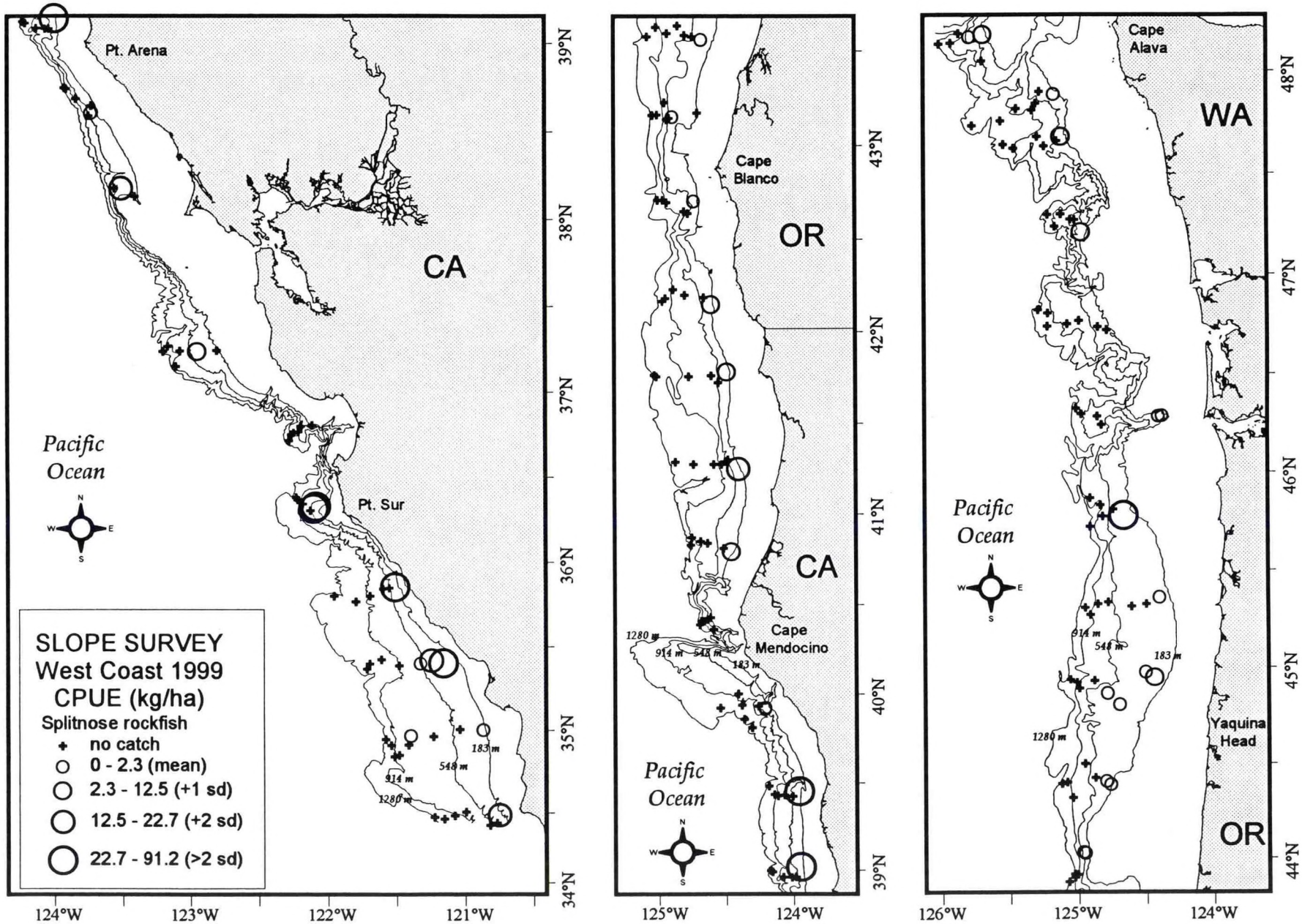


Figure 18.--Splitnose rockfish distribution and relative abundance (kg/ha) from the 1999 West Coast upper continental slope bottom trawl survey.

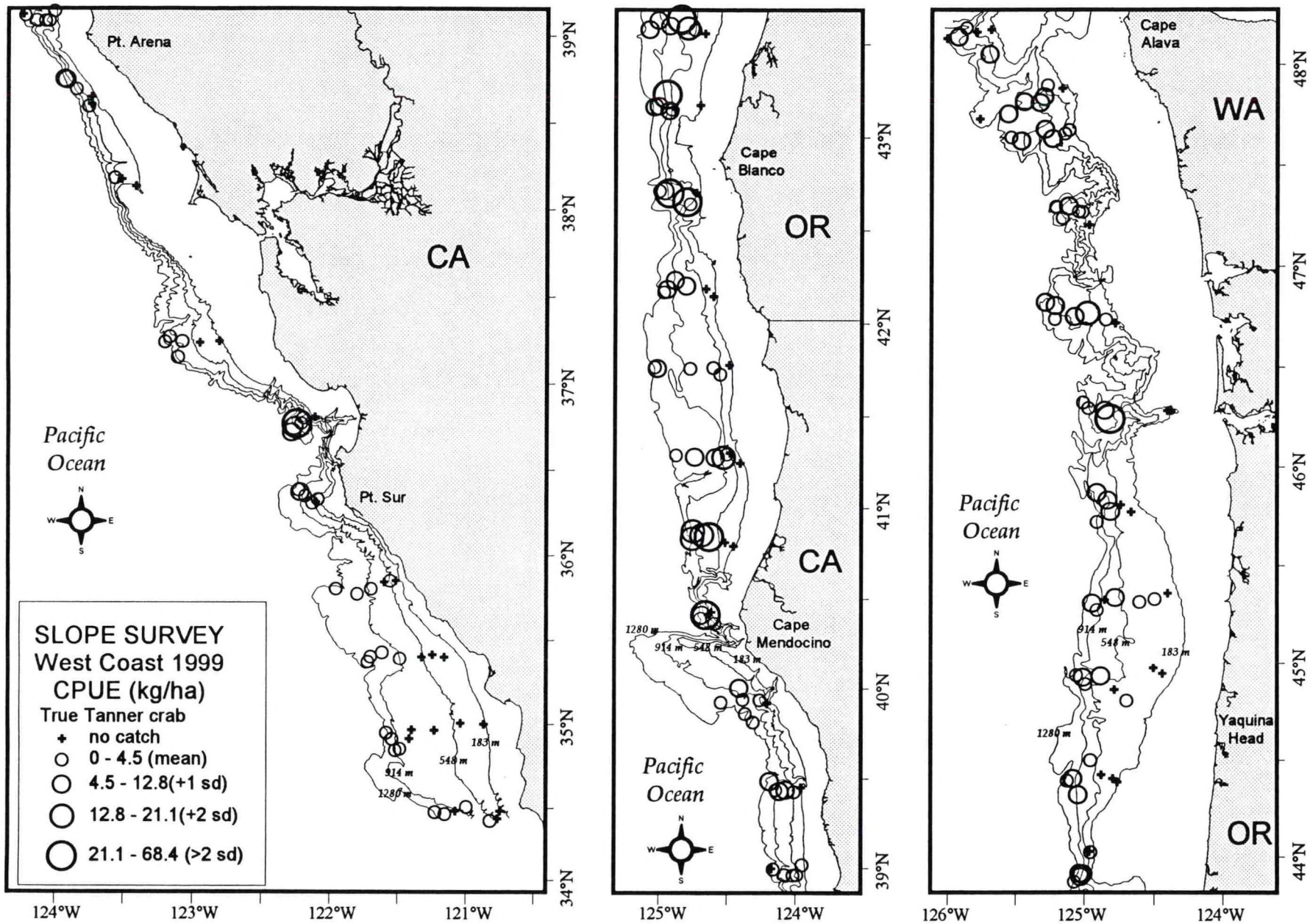


Figure 19.--True Tanner crab distribution and relative abundance (kg/ha) from the 1999 West Coast upper continental slope bottom trawl survey.

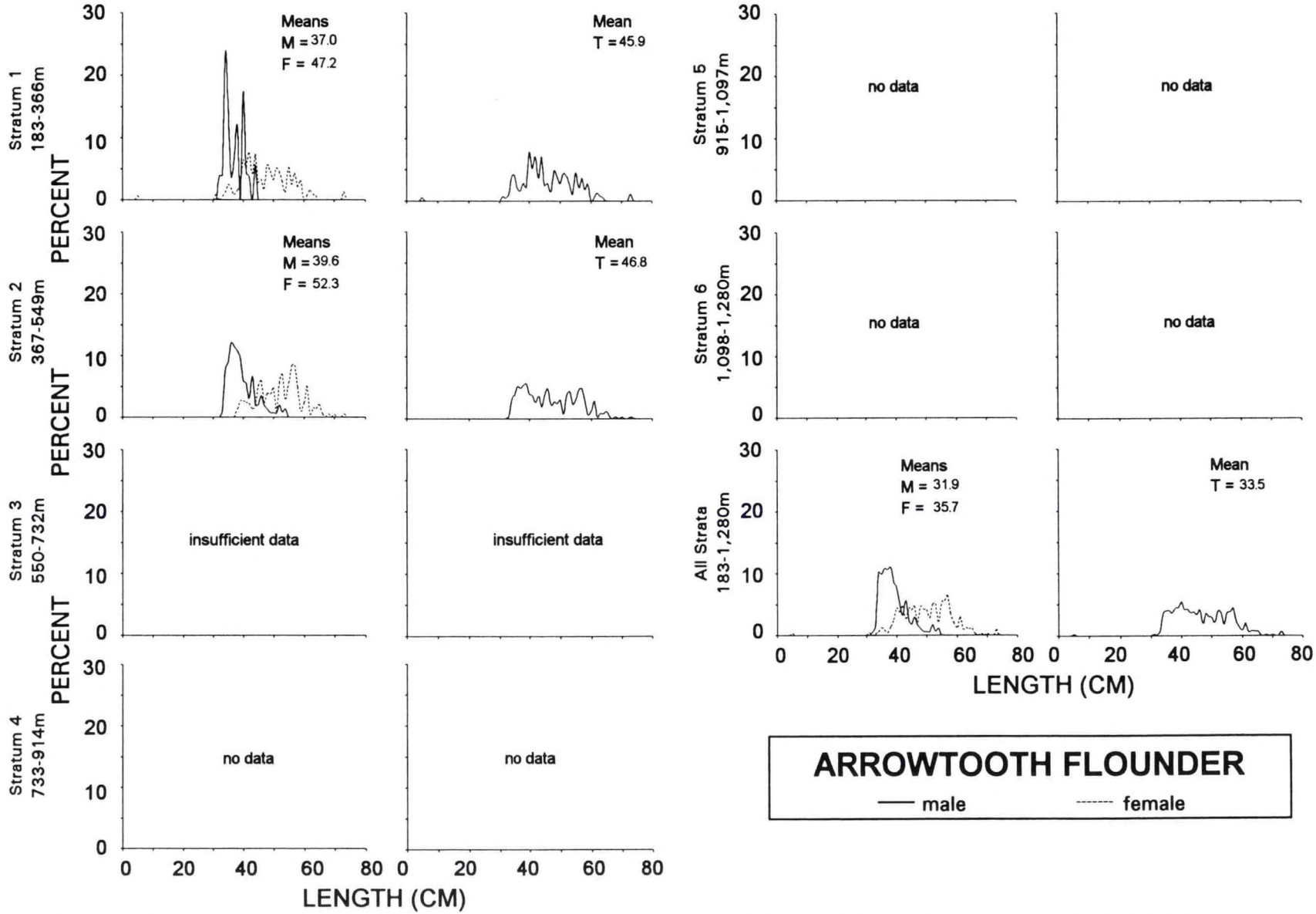


Figure 20.--Estimated population size composition and mean lengths (cm) of arrowtooth flounder by depth stratum and by sex (T = males, females, and unsexed combined) for all International North Pacific Fisheries Commission areas sampled from the 1999 West Coast upper continental slope bottom trawl survey.

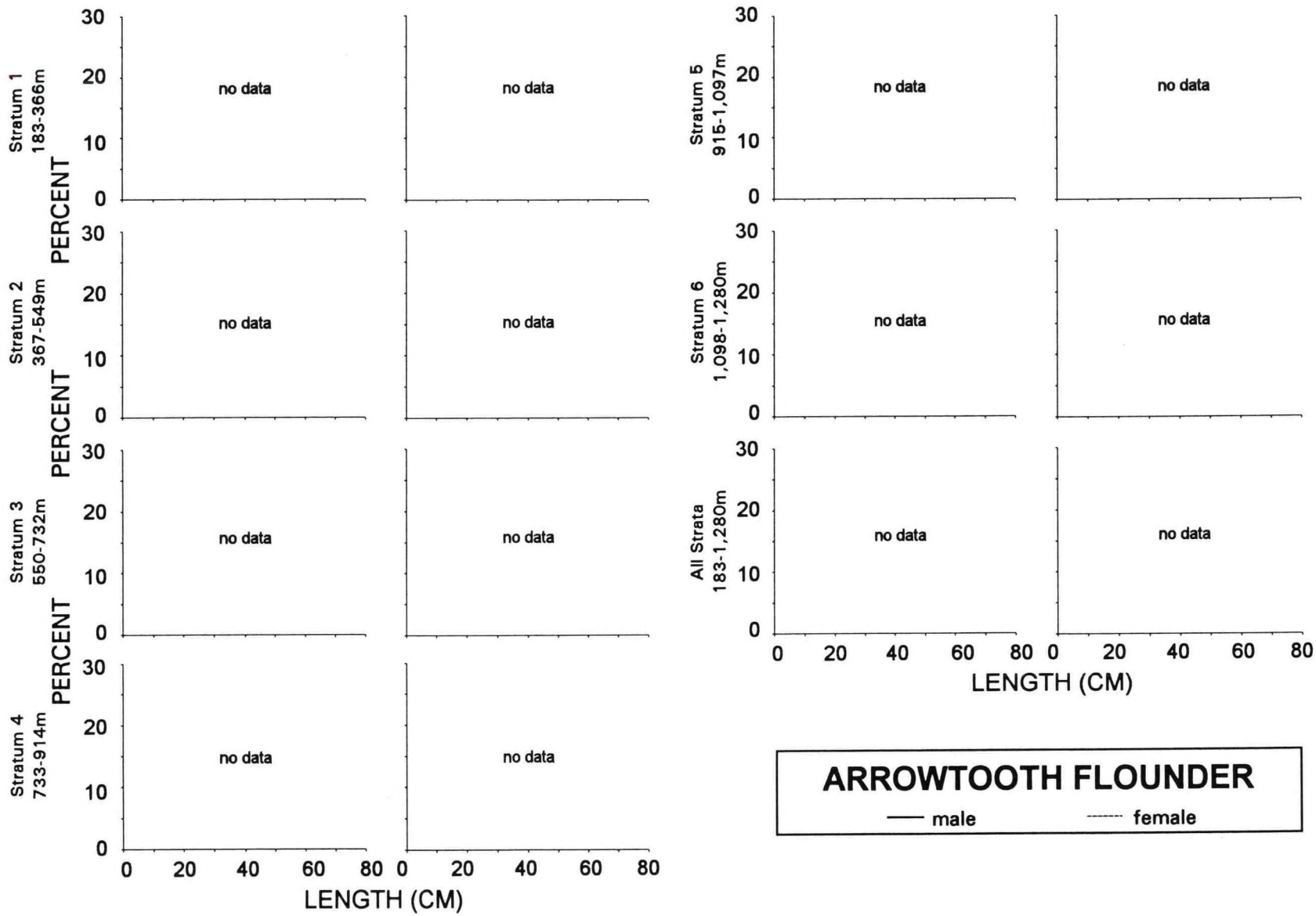


Figure 21.--Estimated population size composition and mean lengths (cm) of arrowtooth flounder by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Conception area from the 1999 West Coast upper continental slope bottom trawl survey.

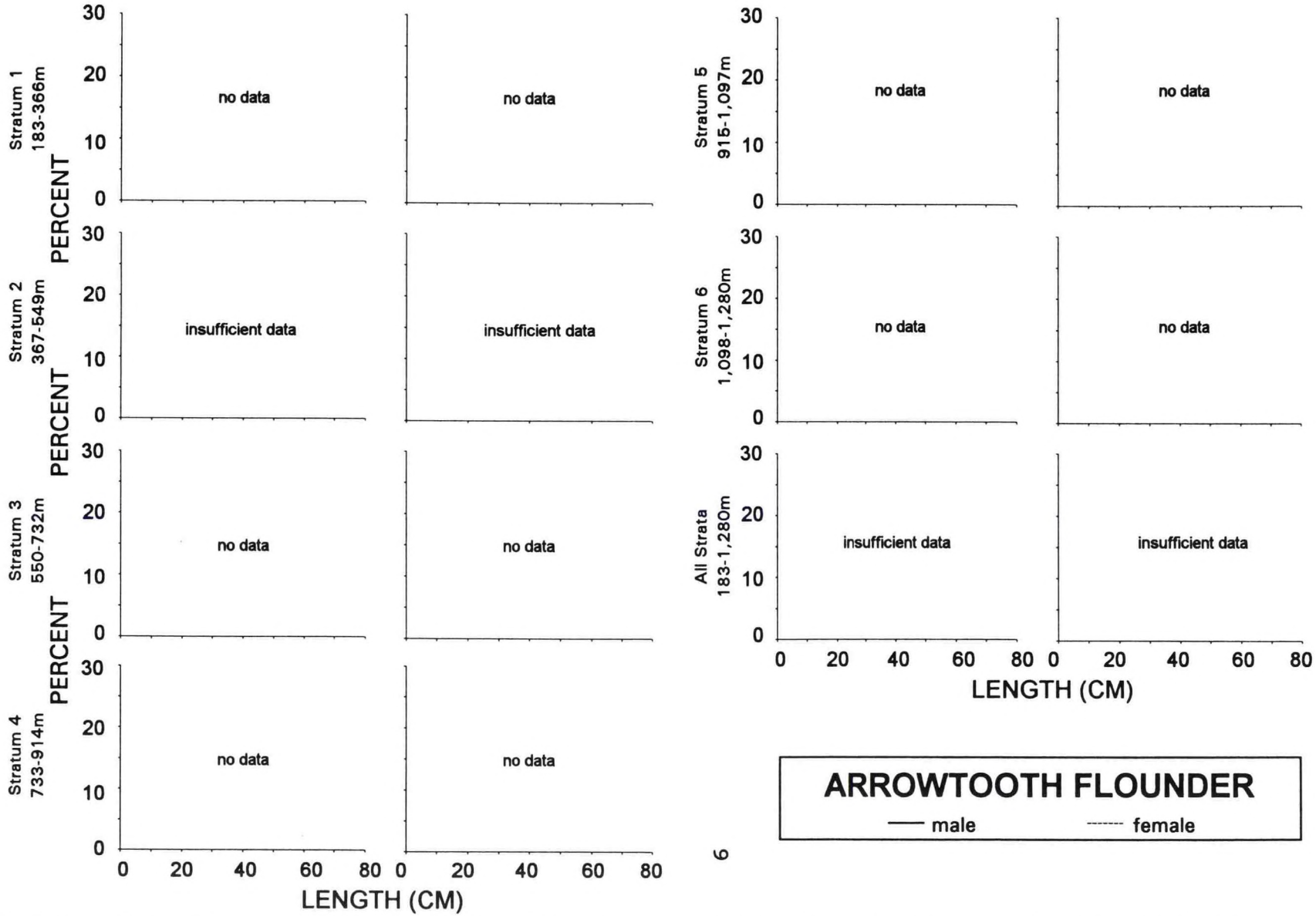


Figure 22.--Estimated population size composition and mean lengths (cm) of arrowtooth flounder by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Monterey area from the 1999 West Coast upper continental slope bottom trawl survey.

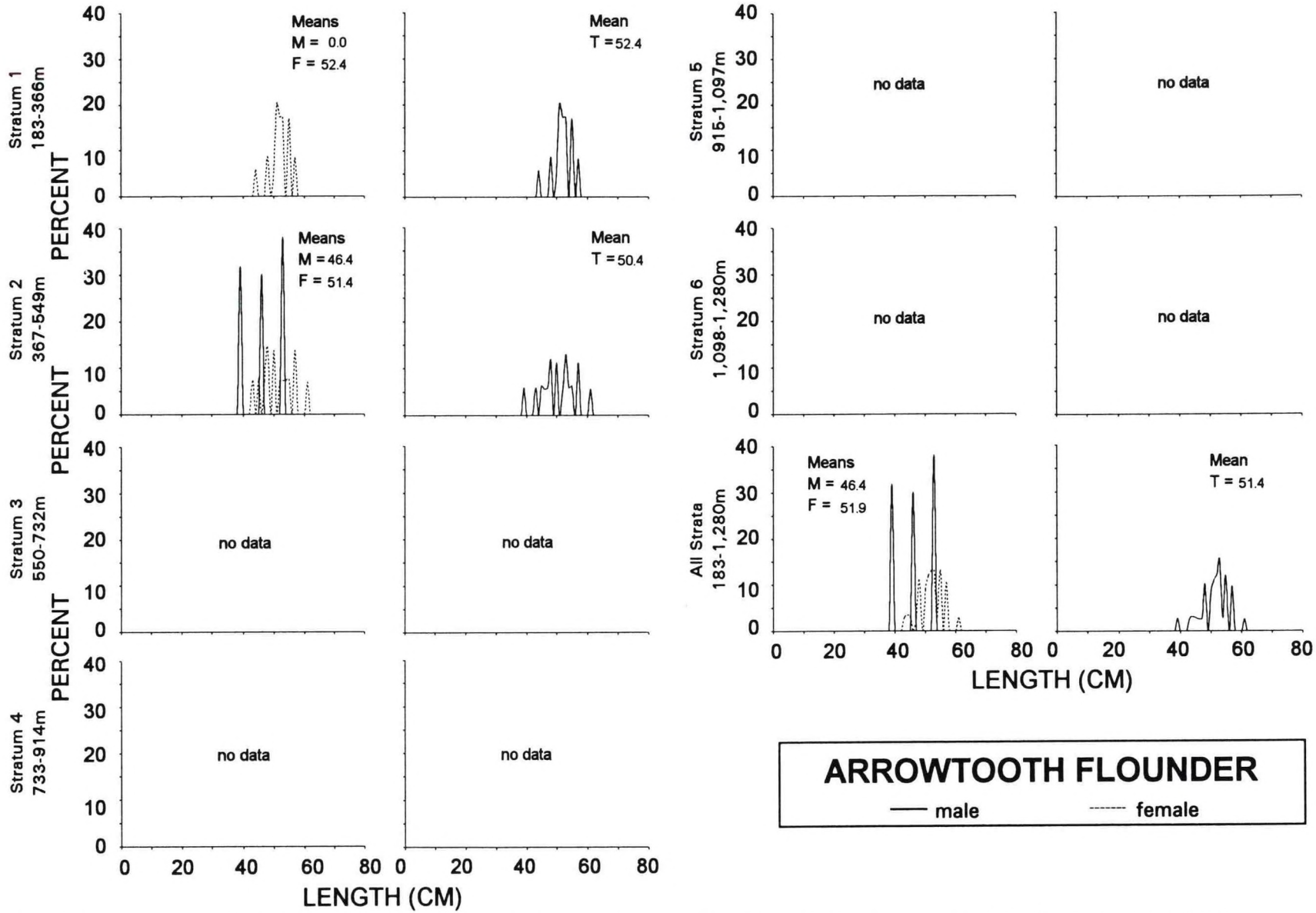


Figure 23.--Estimated population size composition and mean lengths (cm) of arrowtooth flounder by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Eureka area from the 1999 West Coast upper continental slope bottom trawl survey.

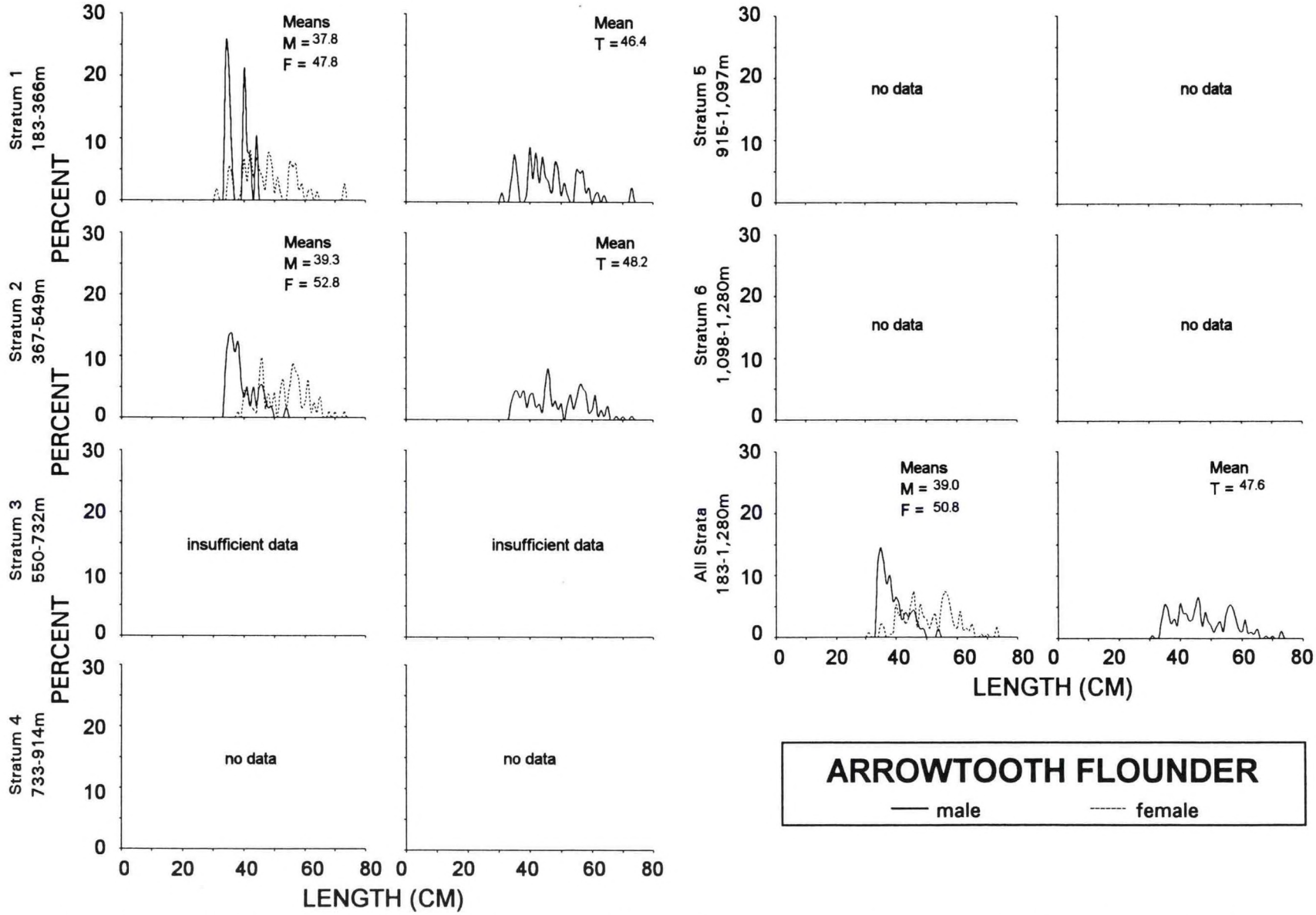


Figure 24.--Estimated population size composition and mean lengths (cm) of arrowtooth flounder by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Columbia area from the 1999 West Coast upper continental slope bottom trawl survey.

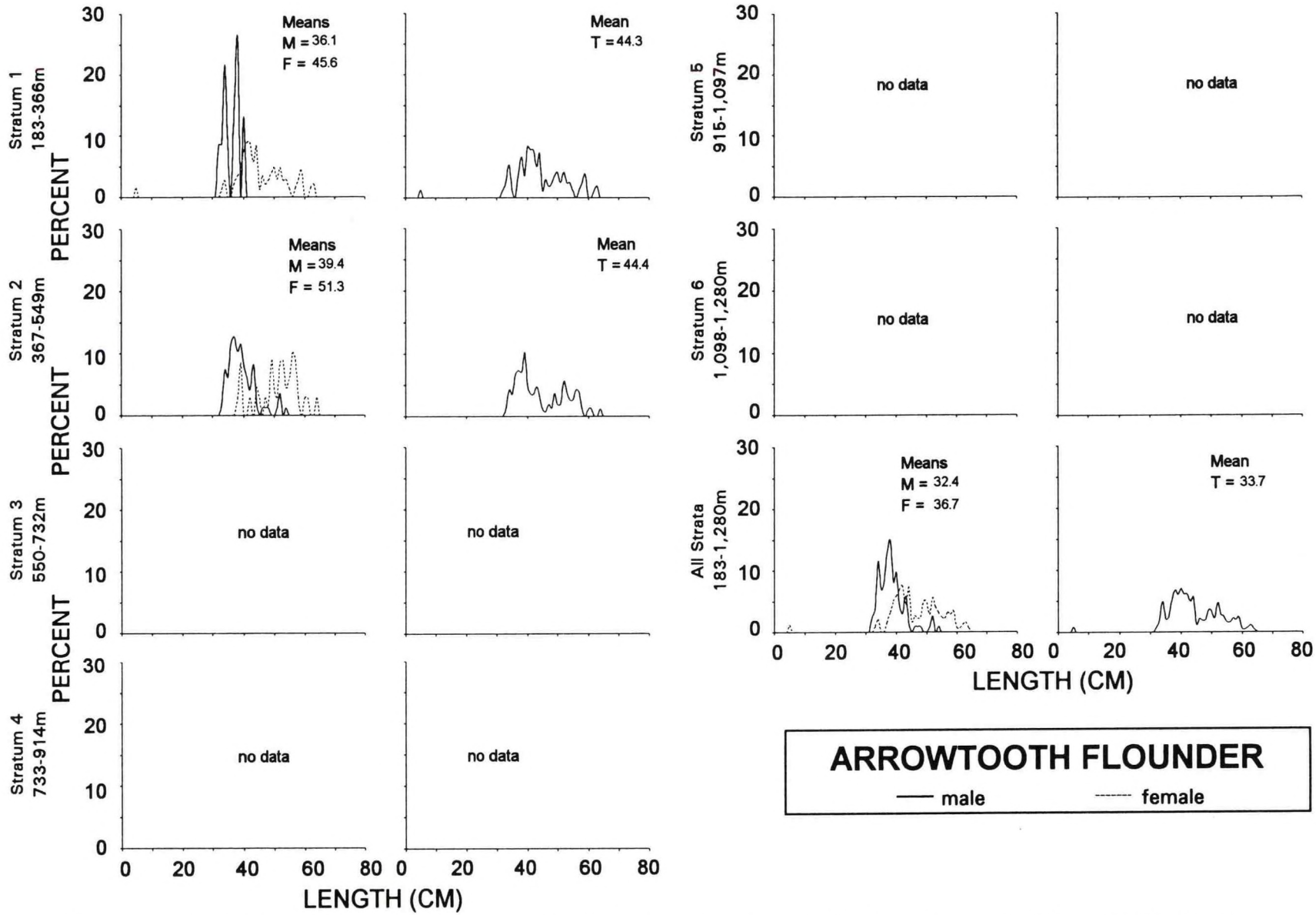


Figure 25.--Estimated population size composition and mean lengths (cm) of arrowtooth flounder by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission U.S.-Vancouver area from the 1999 West Coast upper continental slope bottom trawl survey.

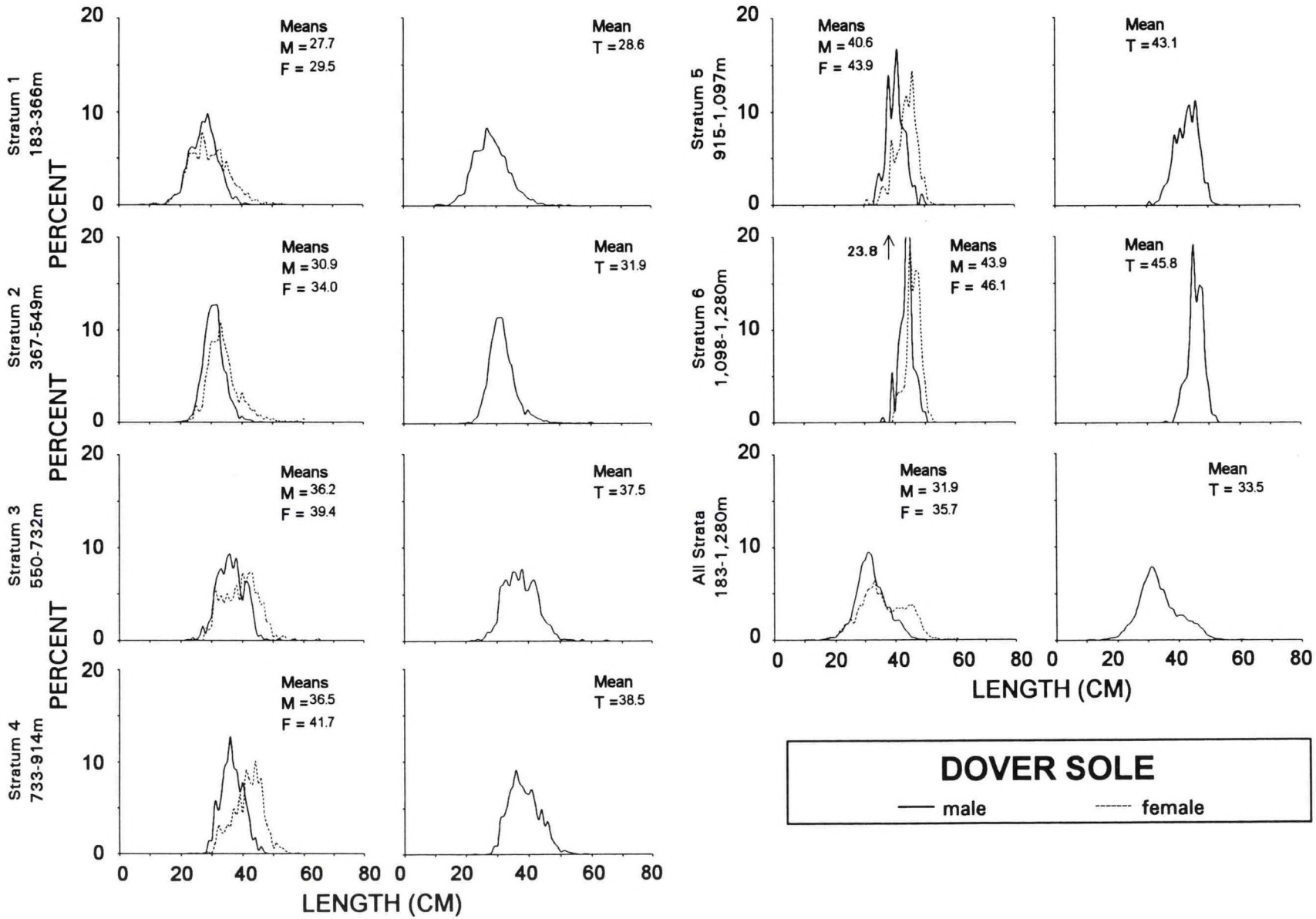


Figure 26.--Estimated population size composition and mean lengths (cm) of Dover sole by depth stratum and by sex (T = males, females, and unsexed combined) for all International North Pacific Fisheries Commission areas sampled from the 1999 West Coast upper continental slope bottom trawl survey.

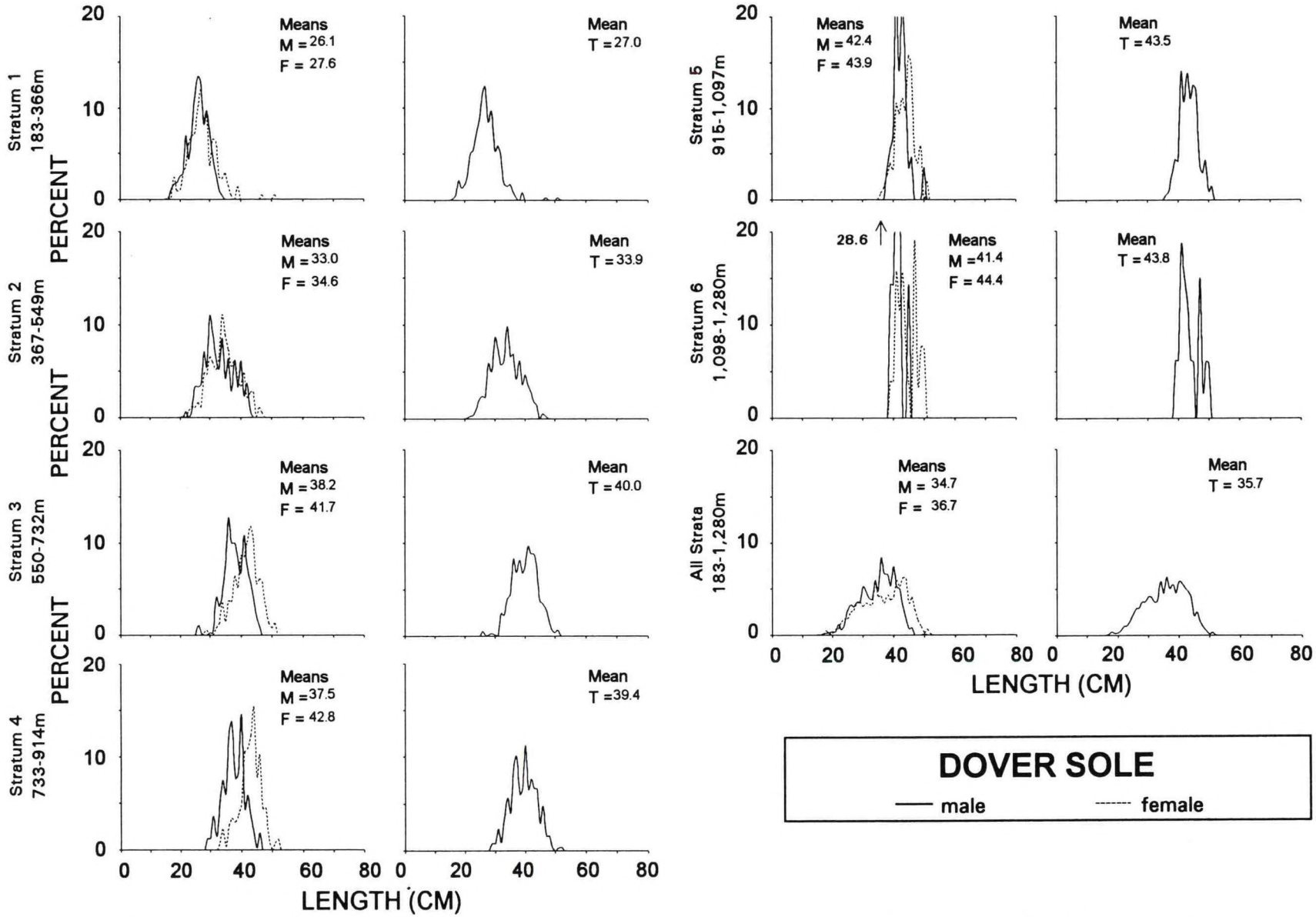


Figure 27.--Estimated population size composition and mean lengths (cm) of Dover sole by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Conception area from the 1999 West Coast upper continental slope bottom trawl survey.

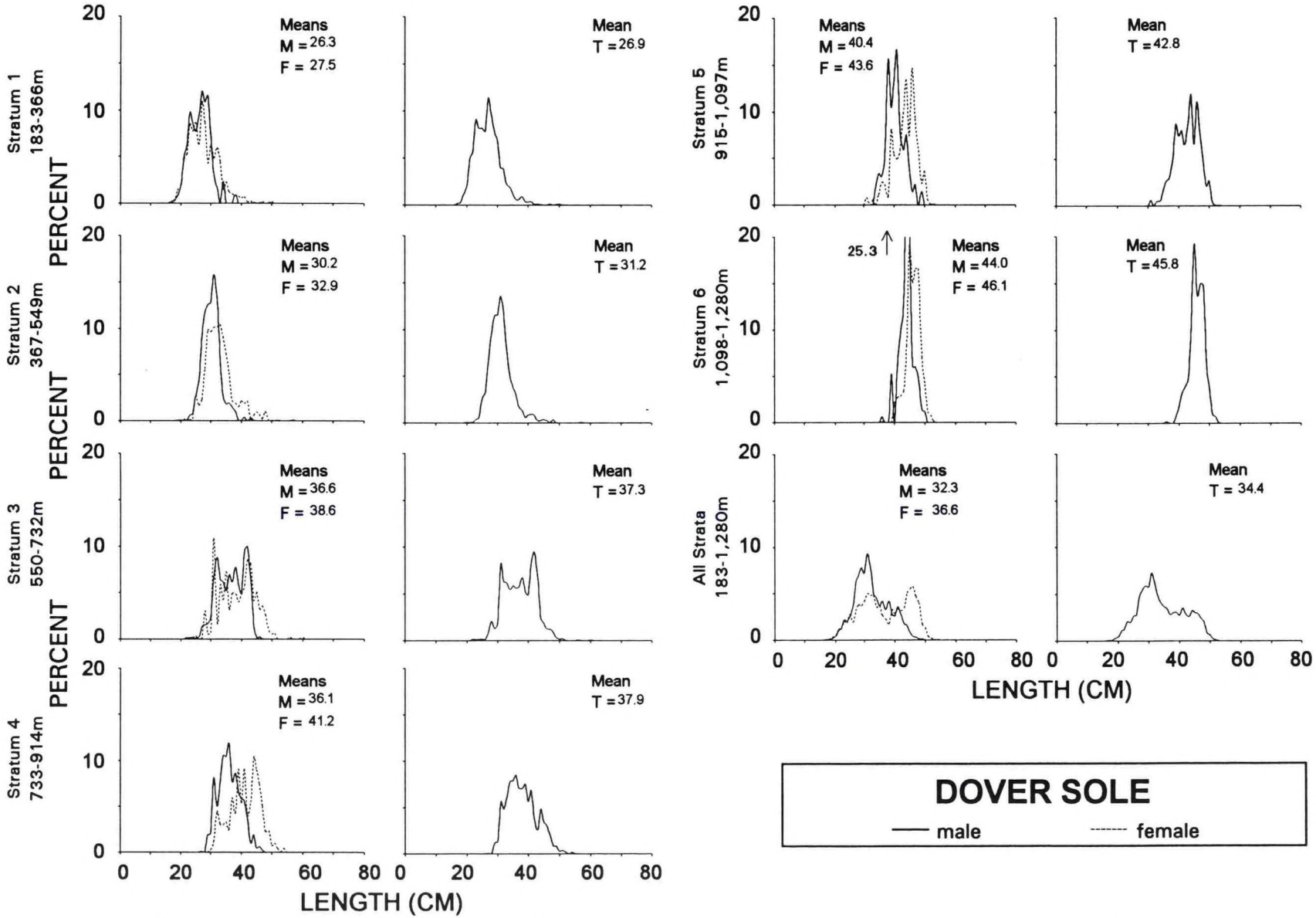


Figure 28.--Estimated population size composition and mean lengths (cm) of Dover sole by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Monterey area from the 1999 West Coast upper continental slope bottom trawl survey.

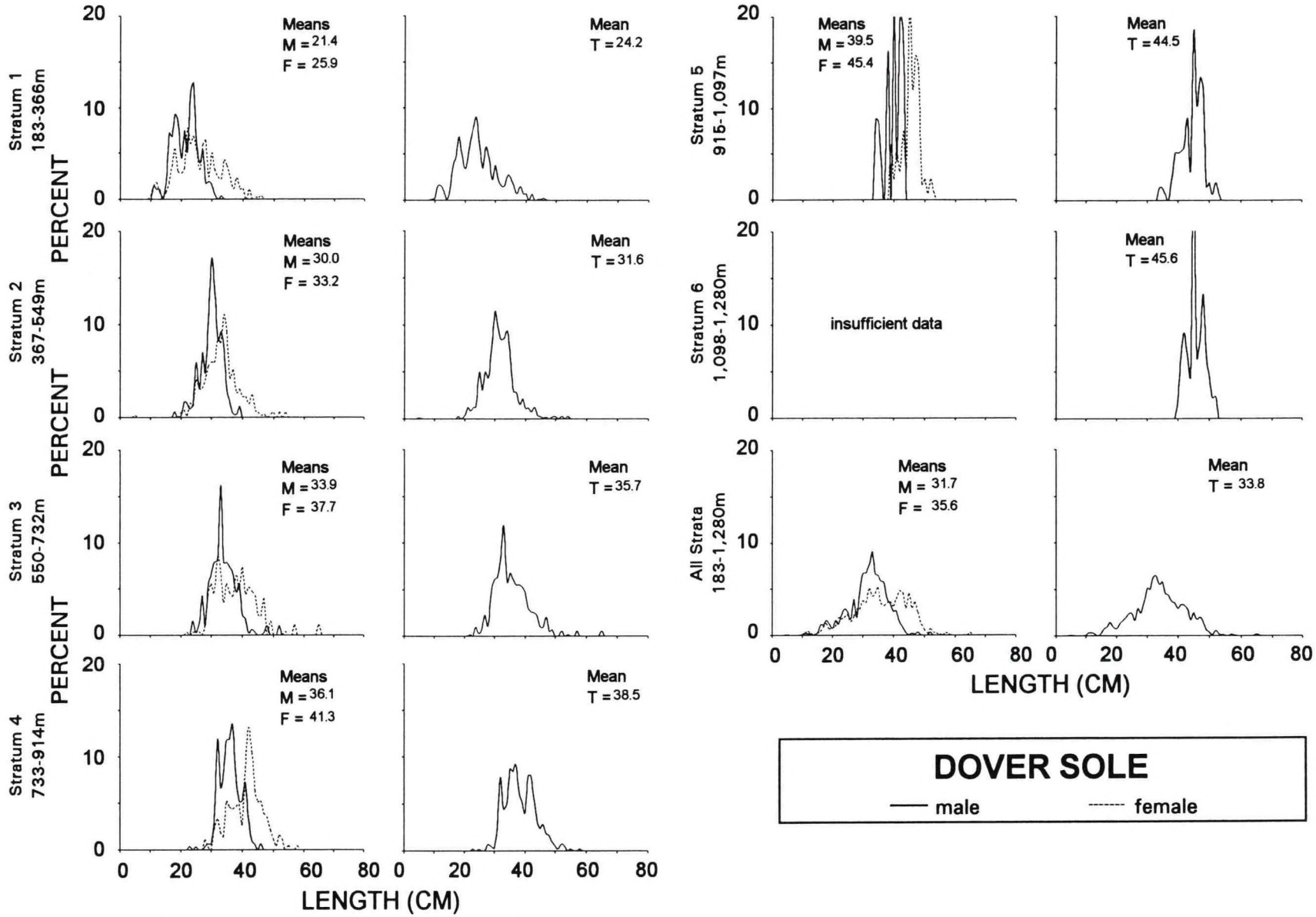


Figure 29.--Estimated population size composition and mean lengths (cm) of Dover sole by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Eureka area from the 1999 West Coast upper continental slope bottom trawl survey.

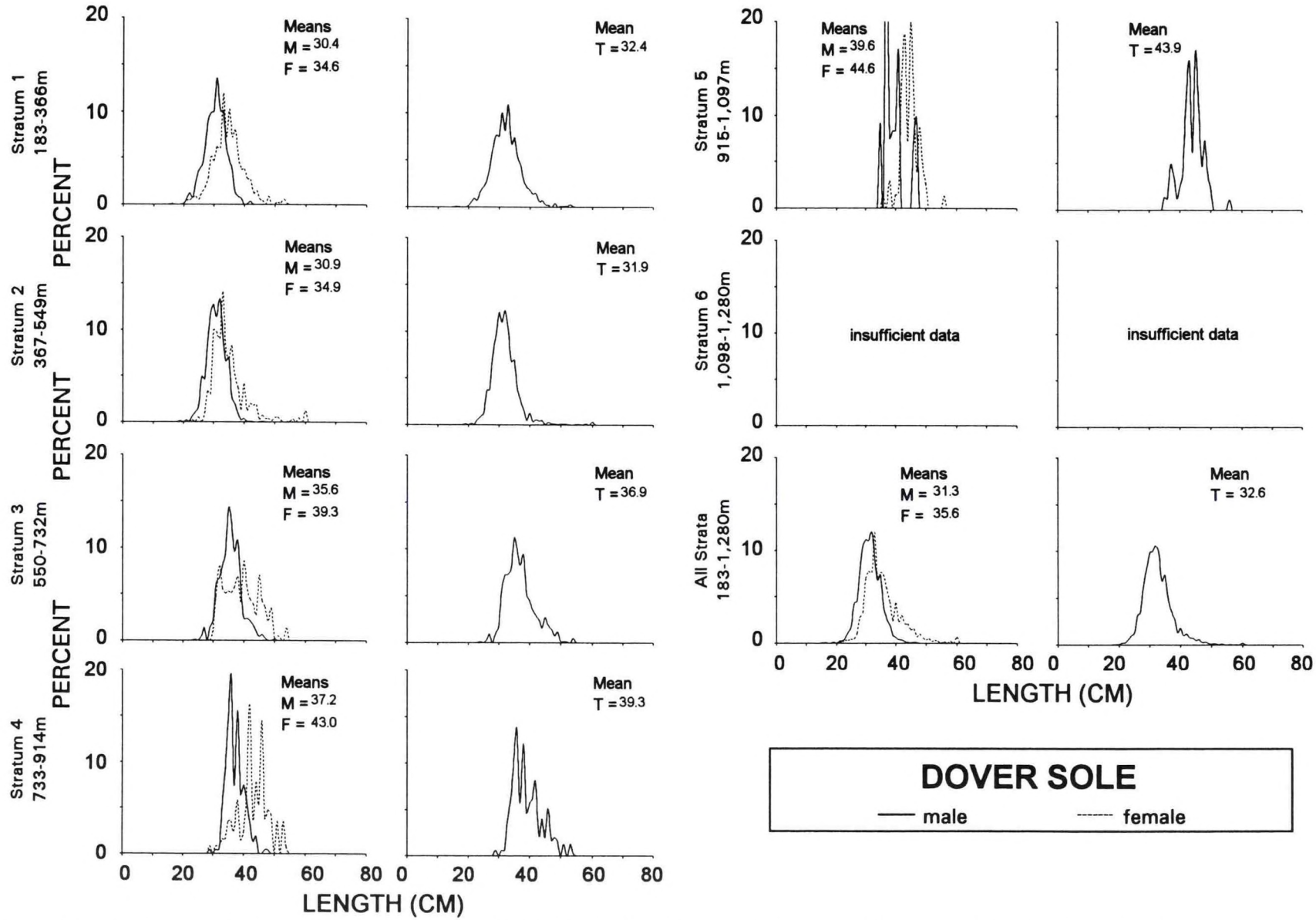


Figure 30.--Estimated population size composition and mean lengths (cm) of Dover sole by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Columbia area from the 1999 West Coast upper continental slope bottom trawl

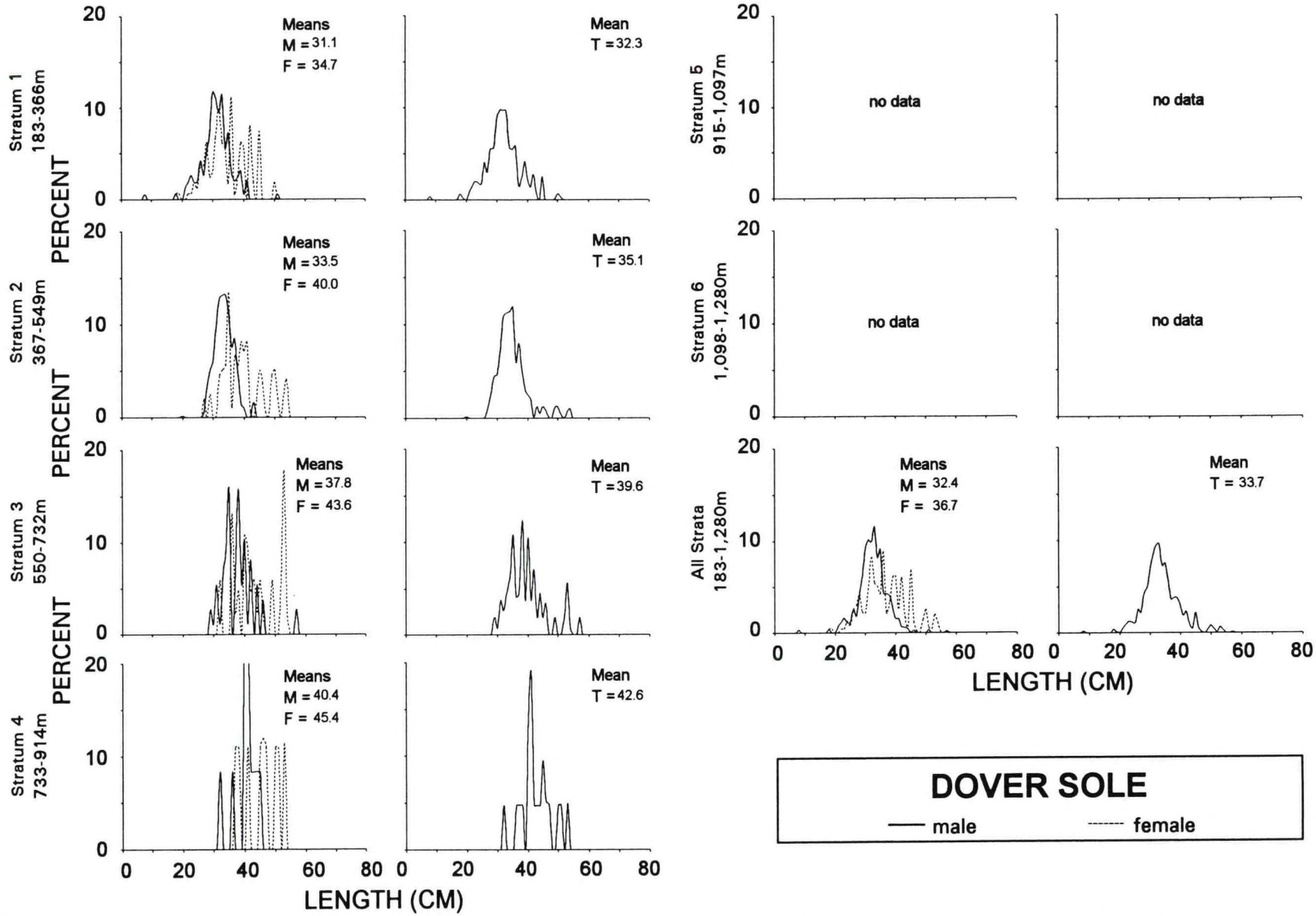


Figure 31.--Estimated population size composition and mean lengths (cm) of Dover sole by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission U.S.-Vancouver area from the 1999 West Coast upper continental slope bottom trawl survey.

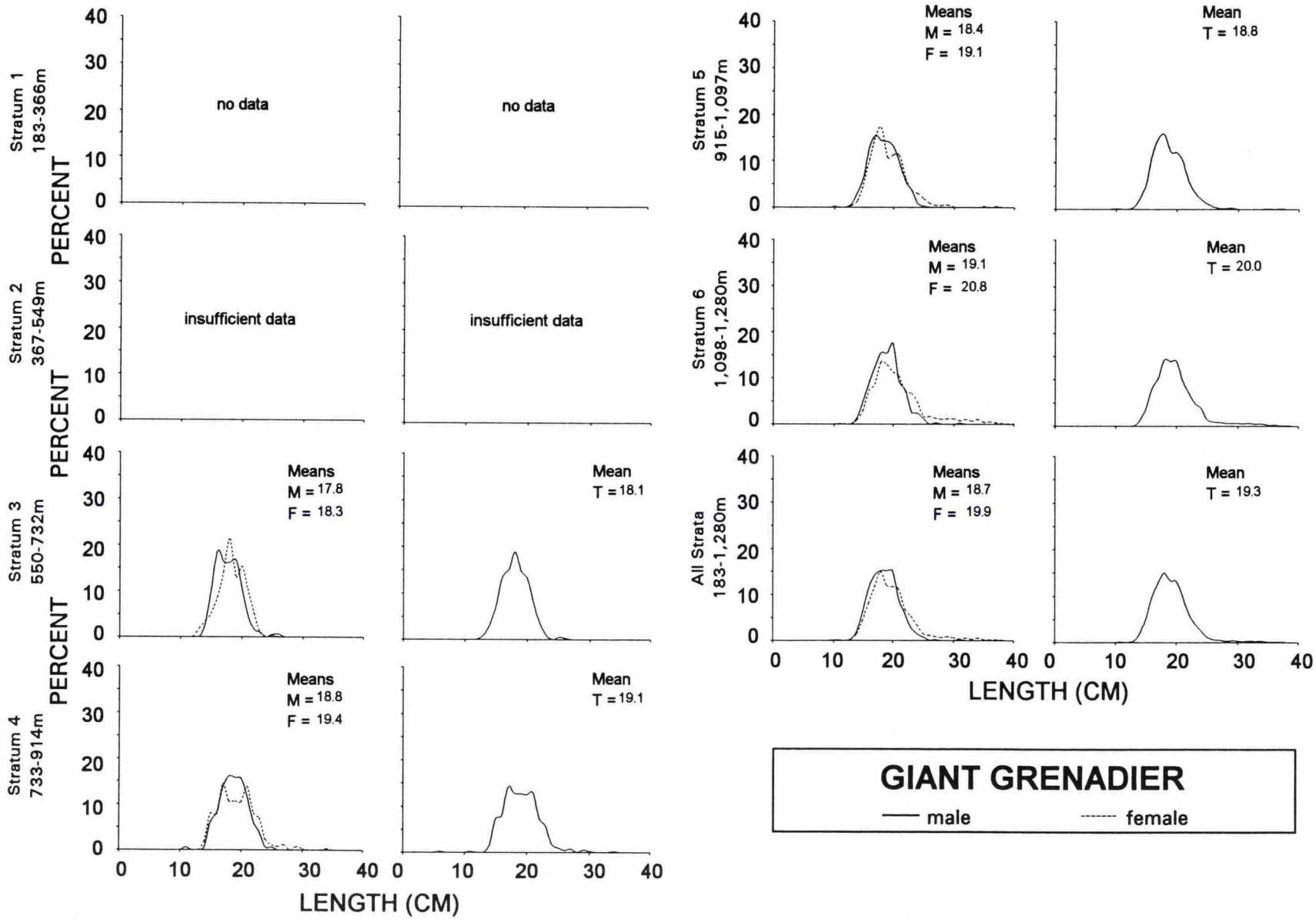


Figure 32.--Estimated population size composition and mean lengths (cm) of giant grenadier by depth stratum and by sex (T = males, females, and unsexed combined) for all International North Pacific Fisheries Commission areas sampled from the 1999 West Coast upper continental slope bottom trawl survey.

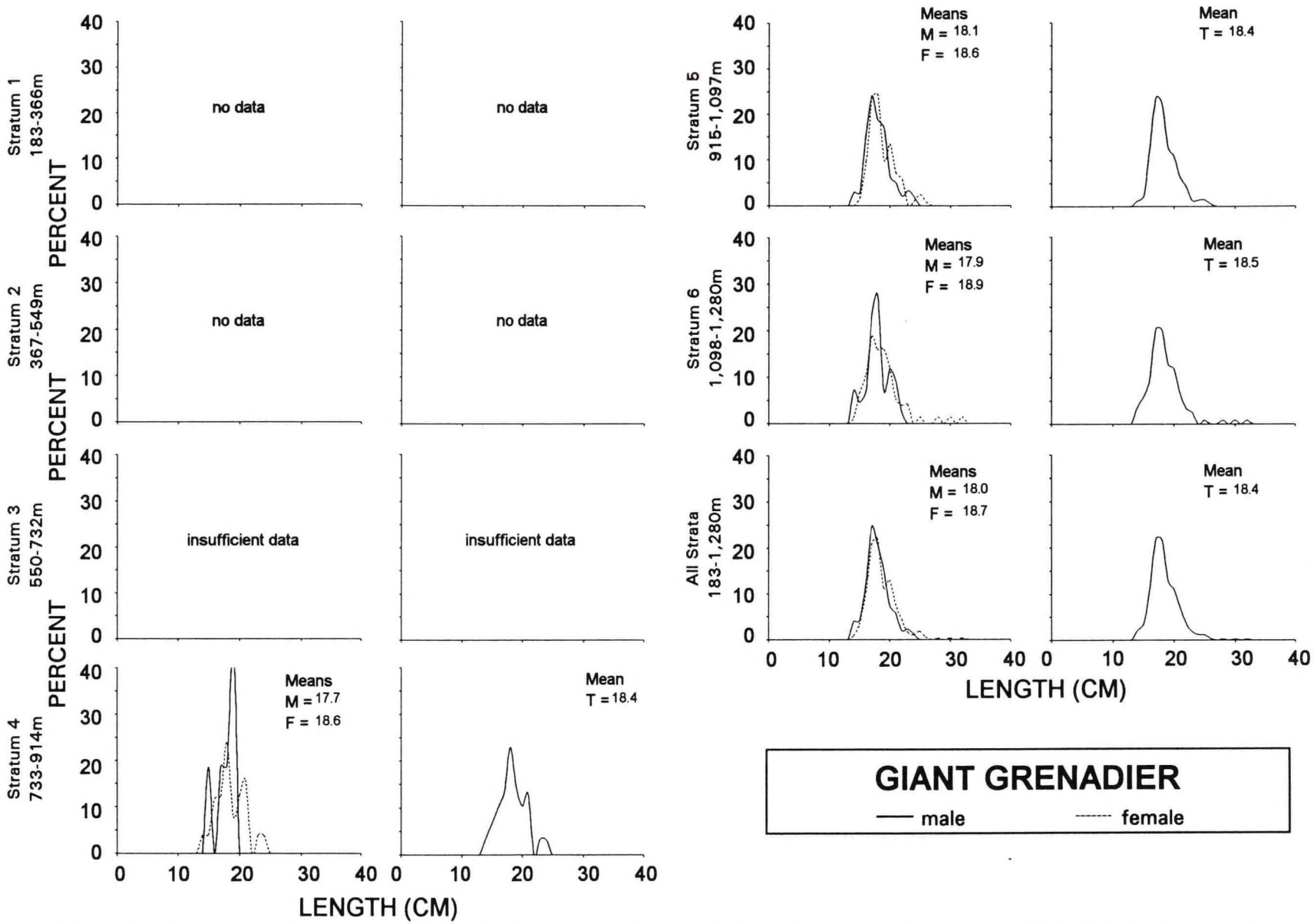


Figure 33.--Estimated population size composition and mean lengths (cm) of giant grenadier by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Conception area from the 1999 West Coast upper continental slope bottom trawl survey.

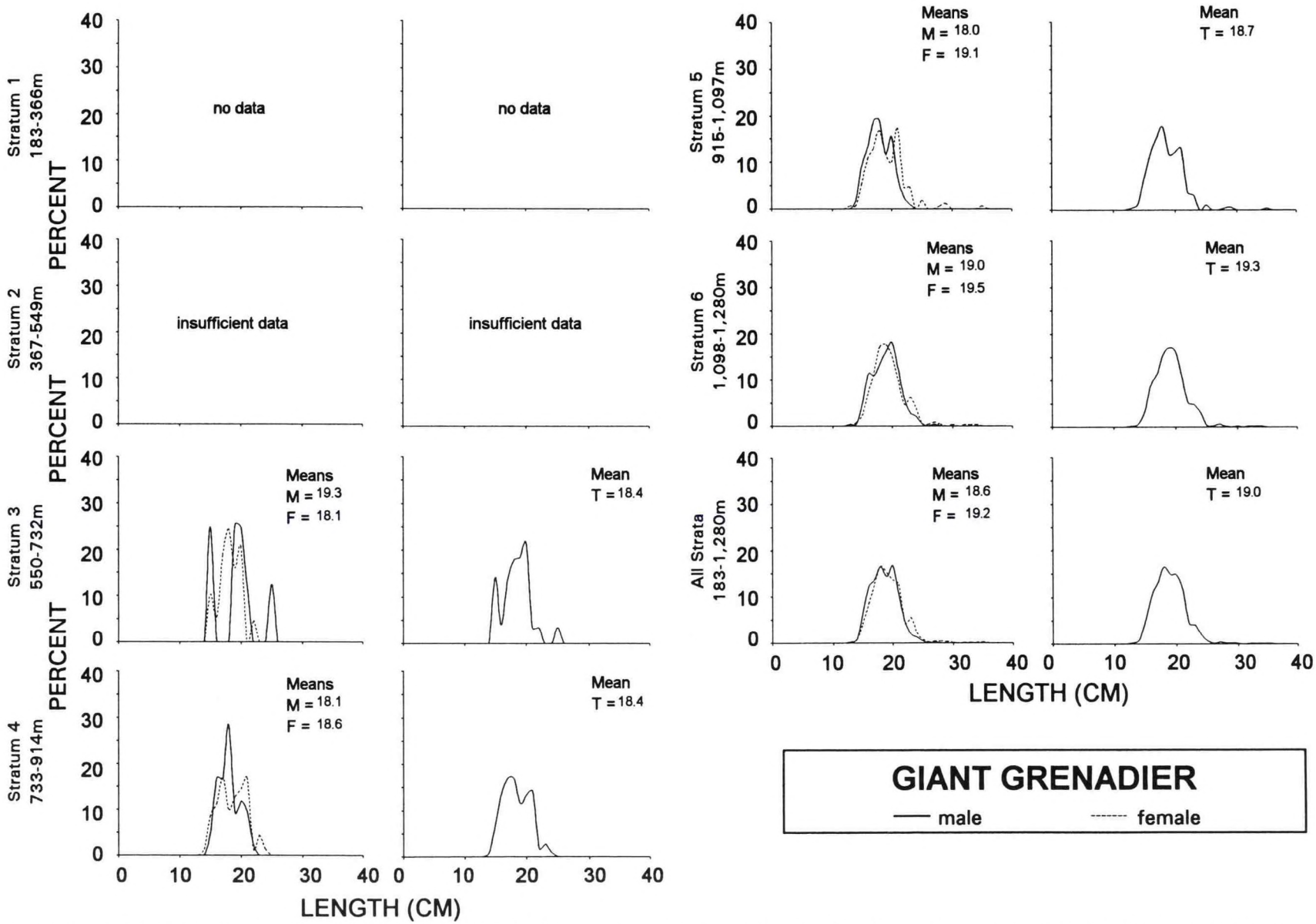


Figure 34.--Estimated population size composition and mean lengths (cm) of giant grenadier by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Monterey area from the 1999 West Coast upper continental slope bottom trawl survey.

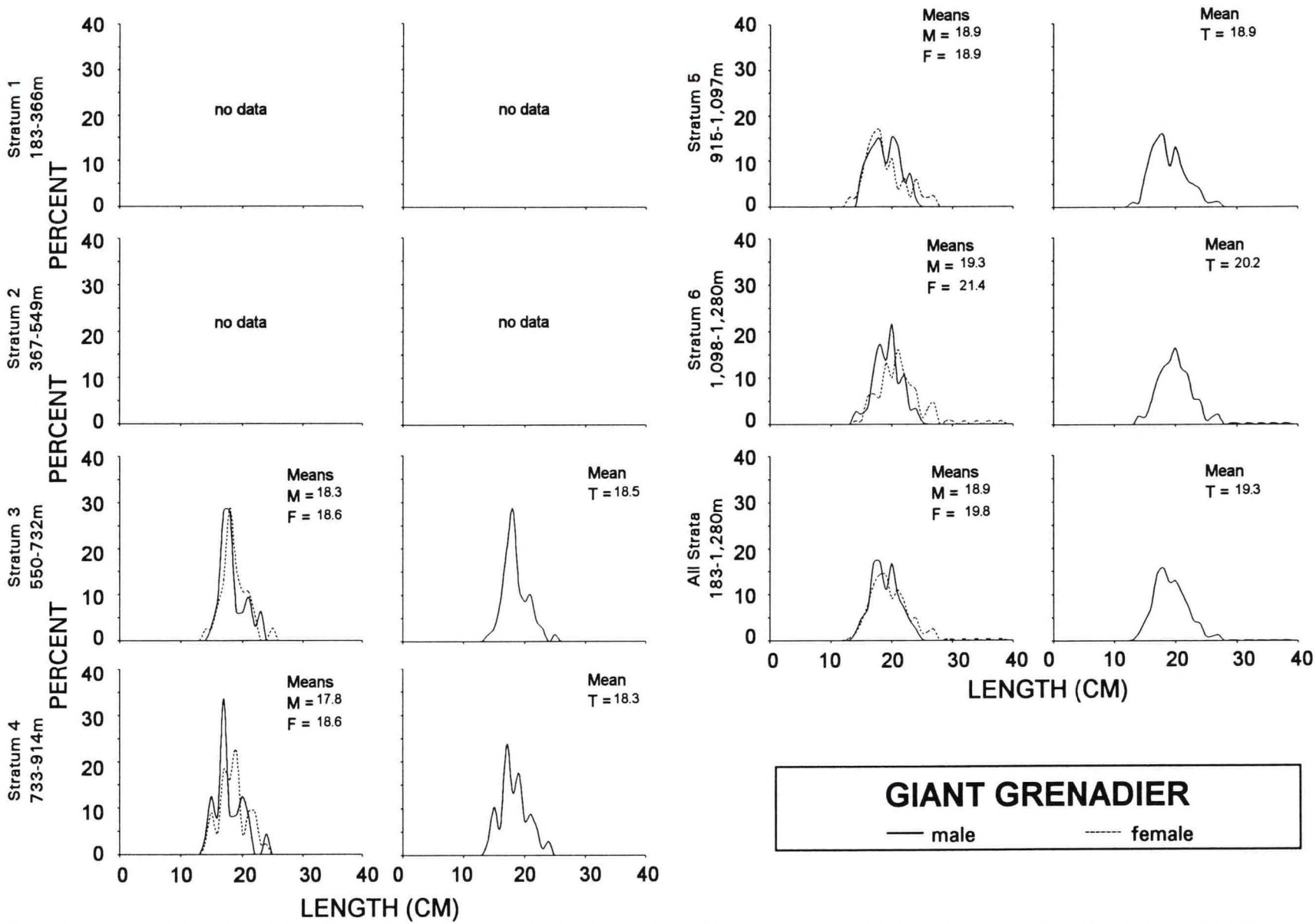


Figure 35.--Estimated population size composition and mean lengths (cm) of giant grenadier by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Eureka area from the 1999 West Coast upper continental slope bottom trawl survey.

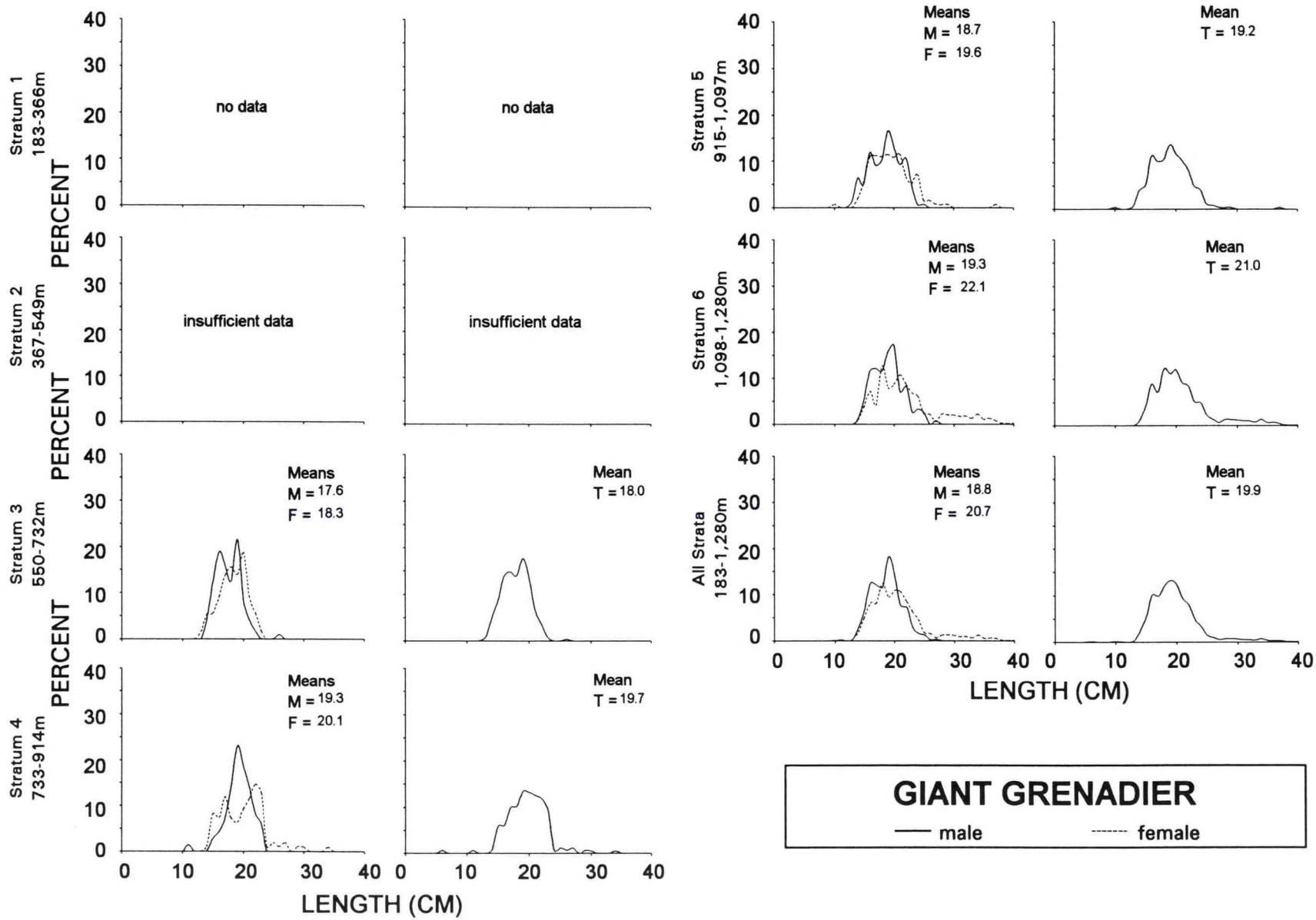


Figure 36.--Estimated population size composition and mean lengths (cm) of giant grenadier by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Columbia area from the 1999 West Coast upper continental slope bottom trawl survey.

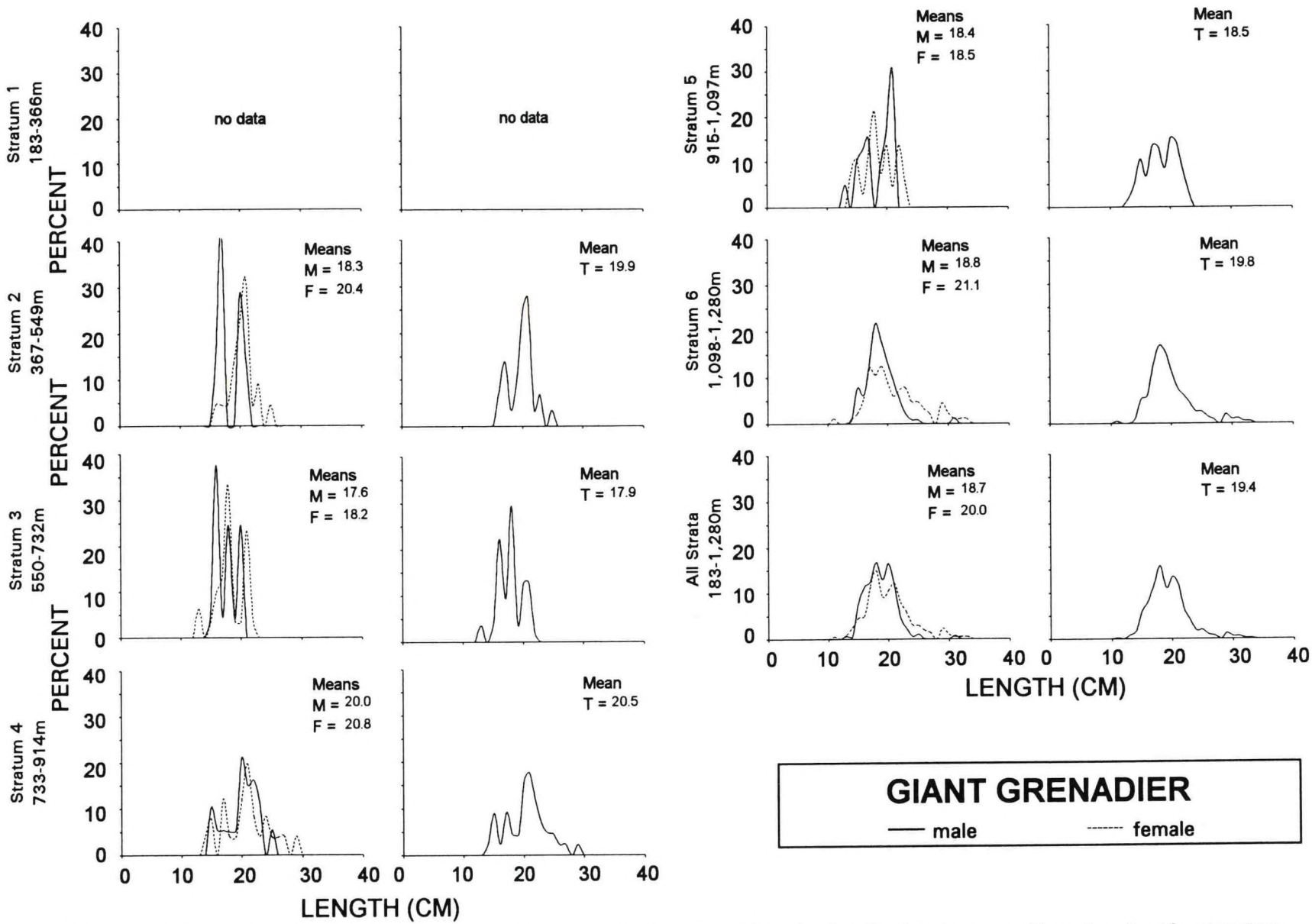


Figure 37.--Estimated population size composition and mean lengths (cm) of giant grenadier by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission U.S.-Vancouver area from the 1999 West Coast upper continental slope bottom trawl survey.

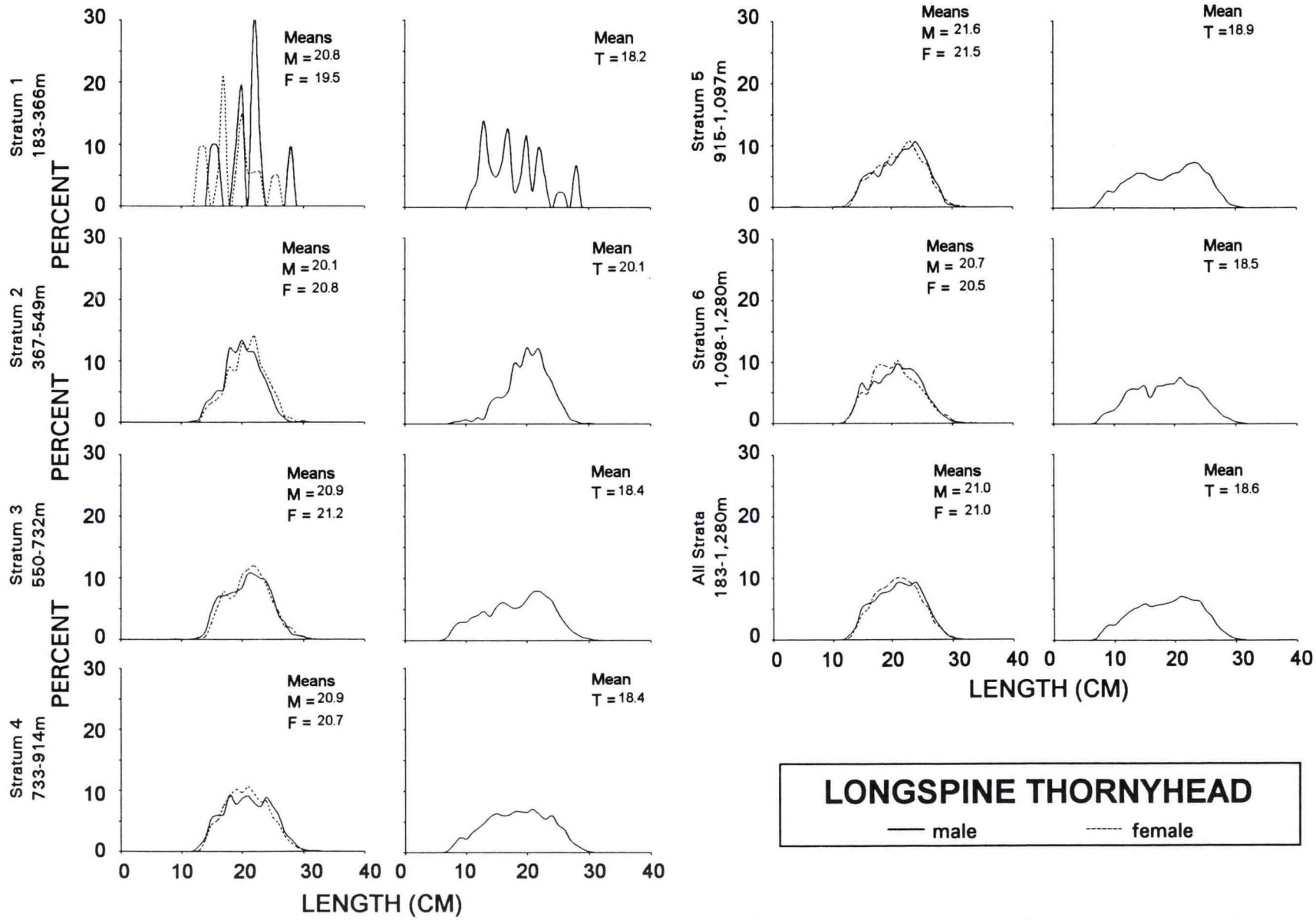


Figure 38.--Estimated population size composition and mean lengths (cm) of longspine thornyhead by depth stratum and by sex (T = males, females, and unsexed combined) for all International North Pacific Fisheries Commission areas sampled from the 1999 West Coast upper continental slope bottom trawl survey.

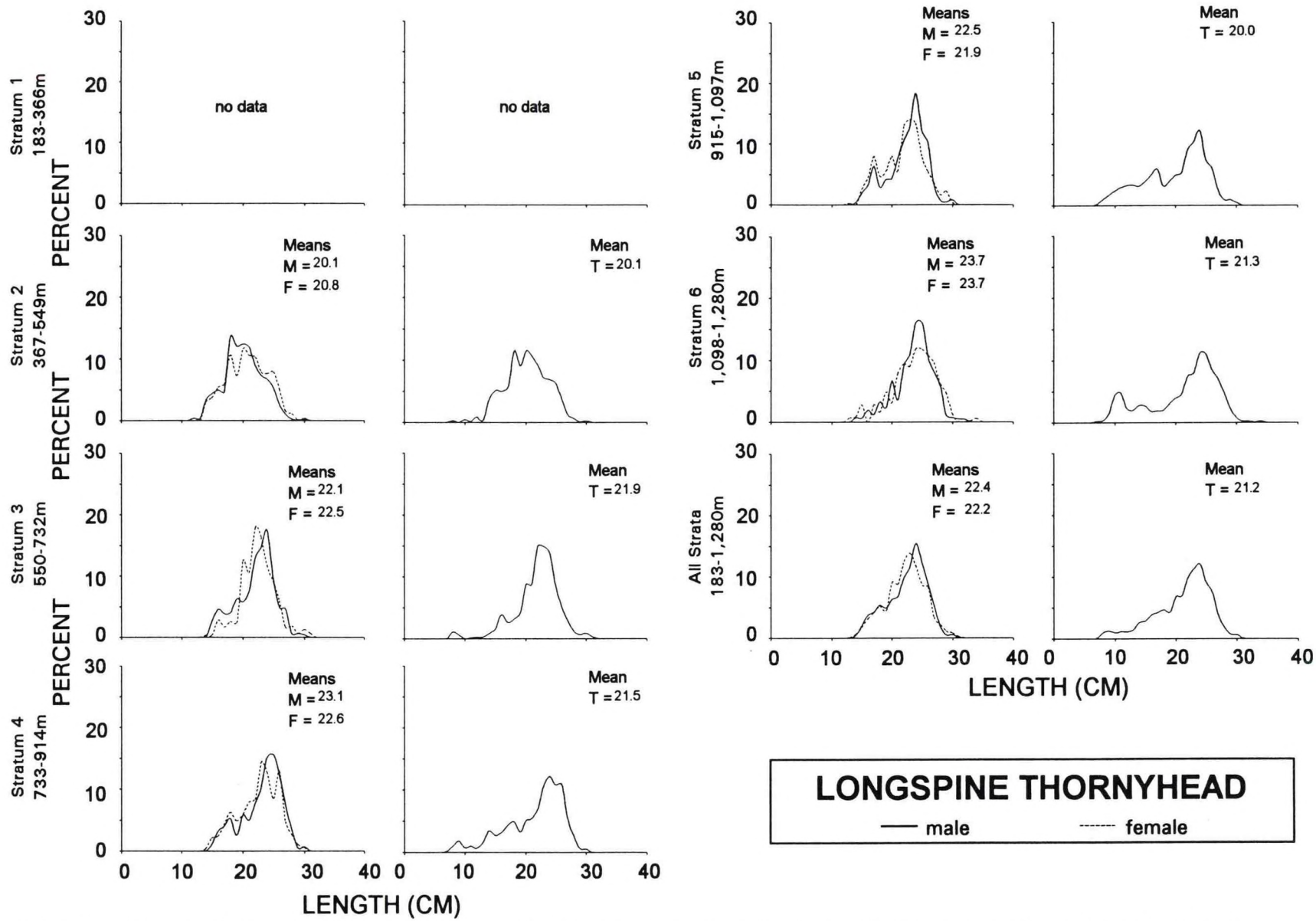


Figure 39.--Estimated population size composition and mean lengths (cm) of longspine thornyhead by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Conception area from the 1999 West Coast upper continental slope bottom trawl survey.

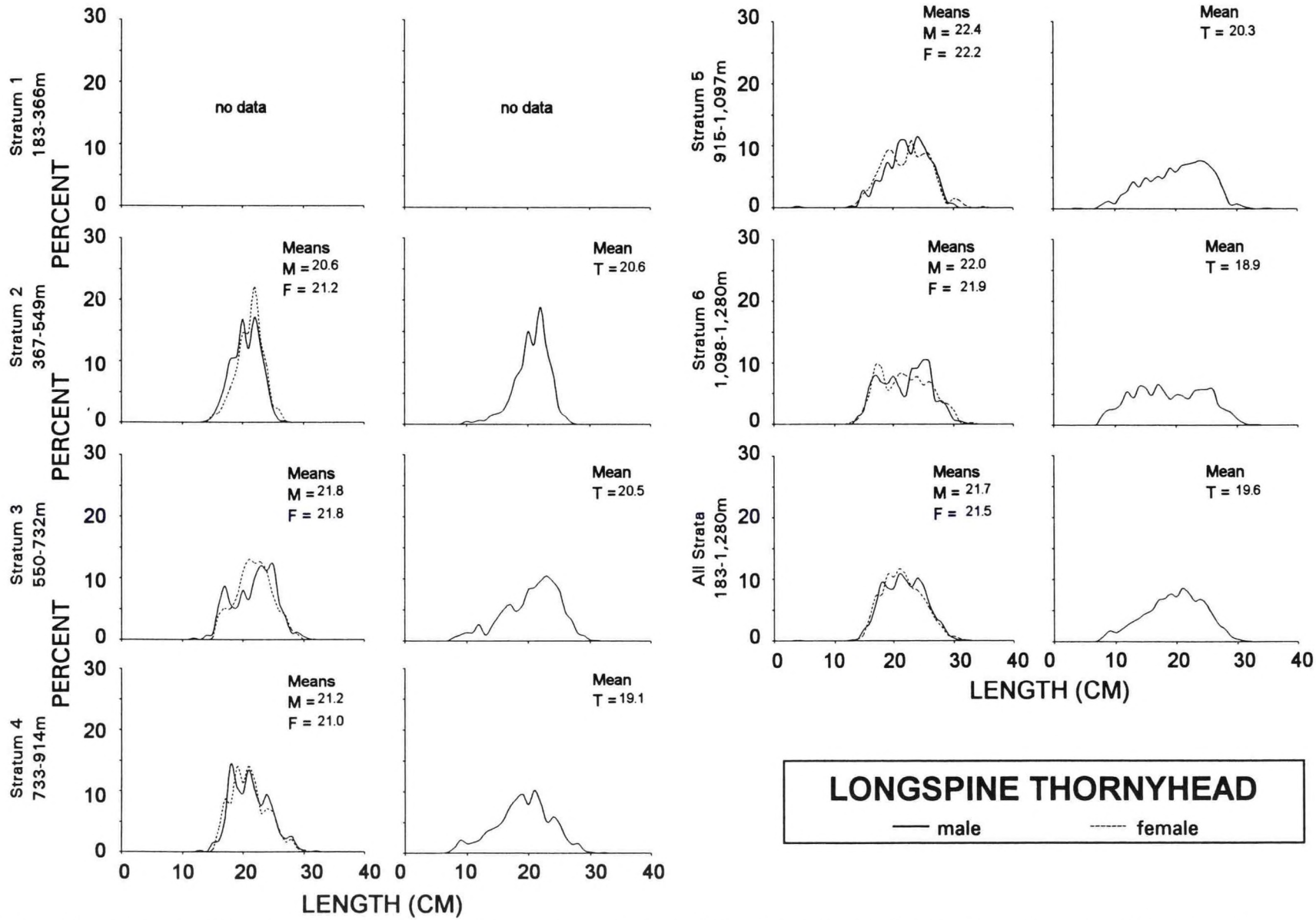


Figure 40.--Estimated population size composition and mean lengths (cm) of longspine thornyhead by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Monterey area from the 1999 West Coast upper continental slope bottom trawl survey.

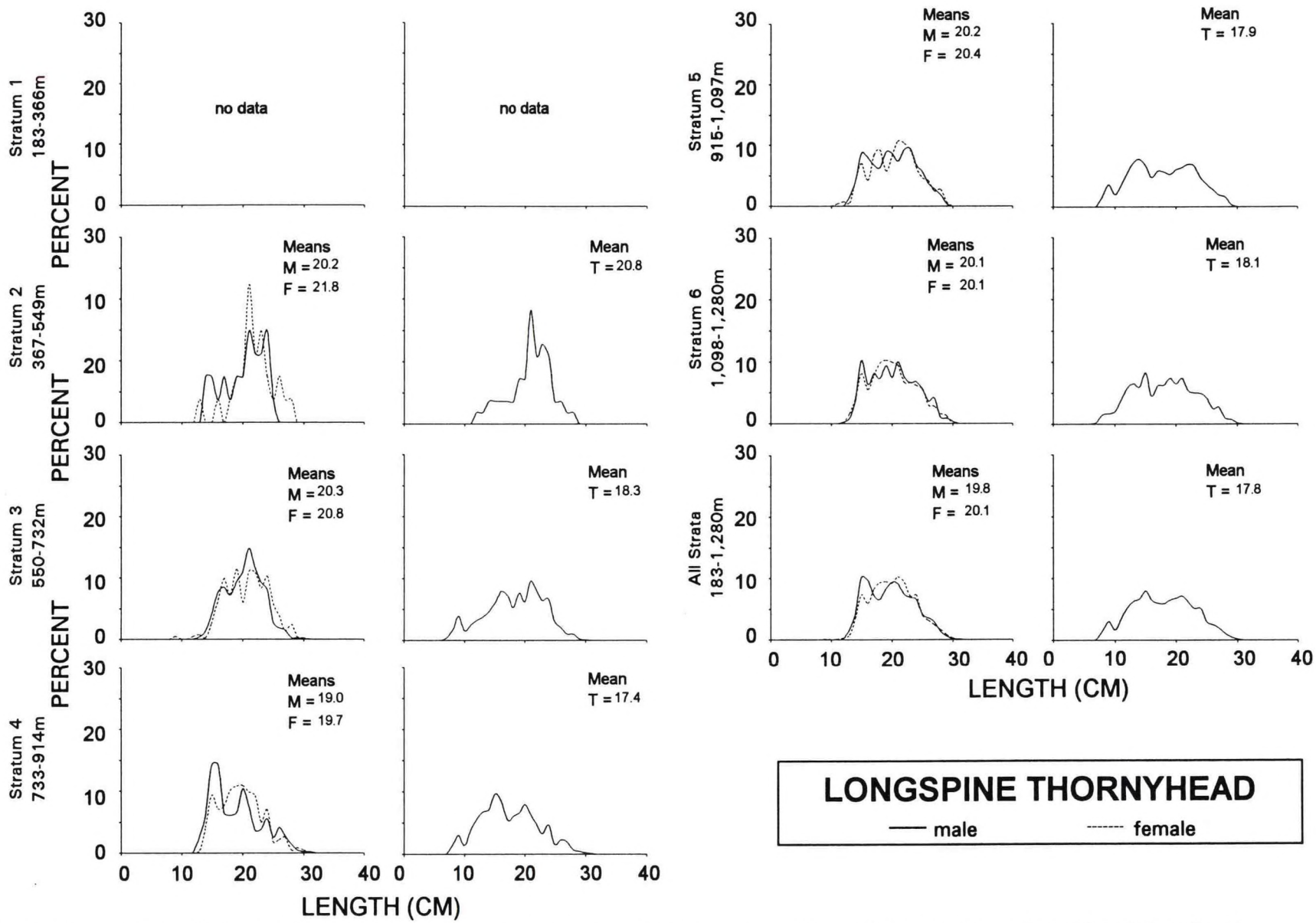


Figure 41.--Estimated population size composition and mean lengths (cm) of longspine thornyhead by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Eureka area from the 1999 West Coast upper continental slope bottom trawl survey.

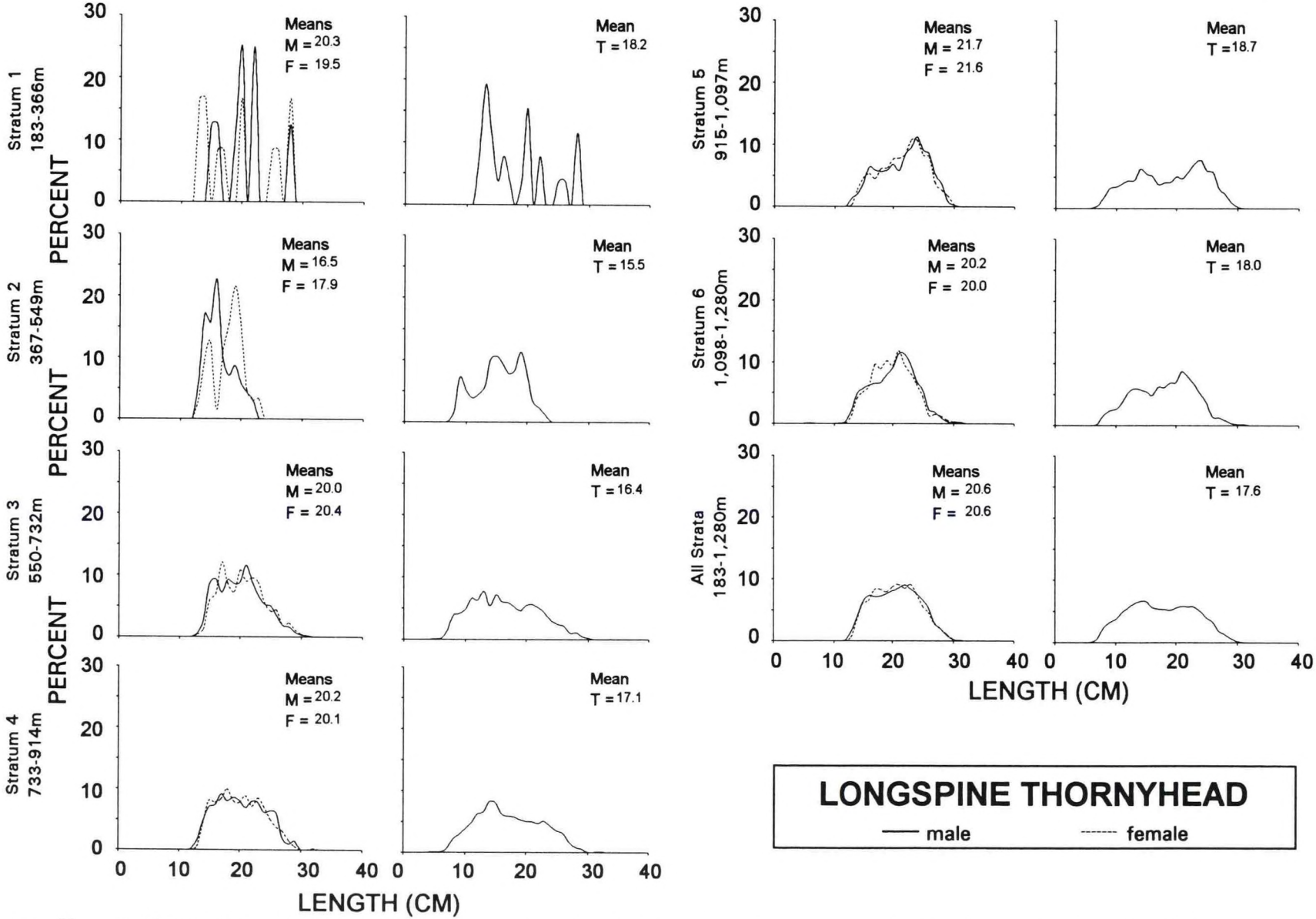


Figure 42.--Estimated population size composition and mean lengths (cm) of longspine thornyhead by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Columbia area from the 1999 West Coast upper continental slope bottom trawl survey.

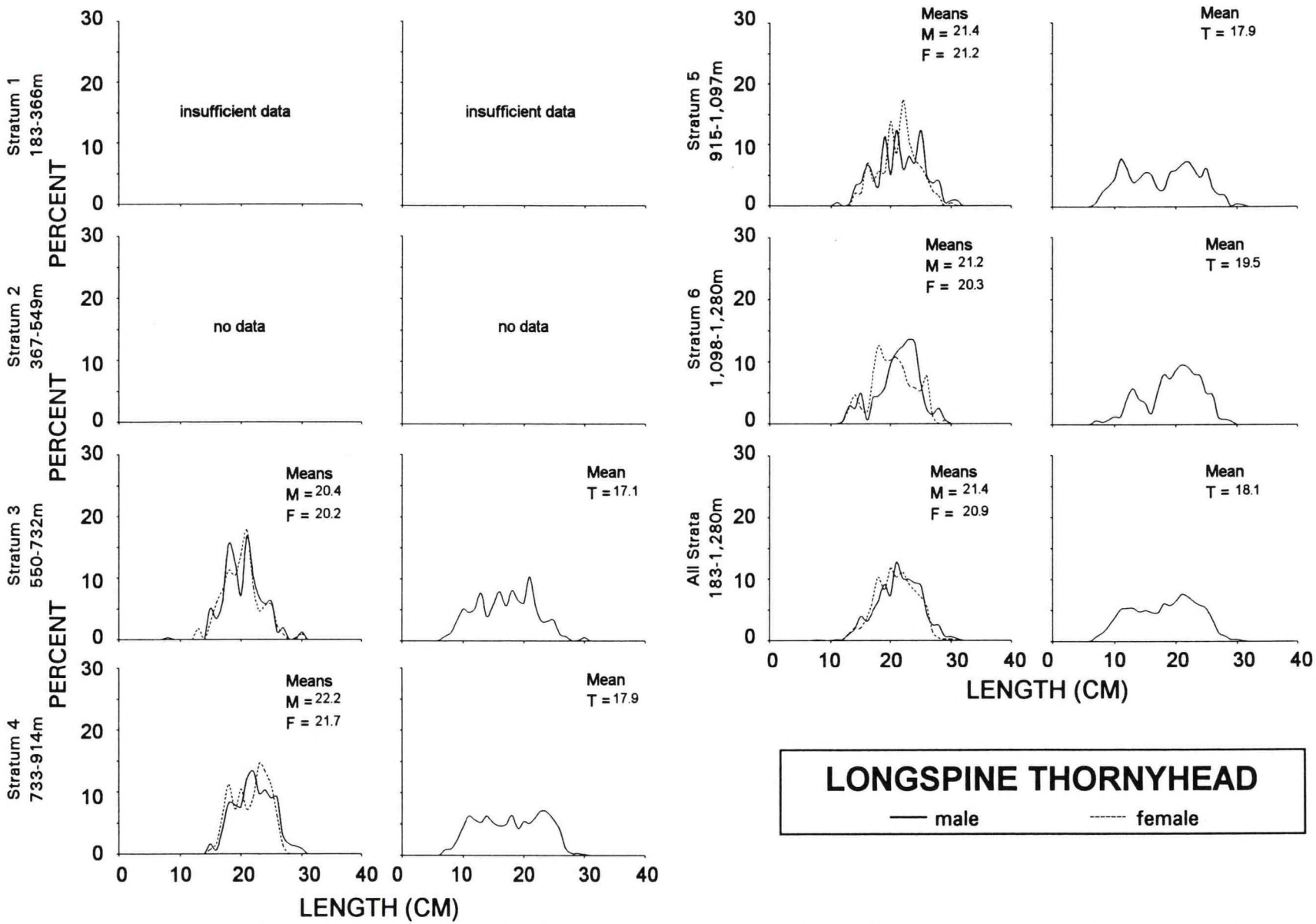


Figure 43.--Estimated population size composition and mean lengths (cm) of longspine thornyhead by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission U.S-Vancouver area from the 1999 West Coast upper continental slope bottom trawl survey.

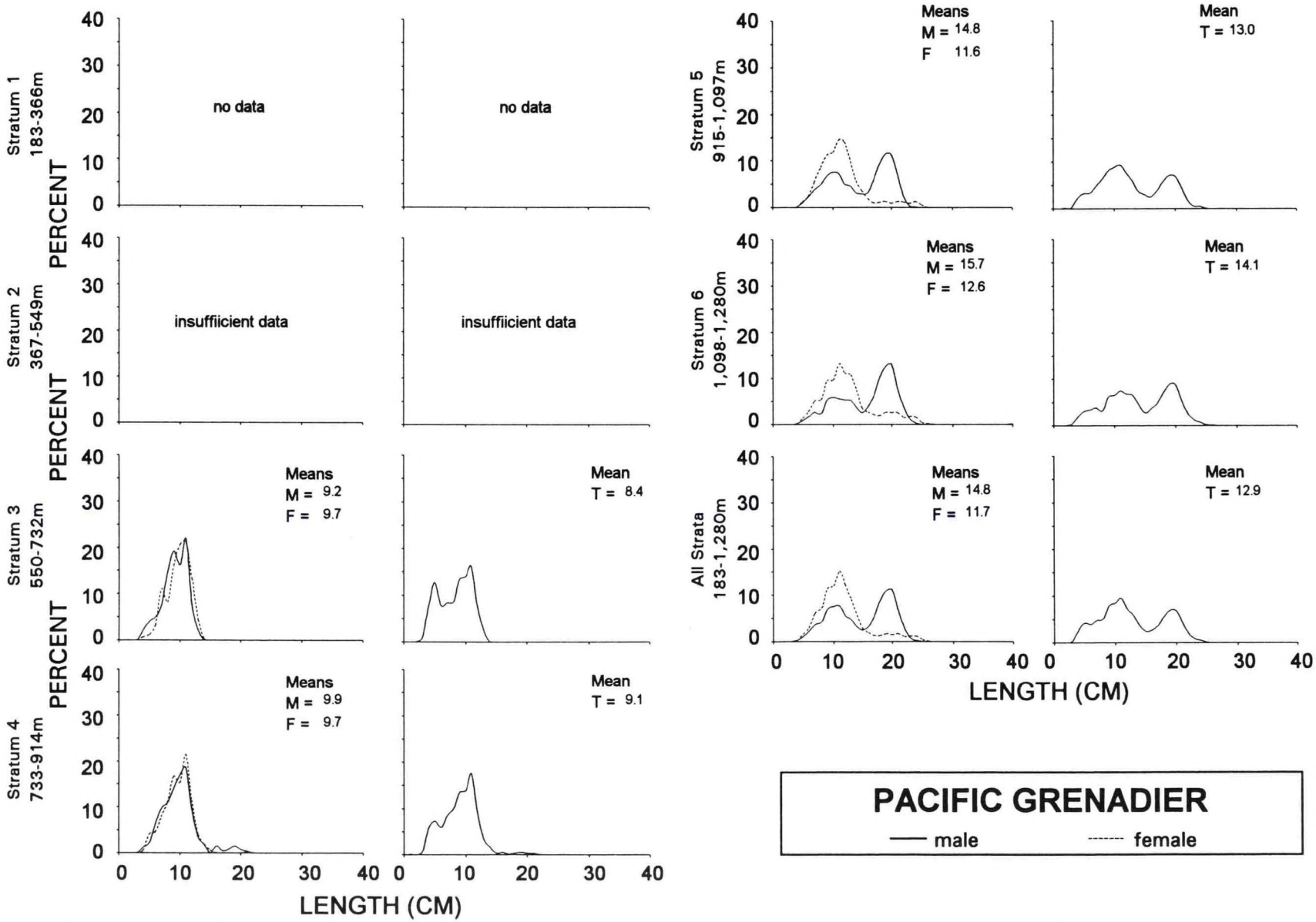


Figure 44.--Estimated population size composition and mean lengths (cm) of Pacific grenadier by depth stratum and by sex (T = males, females, and unsexed combined) for all International North Pacific Fisheries Commission areas sampled from the 1999 West Coast upper continental slope bottom trawl survey.

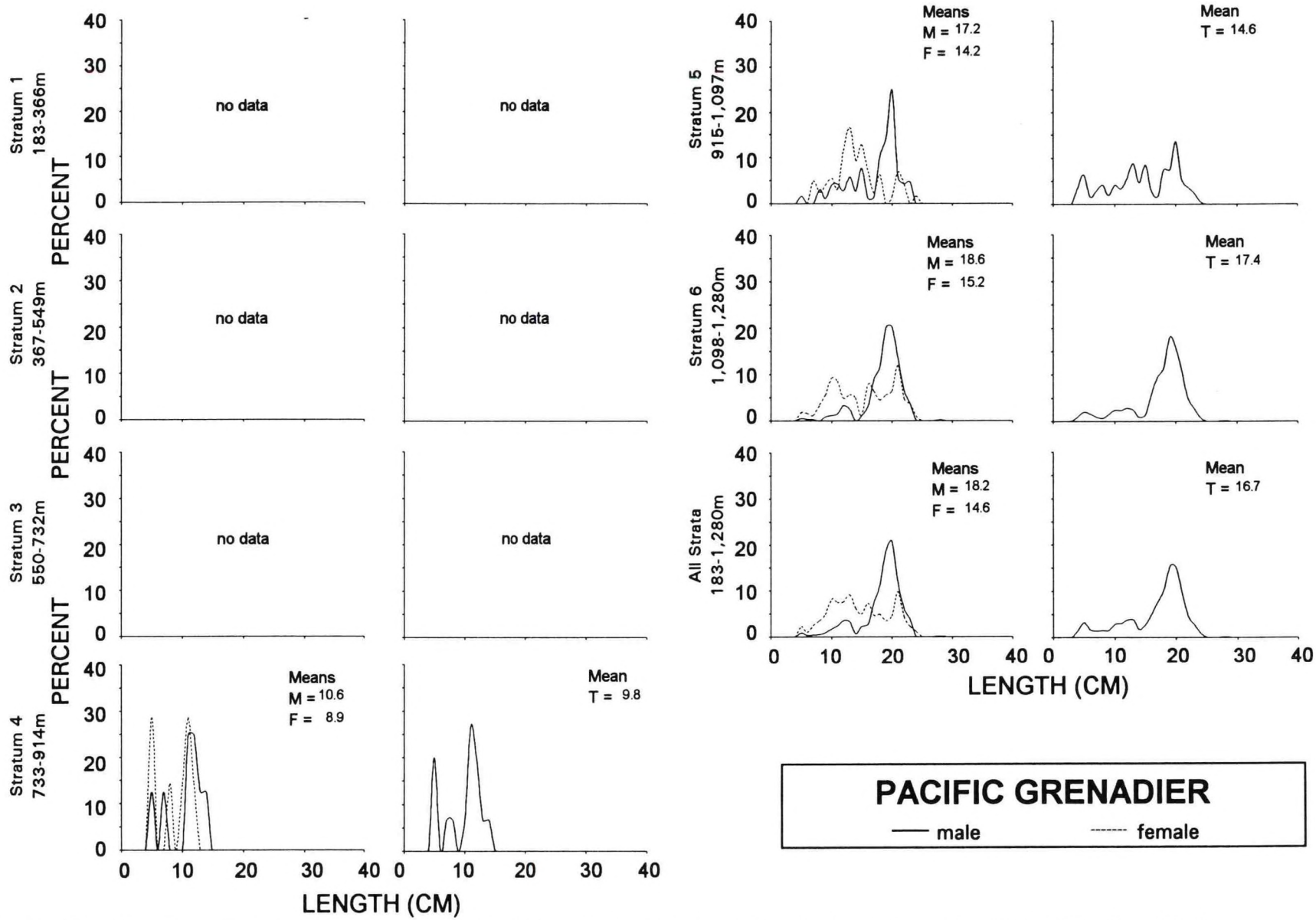


Figure 45.--Estimated population size composition and mean lengths (cm) of Pacific grenadier by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Conception area from the 1999 West Coast upper continental slope bottom trawl survey.

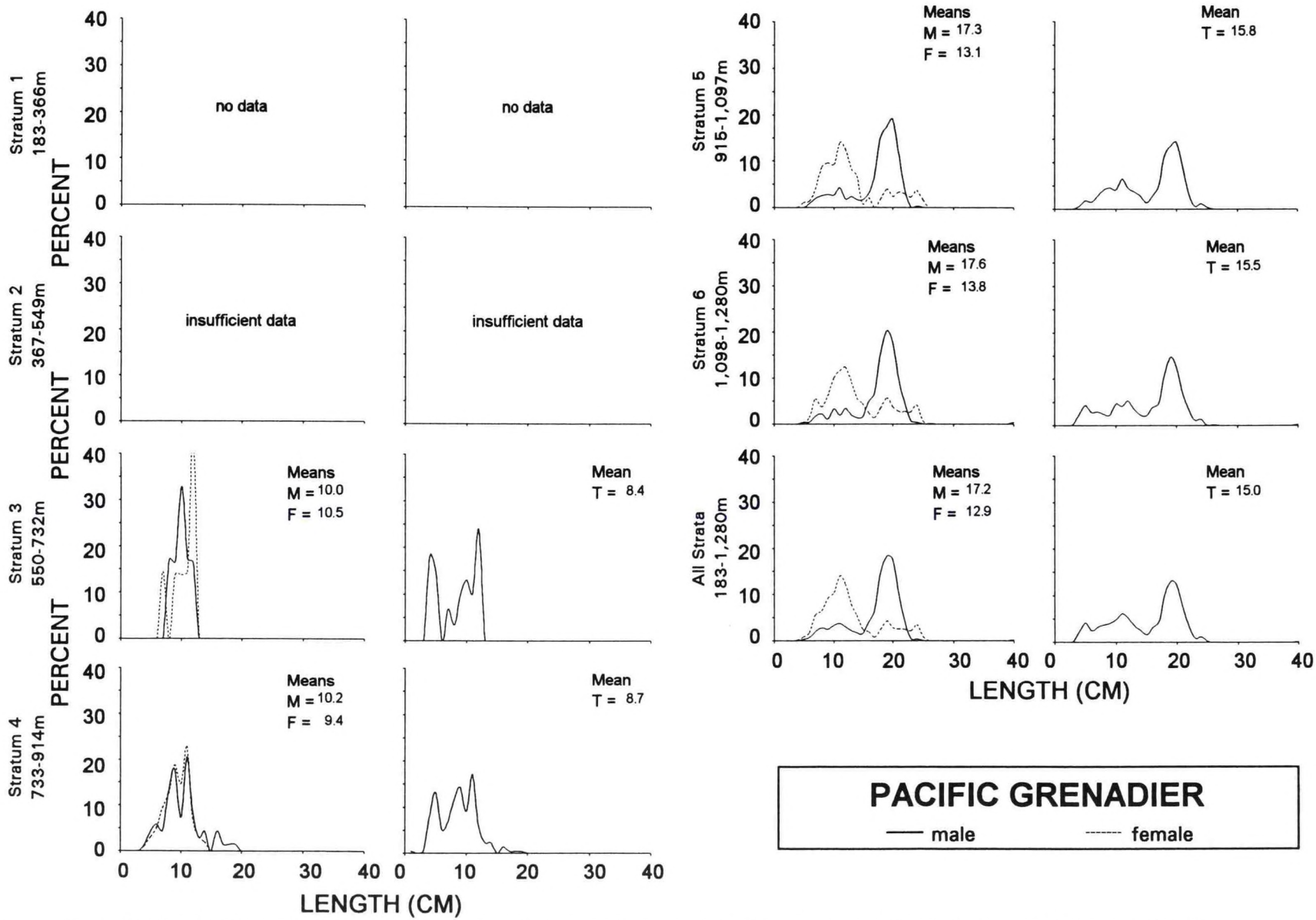


Figure 46.--Estimated population size composition and mean lengths (cm) of Pacific grenadier by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Monterey area from the 1999 West Coast upper continental slope bottom trawl survey.

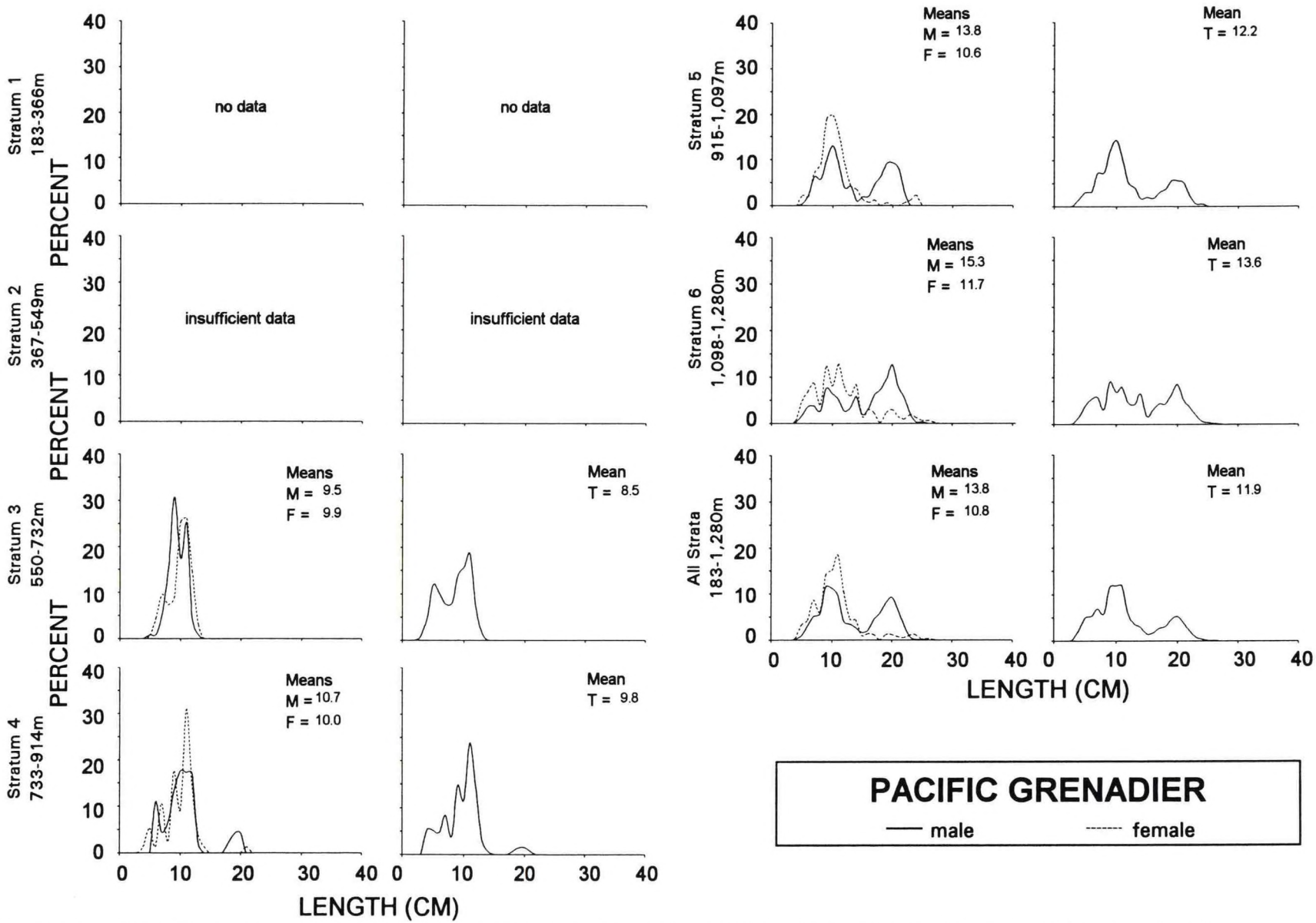


Figure 47.--Estimated population size composition and mean lengths (cm) of Pacific grenadier by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Eureka area from the 1999 West Coast upper continental slope bottom trawl survey.

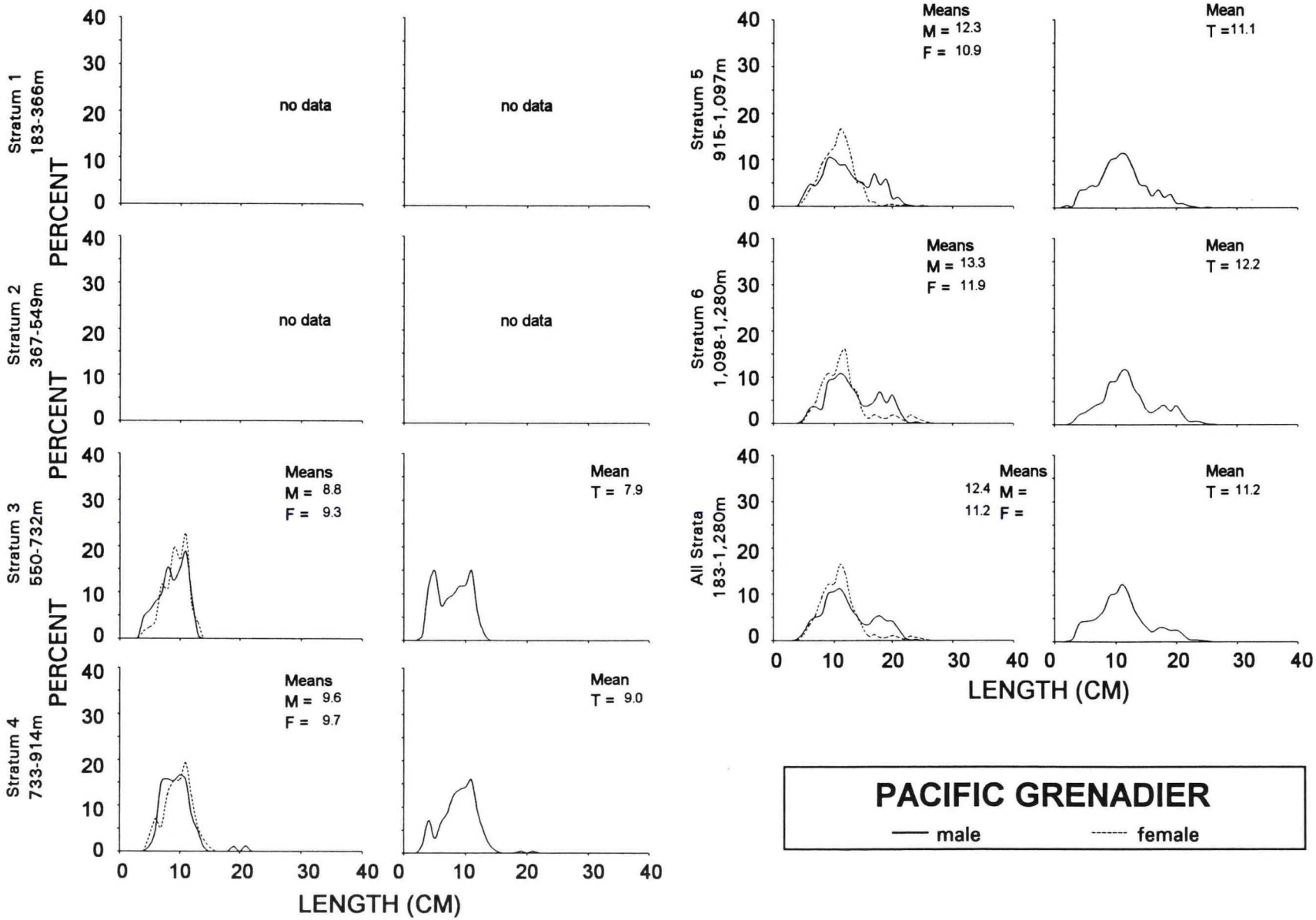


Figure 48.--Estimated population size composition and mean lengths (cm) of Pacific grenadier by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Columbia area from the 1999 West Coast upper continental slope bottom trawl survey.

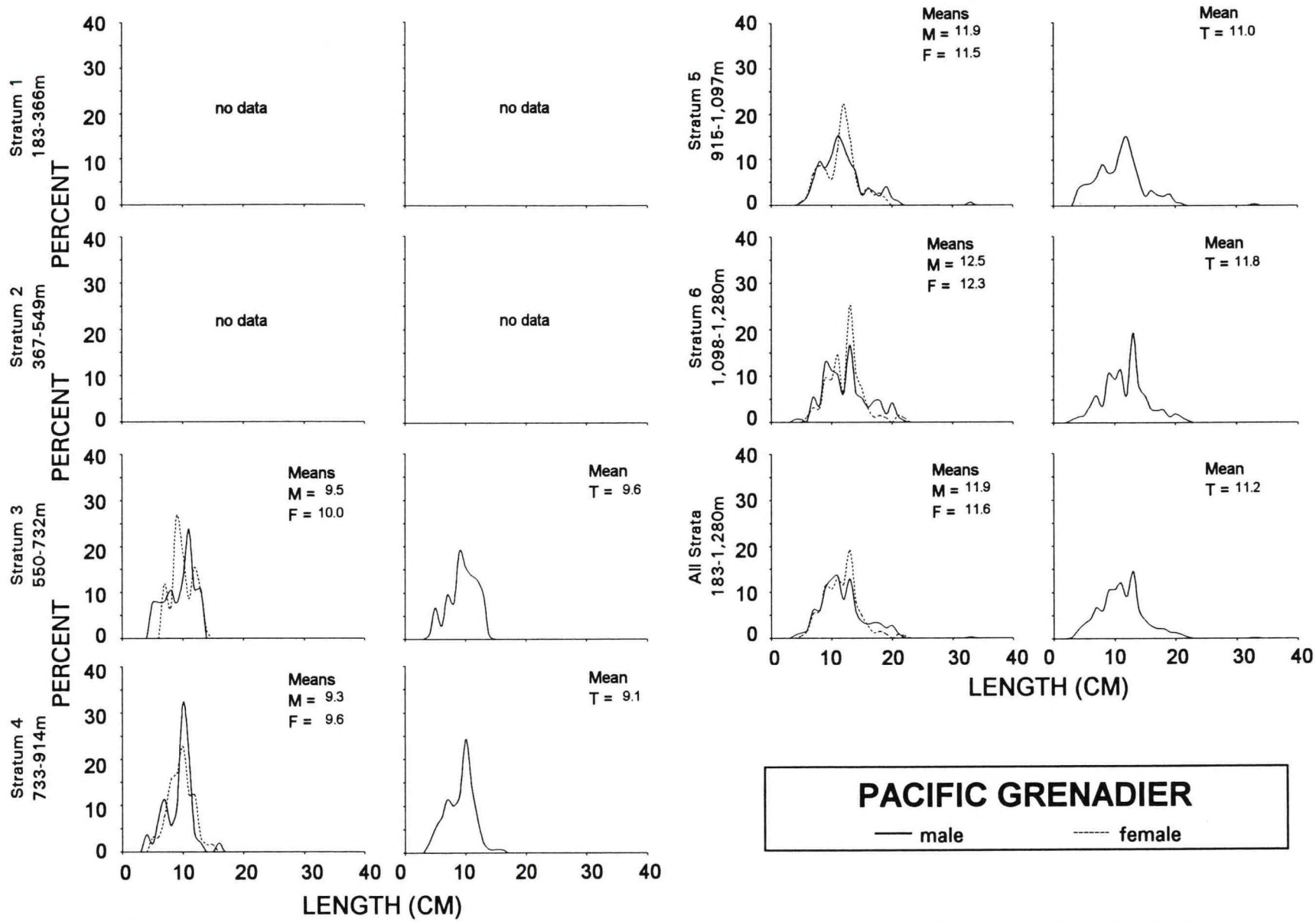


Figure 49.--Estimated population size composition and mean lengths (cm) of Pacific grenadier by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission U.S.-Vancouver area from the 1999 West Coast upper continental slope bottom trawl survey.

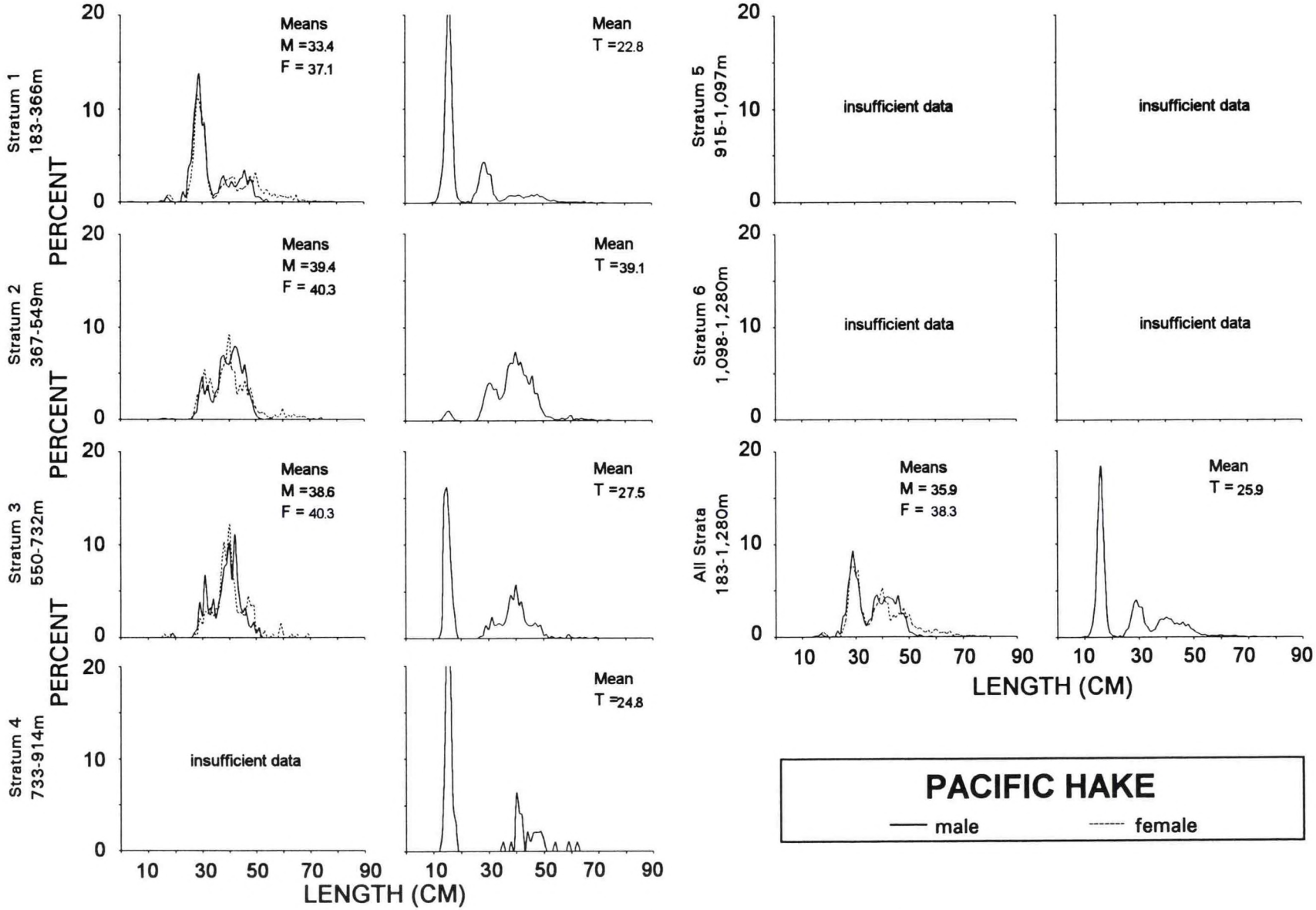


Figure 50.--Estimated population size composition and mean lengths (cm) of Pacific hake by depth stratum and by sex (T = males, females, and unsexed combined) for all International North Pacific Fisheries Commission areas sampled from the 1999 West Coast upper continental slope bottom trawl survey.

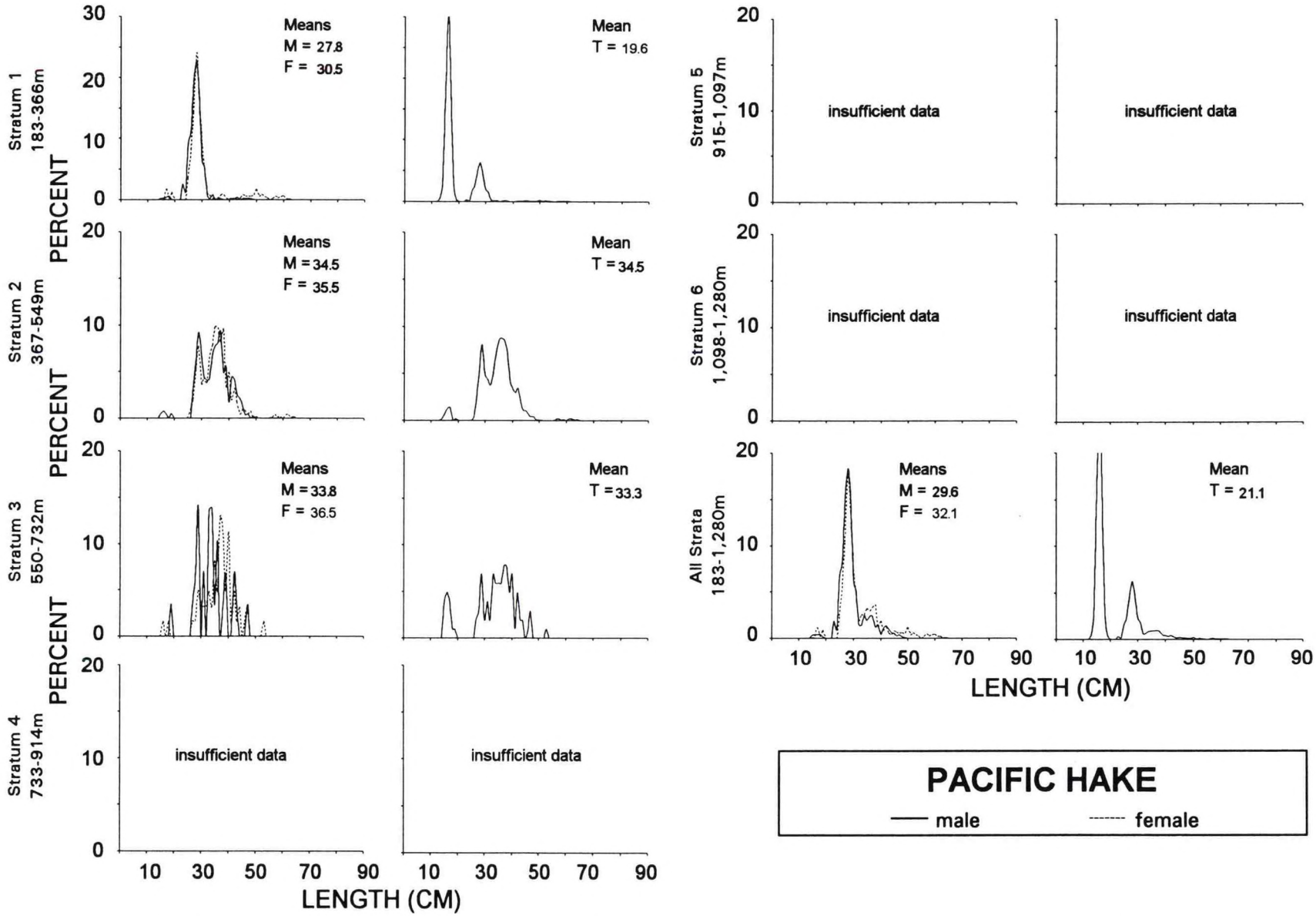


Figure 51.--Estimated population size composition and mean lengths (cm) of Pacific hake by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Conception area from the 1999 West Coast upper continental slope bottom trawl survey.

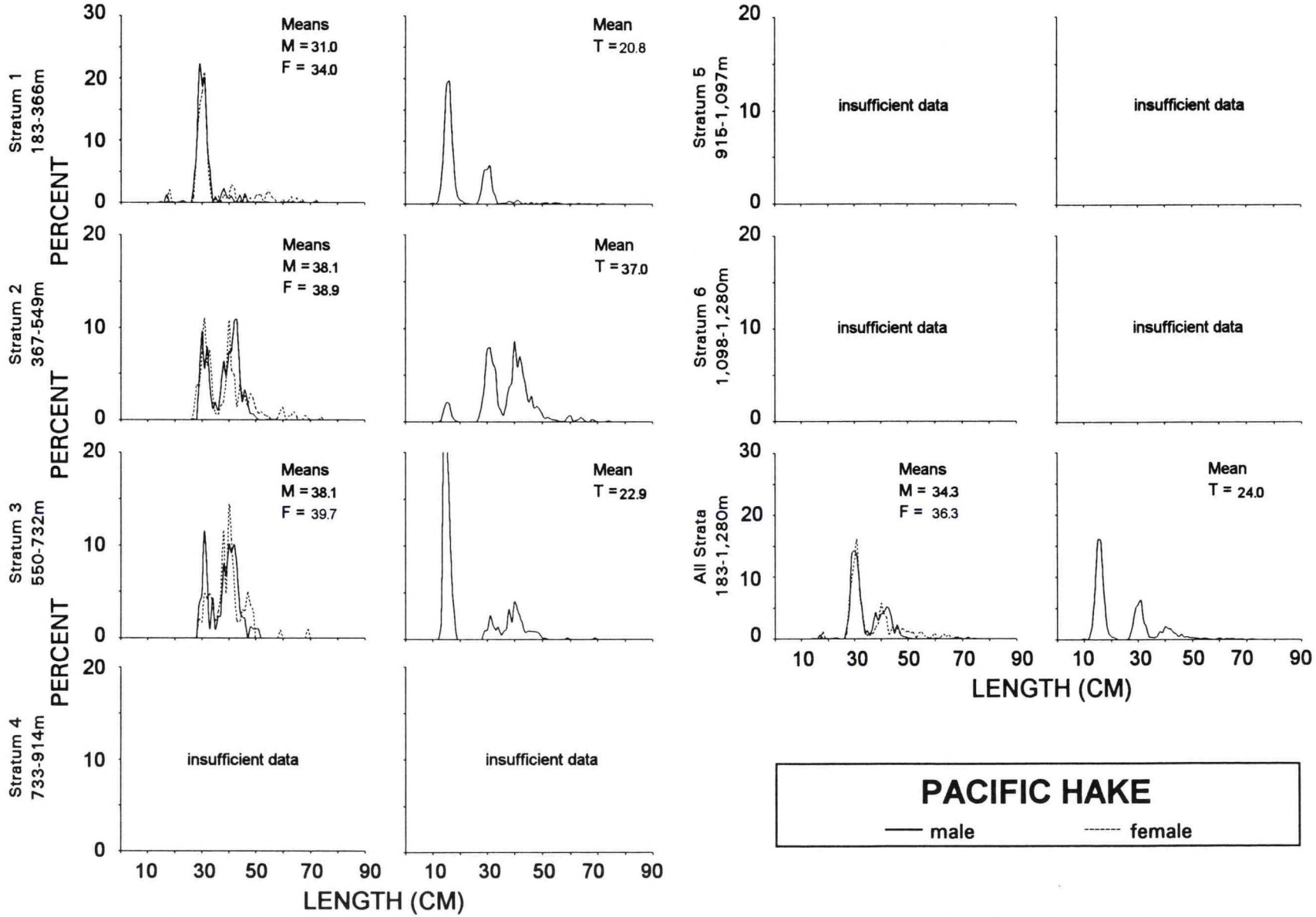


Figure 52.--Estimated population size composition and mean lengths (cm) of Pacific hake by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Monterey area from the 1999 West Coast upper continental slope bottom trawl survey.

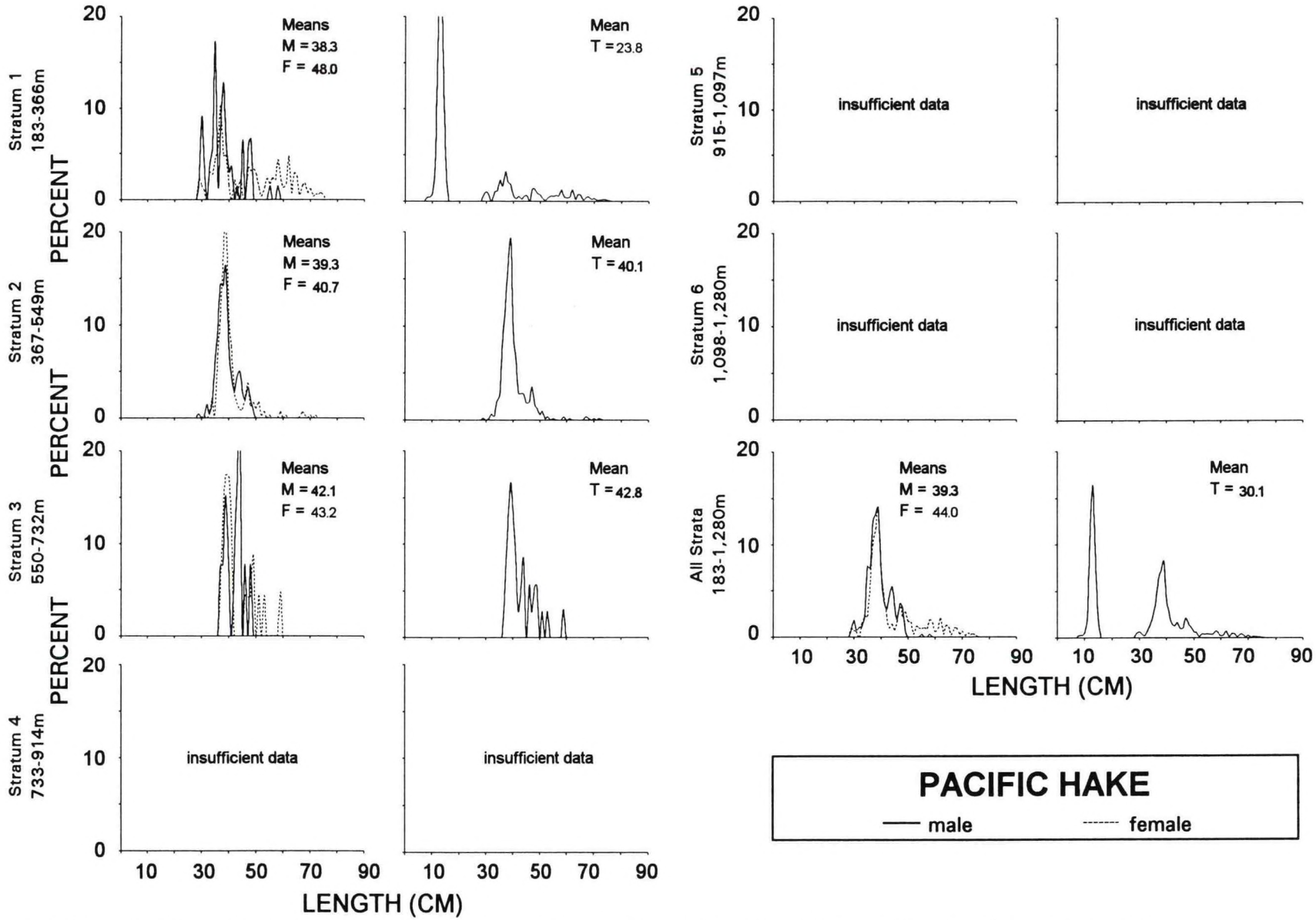


Figure 53.--Estimated population size composition and mean lengths (cm) of Pacific hake by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Eureka area from the 1999 West Coast upper continental slope bottom trawl survey.

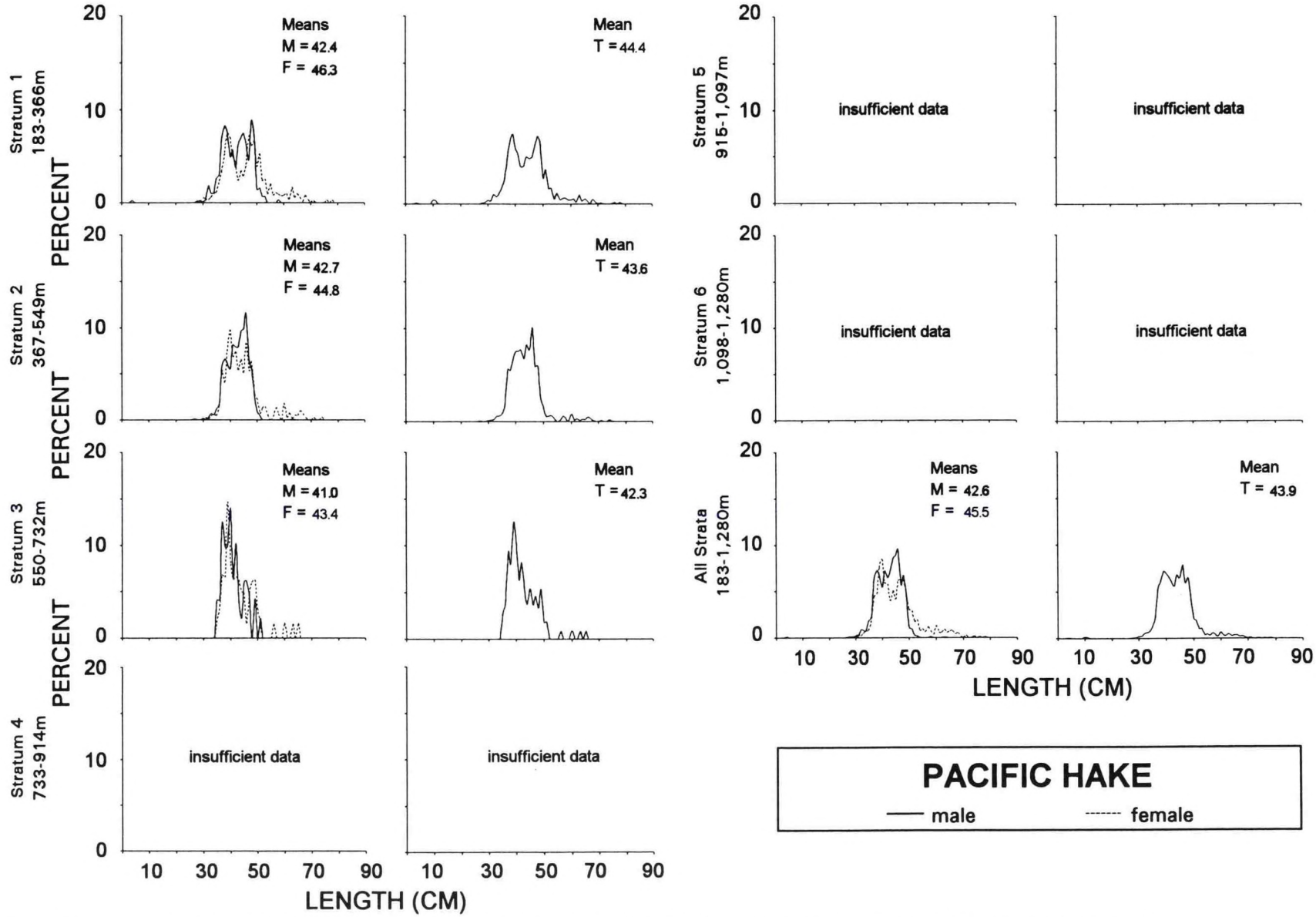


Figure 54.--Estimated population size composition and mean lengths (cm) of Pacific hake by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Columbia area from the 1999 West Coast upper continental slope bottom trawl survey.

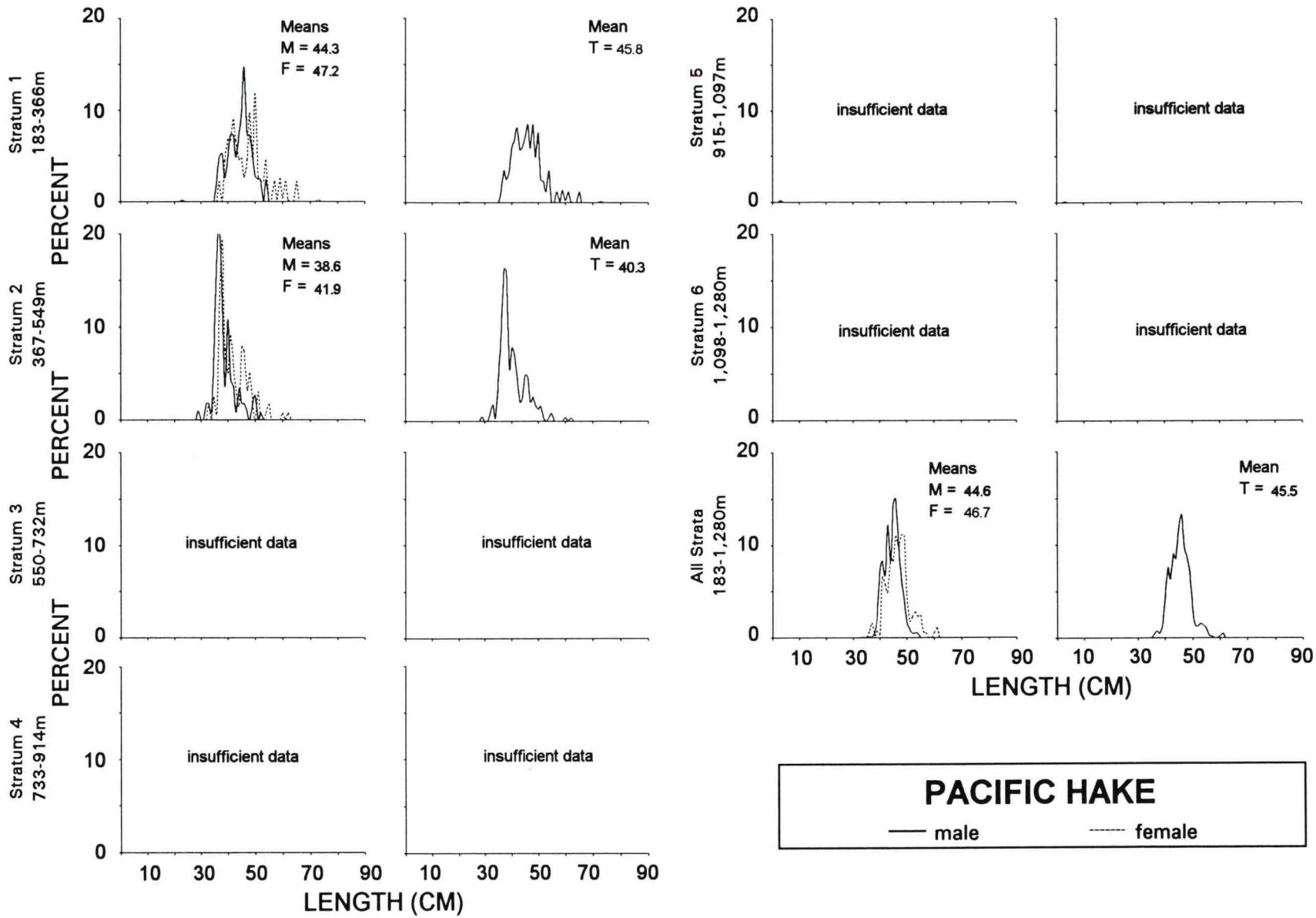


Figure 55.--Estimated population size composition and mean lengths (cm) of Pacific hake by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission U.S.-Vancouver area from the 1999 West Coast upper continental slope bottom trawl survey.

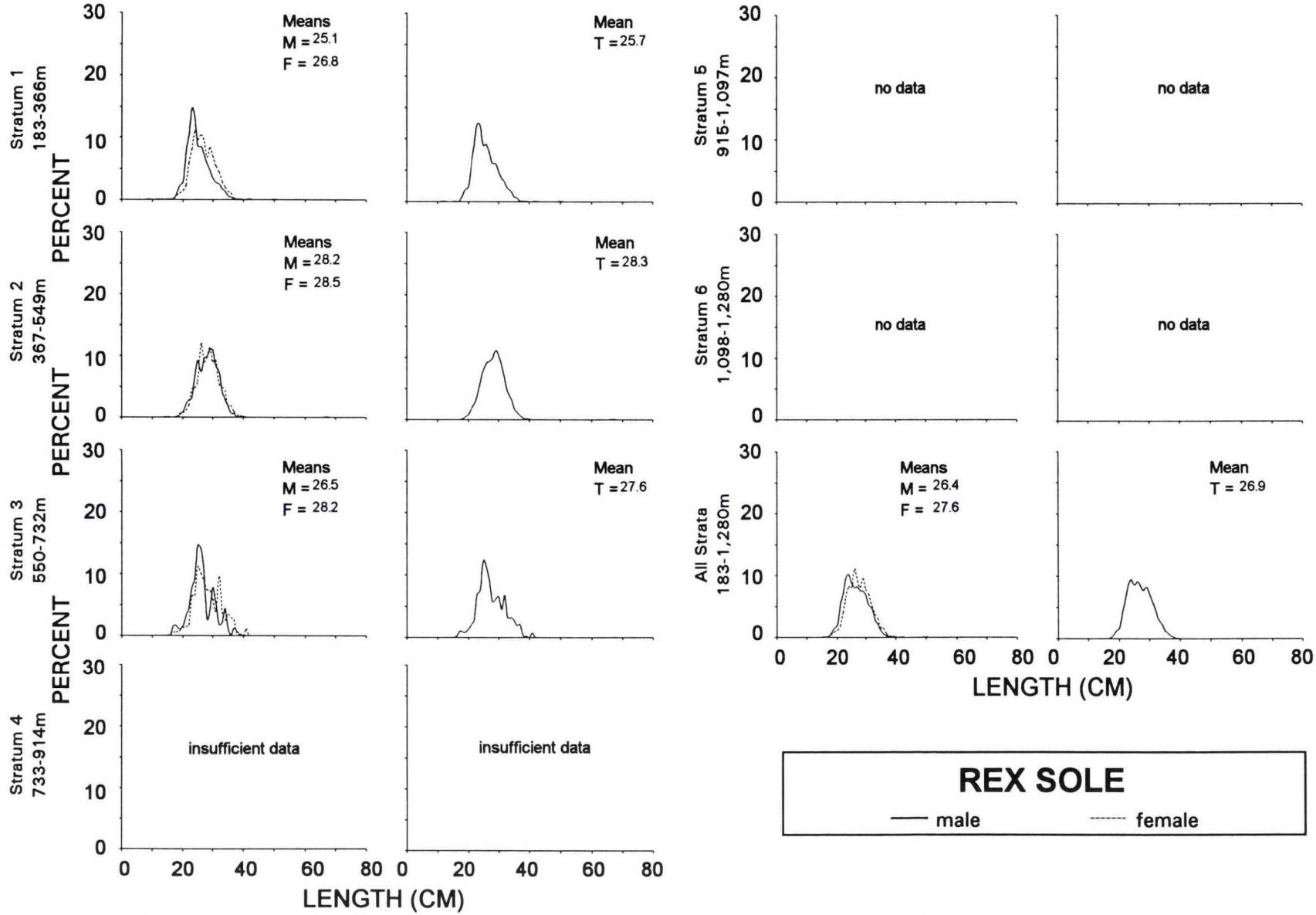


Figure 56.--Estimated population size composition and mean lengths (cm) of rex sole by depth stratum and by sex (T = males, females, and unsexed combined) for all International North Pacific Fisheries Commission areas sampled from the 1999 West Coast upper continental slope bottom trawl survey.

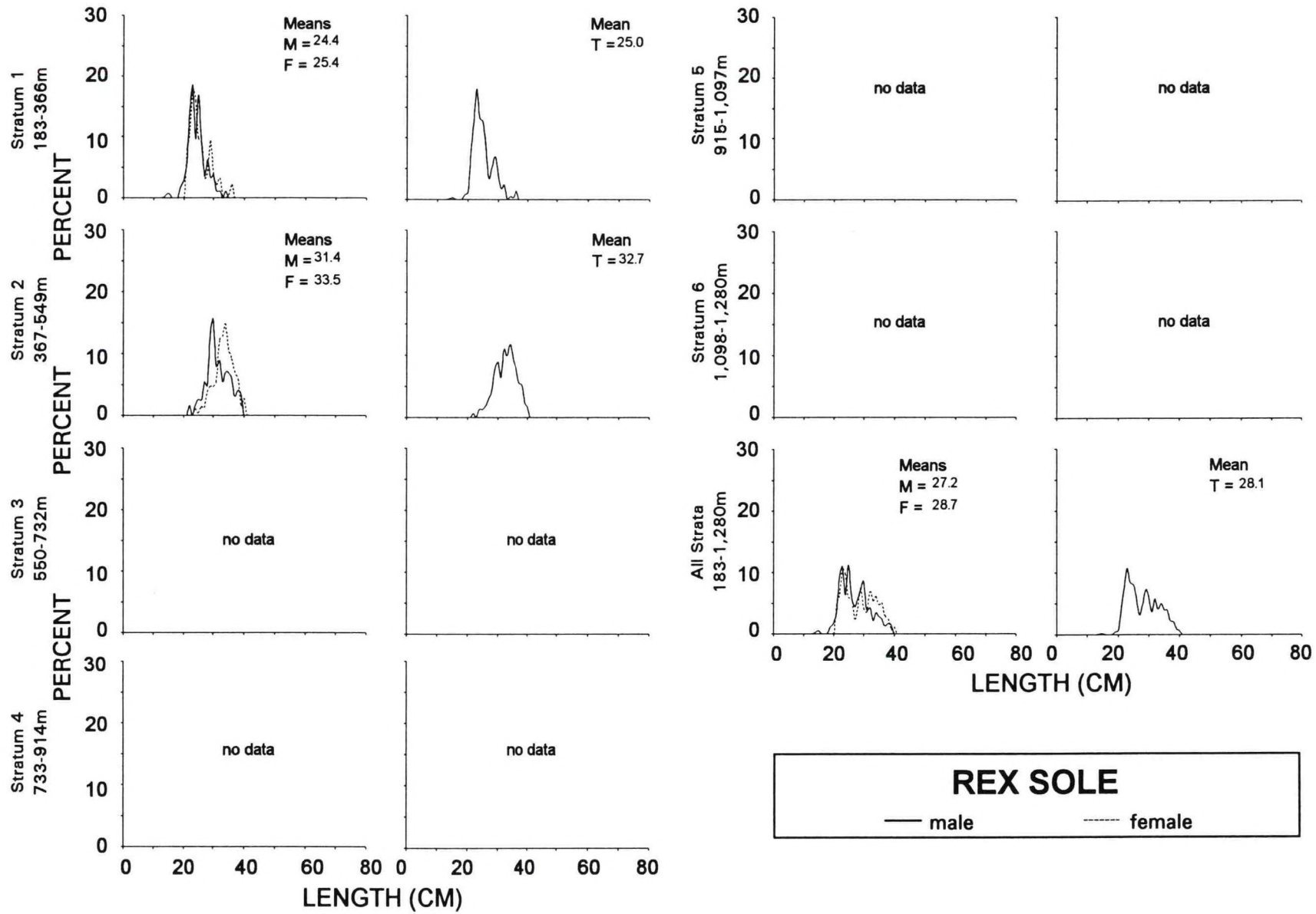


Figure 57.--Estimated population size composition and mean lengths (cm) of rex sole by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Conception area from the 1999 West Coast upper continental slope bottom trawl survey.

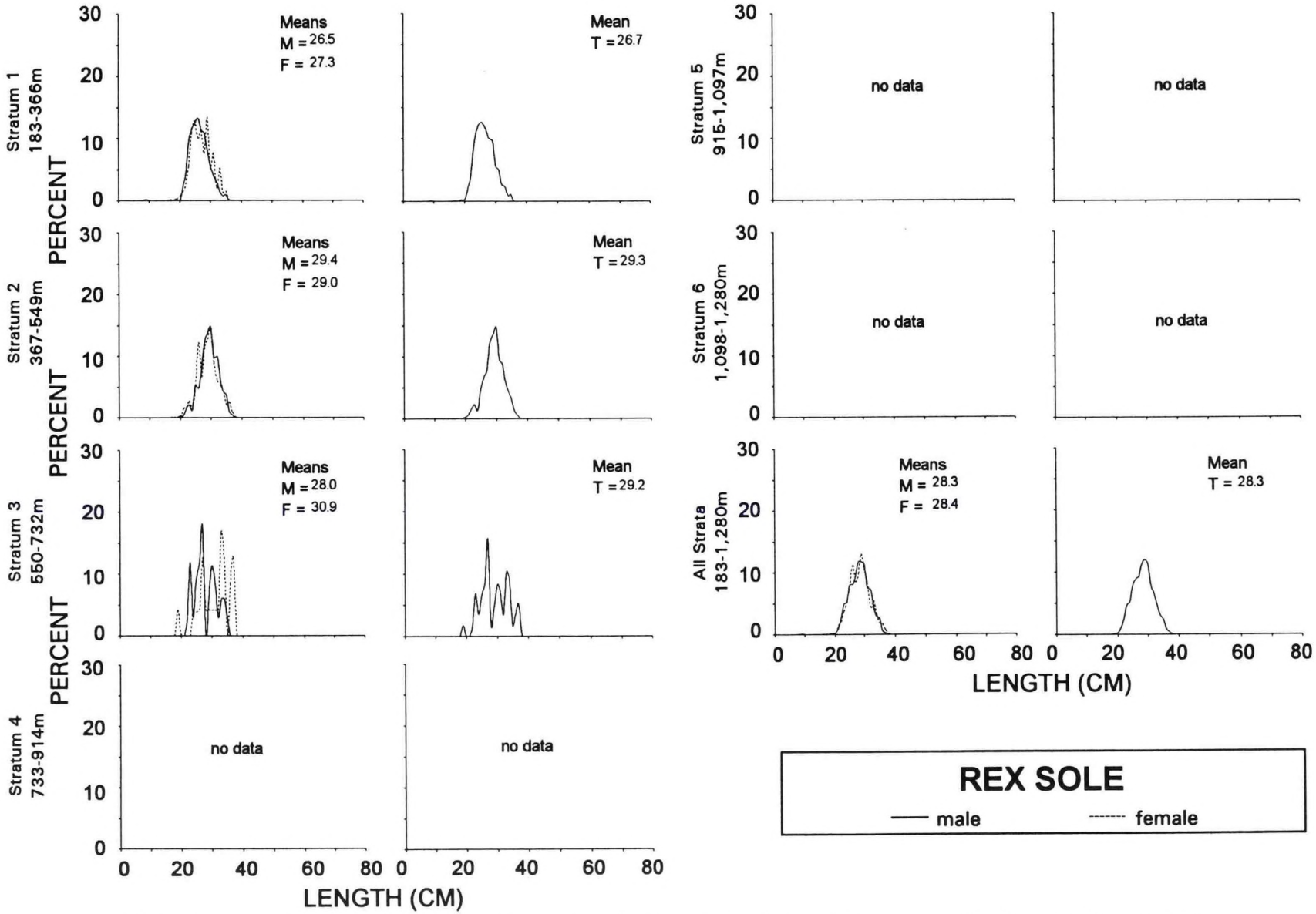


Figure 58.--Estimated population size composition and mean lengths (cm) of rex sole by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Monterey area from the 1999 West Coast upper continental slope bottom trawl survey.

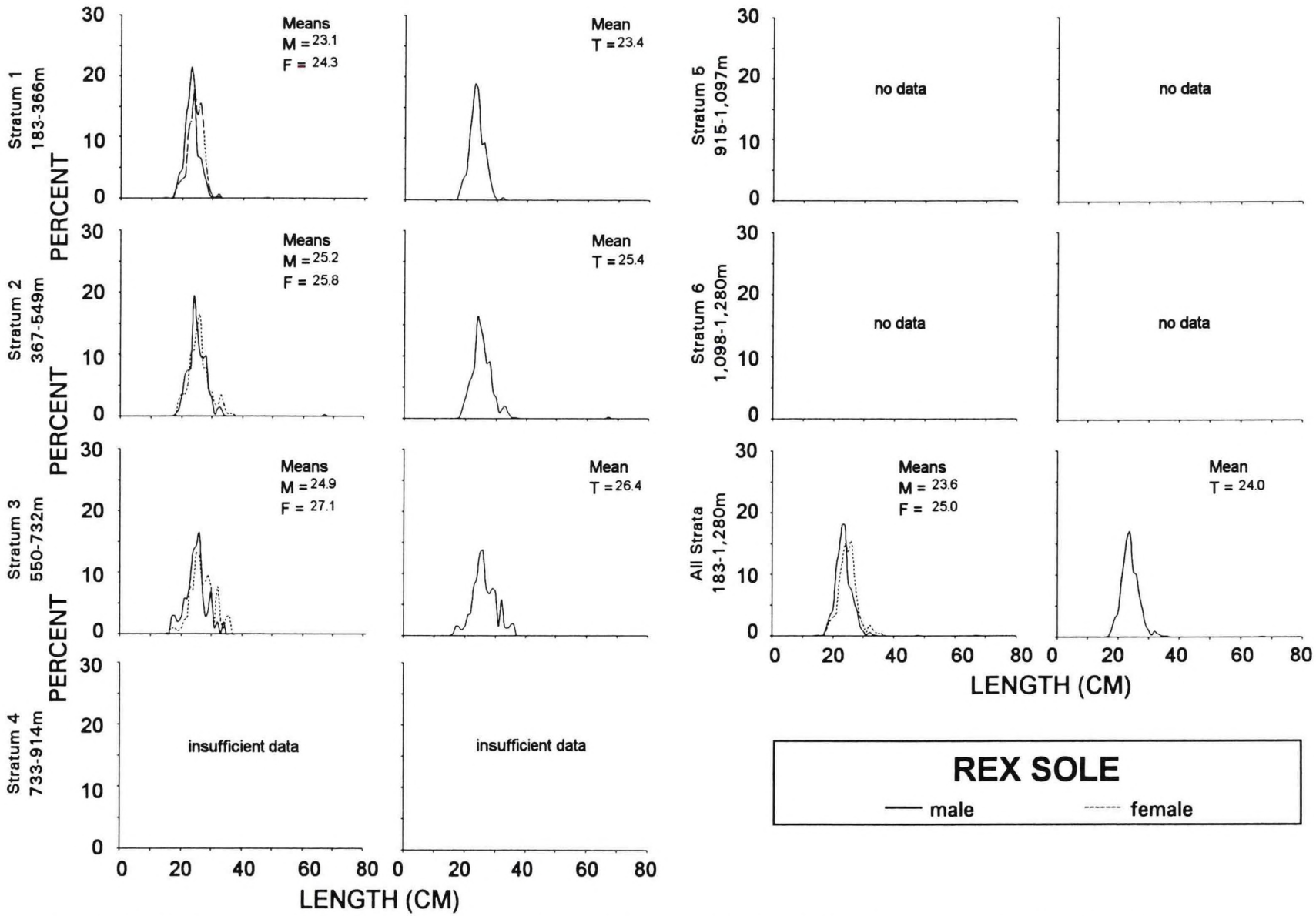


Figure 59.--Estimated population size composition and mean lengths (cm) of rex sole by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Eureka area from the 1999 West Coast upper continental slope bottom trawl survey.

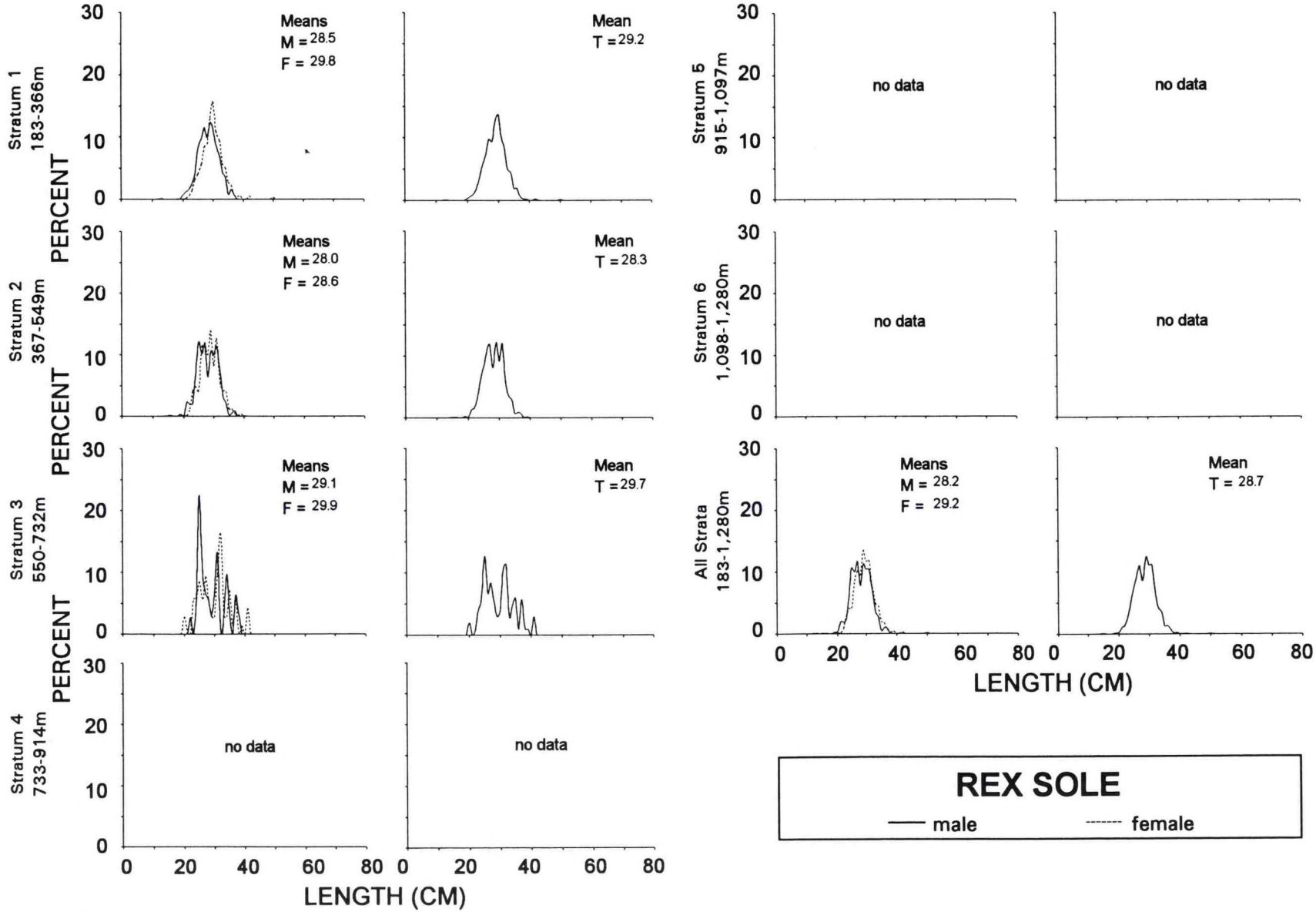


Figure 60.--Estimated population size composition and mean lengths (cm) of rex sole by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Columbia area from the 1999 West Coast upper continental slope bottom trawl survey.

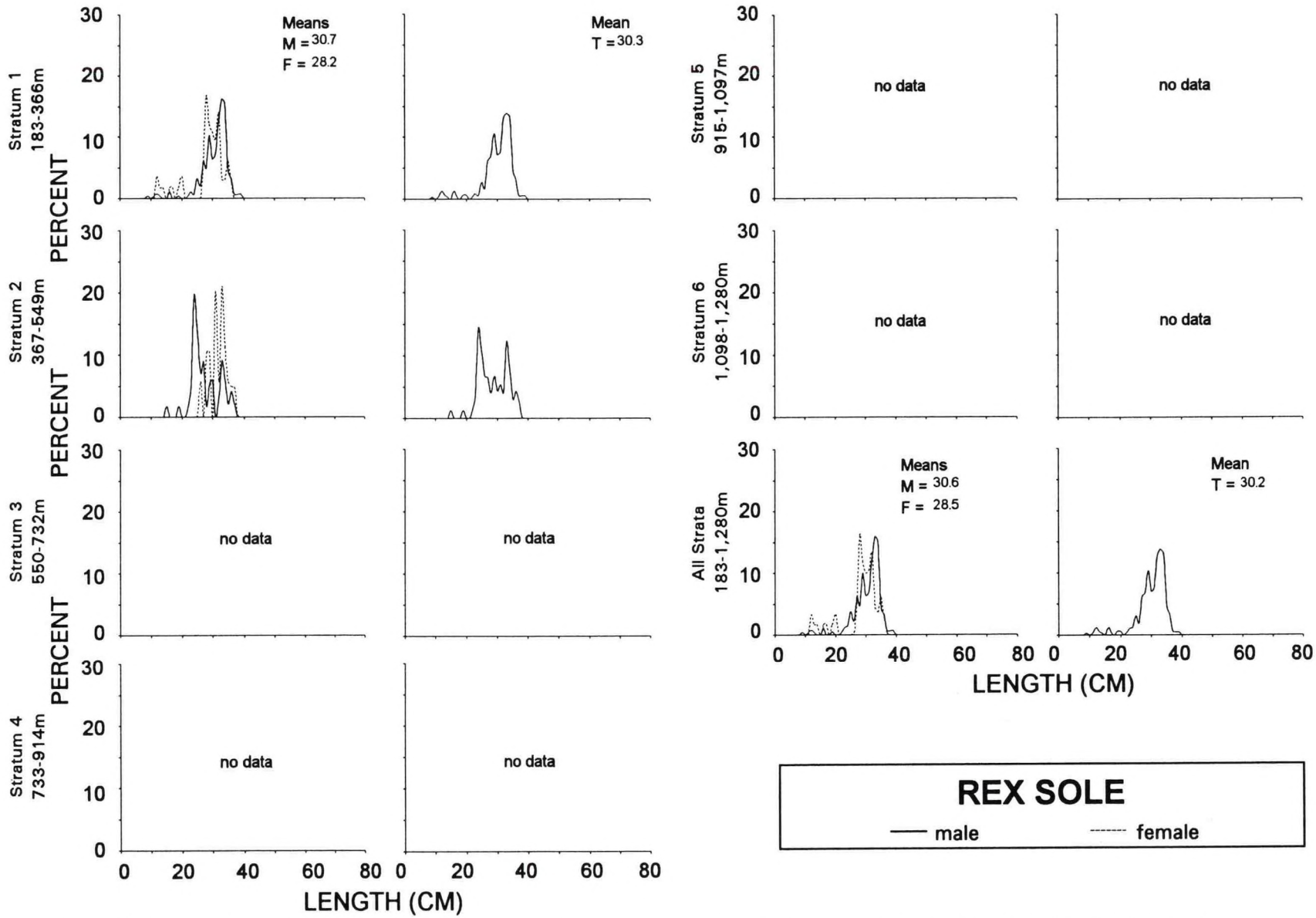


Figure 61.--Estimated population size composition and mean lengths (cm) of rex sole by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission U.S.-Vancouver area from the 1999 West Coast upper continental slope bottom trawl survey.

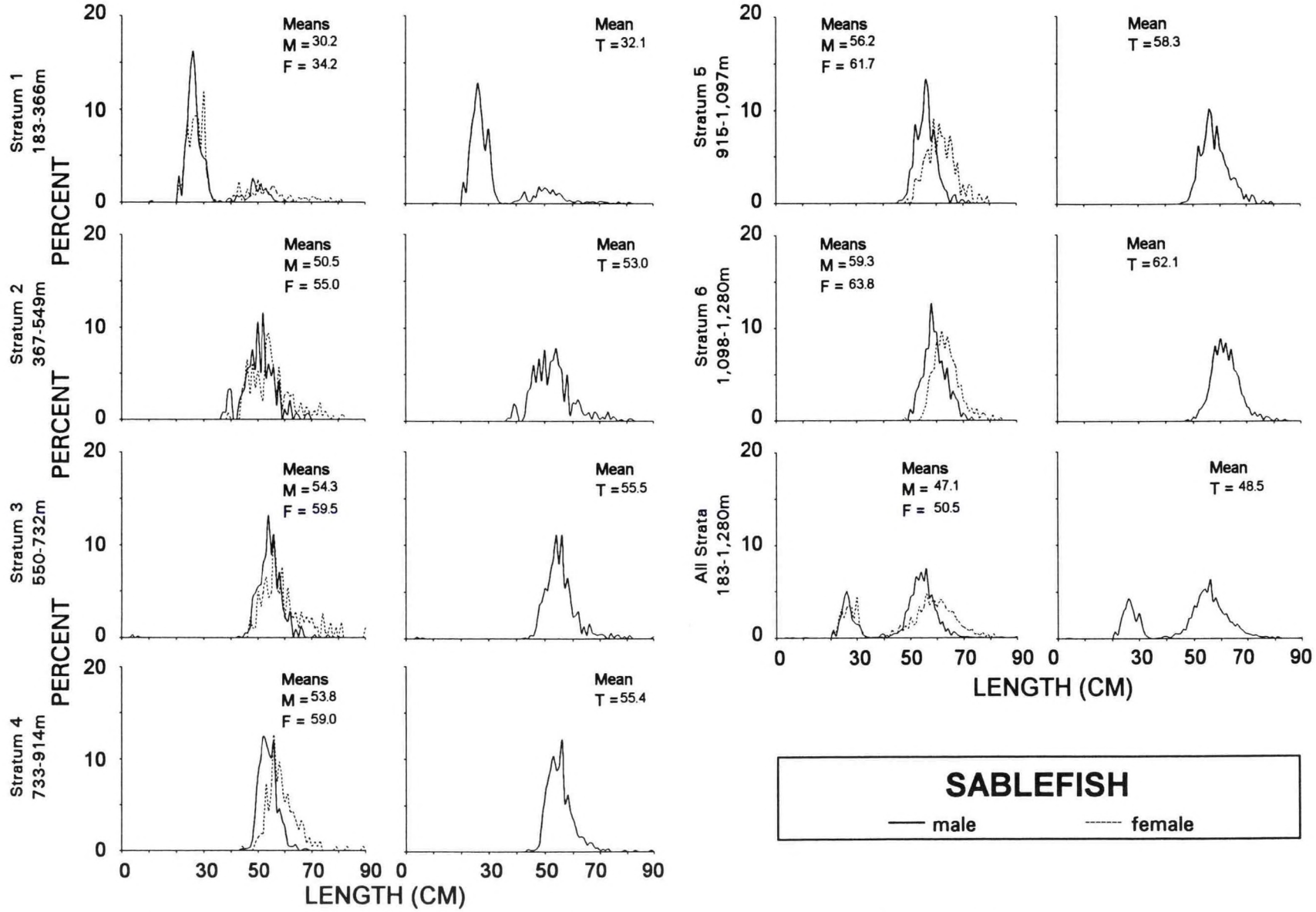


Figure 62.--Estimated population size composition and mean lengths (cm) of sablefish by depth stratum and by sex (T = males, females, and unsexed combined) for all International North Pacific Fisheries Commission areas sampled from the 1999 West Coast upper continental slope bottom trawl survey.

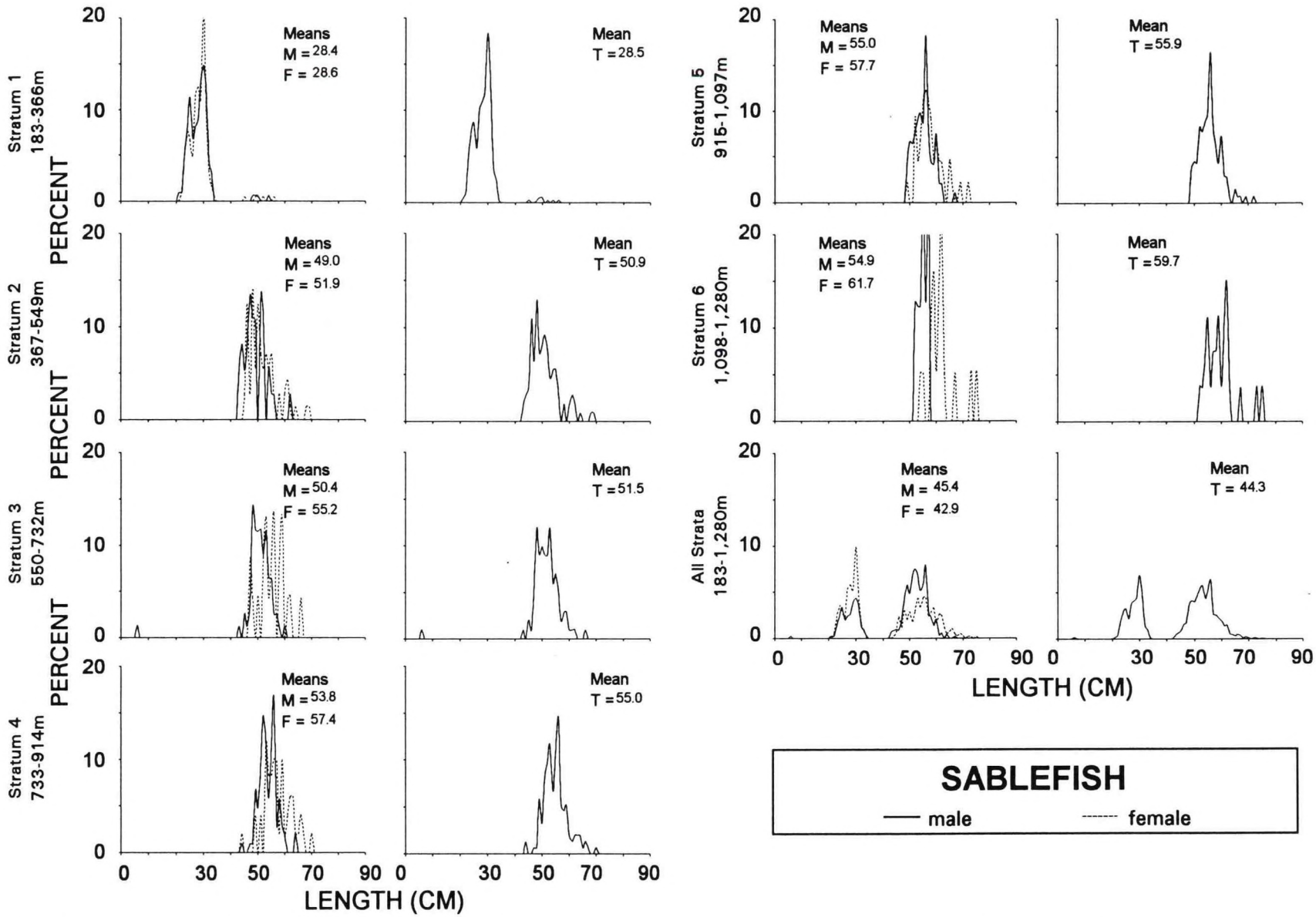


Figure 63.--Estimated population size composition and mean lengths (cm) of sablefish by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Conception area from the 1999 West Coast upper continental slope bottom trawl survey.

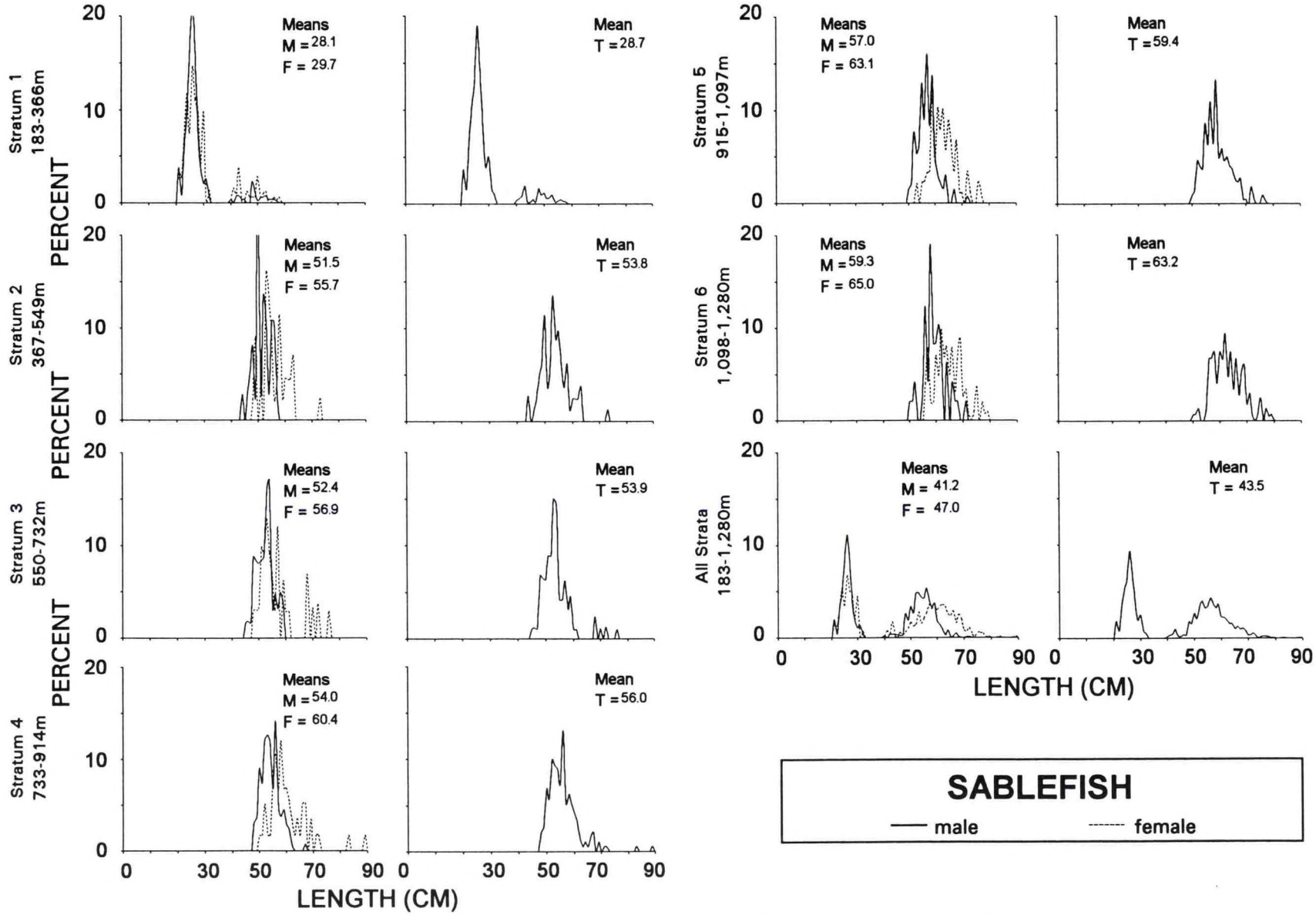


Figure 64.--Estimated population size composition and mean lengths (cm) of sablefish by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Monterey area from the 1999 West Coast upper continental slope bottom trawl survey.

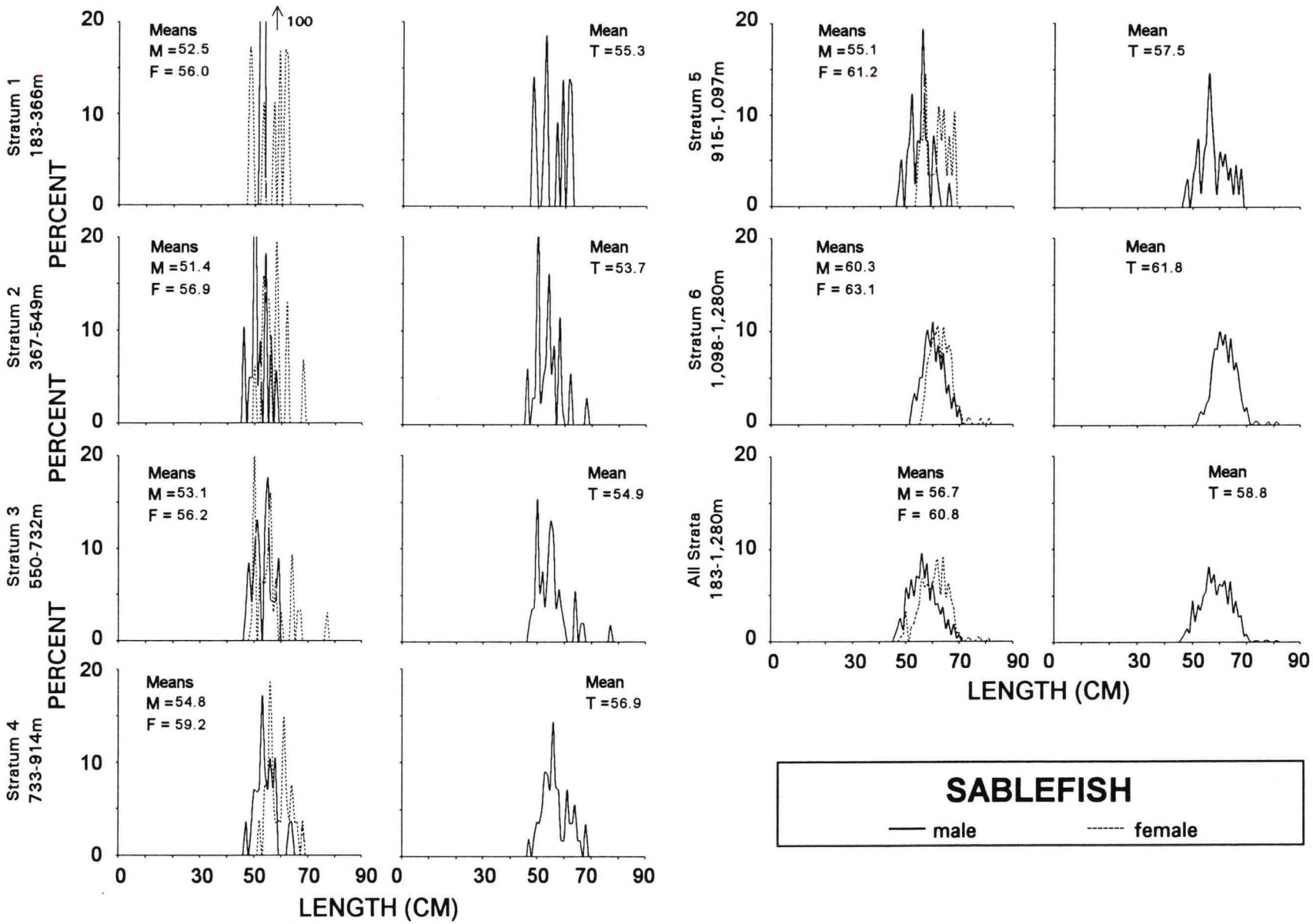


Figure 65.--Estimated population size composition and mean lengths (cm) of sablefish by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Eureka area from the 1999 West Coast upper continental slope bottom trawl survey.

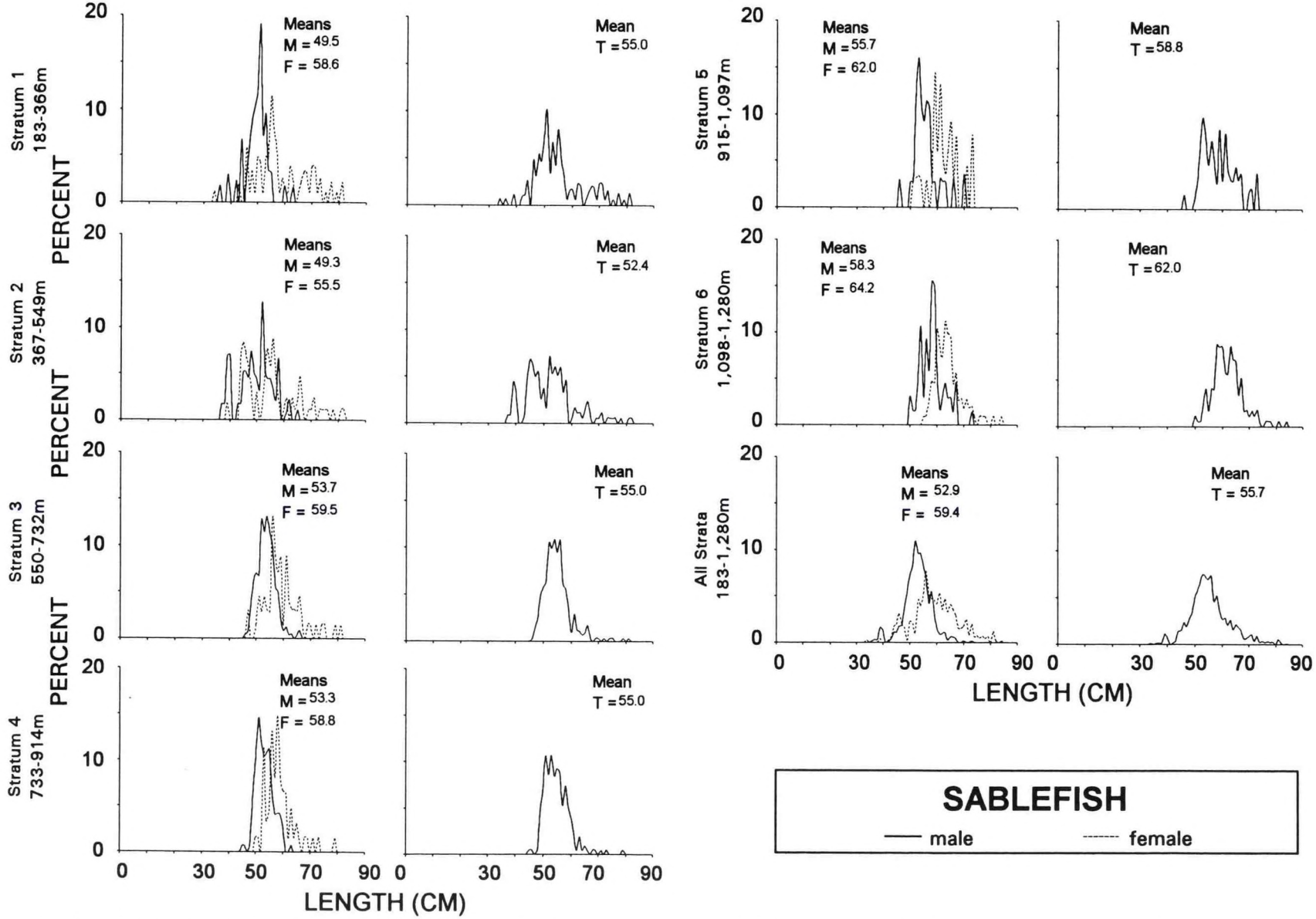


Figure 66.--Estimated population size composition and mean lengths (cm) of sablefish by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Columbia area from the 1999 West Coast upper continental slope bottom trawl survey.

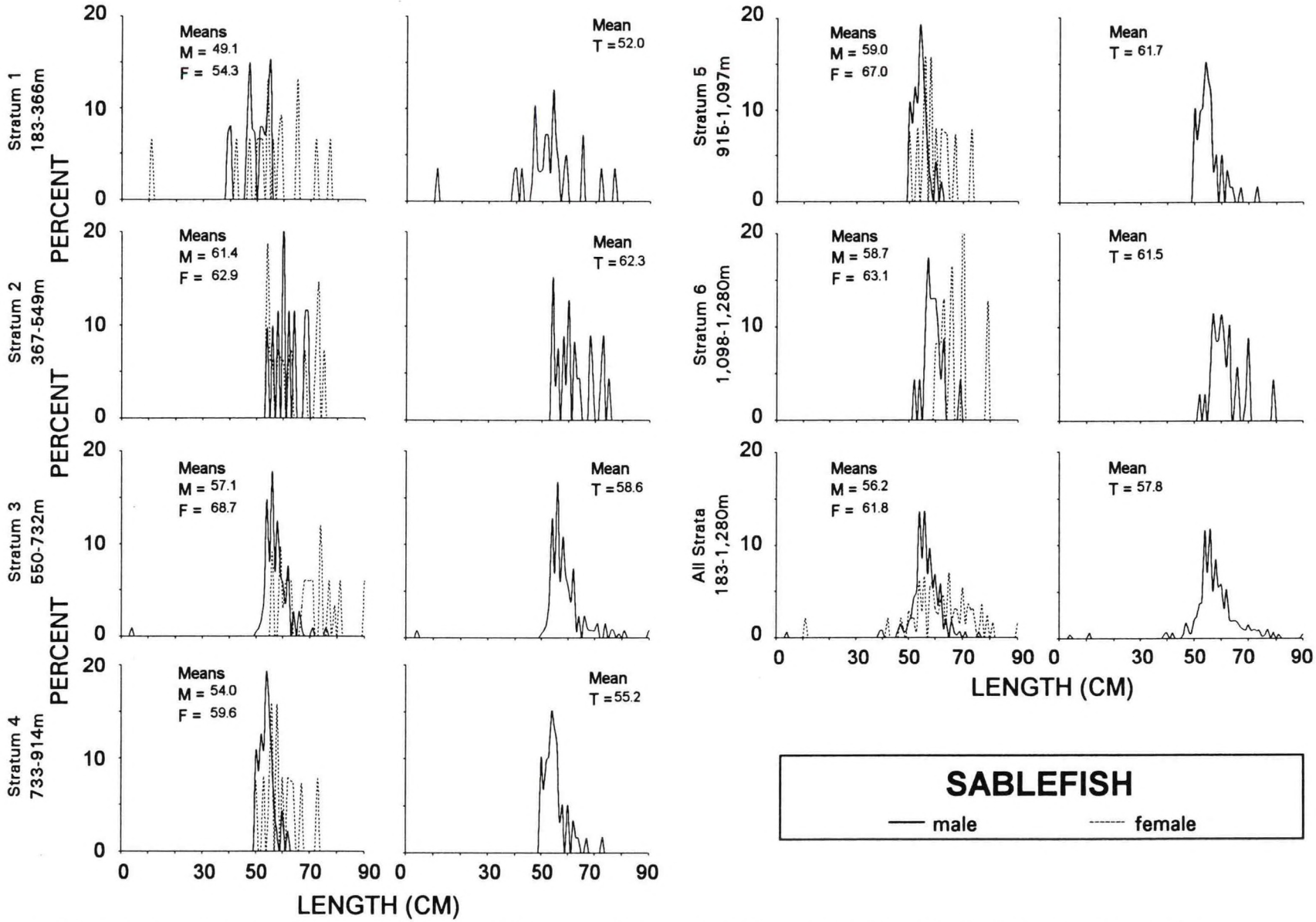


Figure 67.--Estimated population size composition and mean lengths (cm) of sablefish by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission U.S.-Vancouver area from the 1999 West Coast upper continental slope bottom trawl survey.

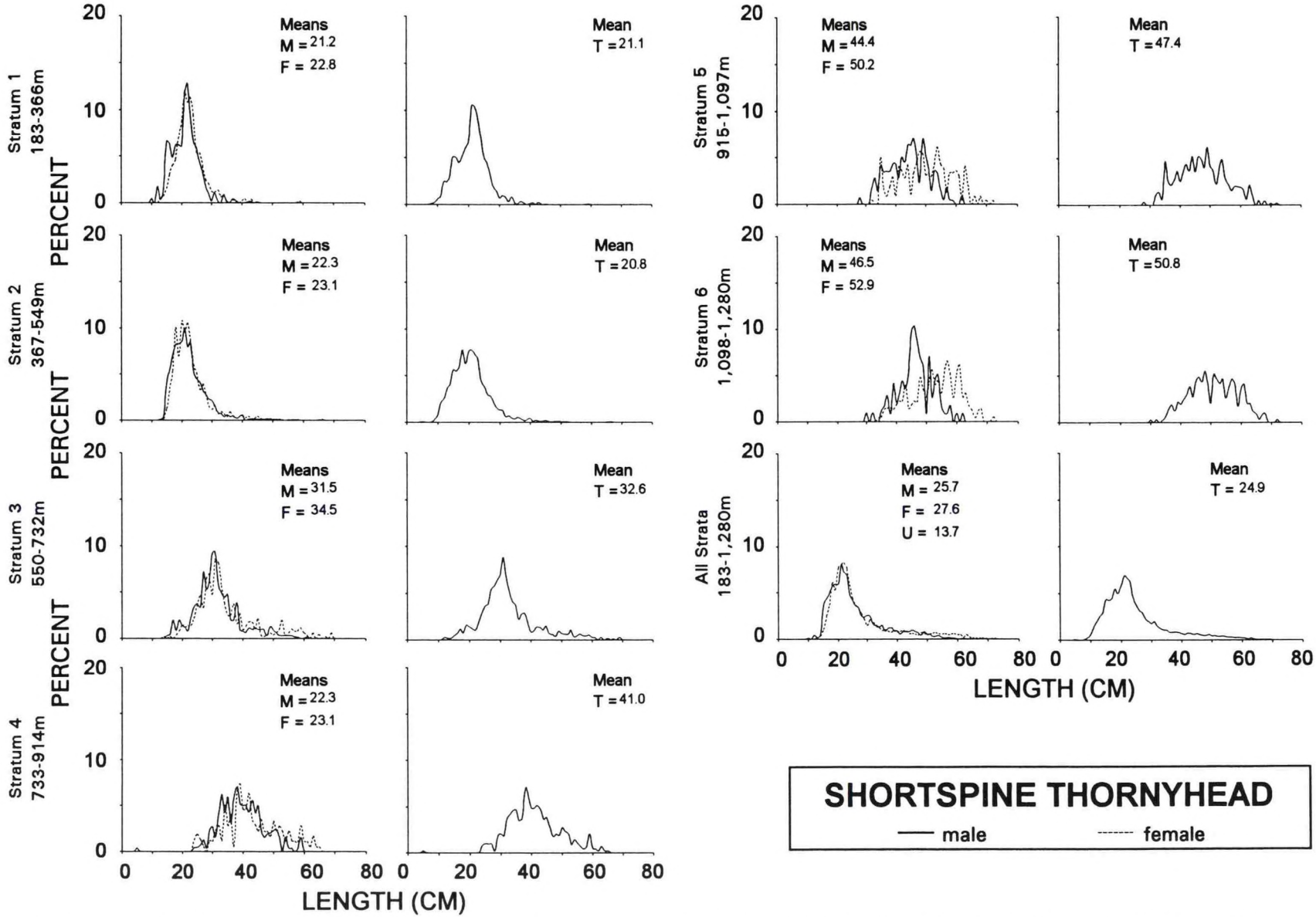


Figure 68.--Estimated population size composition and mean lengths (cm) of shortspine thornyhead by depth stratum and by sex (T = males, females, and unsexed combined) for all International North Pacific Fisheries Commission areas sampled from the 1999 West Coast upper continental slope bottom trawl survey.

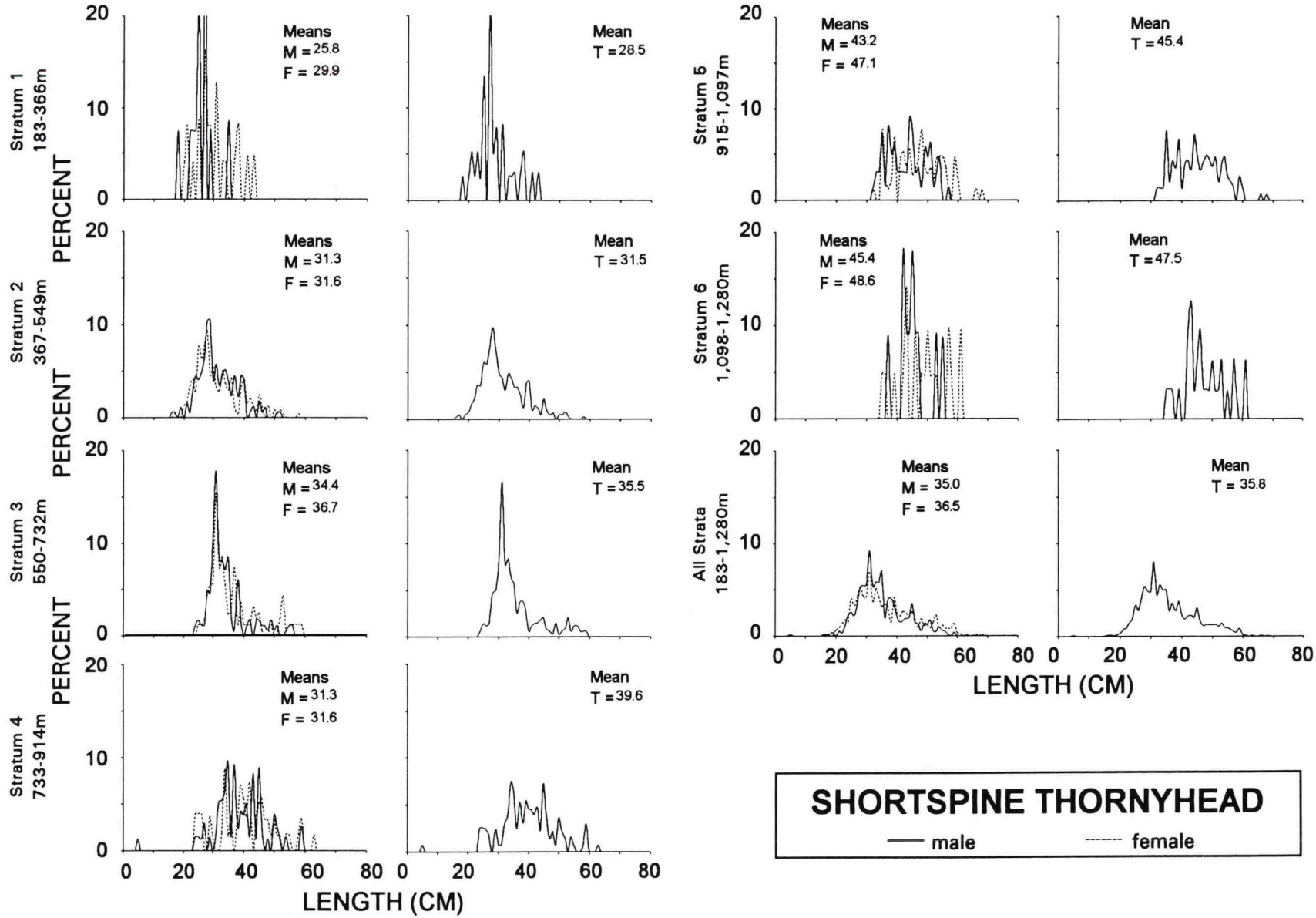


Figure 69.--Estimated population size composition and mean lengths (cm) of shortspine thornyhead by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Conception area from the 1999 West Coast upper continental slope bottom trawl survey.

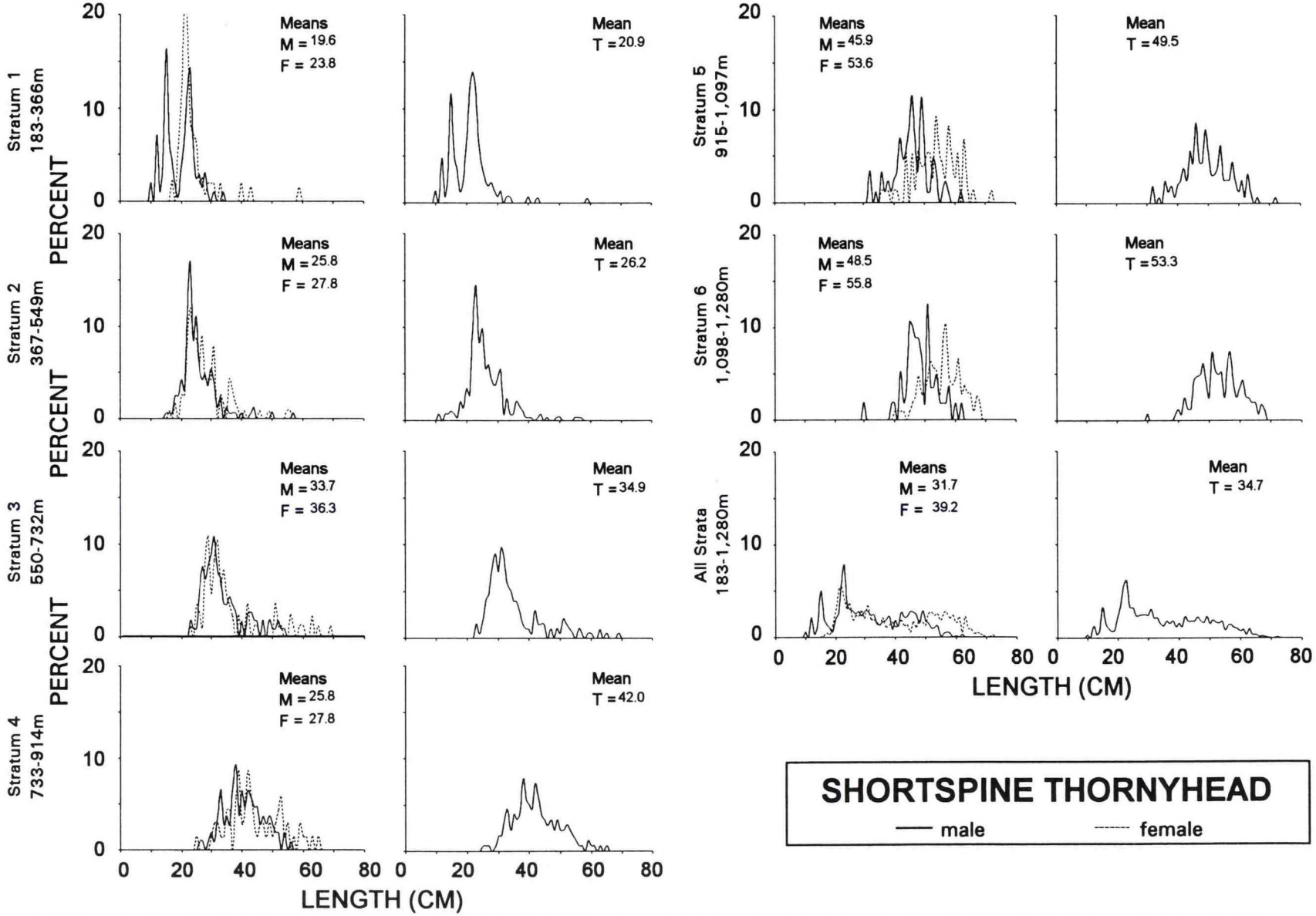


Figure 70.--Estimated population size composition and mean lengths (cm) of shortspine thornyhead by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Monterey area from the 1999 West Coast upper continental slope bottom trawl survey.

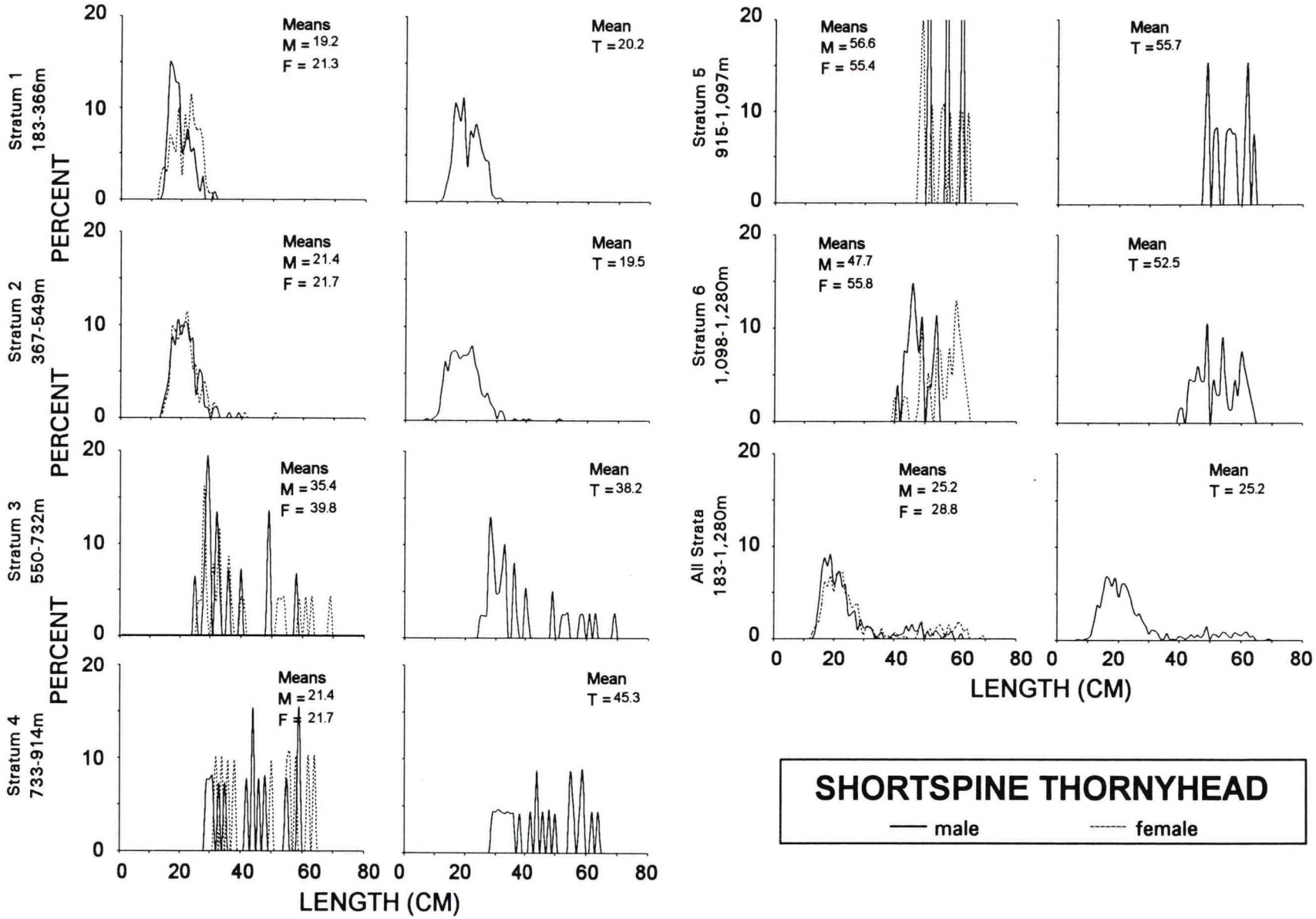


Figure 71.--Estimated population size composition and mean lengths (cm) of shortspine thornyhead by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Eureka area from the 1999 West Coast upper continental slope bottom trawl survey.

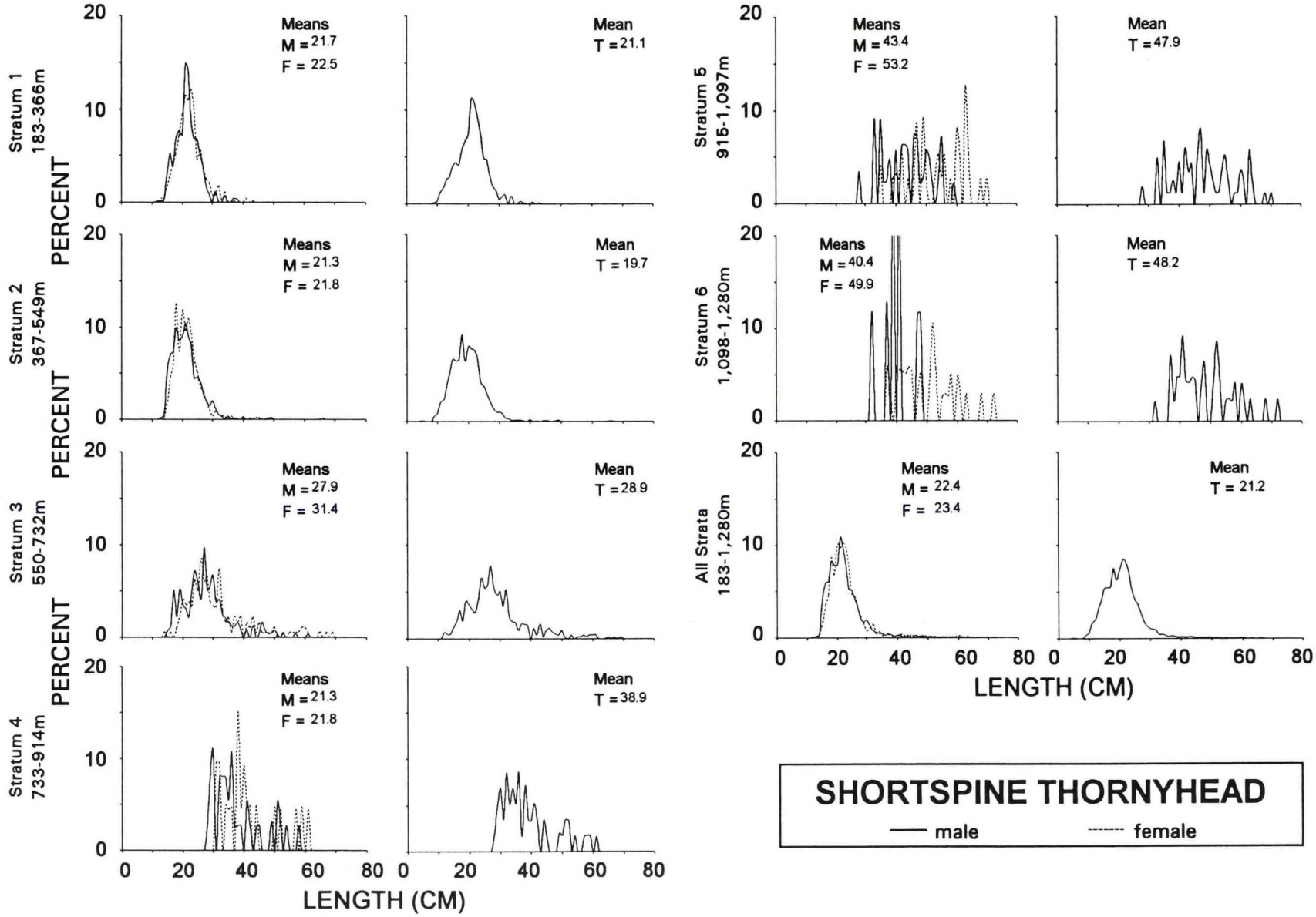


Figure 72.--Estimated population size composition and mean lengths (cm) of shortspine thornyhead by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission Columbia area from the 1999 West Coast upper continental slope bottom trawl survey.

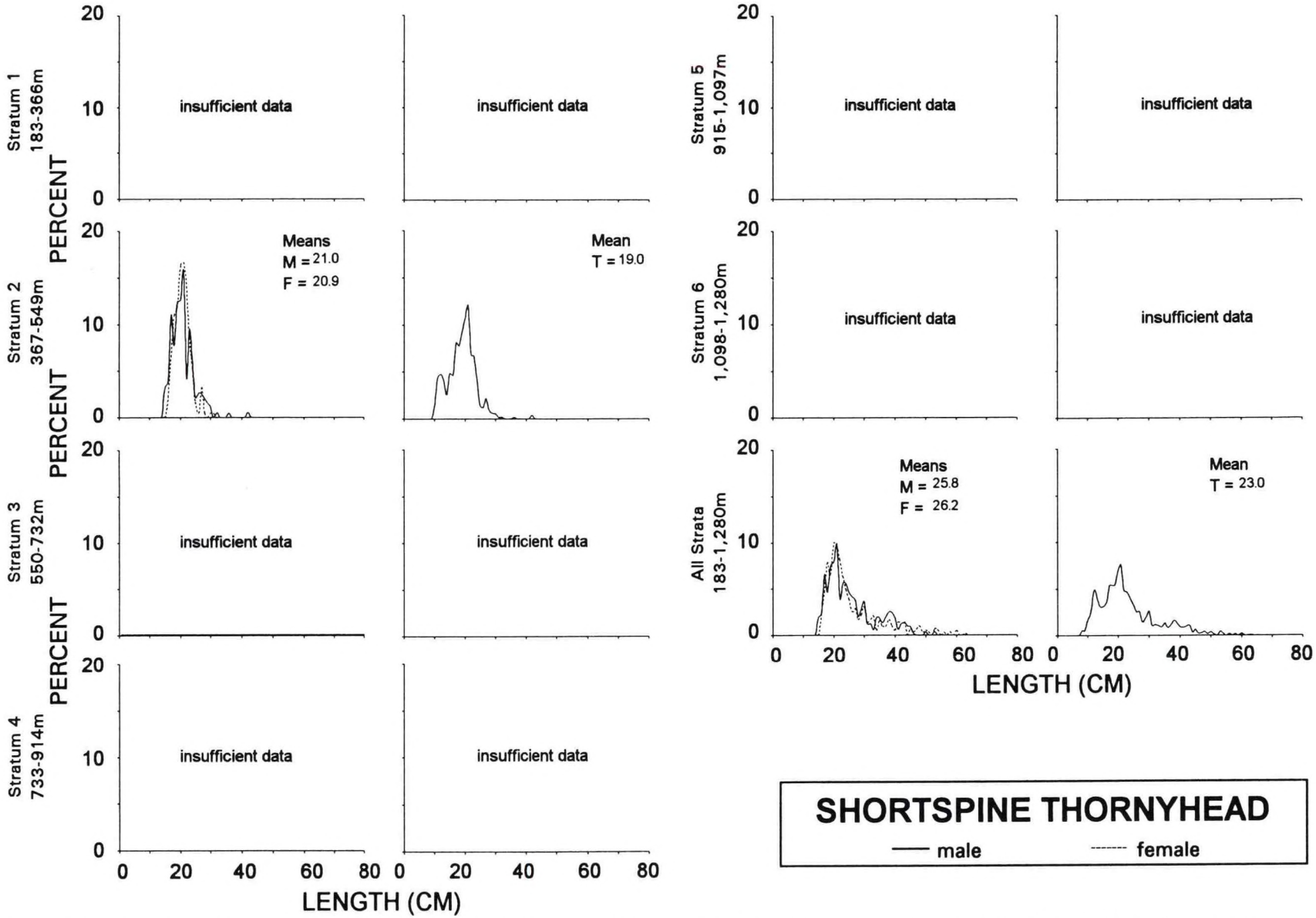


Figure 73.--Estimated population size composition and mean lengths (cm) of shortspine thornyhead by depth stratum and by sex (T = males, females, and unsexed combined) for the International North Pacific Fisheries Commission U.S.-Vancouver area from the 1999 West Coast upper continental slope bottom trawl survey.

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APPENDIX A

Haul and Catch Information

Appendix A contains listings of station data and catch data for all hauls from the 1999 West Coast upper continental slope bottom trawl survey of the International North Pacific Fisheries Commission (INPFC) U.S.-Vancouver, Columbia, Eureka, Monterey, and Conception statistical areas. Depths are reported in meters, distances fished in kilometers, and catch weights are in kilograms. Geodetic positions are displayed in the table as degrees and decimal minutes (e.g., 3552.11 corresponds to 35°52.11'N latitude). Only catches from hauls with a performance code greater than or equal to 0 were used for data analyses. Performance codes that appear in this appendix are as follows:

Code	Explanation
-5	Unsatisfactory, unspecified gear performance problem
-4	Unsatisfactory, caught unspecified object
-2	Unsatisfactory, unspecified gear damage
0	Good performance
2	Satisfactory, unspecified gear damage
6	Satisfactory, unspecified problems

Table A1.--Station and catch data for the NOAA ship *Miller Freeman* during the 1999 West Coast upper continental slope bottom trawl survey.

Haul number	1	2	3	4	5	6	7	8	9	10
Start date and time	10/18 19:28	10/19 0:26	10/19 4:51	10/19 9:12	10/19 13:36	10/19 16:01	10/19 19:34	10/19 22:00	10/20 0:42	10/20 3:28
Start latitude	3619.3	3552.1	3525.8	3502.3	3432.3	3429.5	3428.8	3433.5	3432.2	3431.8
Start longitude	12206.6	12131.9	12111.2	12054.2	12047.4	12048.5	12051.4	12101.6	12106.4	12115.1
End latitude	3620.4	3553.1	3526.8	3503.5	3433.1	3430.6	3429.8	3434.5	3432.5	3432.8
End longitude	12207.2	12132.6	12112.1	12054.4	12048.2	12049.1	12052.1	12102.4	12107.7	12115.7
Bottom depth (m)	418	343	336	198	252	471	592	800	955	1115
Duration (h)	0.53	0.50	0.51	0.51	0.44	0.53	0.51	0.51	0.52	0.51
Distance fished (km)	2.31	2.20	2.21	2.21	1.92	2.19	2.25	2.24	2.21	2.22
Net width (m)	15.492	16.107	14.918	15.472	15.866	17.185	16.488	15.317	16.948	17.121
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish						0.2	0.7	2.1	1.8	0.3
Brown catshark		15.9	5.7			6.3	6.8	6.1		14.2
Spiny dogfish	14.5	2.3	2.1	4.0						
Skates	83.3	110.6	127.5	51.1	14.8	74.8	7.0	1.9	0.3	13.8
Other elasmobranchs	30.9	69.4	17.5	11.0	47.4	5.3	11.7			
Arrowtooth flounder										
Petrale sole	9.9	1.6		1.0	3.3					
Dover sole	670.8	74.2	36.0	2.7	30.9	53.2	129.4	297.4	22.2	21.8
Deepsea sole	6.3							4.7	1.3	0.6
Rex sole	165.9	31.2	8.2	0.3	31.4	0.9				
Other flatfish		1.9	2.9	8.4	27.4					
Sablefish	12.0	11.7	6.7	41.8	21.6	21.7	28.4	11.2	37.8	15.1
Pacific grenadier									1.3	263.8
Giant grenadier								4.1	11.9	3.6
Other grenadiers	0.1					0.1		0.5	0.2	
Pacific flatnose								1.0	0.6	6.2
Slickheads							0.1	12.1	18.4	14.8
Eelpouts	58.3	10.3	13.9	11.3	21.9	13.4	0.0	28.2	2.8	2.2
Snailfish		0.2	0.1		0.1	0.1	0.4	1.0		
Pacific hake	234.5	262.6	185.7	329.0	254.9	65.8	0.4		0.8	1.2
Other roundfish	0.1	2.9		0.2	0.3	0.1	0.9	1.6	0.7	1.7
Shortspine thornyhead	11.2	7.3			4.0	58.5	121.3	29.2	83.4	6.4
Longspine thornyhead	64.4					36.9	76.1	152.9	105.8	10.9
Rougheye rockfish										
Pacific ocean perch										
Aurora rockfish	35.3	2.3	1.6	0.2		37.5				
Darkblotched rockfish										
Splitnose rockfish	156.3	136.3	137.7	2.0	43.5					
Greenstriped rockfish					0.1					
Other rockfish	121.4	7.5	12.0	0.1	115.3	7.9				
True tanner crab							0.9	0.2		0.4
Sea urchins	162.9	222.1	416.0	197.6	374.3	1,451.1	214.0	108.6		0.4
Sea stars	1.8	0.1	0.0		0.2	0.0	4.8	2.2	5.1	7.5
Other invertebrates	90.7	3.6	9.5	28.5	9.4	26.3	17.3	13.0	25.2	20.4
Total catch weight	1,930.6	974.0	983.1	689.1	1,000.4	1,860.0	620.1	677.9	319.6	405.2

Table A1.--Continued.

Haul number	11	12	13	14	15	16	17	18	19	20
Start date and time	10/20 6:26	10/20 10:18	10/20 12:57	10/20 15:56	10/20 19:00	10/20 23:38	10/21 2:35	10/21 4:32	10/21 7:12	10/21 11:01
Start latitude	3431.0	3453.7	3453.1	3457.1	3459.2	3459.0	3457.3	3500.4	3500.3	3502.6
Start longitude	12110.9	12130.2	12132.0	12133.6	12136.0	12126.9	12126.0	12125.2	12115.6	12104.3
End latitude	3431.2	3454.8	3454.4	3458.4	3500.3	3459.1	3458.4	3501.4	3501.4	3503.8
End longitude	12112.2	12130.6	12132.3	12133.2	12135.3	12127.0	12126.7	12125.8	12116.2	12104.3
Bottom depth (m)	1047	683	865	971	1268	486	468	427	596	489
Duration (h)	0.48	0.52	0.55	0.55	0.52	0.23	0.51	0.51	0.53	0.52
Distance fished (km)	1.95	2.24	2.40	2.44	2.31	1.07	2.22	2.25	2.33	2.22
Net width (m)	14.602	16.693	16.237	16.745	17.329	16.724	16.511	16.315	17.273	17.457
Net measured?	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	-2.8	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish	0.4	0.3	1.8	1.2	0.3	0.1			0.8	0.2
Brown catshark		3.5	4.3	5.2	1.8				0.8	11.6
Spiny dogfish										
Skates	3.1		6.7	17.8	10.7		25.0	5.3	1.6	50.5
Other elasmobranchs					0.9			0.0	2.1	16.7
Arrowtooth flounder										
Petrale sole										
Dover sole	4.5	223.5	100.4	118.8	14.6	42.7	198.7	150.2	92.3	108.6
Deepsea sole	5.0	2.5	16.2	10.0	0.7					
Rex sole						11.3	26.8	25.7		31.9
Other flatfish								0.3		0.0
Sablefish	6.9	58.0	131.8	94.7	7.9	4.7	49.9	4.4	5.6	12.1
Pacific grenadier	25.4			8.8	170.9					
Giant grenadier	18.4	0.7	7.1	53.0	54.7		0.5			
Other grenadiers	0.0									0.3
Pacific flatnose	2.0	0.4	0.3	0.4	15.6					
Slickheads	6.7	32.3	24.5	60.5	14.4				0.2	
Eelpouts	3.1	0.7	5.2	12.7	5.4		25.2	10.0	0.6	15.4
Snailfish	0.0	0.5	0.2	0.2	0.0				0.0	
Pacific hake			0.8	0.5		9.7	39.4	46.9	17.0	112.6
Other roundfish	1.0	1.7	0.7	1.2	8.6	0.0	0.0	0.1	0.5	0.3
Shortspine thornyhead	12.5	25.7	40.2	48.5	5.1	7.8	19.3	13.6	21.3	22.1
Longspine thornyhead	33.3	242.9	271.7	96.9	11.3	10.0	46.5	48.5	57.8	36.5
Rougheye rockfish										
Pacific ocean perch										
Aurora rockfish						3.6	98.8	6.4		26.8
Darkblotched rockfish										
Splitnose rockfish								0.2		
Greenstriped rockfish										
Other rockfish							25.1	40.6		
True tanner crab	0.4	13.5	2.9	1.8	0.3					
Sea urchins	0.0	54.4	2.2	0.4		10.9	0.8	101.3	0.2	844.7
Sea stars	8.4	17.2	12.1	11.2	6.8	1.2	1.0	18.1	63.4	78.1
Other invertebrates	11.0	22.3	105.2	36.8	560.1	1.7	35.4	11.9	5.2	26.5
Total catch weight	142.1	700.1	734.3	580.4	890.1	103.5	592.5	483.6	269.4	1,394.9

Table A1.--Continued.

Haul number	21	22	23	24	25	26	27	28	29	30
Start date and time	10/21 15:03	10/21 17:56	10/21 21:31	10/22 0:02	10/22 2:39	10/22 5:30	10/22 10:42	10/22 16:53	10/22 19:55	10/22 22:46
Start latitude	3526.7	3525.8	3525.1	3527.3	3525.9	3524.0	3549.3	3547.4	3549.3	3551.8
Start longitude	12116.4	12120.9	12130.1	12137.8	12142.7	12143.9	12157.7	12148.5	12142.6	12137.0
End latitude	3527.8	3526.9	3526.2	3527.8	3526.5	3525.0	3549.5	3548.6	3550.4	3553.0
End longitude	12116.6	12121.0	12130.5	12139.1	12143.9	12144.9	12159.2	12148.8	12142.9	12137.3
Bottom depth (m)	432	569	906	1063	1133	1198	1216	1040	871	663
Duration (h)	0.53	0.55	0.52	0.53	0.52	0.52	0.51	0.53	0.51	0.51
Distance fished (km)	2.19	2.20	2.24	2.18	2.21	2.29	2.25	2.34	2.21	2.35
Net width (m)	17.473	17.669	17.933	17.287	17.302	17.329	17.329	17.391	18.403	16.738
Net measured?	Y	Y	Y	N	N	N	N	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish			1.5	0.7	0.2	0.0		1.5	1.0	0.5
Brown catshark	22.1	9.5	5.1				1.9		2.1	11.4
Spiny dogfish		1.9								
Skates	88.5	9.1								
Other elasmobranchs	13.2	27.0	1.2							6.8
Arrowtooth flounder										
Petrale sole	0.5									
Dover sole	63.5	15.5	31.2	22.3					47.8	86.0
Deepsea sole			16.2	8.6	2.1		2.6	8.6	7.9	
Rex sole	15.7									
Other flatfish										
Sablefish	22.6	27.9	82.9	68.5	21.9	23.9		50.7	49.2	28.0
Pacific grenadier			1.9	31.6	52.6	66.0	117.1	10.7		
Giant grenadier			5.5	72.3	11.4	9.4	40.8	13.0	12.3	
Other grenadiers		0.8						0.1		
Pacific flatnose			0.1	5.6	7.5	10.3	25.2	1.2	0.3	
Slickheads			34.5	18.0	49.0	17.5	15.7	17.4	22.8	8.1
Eelpouts	2.3	0.4	18.6	22.0		0.6		0.8	3.5	0.0
Snailfish		0.0	0.6						0.5	0.0
Pacific hake	71.5	12.7	1.0		0.5					1.3
Other roundfish	0.0	0.2	3.4	3.3	3.4	2.6	1.4	2.1	2.8	1.0
Shortspine thornyhead	52.7	15.1	34.8	34.0	24.2	8.1	5.7	24.9	21.8	31.6
Longspine thornyhead		15.7	197.6	45.3	34.6	44.6	42.2	64.7	241.8	114.5
Rougheye rockfish										
Pacific ocean perch										
Aurora rockfish	28.5	2.0								
Darkblotched rockfish										
Splitnose rockfish	61.1	3.2								
Greenstriped rockfish										
Other rockfish	1.8									
True tanner crab			9.6	5.6	1.4	0.2	2.6	2.2	1.4	0.1
Sea urchins	53.3	162.8							146.8	75.0
Sea stars	47.7	47.3	6.1	91.6	33.2	41.2	15.8	31.2	42.8	19.4
Other invertebrates	16.1	15.2	15.8	23.6	14.0	12.0	51.5	25.7	5.2	6.3
Total catch weight	561.3	366.2	467.7	453.1	256.0	236.6	322.6	254.9	609.9	390.0

Table A1.--Continued.

Haul number	31	32	33	34	35	36	37	38	39	40
Start date and time	10/23 1:25	10/23 8:28	10/23 10:28	10/23 13:00	10/23 15:46	10/23 19:02	10/23 22:29	10/24 1:13	10/24 3:37	10/24 5:57
Start latitude	3552.0	3618.8	3621.1	3622.4	3623.3	3620.0	3642.8	3644.9	3645.6	3645.9
Start longitude	12134.3	12207.9	12211.0	12213.2	12213.9	12205.7	12216.9	12215.8	12214.7	12212.8
End latitude	3553.1	3620.0	3622.3	3623.6	3624.5	3620.4	3643.6	3645.8	3646.5	3646.5
End longitude	12134.7	12207.8	12210.8	12212.8	12213.6	12205.2	12217.9	12216.9	12215.7	12214.1
Bottom depth (m)	526	592	827	1090	1152	333	1177	942	788	677
Duration (h)	0.50	0.52	0.52	0.53	0.57	0.26	0.52	0.51	0.51	0.51
Distance fished (km)	2.33	2.23	2.27	2.38	2.40	1.13	2.16	2.23	2.24	2.27
Net width (m)	16.245	15.437	16.595	18.046	17.329	16.212	17.329	17.367	17.481	17.208
Net measured?	Y	Y	Y	Y	N	Y	N	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish	0.1	2.8	2.1	1.2	0.1		0.2	9.2	0.3	0.5
Brown catshark	10.4	15.9	16.6	2.4	0.9		1.8	1.3	1.5	10.3
Spiny dogfish										
Skates	22.2		3.8	0.0	3.2	5.7	19.7			4.3
Other elasmobranchs	16.0	4.0				73.1				2.0
Arrowtooth flounder										
Petrale sole						60.2				
Dover sole	47.7	81.2	93.8	5.7		212.4	85.6	319.6	169.5	23.2
Deepsea sole		1.5	4.4	23.5	1.3		23.6	15.4		
Rex sole						13.9				
Other flatfish						0.7				
Sablefish	41.0	5.9	6.3	44.8	21.1	36.7	22.5	3.1	6.1	19.7
Pacific grenadier			0.1	66.4	179.7		145.1	76.7	0.6	
Giant grenadier			16.4	38.4	65.0		40.3	7.6	1.2	
Other grenadiers	0.1		0.2					0.1	1.2	
Pacific flatnose		0.1	3.1	14.3	34.3		27.6	3.7	0.5	0.1
Slickheads	0.0	2.4	45.3	134.7	85.9		38.1	17.4	12.6	16.3
Eelpouts	1.1		19.6	9.6	1.2	48.6	3.3	15.3	4.8	1.6
Snailfish	0.3	0.2	1.0	0.0	0.4	0.1	0.0	1.0	0.3	9.3
Pacific hake	93.1	15.9	2.6	2.7		173.4			1.7	8.2
Other roundfish	0.2	0.2	0.7	1.3	2.3	0.1	1.9	7.6	0.5	0.5
Shortspine thornyhead	35.6	12.0	8.6	36.1	58.0	22.3	23.1	22.9	11.8	19.3
Longspine thornyhead	31.1	10.9	92.8	100.2	62.9		24.2	135.6	152.4	64.4
Rougheye rockfish										
Pacific ocean perch										
Aurora rockfish	30.9	0.8								
Darkblotched rockfish										
Splitnose rockfish						139.6				
Greenstriped rockfish										
Other rockfish	5.6					12.9				
True tanner crab	1.8	1.9	12.1	36.6	16.0	0.1	25.9	31.8	113.4	13.5
Sea urchins	79.7	21.0	38.6			8.8		0.1	0.9	0.2
Sea stars	69.5	10.5	8.3	15.8	116.5	16.0	32.0	12.7	2.7	0.1
Other invertebrates	21.9	5.6	50.0	35.8	22.4	24.1	28.9	38.5	16.0	15.5
Total catch weight	508.4	192.7	426.2	569.9	671.1	848.7	543.8	719.4	498.0	208.9

Table A1.--Continued.

Haul number	41	42	43	44	45	46	47	48	49	50
Start date and time	10/24 8:07	10/24 11:50	10/24 15:14	10/24 19:36	10/24 21:22	10/24 23:26	10/25 2:05	10/25 4:18	10/25 7:23	10/25 21:26
Start latitude	3647.7	3648.1	3648.1	3713.7	3713.2	3713.6	3708.3	3715.1	3713.4	3805.8
Start longitude	12211.8	12207.0	12207.0	12247.6	12256.0	12303.3	12305.1	12308.6	12310.5	12323.0
End latitude	3648.4	3648.4	3648.4	3714.1	3714.2	3713.9	3709.2	3715.9	3714.9	3806.3
End longitude	12212.8	12207.8	12207.7	12248.1	12256.7	12304.7	12306.0	12309.7	12311.5	12323.5
Bottom depth (m)	465	196	190	206	434	696	799	1066	1239	214
Duration (h)	0.47	0.29	0.30	0.26	0.50	0.50	0.51	0.52	0.85	0.26
Distance fished (km)	1.94	1.24	1.26	1.11	2.16	2.14	2.22	2.28	3.18	1.12
Net width (m)	14.994	12.42	15.14	15.394	16.111	16.735	17.319	17.54	17.329	16.333
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Performance	0	-2.1	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish		0.1				0.3	5.1	0.2		
Brown catshark	19.9	0.3			1.5	5.5	1.7			
Spiny dogfish					1.0					
Skates	36.3	26.3	13.2	2.2	14.7			13.3	5.9	31.2
Other elasmobranchs	4.9	128.7	11.0	3.5	8.1		0.1	8.4	3.9	7.9
Arrowtooth flounder										
Petrale sole	1.7	27.1	38.4	8.1	0.4					81.4
Dover sole	154.8	38.6	13.5	15.1	160.7	434.9	239.5	303.0	99.7	6.3
Deepsea sole	0.3					2.4	7.4	21.9	17.5	
Rex sole	12.2	27.2	16.0	50.7	143.1					14.5
Other flatfish		223.2	405.7	25.4	1.3					38.9
Sablefish	3.0	6.0	54.7	7.1	1.0	16.6	76.7	69.0	25.1	8.7
Pacific grenadier						0.1	1.3	126.6	230.3	
Giant grenadier						5.4	0.7	119.8	84.3	
Other grenadiers							1.7			
Pacific flatnose						0.2	1.3	9.1	45.0	
Slickheads						8.3	37.8	98.6	6.8	
Eelpouts	27.8	1.7	1.3	0.4	15.6	3.6	5.7	1.3		
Snailfish	0.2					0.3	0.3	1.1	0.0	
Pacific hake	74.8	128.1	0.5	125.7	32.4					51.6
Other roundfish	0.1	2.4	1.9	3.6	0.0	0.5	0.5	0.8	0.9	9.8
Shortspine thornyhead	2.4	0.3			1.4	37.5	26.3	70.6	17.8	3.3
Longspine thornyhead	2.5					262.6	249.6	118.2	36.0	
Rougheye rockfish										
Pacific ocean perch										
Aurora rockfish	3.8	0.3		0.1	23.1					
Darkblotched rockfish										
Splitnose rockfish		0.1			26.4					
Greenstriped rockfish		0.2	0.2	5.8						4.2
Other rockfish	3.1	641.9	991.8	67.8	0.7					1,073.1
True tanner crab	0.8					15.8	8.9	4.6	0.4	0.0
Sea urchins	20.8				0.2	0.1	42.9	0.0		
Sea stars	2.4	88.7	73.8	6.3	0.7	1.0	4.4	13.3	9.8	3.1
Other invertebrates	36.8	10.9	84.6	40.3	32.4	4.7	9.3	25.1	21.7	12.3
Total catch weight	408.5	1,352.1	1,706.5	361.9	464.7	799.8	721.2	1,004.8	605.0	1,346.3

Table A1.--Continued.

Haul number	51	52	53	54	55	56	57	58	59	60
Start date and time	10/25 23:06	10/26 1:11	10/26 6:28	10/26 8:38	10/26 10:59	10/26 12:39	10/26 15:17	10/26 18:04	10/26 21:25	10/26 23:40
Start latitude	3808.2	3808.5	3832.6	3833.5	3836.0	3838.4	3841.6	3842.0	3904.7	3901.5
Start longitude	12329.0	12331.9	12343.0	12341.8	12341.7	12348.0	12352.4	12353.0	12357.6	12359.8
End latitude	3809.4	3809.3	3833.7	3834.5	3836.5	3839.3	3842.6	3842.8	3905.9	3902.7
End longitude	12329.0	12332.8	12343.4	12342.3	12342.0	12348.8	12353.3	12354.2	12357.9	12359.7
Bottom depth (m)	411	636	659	408	209	764	1091	1098	291	500
Duration (h)	0.50	0.51	0.51	0.52	0.28	0.49	0.54	0.52	0.50	0.50
Distance fished (km)	2.17	2.18	2.11	2.23	1.25	2.16	2.38	2.34	2.20	2.16
Net width (m)	15.935	17.268	17.728	16.115	16.315	17.064	17.337	17.302	16.149	16.144
Net measured?	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish		5.0	0.9	0.3		2.8	2.4	1.6		0.3
Brown catshark	11.4	10.6	4.8	22.5			2.1	0.0		14.1
Spiny dogfish									1,190.3	5.4
Skates	67.4	7.9	6.0	58.1	11.1	4.9	7.5	15.7	31.9	12.7
Other elasmobranchs	14.4			31.0	52.4	6.6	0.7		11.1	
Arrowtooth flounder										
Petrale sole					1.3				0.3	
Dover sole	196.8	53.3	56.1	337.3	30.5	172.8	10.9	14.3	70.6	13.6
Deepsea sole		2.4	0.4			3.5	39.8	30.2		
Rex sole	188.7			181.8	63.1				2.2	3.5
Other flatfish	2.6			2.9	36.7				64.1	0.1
Sablefish	65.4	25.3	7.5	15.2		16.2	39.8	8.2	21.8	2.2
Pacific grenadier						1.3	94.7	76.3		
Giant grenadier			5.2			28.5	8.7	18.7		
Other grenadiers		0.0								0.3
Pacific flatnose		1.0	1.1			1.3	7.8	11.2		0.7
Slickheads		4.6	7.0			8.3	27.7	15.3		
Eelpouts	13.8	22.4	8.7	16.9	6.9	6.5	9.5	11.6	1.3	14.7
Snailfish	0.3	0.5	0.1	0.2			0.3	1.0		0.4
Pacific hake	488.7	2.7	1.9	90.4	24.1		0.4	0.9	122.7	26.6
Other roundfish		0.7	0.5	2.3	1.3	0.5	0.6	1.9	4.8	0.1
Shortspine thornyhead	20.7	27.5	9.5	24.4		6.4	29.6	30.4	4.6	6.8
Longspine thornyhead		80.7	45.6	8.6		121.2	139.0	145.1		10.9
Rougheye rockfish										
Pacific ocean perch										
Aurora rockfish	10.0			.5.9					0.1	1.0
Darkblotched rockfish				3.0					2.9	
Splitnose rockfish	44.9			8.1					93.2	
Greenstriped rockfish					7.2					
Other rockfish	23.3		2.1	21.3	86.6				2.9	
True tanner crab		3.3	11.3			15.1	41.9	42.6	0.3	0.2
Sea urchins		0.1	1.6	19.1	2.6	0.0	0.0	0.1	73.5	9.0
Sea stars	0.1	6.2	4.0	5.7	1.5	6.4	6.2	9.8	15.4	1.8
Other invertebrates	60.9	11.0	23.3	21.6	8.4	8.8	147.2	199.2	15.9	11.9
Total catch weight	1,209.4	265.3	197.7	876.6	333.7	411.1	616.8	634.2	1,729.7	136.3

Table A1.--Continued.

Haul number	61	62	63	64	65	66	67	68	69	70
Start date and time	10/27 1:38	10/27 3:46	10/27 6:17	10/27 9:09	10/27 14:19	10/27 17:46	10/27 20:53	10/27 23:58	10/28 2:52	10/28 5:14
Start latitude	3901.4	3901.6	3903.3	3903.8	3931.9	3929.1	3928.7	3929.0	3928.6	3930.1
Start longitude	12401.4	12405.1	12409.8	12410.7	12411.3	12408.9	12407.2	12404.6	12401.0	12358.2
End latitude	3902.5	3902.8	3904.5	3904.9	3930.7	3928.1	3927.7	3928.0	3927.4	3929.5
End longitude	12401.2	12405.1	12409.2	12410.3	12411.7	12409.2	12407.8	12405.2	12401.3	12358.2
Bottom depth (m)	578	765	1088	1118	1116	920	822	682	497	224
Duration (h)	0.50	0.51	0.55	0.53	0.57	0.44	0.51	0.51	0.50	0.25
Distance fished (km)	2.19	2.22	2.39	2.33	2.35	1.98	2.12	2.17	2.26	1.11
Net width (m)	16.449	17.852	17.467	17.272	17.302	17.22	17.734	17.959	17.318	16.03
Net measured?	Y	Y	Y	Y	N	N	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish	1.0	1.3	0.1	0.2		0.1	0.4	0.2		
Brown catshark	10.6	6.6	1.6	0.6	1.9	2.7	3.9	3.1	20.4	1.2
Spiny dogfish	5.7									
Skates	8.0	7.6	27.6	20.9	20.2		0.0	0.9	14.6	1.2
Other elasmobranchs			1.8	1.4	2.4		0.1	0.3	0.3	0.8
Arrowtooth flounder										
Petrale sole										0.8
Dover sole	24.3	208.7	148.4	199.1	802.1	10.3	30.3	125.1	49.4	0.6
Deepsea sole		10.5	7.0	11.1	10.9	7.2	6.8	2.7		
Rex sole	0.2								14.6	2.4
Other flatfish										4.9
Sablefish	14.3	45.7	87.7	149.0	52.4		1.8	4.4	11.8	
Pacific grenadier		1.3	117.2	178.2	55.2	5.0	2.6	1.0		
Giant grenadier		4.0	26.6	24.9	164.8	8.7	6.1	10.6		
Other grenadiers									0.1	
Pacific flatnose	3.0	0.3	11.4	24.5	17.0	2.1	1.1	1.0		
Slickheads	6.9	12.9	99.1	39.1	32.0	18.4	4.6	2.4		
Eelpouts	7.2	1.5	1.3	5.1	3.9	5.4	3.3	3.1	7.0	0.4
Snailfish	0.8	0.1	0.3	0.3		0.0		0.1		
Pacific hake	28.5	2.3	1.4	1.2	4.8	0.4	3.2	1.6	60.6	127.8
Other roundfish	0.2	1.8	1.2	0.9	0.9	0.9	1.3	0.4	0.4	2.6
Shortspine thornyhead	6.2	60.7	28.1	55.8	124.2	4.6	7.7	5.9	7.0	0.9
Longspine thornyhead	12.1	467.7	77.7	36.2	85.7	107.4	115.1	73.9	25.1	
Rougheye rockfish										
Pacific ocean perch										
Aurora rockfish	0.7								4.7	
Darkblotched rockfish										0.3
Splitnose rockfish										46.8
Greenstriped rockfish										
Other rockfish		0.5								152.1
True tanner crab	2.9	5.0	1.0	0.2	20.3	11.2	24.1	19.9	0.9	
Sea urchins	21.1	0.1							0.1	8.9
Sea stars	6.3	9.9	12.4	6.6	29.6	4.7	6.4	4.4	4.4	46.2
Other invertebrates	8.4	25.8	48.8	14.5	52.2	8.6	9.2	7.9	27.4	2.4
Total catch weight	168.4	874.2	700.6	769.5	1,480.5	197.6	228.0	268.7	248.6	400.3

Table A1.--Continued.

Haul number	71	72	73	74	75	76	77	78	79	80
Start date and time	10/28 9:38	10/28 13:57	10/28 16:37	10/28 20:44	10/28 23:56	10/29 2:34	10/29 4:44	10/29 6:30	10/29 11:00	10/29 13:31
Start latitude	3951.1	3953.9	3958.5	3957.5	4002.2	3958.2	3957.3	3957.5	4023.3	4026.4
Start longitude	12418.4	12421.8	12422.9	12432.2	12424.3	12415.7	12412.7	12412.6	12435.1	12437.6
End latitude	3949.9	3955.0	3959.1	3957.2	4002.8	3959.2	3958.2	3958.6	4024.1	4027.5
End longitude	12418.3	12422.4	12424.2	12433.7	12425.7	12416.1	12413.7	12413.3	12436.4	12437.5
Bottom depth (m)	1189	1186	959	1130	783	556	366	335	597	485
Duration (h)	0.54	0.54	0.53	0.51	0.50	0.43	0.50	0.50	0.54	0.52
Distance fished (km)	2.30	2.39	2.28	2.31	2.25	1.87	2.24	2.33	2.44	2.31
Net width (m)	17.573	17.329	17.618	17.08	17.344	17.303	16.821	17.017	16.63	16.063
Net measured?	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish	0.2	0.3	0.1	0.1	0.3				1.4	0.1
Brown catshark	0.3		2.2		5.5	7.6	5.4	2.7	13.7	26.2
Spiny dogfish							0.4			
Skates			3.8	3.6	0.6	1.8	27.2	25.9	4.8	20.4
Other elasmobranchs	1.2	0.8		0.7				1.8	0.0	0.0
Arrowtooth flounder										4.4
Petrale sole							2.6	18.9		
Dover sole	1.3		18.5		51.9	49.0	31.5	7.5	63.4	56.9
Deepsea sole	1.4		10.6	0.3	3.7				1.2	
Rex sole						0.1	35.8	29.9	12.6	52.8
Other flatfish							1.3	1.5		0.0
Sablefish	63.8	12.8	111.0	36.8	28.8	26.8	6.7	1.4	31.7	15.1
Pacific grenadier	99.5	59.0	63.0	31.6	2.1	0.2			1.4	1.3
Giant grenadier	119.1	93.7	4.7	34.1	13.1	4.3	1.3			3.9
Other grenadiers	0.2									0.2
Pacific flatnose	14.4	32.6	1.6	17.0	0.8	0.9			23.4	2.9
Slickheads	45.3	5.8	32.7	18.5	16.8					
Eelpouts	0.6		4.2		1.0	3.0	10.1	3.4	3.3	42.6
Snailfish		0.3	0.0			0.2	0.2	0.0	1.9	5.3
Pacific hake				0.4		14.6	75.7	62.2	13.6	93.0
Other roundfish	0.1	2.7	0.4	0.6	1.0	0.2	0.5	1.5		
Shortspine thornyhead	18.4	16.1	72.0	11.7	8.3	10.4	1.9	0.7	3.0	4.1
Longspine thornyhead	73.7	28.1	111.9	39.8	219.2	28.9			0.6	
Rougheye rockfish										
Pacific ocean perch							0.5	0.7		
Aurora rockfish							0.8		1.0	14.0
Darkblotched rockfish							5.3	0.4		1.3
Splitnose rockfish							3.7	3.2		
Greenstriped rockfish										
Other rockfish							2.7	1.3	0.5	
True tanner crab	16.4	8.6	13.7	8.1	20.0	1.2			3.2	
Sea urchins						0.3	0.4	0.1	0.5	24.6
Sea stars	17.3	3.6	1.1	17.4	6.0	2.2	4.0	1.7	4.4	13.9
Other invertebrates	49.8	22.9	4.1	38.7	10.0	9.4	14.1	36.9	20.1	11.2
Total catch weight	522.9	287.3	455.8	259.5	389.2	161.3	232.2	201.7	205.8	394.2

Table A1.--Continued.

Haul number	81	82	83	84	85	86	87	88	89	90
Start date and time	10/29 15:47	10/29 18:32	10/29 21:16	10/30 2:31	10/30 6:23	10/30 8:42	10/30 11:29	10/30 13:46	10/30 16:42	10/30 18:45
Start latitude	4027.1	4026.0	4024.8	4025.9	4050.5	4053.1	4051.8	4051.2	4049.4	4048.2
Start longitude	12436.5	12440.5	12441.1	12439.1	12444.8	12444.4	12440.6	12437.6	12430.6	12427.1
End latitude	4028.2	4027.1	4025.9	4027.0	4051.6	4054.1	4052.4	4052.1	4050.6	4049.3
End longitude	12437.0	12441.2	12441.9	12439.8	12444.0	12445.4	12442.1	12438.8	12430.8	12426.3
Bottom depth (m)	198	983	1237	817	1211	940	750	611	463	212
Duration (h)	0.52	0.52	0.54	0.51	0.51	0.52	0.54	0.52	0.53	0.51
Distance fished (km)	2.34	2.34	2.31	2.27	2.35	2.39	2.41	2.37	2.22	2.31
Net width (m)	15.78	17.512	17.329	16.994	17.329	17.07	17.763	16.871	14.517	16.198
Net measured?	Y	Y	N	Y	N	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish			0.2	0.2	1.8	0.2	0.4	0.3	1.9	0.1
Brown catshark	0.3	1.5		1.4		1.0	2.7	2.8	2.3	8.5
Spiny dogfish										15.9
Skates	21.4	10.9	16.7	7.6	9.8	0.8		5.4	10.9	12.6
Other elasmobranchs	436.6						0.0			2.5
Arrowtooth flounder									1.5	1.3
Petrale sole	18.3									3.6
Dover sole	52.1	383.2	115.0	240.0	25.7	11.1	79.4	9.8	37.9	6.1
Deepsea sole		24.1	2.9	7.9	17.3	1.6	4.5	0.8		
Rex sole	21.7						0.4	10.3	29.5	26.0
Other flatfish	5.8								0.3	63.7
Sablefish	2.6	137.3	38.5	166.9	42.7	18.0	33.5	22.5	6.1	3.1
Pacific grenadier		38.3	43.1	12.8	106.0	10.2	0.8	2.7		
Giant grenadier		18.1	20.6	31.6	40.5	7.7	5.3	1.3		
Other grenadiers										
Pacific flatnose		6.2	10.2	3.4	13.4	6.3	2.0	1.7		
Slickheads		11.9	0.8	35.4	1.3	6.4	9.2	6.7		
Eelpouts		4.0	4.1	22.1		3.0	2.5	16.5	8.2	7.9
Snailfish	0.1		0.0	0.4	0.4	0.3	0.1	0.3	0.4	0.2
Pacific hake								0.5	38.9	75.4
Other roundfish	4.1	0.8	0.8	1.1	6.2	0.5	0.4	0.1		13.2
Shortspine thornyhead		33.0	24.7	61.1	53.8	1.9	7.2	8.8	3.1	
Longspine thornyhead		211.1	8.0	230.8	136.0	158.6	207.1	107.1		
Rougheye rockfish										
Pacific ocean perch										
Aurora rockfish									21.1	
Darkblotched rockfish									3.4	1.0
Splitnose rockfish	0.1									25.6
Greenstriped rockfish	7.2									4.5
Other rockfish	247.6									156.7
True tanner crab		29.4	11.7	185.3	77.3	74.7	73.8	274.1		
Sea urchins	5.5		0.0			0.0	0.0	2.4	40.2	0.3
Sea stars	12.9	4.4	2.3	1.5	4.2	2.3	1.3	3.2	312.2	15.9
Other invertebrates	36.4	2.8	16.4	4.4	109.0	25.6	11.5	14.4	705.4	47.3
Total catch weight	872.5	916.9	316.1	1,014.2	645.2	330.2	442.3	491.6	1,223.1	491.3

Table A1.--Continued.

Haul number	91	92	93	94	95	96	97	98	99	100
Start date and time	10/31 2:16	10/31 4:00	10/31 8:45	10/31 10:56	10/31 13:14	10/31 15:39	10/31 19:27	11/1 0:58	11/1 3:50	11/1 7:25
Start latitude	4114.9	4118.0	4116.5	4117.5	4116.4	4116.5	4117.3	4145.1	4144.7	4144.7
Start longitude	12424.2	12428.7	12431.5	12429.7	12434.8	12443.5	12451.5	12500.7	12459.8	12445.6
End latitude	4116.0	4119.0	4117.5	4118.6	4117.2	4117.4	4118.4	4146.1	4145.8	4145.9
End longitude	12424.3	12429.4	12432.4	12430.4	12436.0	12444.7	12452.3	12460.0	12459.1	12445.4
Bottom depth (m)	227	460	774	583	1073	1149	1152	1200	1046	844
Duration (h)	0.50	0.51	0.54	0.51	0.51	0.60	0.56	0.50	0.51	0.50
Distance fished (km)	2.18	2.25	2.34	2.29	2.19	2.31	2.33	2.22	2.32	2.23
Net width (m)	16.466	17.126	17.522	17.739	16.311	17.329	17.302	17.329	16.694	17.227
Net measured?	Y	Y	Y	Y	Y	N	N	N	Y	Y
Performance	0	0	5.1	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish		3.0	0.4	1.4	0.8				0.3	0.1
Brown catshark	2.7	12.8	3.7	11.2	1.9				1.2	21.7
Spiny dogfish	2.7									
Skates	28.9	16.4	0.3	2.5		14.3	3.9	0.1	5.5	0.3
Other elasmobranchs	1.6	0.0								
Arrowtooth flounder	2.4	8.1								
Petrale sole	5.6									
Dover sole	64.0	120.5	17.9	62.0	15.6	7.0	5.6	3.0	6.4	31.2
Deepsea sole			3.0	1.1	7.8	12.4	29.5	6.6	1.1	4.2
Rex sole	104.7	55.0		24.8						
Other flatfish	50.5									
Sablefish		7.4	19.5	13.4	4.1	98.0	130.9	21.8	60.6	21.5
Pacific grenadier			1.2	0.3	15.1	23.9	50.8	45.4	9.9	0.7
Giant grenadier			17.6	1.9	13.7	22.4	121.7	73.4	24.3	5.3
Other grenadiers										
Pacific flatnose			1.9	0.7	10.1	6.3	13.7	9.7	3.8	0.1
Slickheads			4.3	0.2	3.5	1.5	1.1		0.3	1.3
Eelpouts	10.1	18.1	2.8	13.6	10.4	3.9		0.7		0.3
Snailfish		1.1	0.3	0.5	0.2	0.4		0.3		0.0
Pacific hake	10.7	38.8		12.7						
Other roundfish	20.5	2.4	0.2	0.3	0.4	0.6	0.8	0.7	0.3	0.4
Shortspine thornyhead	4.9	3.8	4.7	8.1	3.9	16.3	11.7	4.2	4.7	
Longspine thornyhead			121.3	53.7	134.6	176.0	126.8	61.4	110.0	142.2
Rougheye rockfish										
Pacific ocean perch										
Aurora rockfish		8.1								
Darkblotched rockfish	1.0									
Splitnose rockfish	61.0									
Greenstriped rockfish	0.6									
Other rockfish	68.0									
True tanner crab			56.5	12.9	43.8	29.8	3.0	5.8	21.2	8.3
Sea urchins	42.1	7.7	0.3	0.9	0.1					2.3
Sea stars	13.5	27.2	8.7	4.4	4.9	17.4	18.4	12.1	4.7	4.1
Other invertebrates	18.5	51.3	9.9	18.0	19.9	71.2	22.9	34.1	13.0	6.9
Total catch weight	514.2	381.7	274.6	244.5	290.8	501.4	540.8	279.2	267.2	250.9

Table A1.--Continued.

Haul number	101	102	103	104	105	106	107	108	109	110
Start date and time	11/1 10:46	11/1 12:59	11/1 14:41	11/1 17:46	11/1 19:22	11/1 21:39	11/1 23:41	11/2 2:36	11/2 5:16	11/2 9:24
Start latitude	4145.0	4142.8	4145.9	4207.4	4209.8	4210.5	4212.2	4209.5	4208.6	4236.8
Start longitude	12435.8	12432.9	12429.0	12435.8	12439.0	12447.3	12452.2	12455.5	12457.0	12447.4
End latitude	4146.2	4143.9	4147.1	4208.2	4211.0	4211.6	4213.4	4210.6	4209.9	4237.9
End longitude	12435.6	12433.5	12429.0	12436.0	12438.9	12447.9	12452.3	12455.8	12456.8	12446.6
Bottom depth (m)	588	498	276	242	428	650	857	1072	1167	691
Duration (h)	0.52	0.52	0.51	0.36	0.53	0.51	0.51	0.53	0.53	0.53
Distance fished (km)	2.43	2.37	2.24	1.51	2.15	2.16	2.22	2.27	2.44	2.37
Net width (m)	17.378	17.37	16.888	16.715	17.101	17.382	17.511	18.326	16.48	16.119
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish	0.1	0.4			0.4	0.2	0.9		0.1	0.2
Brown catshark	6.6	8.9	9.0		14.0	3.1	1.5	0.7		3.2
Spiny dogfish			0.6	0.5	8.1					
Skates		6.5	80.4	24.8	46.5			3.5	16.7	4.8
Other elasmobranchs			0.6	5.1				0.5		1.3
Arrowtooth flounder		3.0	4.7	6.1	2.5					
Petrale sole			2.8	1.6						
Dover sole	13.4	60.2	10.1	18.2	32.7	53.4	125.6	2.9	6.1	193.0
Deepsea sole	0.9					2.2	7.4	5.9	9.4	0.8
Rex sole	1.6	55.8	257.4	80.8	5.9	0.5				
Other flatfish		0.2	42.6	16.3	0.8					
Sablefish	21.3	9.7	4.6	5.3	22.9	33.4	21.0	13.2	65.6	4.3
Pacific grenadier						3.0	5.6	96.7	92.0	22.7
Giant grenadier						47.9	25.6	38.0	61.5	8.0
Other grenadiers		0.1								
Pacific flatnose	0.2					1.7	2.9	7.3	16.0	7.3
Slickheads	0.3					0.2	2.7	11.3	3.5	11.7
Eelpouts	20.8	30.1	11.7	0.4	19.2	10.1	1.5	2.5		29.4
Snailfish	0.9	0.3	0.2		1.1	0.3	0.1	0.2		
Pacific hake	3.9	61.4	123.8	33.4	62.7	1.5	0.3			
Other roundfish	0.4	0.1	50.5	3.2	0.0	0.0	0.3	1.2	6.8	0.3
Shortspine thornyhead	4.4	21.5	12.2	3.4	17.3	14.1	5.4	10.3	9.4	4.1
Longspine thornyhead	100.9	5.7				128.9	168.2	109.7	111.7	48.7
Rougheye rockfish										
Pacific ocean perch					0.6					
Aurora rockfish		1.0			22.4					
Darkblotched rockfish			0.7	5.7	0.4					
Splitnose rockfish			16.8	8.4						
Greenstriped rockfish				7.5						
Other rockfish			3.3	57.3	0.6					
True tanner crab	18.2	2.4	0.0			28.0	42.3	31.3	12.3	85.4
Sea urchins	0.1	3.3	159.7	142.5	50.5	0.8	0.2			
Sea stars	4.2	7.7	2.1	4.0	32.9	10.4	5.6	8.0	26.0	4.4
Other invertebrates	10.3	27.9	26.2	6.5	15.6	12.9	7.3	35.9	17.0	9.3
Total catch weight	208.3	306.2	819.9	431.1	357.0	352.6	424.4	378.9	454.0	438.7

Table A1.--Continued.

Haul number	111	112	113	114	115	116	117	118	119	120
Start date and time	11/2 11:19	11/2 13:05	11/2 15:22	11/2 18:02	11/2 20:44	11/3 1:08	11/3 3:02	11/3 5:24	11/3 7:26	11/3 9:42
Start latitude	4236.3	4239.9	4239.5	4240.3	4240.3	4305.4	4305.9	4307.5	4306.1	4306.9
Start longitude	12445.8	12443.3	12455.1	12456.9	12459.0	12454.8	12453.8	12441.7	12452.5	12459.4
End latitude	4237.3	4240.7	4240.8	4241.6	4241.5	4304.3	4304.8	4306.4	4305.0	4306.0
End longitude	12444.8	12443.7	12455.3	12457.0	12459.3	12455.1	12454.3	12442.4	12453.1	12458.2
Bottom depth (m)	479	251	832	1005	1112	558	471	189	346	1055
Duration (h)	0.52	0.35	0.53	0.54	0.52	0.51	0.50	0.51	0.50	0.54
Distance fished (km)	2.46	1.64	2.33	2.37	2.27	2.24	2.21	2.31	2.34	2.40
Net width (m)	16.564	16.022	17.346	17.743	17.516	16.378	15.973	15.743	15.365	17.102
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish	0.3		0.6	0.8	0.3	0.5	2.3			0.2
Brown catshark	13.2	0.6	0.7	0.3		1.8	5.3	0.1	11.2	0.5
Spiny dogfish	1.3	0.3	2.2			5.2	141.2	9.2	69.2	
Skates	51.4	15.2	1.0	0.6	11.6	6.3	27.7	27.3	10.7	7.2
Other elasmobranchs		2.6						24.5	1.5	0.0
Arrowtooth flounder	8.4	3.3					10.8	1.9	10.1	
Petrale sole		3.2						1.4	0.6	
Dover sole	47.6	6.3	127.4	116.4	3.8	86.8	166.1	15.5	65.4	
Deepsea sole			7.4	20.4	9.9					9.5
Rex sole	92.6	39.0				13.6	164.9	6.9	52.4	
Other flatfish	1.6	18.2					3.6	73.4	4.6	
Sablefish	10.9	2.7	13.2	44.2	330.9	48.8	30.8		7.4	7.9
Pacific grenadier	0.0		9.3	82.4	70.6	0.4				20.2
Giant grenadier			12.0	22.1	55.4	6.5				13.3
Other grenadiers	0.3					0.0				
Pacific flatnose	1.6		1.5	8.4	12.2	5.1				10.6
Slickheads			7.7	15.3	23.0	0.4				22.8
Eelpouts	43.2	1.8	4.2	8.5	2.8	20.9	66.8	5.1	7.8	2.6
Snailfish	0.8		0.2			4.7	1.1		0.3	0.1
Pacific hake	30.5	13.4	1.2	1.3	0.6	14.3	234.5	13.0	146.9	
Other roundfish	0.0	24.6	0.9	0.6	5.2	0.1	0.0	40.6	1.4	7.1
Shortspine thornyhead	1.7	2.7	17.3	17.8	50.4	32.4	3.8	7.7	3.8	50.0
Longspine thornyhead			205.0	164.0	215.8	51.9				227.6
Rougheye rockfish									2.9	
Pacific ocean perch									3.8	
Aurora rockfish	1.8						0.5	0.5		
Darkblotched rockfish		0.5							6.8	
Splitnose rockfish		0.2							2.4	
Greenstriped rockfish								0.9		
Other rockfish		38.5						0.4	0.3	0.2
True tanner crab	1.8		93.6	53.9	12.6	42.9	8.9			43.2
Sea urchins	8.3	128.3		0.0	0.0	0.5	18.4	0.3	24.4	
Sea stars	15.9	7.8	2.9	35.3	20.6	9.1	19.2	2.0	40.5	1.7
Other invertebrates	40.2	36.2	11.5	20.5	67.7	7.5	30.3	3.3	27.3	24.3
Total catch weight	373.5	345.3	519.7	612.7	893.5	359.6	936.2	234.1	501.2	448.9

Table A1.--Continued.

Haul number	121	122	123	124	125	126	127	128	129	130
Start date and time	11/3 12:23	11/3 15:13	11/3 19:38	11/3 22:41	11/4 1:11	11/4 3:39	11/4 5:55	11/4 7:51	11/4 9:50	11/4 15:18
Start latitude	4306.7	4310.7	4330.9	4333.7	4331.9	4334.2	4331.3	4330.8	4329.8	4355.7
Start longitude	12501.2	12455.9	12503.4	12459.7	12454.6	12450.1	12447.1	12443.8	12439.7	12503.9
End latitude	4305.5	4309.5	4329.8	4332.7	4330.7	4333.0	4332.5	4332.0	4331.1	4356.9
End longitude	12500.5	12455.6	12503.1	12459.2	12454.6	12449.8	12447.0	12443.5	12439.4	12503.4
Bottom depth (m)	1143	733	1135	1044	731	640	589	496	334	1237
Duration (h)	0.52	0.53	0.54	0.51	0.50	0.50	0.50	0.51	0.52	0.53
Distance fished (km)	2.41	2.34	2.22	2.19	2.22	2.28	2.24	2.27	2.44	2.37
Net width (m)	17.302	16.283	17.329	17.189	16.768	16.949	17.912	17.685	16.689	17.329
Net measured?	N	Y	N	Y	Y	N	Y	Y	Y	N
Performance	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish		0.2	0.2	0.9	1.4	0.3	0.1	0.6	0.5	0.8
Brown catshark		6.3	0.8	1.1	1.0	0.6	3.7	0.7	1.3	
Spiny dogfish								2.9	333.3	
Skates			12.4	0.3	3.1	8.5	9.3	4.9	26.0	28.0
Other elasmobranchs			0.5	0.1						
Arrowtooth flounder							0.5	2.2	3.1	
Petrale sole									1.1	
Dover sole		37.2	0.8	4.0	5.0	17.9	52.3	18.9	87.1	
Deepsea sole	0.5	0.8	3.4	9.3	1.1	2.3	0.5			1.0
Rex sole						0.1		84.7	43.3	
Other flatfish								5.5	22.6	
Sablefish	18.2	82.9	56.8	8.8	3.5	77.2	16.7	4.5	21.9	117.4
Pacific grenadier	39.4	0.4	54.8	31.7	2.1	2.0	4.8			114.2
Giant grenadier	43.1	35.8	28.6	20.9	22.8	41.1	23.7			299.9
Other grenadiers										
Pacific flatnose	12.1	0.6	5.0	5.1	0.8	0.6	2.5	0.9		36.9
Slickheads	4.7	24.4	4.6	8.6	1.7	1.8	0.2			10.1
Eelpouts	0.0	0.6		0.9	0.5	0.2	6.5	30.0	10.7	
Snailfish	0.4	0.4		0.0	0.1	0.3	3.3	1.5	0.4	0.2
Pacific hake						0.5	1.5	67.7	21.8	
Other roundfish	0.4	0.5	4.6	1.5	1.6	0.3	0.4	0.1	3.3	0.3
Shortspine thornyhead	3.7	4.8	6.7	5.1	1.8	28.0	12.8	13.8	15.9	9.8
Longspine thornyhead	151.6	150.3	99.5	129.3	83.1	161.1	94.0	6.5		20.5
Rougheye rockfish									0.8	
Pacific ocean perch									0.7	
Aurora rockfish										
Darkblotched rockfish									2.3	
Splitnose rockfish									5.4	
Greenstriped rockfish										
Other rockfish									0.8	
True tanner crab	44.8	112.8	20.3	27.5	27.4	81.9	66.4	0.3		5.3
Sea urchins		0.0				0.8	1.5	28.8	33.6	
Sea stars	15.0	9.3	10.2	2.8	12.9	12.0	8.1	8.7	32.9	16.2
Other invertebrates	73.7	4.5	18.7	8.8	6.2	19.5	10.1	24.0	16.7	47.9
Total catch weight	407.5	471.7	327.9	266.6	175.9	457.1	318.9	307.3	685.4	708.6

Table A1.--Continued.

Haul number	131	132	133	134	135	136	137	138	139	140
Start date and time	11/4 17:51	11/4 20:19	11/4 23:33	11/5 2:07	11/5 3:56	11/5 5:42	11/5 8:17	11/5 10:42	11/5 12:57	11/5 15:34
Start latitude	4357.1	4357.9	4358.1	4357.9	4404.6	4404.9	4421.9	4426.1	4426.7	4425.9
Start longitude	12501.3	12501.8	12501.6	12500.2	12457.0	12457.6	12502.2	12506.9	12504.5	12445.9
End latitude	4358.3	4359.0	4359.1	4358.8	4405.8	4406.1	4423.1	4427.4	4425.5	4425.1
End longitude	12501.0	12501.1	12500.9	12459.1	12456.9	12458.0	12502.6	12506.7	12505.0	12446.3
Bottom depth (m)	828	1098	1045	730	356	392	788	1214	918	197
Duration (h)	0.54	0.55	0.51	0.50	0.51	0.50	0.53	0.52	0.50	0.35
Distance fished (km)	2.33	2.31	2.34	2.20	2.33	2.23	2.35	2.35	2.24	1.61
Net width (m)	17.786	16.189	17.823	17.679	16.847	16.468	17.541	17.329	16.558	15.37
Net measured?	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Performance	0	-6	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish	1.6	0.3	0.1	0.3	0.2		0.5		1.3	
Brown catshark	1.2	0.2		0.1	7.3	4.1	2.5		0.4	0.2
Spiny dogfish					766.7	241.0				21.2
Skates		10.9	9.0	11.3	18.2	5.6		15.4	2.6	3.9
Other elasmobranchs				0.2	24.8	3.9				9.0
Arrowtooth flounder					1.9	21.8				0.8
Petrale sole					0.9					2.4
Dover sole	169.1	21.5	43.3	222.8	134.6	85.8	4.8		10.7	9.4
Deepsea sole	7.5	6.1	9.1	3.9			4.6	2.4	4.5	
Rex sole					27.2	29.8				12.6
Other flatfish					4.5	5.5				34.2
Sablefish	25.1	10.8	19.6	27.2	36.5	20.7	9.6	64.6	18.1	15.1
Pacific grenadier	5.8	24.6	51.8	1.7			0.3	62.8	9.8	
Giant grenadier	62.4	61.6	56.2	29.6			4.3	289.7	14.7	
Other grenadiers				0.0						
Pacific flatnose	0.6	2.3	5.9	4.6				20.9	3.2	
Slickheads	13.3	2.1	7.0	3.8			0.7	3.8	6.1	
Eelpouts	2.5	6.3	6.4	6.8	10.0	18.4	0.7	14.2	10.1	10.9
Snailfish				1.1	0.5	0.8	0.1	0.5	0.1	0.5
Pacific hake	0.0			1.8	229.2	133.5			0.4	74.3
Other roundfish	0.2	6.3	14.2	0.2	1.3		2.7	8.1	0.6	1.6
Shortspine thornyhead	11.3	5.2	24.3	16.0	6.3	3.0	2.9	8.3	6.5	
Longspine thornyhead	132.8	31.9	129.6	104.3	2.4		64.6	55.3	109.6	
Rougheye rockfish					2.1					
Pacific ocean perch						0.6				
Aurora rockfish						0.3				
Darkblotched rockfish					2.5	1.8				0.5
Splitnose rockfish					8.6	0.9				0.3
Greenstriped rockfish										3.2
Other rockfish					5.6	1.8				7.2
True tanner crab	22.0	25.6	41.3	36.9	0.4	0.1	47.4	12.1	32.2	
Sea urchins				0.0	10.2	5.5				
Sea stars	10.1	4.6	5.5	7.7	8.6	1.7	2.1	11.5	2.6	
Other invertebrates	7.1	4.6	2.7	10.6	117.3	55.0	3.6	37.0	8.6	7.8
Total catch weight	472.8	224.7	426.1	490.8	1,427.7	641.6	151.4	606.4	241.8	215.1

Table A1.--Continued.

Haul number	141	142	143	144	145	146	147	148	149	150
Start date and time	11/5 17:06	11/5 18:55	11/5 21:03	11/6 1:39	11/6 4:22	11/6 7:03	11/6 10:52	11/6 13:05	11/6 18:04	11/6 21:16
Start latitude	4426.8	4428.1	4432.3	4457.9	4457.1	4455.1	4457.6	4453.6	4450.3	4459.8
Start longitude	12447.7	12452.5	12457.0	12503.0	12500.2	12459.2	12452.8	12447.1	12442.0	12430.9
End latitude	4425.8	4426.9	4431.3	4456.9	4456.1	4454.0	4456.5	4452.4	4449.1	4458.6
End longitude	12448.4	12452.2	12457.2	12503.8	12500.5	12459.6	12453.3	12447.5	12442.0	12430.5
Bottom depth (m)	336	379	666	1186	947	847	661	257	393	395
Duration (h)	0.53	0.51	0.51	0.52	0.46	0.49	0.52	0.53	0.52	0.51
Distance fished (km)	2.24	2.20	2.10	2.24	1.97	2.13	2.34	2.28	2.27	2.24
Net width (m)	16.226	16.548	18.178	17.329	17.457	16.776	16.885	15.769	16.438	17.219
Net measured?	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	-4.2
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish			0.4		0.2	0.3				
Brown catshark	18.3		1.8		2.2	1.2	1.9		1.0	
Spiny dogfish	39.1	22.8						1.9	10.6	
Skates	45.9	78.7	11.2	33.4	0.8	1.1	4.1	25.0	12.0	
Other elasmobranchs	15.5	6.9		0.1				4.2	2.0	
Arrowtooth flounder	11.4	35.8						4.2	27.6	
Petrale sole	2.0							3.1	2.7	
Dover sole	11.5	219.1	5.9			21.5	2.4	10.5	53.7	
Deepsea sole			1.4	0.4	2.2	5.2	2.0			
Rex sole	21.3	8.1						38.1	3.0	
Other flatfish	35.1	1.1						26.2	0.1	
Sablefish	19.0	18.7	39.0	54.0	1.9	17.0	157.1	25.2	31.3	
Pacific grenadier			1.7	43.4	22.5	2.3	1.9			
Giant grenadier			27.6	70.9	35.9	8.7	61.8			
Other grenadiers										
Pacific flatnose			2.6	21.5	3.9	0.8	3.8			
Slickheads			5.1	1.7	6.4	16.8	0.7			
Eelpouts	14.9	7.6	1.9	0.9	2.5	0.5	1.1	0.9	13.4	
Snailfish	0.9	0.2	0.1	0.2	0.1		0.2		0.4	
Pacific hake	155.8	150.3		0.6				81.5	546.2	
Other roundfish	0.1	0.0	0.1	1.3	0.7	0.8	1.1	0.2	0.2	
Shortspine thornyhead	2.2	19.3	14.4	2.7	5.5		17.5	19.6	34.6	
Longspine thornyhead		0.9	67.5	37.1	72.2	90.5	45.5			
Rougheye rockfish									1.1	
Pacific ocean perch		7.6						454.7		
Aurora rockfish	0.2	1.9							12.5	
Darkblotched rockfish	1.9	3.2							1.7	
Splitnose rockfish	5.7							1.8	3.3	
Greenstriped rockfish								3.7		
Other rockfish	1.2	2.4				0.0		307.4	2.0	
True tanner crab			10.8	7.4	22.8	15.7	45.3		0.6	
Sea urchins	101.6	4.1					0.1	0.1		
Sea stars		2.5	4.3	4.5	4.5	3.8	5.4	2.1	0.6	
Other invertebrates	6.9	31.3	4.1	53.6	10.6	8.4	31.1	10.9	8.6	
Total catch weight	510.3	622.7	200.1	333.8	194.8	194.7	382.9	1,021.3	769.2	

Table A1.--Continued.

Haul number	151	152	153	154	155	156	157	158	159	160
Start date and time	11/6 23:46	11/7 1:55	11/7 5:50	11/7 8:22	11/7 11:13	11/7 14:01	11/7 16:29	11/7 19:23	11/7 22:10	11/8 3:19
Start latitude	4458.5	4500.2	4522.6	4520.7	4519.9	4521.2	4520.6	4517.5	4519.5	4548.4
Start longitude	12426.9	12430.7	12424.6	12430.2	12436.6	12446.7	12451.2	12454.3	12456.5	12454.4
End latitude	4457.3	4459.0	4521.4	4519.9	4518.7	4519.9	4519.4	4516.3	4518.3	4547.5
End longitude	12427.0	12430.7	12424.0	12428.9	12436.6	12446.9	12450.9	12454.4	12456.5	12453.3
Bottom depth (m)	296	387	297	389	418	570	830	935	1120	1171
Duration (h)	0.50	0.50	0.51	0.52	0.53	0.51	0.53	0.51	0.51	0.52
Distance fished (km)	2.33	2.28	2.32	2.30	2.32	2.32	2.30	2.38	2.21	2.28
Net width (m)	16.923	16.76	16.642	17.047	16.616	17.059	17.032	17.009	17.167	16.8
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Performance	0	0	0	0	0	0	0	0	0	-5.1
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish							0.1	0.7	0.3	
Brown catshark		1.0				13.2	5.0	2.8	0.6	
Spiny dogfish	40.8	69.0	1.4	29.1	17.9					
Skates	21.8	6.3	5.6	2.8	12.9			0.7		
Other elasmobranchs	4.2				0.0				0.9	
Arrowtooth flounder	11.3	25.7	4.5	15.7	15.4					
Petrale sole		1.5								
Dover sole	1.5	183.6		113.1	12.5	35.3	12.6			
Deepsea sole						1.1	1.8	2.4	2.4	
Rex sole	7.4	16.4	3.7	10.5		1.5				
Other flatfish	27.2	79.2	10.3	3.5						
Sablefish	39.7	25.4	8.3	24.5	25.7	10.3	55.6	14.2	36.2	34.8
Pacific grenadier						0.1	2.0	6.4	30.4	17.8
Giant grenadier						4.4	13.1	10.6	43.1	59.7
Other grenadiers							0.1			0.8
Pacific flatnose						7.4	0.7	1.5	6.6	3.2
Slickheads							13.0	3.6	7.6	10.9
Eelpouts	4.1	7.2	0.8	12.7	3.0	0.4	2.7	0.1	6.0	6.1
Snailfish						0.2				
Pacific hake	23.6	50.2	9.1	233.2	24.7	17.4		0.7	0.6	
Other roundfish				1.1		0.5	0.9	1.5	1.3	1.6
Shortspine thornyhead	65.7	47.0	35.2	72.6	43.5	5.2	13.6	3.0	5.3	2.6
Longspine thornyhead					0.8	7.0	103.9	124.2	100.6	35.6
Rougheye rockfish	1.0									
Pacific ocean perch	0.2	2.5	1.2		10.5					
Aurora rockfish		1.4	0.1	3.6	5.3					
Darkblotched rockfish	1.5	2.6	1.3							
Splitnose rockfish	9.7	1.3	6.7							
Greenstriped rockfish										
Other rockfish	1.4		0.9							
True tanner crab		0.1		0.7	0.6	30.7		8.4	18.0	16.6
Sea urchins	2.0	0.0	7.5		0.2	0.7				
Sea stars	4.4	8.6	5.0	0.9	7.7	5.9	2.1	2.6	4.8	7.5
Other invertebrates	7.6	116.4	3.1	6.2	10.5	8.5	17.7	4.7	25.2	23.3
Total catch weight	275.0	645.3	104.8	530.2	191.2	149.7	244.8	188.0	289.4	220.6

Table A1.--Continued.

Haul number	161	162	163	164	165	166	167	168	169	170
Start date and time	11/8 7:00	11/10 0:34	11/11 3:18	11/11 5:20	11/11 7:08	11/11 10:05	11/11 12:35	11/11 19:33	11/12 2:13	11/12 8:27
Start latitude	4536.9	4543.8	4546.8	4548.9	4546.9	4550.2	4552.4	4616.6	4617.2	4619.0
Start longitude	12454.6	12454.4	12448.8	12444.4	12440.2	12449.9	12454.3	12451.2	12457.9	12500.2
End latitude	4538.5	4542.8	4545.8	4547.9	4545.9	4549.3	4551.5	4615.6	4616.2	4619.2
End longitude	12454.8	12455.2	12448.5	12443.7	12439.7	12449.1	12453.2	12451.2	12458.7	12502.0
Bottom depth (m)	1400	1125	619	378	250	922	825	793	1001	1140
Duration (h)	1.00	0.51	0.46	0.51	0.50	0.44	0.52	0.52	0.51	0.55
Distance fished (km)	2.78	2.20	2.00	2.24	2.14	1.97	2.25	1.98	2.20	2.41
Net width (m)	16.8	17.757	17.251	16.74	16.393	17.36	17.522	17.045	17.51	16.794
Net measured?	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	-6.1	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish		0.9		0.2		0.8	0.4		0.5	0.3
Brown catshark			0.7	4.3		0.5	0.9	5.1		0.2
Spiny dogfish				58.8	468.0	2.1				
Skates	13.8		2.3	13.2	47.3	3.1		0.3	3.9	7.8
Other elasmobranchs				1.9	10.4				0.1	
Arrowtooth flounder				17.0	5.7					
Petrale sole					4.6					
Dover sole			10.1	214.4	74.5	25.7	8.9	6.0		
Deepsea sole	4.3	0.6				8.2	5.5	4.6	1.6	0.9
Rex sole			0.1	6.2	15.5					
Other flatfish				0.8	35.4					
Sablefish	4.0	12.7	79.6	13.6	22.5	18.7	53.0	25.8	12.4	11.4
Pacific grenadier	209.3	70.4	3.3			9.2	0.9	1.3	10.7	38.1
Giant grenadier	322.4	46.4	3.1			6.8	0.4	6.5	11.7	58.2
Other grenadiers			0.1							
Pacific flatnose	46.3	8.5	4.8			1.5	1.2	0.2	1.3	13.0
Slickheads		27.2	1.4			1.9	8.4	2.8	3.1	2.0
Eelpouts	0.0	25.6	9.5	3.9	5.9	2.4	0.9	1.6	2.0	1.9
Snailfish	0.3		0.4	0.3		0.1	0.2	0.1		
Pacific hake	0.6		15.3	85.0	17.2					
Other roundfish	2.6	1.6	0.3	1.3	15.2	1.5	1.5	0.8	0.7	4.3
Shortspine thornyhead	1.1	4.7	12.1	28.8	7.3	8.3	1.8	2.5	4.3	5.2
Longspine thornyhead	9.5	69.9	24.8			113.1	136.9	71.8	75.6	78.9
Rougheye rockfish				0.5						
Pacific ocean perch				0.7	1.4					
Aurora rockfish				0.4						
Darkblotched rockfish				0.7	0.2					
Splitnose rockfish					319.5					
Greenstriped rockfish										
Other rockfish					13.3					
True tanner crab	0.0	11.9	17.6			23.7	33.0	19.7	14.0	10.4
Sea urchins				0.3	159.0					
Sea stars	3.8	1.2	2.5	1.5	3.5	1.4	0.1	3.6	2.9	2.5
Other invertebrates	65.2	29.8	3.3	68.2	9.4	2.7	5.8	3.4	6.4	16.7
Total catch weight	683.2	311.4	191.2	522.1	1,235.6	231.5	259.9	156.2	151.1	251.8

Table A1.--Continued.

Haul number	171	172	173	174	175	176	177	178	179	180
Start date and time	11/13 14:50	11/13 16:47	11/13 19:12	11/13 21:29	11/14 1:58	11/14 4:34	11/14 9:27	11/14 12:01	11/14 14:08	11/14 15:59
Start latitude	4616.7	4616.6	4614.1	4617.3	4643.2	4648.0	4647.1	4643.9	4644.8	4643.1
Start longitude	12423.3	12425.0	12449.2	12458.0	12512.2	12516.2	12512.1	12503.8	12458.7	12450.7
End latitude	4616.1	4616.6	4614.1	4616.3	4642.0	4648.3	4645.9	4642.9	4644.0	4642.4
End longitude	12424.2	12426.1	12450.9	12458.9	12512.3	12517.7	12512.1	12504.8	12457.4	12449.6
Bottom depth (m)	339	388	673	1007	934	1185	1034	798	661	400
Duration (h)	0.35	0.32	0.52	0.52	0.52	0.45	0.52	0.52	0.52	0.47
Distance fished (km)	1.54	1.42	2.17	2.25	2.26	1.99	2.18	2.30	2.27	1.99
Net width (m)	13.802	16.555	16.901	17.69	17.007	17.329	14.892	16.547	16.978	16.58
Net measured?	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish		0.2		1.2	2.3	0.2	1.7	1.2	0.2	0.5
Brown catshark	2.8	2.0	2.7	2.3	2.4	0.5	7.8	4.6	7.2	3.9
Spiny dogfish	262.4	96.5								198.3
Skates	65.2	23.2		2.8	0.9	13.6	3.4		3.7	9.7
Other elasmobranchs							1.1			
Arrowtooth flounder	4.5	19.2								20.4
Petrale sole	0.0									
Dover sole	106.6	458.8	5.5				4.7	2.4	10.5	241.1
Deepsea sole			8.1	1.1	3.1	1.9	12.4	10.6	3.9	
Rex sole	181.9	160.2								23.8
Other flatfish	5.5	4.2								25.3
Sablefish	18.7	52.4	21.6	18.7	4.4	9.4	8.0	21.8	38.5	13.0
Pacific grenadier			1.0	15.5	5.6	38.7	19.3	7.4	6.5	
Giant grenadier			2.2	33.2	20.5	58.7	40.2	23.4	10.6	
Other grenadiers					0.0					
Pacific flatnose			4.4	2.8	4.4	11.3	5.9	2.0	7.2	
Slickheads			0.3	8.9	4.2	1.1	3.4	3.2	0.2	
Eelpouts	2.5	0.7	0.2	4.2	0.7		5.5	3.9	3.8	9.4
Snailfish	0.0		0.0	0.2			0.6	0.2	0.2	
Pacific hake	0.7	3.0						0.7	0.5	10.5
Other roundfish	0.2	0.0	0.8	1.4	0.8	1.3	1.0	1.0	1.6	0.2
Shortspine thornyhead	19.8	24.0	1.4	13.3	0.9	17.8	6.2	1.8	39.7	37.6
Longspine thornyhead			41.7	100.3	119.7	82.1	140.1	96.7	93.1	
Rougheye rockfish	3.4									0.2
Pacific ocean perch										0.6
Aurora rockfish										
Darkblotched rockfish	0.3									0.7
Splitnose rockfish	0.2	0.2								
Greenstriped rockfish										
Other rockfish	0.8	1.1								
True tanner crab	0.0		170.0	11.9	15.0	16.2	16.8	29.6	73.4	0.8
Sea urchins	230.4	23.2								43.6
Sea stars	339.8	154.0	0.8	3.7	1.7	3.5	8.2	2.9	0.8	4.3
Other invertebrates	13.1	8.1	3.9	18.4	18.3	35.8	43.7	25.7	10.2	29.8
Total catch weight	1,258.9	1,031.3	264.5	240.0	204.9	292.2	330.1	239.1	311.6	673.8

Table A1.--Continued.

Haul number	181	182	183	184	185	186	187	188	189	190
Start date and time	11/14 17:29	11/14 21:39	11/14 23:42	11/15 4:05	11/15 6:20	11/15 8:47	11/15 14:20	11/15 18:16	11/15 20:41	11/15 22:59
Start latitude	4642.1	4710.6	4714.2	4714.4	4715.9	4712.4	4715.7	4737.0	4738.3	4735.6
Start longitude	12446.8	12457.7	12500.5	12502.3	12506.4	12508.9	12511.9	12508.0	12516.4	12513.3
End latitude	4641.7	4709.9	4713.1	4713.3	4715.4	4711.6	4715.2	4735.8	4737.1	4734.5
End longitude	12446.3	12457.1	12500.3	12503.0	12504.7	12508.6	12510.6	12508.0	12516.5	12513.9
Bottom depth (m)	193	315	465	563	753	980	1116	481	813	651
Duration (h)	0.28	0.36	0.50	0.51	0.51	0.36	0.43	0.52	0.50	0.50
Distance fished (km)	1.18	1.62	2.21	2.07	2.28	1.55	1.95	2.30	2.13	2.24
Net width (m)	15.873	16.553	16.29	16.694	17.111	17.238	17.911	16.96	17.269	16.6
Net measured?	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish			0.8	0.9	0.7	1.5	0.5		2.1	0.2
Brown catshark	0.1		7.8	0.7	0.7		0.9	15.0	3.7	4.3
Spiny dogfish	2,006.2	385.6	1.8	4.3	5.2	0.3		4.0		
Skates	22.6	27.1	6.2	0.0	0.2	0.6	0.3	14.4		0.5
Other elasmobranchs	3.5	25.7								
Arrowtooth flounder	1.1	24.6	4.7					6.7		
Petrale sole	2.2									
Dover sole	15.1	100.8	160.8	153.9				28.8	1.1	17.9
Deepsea sole			2.2	6.7	7.2	4.5	10.1		4.3	4.2
Rex sole	11.2	35.7	22.3	3.9				1.1		
Other flatfish	11.2	44.5	0.1					22.9		
Sablefish	8.1	22.7	6.5	22.4	61.5	16.8	8.8	1.7	47.5	35.6
Pacific grenadier				2.3	1.1	19.1	39.0		3.4	1.2
Giant grenadier			4.2	5.6	2.4	23.2	40.0	20.9	15.1	13.0
Other grenadiers				0.2						
Pacific flatnose			4.3	7.0	1.0	2.9	4.1	3.5	0.7	3.4
Slickheads					3.2	7.5	1.2		2.0	0.1
Eelpouts	0.3	5.2	5.4	5.3	2.2	3.8	5.2	8.1	12.3	1.9
Snailfish			0.4	0.5	0.1			0.6	0.1	0.3
Pacific hake	164.2	124.3	5.2	5.7	7.3			77.1		
Other roundfish	34.5	0.3	13.7	1.5	0.6	1.0	2.4	0.1	0.4	0.3
Shortspine thornyhead	0.7	28.1	39.6	9.7	10.3	12.1	14.2	22.4	1.2	20.1
Longspine thornyhead				25.7	98.2	99.4	79.6		64.7	60.4
Rougheye rockfish										
Pacific ocean perch		170.8								
Aurora rockfish			0.8							
Darkblotched rockfish		145.1								
Splitnose rockfish	0.1	18.2								
Greenstriped rockfish	16.9									
Other rockfish	280.6	40.0	4.8					10.2		
True tanner crab			0.5	4.8	27.4	6.2	1.8	8.0	23.2	45.4
Sea urchins	18.8	5.7	7.1	15.5				19.8		0.0
Sea stars	2.5	3.6	1.4	10.4	4.6	6.0	4.5	5.0	4.1	8.2
Other invertebrates	6.2	12.1	34.4	21.3	12.9	18.2	60.7	25.3	9.2	10.1
Total catch weight	2,605.8	1,220.0	334.8	308.4	246.8	223.0	273.4	295.4	195.1	226.8

Table A1.--Continued.

Haul number	191	192	193	194	195	196	197	198	199	200
Start date and time	11/16 1:17	11/16 6:36	11/16 10:37	11/16 14:17	11/16 17:39	11/16 20:47	11/16 23:38	11/17 1:56	11/17 4:23	11/17 6:21
Start latitude	4738.1	4735.9	4734.9	4741.4	4742.7	4746.2	4747.6	4745.8	4751.0	4750.2
Start longitude	12506.1	12531.1	12526.6	12544.6	12532.2	12525.5	12516.9	12518.5	12515.4	12509.2
End latitude	4737.4	4734.9	4733.7	4740.2	4741.8	4745.0	4746.8	4744.6	4750.4	4750.8
End longitude	12504.7	12530.1	12526.5	12544.7	12533.4	12525.5	12515.8	12518.4	12516.9	12510.2
Bottom depth (m)	250	1161	938	1130	1032	789	674	850	466	300
Duration (h)	0.51	0.53	0.53	0.54	0.53	0.51	0.50	0.51	0.50	0.36
Distance fished (km)	2.28	2.32	2.33	2.33	2.30	2.22	2.17	2.23	2.23	1.62
Net width (m)	15.019	17.899	17.353	17.871	17.924	17.369	17.856	17.971	17.168	15.409
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172
Hagfish		0.3	1.3	0.4	1.7	0.5	0.2	1.7		0.2
Brown catshark	0.2				0.4	3.0	4.3	3.5	1.3	0.3
Spiny dogfish	2,018.2	0.4							55.2	240.3
Skates	40.2	23.6	9.9	18.1	3.0				24.5	60.2
Other elasmobranchs	142.6									3.3
Arrowtooth flounder	15.8								24.9	13.7
Petrale sole	15.7									5.8
Dover sole	19.9					1.4		14.5	131.9	60.2
Deepsea sole		0.6	3.1	5.1	8.6	4.8	1.0	6.3		
Rex sole	18.0								5.3	1.9
Other flatfish	18.7								38.5	54.8
Sablefish	36.0	15.6	27.4	25.3	28.7	13.9	23.2	18.5	16.9	4.0
Pacific grenadier		28.7	12.5	37.7	14.2	2.9	6.7	2.0		
Giant grenadier		65.2	13.4	99.4	13.2	11.1	7.1	19.7	12.8	
Other grenadiers						0.5				
Pacific flatnose	1.6	2.1	1.5	1.8	1.9	0.4	3.6		1.2	
Slickheads		1.9	1.1		6.8	5.9	0.5	1.1		
Eelpouts	1.3	4.6	3.5	1.9	5.2	6.0	9.3	1.0	18.4	1.3
Snailfish	0.3				0.5	0.1	0.1	0.4	0.5	
Pacific hake	949.7							0.8	30.4	22.4
Other roundfish	36.3	0.5	0.3	0.5	0.6	0.2	0.4	0.2	0.0	0.8
Shortspine thornyhead	2.6	13.4	12.8	14.4	4.6	4.6	15.7	15.7	24.9	9.7
Longspine thornyhead	1.1	91.7	68.3	111.0	148.9	67.8	27.8	142.6		
Rougheye rockfish									2.3	1.6
Pacific ocean perch	129.1								0.7	3.1
Aurora rockfish										
Darkblotched rockfish	80.4									
Splitnose rockfish	10.2									0.6
Greenstriped rockfish	21.3									
Other rockfish	29.4								4.3	
True tanner crab	0.4	2.4	28.3		21.6	27.8	30.3	27.4	7.8	
Sea urchins	35.6								2.5	98.5
Sea stars	1.3	3.4	1.0	2.4	2.0	5.1	4.9	2.7	2.7	56.6
Other invertebrates	8.8	15.3	6.4	30.6	17.5	10.9	5.0	9.7	38.8	18.9
Total catch weight	3,634.9	269.9	190.8	348.5	279.3	167.0	139.9	268.2	445.7	658.2

Table A1.--Continued.

Haul number	201	202	203	204	205	206	207
Start date and time	11/17 12:57	11/17 15:30	11/17 19:06	11/17 23:09	11/18 6:26	11/18 13:57	11/18 19:19
Start latitude	4807.2	4804.6	4807.5	4804.9	4806.5	4759.8	4800.1
Start longitude	12539.8	12558.8	12550.5	12553.8	12545.9	12540.4	12555.5
End latitude	4808.2	4805.1	4807.4	4805.6	4805.8	4759.3	4759.1
End longitude	12540.9	12559.7	12551.9	12552.5	12544.8	12540.0	12554.0
Bottom depth (m)	211	1078	1198	897	454	686	1400
Duration (h)	0.53	0.37	0.43	0.51	0.46	0.27	1.00
Distance fished (km)	2.36	1.53	1.74	2.17	2.02	1.20	2.78
Net width (m)	16.162	17.287	17.329	17.193	16.316	17.102	16.8
Net measured?	Y	Y	N	Y	Y	Y	N
Performance	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Hagfish		0.2		0.8	0.5	0.8	
Brown catshark	0.1		0.8	0.4	5.9	1.7	
Spiny dogfish	175.6	11.3			1.6		
Skates	35.8		0.0	11.1	11.2	2.9	0.3
Other elasmobranchs	9.1						
Arrowtooth flounder	42.6				92.2		
Petrale sole	6.0						
Dover sole	62.3				123.7	38.5	
Deepsea sole		12.3	2.6	12.7	0.2	2.2	23.9
Rex sole	72.7				4.5		
Other flatfish	74.6				29.2		
Sablefish	7.1	12.4	11.9	25.1	46.7	226.9	
Pacific grenadier		22.7	77.0	3.9		1.7	167.3
Giant grenadier		18.4	63.8	7.7		14.0	731.4
Other grenadiers		0.3	13.2				4.2
Pacific flatnose		2.7	4.5	0.9	0.1	1.1	43.3
Slickheads		1.8	0.8	11.3			
Eelpouts	0.5	0.4	61.7	3.5	9.2	2.0	0.0
Snailfish	0.7		0.0	0.2		0.4	1.7
Pacific hake	14.5				12.5	2.8	
Other roundfish	12.2	0.2	1.0	0.2	0.2	0.2	0.6
Shortspine thornyhead	6.0	21.0	5.1	20.7	33.7	14.3	2.5
Longspine thornyhead		55.9	123.1	104.1		43.2	11.4
Rougheye rockfish					10.0		
Pacific ocean perch	31.4				207.7		
Aurora rockfish					2.0		
Darkblotched rockfish	3.9				2.4		
Splitnose rockfish	10.1				0.6		
Greenstriped rockfish	2.1						
Other rockfish	19.8				5.7		
True tanner crab			2.4	30.1		17.6	
Sea urchins	2.1		25.4		0.1	0.0	
Sea stars	6.5	3.7	31.4	18.1	3.9	3.5	14.8
Other invertebrates	1.8	9.9	20.4	10.8	22.9	4.5	114.7
Total catch weight	597.2	173.0	445.2	261.4	626.6	378.2	1,116.0

APPENDIX B

Relative Abundance

Appendix B contains listings of all fish and invertebrate species encountered during the 1999 West Coast upper continental slope bottom trawl survey, ranked in order of relative abundance by catch per unit effort (kg/ha). Ranked lists are presented for each depth stratum and for all depth strata combined in each International North Pacific Fisheries Commission (INPFC) statistical area.

B-1. Rank order of relative abundance (kg/ha) of fishes and invertebrates by depth stratum for all International North Pacific Fisheries Commission areas combined from the 1999 West Coast upper continental slope bottom trawl survey.....175

B-2. Rank order of relative abundance (kg/ha) of fishes and invertebrates by depth stratum for the International North Pacific Fisheries Commission Conception area from the 1999 West Coast upper continental slope bottom trawl survey.....207

B-3. Rank order of relative abundance (kg/ha) of fishes and invertebrates by depth stratum for the International North Pacific Fisheries Commission Monterey area from the 1999 West Coast upper continental slope bottom trawl survey.....223

B-4. Rank order of relative abundance (kg/ha) of fishes and invertebrates by depth stratum for the International North Pacific Fisheries Commission Eureka area from the 1999 West Coast upper continental slope bottom trawl survey.....242

B-5. Rank order of relative abundance (kg/ha) of fishes and invertebrates by depth stratum for the International North Pacific Fisheries Commission Columbia area from the 1999 West Coast upper continental slope bottom trawl survey...256

B-6. Rank order of relative abundance (kg/ha) of fishes and invertebrates by depth stratum for the International North Pacific Fisheries Commission U.S.-Vancouver area from the 1999 West Coast upper continental slope bottom trawl survey.....276

Table B-1.--Rank order of relative abundance (kg/ha) of fishes and invertebrates by depth stratum for all the International North Pacific Fisheries Commission areas from the 1999 West Coast upper continental slope bottom trawl survey. Stratum 1 =183-366 m, Stratum 2 = 367-549 m, Stratum 3 = 550-732 m, Stratum 4 = 733-914 m, Stratum 5 = 915-1,097 m, and Stratum 6 = 1,098-1,280 m.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
1	1	84.526	42.8	0.261775	0.261775	*Squalus acanthias*	Spiny dogfish
2	1	39.875	22.4	0.123492	0.385267	*Merluccius productus*	Pacific hake
3	1	30.342	68.9	0.093967	0.479234	*Sebastes jordani*	Shortbelly rockfish
4	1	15.277	26.7	0.047313	0.526547	*Allocentrotus fragilis*	Orange-pink sea urchin
5	1	15.070	24.3	0.046671	0.573218	*Microstomus pacificus*	Dover sole
6	1	13.689	23.1	0.042395	0.615613	*Glyptocephalus zachirus*	Rex sole
7	1	10.906	33.9	0.033775	0.649388	*Sebastes diploproa*	Splitnose rockfish
8	1	9.986	35.6	0.030928	0.680315	*Sebastes saxicola*	Stripetail rockfish
9	1	9.168	40.7	0.028393	0.708709	*Hydrolagus colliei*	Spotted ratfish
10	1	8.097	16.3	0.025076	0.733784	*Raja rhina*	Longnose skate
11	1	7.038	59.7	0.021797	0.755581	*Sebastes alutus*	Pacific ocean perch
12	1	5.942	56.2	0.018402	0.773983	*Brisaster latifrons*	
13	1	5.756	16.2	0.017826	0.791809	*Lyopsetta exilis*	Slender sole
14	1	5.402	19.0	0.016729	0.808538	*Anoplopoma fimbria*	Sablefish
15	1	4.804	97.8	0.014879	0.823417	*Myoxoderma platyacanthum*	
16	1	4.704	99.7	0.014568	0.837985	*Citharichthys sordidus*	Pacific sanddab
17	1	4.195	35.8	0.012993	0.850978	*Parophrys vetulus*	English sole
18	1	3.992	99.6	0.012363	0.863341	*Sebastes flavidus*	Yellowtail rockfish
19	1	3.954	41.7	0.012247	0.875588	*Eopsetta jordani*	Petrale sole
20	1	2.824	69.8	0.008747	0.884334	*Sebastes zacentrus*	Sharpchin rockfish
21	1	2.798	24.8	0.008666	0.893001	*Sebastolobus alascanus*	Shortspine thornyhead
22	1	2.574	66.2	0.007973	0.900973	*Sebastes crameri*	Darkblotched rockfish
23	1	2.270	41.5	0.007029	0.908002	*Luidia foliolata*	
24	1	2.181	22.1	0.006754	0.914756	*Bathyraja interrupta*	Bering skate
25	1	2.108	36.4	0.006530	0.921286	*Lycodes cortezianus*	Bigfin eelpout
26	1	1.905	48.0	0.005899	0.927185	*Parastichopus leucothele*	
27	1	1.896	95.5	0.005873	0.933058	*Brisaster* sp.	
28	1	1.739	73.0	0.005386	0.938445	*Loligo opalescens*	California market squid
29	1	1.696	66.8	0.005254	0.943698	*Rathbunaster californicus*	
30	1	1.586	28.0	0.004911	0.948610	*Atheresthes stomias*	Arrowtooth flounder
31	1	1.248	45.0	0.003864	0.952474	*Sebastes goodei*	Chilipepper
32	1	1.212	75.1	0.003755	0.956228	*Brisaster* sp.	
33	1	1.120	47.1	0.003467	0.959695	*Oncorhynchus tshawytscha*	Chinook salmon
34	1	1.001	34.3	0.003100	0.962795	*Sebastes elongatus*	Greenstriped rockfish
35	1	0.785	55.9	0.002431	0.965227	*Sebastes paucispinis*	Bocaccio
36	1	0.782	33.6	0.002421	0.967648	*Ophiodon elongatus*	Lingcod
37	1	0.744	30.3	0.002305	0.969953	*Apristurus brunneus*	Brown cat shark
38	1	0.605	41.2	0.001875	0.971828	*Sebastes entomelas*	Widow rockfish
39	1	0.498	52.0	0.001543	0.973371	*Lopholithodes foraminatus*	Box crab
40	1	0.491	74.6	0.001520	0.974891	*Sebastes proriger*	Redstripe rockfish
41	1	0.444	68.1	0.001376	0.976266	*Metridium giganteum*	Gigantic anemone
42	1	0.389	97.3	0.001203	0.977470	*Sebastes reedi*	Yellowmouth rockfish
43	1	0.388	65.6	0.001203	0.978673	*Parmaturus xaniurus*	Filetail cat shark
44	1	0.369	60.8	0.001143	0.979816	*Trachurus symmetricus*	Jack mackerel
45	1	0.352	92.7	0.001090	0.980906	*Alosa sapidissima*	American shad
46	1	0.332	93.1	0.001028	0.981933	*Sebastes levis*	Cowcod
47	1	0.294	75.3	0.000911	0.982844	*Hippoglossus stenolepis*	Pacific halibut
48	1	0.294	66.6	0.000910	0.983754	*Thetys vagina*	Common salp
49	1	0.225	67.2	0.000697	0.984451	*Lycodes pacificus*	Blackbelly eelpout
50	1	0.219	41.0	0.000677	0.985127	*Sebastes babcocki*	Redbanded rockfish
51	1	0.216	39.2	0.000669	0.985796	*Cancer magister*	Dungeness crab
52	1	0.210	87.8	0.000652	0.986448	*Metridium* sp.	
53	1	0.191	59.9	0.000590	0.987038	*Sebastes pinniger*	Canary rockfish
54	1	0.185	48.5	0.000572	0.987610	*Torpedo californica*	Pacific electric ray

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
55	1	0.180	58.9	0.000556	0.988166	*Paractinostola faeculenta*	Rough purple sea anemone
56	1	0.175	65.9	0.000543	0.988709	*Pagurus* sp.	
57	1	0.149	54.6	0.000462	0.989171	*Ophiura sarsi*	
58	1	0.145	47.4	0.000449	0.989620	*Sebastes helvomaculatus*	Rosethorn rockfish
59	1	0.142	52.2	0.000439	0.990059	*Pseudostichopus mollis*	Sandy sea cucumber
60	1	0.140	89.3	0.000434	0.990493	*Sebastes rufus*	Bank rockfish
61	1	0.139	99.4	0.000432	0.990925	*Raja binoculata*	Big skate
62	1	0.130	100.0	0.000401	0.991326	*Sebastes borealis*	Shortraker rockfish
63	1	0.119	57.1	0.000368	0.991695	*Lycodes diapterus*	Black eelpout
64	1	0.118	47.3	0.000366	0.992061	*Sebastes aleutianus*	Rougheye rockfish
65	1	0.116	38.4	0.000358	0.992419	*Liponema brevicorne*	Tentacle-shedding anemone
66	1	0.115	31.2	0.000355	0.992773	*Pleurobranchaea californica*	California sea slug
67	1	0.092	68.2	0.000284	0.993057	*Argentina sialis*	Pacific argentine
68	1	0.087	56.6	0.000270	0.993326	*Hippasteria spinosa*	
69	1	0.086	76.0	0.000267	0.993593	*Periphylla periphylla*	
70	1	0.085	47.7	0.000264	0.993858	*Thrissacanthias penicillatus*	
71	1	0.083	84.4	0.000256	0.994114	Scyphozoa (class)	Jellyfish unident.
72	1	0.081	40.9	0.000251	0.994365	*Pandalus platyceros*	Spot shrimp
73	1	0.079	57.5	0.000243	0.994609	*Gadus macrocephalus*	Pacific cod
74	1	0.077	95.9	0.000239	0.994847	*Zoraster evermanni*	
75	1	0.074	47.6	0.000229	0.995076	Thaliacea (class)	Salps unident.
76	1	0.073	70.0	0.000226	0.995302	*Octopus californicus*	N. Pacific bigeye octopus
77	1	0.067	88.2	0.000208	0.995510	*Neptunea amianta*	
78	1	0.066	70.0	0.000203	0.995714	Cephalopoda (class)	Squid unident.
79	1	0.060	60.8	0.000187	0.995901	*Heterozonias alternatus*	
80	1	0.058	91.7	0.000181	0.996082	*Parastichopus californicus*	
81	1	0.057	79.7	0.000176	0.996258	*Mursia gaudichaudii*	
82	1	0.056	68.5	0.000173	0.996432	*Aphrocallistes vastus*	Clay pipe sponge
83	1	0.055	59.4	0.000171	0.996602	*Sebastes brevispinis*	Silvergray rockfish
84	1	0.048	86.2	0.000149	0.996751	*Sebastes melanostomus*	Blackgill rockfish
85	1	0.044	54.2	0.000136	0.996887	*Sebastes aurora*	Aurora rockfish
86	1	0.037	87.2	0.000113	0.997001	*Cancer productus*	Red rock crab
87	1	0.036	45.3	0.000113	0.997113	*Icelinus filamentosus*	Threadfin sculpin
88	1	0.036	29.3	0.000112	0.997225	*Careproctus melanurus*	Blacktail snailfish
89	1	0.036	86.4	0.000111	0.997336	*Pagurus tanneri*	Longhand hermit
90	1	0.033	56.9	0.000102	0.997438	*Stylasterias forreri*	
91	1	0.031	70.7	0.000096	0.997534	*Sebastes chlorostictus*	Greenspotted rockfish
92	1	0.030	98.1	0.000092	0.997626	*Buccinum strigillatum*	
93	1	0.028	73.1	0.000086	0.997712	*Sebastolobus altivelis*	Longspine thornyhead
94	1	0.027	44.0	0.000084	0.997796	*Pandalus jordani*	Ocean shrimp
95	1	0.025	61.6	0.000077	0.997873	*Hippasteria californica*	
96	1	0.025	100.0	0.000077	0.997950	*Bathyraja trachura*	Black skate
97	1	0.024	56.2	0.000074	0.998024	*Paralithodes californiensis*	
98	1	0.024	94.4	0.000073	0.998097	*Pycnopodia helianthoides*	
99	1	0.023	90.8	0.000071	0.998168	*Parastichopus* sp.	
100	1	0.022	68.0	0.000068	0.998236	*Paralithodes rathbuni*	
101	1	0.022	100.0	0.000068	0.998304	Onychoteuthidae	
102	1	0.022	85.0	0.000067	0.998371	Hormathiidae	
103	1	0.021	91.5	0.000066	0.998437	*Neptunea* sp.	
104	1	0.020	100.0	0.000062	0.998499	Porifera (phylum)	Vase sponge unident.
105	1	0.020	52.2	0.000061	0.998560	*Octopus leioderma*	Smoothskin octopus
106	1	0.019	86.1	0.000057	0.998618	*Molpadia intermedia*	
107	1	0.018	55.4	0.000057	0.998675	*Crossaster borealis*	
108	1	0.018	100.0	0.000057	0.998732	*Opisthoteuthis californiana*	Flapjack devilfish
109	1	0.016	83.2	0.000050	0.998781	*Pagurus capillatus*	Hairy hermit crab
110	1	0.016	46.0	0.000049	0.998831	Aphroditidae	Sea mouse unident.
111	1	0.014	55.5	0.000044	0.998875	*Pyrosoma atlanticum*	
112	1	0.014	100.0	0.000044	0.998919	*Antimora microlepis*	Pacific flatnose

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
113	1	0.013	100.0	0.000041	0.998960	Paguridae	Hermit crab unident.
114	1	0.012	81.1	0.000038	0.998999	*Mediaster aequalis*	
115	1	0.012	100.0	0.000036	0.999035	*Theragra chalcogramma*	Walleye pollock
116	1	0.012	45.8	0.000036	0.999071	*Chionoecetes tanneri*	True Tanner crab
117	1	0.010	100.0	0.000031	0.999103	*Gorgonocephalus eucnemis*	Basketstarfish
118	1	0.009	43.6	0.000029	0.999132	*Chilara taylori*	Spotted cusk-eel
119	1	0.009	74.2	0.000029	0.999161	Porifera (phylum)	Sponge unident.
120	1	0.009	61.3	0.000029	0.999190	*Pseudarchaster parelii*	
121	1	0.009	64.8	0.000029	0.999219	*Stylatula* sp.	Slender seawhips
122	1	0.009	71.5	0.000029	0.999248	*Diplopteraster multipes*	
123	1	0.009	100.0	0.000027	0.999275	*Pseudostichopus* sp.	
124	1	0.009	73.6	0.000026	0.999302	*Radulinus asprellus*	Slim sculpin
125	1	0.008	55.7	0.000025	0.999327	*Stomphia coccinea*	Swimming anemone
126	1	0.007	100.0	0.000023	0.999350	Platyhelminthes (phylum)	Flatworm
127	1	0.007	78.3	0.000023	0.999372	Actiniaria (order)	Sea anemone unident.
128	1	0.007	95.5	0.000021	0.999394	*Actinostola* sp.	
129	1	0.007	98.6	0.000021	0.999415	*Actinauge verrillii*	Reticulate anemone
130	1	0.006	44.2	0.000020	0.999435	*Xeneretmus latifrons*	Blacktip poacher
131	1	0.006	100.0	0.000020	0.999455	*Porichthys notatus*	Plainfin midshipman
132	1	0.006	100.0	0.000020	0.999474	*Anteliaster* sp.	
133	1	0.006	63.7	0.000020	0.999494	Myxinidae	Hagfish
134	1	0.006	84.7	0.000019	0.999513	Actinostolidae	
135	1	0.006	94.4	0.000018	0.999531	*Stomphia* sp.	
136	1	0.006	100.0	0.000018	0.999549	*Urticina* sp.	Mottled anemone
137	1	0.006	52.1	0.000018	0.999567	*Vampyroteuthis infernalis*	
138	1	0.006	98.2	0.000017	0.999585	*Tritonia* sp.	
139	1	0.005	69.7	0.000016	0.999601	*Pleuronichthys decurrens*	Curlfin sole
140	1	0.005	100.0	0.000016	0.999616	*Orthasterias koehleri*	
141	1	0.005	63.3	0.000016	0.999632	*Calinaticina oldroyi*	
142	1	0.005	100.0	0.000015	0.999647	*Hippoglossoides elassodon*	Flathead sole
143	1	0.004	78.1	0.000014	0.999660	*Beroe* sp.	
144	1	0.004	100.0	0.000014	0.999674	*Paralomis multispina*	
145	1	0.004	89.9	0.000013	0.999687	*Pannychia moseleyi*	
146	1	0.004	41.3	0.000012	0.999699	*Bathyagonus pentacanthus*	Bigeye poacher
147	1	0.004	79.6	0.000011	0.999711	*Fusitriton oregonensis*	Oregon triton
148	1	0.004	100.0	0.000011	0.999722	*Pandalus* sp.	
149	1	0.003	65.2	0.000011	0.999732	*Myoxoderma sacculatum*	
150	1	0.003	75.8	0.000010	0.999743	*Thaleichthys pacificus*	Eulachon
151	1	0.003	76.9	0.000010	0.999753	*Pteraster tesselatus*	
152	1	0.003	62.2	0.000010	0.999763	*Pseudarchaster parelii*	
153	1	0.003	52.2	0.000010	0.999773	*Rossia pacifica*	E. Pacific bobtail squid
154	1	0.003	59.9	0.000010	0.999782	*Tritonia diomedea*	Rosy tritonia
155	1	0.003	70.9	0.000009	0.999791	*Dipsacaster* sp.	
156	1	0.003	100.0	0.000009	0.999800	*Eptatretus deani*	Black hagfish
157	1	0.003	100.0	0.000008	0.999809	*Pagurus aleuticus*	Aleutian hermit
158	1	0.003	78.0	0.000008	0.999817	Holothuroidea (class)	Pineapple sea cucumber
159	1	0.003	68.1	0.000008	0.999824	Rajiidae	Skate unident.
160	1	0.002	70.8	0.000007	0.999832	*Sebastes wilsoni*	Pygmy rockfish
161	1	0.002	69.7	0.000007	0.999839	*Cololabis saira*	Pacific saury
162	1	0.002	69.9	0.000007	0.999846	*Benthoctopus* sp.	
163	1	0.002	100.0	0.000007	0.999853	*Solaster paxillatus*	
164	1	0.002	82.9	0.000006	0.999859	*Buccinum viridum*	Turban whelk
165	1	0.002	61.9	0.000005	0.999864	*Crangon communis*	Twospine crangon
166	1	0.002	100.0	0.000005	0.999869	*Neptunea pribiloffensis*	Pribilof whelk
167	1	0.002	100.0	0.000005	0.999874	*Histioteuthis hoylei*	
168	1	0.002	99.0	0.000005	0.999879	Gastropoda (class)	Snail eggs unident.
169	1	0.002	56.7	0.000005	0.999884	*Careproctus* sp.	
170	1	0.002	100.0	0.000005	0.999889	*Chrysaora melanaster*	

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
171	1	0.001	100.0	0.000004	0.999893	*Apristurus kampae*	Longnose cat shark
172	1	0.001	100.0	0.000004	0.999897	*Onychoteuthis borealijaponicus*	Boreal clubhook squid
173	1	0.001	72.9	0.000004	0.999901	*Neomenia* sp.	
174	1	0.001	63.2	0.000004	0.999906	*Crossaster papposus*	Rose sea star
175	1	0.001	94.9	0.000004	0.999909	Gastropoda (class)	Gastropod unident.
176	1	0.001	72.0	0.000004	0.999913	*Lampetra tridentata*	Pacific lamprey
177	1	0.001	46.6	0.000003	0.999916	*Bathyagonus* sp.	Starsnout poacher
178	1	0.001	82.8	0.000003	0.999920	*Ctenodiscus crispatus*	Common mud star
179	1	0.001	80.7	0.000003	0.999923	*Munida quadrispina*	
180	1	0.001	100.0	0.000003	0.999926	*Chiroteuthis* sp.	
181	1	0.001	81.4	0.000003	0.999929	Ascidiacea (class)	Tunicate unident.
182	1	0.001	100.0	0.000003	0.999932	*Ceramaster leptoceramus*	
183	1	0.001	88.3	0.000003	0.999935	Cephalopoda (class)	Squid unident.
184	1	0.001	69.7	0.000003	0.999938	*Icelinus oculatus*	Frogmouth sculpin
185	1	0.001	100.0	0.000003	0.999941	*Astropecten californicus*	
186	1	0.001	100.0	0.000002	0.999943	*Paguristes turgidus*	
187	1	0.001	69.6	0.000002	0.999945	Holothuroidea (class)	Sea cucumber unident.
188	1	0.001	100.0	0.000002	0.999948	*Berryteuthis magister*	Magistrate armhook squid
189	1	0.001	87.4	0.000002	0.999950	*Lophaster furcilliger*	
190	1	0.001	100.0	0.000002	0.999952	Heteropoda (class)	
191	1	0.001	70.1	0.000002	0.999955	*Chauliodus macouni*	Pacific viperfish
192	1	0.001	100.0	0.000002	0.999957	*Corallimorphus* sp.	
193	1	0.001	39.4	0.000002	0.999959	Myctophidae	Lanternfish
194	1	0.001	100.0	0.000002	0.999961	*Mediaster* sp.	
195	1	0.001	100.0	0.000002	0.999962	*Hexagrammos decagrammus*	Kelp greenling
196	1	0.001	69.7	0.000002	0.999964	*Ronquilus jordani*	Northern ronquil
197	1	0.001	80.0	0.000002	0.999966	*Pasiphaea pacifica*	Pacific glass shrimp
198	1	0.001	100.0	0.000002	0.999968	*Microgadus proximus*	Pacific tomcod
199	1	0.001	100.0	0.000002	0.999969	*Buccinum* sp.	
200	1	0.001	100.0	0.000002	0.999971	*Ptilosarcus gurneyi*	Orange sea pen
201	1	<0.001	49.8	0.000001	0.999972	Nudibranchia (order)	Nudibranch unident.
202	1	<0.001	100.0	0.000001	0.999974	*Xeneretmus leiops*	Smootheye poacher
203	1	<0.001	73.5	0.000001	0.999975	*Laqueus californianus*	
204	1	<0.001	100.0	0.000001	0.999976	*Lycodapus fierasfer*	Blackmouth eelpout
205	1	<0.001	93.0	0.000001	0.999978	Gastropoda (class)	Snail unident.
206	1	<0.001	75.3	0.000001	0.999979	*Neptunea tabulata*	Tabled whelk
207	1	<0.001	100.0	0.000001	0.999980	*Pteraster coscinopeplus*	Deepwater pteraster
208	1	<0.001	72.6	0.000001	0.999981	*Pandalopsis dispar*	Sidestripe shrimp
209	1	<0.001	100.0	0.000001	0.999982	*Hippasteria* sp.	
210	1	<0.001	100.0	0.000001	0.999984	*Colus trophius*	
211	1	<0.001	100.0	0.000001	0.999984	*Lycodapus* sp.	
212	1	<0.001	72.0	0.000001	0.999985	*Luidiaster dawsoni*	
213	1	<0.001	100.0	0.000001	0.999986	*Crangon* sp.	
214	1	<0.001	100.0	0.000001	0.999987	*Pseudarchaster pussillus*	
215	1	<0.001	100.0	0.000001	0.999988	*Malacocottus zonurus*	Darkfin sculpin
216	1	<0.001	100.0	0.000001	0.999988	*Ophidion scrippsae*	Basketweave cusk-eel
217	1	<0.001	100.0	0.000001	0.999989	Aplacophora (class)	
218	1	<0.001	100.0	0.000001	0.999990	Cow-eye tunicate	Cow-eye tunicate
219	1	<0.001	100.0	0.000001	0.999990	*Careproctus gilberti*	Smalldisk snailfish
220	1	<0.001	100.0	0.000001	0.999991	*Ceramaster patagonicus*	Orange bat star
221	1	<0.001	100.0	0.000001	0.999992	*Aphrodita* sp.	
222	1	<0.001	100.0	0.000001	0.999992	*Actinernus* sp.	
223	1	<0.001	69.8	0.000001	0.999993	*Urticina* sp.	
224	1	<0.001	59.5	0.000000	0.999993	Polychaeta (class)	Polychaete worm unident.
225	1	<0.001	100.0	0.000000	0.999994	*Henricia leviuscula*	
226	1	<0.001	100.0	0.000000	0.999994	*Paricelinus hopliticus*	Thornback sculpin
227	1	<0.001	100.0	0.000000	0.999995	Sipuncula (phylum)	Sipunculid worm
228	1	<0.001	100.0	0.000000	0.999995	*Pandalus tridens*	Yellowleg pandalid

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
229	1	<0.001	100.0	0.000000	0.999996	*Pseudarchaster dissonus*	
230	1	<0.001	100.0	0.000000	0.999996	*Chiroteuthis calyx*	
231	1	<0.001	100.0	0.000000	0.999996	Thoracica (order)	Barnacle
232	1	<0.001	86.6	0.000000	0.999997	*Ophiopholis* sp.	
233	1	<0.001	100.0	0.000000	0.999997	*Buccinum* sp.	
234	1	<0.001	100.0	0.000000	0.999997	*Cymatogaster aggregata*	Shiner perch
235	1	<0.001	100.0	0.000000	0.999998	*Yoldia* sp.	
236	1	<0.001	100.0	0.000000	0.999998	*Nemichthys scolopaceus*	Slender snipe eel
237	1	<0.001	100.0	0.000000	0.999998	*Hydrolagus colliei*	
238	1	<0.001	100.0	0.000000	0.999998	*Asteronyx* sp.	
239	1	<0.001	100.0	0.000000	0.999999	*Pentamera* sp.	
240	1	<0.001	71.4	0.000000	0.999999	Elasmobranchi (subclass)	Shark egg case unident.
241	1	<0.001	100.0	0.000000	0.999999	*Callianassa* sp.	
242	1	<0.001	73.2	0.000000	0.999999	*Tarletonbeania* sp.	
243	1	<0.001	100.0	0.000000	0.999999	*Ophiacantus* sp.	
244	1	<0.001	100.0	0.000000	0.999999	*Bathypathes* sp.	
245	1	<0.001	100.0	0.000000	0.999999	*Apristurus brunneus*	Cat shark egg case
246	1	<0.001	100.0	0.000000	1.000000	Ophiuroidea (class)	Brittlestarfish unident.
247	1	<0.001	100.0	0.000000	1.000000	Isopoda (order)	Isopod unident.
248	1	<0.001	100.0	0.000000	1.000000	*Eualus* sp.	
249	1	<0.001	100.0	0.000000	1.000000	Scaphopoda (class)	Scaphopod unident.
250	1	<0.001	100.0	0.000000	1.000000	*Sebastes* sp.	Rockfish unident.
251	1	<0.001	100.0	0.000000	1.000000	*Poraniopsis inflata*	
252	1	<0.001	100.0	0.000000	1.000000	*Polinices* sp.	
253	1	<0.001	100.0	0.000000	1.000000	*Chorilia longipes*	Longhorned decorator crab
	Total	322.895					
1	2	40.067	18.5	0.220694	0.220694	*Microstomus pacificus*	Dover sole
2	2	27.337	20.7	0.150577	0.371271	*Merluccius productus*	Pacific hake
3	2	17.043	63.8	0.093873	0.465144	*Brisaster latifrons*	
4	2	13.881	22.5	0.076457	0.541601	*Glyptocephalus zachirus*	Rex sole
5	2	8.213	34.9	0.045236	0.586838	*Squalus acanthias*	Spiny dogfish
6	2	6.749	49.2	0.037172	0.624010	*Myoxoderma platyacanthum*	
7	2	6.084	13.4	0.033511	0.657521	*Sebastolobus alascanus*	Shortspine thornyhead
8	2	5.875	17.1	0.032362	0.689883	*Raja rhina*	Longnose skate
9	2	5.488	15.8	0.030230	0.720113	*Anoplopoma fimbria*	Sablefish
10	2	4.616	98.0	0.025426	0.745539	*Ophiura sarsi*	
11	2	3.842	39.4	0.021163	0.766703	*Allocentrotus fragilis*	Orange-pink sea urchin
12	2	3.786	19.3	0.020855	0.787558	*Lycodes cortezianus*	Bigfin eelpout
13	2	3.203	27.3	0.017645	0.805202	*Sebastes aurora*	Aurora rockfish
14	2	3.001	29.4	0.016528	0.821730	*Atheresthes stomias*	Arrowtooth flounder
15	2	2.504	31.8	0.013793	0.835524	*Sebastolobus altivelis*	Longspine thornyhead
16	2	2.436	55.7	0.013419	0.848943	*Sebastes diploproa*	Splitnose rockfish
17	2	2.281	83.3	0.012566	0.861508	*Brisaster* sp.	
18	2	2.162	16.6	0.011911	0.873419	*Apristurus brunneus*	Brown cat shark
19	2	1.984	90.5	0.010926	0.884345	*Sebastes alutus*	Pacific ocean perch
20	2	1.959	51.5	0.010789	0.895134	*Sebastes melanostomus*	Blackgill rockfish
21	2	1.877	18.5	0.010341	0.905475	*Bathyraja interrupta*	Bering skate
22	2	1.646	39.5	0.009064	0.914539	*Liponema brevicorne*	Tentacle-shedding anemone
23	2	1.631	18.7	0.008986	0.923525	*Paractinostola faeculenta*	Rough purple sea anemone
24	2	1.311	64.5	0.007221	0.930746	*Aphrocallistes vastus*	Clay pipe sponge
25	2	0.911	64.0	0.005017	0.935763	*Hippoglossus stenolepis*	Pacific halibut
26	2	0.885	35.8	0.004876	0.940639	*Lyopsetta exilis*	Slender sole
27	2	0.768	59.6	0.004233	0.944872	*Pseudostichopus mollis*	Sandy sea cucumber
28	2	0.756	31.9	0.004164	0.949036	*Lycodes diapterus*	Black eelpout
29	2	0.753	74.2	0.004146	0.953181	*Moroteuthis robusta*	Robust clubhook squid
30	2	0.729	48.4	0.004016	0.957198	*Neptunea* sp.	
31	2	0.585	97.9	0.003221	0.960419	*Pagurus tanneri*	Longhand hermit
32	2	0.556	48.3	0.003061	0.963480	*Hydrolagus colliei*	Spotted ratfish

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
33	2	0.481	34.4	0.002650	0.966130	*Neptunea amianta*	
34	2	0.478	84.8	0.002634	0.968765	*Pannychia moseleyi*	
35	2	0.452	40.2	0.002488	0.971253	*Parmaturus xaniurus*	Filetail cat shark
36	2	0.326	55.3	0.001794	0.973046	*Albatrossia pectoralis*	Giant grenadier
37	2	0.283	53.8	0.001559	0.974605	*Rathbunaster californicus*	
38	2	0.277	37.8	0.001523	0.976129	*Chionoecetes tanneri*	True Tanner crab
39	2	0.260	63.9	0.001433	0.977561	*Parastichopus leucothele*	
40	2	0.215	100.0	0.001187	0.978748	*Galeorhinus galeus*	Soupfin shark
41	2	0.212	29.6	0.001166	0.979914	*Sebastes crameri*	Darkblotched rockfish
42	2	0.200	32.4	0.001103	0.981017	*Thrissacanthias penicillatus*	
43	2	0.198	39.9	0.001092	0.982110	*Bothrocara brunneum*	Twoline eelpout
44	2	0.183	51.2	0.001007	0.983117	*Sebastes borealis*	Shortraker rockfish
45	2	0.159	57.5	0.000878	0.983995	*Actinauge verrillii*	Reticulate anemone
46	2	0.156	39.5	0.000858	0.984853	*Opisthoteuthis californiana*	Flapjack devilfish
47	2	0.154	54.3	0.000850	0.985703	*Eopsetta jordani*	Petrale sole
48	2	0.147	50.2	0.000808	0.986511	*Luidia foliolata*	
49	2	0.142	31.9	0.000783	0.987294	*Heterozonias alternatus*	
50	2	0.131	37.9	0.000720	0.988014	*Octopus dofleini*	Giant octopus
51	2	0.126	85.9	0.000694	0.988708	*Trachurus symmetricus*	Jack mackerel
52	2	0.123	32.6	0.000680	0.989388	*Careproctus melanurus*	Blacktail snailfish
53	2	0.117	74.6	0.000647	0.990035	*Sebastes aleutianus*	Rougheye rockfish
54	2	0.117	42.9	0.000642	0.990677	*Neptunea pribiloffensis*	Pribilof whelk
55	2	0.115	41.6	0.000635	0.991312	*Antimora microlepis*	Pacific flatnose
56	2	0.086	40.2	0.000473	0.991786	*Thetys vagina*	Common salp
57	2	0.084	38.2	0.000465	0.992250	Myxinidae	Hagfish
58	2	0.082	38.5	0.000450	0.992701	Thaliacea (class)	Salps unident.
59	2	0.073	72.7	0.000400	0.993100	*Embassichthys bathybius*	Deepsea sole
60	2	0.056	38.6	0.000310	0.993411	*Sebastes babcocki*	Redbanded rockfish
61	2	0.048	47.4	0.000263	0.993674	*Berryteuthis magister*	Magistrate armhook squid
62	2	0.046	93.6	0.000254	0.993928	*Molpadia intermedia*	
63	2	0.043	50.3	0.000239	0.994166	*Hippasteria californica*	
64	2	0.043	100.0	0.000236	0.994403	*Bathyraja aleutica*	Aleutian skate
65	2	0.041	63.8	0.000229	0.994631	*Octopus californicus*	N. Pacific bigeye octopus
66	2	0.039	45.4	0.000214	0.994845	*Pagurus* sp.	
67	2	0.038	76.6	0.000212	0.995057	Cephalopoda (class)	Squid unident.
68	2	0.037	73.3	0.000204	0.995261	*Neptunea lyrata*	Lyre whelk
69	2	0.036	36.9	0.000197	0.995458	Porifera (phylum)	Sponge unident.
70	2	0.032	58.3	0.000174	0.995632	*Benthoctopus* sp.	
71	2	0.031	97.1	0.000171	0.995802	*Asteronyx loveni*	
72	2	0.029	50.4	0.000157	0.995960	Hormathiidae	
73	2	0.028	85.2	0.000157	0.996116	*Periphylla periphylla*	
74	2	0.027	52.8	0.000151	0.996268	*Stylatula* sp.	Slender seawhips
75	2	0.027	100.0	0.000149	0.996416	*Lopholithodes foraminatus*	Box crab
76	2	0.026	100.0	0.000141	0.996557	*Sebastes rufus*	Bank rockfish
77	2	0.024	52.2	0.000131	0.996688	Actinostolidae	
78	2	0.021	56.4	0.000117	0.996805	*Crossaster borealis*	
79	2	0.021	78.9	0.000115	0.996920	*Anteliaster* sp.	
80	2	0.021	80.1	0.000114	0.997033	*Chrysaora melanaster*	
81	2	0.019	70.4	0.000105	0.997138	*Pasiphaea pacifica*	Pacific glass shrimp
82	2	0.019	84.3	0.000104	0.997242	*Parophrys vetulus*	English sole
83	2	0.018	69.7	0.000101	0.997344	*Sebastes helvomaculatus*	Rosethorn rockfish
84	2	0.018	38.8	0.000101	0.997444	*Pteraster coscinopeplus*	Deepwater pteraster
85	2	0.018	100.0	0.000100	0.997544	*Ophiodon elongatus*	Lingcod
86	2	0.018	61.0	0.000099	0.997643	*Fusitriton oregonensis*	Oregon triton
87	2	0.018	43.0	0.000099	0.997742	*Histioteuthis* sp.	Jewel squids
88	2	0.017	100.0	0.000094	0.997836	*Oncorhynchus tshawytscha*	Chinook salmon
89	2	0.017	91.7	0.000093	0.997929	*Chorilia longipes*	Longhorned decorator crab
90	2	0.015	99.9	0.000082	0.998011	Scaphopoda (class)	Scaphopod unident.

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
91	2	0.015	78.0	0.000080	0.998092	*Ctenodiscus crispatus*	Common mud star
92	2	0.014	73.2	0.000079	0.998171	*Octopus leioderma*	Smoothskin octopus
93	2	0.014	33.5	0.000076	0.998247	Aphroditidae	Sea mouse unident.
94	2	0.014	100.0	0.000076	0.998323	*Sebastes brevispinis*	Silvergray rockfish
95	2	0.012	34.5	0.000068	0.998391	*Nezumia stelgidolepis*	California grenadier
96	2	0.011	54.0	0.000062	0.998454	Scyphozoa (class)	Jellyfish unident.
97	2	0.011	63.4	0.000062	0.998515	*Pyrosoma atlanticum*	
98	2	0.011	100.0	0.000059	0.998574	Hexactinellida (class)	Glass sponge
99	2	0.010	99.7	0.000055	0.998629	*Coryphaenoides acrolepis*	Pacific grenadier
100	2	0.010	72.7	0.000053	0.998682	*Diplopteraster multipes*	
101	2	0.009	100.0	0.000052	0.998734	*Sebastes flavidus*	Yellowtail rockfish
102	2	0.009	53.9	0.000052	0.998786	*Eptatretus deani*	Black hagfish
103	2	0.009	99.5	0.000050	0.998836	Polychaeta (class)	Polychaete worm unident.
104	2	0.008	100.0	0.000044	0.998880	*Cancer magister*	Dungeness crab
105	2	0.007	54.5	0.000040	0.998920	*Hippasteria spinosa*	
106	2	0.007	32.0	0.000040	0.998960	*Neomenia* sp.	
107	2	0.007	74.5	0.000037	0.998997	*Sebastes zacentrus*	Sharpchin rockfish
108	2	0.006	73.7	0.000035	0.999032	*Metridium giganteum*	Gigantic anemone
109	2	0.006	100.0	0.000034	0.999066	Echinoida (order)	Sea urchin unident.
110	2	0.006	69.4	0.000034	0.999100	*Luidiaster dawsoni*	
111	2	0.006	61.4	0.000033	0.999133	Actiniaria (order)	Sea anemone unident.
112	2	0.006	50.9	0.000033	0.999166	*Histioteuthis hoylei*	
113	2	0.006	29.0	0.000032	0.999198	*Pseudarchaster parelii*	
114	2	0.005	76.2	0.000029	0.999227	Actiniaria (order)	Sea anemone unident.
115	2	0.005	100.0	0.000028	0.999254	*Nearchaster* sp.	
116	2	0.005	100.0	0.000026	0.999281	*Eptatretus stouti*	Pacific hagfish
117	2	0.005	66.0	0.000025	0.999305	*Psolus* sp.	
118	2	0.004	62.3	0.000024	0.999330	*Buccinum strigillatum*	
119	2	0.004	100.0	0.000024	0.999354	*Sebastes entomelas*	Widow rockfish
120	2	0.004	83.3	0.000022	0.999376	*Beroe sp.*	
121	2	0.004	90.8	0.000022	0.999398	*Amphiophiura ponderosa*	
122	2	0.004	55.2	0.000020	0.999418	*Careproctus* sp.	
123	2	0.004	100.0	0.000019	0.999437	*Solaster paxillatus*	
124	2	0.003	54.2	0.000019	0.999456	Pennatulacea (order)	Sea pen or sea whip
125	2	0.003	95.4	0.000019	0.999475	Rajiidae	Skate unident.
126	2	0.003	100.0	0.000018	0.999493	*Dipsacaster* sp.	
127	2	0.003	39.3	0.000018	0.999511	Myctophidae	Lanternfish
128	2	0.003	100.0	0.000018	0.999529	*Stenobrachius nannochir*	Garnet lampfish
129	2	0.003	70.0	0.000017	0.999546	*Bathyagonus pentacanthus*	Bigeye poacher
130	2	0.003	88.9	0.000017	0.999563	*Ophiopholis* sp.	
131	2	0.003	100.0	0.000017	0.999580	*Lamprogrammus niger*	Paperbone cusk-eel
132	2	0.003	54.2	0.000017	0.999597	Gastropoda (class)	Snail eggs unident.
133	2	0.003	73.9	0.000016	0.999613	*Pseudarchaster parelii*	
134	2	0.003	52.0	0.000015	0.999627	*Loligo opalescens*	California market squid
135	2	0.002	63.9	0.000014	0.999641	*Stylasterias forreri*	
136	2	0.002	52.6	0.000013	0.999654	*Actinostola* sp.	
137	2	0.002	98.5	0.000012	0.999666	*Asteronyx* sp.	
138	2	0.002	100.0	0.000012	0.999678	*Pandalus platyceros*	Spot shrimp
139	2	0.002	100.0	0.000011	0.999689	*Pagurus capillatus*	Hairy hermit crab
140	2	0.002	79.4	0.000011	0.999700	*Myoxoderma sacculatum*	
141	2	0.002	62.9	0.000011	0.999710	Holothuroidea (class)	Pineapple sea cucumber
142	2	0.002	100.0	0.000010	0.999720	*Apristurus kampae*	Longnose cat shark
143	2	0.002	100.0	0.000010	0.999731	*Sebastes jordani*	Shortbelly rockfish
144	2	0.002	47.9	0.000010	0.999741	*Tactostoma macropus*	Longfin dragonfish
145	2	0.002	100.0	0.000009	0.999750	*Mediaster aequalis*	
146	2	0.002	80.8	0.000009	0.999759	*Icelinus filamentosus*	Threadfin sculpin
147	2	0.002	46.7	0.000009	0.999767	*Ampheraster marianus*	
148	2	0.002	100.0	0.000009	0.999776	*Brisaster* sp.	

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
149	2	0.002	64.9	0.000008	0.999784	Nudibranchia (order)	Nudibranch unident.
150	2	0.002	79.5	0.000008	0.999793	*Taningia danae*	Rhomboid squid
151	2	0.002	57.8	0.000008	0.999801	*Bathylagus* sp.	Blacksmelt unident.
152	2	0.001	55.4	0.000008	0.999809	*Zoraster evermanni*	
153	2	0.001	69.8	0.000008	0.999817	*Chiroteuthis* sp.	
154	2	0.001	100.0	0.000008	0.999825	*Raja binoculata*	
155	2	0.001	100.0	0.000007	0.999832	Ascidiacea (class)	Compound ascidian unident.
156	2	0.001	100.0	0.000007	0.999839	*Metridium* sp.	
157	2	0.001	100.0	0.000007	0.999846	Ascidiacea (class)	Tunicate unident.
158	2	0.001	70.0	0.000007	0.999852	*Cryptopeltaster lepidonotus*	
159	2	0.001	100.0	0.000006	0.999859	*Vampyroteuthis infernalis*	
160	2	0.001	79.3	0.000006	0.999865	*Pasiphaea tarda*	Crimson pasiphaeid
161	2	0.001	83.0	0.000006	0.999871	Ophiuroidea (class)	Brittlestarfish unident.
162	2	0.001	49.9	0.000006	0.999877	*Chauliodus macouni*	Pacific viperfish
163	2	0.001	50.0	0.000006	0.999883	Holothuroidea (class)	Sea cucumber unident.
164	2	0.001	86.9	0.000006	0.999888	*Eualus macrophthalmus*	
165	2	0.001	85.2	0.000005	0.999894	*Aristostomias scintillans*	Shining loosejaw
166	2	0.001	100.0	0.000005	0.999898	*Henricia* sp.	
167	2	0.0	49.4	0.000005	0.999903	*Bathybembix bairdii*	
168	2	0.001	59.4	0.000005	0.999908	*Lampanyctus* sp.	
169	2	0.001	100.0	0.000004	0.999912	Bivalvia (class)	Bivalve unident.
170	2	0.001	100.0	0.000004	0.999916	*Pagurus kennerlyi*	Bluespine hermit
171	2	0.001	100.0	0.000004	0.999920	*Lophaster furcilliger*	
172	2	0.001	100.0	0.000004	0.999923	Zoarcidae	Eelpout
173	2	0.001	100.0	0.000003	0.999926	*Cololabis saira*	Pacific saury
174	2	0.001	100.0	0.000003	0.999929	*Lampanyctus ritteri*	Broadfin lanternfish
175	2	0.001	100.0	0.000003	0.999932	*Neptunea* sp.	*Neptunea* sp. eggs
176	2	<0.001	100.0	0.000003	0.999935	*Bathyraja trachura*	Black skate
177	2	<0.001	88.9	0.000002	0.999937	*Pteraster tesselatus*	
178	2	<0.001	100.0	0.000002	0.999940	*Stomphia coccinea*	Swimming anemone
179	2	<0.001	100.0	0.000002	0.999942	*Stenobrachius* sp.	
180	2	<0.001	100.0	0.000002	0.999944	Invertebrate	Invertebrate unident.
181	2	<0.001	70.2	0.000002	0.999947	*Pseudarchaster dissonus*	
182	2	<0.001	100.0	0.000002	0.999949	Cephalopoda (class)	Squid unident.
183	2	<0.001	100.0	0.000002	0.999951	*Onychoteuthis borealijaponicus*	Boreal clubhook squid
184	2	<0.001	100.0	0.000002	0.999953	Bathylagidae	Deepsea smelt
185	2	<0.001	55.6	0.000002	0.999955	*Apristurus brunneus*	Cat shark egg case
186	2	<0.001	100.0	0.000002	0.999957	*Pandalus tridens*	Yellowleg pandalid
187	2	<0.001	100.0	0.000002	0.999959	*Xeneretmus latifrons*	Blacktip poacher
188	2	<0.001	66.2	0.000002	0.999961	*Eualus* sp.	
189	2	<0.001	100.0	0.000002	0.999964	*Lampetra tridentata*	Pacific lamprey
190	2	<0.001	100.0	0.000002	0.999964	Osteichthyes (class)	Fish larvae unident.
191	2	<0.001	71.0	0.000002	0.999965	*Antipathes* sp.	
192	2	<0.001	100.0	0.000001	0.999967	*Alepocephalus tenebrosus*	California slickhead
193	2	<0.001	100.0	0.000001	0.999968	Osteichthyes (class)	Fish unident.
194	2	<0.001	100.0	0.000001	0.999970	*Pleurobranchaea californica*	California sea slug
195	2	<0.001	100.0	0.000001	0.999971	*Chilara taylori*	Spotted cusk-eel
196	2	<0.001	83.0	0.000001	0.999973	*Buccinum viridum*	Turban whelk
197	2	<0.001	100.0	0.000001	0.999974	*Xeneretmus leiops*	Smootheye poacher
198	2	<0.001	71.2	0.000001	0.999975	Asteroidea (class)	Starfish unident.
199	2	<0.001	100.0	0.000001	0.999976	*Bathypathes* sp.	
200	2	<0.001	75.9	0.000001	0.999978	Elasmobranchi (subclass)	Shark egg case unident.
201	2	<0.001	100.0	0.000001	0.999979	*Ampheraster* sp.	
202	2	<0.001	100.0	0.000001	0.999980	*Notolepsis risso*	Ribbon barracudina
203	2	<0.001	100.0	0.000001	0.999981	*Octopoteuthis deletron*	
204	2	<0.001	100.0	0.000001	0.999982	*Crossaster papposus*	Rose sea star
205	2	<0.001	100.0	0.000001	0.999983	*Swiftia* sp.	
206	2	<0.001	100.0	0.000001	0.999984	*Pagurus aleuticus*	Aleutian hermit

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
207	2	<0.001	100.0	0.000001	0.999984	*Nemichthys scolopaceus*	Slender snipe eel
208	2	<0.001	100.0	0.000001	0.999985	*Colus* sp.	
209	2	<0.001	100.0	0.000001	0.999986	*Tritonia* sp.	
210	2	<0.001	74.2	0.000001	0.999987	*Mediaster tenellus*	
211	2	<0.001	70.0	0.000001	0.999988	*Calliostoma platinum*	Silvery topsnail
212	2	<0.001	100.0	0.000001	0.999988	*Corallimorphus* sp.	
213	2	<0.001	88.9	0.000001	0.999989	Brachiopoda (class)	Lampshells unident.
214	2	<0.001	100.0	0.000001	0.999990	*Plicifusus* sp.	
215	2	<0.001	100.0	0.000001	0.999990	*Virgularia* sp.	Smoothstem seawhip
216	2	<0.001	100.0	0.000001	0.999991	*Neotypaera giga*	
217	2	<0.001	100.0	0.000001	0.999992	Heteropoda (class)	
218	2	<0.001	100.0	0.000001	0.999992	Polychaeta (class)	Tube worm unident.
219	2	<0.001	100.0	0.000001	0.999993	*Gonatus onyx*	Clawed armhook squid
220	2	<0.001	100.0	0.000001	0.999993	*Trachipterus altivelis*	King-of-the-salmon
221	2	<0.001	100.0	0.000001	0.999994	*Bathyagonus nigripinnis*	Blackfin poacher
222	2	<0.001	100.0	0.000001	0.999995	*Laqueus californianus*	
223	2	<0.001	100.0	0.000001	0.999995	*Icichthys lockingtoni*	Medusafish
224	2	<0.001	100.0	0.000001	0.999996	*Neptunea ithia*	
225	2	<0.001	100.0	0.000000	0.999996	*Pseudarchaster* sp.	
226	2	<0.001	100.0	0.000000	0.999996	*Parastichopus* sp.	
227	2	<0.001	100.0	0.000000	0.999997	*Calcigorgia* sp.	
228	2	<0.001	100.0	0.000000	0.999997	*Actinernus sp.*	
229	2	<0.001	100.0	0.000000	0.999998	Sipuncula (phylum)	Sipunculid worm
230	2	<0.001	100.0	0.000000	0.999998	*Periphylla* sp.	
231	2	<0.001	71.6	0.000000	0.999998	*Leuroglossus* sp.	
232	2	<0.001	100.0	0.000000	0.999998	*Polinices* sp.	
233	2	<0.001	100.0	0.000000	0.999998	*Umbellula* sp.	
234	2	<0.001	69.7	0.000000	0.999999	*Crangon communis*	Twospine crangon
235	2	<0.001	69.7	0.000000	0.999999	*Tarletonbeania* sp.	
236	2	<0.001	100.0	0.000000	0.999999	*Dicrolene filamentosa*	Threadfin cusk-eel
237	2	<0.001	100.0	0.000000	0.999999	*Tarletonbeania crenularis*	Blue lanternfish
238	2	<0.001	74.2	0.000000	0.999999	*Hyas lyratus*	Pacific lyre crab
239	2	<0.001	100.0	0.000000	0.999999	*Colus tahwitanus*	
240	2	<0.001	100.0	0.000000	0.999999	*Polinices pallidus*	Pale moonsnail
241	2	<0.001	100.0	0.000000	0.999999	*Argyropelecus* sp.	
242	2	<0.001	100.0	0.000000	1.000000	*Poraniopsis inflata*	
243	2	<0.001	100.0	0.000000	1.000000	*Ophiacantus* sp.	
244	2	<0.001	100.0	0.000000	1.000000	*Delectopecten vancouverensis*	Vancouver scallop
245	2	<0.001	100.0	0.000000	1.000000	*Pandalus* sp.	
246	2	<0.001	100.0	0.000000	1.000000	Bivalvia (class)	Bivalve unident.
247	2	<0.001	100.0	0.000000	1.000000	*Gnathophausia ingens*	
248	2	<0.001	100.0	0.000000	1.000000	*Paraphelliactis pabista*	
249	2	<0.001	100.0	0.000000	1.000000	Isopoda (order)	Isopod unident.
	Total	181.549					
1	3	20.117	21.2	0.227499	0.227499	*Microstomus pacificus*	Dover sole
2	3	19.211	14.6	0.217259	0.444758	*Sebastolobus altivelis*	Longspine thornyhead
3	3	11.315	29.9	0.127962	0.572720	*Anoplopoma fimbria*	Sablefish
4	3	9.412	26.2	0.106446	0.679166	*Chionoecetes tanneri*	True Tanner crab
5	3	5.128	19.2	0.057991	0.737157	*Sebastolobus alascanus*	Shortspine thornyhead
6	3	3.206	59.0	0.036259	0.773417	*Brisaster latifrons*	
7	3	2.750	25.4	0.031100	0.804517	*Albatrossia pectoralis*	Giant grenadier
8	3	1.620	21.9	0.018320	0.822836	*Merluccius productus*	Pacific hake
9	3	1.493	13.6	0.016881	0.839717	*Apristurus brunneus*	Brown cat shark
10	3	0.990	51.1	0.011193	0.850910	*Allocentrotus fragilis*	Orange-pink sea urchin
11	3	0.967	56.2	0.010938	0.861848	*Myoxoderma platyacanthum*	
12	3	0.902	32.9	0.010196	0.872045	*Lycodes diapterus*	Black eelpout
13	3	0.837	33.7	0.009468	0.881512	*Alepocephalus tenebrosus*	California slickhead
14	3	0.807	23.6	0.009123	0.890635	*Antimora microlepis*	Pacific flatnose

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
15	3	0.645	18.4	0.007294	0.897930	*Paractinostola faeculenta*	Rough purple sea anemone
16	3	0.549	22.3	0.006210	0.904139	*Bothrocara brunneum*	Twoline eelpout
17	3	0.547	17.1	0.006182	0.910321	*Heterozonias alternatus*	
18	3	0.541	34.7	0.006114	0.916436	*Coryphaenoides acrolepis*	Pacific grenadier
19	3	0.534	44.4	0.006041	0.922477	*Glyptocephalus zachirus*	Rex sole
20	3	0.526	23.8	0.005954	0.928431	*Raja rhina*	Longnose skate
21	3	0.467	20.0	0.005279	0.933710	*Embassichthys bathybius*	Deepsea sole
22	3	0.451	55.7	0.005099	0.938809	*Aphrocallistes vastus*	Clay pipe sponge
23	3	0.420	72.7	0.004751	0.943559	Heart urchin unident.	Heart urchin unident.
24	3	0.415	26.1	0.004698	0.948257	*Neptunea amianta*	
25	3	0.409	56.8	0.004628	0.952885	*Parmaturus xaniurus*	Filetail cat shark
26	3	0.401	31.2	0.004539	0.957424	*Bathyraja trachura*	Black skate
27	3	0.386	39.0	0.004362	0.961786	*Bathybembix bairdii*	
28	3	0.331	26.7	0.003745	0.965532	*Thrissacanthias penicillatus*	
29	3	0.254	41.2	0.002876	0.968408	*Opisthoteuthis californiana*	Flapjack devilfish
30	3	0.241	42.4	0.002726	0.971134	*Lycodes cortezianus*	Bigfin eelpout
31	3	0.219	37.0	0.002480	0.973614	*Careproctus melanurus*	Blacktail snailfish
32	3	0.154	29.8	0.001738	0.975351	Myxinidae	Hagfish unident.
33	3	0.143	50.8	0.001618	0.976970	*Squalus acanthias*	Spiny dogfish
34	3	0.143	35.6	0.001613	0.978583	*Talismania bifurcata*	Threadfin slickhead
35	3	0.131	40.3	0.001482	0.980065	*Hippasteria californica*	
36	3	0.111	45.4	0.001254	0.981318	*Zoraster evermanni*	
37	3	0.084	24.5	0.000946	0.982265	Thaliacea unident.	Salps unident.
38	3	0.073	61.0	0.000826	0.983091	*Bathyraja interrupta*	Bering skate
39	3	0.063	24.3	0.000717	0.983808	*Crossaster borealis*	
40	3	0.062	72.4	0.000700	0.984508	*Pagurus* sp.	
41	3	0.059	28.7	0.000666	0.985173	*Neptunea pribiloffensis*	Pribilof whelk
42	3	0.054	48.7	0.000612	0.985786	*Octopus dofleini*	Giant octopus
43	3	0.051	93.8	0.000577	0.986363	Ophiuroidea (class)	Brittlestarfish unident.
44	3	0.050	30.2	0.000567	0.986930	*Thetys vagina*	Common salp
45	3	0.043	81.4	0.000481	0.987411	*Molpadia intermedia*	
46	3	0.039	100.0	0.000443	0.987854	*Ophiacantus* sp.	
47	3	0.037	96.6	0.000419	0.988273	Asteroidea (class)	Starfish unident.
48	3	0.036	35.6	0.000408	0.988681	*Liponema brevicorne*	Tentacle-shedding anemone
49	3	0.036	42.1	0.000407	0.989088	*Berryteuthis magister*	Magistrate armhook squid
50	3	0.036	52.1	0.000405	0.989493	*Sebastes aurora*	Aurora rockfish
51	3	0.035	74.0	0.000397	0.989890	*Chorilia longipes*	Longhorned decorator crab
52	3	0.033	46.9	0.000370	0.990259	*Chrysaora melanaster*	
53	3	0.031	45.5	0.000348	0.990608	Scyphozoa (class)	Jellyfish unident.
54	3	0.027	29.9	0.000303	0.990910	*Taningia danae*	Rhomboid squid
55	3	0.027	45.9	0.000302	0.991212	*Embryx crotalinus*	Snakehead eelpout
56	3	0.026	100.0	0.000297	0.991509	Hexactinellida (class)	Glass sponge unident.
57	3	0.025	100.0	0.000277	0.991787	*Sebastes diploproa*	Splitnose rockfish
58	3	0.023	40.9	0.000263	0.992050	*Nearchaster aciculosus*	
59	3	0.023	34.0	0.000263	0.992313	*Bathylagus* sp.	Blacksmelt unident.
60	3	0.023	60.0	0.000259	0.992572	*Pseudostichopus mollis*	Sandy sea cucumber
61	3	0.023	58.1	0.000258	0.992830	*Benthoctopus* sp.	
62	3	0.022	50.3	0.000244	0.993074	Actinostolidae	
63	3	0.021	93.5	0.000236	0.993310	Octopus unident.	Octopus unident.
64	3	0.021	82.7	0.000234	0.993544	*Sebastes melanostomus*	Blackgill rockfish
65	3	0.020	62.2	0.000230	0.993774	*Pannychia moseleyi*	
66	3	0.019	43.4	0.000210	0.993984	*Ampheraster marianus*	
67	3	0.017	56.9	0.000196	0.994180	*Lithodes couesi*	
68	3	0.017	58.8	0.000194	0.994374	*Myoxoderma sacculatum*	
69	3	0.017	25.8	0.000191	0.994566	*Chauliodus macouni*	Pacific viperfish
70	3	0.017	74.4	0.000188	0.994754	Paguridae	Hermit crab unident.
71	3	0.016	79.2	0.000186	0.994940	*Pteraster coscinopeplus*	Deepwater pteraster
72	3	0.016	75.8	0.000186	0.995126	*Eptatretus deani*	Black hagfish

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
73	3	0.016	68.0	0.000178	0.995304	*Grimpoteuthis albatrossi*	
74	3	0.016	100.0	0.000177	0.995480	*Torpedo californica*	Pacific electric ray
75	3	0.015	28.3	0.000172	0.995653	*Lampanyctus sp.*	
76	3	0.015	89.0	0.000171	0.995824	*Asteronyx loveni*	
77	3	0.015	31.6	0.000169	0.995993	Bathylagidae unident.	Deepsea smelt unident.
78	3	0.014	100.0	0.000161	0.996155	*Phacellophora camtchatica*	
79	3	0.014	74.3	0.000156	0.996311	*Apristurus kampae*	Longnose cat shark
80	3	0.013	27.8	0.000148	0.996459	*Pasiphaea tarda*	Crimson pasiphaeid
81	3	0.012	82.4	0.000135	0.996594	*Amphiophiura ponderosa*	
82	3	0.011	100.0	0.000128	0.996722	*Trachipterus altivelis*	King-of-the-salmon
83	3	0.011	77.5	0.000124	0.996846	*Ceramaster leptoceramus*	
84	3	0.011	100.0	0.000119	0.996965	*Trachurus symmetricus*	Jack mackerel
85	3	0.010	53.1	0.000115	0.997080	Aphroditidae	Sea mouse unident.
86	3	0.010	21.7	0.000113	0.997193	*Tactostoma macropus*	Longfin dragonfish
87	3	0.010	44.2	0.000112	0.997305	*Vampyroteuthis infernalis*	
88	3	0.010	51.3	0.000110	0.997415	*Dipsacaster* sp.	
89	3	0.009	41.4	0.000097	0.997512	*Histioteuthis* sp.	Jewel squids
90	3	0.009	66.5	0.000096	0.997609	*Octopoteuthis deletron*	
91	3	0.008	75.7	0.000095	0.997704	*Nezumia stelgidolepis*	California grenadier
92	3	0.008	100.0	0.000095	0.997799	Holothuroidea (class)	Sea cucumber unident.
93	3	0.008	23.0	0.000093	0.997892	Myctophidae	Lanternfish unident.
94	3	0.008	50.6	0.000091	0.997983	*Pyrosoma atlanticum*	
95	3	0.008	70.2	0.000087	0.998070	*Pasiphaea pacifica*	Pacific glass shrimp
96	3	0.007	62.2	0.000084	0.998154	*Histioteuthis hoylei*	
97	3	0.006	100.0	0.000069	0.998223	*Neptunea* sp.	
98	3	0.006	87.3	0.000068	0.998291	*Chiroteuthis* sp.	
99	3	0.006	100.0	0.000068	0.998358	*Parastichopus leucothele*	
100	3	0.005	34.3	0.000062	0.998420	*Stylatula* sp.	Slender seawhips
101	3	0.005	100.0	0.000060	0.998480	*Neptunea lyrata*	Lyre whelk
102	3	0.005	100.0	0.000057	0.998538	*Solaster* sp.	
103	3	0.005	43.8	0.000055	0.998593	*Sagamichthys abei*	Shining tubeshoulder
104	3	0.005	71.3	0.000052	0.998645	Holothuroidea (class)	Pineapple sea cucumber
105	3	0.005	51.2	0.000052	0.998697	*Pagurus tanneri*	Longhand hermit
106	3	0.005	50.7	0.000052	0.998749	*Careproctus* sp.	
107	3	0.004	100.0	0.000051	0.998800	*Periphylla periphylla*	
108	3	0.004	50.3	0.000049	0.998849	*Tritonia* sp.	
109	3	0.004	100.0	0.000047	0.998896	*Brisaster sp.*	
110	3	0.0	54.9	0.000047	0.998943	*Tritonia diomedea*	Rosy tritonia
111	3	0.004	100.0	0.000045	0.998987	*Atheresthes stomias*	Arrowtooth flounder
112	3	0.004	57.4	0.000044	0.999032	*Brisingella* sp.	
113	3	0.004	100.0	0.000044	0.999076	*Hylonema* sp.	Fiberoptic sponge
114	3	0.004	60.9	0.000043	0.999119	*Octopus leioderma*	Smoothskin octopus
115	3	0.004	85.3	0.000041	0.999160	*Hippasteria spinosa*	
116	3	0.003	100.0	0.000037	0.999198	*Dipsacaster anoplus*	
117	3	0.003	81.2	0.000035	0.999233	*Actinostola* sp.	
118	3	0.003	81.0	0.000034	0.999267	*Loligo opalescens*	California market squid
119	3	0.003	87.5	0.000031	0.999299	*Leuroglossus* sp.	
120	3	0.003	63.6	0.000031	0.999330	Actiniaria (order)	Sea anemone unident.
121	3	0.003	83.7	0.000029	0.999359	Ctenophora (phylum)	Comb jelly unident.
122	3	0.003	45.6	0.000029	0.999388	*Aristostomias scintillans*	Shining loosejaw
123	3	0.002	93.3	0.000028	0.999416	*Chilara taylori*	Spotted cusk-eel
124	3	0.002	63.9	0.000028	0.999444	*Neomenia* sp.	
125	3	0.002	100.0	0.000027	0.999470	*Icichthys lockingtoni*	Medusafish
126	3	0.002	46.6	0.000026	0.999496	*Pseudarchaster parelii*	
127	3	0.002	100.0	0.000022	0.999518	*Parastichopus californicus*	
128	3	0.002	59.5	0.000022	0.999541	Heteropoda (class)	
129	3	0.002	73.6	0.000021	0.999562	*Rathbunaster californicus*	
130	3	0.002	46.3	0.000021	0.999583	*Gonatus onyx*	Clawed armhook squid

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
131	3	0.002	100.0	0.000021	0.999603	Ascidiacea (class)	Tunicate unident.
132	3	0.002	51.2	0.000019	0.999623	Pennatulacea (order)	Sea pen or sea whip
133	3	0.002	64.8	0.000018	0.999641	*Brisingella exilis*	
134	3	0.001	100.0	0.000017	0.999658	*Lamprogrammus niger*	Paperbone cusk-eel
135	3	0.001	58.0	0.000016	0.999673	Cephalopoda (class)	Squid unident.
136	3	0.001	100.0	0.000015	0.999688	*Histioteuthis heteropsis*	
137	3	0.001	52.7	0.000014	0.999702	Actiniaria (order)	Red striated sea anemone
138	3	0.001	100.0	0.000012	0.999714	*Psolus* sp.	
139	3	0.001	75.9	0.000012	0.999726	*Umbellula* sp.	
140	3	0.001	74.1	0.000011	0.999738	*Coryphaenoides cinereus*	Popeye grenadier
141	3	0.001	57.4	0.000011	0.999749	*Stenobrachius* sp.	
142	3	0.001	66.7	0.000011	0.999760	*Lophaster furcilliger*	
143	3	0.001	82.7	0.000011	0.999771	Hormathiidae	
144	3	0.001	46.9	0.000010	0.999781	*Eualus* sp.	
145	3	0.001	100.0	0.000010	0.999791	*Pteraster sp.*	
146	3	0.001	68.6	0.000010	0.999801	*Beroe* sp.	
147	3	0.001	53.0	0.000009	0.999810	*Ophiura sarsi*	
148	3	0.001	100.0	0.000009	0.999819	Gastropoda (class)	Empty gastropod shells
149	3	0.001	60.0	0.000009	0.999828	Aplacophora (class)	
150	3	0.001	50.4	0.000008	0.999836	Actiniaria (order)	Sea anemone unident.
151	3	0.001	100.0	0.000008	0.999844	*Stylasterias forreri*	
152	3	0.001	71.2	0.000008	0.999851	*Anthomastus* sp.	
153	3	0.001	100.0	0.000007	0.999859	*Oneirodes* sp.	
154	3	0.001	100.0	0.000007	0.999866	*Galiteuthis phyllura*	
155	3	0.001	56.2	0.000007	0.999873	*Actinauge verrillii*	Reticulate anemone
156	3	0.001	100.0	0.000007	0.999879	*Antipathes* sp.	
157	3	0.001	98.5	0.000006	0.999886	Melamphaidae	Bigscale unident.
158	3	0.001	43.5	0.000006	0.999892	*Periphylla* sp.	
159	3	0.001	70.6	0.000006	0.999898	*Bathypathes* sp.	
160	3	<0.001	100.0	0.000006	0.999903	*Actinernus* sp.	
161	3	<0.001	83.3	0.000005	0.999909	Skate egg case unident.	Skate egg case unident.
162	3	<0.001	96.5	0.000005	0.999914	Pasiphaeidae	Pasiphaeid shrimp unident.
163	3	<0.001	100.0	0.000005	0.999919	*Benthalbella* sp.	
164	3	<0.001	100.0	0.000005	0.999924	*Macropinna microstoma*	Barreleye
165	3	<0.001	92.3	0.000005	0.999928	*Notolepsis risso*	Ribbon barracudina
166	3	<0.001	100.0	0.000004	0.999932	*Pteraster tesselatus*	
167	3	<0.001	100.0	0.000004	0.999936	Nudibranchia (order)	Nudibranch unident.
168	3	<0.001	86.1	0.000004	0.999940	*Henricia leviuscula*	
169	3	<0.001	57.6	0.000003	0.999943	*Bathyagonus nigripinnis*	Blackfin poacher
170	3	<0.001	100.0	0.000003	0.999946	*Plicifusus* sp.	Gray whelk
171	3	<0.001	100.0	0.000003	0.999949	*Benthalbella dentata*	Northern pearleye
172	3	<0.001	100.0	0.000003	0.999952	*Lampetra tridentata*	Pacific lamprey
173	3	<0.001	100.0	0.000003	0.999955	Empty bivalve shells	Empty bivalve shells
174	3	<0.001	100.0	0.000003	0.999957	*Chiroteuthis calyx*	
175	3	<0.001	100.0	0.000003	0.999960	*Mediaster aequalis*	
176	3	<0.001	100.0	0.000002	0.999962	*Bathyagonus* sp.	Starsnout poacher unident.
177	3	<0.001	100.0	0.000002	0.999965	*Leuroglossus stilbius*	California smoothtongue
178	3	<0.001	100.0	0.000002	0.999967	Zoarcidae	Eelpout unident.
179	3	<0.001	77.9	0.000002	0.999969	*Eualus macrophthalmus*	
180	3	<0.001	100.0	0.000002	0.999971	*Ampheraster* sp.	
181	3	<0.001	73.2	0.000002	0.999973	*Poraniopsis inflata*	
182	3	<0.001	100.0	0.000002	0.999975	*Dicrolene filamentosa*	Threadfin cusk-eel
183	3	<0.001	100.0	0.000002	0.999977	*Asteronyx* sp.	
184	3	<0.001	53.7	0.000002	0.999979	*Tarletonbeania* sp.	
185	3	<0.001	100.0	0.000002	0.999981	*Buccinum strigillatum*	
186	3	<0.001	100.0	0.000001	0.999982	*Icosteus aenigmaticus*	Ragfish
187	3	<0.001	100.0	0.000001	0.999984	*Ctenodiscus crispatus*	Common mud star
188	3	<0.001	100.0	0.000001	0.999985	*Apristurus brunneus*	Cat shark egg case

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
189	3	<0.001	74.9	0.000001	0.999986	*Sternoptyx* sp.	
190	3	<0.001	100.0	0.000001	0.999987	*Scopelosaurus harryi*	Scaly paperbone
191	3	<0.001	100.0	0.000001	0.999989	Virgularidae	Sea whip unident.
192	3	<0.001	100.0	0.000001	0.999990	*Pseudarchaster* sp.	
193	3	<0.001	69.1	0.000001	0.999991	*Tarletonbeania crenularis*	Blue lanternfish
194	3	<0.001	100.0	0.000001	0.999992	*Calliostoma platinum*	Silvery topsnail
195	3	<0.001	100.0	0.000001	0.999992	*Leuroglossus schmidti*	Northern smoothtongue
196	3	<0.001	100.0	0.000001	0.999993	Crinoid unident.	Crinoid unident.
197	3	<0.001	100.0	0.000001	0.999994	*Virgularia* sp.	Smoothstem seawhip
198	3	<0.001	100.0	0.000001	0.999994	*Henricia aspera*	
199	3	<0.001	100.0	0.000001	0.999995	*Anteliaster* sp.	
200	3	<0.001	100.0	0.000001	0.999996	*Gnathophausia ingens*	
202	3	<0.001	100.0	0.000000	0.999996	Ophidiidae	Cusk-eel unident.
201	3	<0.001	100.0	0.000000	0.999996	*Bathophilus flemingi*	Highfin dragonfish
203	3	<0.001	100.0	0.000000	0.999997	*Henricia* sp.	
204	3	<0.001	100.0	0.000000	0.999997	Isopoda (order)	Isopod unident.
205	3	<0.001	69.6	0.000000	0.999997	*Solariella nuda*	Naked solarelle
206	3	<0.001	100.0	0.000000	0.999998	*Callianassa* sp.	
207	3	<0.001	100.0	0.000000	0.999998	*Polinices* sp.	
208	3	<0.001	100.0	0.000000	0.999998	*Colus* sp.	
209	3	<0.001	100.0	0.000000	0.999999	*Lycenchelys camchatica*	Kamchatka eelpout
210	3	<0.001	100.0	0.000000	0.999999	*Lycodapus* sp.	
211	3	<0.001	100.0	0.000000	0.999999	*Pandalus* sp.	
212	3	<0.001	100.0	0.000000	0.999999	Shrimp unident.	Shrimp unident.
214	3	<0.001	100.0	0.000000	1.000000	Polychaeta (class)	Polychaete worm unident.
213	3	<0.001	100.0	0.000000	1.000000	*Delectopecten vancouverensis*	Vancouver scallop
215	3	<0.001	100.0	0.000000	1.000000	Pandalidae	Pandalid shrimp unident.
216	3	<0.001	100.0	0.000000	1.000000	*Ophiopholis* sp.	
	Total	88.457					
1	4	39.517	9.4	0.380365	0.380365	*Sebastolobus altivelis*	Longspine thornyhead
2	4	19.731	21.1	0.189915	0.570280	*Microstomus pacificus*	Dover sole
3	4	9.918	17.6	0.095470	0.665750	*Anoplopoma fimbria*	Sablefish
4	4	9.223	20.4	0.088773	0.754523	*Chionoecetes tanneri*	True Tanner crab
5	4	3.696	20.3	0.035573	0.790096	*Sebastolobus alascanus*	Shortspine thornyhead
6	4	3.573	16.4	0.034394	0.824490	*Albatrossia pectoralis*	Giant grenadier
7	4	2.775	17.9	0.026710	0.851199	*Alepocephalus tenebrosus*	California slickhead
8	4	1.606	11.1	0.015459	0.866658	*Embassichthys bathybius*	Deepsea sole
9	4	1.520	79.0	0.014635	0.881294	*Brisaster latifrons*	
10	4	1.210	42.8	0.011642	0.892936	*Bathybembix bairdii*	
11	4	1.100	29.5	0.010592	0.903529	*Bothrocara brunneum*	Twoline eelpout
12	4	1.047	20.4	0.010078	0.913607	*Apristurus brunneus*	Brown cat shark
13	4	1.020	100.0	0.009814	0.923421	Echinoida (order)	Sea urchin unident.
14	4	0.672	19.6	0.006471	0.929891	*Heterozonias alternatus*	
15	4	0.645	20.9	0.006207	0.936099	*Coryphaenoides acrolepis*	Pacific grenadier
16	4	0.642	18.7	0.006180	0.942279	*Paractinostola faeculenta*	Rough purple sea anemone
17	4	0.569	30.2	0.005477	0.947755	*Talismania bifurcata*	Threadfin slickhead
18	4	0.457	32.5	0.004402	0.952158	*Neptunea amianta*	
19	4	0.386	93.0	0.003715	0.955872	*Allocentrotus fragilis*	Orange-pink sea urchin
20	4	0.354	38.1	0.003411	0.959283	*Bathyraja trachura*	Black skate
21	4	0.266	15.6	0.002558	0.961841	*Antimora microlepis*	Pacific flatnose
22	4	0.250	25.8	0.002403	0.964244	*Thrissacanthias penicillatus*	
23	4	0.243	21.5	0.002340	0.966584	Myxinidae	Hagfish
24	4	0.236	75.1	0.002268	0.968853	*Myoxoderma platyacanthum*	
25	4	0.204	14.0	0.001964	0.970817	*Embryx crotalinus*	Snakehead eelpout
26	4	0.189	26.0	0.001818	0.972635	*Crossaster borealis*	
27	4	0.182	37.9	0.001755	0.974390	*Merluccius productus*	Pacific hake
28	4	0.182	98.9	0.001749	0.976139	*Amphiophiura ponderosa*	
29	4	0.180	28.9	0.001735	0.977874	*Opisthoteuthis californiana*	Flapjack devilfish

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
30	4	0.156	36.5	0.001498	0.979372	Thaliacea (class)	Salps unident.
31	4	0.149	99.3	0.001431	0.980804	*Lycodes diapterus*	Black eelpout
32	4	0.116	26.8	0.001115	0.981919	*Hippasteria californica*	
33	4	0.109	33.9	0.001054	0.982973	*Zoraster evermanni*	
34	4	0.102	100.0	0.000978	0.983951	*Chionoecetes angulatus*	Triangle tanner crab
35	4	0.094	30.3	0.000907	0.984858	*Bathylagus* sp.	Blacksmelt unident.
36	4	0.089	42.4	0.000860	0.985718	*Thetys vagina*	Common salp
37	4	0.084	70.5	0.000813	0.986531	*Chrysaora melanaster*	
38	4	0.073	78.9	0.000701	0.987232	*Aphrocallistes vastus*	Clay pipe sponge
39	4	0.068	66.4	0.000652	0.987884	*Raja rhina*	Longnose skate
40	4	0.066	25.3	0.000632	0.988516	*Vampyroteuthis infernalis*	
41	4	0.061	76.0	0.000584	0.989100	*Squalus acanthias*	Spiny dogfish
42	4	0.060	96.7	0.000577	0.989677	*Apristurus kampae*	Longnose cat shark
43	4	0.052	23.0	0.000498	0.990175	*Careproctus melanurus*	Blacktail snailfish
44	4	0.051	78.6	0.000493	0.990668	*Dipsacaster* sp.	
45	4	0.050	100.0	0.000478	0.991146	Gastropoda (class)	Gastropod unident.
46	4	0.047	68.5	0.000456	0.991602	*Grimpoteuthis albatrossi*	
47	4	0.044	44.3	0.000424	0.992026	*Nearchaster aciculosus*	
48	4	0.044	81.9	0.000421	0.992447	Scyphozoa (class)	Jellyfish unident.
49	4	0.038	73.0	0.000366	0.992813	*Periphylla periphylla*	
50	4	0.034	46.8	0.000326	0.993139	*Lithodes couesi*	
51	4	0.033	31.5	0.000322	0.993460	*Taningia danae*	Rhomboid squid
52	4	0.031	60.2	0.000298	0.993758	*Eptatretus deani*	Black hagfish
53	4	0.031	99.4	0.000297	0.994055	*Neptunea* sp.	*Neptunea* sp. eggs
54	4	0.030	57.8	0.000286	0.994341	*Nezumia liolepis*	Smooth grenadier
55	4	0.030	54.2	0.000286	0.994627	*Pannychia moseleyi*	
56	4	0.030	27.6	0.000285	0.994912	Bathylagidae	Deepsea smelt
57	4	0.025	67.8	0.000242	0.995154	*Myoxoderma sacculatum*	
58	4	0.024	26.1	0.000228	0.995382	*Chauliodus macouni*	Pacific viperfish
59	4	0.022	100.0	0.000216	0.995598	*Hylonema* sp.	Fiberoptic sponge
60	4	0.021	76.1	0.000205	0.995803	*Lophaster furcilliger*	
61	4	0.021	31.2	0.000203	0.996006	*Pasiphaea tarda*	Crimson pasiphaeid
62	4	0.020	50.2	0.000197	0.996203	*Icichthys lockingtoni*	Medusafish
63	4	0.019	18.6	0.000187	0.996390	*Lampanyctus* sp.	
64	4	0.019	55.9	0.000183	0.996573	*Berryteuthis magister*	Magistrate armhook squid
65	4	0.016	29.9	0.000157	0.996729	Actinostolidae	
66	4	0.016	23.2	0.000156	0.996885	*Tactostoma macropus*	Longfin dragonfish
67	4	0.014	47.2	0.000138	0.997023	*Tritonia diomedea*	Rosy tritonia
68	4	0.013	100.0	0.000124	0.997147	*Alepisaurus ferox*	Longnose lancetfish
69	4	0.013	53.1	0.000121	0.997268	*Stylatula* sp.	Slender seawhips
70	4	0.012	100.0	0.000118	0.997386	*Ceramaster patagonicus*	Orange bat star
71	4	0.012	52.3	0.000113	0.997499	*Octopoteuthis deletron*	
72	4	0.012	74.2	0.000113	0.997612	*Neptunea pribiloffensis*	Pribilof whelk
73	4	0.011	83.0	0.000109	0.997721	*Liponema brevicorne*	Tentacle-shedding anemone
74	4	0.010	27.2	0.000096	0.997818	Myctophidae	Lanternfish
75	4	0.010	100.0	0.000096	0.997914	*Cancer magister*	Dungeness crab
76	4	0.008	60.8	0.000076	0.997990	*Ceramaster leptoceramus*	
77	4	0.008	70.9	0.000076	0.998066	*Benthodesmus* sp.	
78	4	0.008	100.0	0.000074	0.998140	*Torpedo californica*	Pacific electric ray
79	4	0.0	46.2	0.000074	0.998214	*Hippasteria spinosa*	
80	4	0.007	36.8	0.000072	0.998286	*Ampheraster marianus*	
81	4	0.007	64.8	0.000063	0.998350	*Parastichopus leucothele*	
82	4	0.006	80.8	0.000061	0.998410	*Careproctus* sp.	
83	4	0.006	61.4	0.000055	0.998465	*Pyrosoma atlanticum*	
84	4	0.005	82.7	0.000049	0.998514	*Coryphaenoides cinereus*	Popeye grenadier
85	4	0.005	100.0	0.000049	0.998563	*Octopus dofleini*	Giant octopus
86	4	0.005	71.4	0.000047	0.998609	*Tritonia* sp.	
87	4	0.005	100.0	0.000046	0.998656	*Actinernus* sp.	

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
88	4	0.005	91.9	0.000046	0.998701	Nudibranchia (order)	Nudibranch unident.
89	4	0.005	30.7	0.000044	0.998745	*Buccinum viridum*	Turban whelk
90	4	0.004	100.0	0.000041	0.998786	*Sebastes entomelas*	Widow rockfish
91	4	0.004	56.2	0.000040	0.998825	*Chiroteuthis* sp.	
92	4	0.004	94.2	0.000040	0.998865	*Ophiura sarsi*	
93	4	0.004	62.9	0.000035	0.998900	*Pagurus tanneri*	Longhand hermit
94	4	0.004	100.0	0.000035	0.998936	*Bathyraja interrupta*	Bering skate
95	4	0.004	69.6	0.000035	0.998970	*Actinostola* sp.	
96	4	0.004	80.9	0.000034	0.999004	Rajiidae	Skate unident.
97	4	0.003	74.1	0.000033	0.999038	*Chiroteuthis calyx*	
98	4	0.003	100.0	0.000032	0.999070	*Eptatretus* sp.	
99	4	0.003	58.3	0.000031	0.999101	*Umbellula* sp.	
100	4	0.003	100.0	0.000031	0.999132	*Glyptocephalus zachirus*	Rex sole
101	4	0.003	100.0	0.000029	0.999160	*Rathbunaster californicus*	
102	4	0.003	100.0	0.000029	0.999189	Osteichthyes (class)	Fish unident.
103	4	0.003	70.0	0.000028	0.999217	*Molpadia intermedia*	
104	4	0.003	93.2	0.000027	0.999244	Actiniaria (order)	Sea anemone unident.
105	4	0.003	42.8	0.000026	0.999270	*Sagamichthys abei*	Shining tubeshoulder
106	4	0.003	45.9	0.000026	0.999297	*Pteraster coscinopeplus*	Deepwater pteraster
107	4	0.003	61.2	0.000026	0.999322	*Pseudostichopus mollis*	Sandy sea cucumber
108	4	0.003	67.7	0.000025	0.999348	*Nearchaster* sp.	
109	4	0.003	75.5	0.000025	0.999372	*Cranchia scabra*	Sandpaper squid
110	4	0.002	44.7	0.000021	0.999393	*Aristostomias scintillans*	Shining loosejaw
111	4	0.002	100.0	0.000021	0.999414	*Mediaster aequalis*	
112	4	0.002	73.0	0.000020	0.999434	Heteropoda (class)	
113	4	0.002	83.1	0.000020	0.999454	*Stenobrachius* sp.	
114	4	0.002	100.0	0.000020	0.999474	*Paralomis multispina*	
115	4	0.002	56.8	0.000019	0.999493	Actiniaria (order)	Red striated sea anemone
116	4	0.002	100.0	0.000019	0.999513	*Pycnopodia helianthoides*	
117	4	0.002	69.5	0.000019	0.999532	Actiniaria (order)	Sea anemone unident.
118	4	0.002	44.1	0.000018	0.999550	*Neomenia* sp.	
119	4	0.002	100.0	0.000018	0.999568	*Parmaturus xaniurus*	Filetail cat shark
120	4	0.002	63.0	0.000017	0.999585	Hormathiidae	
121	4	0.002	100.0	0.000016	0.999602	*Careproctus cypselurus*	Blackfin snailfish
122	4	0.002	66.7	0.000015	0.999617	*Pseudarchaster parelii*	
123	4	0.001	47.7	0.000014	0.999631	*Anoplogaster cornuta*	Fangtooth
124	4	0.001	78.7	0.000014	0.999645	Aplacophora (class)	
125	4	0.001	35.4	0.000013	0.999659	*Pagurus* sp.	
126	4	0.001	90.1	0.000013	0.999672	Porifera (phylum)	Sponge unident.
127	4	0.001	52.4	0.000013	0.999685	*Chorilia longipes*	Longhorned decorator crab
128	4	0.001	100.0	0.000013	0.999698	*Stomphia* sp.	
129	4	0.001	43.6	0.000012	0.999710	Pennatulacea (order)	Sea pen or sea whip
130	4	0.001	63.7	0.000012	0.999722	Ophiuroidea (class)	Brittlestarfish unident.
131	4	0.001	81.9	0.000012	0.999734	*Stylasterias forreri*	
132	4	0.001	64.5	0.000011	0.999745	Aphroditidae	Sea mouse unident.
133	4	0.001	57.2	0.000011	0.999757	*Asteronyx* sp.	
134	4	0.001	100.0	0.000011	0.999768	*Dipsacaster anoplus*	
135	4	0.001	69.3	0.000011	0.999778	*Loligo opalescens*	California market squid
136	4	0.001	42.1	0.000010	0.999789	*Asteronyx loveni*	
137	4	0.001	100.0	0.000010	0.999798	*Corallimorphus* sp.	
138	4	0.001	100.0	0.000009	0.999807	Gastropoda (class)	Snail eggs unident.
139	4	0.001	100.0	0.000008	0.999815	*Dolichopteryx* sp.	
140	4	0.001	73.7	0.000008	0.999823	*Gonatus onyx*	Clawed armhook squid
141	4	0.001	68.5	0.000008	0.999831	*Hyas lyratus*	Pacific lyre crab
142	4	0.001	100.0	0.000007	0.999838	*Luidia foliolata*	
143	4	0.001	100.0	0.000007	0.999845	*Poraniopsis inflata*	
144	4	0.001	62.9	0.000007	0.999851	*Plicifusus* sp.	Gray whelk
145	4	0.001	87.1	0.000006	0.999858	Holothuroidea (class)	Sea cucumber unident.

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
146	4	0.001	100.0	0.000006	0.999864	Ascidiacea (class)	Tunicate unident.
147	4	0.001	78.1	0.000006	0.999869	Nemichthyidae	Snipe eel
148	4	0.001	100.0	0.000005	0.999875	*Solaster* sp.	
149	4	0.001	69.7	0.000005	0.999880	*Melanocetus johnsonii*	Common blackdevil
150	4	0.001	100.0	0.000005	0.999885	*Onychoteuthis borealijaponicus*	Boreal clubhook squid
151	4	<0.001	69.8	0.000005	0.999890	*Histioteuthis hoylei*	
152	4	<0.001	43.6	0.000005	0.999895	*Periphylla* sp.	
153	4	<0.001	100.0	0.000005	0.999899	*Acharax johnsoni*	
154	4	<0.001	58.6	0.000005	0.999904	*Notostomus japonicus*	Spinyridge shrimp
155	4	<0.001	69.6	0.000004	0.999908	*Serrivomer sector*	Sawtooth eel
156	4	<0.001	78.7	0.000004	0.999913	*Benthoctopus* sp.	
157	4	<0.001	100.0	0.000004	0.999917	*Lampanyctus jordani*	Brokenline lampfish
158	4	<0.001	77.3	0.000004	0.999921	Cephalopoda (class)	Squid unident.
159	4	<0.001	100.0	0.000003	0.999925	*Pseudarchaster* sp.	
160	4	<0.001	100.0	0.000003	0.999928	*Buccinum* sp.	
161	4	<0.001	100.0	0.000003	0.999931	*Henricia* sp.	
162	4	<0.001	78.8	0.000003	0.999934	*Brisingella exilis*	
163	4	<0.001	100.0	0.000003	0.999937	*Cololabis saira*	Pacific saury
164	4	<0.001	70.0	0.000003	0.999939	*Stereomastus sculpta*	
165	4	<0.001	100.0	0.000003	0.999942	*Scopelosaurus* sp.	
166	4	<0.001	100.0	0.000003	0.999945	*Careproctus colletti*	Alaska snailfish
167	4	<0.001	100.0	0.000003	0.999948	Bivalvia (class)	Bivalve unident.
168	4	<0.001	61.6	0.000003	0.999950	*Gnathophausia ingens*	
169	4	<0.001	78.1	0.000002	0.999953	*Calliostoma platinum*	Silvery topsnail
170	4	<0.001	100.0	0.000002	0.999955	*Bathyraja* sp.	
171	4	<0.001	100.0	0.000002	0.999957	Cephalopoda (class)	Squid unident.
172	4	<0.001	100.0	0.000002	0.999960	*Macropinna microstoma*	Barreleye
173	4	<0.001	100.0	0.000002	0.999962	*Pteraster* sp.	
174	4	<0.001	100.0	0.000002	0.999964	*Anteliaster* sp.	
175	4	<0.001	89.0	0.000002	0.999966	*Virgularia* sp.	Smoothstem seawhip
176	4	<0.001	100.0	0.000002	0.999968	*Galiteuthis phyllura*	
177	4	<0.001	57.0	0.000002	0.999970	*Lycodapus fierasfer*	Blackmouth eelpout
178	4	<0.001	100.0	0.000002	0.999972	*Pseudarchaster parelii*	
179	4	<0.001	100.0	0.000002	0.999974	*Antipathes* sp.	
180	4	<0.001	100.0	0.000002	0.999975	*Lycodapus mandibularis*	Pallid eelpout
181	4	<0.001	100.0	0.000001	0.999977	*Taonius pavo*	
182	4	<0.001	100.0	0.000001	0.999978	*Avocettina* sp.	
183	4	<0.001	100.0	0.000001	0.999979	*Notolepsis risso*	Ribbon barracudina
184	4	<0.001	75.0	0.000001	0.999980	*Tarletonbeania* sp.	
185	4	<0.001	100.0	0.000001	0.999982	*Bathyagonus nigripinnis*	Blackfin poacher
186	4	<0.001	100.0	0.000001	0.999983	Malacostraca (class)	Malacostracan unident.
187	4	<0.001	72.3	0.000001	0.999984	*Nemichthys scolopaceus*	Slender snipe eel
188	4	<0.001	100.0	0.000001	0.999985	*Mediaster tenellus*	
189	4	<0.001	100.0	0.000001	0.999986	*Pteraster militaris*	
190	4	<0.001	100.0	0.000001	0.999987	Gastropoda (class)	Snail unident.
191	4	<0.001	100.0	0.000001	0.999988	*Anteliaster* sp.	
192	4	<0.001	76.3	0.000001	0.999989	*Delectopecten vancouverensis*	Vancouver scallop
193	4	<0.001	100.0	0.000001	0.999989	*Liparis* sp.	
194	4	<0.001	100.0	0.000001	0.999990	*Benthalbella dentata*	Northern pearleye
195	4	<0.001	70.2	0.000001	0.999991	*Idiacanthus antrostomus*	Pacific blackdragon
196	4	<0.001	70.9	0.000001	0.999992	*Actinauge verrillii*	Reticulate anemone
197	4	<0.001	71.6	0.000001	0.999993	*Eualus macrophthalmus*	
198	4	<0.001	100.0	0.000001	0.999993	*Ophidion scrippsae*	Basketweave cusk-eel
199	4	<0.001	78.7	0.000001	0.999994	*Colus* sp.	
200	4	<0.001	100.0	0.000001	0.999995	*Florometra serratissima*	Featherstar crinoid
201	4	<0.001	78.4	0.000001	0.999995	*Sternoptyx diaphana*	Longspine hatchetfish
202	4	<0.001	100.0	0.000001	0.999996	*Brisingella* sp.	
203	4	<0.001	100.0	0.000001	0.999997	*Bathypathes* sp.	

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
204	4	<0.001	100.0	0.000000	0.999997	*Gonatus* sp.	
205	4	<0.001	100.0	0.000000	0.999997	*Solariella nuda*	Naked solarelle
206	4	<0.001	100.0	0.000000	0.999998	*Henricia leviuscula*	
207	4	<0.001	100.0	0.000000	0.999998	Sternoptychidae	Hatchetfish
208	4	<0.001	100.0	0.000000	0.999998	*Tarletonbeania crenularis*	Blue lanternfish
209	4	<0.001	69.5	0.000000	0.999999	Melamphaidae	Bigscale
210	4	<0.001	69.7	0.000000	0.999999	*Pasiphaea pacifica*	Pacific glass shrimp
211	4	<0.001	100.0	0.000000	0.999999	Polychaeta (class)	Polychaete worm unident.
212	4	<0.001	100.0	0.000000	0.999999	Cyclopteridae	Snailfish unident.
213	4	<0.001	100.0	0.000000	1.000000	*Munida quadrispina*	
214	4	<0.001	100.0	0.000000	1.000000	Isopoda (order)	Isopod unident.
215	4	<0.001	100.0	0.000000	1.000000	*Eualus* sp.	
216	4	<0.001	100.0	0.000000	1.000000	*Sebastes* sp.	Rockfish unident.
217	4	<0.001	100.0	0.000000	1.000000	Pandalidae	Pandalid shrimp
	Total	103.892					
1	5	29.969	5.9	0.298874	0.298874	*Sebastolobus altivelis*	Longspine thornyhead
2	5	12.569	35.3	0.125342	0.424216	*Microstomus pacificus*	Dover sole
3	5	9.121	16.5	0.090959	0.515175	*Coryphaenoides acrolepis*	Pacific grenadier
4	5	8.686	17.2	0.086622	0.601797	*Anoplopoma fimbria*	Sablefish
5	5	6.822	15.3	0.068038	0.669835	*Albatrossia pectoralis*	Giant grenadier
6	5	5.767	16.9	0.057511	0.727346	*Sebastolobus alascanus*	Shortspine thornyhead
7	5	5.618	14.0	0.056026	0.783372	*Chionoecetes tanneri*	True Tanner crab
8	5	5.221	25.6	0.052068	0.835440	*Alepocephalus tenebrosus*	California slickhead
9	5	2.527	14.5	0.025199	0.860639	*Embassichthys bathybius*	Deepsea sole
10	5	1.980	17.9	0.019748	0.880387	*Paractinostola faeculenta*	Rough purple sea anemone
11	5	1.281	52.8	0.012784	0.893170	*Thrissacanthias penicillatus*	
12	5	1.261	11.8	0.012572	0.905742	*Antimora microlepis*	Pacific flatnose
13	5	0.983	76.4	0.009801	0.915544	*Scotoplanes theeli*	
14	5	0.934	22.9	0.009320	0.924864	*Bothrocara brunneum*	Twoline eelpout
15	5	0.850	18.6	0.008479	0.933343	*Bathyraja trachura*	Black skate
16	5	0.848	33.8	0.008455	0.941798	*Bathybembix bairdii*	
17	5	0.532	44.5	0.005306	0.947104	*Heterozonias alternatus*	
18	5	0.423	25.1	0.004217	0.951321	*Neptunea amianta*	
19	5	0.397	24.9	0.003964	0.955284	*Embryx crotalinus*	Snakehead eelpout
20	5	0.368	23.2	0.003671	0.958955	*Apristurus brunneus*	Brown cat shark
21	5	0.278	54.7	0.002769	0.961724	*Amphiophiura ponderosa*	
22	5	0.233	32.7	0.002321	0.964044	Myxinidae	Hagfish
23	5	0.222	63.1	0.002212	0.966256	*Bathyraja abyssicola*	Deepsea skate
24	5	0.217	70.4	0.002163	0.968419	*Chrysaora melanaster*	
25	5	0.156	86.2	0.001554	0.969973	*Squalus acanthias*	Spiny dogfish
26	5	0.151	74.6	0.001507	0.971480	*Psychrolutes phrictus*	Blob sculpin
27	5	0.148	35.2	0.001472	0.972951	*Talismania bifurcata*	Threadfin slickhead
28	5	0.146	28.5	0.001454	0.974405	*Hippasteria californica*	
29	5	0.144	20.7	0.001432	0.975838	*Crossaster borealis*	
30	5	0.133	44.5	0.001324	0.977162	Actinostolidae	
31	5	0.132	61.3	0.001320	0.978482	*Myoxoderma sacculatum*	
32	5	0.116	47.9	0.001156	0.979637	*Nearchaster aciculosus*	
33	5	0.107	24.1	0.001063	0.980700	*Bathylagus* sp.	Blacksmelt unident.
34	5	0.104	57.6	0.001032	0.981733	*Zoraster evermanni*	
35	5	0.098	28.0	0.000973	0.982706	*Thetys vagina*	Common salp
36	5	0.097	21.4	0.000962	0.983669	*Vampyroteuthis infernalis*	
37	5	0.096	40.4	0.000954	0.984623	*Pannychia moseleyi*	
38	5	0.093	36.8	0.000923	0.985545	*Paralomis multispina*	
39	5	0.089	74.2	0.000891	0.986437	*Apristurus kampae*	Longnose cat shark
40	5	0.089	34.8	0.000883	0.987320	*Opisthoteuthis californiana*	Flapjack devilfish
41	5	0.067	75.8	0.000671	0.987991	*Dipsacaster* sp.	
42	5	0.064	37.1	0.000643	0.988633	*Merluccius productus*	Pacific hake
43	5	0.057	33.7	0.000565	0.989199	Thaliacea (class)	Salps unident.

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
44	5	0.054	100.0	0.000543	0.989742	*Mola mola*	Ocean sunfish
45	5	0.053	88.5	0.000527	0.990269	*Hylonema* sp.	Fiberoptic sponge
46	5	0.050	49.8	0.000502	0.990770	*Eptatretus deani*	Black hagfish
47	5	0.049	22.4	0.000485	0.991255	*Pasiphaea tarda*	Crimson pasiphaeid
48	5	0.044	35.5	0.000437	0.991692	*Buccinum viridum*	Turban whelk
49	5	0.044	73.8	0.000436	0.992128	*Aphrocallistes vastus*	Clay pipe sponge
50	5	0.044	61.1	0.000436	0.992565	*Actinauge verrillii*	Reticulate anemone
51	5	0.036	34.9	0.000362	0.992927	Bathylagidae	Deepsea smelt
52	5	0.034	80.2	0.000337	0.993264	*Octopus leioderma*	Smoothskin octopus
53	5	0.033	54.7	0.000331	0.993596	*Histioteuthis hoylei*	
54	5	0.033	20.6	0.000331	0.993926	*Chauliodus macouni*	Pacific viperfish
55	5	0.032	56.1	0.000316	0.994243	Scyphozoa (class)	Jellyfish unident.
56	5	0.031	41.5	0.000305	0.994547	*Lithodes couesi*	
57	5	0.025	64.5	0.000254	0.994801	*Hippasteria spinosa*	
58	5	0.025	65.4	0.000252	0.995053	*Nearchaster* sp.	
59	5	0.024	41.7	0.000237	0.995290	*Careproctus melanurus*	Blacktail snailfish
60	5	0.021	20.5	0.000209	0.995499	*Lampanyctus* sp.	
61	5	0.021	35.4	0.000205	0.995703	*Taningia danae*	Rhomboid squid
62	5	0.019	87.7	0.000193	0.995897	*Liponema brevicorne*	Tentacle-shedding anemone
63	5	0.018	100.0	0.000182	0.996079	*Lycodes diapterus*	Black eelpout
64	5	0.016	19.3	0.000160	0.996239	*Tactostoma macropus*	Longfin dragonfish
65	5	0.0	95.0	0.000158	0.996397	*Benthalbella* sp.	
66	5	0.015	63.2	0.000150	0.996547	*Periphylla periphylla*	
67	5	0.015	100.0	0.000147	0.996695	*Raja rhina*	Longnose skate
68	5	0.014	100.0	0.000142	0.996836	Hexactinellida (class)	Glass sponge
69	5	0.014	26.0	0.000141	0.996977	*Stylatula* sp.	Slender seawhips
70	5	0.014	50.1	0.000137	0.997114	*Lophaster furcilliger*	
71	5	0.013	48.1	0.000129	0.997243	*Tritonia diomedea*	Rosy tritonia
72	5	0.013	49.4	0.000126	0.997369	*Actinostola* sp.	
73	5	0.012	47.9	0.000124	0.997493	Actiniaria (order)	Sea anemone unident.
74	5	0.010	100.0	0.000103	0.997596	*Somniosus pacificus*	Pacific sleeper shark
75	5	0.010	58.4	0.000102	0.997698	*Careproctus* sp.	
76	5	0.010	63.0	0.000101	0.997799	*Pseudostichopus mollis*	Sandy sea cucumber
77	5	0.010	98.9	0.000099	0.997898	*Stylasterias forreri*	
78	5	0.008	66.4	0.000080	0.997978	*Tritonia* sp.	
79	5	0.008	100.0	0.000075	0.998053	*Eptatretus* sp.	
80	5	0.007	62.5	0.000073	0.998126	*Pandalopsis ampla*	
81	5	0.007	79.0	0.000072	0.998198	*Berryteuthis magister*	Magistrate armhook squid
82	5	0.007	24.6	0.000070	0.998267	Myctophidae	Lanternfish
83	5	0.007	63.9	0.000069	0.998336	*Octopoteuthis deletron*	
84	5	0.006	91.2	0.000062	0.998398	*Molpadia intermedia*	
85	5	0.006	53.5	0.000061	0.998459	*Careproctus colletti*	Alaska snailfish
86	5	0.006	73.6	0.000060	0.998519	*Icichthys lockingtoni*	Medusafish
87	5	0.006	100.0	0.000056	0.998575	*Rathbunaster californicus*	
88	5	0.005	41.1	0.000052	0.998627	*Pagurus* sp.	
89	5	0.005	33.4	0.000052	0.998679	*Anoplogaster cornuta*	Fangtooth
90	5	0.005	100.0	0.000051	0.998730	*Chionoecetes angulatus*	Triangle tanner crab
91	5	0.005	47.1	0.000048	0.998778	*Pyrosoma atlanticum*	
92	5	0.004	62.1	0.000043	0.998821	Holothuroidea (class)	Sea cucumber unident.
93	5	0.004	100.0	0.000041	0.998862	*Lopholithodes foraminatus*	Box crab
94	5	0.004	98.2	0.000037	0.998900	Thoracica (order)	Barnacle
95	5	0.004	78.8	0.000037	0.998937	*Actinernus* sp.	
96	5	0.004	88.3	0.000036	0.998973	*Allocentrotus fragilis*	Orange-pink sea urchin
97	5	0.004	100.0	0.000035	0.999008	*Pteraster* sp.	
98	5	0.003	55.9	0.000032	0.999039	*Nezumia liolepis*	Smooth grenadier
99	5	0.003	94.8	0.000031	0.999071	*Coryphaenoides cinereus*	Popeye grenadier
100	5	0.003	58.2	0.000030	0.999101	*Ampheraster marianus*	
101	5	0.003	65.6	0.000030	0.999131	Aphroditidae	Sea mouse unident.

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
102	5	0.003	100.0	0.000030	0.999161	*Lamprogrammus niger*	Paperbone cusk-eel
103	5	0.003	83.1	0.000029	0.999190	Hormathiidae	
104	5	0.003	100.0	0.000027	0.999217	*Orthasterias koehleri*	
105	5	0.003	60.0	0.000026	0.999242	Pennatulacea (order)	Sea pen or sea whip
106	5	0.002	78.6	0.000025	0.999267	*Stenobrachius* sp.	
107	5	0.002	58.1	0.000024	0.999291	*Pteraster coscinopeplus*	Deepwater pteraster
108	5	0.002	48.1	0.000022	0.999313	*Brisaster latifrons*	
109	5	0.002	45.9	0.000022	0.999335	*Aristostomias scintillans*	Shining loosejaw
110	5	0.002	62.8	0.000022	0.999357	*Parastichopus leucothele*	
111	5	0.002	53.5	0.000021	0.999378	*Neomenia* sp.	
112	5	0.002	63.6	0.000020	0.999398	*Neptunea* sp.	*Neptunea* sp. eggs
113	5	0.002	73.3	0.000019	0.999417	*Chiroteuthis calyx*	
114	5	0.002	81.9	0.000018	0.999435	*Gonatus onyx*	Clawed armhook squid
115	5	0.002	100.0	0.000017	0.999451	*Colus* sp.	
116	5	0.002	81.8	0.000016	0.999468	*Careproctus cypselurus*	Blackfin snailfish
117	5	0.002	75.6	0.000016	0.999484	Cephalopoda (class)	Squid unident.
118	5	0.002	69.7	0.000016	0.999500	*Solaster* sp.	
119	5	0.002	100.0	0.000016	0.999517	*Corallimorphus* sp.	
120	5	0.002	78.9	0.000016	0.999533	*Melanocetus johnsonii*	Common blackdevil
121	5	0.002	69.7	0.000016	0.999549	*Pseudarchaster parelii*	
122	5	0.002	51.4	0.000016	0.999564	*Asteronyx loveni*	
123	5	0.002	100.0	0.000016	0.999580	*Sebastes babcocki*	Redbanded rockfish
124	5	0.001	100.0	0.000015	0.999595	*Colus trophius*	
125	5	0.001	97.3	0.000014	0.999609	*Swiftia* sp.	
126	5	0.001	38.0	0.000013	0.999623	*Stereomastus sculpta*	
127	5	0.001	68.4	0.000013	0.999636	*Chiroteuthis* sp.	
128	5	0.001	100.0	0.000013	0.999649	*Psolus* sp.	
129	5	0.001	50.2	0.000013	0.999662	*Gnathophausia ingens*	
130	5	0.001	67.6	0.000012	0.999674	Actiniaria (order)	
131	5	0.001	59.1	0.000012	0.999687	Nemichthyidae	Snipe eel
132	5	0.001	50.7	0.000012	0.999699	Rajiidae	Skate unident.
133	5	0.001	64.0	0.000012	0.999711	*Serrivomer sector*	Sawtooth eel
134	5	0.001	68.4	0.000012	0.999722	*Sagamichthys abei*	Shining tubeshoulder
135	5	0.001	70.4	0.000011	0.999734	*Plicifusus* sp.	Gray whelk
136	5	0.001	98.1	0.000010	0.999743	*Asteronyx* sp.	
137	5	0.001	93.8	0.000010	0.999753	Osteichthyes	Fish unident.
138	5	0.001	73.2	0.000010	0.999762	*Benthalbella dentata*	Northern pearleye
139	5	0.001	100.0	0.000009	0.999772	*Bathyraja* sp.	
140	5	0.001	100.0	0.000009	0.999780	*Trachipterus altivelis*	King-of-the-salmon
141	5	0.001	100.0	0.000008	0.999789	Melanostomiidae	Scaleless dragonfish
142	5	0.001	69.7	0.000008	0.999797	*Umbellula* sp.	
143	5	0.001	100.0	0.000008	0.999805	*Buccinum oedematum*	Swollen whelk
144	5	0.001	69.6	0.000007	0.999812	*Cololabis saira*	Pacific saury
145	5	0.001	68.4	0.000007	0.999820	*Colus aphelus*	Oblique whelk
146	5	0.001	69.8	0.000007	0.999827	Heteropoda (class)	
147	5	0.001	100.0	0.000007	0.999834	*Virgularia* sp.	Smoothstem seawhip
148	5	0.001	100.0	0.000007	0.999840	*Paraliparus rosaceus*	
149	5	0.001	100.0	0.000006	0.999847	*Cranchia scabra*	Sandpaper squid
150	5	0.001	58.5	0.000006	0.999853	*Poromitra crassiceps*	Crested bigscale
151	5	0.001	75.2	0.000006	0.999859	*Poraniopsis inflata*	
152	5	0.001	72.9	0.000006	0.999865	Oneirodidae	Dreamer unident.
153	5	0.001	57.2	0.000006	0.999871	Gastropoda (class)	Gastropod unident.
154	5	0.001	95.8	0.000006	0.999876	Polychaeta (class)	Polychaete worm unident.
155	5	0.001	100.0	0.000005	0.999881	*Florometra serratissima*	Featherstar crinoid
156	5	0.001	68.6	0.000005	0.999886	Nudibranchia (order)	Nudibranch unident.
157	5	<0.001	68.6	0.000005	0.999891	Gastropoda (class)	Snail eggs unident.
158	5	<0.001	37.3	0.000005	0.999896	*Periphylla* sp.	
159	5	<0.001	100.0	0.000005	0.999901	*Gorgonocephalus eucnemis*	Basketstarfish

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
160	5	<0.001	100.0	0.000004	0.999905	*Saccopharynx* sp.	
161	5	<0.001	100.0	0.000004	0.999909	*Luidia foliolata*	
162	5	<0.001	100.0	0.000004	0.999913	Chauliodontidae	Viperfish
163	5	<0.001	74.5	0.000004	0.999917	*Antipathes* sp.	
164	5	<0.001	83.9	0.000004	0.999921	Porifera (phylum)	Sponge unident.
165	5	<0.001	69.6	0.000004	0.999925	*Chiasmodon niger*	
166	5	<0.001	84.0	0.000004	0.999928	*Pseudarchaster parelii*	
167	5	<0.001	84.6	0.000003	0.999932	Ophiuroidea (class)	Brittlestarfish unident.
168	5	<0.001	76.2	0.000003	0.999935	*Macropinna microstoma*	Barreleye
169	5	<0.001	100.0	0.000003	0.999938	*Buccinum* sp.	
170	5	<0.001	100.0	0.000003	0.999941	*Symbolophorus californiensis*	California lanternfish
171	5	<0.001	73.5	0.000003	0.999944	*Myoxoderma platyacanthum*	
172	5	<0.001	100.0	0.000003	0.999946	*Lampetra tridentata*	Pacific lamprey
173	5	<0.001	100.0	0.000003	0.999949	*Melamphaes lugubris*	Highsnout bigscale
174	5	<0.001	63.1	0.000003	0.999952	*Buccinum strigillatum*	
175	5	<0.001	100.0	0.000002	0.999954	*Liparis* sp.	
176	5	<0.001	100.0	0.000002	0.999956	*Ptilosarcus gurneyi*	Orange sea pen
177	5	<0.001	100.0	0.000002	0.999958	*Lampanyctus jordani*	Brokenline lampfish
178	5	<0.001	100.0	0.000002	0.999960	*Hyas lyratus*	Pacific lyre crab
179	5	<0.001	100.0	0.000002	0.999962	*Neptunea pribiloffensis*	Pribilof whelk
180	5	<0.001	100.0	0.000002	0.999964	Ctenophora (phylum)	Comb jelly unident.
181	5	<0.001	75.9	0.000002	0.999966	*Notostomus japonicus*	Spinyridge shrimp
182	5	<0.001	100.0	0.000002	0.999968	*Loligo opalescens*	California market squid
183	5	<0.001	100.0	0.000002	0.999969	*Buccinum* sp.	
184	5	<0.001	100.0	0.000002	0.999971	*Henricia leviuscula*	
185	5	<0.001	81.3	0.000001	0.999972	*Aphrodita* sp.	
186	5	<0.001	67.5	0.000001	0.999974	*Tarletonbeania* sp.	
187	5	<0.001	100.0	0.000001	0.999975	*Eualus macrophthalmus*	
188	5	<0.001	100.0	0.000001	0.999976	*Euplexaura marki*	
189	5	<0.001	69.5	0.000001	0.999978	Actiniaria (order)	
190	5	<0.001	100.0	0.000001	0.999979	*Idiacanthus antrostomus*	Pacific blackdragon
191	5	<0.001	72.0	0.000001	0.999980	*Lycodapus fierasfer*	Blackmouth eelpout
192	5	<0.001	100.0	0.000001	0.999981	*Colus tahwitanus*	
193	5	<0.001	71.8	0.000001	0.999983	*Pagurus tanneri*	Longhand hermit
194	5	<0.001	76.4	0.000001	0.999984	*Nemichthys scolopaceus*	Slender snipe eel
195	5	<0.001	100.0	0.000001	0.999985	*Chorilia longipes*	Longhorned decorator crab
196	5	<0.001	85.3	0.000001	0.999986	Isopoda (order)	Isopod unident.
197	5	<0.001	100.0	0.000001	0.999987	*Sternoptyx diaphana*	Longspine hatchetfish
198	5	<0.001	100.0	0.000001	0.999988	*Sclerocrangon sculptus*	
199	5	<0.001	73.9	0.000001	0.999989	*Sternoptyx* sp.	
200	5	<0.001	100.0	0.000001	0.999990	*Paraliparis* sp.	
201	5	<0.001	100.0	0.000001	0.999990	*Argyropelecus lychnus*	Tropical hatchetfish
202	5	<0.001	100.0	0.000001	0.999991	Gastropoda (class)	Snail unident.
203	5	<0.001	81.6	0.000001	0.999992	*Argyropelecus* sp.	
204	5	<0.001	100.0	0.000001	0.999993	*Argentina sialis*	Pacific argentine
205	5	<0.001	100.0	0.000001	0.999993	*Apristurus brunneus*	Cat shark egg case
206	5	<0.001	100.0	0.000001	0.999994	Decapoda (order)	Crab
207	5	<0.001	100.0	0.000001	0.999995	*Acanthephyra* sp.	
208	5	<0.001	100.0	0.000001	0.999995	*Lycodapus* sp.	
209	5	<0.001	100.0	0.000001	0.999996	*Tarletonbeania crenularis*	Blue lanternfish
210	5	<0.001	71.5	0.000001	0.999996	Crinoidea (class)	Crinoid unident.
211	5	<0.001	100.0	0.000000	0.999997	Cyclopteridae	Snailfish unident.
212	5	<0.001	100.0	0.000000	0.999997	Cephalopoda (class)	Squid unident.
213	5	<0.001	100.0	0.000000	0.999997	*Polinices pallidus*	Pale moonsnail
214	5	<0.001	100.0	0.000000	0.999998	Pectinidae	Scallop
215	5	<0.001	69.6	0.000000	0.999998	*Cyclothone* sp.	
216	5	<0.001	100.0	0.000000	0.999998	*Delectopecten vancouverensis*	Vancouver scallop
217	5	<0.001	69.6	0.000000	0.999999	*Eualus* sp.	

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
218	5	<0.001	100.0	0.000000	0.999999	*Melanostigma pammelas*	Midwater eelpout
219	5	<0.001	100.0	0.000000	0.999999	Tube worm unident.	
220	5	<0.001	100.0	0.000000	0.999999	*Acharax johnsoni*	
221	5	<0.001	100.0	0.000000	1.000000	Melamphaidae	Bigscale
222	5	<0.001	100.0	0.000000	1.000000	Bivalvia (class)	Bivalve unident.
223	5	<0.001	100.0	0.000000	1.000000	Pycnogonida (class)	Sea spider unident.
224	5	<0.001	100.0	0.000000	1.000000	*Polinices* sp.	
	Total	100.278					
1	6	20.738	11.8	0.171696	0.171696	*Coryphaenoides acrolepis*	Pacific grenadier
2	6	19.569	11.4	0.162001	0.333697	*Sebastolobus altivelis*	Longspine thornyhead
3	6	17.367	16.0	0.143789	0.477486	*Albatrossia pectoralis*	Giant grenadier
4	6	11.998	22.2	0.099320	0.576806	*Anoplopoma fimbria*	Sablefish
5	6	10.082	59.1	0.083449	0.660255	*Microstomus pacificus*	Dover sole
6	6	5.035	20.1	0.041679	0.701933	*Sebastolobus alascanus*	Shortspine thornyhead
7	6	4.015	100.0	0.033255	0.735188	*Neolithodes diomedeae*	
8	6	3.747	10.7	0.031026	0.766214	*Antimora microlepis*	Pacific flatnose
9	6	3.714	35.3	0.030748	0.796962	*Scotoplanes theeli*	
10	6	3.648	22.0	0.030201	0.827163	*Alepocephalus tenebrosus*	California slickhead
11	6	3.408	19.1	0.028213	0.855376	*Paractinostola faeculenta*	Rough purple sea anemone
12	6	3.319	20.4	0.027477	0.882853	*Chionoecetes tanneri*	True Tanner crab
13	6	1.666	18.7	0.013789	0.896642	*Bathyraja trachura*	Black skate
14	6	1.624	21.8	0.013442	0.910083	*Embassichthys bathybius*	Deepsea sole
15	6	1.539	21.0	0.012739	0.922822	*Thrissacanthias penicillatus*	
16	6	1.305	46.3	0.010808	0.933630	*Bothrocara brunneum*	Twoline eelpout
17	6	0.885	72.8	0.007331	0.940961	*Zoraster evermanni*	
18	6	0.830	31.8	0.006876	0.947837	*Bathyraja abyssicola*	Deepsea skate
19	6	0.659	21.7	0.005459	0.953296	*Paralomis multispina*	
20	6	0.484	36.9	0.004004	0.957299	*Heterozonias alternatus*	
21	6	0.276	44.6	0.002287	0.959586	*Neptunea amianta*	
22	6	0.276	40.1	0.002282	0.961868	*Lophaster furcilliger*	
23	6	0.257	35.4	0.002130	0.963998	*Psychrolutes phrictus*	Blob sculpin
24	6	0.250	59.6	0.002068	0.966066	*Bathybembix bairdii*	
25	6	0.248	99.6	0.002054	0.968120	*Brisaster latifrons*	
26	6	0.231	25.6	0.001913	0.970033	*Myoxoderma sacculatum*	
27	6	0.209	52.8	0.001730	0.971763	*Apristurus brunneus*	Brown cat shark
28	6	0.181	34.1	0.001498	0.973261	*Hippasteria californica*	
29	6	0.178	34.3	0.001474	0.974735	*Nearchaster aciculosus*	
30	6	0.174	37.4	0.001444	0.976179	*Crossaster borealis*	
31	6	0.165	79.4	0.001363	0.977543	*Hylonema* sp.	Fiberoptic sponge
32	6	0.137	33.8	0.001136	0.978679	*Liponema brevicorne*	Tentacle-shedding anemone
33	6	0.130	99.1	0.001075	0.979754	*Coryphaenoides cinereus*	Popeye grenadier
34	6	0.125	69.8	0.001036	0.980790	*Molpadia intermedia*	
35	6	0.125	100.0	0.001035	0.981824	Hexactinellida (class)	Glass sponge
36	6	0.114	22.1	0.000948	0.982772	*Bathylagus* sp.	Blacksmelt unident.
37	6	0.107	74.7	0.000887	0.983660	*Benthalbella* sp.	
38	6	0.092	40.8	0.000760	0.984419	*Nearchaster* sp.	
39	6	0.087	99.4	0.000722	0.985141	Holothuroidea (class)	Sea cucumber unident.
40	6	0.085	34.8	0.000707	0.985849	*Apristurus kampae*	Longnose cat shark
41	6	0.080	45.7	0.000662	0.986511	*Merluccius productus*	Pacific hake
42	6	0.080	46.7	0.000660	0.987171	*Embryx crotalinus*	Snakehead eelpout
43	6	0.080	37.9	0.000660	0.987831	Actinostolidae	
44	6	0.071	31.0	0.000591	0.988422	Bathylagidae	Deepsea smelt
45	6	0.071	62.9	0.000586	0.989008	*Actinauge verrillii*	Reticulate anemone
46	6	0.069	21.9	0.000574	0.989582	*Vampyroteuthis infernalis*	
47	6	0.060	29.7	0.000499	0.990081	Myxinidae	Hagfish
48	6	0.059	41.5	0.000487	0.990569	Thaliacea (class)	Salps unident.
49	6	0.057	51.0	0.000475	0.991043	*Chrysaora melanaster*	
50	6	0.054	83.8	0.000444	0.991488	Ophiuroidea (class)	Brittlestarfish unident.

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
51	6	0.052	53.4	0.000431	0.991919	*Pannychia moseleyi*	
52	6	0.050	39.8	0.000416	0.992336	*Stylatula* sp.	Slender seawhips
53	6	0.049	31.3	0.000408	0.992743	*Thetys vagina*	Common salp
54	6	0.047	68.7	0.000393	0.993136	*Aphrocallistes vastus*	Clay pipe sponge
55	6	0.0	58.4	0.000377	0.993513	*Paralomis verrilli*	
56	6	0.045	58.4	0.000376	0.993889	Cephalopoda (class)	Squid unident.
57	6	0.045	77.9	0.000369	0.994258	*Buccinum viridum*	Turban whelk
58	6	0.038	69.2	0.000317	0.994575	*Pagurus* sp.	
59	6	0.036	17.5	0.000294	0.994869	*Pasiphaea tarda*	Crimson pasiphaeid
60	6	0.031	21.8	0.000259	0.995128	*Chauliodus macouni*	Pacific viperfish
61	6	0.031	87.6	0.000259	0.995386	*Pseudostichopus mollis*	Sandy sea cucumber
62	6	0.030	51.5	0.000248	0.995634	Scyphozoa (class)	Jellyfish unident.
63	6	0.025	46.3	0.000210	0.995844	*Berryteuthis magister*	Magistrate armhook squid
64	6	0.024	70.4	0.000198	0.996043	*Opisthoteuthis californiana*	Flapjack devilfish
65	6	0.022	39.6	0.000183	0.996226	*Careproctus colletti*	Alaska snailfish
66	6	0.021	56.5	0.000176	0.996402	*Octopus leioderma*	Smoothskin octopus
67	6	0.021	15.5	0.000172	0.996573	*Lampanyctus* sp.	
68	6	0.020	41.5	0.000162	0.996735	*Pandalopsis ampla*	
69	6	0.019	100.0	0.000155	0.996890	*Alepisaurus ferox*	Longnose lancetfish
70	6	0.018	85.5	0.000148	0.997038	*Pyrosoma atlanticum*	
71	6	0.015	57.4	0.000126	0.997164	*Icichthys lockingtoni*	Medusafish
72	6	0.015	50.8	0.000122	0.997286	*Actinostola* sp.	
73	6	0.014	57.7	0.000118	0.997404	*Dipsacaster* sp.	
74	6	0.014	74.5	0.000114	0.997518	*Diplopteraster multipes*	
75	6	0.013	19.1	0.000111	0.997629	*Tactostoma macropus*	Longfin dragonfish
76	6	0.013	47.5	0.000107	0.997736	*Pteraster coscinopeplus*	Deepwater pteraster
77	6	0.012	35.2	0.000102	0.997838	*Taningia danae*	Rhomboid squid
78	6	0.012	49.7	0.000102	0.997940	*Eptatretus deani*	Black hagfish
79	6	0.011	100.0	0.000090	0.998031	Actiniaria (order)	
80	6	0.010	55.7	0.000083	0.998113	*Lithodes couesi*	
81	6	0.009	100.0	0.000073	0.998187	Asteroidea (class)	Starfish unident.
82	6	0.008	40.3	0.000069	0.998256	*Tritonia diomedea*	Rosy tritonia
83	6	0.008	100.0	0.000068	0.998323	*Luidia foliolata*	
84	6	0.008	47.0	0.000062	0.998386	*Hippasteria spinosa*	
85	6	0.007	72.9	0.000061	0.998447	*Amphiophiura* sp.	
86	6	0.007	43.8	0.000061	0.998508	*Talismania bifurcata*	Threadfin slickhead
87	6	0.007	33.2	0.000061	0.998568	Myctophidae	Lanternfish
88	6	0.007	51.8	0.000058	0.998626	*Careproctus* sp.	
89	6	0.006	100.0	0.000051	0.998677	*Moroteuthis robusta*	Robust clubhook squid
90	6	0.006	95.5	0.000050	0.998727	*Histioteuthis hoylei*	
91	6	0.006	100.0	0.000048	0.998775	*Grimpoteuthis albatrossi*	
92	6	0.005	100.0	0.000045	0.998820	Paguridae	Hermit crab unident.
93	6	0.005	57.0	0.000044	0.998864	*Asteronyx* sp.	
94	6	0.005	48.8	0.000043	0.998907	*Asteronyx loveni*	
95	6	0.005	46.6	0.000043	0.998951	Pennatulacea (order)	Sea pen or sea whip
96	6	0.005	48.6	0.000040	0.998991	*Octopoteuthis deletron*	
97	6	0.005	71.6	0.000038	0.999029	*Periphylla periphylla*	
98	6	0.004	47.9	0.000036	0.999065	*Serrivomer sector*	Sawtooth eel
99	6	0.004	100.0	0.000034	0.999099	*Halagyreus johnsoni*	
100	6	0.004	71.5	0.000031	0.999130	*Antipathes* sp.	
101	6	0.003	66.4	0.000029	0.999158	*Pseudarchaster parelii*	
102	6	0.003	100.0	0.000027	0.999186	*Allocentrotus* sp.	
103	6	0.003	44.3	0.000027	0.999212	*Tritonia* sp.	
104	6	0.003	70.1	0.000027	0.999239	*Dicrolene filamentosa*	Threadfin cusk-eel
105	6	0.003	70.0	0.000027	0.999266	Actiniaria (order)	
106	6	0.003	45.9	0.000026	0.999292	*Chiroteuthis* sp.	
107	6	0.003	47.1	0.000026	0.999318	Rajiidae	Skate unident.
108	6	0.003	100.0	0.000024	0.999343	*Squalus acanthias*	Spiny dogfish

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
109	6	0.003	61.6	0.000023	0.999366	*Solaster* sp.	
110	6	0.003	42.7	0.000023	0.999389	*Anoplogaster cornuta*	Fangtooth
111	6	0.003	74.6	0.000023	0.999412	Ascidiacea (class)	Tunicate unident.
112	6	0.003	100.0	0.000022	0.999434	*Benthodesmus* sp.	
113	6	0.003	62.0	0.000021	0.999455	*Pteraster* sp.	
114	6	0.002	100.0	0.000020	0.999475	Ctenophora (phylum)	Comb jelly unident.
115	6	0.002	84.9	0.000020	0.999496	Porifera (phylum)	Sponge unident.
116	6	0.002	61.4	0.000018	0.999513	Hormathiidae	
117	6	0.002	93.8	0.000018	0.999531	*Careproctus melanurus*	Blacktail snailfish
118	6	0.002	100.0	0.000016	0.999547	*Phacellophora camtchatica*	
119	6	0.002	66.9	0.000016	0.999563	Cephalopoda (class)	Squid unident.
120	6	0.002	60.9	0.000015	0.999579	Nemichthyidae	Snipe eel
121	6	0.002	61.3	0.000015	0.999594	*Virgularia* sp.	Smoothstem seawhip
122	6	0.002	96.8	0.000015	0.999609	*Amphiophiura ponderosa*	
123	6	0.002	44.6	0.000015	0.999624	*Aristostomias scintillans*	Shining loosejaw
124	6	0.002	100.0	0.000014	0.999638	*Cyanea capillata*	Lion's mane
125	6	0.002	100.0	0.000014	0.999652	*Pteraster militaris*	
126	6	0.002	100.0	0.000014	0.999666	*Ophiura sarsi*	
127	6	0.001	39.4	0.000012	0.999678	*Sagamichthys abei*	Shining tubeshoulder
128	6	0.001	48.5	0.000011	0.999688	Aphroditidae	Sea mouse unident.
129	6	0.001	72.1	0.000011	0.999699	*Pseudarchaster pussillus*	
130	6	0.001	66.3	0.000010	0.999709	Melamphaidae	Bigscale
131	6	0.001	60.9	0.000010	0.999719	*Stenobrachius* sp.	
132	6	0.001	40.0	0.000010	0.999729	*Stereomastus sculpta*	
133	6	0.001	100.0	0.000009	0.999738	*Bathyraja trachura*	
134	6	0.001	66.4	0.000009	0.999748	Gastropoda (class)	Snail eggs unident.
135	6	0.001	70.7	0.000009	0.999757	*Cranchia scabra*	Sandpaper squid
136	6	0.001	56.6	0.000009	0.999765	*Oneirodes* sp.	
137	6	0.001	100.0	0.000008	0.999773	*Icelinus filamentosus*	Threadfin sculpin
138	6	0.001	72.4	0.000008	0.999781	*Colus aphelus*	Oblique whelk
139	6	0.001	53.0	0.000008	0.999789	Gastropoda (class)	Gastropod unident.
140	6	0.001	100.0	0.000008	0.999797	*Cryptopeltaster lepidonotus*	
141	6	0.001	93.4	0.000007	0.999804	*Scopelosaurus harryi*	Scaly paperbone
142	6	0.001	100.0	0.000007	0.999811	*Gonatus* sp.	
143	6	0.001	86.5	0.000007	0.999818	*Bathypathes* sp.	
144	6	0.001	72.6	0.000006	0.999825	*Ophidion scrippsae*	Basketweave cusk-eel
145	6	0.001	70.7	0.000006	0.999831	Bivalvia (class)	Bivalve unident.
146	6	0.001	81.7	0.000006	0.999837	Nudibranchia (order)	Nudibranch unident.
147	6	0.001	100.0	0.000005	0.999843	Taoniinae	
148	6	0.001	70.5	0.000005	0.999848	*Poromitra crassiceps*	Crested bigscale
149	6	0.001	63.1	0.000005	0.999853	*Pagurus tanneri*	Longhand hermit
150	6	0.001	71.9	0.000005	0.999858	Cyclopteridae	Snailfish unident.
151	6	0.001	81.7	0.000005	0.999864	*Gonatus onyx*	Clawed armhook squid
152	6	0.001	58.5	0.000005	0.999869	*Loligo opalescens*	California market squid
153	6	0.001	100.0	0.000005	0.999873	*Octopus californicus*	N. Pacific bigeye octopus
154	6	0.001	48.2	0.000004	0.999878	Actiniaria (order)	Sea anemone unident.
155	6	0.001	100.0	0.000004	0.999882	*Stenobrachius leucopsarus*	Northern lampfish
156	6	0.001	70.3	0.000004	0.999886	*Acharax johnsoni*	
157	6	0.001	100.0	0.000004	0.999891	*Melamphaes lugubris*	Highsnout bigscale
158	6	0.001	45.8	0.000004	0.999895	*Gnathophausia ingens*	
159	6	<0.001	68.5	0.000004	0.999899	*Antipathes* sp.	
160	6	<0.001	71.1	0.000004	0.999903	*Macropinna microstoma*	Barreleye
161	6	<0.001	62.2	0.000004	0.999907	*Lycodapus fierasfer*	Blackmouth eelpout
162	6	<0.001	100.0	0.000004	0.999910	*Anthomastus* sp.	
163	6	<0.001	100.0	0.000003	0.999914	*Swiftia* sp.	
164	6	<0.001	100.0	0.000003	0.999917	Crinoidea (class)	Crinoid unident.
165	6	<0.001	75.9	0.000003	0.999920	*Lampanyctus regalis*	Pinpoint lampfish
166	6	<0.001	100.0	0.000003	0.999924	*Colus tahwitanus*	

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
167	6	<0.001	100.0	0.000003	0.999927	*Bothrocara remigerum*	Longfin eelpout
168	6	<0.001	100.0	0.000003	0.999930	Melanostomiidae	Scaleless dragonfish
169	6	<0.001	100.0	0.000003	0.999933	*Paraliparus rosaceus*	
170	6	<0.001	48.6	0.000003	0.999936	*Periphylla* sp.	
171	6	<0.001	37.7	0.000003	0.999939	*Umbellula* sp.	
172	6	<0.001	73.2	0.000003	0.999942	*Pseudarchaster* sp.	
173	6	<0.001	71.7	0.000003	0.999945	Bivalvia (class)	Bivalve unident.
174	6	<0.001	78.9	0.000003	0.999948	*Hyas lyratus*	Pacific lyre crab
175	6	<0.001	100.0	0.000003	0.999950	*Chiasmodontidae*	Swallowers
176	6	<0.001	62.6	0.000002	0.999953	*Notostomus japonicus*	Spinyridge shrimp
177	6	<0.001	53.0	0.000002	0.999955	*Eualus* sp.	
178	6	<0.001	68.2	0.000002	0.999958	Isopoda (order)	Isopod unident.
179	6	<0.001	100.0	0.000002	0.999960	*Neptunea pribiloffensis*	Pribilof whelk
180	6	<0.001	100.0	0.000002	0.999962	*Beroe* sp.	
181	6	<0.001	100.0	0.000002	0.999964	*Ampheraster marianus*	
182	6	<0.001	100.0	0.000002	0.999966	Tube worm unident.	
183	6	<0.001	100.0	0.000002	0.999968	Gorgonacea (order)	Gorgonian coral
184	6	<0.001	71.4	0.000002	0.999969	*Chiroteuthis calyx*	
185	6	<0.001	100.0	0.000002	0.999971	Heteropoda (class)	
186	6	<0.001	100.0	0.000002	0.999972	*Bathyraja* sp.	
187	6	<0.001	73.6	0.000001	0.999974	*Buccinum* sp.	
188	6	<0.001	67.4	0.000001	0.999975	*Eualus macrophthalmus*	
189	6	<0.001	100.0	0.000001	0.999977	*Euplexaura marki*	
190	6	<0.001	81.4	0.000001	0.999978	*Colus* sp.	
191	6	<0.001	100.0	0.000001	0.999979	*Bathylagus ochotensis*	Popeye blacksmelt
192	6	<0.001	81.6	0.000001	0.999980	*Paraliparis* sp.	
193	6	<0.001	89.1	0.000001	0.999981	*Nemichthys scolopaceus*	Slender snipe eel
194	6	<0.001	89.3	0.000001	0.999982	*Acanthephyra curtirostris*	Peaked shrimp
195	6	<0.001	100.0	0.000001	0.999983	*Avocettina infans*	Blackline snipe eel
196	6	<0.001	100.0	0.000001	0.999984	*Ctenodiscus crispatus*	Common mud star
197	6	<0.001	78.4	0.000001	0.999985	*Natica* sp.	
198	6	<0.001	100.0	0.000001	0.999986	*Henricia* sp.	
199	6	<0.001	100.0	0.000001	0.999987	*Pseudarchaster parelii*	
200	6	<0.001	100.0	0.000001	0.999988	*Munida quadrispina*	
201	6	<0.001	73.6	0.000001	0.999989	*Sternoptyx diaphana*	Longspine hatchetfish
202	6	<0.001	61.2	0.000001	0.999990	*Delectopecten vancouverensis*	Vancouver scallop
203	6	<0.001	100.0	0.000001	0.999992	*Myoxoderma platyacanthum*	
204	6	<0.001	100.0	0.000001	0.999992	*Stylasterias forreri*	
205	6	<0.001	60.5	0.000001	0.999992	Malacostraca (class)	Malacostracan unident.
206	6	<0.001	100.0	0.000001	0.999993	*Parantipathes* sp.	
207	6	<0.001	100.0	0.000001	0.999994	*Actinernus* sp.	
208	6	<0.001	100.0	0.000001	0.999995	*Parastichopus leucothele*	
209	6	<0.001	100.0	0.000001	0.999995	*Diaphus theta*	California headlightfish
210	6	<0.001	82.2	0.000001	0.999996	Polychaeta (class)	Polychaete worm unident.
211	6	<0.001	100.0	0.000000	0.999996	Sternoptychidae	Hatchetfish
212	6	<0.001	100.0	0.000000	0.999997	*Leuroglossus schmidti*	Northern smoothtongue
213	6	<0.001	100.0	0.000000	0.999998	*Tarletonbeania* sp.	
214	6	<0.001	100.0	0.000000	0.999998	*Leuroglossus* sp.	
215	6	<0.001	100.0	0.000000	0.999998	Pandalidae	Pandalid shrimp
216	6	<0.001	100.0	0.000000	0.999998	*Lycodapus mandibularis*	Pallid eelpout
217	6	<0.001	100.0	0.000000	0.999999	*Callianassa* sp.	
218	6	<0.001	100.0	0.000000	0.999999	*Ophiopholis* sp.	
219	6	<0.001	100.0	0.000000	0.999999	*Sternoptyx* sp.	
220	6	<0.001	100.0	0.000000	0.999999	*Chorilia longipes*	Longhorned decorator crab
221	6	<0.001	100.0	0.000000	1.000000	Crustacea (phylum)	Crustacean unident.
222	6	<0.001	100.0	0.000000	1.000000	*Tarletonbeania crenularis*	Blue lanternfish
223	6	<0.001	100.0	0.000000	1.000000	*Pseudarchaster dissonus*	
224	6	<0.001	100.0	0.000000	1.000000	*Psychrolutes sp.*	

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
225	6	<0.001	100.0	0.000000	1.000000	Amphipod (order)	Amphipod unident.
226	6	<0.001	100.0	0.000000	1.000000	*Neomenia* sp.	
227	6	<0.001	100.0	0.000000	1.000000	*Colus trophius*	
228	6	<0.001	100.0	0.000000	1.000000	*Cyclothone* sp.	
	Total	120.837					
1	Total	19.775	11.2	0.127815	0.127815	*Microstomus pacificus*	Dover sole
2	Total	17.949	7.4	0.116024	0.243839	*Sebastolobus altivelis*	Longspine thornyhead
3	Total	15.945	40.9	0.103057	0.346896	*Squalus acanthias*	Spiny dogfish
4	Total	11.942	17.9	0.077186	0.424082	*Merluccius productus*	Pacific hake
5	Total	8.756	9.7	0.056600	0.480682	*Anoplopoma fimbria*	Sablefish
6	Total	5.202	14.0	0.033631	0.514313	*Coryphaenoides acrolepis*	Pacific grenadier
7	Total	5.184	69.8	0.033508	0.547821	*Sebastes jordani*	Shortbelly rockfish
8	Total	5.134	13.1	0.033194	0.581015	*Albatrossia pectoralis*	Giant grenadier
9	Total	4.869	18.3	0.031472	0.612487	*Glyptocephalus zachirus*	Rex sole
10	Total	4.824	42.5	0.031179	0.643667	*Brisaster latifrons*	
11	Total	4.762	7.7	0.030779	0.674446	*Sebastolobus alascanus*	Shortspine thornyhead
12	Total	4.519	13.1	0.029208	0.703654	*Chionoecetes tanneri*	True Tanner crab
13	Total	3.511	24.0	0.022691	0.726345	*Allocentrotus fragilis*	Orange-pink sea urchin
14	Total	2.517	14.7	0.016268	0.742613	*Raja rhina*	Longnose skate
15	Total	2.296	31.6	0.014839	0.757452	*Sebastes diploproa*	Splitnose rockfish
16	Total	2.205	45.5	0.014251	0.771703	*Myoxoderma platyacanthum*	
17	Total	2.034	14.8	0.013148	0.784852	*Alepocephalus tenebrosus*	California slickhead
18	Total	1.706	38.5	0.011028	0.795880	*Sebastes saxicola*	Stripetail rockfish
19	Total	1.664	40.7	0.010756	0.806636	*Hydrolagus colliei*	Spotted ratfish
20	Total	1.551	51.3	0.010027	0.816663	*Sebastes alutus*	Pacific ocean perch
21	Total	1.425	11.1	0.009214	0.825877	*Paractinostola faeculenta*	Rough purple sea anemone
22	Total	1.139	19.7	0.007362	0.833239	*Lyopsetta exilis*	Slender sole
23	Total	1.066	19.7	0.006891	0.840130	*Lycodes cortezianus*	Bigfin eelpout
24	Total	1.041	11.7	0.006729	0.846859	*Antimora microlepis*	Pacific flatnose
25	Total	1.024	10.9	0.006620	0.853479	*Embassichthys bathybius*	Deepsea sole
26	Total	1.013	10.0	0.006548	0.860027	*Apristurus brunneus*	Brown cat shark
27	Total	0.838	95.0	0.005419	0.865446	*Ophiura sarsi*	
28	Total	0.804	99.7	0.005195	0.870640	*Citharichthys sordidus*	Pacific sanddab
29	Total	0.799	23.7	0.005166	0.875807	*Atheresthes stomias*	Arrowtooth flounder
30	Total	0.793	34.0	0.005125	0.880931	*Scotoplanes theeli*	
31	Total	0.720	38.4	0.004655	0.885586	*Parophrys vetulus*	English sole
32	Total	0.715	17.1	0.004625	0.890210	*Bathyraja interrupta*	Bering skate
33	Total	0.703	42.4	0.004542	0.894753	*Eopsetta jordani*	Petrale sole
34	Total	0.686	100.0	0.004438	0.899190	*Neolithodes diomedeae*	
35	Total	0.684	99.4	0.004419	0.903609	*Sebastes flavidus*	Yellowtail rockfish
36	Total	0.678	55.0	0.004382	0.907992	*Brisaster* sp.	
37	Total	0.671	18.7	0.004336	0.912327	*Bothrocara brunneum*	Twoline eelpout
38	Total	0.613	21.1	0.003961	0.916288	*Thrissacanthias penicillatus*	
39	Total	0.577	30.3	0.003728	0.920016	*Sebastes aurora*	Aurora rockfish
40	Total	0.547	14.1	0.003539	0.923555	*Bathyraja trachura*	Black skate
41	Total	0.484	70.6	0.003126	0.926681	*Sebastes zacentrus*	Sharpchin rockfish
42	Total	0.477	62.0	0.003083	0.929765	*Sebastes crameri*	Darkblotched rockfish
43	Total	0.432	23.9	0.002789	0.932554	*Bathybembix bairdii*	
44	Total	0.415	41.1	0.002683	0.935237	*Luidia foliolata*	
45	Total	0.399	14.4	0.002578	0.937816	*Heterozonias alternatus*	
46	Total	0.374	44.1	0.002414	0.940230	*Parastichopus leucothele*	
47	Total	0.356	51.5	0.002302	0.942532	*Sebastes melanostomus*	Blackgill rockfish
48	Total	0.351	14.5	0.002272	0.944803	*Neptunea amianta*	
49	Total	0.343	35.3	0.002220	0.947024	*Liponema brevicorne*	Tentacle-shedding anemone
50	Total	0.341	45.9	0.002207	0.949230	*Aphrocallistes vastus*	Clay pipe sponge
51	Total	0.341	58.0	0.002206	0.951436	*Rathbunaster californicus*	
52	Total	0.329	22.4	0.002126	0.953562	*Lycodes diapterus*	Black eelpout
53	Total	0.325	95.3	0.002100	0.955662	*Brisaster* sp.	

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
54	Total	0.298	73.5	0.001929	0.957591	*Loligo opalescens*	California market squid
55	Total	0.217	51.9	0.001402	0.958993	*Zoraster evermanni*	
56	Total	0.214	31.4	0.001383	0.960376	*Parmaturus xaniurus*	Filetail cat shark
57	Total	0.213	47.1	0.001378	0.961754	*Sebastes goodei*	Chilipepper
58	Total	0.210	52.6	0.001360	0.963114	*Hippoglossus stenolepis*	Pacific halibut
59	Total	0.194	48.4	0.001256	0.964369	*Oncorhynchus tshawytscha*	Chinook salmon
60	Total	0.178	30.6	0.001148	0.965517	*Bathyraja abyssicola*	Deepsea skate
61	Total	0.171	37.3	0.001105	0.966623	*Sebastes elongatus*	Greenstriped rockfish
62	Total	0.171	48.7	0.001102	0.967725	*Pseudostichopus mollis*	Sandy sea cucumber
63	Total	0.160	99.3	0.001034	0.968759	Echinoida (order)	Sea urchin unident.
64	Total	0.137	23.3	0.000887	0.969646	*Talismania bifurcata*	Threadfin slickhead
65	Total	0.137	35.8	0.000884	0.970530	*Ophiodon elongatus*	Lingcod
66	Total	0.134	57.4	0.000867	0.971397	*Sebastes paucispinis*	Bocaccio
67	Total	0.133	74.3	0.000862	0.972259	*Moroteuthis robusta*	Robust clubhook squid
68	Total	0.133	48.5	0.000859	0.973118	*Neptunea* sp.	
69	Total	0.129	23.5	0.000832	0.973950	*Paralomis multispina*	
70	Total	0.127	14.6	0.000821	0.974771	Myxinidae	Hagfish
71	Total	0.119	19.7	0.000770	0.975541	*Opisthoteuthis californiana*	Flapjack devilfish
72	Total	0.117	61.5	0.000757	0.976298	*Pannychia moseleyi*	
73	Total	0.114	17.8	0.000735	0.977033	*Embryx crotalinus*	Snakehead eelpout
74	Total	0.112	31.4	0.000722	0.977755	*Thetys vagina*	Common salp
75	Total	0.110	91.3	0.000714	0.978469	*Pagurus tanneri*	Longhand hermit
76	Total	0.106	16.0	0.000685	0.979154	*Hippasteria californica*	
77	Total	0.105	43.0	0.000678	0.979832	*Sebastes entomelas*	Widow rockfish
78	Total	0.100	15.5	0.000645	0.980476	*Crossaster borealis*	
79	Total	0.091	50.7	0.000585	0.981061	*Lopholithodes foraminatus*	Box crab
80	Total	0.087	49.9	0.000562	0.981624	*Trachurus symmetricus*	Jack mackerel
81	Total	0.084	16.1	0.000545	0.982169	Thaliacea (class)	Salps unident.
82	Total	0.084	75.3	0.000542	0.982711	*Sebastes proriger*	Redstripe rockfish
83	Total	0.077	68.1	0.000498	0.983208	*Metridium giganteum*	Gigantic anemone
84	Total	0.076	21.2	0.000494	0.983703	*Careproctus melanurus*	Blacktail snailfish
85	Total	0.076	49.4	0.000491	0.984194	*Amphiophiura ponderosa*	
86	Total	0.068	25.8	0.000443	0.984636	*Myoxoderma sacculatum*	
87	Total	0.068	36.1	0.000441	0.985077	*Psychrolutes phrictus*	Blob sculpin
88	Total	0.067	40.4	0.000434	0.985511	*Chrysaora melanaster*	
89	Total	0.066	97.4	0.000429	0.985941	*Sebastes reedi*	Yellowmouth rockfish
90	Total	0.060	92.9	0.000389	0.986329	*Alosa sapidissima*	American shad
91	Total	0.060	24.7	0.000386	0.986716	*Nearchaster aciculosus*	
92	Total	0.057	93.3	0.000366	0.987082	*Sebastes levis*	Cowcod
93	Total	0.056	14.9	0.000359	0.987441	*Bathylagus* sp.	Blacksmelt unident.
94	Total	0.055	40.1	0.000353	0.987794	*Pagurus* sp.	
95	Total	0.054	51.2	0.000351	0.988145	*Sebastes borealis*	Shortraker rockfish
96	Total	0.053	38.0	0.000343	0.988488	*Lophaster furcilliger*	
97	Total	0.048	38.4	0.000313	0.988801	*Actinauge verrillii*	Reticulate anemone
98	Total	0.047	34.9	0.000307	0.989108	*Sebastes babcocki*	Redbanded rockfish
99	Total	0.046	24.9	0.000299	0.989407	Actinostolidae	
100	Total	0.041	36.5	0.000266	0.989673	*Apristurus kampae*	Longnose cat shark
101	Total	0.041	43.6	0.000266	0.989939	*Molpadia intermedia*	
102	Total	0.041	44.9	0.000264	0.990203	*Sebastes aleutianus*	Rougheye rockfish
103	Total	0.041	58.6	0.000264	0.990467	*Hylonema* sp.	Fiberoptic sponge
104	Total	0.040	13.9	0.000261	0.990728	*Vampyroteuthis infernalis*	
105	Total	0.040	39.0	0.000258	0.990986	*Cancer magister*	Dungeness crab
106	Total	0.038	68.2	0.000248	0.991234	*Lycodes pacificus*	Blackbelly eelpout
107	Total	0.038	36.3	0.000247	0.991482	Scyphozoa (class)	Jellyfish unident.
108	Total	0.038	100.0	0.000245	0.991727	*Galeorhinus galeus*	Soupfin shark
109	Total	0.036	87.6	0.000234	0.991960	*Metridium* sp.	
110	Total	0.035	45.6	0.000228	0.992189	*Torpedo californica*	Pacific electric ray
111	Total	0.033	31.4	0.000212	0.992400	*Octopus dofleini*	Giant octopus

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
112	Total	0.033	61.2	0.000211	0.992611	*Sebastes pinniger*	Canary rockfish
113	Total	0.032	30.0	0.000210	0.992821	*Neptunea pribiloffensis*	Pribilof whelk
114	Total	0.031	47.3	0.000198	0.993019	*Benthalbella* sp.	
115	Total	0.030	73.5	0.000193	0.993212	Hexactinellida (class)	Glass sponge
116	Total	0.030	43.4	0.000191	0.993403	*Periphylla periphylla*	
117	Total	0.030	37.0	0.000191	0.993594	Cephalopoda (class)	Squid unident.
118	Total	0.028	77.0	0.000184	0.993778	*Sebastes rufus*	Bank rockfish
119	Total	0.028	44.3	0.000181	0.993959	*Sebastes helvomaculatus*	Rosethorn rockfish
120	Total	0.025	19.2	0.000163	0.994122	Bathylagidae	Deepsea smelt
121	Total	0.024	43.8	0.000155	0.994276	*Dipsacaster* sp.	
122	Total	0.024	99.4	0.000154	0.994431	*Raja binoculata*	Big skate
123	Total	0.024	93.0	0.000153	0.994583	*Coryphaenoides cinereus*	Popeye grenadier
124	Total	0.023	38.8	0.000151	0.994734	*Hippasteria spinosa*	
125	Total	0.023	24.0	0.000148	0.994883	*Berryteuthis magister*	Magistrate armhook squid
126	Total	0.021	34.7	0.000136	0.995019	*Nearchaster* sp.	
127	Total	0.020	23.0	0.000130	0.995149	*Stylatula* sp.	Slender seawhips
128	Total	0.020	28.2	0.000129	0.995277	*Eptatretus deani*	Black hagfish
129	Total	0.020	50.2	0.000128	0.995406	*Octopus californicus*	N. Pacific bigeye octopus
130	Total	0.020	34.4	0.000127	0.995533	*Pleurobranchaea californica*	California sea slug
131	Total	0.020	13.6	0.000126	0.995659	*Pasiphaea tarda*	Crimson pasiphaeid
132	Total	0.018	61.1	0.000117	0.995776	Ophiuroidea (class)	Brittlestarfish unident.
133	Total	0.017	12.5	0.000113	0.995889	*Chauliodus macouni*	Pacific viperfish
134	Total	0.017	85.4	0.000113	0.996001	Holothuroidea (class)	Sea cucumber unident.
135	Total	0.017	95.2	0.000108	0.996109	*Chionoecetes angulatus*	Triangle tanner crab
136	Total	0.016	41.5	0.000102	0.996211	*Buccinum viridum*	Turban whelk
137	Total	0.016	69.1	0.000101	0.996312	*Argentina sialis*	Pacific argentine
138	Total	0.016	35.0	0.000101	0.996413	*Octopus leioderma*	Smoothskin octopus
139	Total	0.015	17.3	0.000099	0.996512	*Taningia danae*	Rhomboid squid
140	Total	0.015	25.7	0.000095	0.996607	*Lithodes couesi*	
141	Total	0.014	42.2	0.000092	0.996699	*Pandalus platyceros*	Spot shrimp
142	Total	0.013	58.9	0.000087	0.996786	*Gadus macrocephalus*	Pacific cod
143	Total	0.013	11.2	0.000081	0.996867	*Lampanyctus* sp.	
144	Total	0.012	52.3	0.000076	0.996944	*Sebastes brevispinis*	Silvergray rockfish
145	Total	0.011	50.2	0.000071	0.997015	*Grimpoteuthis albatrossi*	
146	Total	0.010	31.6	0.000068	0.997083	*Pyrosoma atlanticum*	
147	Total	0.010	89.1	0.000067	0.997149	*Parastichopus californicus*	
148	Total	0.010	41.0	0.000065	0.997214	Hormathiidae	
149	Total	0.010	80.2	0.000063	0.997277	*Mursia gaudichaudii*	
150	Total	0.009	11.3	0.000061	0.997337	*Tactostoma macropus*	Longfin dragonfish
151	Total	0.009	61.9	0.000060	0.997397	*Asteronyx loveni*	
152	Total	0.009	56.7	0.000058	0.997456	*Chorilia longipes*	Longhorned decorator crab
153	Total	0.009	36.5	0.000058	0.997514	*Histioteuthis hoylei*	
154	Total	0.009	30.3	0.000058	0.997572	*Pteraster coscinopeplus*	Deepwater pteraster
155	Total	0.009	100.0	0.000057	0.997629	*Mola mola*	Ocean sunfish
156	Total	0.009	32.2	0.000056	0.997685	Porifera (phylum)	Sponge unident.
157	Total	0.008	93.0	0.000054	0.997738	Gastropoda (class)	Gastropod unident.
158	Total	0.008	45.6	0.000052	0.997790	*Stylasterias forreri*	
159	Total	0.008	59.8	0.000050	0.997840	*Paralomis verrilli*	
160	Total	0.008	23.4	0.000050	0.997890	Aphroditidae	Sea mouse unident.
161	Total	0.008	79.5	0.000050	0.997940	Asteroidea (class)	Starfish unident.
162	Total	0.008	100.0	0.000049	0.997989	*Bathyraja aleutica*	Aleutian skate
163	Total	0.007	66.2	0.000048	0.998037	*Neptunea lyrata*	Lyre whelk
164	Total	0.007	28.8	0.000047	0.998083	*Actinostola* sp.	
165	Total	0.007	33.1	0.000046	0.998130	*Icichthys lockingtoni*	Medusafish
166	Total	0.007	23.9	0.000045	0.998175	*Tritonia diomedea*	Rosy tritonia
167	Total	0.007	44.3	0.000043	0.998218	*Icelinus filamentosus*	Threadfin sculpin
168	Total	0.007	99.8	0.000042	0.998260	*Ophiacantus* sp.	
169	Total	0.006	87.5	0.000040	0.998300	*Cancer productus*	Red rock crab

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
170	Total	0.006	13.1	0.000039	0.998339	Myctophidae	Lanternfish
171	Total	0.006	53.7	0.000039	0.998377	Paguridae	Hermit crab unident.
172	Total	0.006	84.5	0.000038	0.998416	*Buccinum strigillatum*	
173	Total	0.006	43.1	0.000036	0.998452	*Diplopteraster multipes*	
174	Total	0.005	27.1	0.000035	0.998488	*Careproctus* sp.	
175	Total	0.005	71.6	0.000034	0.998522	*Sebastes chlorostictus*	Greenspotted rockfish
176	Total	0.005	91.7	0.000034	0.998555	*Neptunea* sp.	*Neptunea* sp. eggs
177	Total	0.005	72.4	0.000034	0.998589	*Alepisaurus ferox*	Longnose lancetfish
178	Total	0.005	30.3	0.000034	0.998623	*Octopoteuthis deletron*	
179	Total	0.005	53.6	0.000033	0.998656	*Nezumia liolepis*	Smooth grenadier
180	Total	0.005	29.5	0.000033	0.998689	*Ampheraster marianus*	
181	Total	0.005	62.4	0.000032	0.998721	*Anthomastus* sp.	
182	Total	0.005	31.9	0.000031	0.998752	Actiniaria (order)	Sea anemone unident.
183	Total	0.005	34.8	0.000031	0.998783	*Careproctus colletti*	Alaska snailfish
184	Total	0.005	53.8	0.000031	0.998814	*Pasiphaea pacifica*	Pacific glass shrimp
185	Total	0.005	46.2	0.000030	0.998844	*Pandalus jordani*	Ocean shrimp
186	Total	0.005	33.6	0.000030	0.998873	*Histioteuthis* sp.	Jewel squids
187	Total	0.005	36.2	0.000029	0.998902	*Pandalopsis ampla*	
188	Total	0.004	88.0	0.000028	0.998931	*Pycnopodia helianthoides*	
189	Total	0.004	33.5	0.000028	0.998958	*Tritonia* sp.	
190	Total	0.004	57.6	0.000026	0.998985	*Paralithodes californiensis*	
191	Total	0.004	90.7	0.000025	0.999010	*Parastichopus* sp.	
192	Total	0.004	29.3	0.000025	0.999035	*Pseudarchaster parelii*	
193	Total	0.004	53.4	0.000024	0.999059	*Fusitriton oregonensis*	Oregon triton
194	Total	0.004	69.0	0.000024	0.999084	*Paralithodes rathbuni*	
195	Total	0.004	100.0	0.000024	0.999108	Onychoteuthidae	
196	Total	0.004	55.4	0.000024	0.999132	Actiniaria (order)	
197	Total	0.004	37.2	0.000023	0.999155	*Nezumia stelgidolepis*	California grenadier
198	Total	0.003	100.0	0.000022	0.999177	Porifera (phylum)	
199	Total	0.003	50.2	0.000021	0.999198	*Ceramaster leptoceramus*	
200	Total	0.003	74.9	0.000020	0.999218	*Pagurus capillatus*	Hairy hermit crab
201	Total	0.003	35.8	0.000018	0.999236	*Chiroteuthis* sp.	
202	Total	0.003	72.4	0.000018	0.999254	*Ctenodiscus crispatus*	Common mud star
203	Total	0.003	64.0	0.000018	0.999272	*Mediaster aequalis*	
204	Total	0.003	88.4	0.000017	0.999289	*Phacellophora camtchatica*	
205	Total	0.003	99.8	0.000017	0.999306	Scaphopoda (class)	Scaphopod unident.
206	Total	0.003	22.6	0.000016	0.999323	*Neomenia* sp.	
207	Total	0.002	34.4	0.000016	0.999339	Rajiidae	Skate unident.
208	Total	0.002	25.6	0.000016	0.999354	Pennatulacea (order)	Sea pen or sea whip
209	Total	0.002	40.2	0.000013	0.999367	*Chilara taylori*	Spotted cusk-eel
210	Total	0.002	92.4	0.000013	0.999381	*Trachipterus altivelis*	King-of-the-salmon
211	Total	0.002	100.0	0.000013	0.999394	*Theragra chalcogramma*	Walleye pollock
212	Total	0.002	98.3	0.000013	0.999406	*Ceramaster patagonicus*	Orange bat star
213	Total	0.002	95.9	0.000012	0.999418	*Gorgonocephalus eucnemis*	Basketstarfish
214	Total	0.002	76.2	0.000011	0.999429	*Eptatretus* sp.	
215	Total	0.002	91.8	0.000011	0.999440	Polychaeta (class)	Polychaete worm unident.
216	Total	0.002	40.4	0.000011	0.999451	*Asteronyx* sp.	
217	Total	0.002	58.8	0.000011	0.999462	*Benthodesmus* sp.	
218	Total	0.002	54.4	0.000011	0.999473	*Solaster* sp.	
219	Total	0.002	26.5	0.000011	0.999483	*Sagamichthys abei*	Shining tubeshoulder
220	Total	0.002	51.0	0.000011	0.999494	*Beroe* sp.	
221	Total	0.002	100.0	0.000011	0.999505	*Somniosus pacificus*	Pacific sleeper shark
222	Total	0.002	22.4	0.000010	0.999515	*Aristostomias scintillans*	Shining loosejaw
223	Total	0.002	44.1	0.000010	0.999525	Holothuroidea (class)	
224	Total	0.002	24.8	0.000010	0.999535	*Anoplogaster cornuta*	Fangtooth
225	Total	0.002	100.0	0.000010	0.999545	*Pseudostichopus* sp.	
226	Total	0.001	59.7	0.000010	0.999555	*Actinernus* sp.	
227	Total	0.001	54.4	0.000010	0.999564	*Stomphia coccinea*	Swimming anemone

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
228	Total	0.001	74.4	0.000009	0.999574	*Radulinus asprellus*	Slim sculpin
229	Total	0.001	39.0	0.000009	0.999582	*Pseudarchaster parelii*	
230	Total	0.001	52.6	0.000009	0.999591	Nudibranchia (order)	Nudibranch unident.
231	Total	0.001	74.4	0.000008	0.999600	*Orthasterias koehleri*	
232	Total	0.001	36.1	0.000008	0.999608	Actiniaria (order)	
233	Total	0.001	42.6	0.000008	0.999616	Ascidiacea (class)	Tunicate unident.
234	Total	0.001	60.0	0.000008	0.999624	*Lamprogrammus niger*	Paperbone cusk-eel
235	Total	0.001	100.0	0.000008	0.999632	Platyhelminthes (phylum)	Flatworm
236	Total	0.001	73.7	0.000008	0.999640	*Amphiophiura* sp.	
237	Total	0.001	39.5	0.000008	0.999648	*Bathyagonus pentacanthus*	Bigeye poacher
238	Total	0.001	36.2	0.000008	0.999656	Gastropoda (class)	Snail eggs unident.
239	Total	0.001	80.3	0.000008	0.999664	*Stomphia* sp.	
240	Total	0.001	50.4	0.000008	0.999672	*Psolus* sp.	
241	Total	0.001	54.3	0.000008	0.999679	*Pteraster* sp.	
242	Total	0.001	38.1	0.000008	0.999687	*Stenobrachius* sp.	
243	Total	0.001	44.3	0.000008	0.999694	*Xeneretmus latifrons*	Blacktip poacher
244	Total	0.001	67.2	0.000007	0.999702	*Luidiaster dawsoni*	
245	Total	0.001	100.0	0.000007	0.999709	*Porichthys notatus*	Plainfin midshipman
246	Total	0.001	38.9	0.000006	0.999715	*Serrivomer sector*	Sawtooth eel
247	Total	0.001	100.0	0.000006	0.999722	*Urtinca* sp.	Mottled anemone
248	Total	0.001	72.6	0.000006	0.999728	*Solaster paxillatus*	
249	Total	0.001	49.3	0.000006	0.999734	*Chiroteuthis calyx*	
250	Total	0.001	36.5	0.000006	0.999740	Heteropoda (class)	
251	Total	0.001	70.6	0.000006	0.999746	*Pleuronichthys decurrens*	Curlfin sole
252	Total	0.001	62.9	0.000006	0.999752	Ctenophora (phylum)	Comb jelly unident.
253	Total	0.001	38.9	0.000006	0.999757	*Umbellula* sp.	
254	Total	0.001	35.5	0.000006	0.999763	Cephalopoda (class)	Squid unident.
255	Total	0.001	64.4	0.000006	0.999769	*Calinaticina oldroyi*	
256	Total	0.001	35.9	0.000005	0.999774	*Gonatus onyx*	Clawed armhook squid
257	Total	0.001	100.0	0.000005	0.999779	*Eptatretus stouti*	Pacific hagfish
258	Total	0.001	57.5	0.000005	0.999785	*Antipathes* sp.	
259	Total	0.001	100.0	0.000005	0.999790	*Hippoglossoides elassodon*	Flathead sole
260	Total	0.001	79.3	0.000005	0.999795	*Dipsacaster anoplus*	
261	Total	0.001	100.0	0.000005	0.999799	*Halagyreus johnsoni*	
262	Total	0.001	63.3	0.000005	0.999804	*Pteraster tesselatus*	
263	Total	0.001	50.2	0.000004	0.999808	*Cranchia scabra*	Sandpaper squid
264	Total	0.001	73.2	0.000004	0.999813	Osteichthyes	Fish unident.
265	Total	0.001	58.0	0.000004	0.999817	*Brisingella* sp.	
266	Total	0.001	46.6	0.000004	0.999821	*Cololabis saira*	Pacific saury
267	Total	0.001	94.7	0.000004	0.999825	Thoracica (order)	Barnacle
268	Total	0.001	99.1	0.000004	0.999829	*Pandalus* sp.	
269	Total	0.001	39.4	0.000004	0.999833	Nemichthyidae	Snipe eel
270	Total	0.001	67.0	0.000004	0.999837	*Dicrolene filamentosa*	Threadfin cusk-eel
271	Total	0.001	76.4	0.000004	0.999841	*Thaleichthys pacificus*	Eulachon
272	Total	0.001	100.0	0.000004	0.999844	*Stenobrachius nannochir*	Garnet lampfish
273	Total	0.001	84.7	0.000004	0.999848	*Ophiopholis* sp.	
274	Total	0.001	58.2	0.000004	0.999852	*Corallimorphus* sp.	
275	Total	0.001	100.0	0.000004	0.999855	*Allocentrotus* sp.	
276	Total	0.001	53.8	0.000003	0.999859	*Rossia pacifica*	E. Pacific bobtail squid
277	Total	0.001	64.6	0.000003	0.999862	*Careproctus cypselurus*	Blackfin snailfish
278	Total	<0.001	46.2	0.000003	0.999865	*Virgularia* sp.	Smoothstem seawhip
279	Total	<0.001	94.0	0.000003	0.999869	*Pagurus aleuticus*	Aleutian hermit
280	Total	<0.001	85.1	0.000003	0.999872	*Leuroglossus* sp.	
281	Total	<0.001	26.9	0.000003	0.999875	*Stereomastus sculpta*	
282	Total	<0.001	71.6	0.000003	0.999877	*Sebastes wilsoni*	Pygmy rockfish
283	Total	<0.001	50.7	0.000003	0.999880	Aplacophora (class)	
284	Total	<0.001	67.2	0.000002	0.999882	*Onychoteuthis borealijaponicus*	Boreal clubhook squid
285	Total	<0.001	58.7	0.000002	0.999885	*Cryptopeltaster lepidonotus*	

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
286	Total	<0.001	49.9	0.000002	0.999887	Bivalvia (class)	Bivalve unident.
287	Total	<0.001	62.0	0.000002	0.999889	*Melanocetus johnsonii*	Common blackdevil
288	Total	<0.001	34.1	0.000002	0.999891	*Gnathophausia ingens*	
289	Total	<0.001	48.7	0.000002	0.999894	*Lampetra tridentata*	Pacific lamprey
290	Total	<0.001	80.6	0.000002	0.999896	*Colus* sp.	
291	Total	<0.001	45.4	0.000002	0.999898	*Plicifusus* sp.	Gray whelk
292	Total	<0.001	71.5	0.000002	0.999900	*Swiftia* sp.	
293	Total	<0.001	21.5	0.000002	0.999902	*Periphylla* sp.	
294	Total	<0.001	57.0	0.000002	0.999904	*Brisingella exilis*	
295	Total	<0.001	54.1	0.000002	0.999906	Melamphaidae	Bigscale
296	Total	<0.001	62.0	0.000002	0.999908	*Crangon communis*	Twospine crangon
297	Total	<0.001	95.0	0.000002	0.999910	*Pteraster militaris*	
298	Total	<0.001	100.0	0.000002	0.999912	*Cyanea capillata*	Lion's mane
299	Total	<0.001	83.4	0.000002	0.999914	*Colus trophius*	
300	Total	<0.001	52.1	0.000002	0.999916	*Oneirodes* sp.	
301	Total	<0.001	51.4	0.000002	0.999918	*Colus aphelus*	Oblique whelk
302	Total	<0.001	51.0	0.000002	0.999919	*Bathypathes* sp.	
303	Total	<0.001	58.6	0.000002	0.999921	*Eualus macrophthalmus*	
304	Total	<0.001	32.0	0.000002	0.999923	*Eualus* sp.	
305	Total	<0.001	62.5	0.000002	0.999925	*Pseudarchaster pussillus*	
306	Total	<0.001	57.8	0.000002	0.999926	*Crossaster papposus*	Rose sea star
307	Total	<0.001	55.1	0.000002	0.999928	*Poraniopsis inflata*	
308	Total	<0.001	100.0	0.000002	0.999929	*Raja binoculata*	
309	Total	<0.001	43.5	0.000002	0.999931	*Macropinna microstoma*	Barreleye
310	Total	<0.001	100.0	0.000002	0.999932	Ascidiacea (class)	Compound ascidian unident.
311	Total	<0.001	71.4	0.000001	0.999934	*Henricia* sp.	
312	Total	<0.001	43.7	0.000001	0.999935	*Bathyagonus* sp.	Starsnout poacher
313	Total	<0.001	46.7	0.000001	0.999937	*Hyas lyratus*	Pacific lyre crab
314	Total	<0.001	71.5	0.000001	0.999938	*Bathyraja* sp.	
315	Total	<0.001	100.0	0.000001	0.999940	*Histioteuthis heteropsis*	
316	Total	<0.001	46.9	0.000001	0.999941	*Poromitra crassiceps*	Crested bigscale
317	Total	<0.001	73.5	0.000001	0.999942	*Munida quadrispina*	
318	Total	<0.001	58.1	0.000001	0.999944	*Benthalbella dentata*	Northern pearleye
319	Total	<0.001	44.9	0.000001	0.999945	*Lycodapus fierasfer*	Blackmouth eelpout
320	Total	<0.001	75.0	0.000001	0.999946	Melanostomiidae	Scaleless dragonfish
321	Total	<0.001	100.0	0.000001	0.999948	*Bathyraja trachura*	
322	Total	<0.001	56.8	0.000001	0.999949	*Ophidion scrippsae*	Basketweave cusk-eel
323	Total	<0.001	73.0	0.000001	0.999950	*Paraliparus rosaceus*	
324	Total	<0.001	84.1	0.000001	0.999951	*Scopelosaurus harryi*	Scaly paperbone
325	Total	<0.001	58.6	0.000001	0.999952	*Acharax johnsoni*	
326	Total	<0.001	95.0	0.000001	0.999953	*Gonatus* sp.	
327	Total	<0.001	38.1	0.000001	0.999954	*Notostomus japonicus*	Spinyridge shrimp
328	Total	<0.001	80.4	0.000001	0.999955	Zoarcidae	Eelpout
329	Total	<0.001	70.6	0.000001	0.999956	*Icelinus oculatus*	Frogmouth sculpin
330	Total	<0.001	100.0	0.000001	0.999957	*Astropecten californicus*	
331	Total	<0.001	100.0	0.000001	0.999958	*Paguristes turgidus*	
332	Total	<0.001	73.9	0.000001	0.999959	*Buccinum* sp.	
333	Total	<0.001	80.2	0.000001	0.999960	*Galiteuthis phyllura*	
334	Total	<0.001	50.9	0.000001	0.999960	*Antipathes* sp.	
335	Total	<0.001	100.0	0.000001	0.999961	*Dolichopteryx* sp.	
336	Total	<0.001	100.0	0.000001	0.999962	*Buccinum oedematum*	Swollen whelk
337	Total	<0.001	74.7	0.000001	0.999963	*Melamphaes lugubris*	Highsnout bigscale
338	Total	<0.001	100.0	0.000001	0.999964	*Pagurus kennerlyi*	Bluespine hermit
339	Total	<0.001	50.7	0.000001	0.999965	*Buccinum* sp.	
340	Total	<0.001	76.8	0.000001	0.999965	*Ptilosarcus gurneyi*	Orange sea pen
341	Total	<0.001	60.3	0.000001	0.999966	*Notolepsis risso*	Ribbon barracudina
342	Total	<0.001	73.4	0.000001	0.999967	*Xeneretmus leiops*	Smootheye poacher
343	Total	<0.001	66.8	0.000001	0.999968	Cyclopteridae	Snailfish unident.

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
344	Total	<0.001	100.0	0.000001	0.999968	Taoniinae	
345	Total	<0.001	53.4	0.000001	0.999969	*Henricia leviuscula*	
346	Total	<0.001	74.6	0.000001	0.999970	*Lampanyctus jordani*	Brokenline lampfish
347	Total	<0.001	100.0	0.000001	0.999970	*Mediaster* sp.	
348	Total	<0.001	69.5	0.000001	0.999971	Gastropoda (class)	Snail unident.
349	Total	<0.001	42.9	0.000001	0.999972	*Apristurus brunneus*	Cat shark egg case
350	Total	<0.001	100.0	0.000001	0.999972	*Hexagrammos decagrammus*	Kelp greenling
351	Total	<0.001	41.4	0.000001	0.999973	*Nemichthys scolopaceus*	Slender snipe eel
352	Total	<0.001	70.6	0.000001	0.999974	*Ronquilus jordani*	Northern ronquil
353	Total	<0.001	57.0	0.000001	0.999974	*Pseudarchaster dissonus*	
354	Total	<0.001	100.0	0.000001	0.999975	*Lampanyctus ritteri*	Broadfin lanternfish
355	Total	<0.001	73.7	0.000001	0.999976	Oneirodidae	Dreamer unident.
356	Total	<0.001	89.2	0.000001	0.999976	*Florometra serratissima*	Featherstar crinoid
357	Total	<0.001	100.0	0.000001	0.999977	*Microgadus proximus*	Pacific tomcod
358	Total	<0.001	100.0	0.000001	0.999977	*Stenobrachius leucopsarus*	Northern lampfish
359	Total	<0.001	77.6	0.000001	0.999978	*Colus tahwitanus*	
360	Total	<0.001	54.3	0.000001	0.999978	*Pseudarchaster* sp.	
361	Total	<0.001	63.1	0.000001	0.999979	*Laqueus californianus*	
362	Total	<0.001	30.5	0.000001	0.999980	*Tarletonbeania* sp.	
363	Total	<0.001	77.0	0.000001	0.999980	*Pandalus tridens*	Yellowleg pandalid
364	Total	<0.001	79.9	0.000001	0.999981	Crinoidea (class)	Crinoid unident.
365	Total	<0.001	45.1	0.000001	0.999981	*Bathyagonus nigripinnis*	Blackfin poacher
366	Total	<0.001	96.5	0.000001	0.999982	Pasiphaeidae	Pasiphaeid shrimp
367	Total	<0.001	46.7	0.000001	0.999982	Isopoda (order)	Isopod unident.
368	Total	<0.001	48.8	0.000000	0.999983	*Calliostoma platinum*	Silvery topsnail
369	Total	<0.001	100.0	0.000000	0.999983	*Benthalbella* sp.	
370	Total	<0.001	100.0	0.000000	0.999984	Invertebrate	Invertebrate unident.
371	Total	<0.001	76.0	0.000000	0.999984	*Neptunea tabulata*	Tabled whelk
372	Total	<0.001	76.6	0.000000	0.999985	*Lampanyctus regalis*	Pinpoint lampfish
373	Total	<0.001	100.0	0.000000	0.999985	*Saccopharynx* sp.	
374	Total	<0.001	100.0	0.000000	0.999986	*Bothrocara remigerum*	Longfin eelpout
375	Total	<0.001	70.6	0.000000	0.999986	*Ampheraster* sp.	
376	Total	<0.001	82.6	0.000000	0.999986	*Lycodapus* sp.	
377	Total	<0.001	100.0	0.000000	0.999987	Chauliodontidae	Viperfish
378	Total	<0.001	71.6	0.000000	0.999987	Tube worm unident.	
379	Total	<0.001	67.8	0.000000	0.999988	Bivalvia (class)	Bivalve unident.
380	Total	<0.001	73.4	0.000000	0.999988	*Pandalopsis dispar*	Sidestripe shrimp
381	Total	<0.001	70.6	0.000000	0.999988	*Chiasmodon niger*	
382	Total	<0.001	100.0	0.000000	0.999989	*Hippasteria* sp.	
383	Total	<0.001	66.9	0.000000	0.999989	*Aphrodita* sp.	
384	Total	<0.001	100.0	0.000000	0.999990	*Chiasmodontidae*	Swallowers
385	Total	<0.001	100.0	0.000000	0.999990	Osteichthyes (class)	Fish larvae unident.
386	Total	<0.001	100.0	0.000000	0.999990	*Pseudarchaster* sp.	
387	Total	<0.001	77.1	0.000000	0.999991	*Liparis* sp.	
388	Total	<0.001	70.8	0.000000	0.999991	*Euplexaura marki*	
389	Total	<0.001	100.0	0.000000	0.999991	*Symbolophorus californiensis*	California lanternfish
390	Total	<0.001	100.0	0.000000	0.999991	*Crangon* sp.	
391	Total	<0.001	62.4	0.000000	0.999992	Elasmobranchi (subclass)	Shark egg case unident.
392	Total	<0.001	100.0	0.000000	0.999992	*Malacocottus zonurus*	Darkfin sculpin
393	Total	<0.001	100.0	0.000000	0.999992	*Scopelosaurus* sp.	
394	Total	<0.001	49.8	0.000000	0.999993	*Sternoptyx diaphana*	Longspine hatchetfish
395	Total	<0.001	59.9	0.000000	0.999993	*Mediaster tenellus*	
396	Total	<0.001	39.2	0.000000	0.999993	*Delectopecten vancouverensis*	Vancouver scallop
397	Total	<0.001	48.2	0.000000	0.999993	*Sternoptyx* sp.	
398	Total	<0.001	63.5	0.000000	0.999994	*Paraliparis* sp.	
399	Total	<0.001	100.0	0.000000	0.999994	Cow-eye tunicate	Cow-eye tunicate
400	Total	<0.001	100.0	0.000000	0.999994	*Careproctus gilberti*	Smalldisk snailfish
401	Total	<0.001	56.2	0.000000	0.999994	Malacostraca (class)	Malacostracan unident.

Table B-1.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
402	Total	<0.001	42.5	0.000000	0.999995	*Tarletonbeania crenularis*	Blue lanternfish
403	Total	<0.001	76.2	0.000000	0.999995	Sipuncula (phylum)	Sipunculid worm
404	Total	<0.001	100.0	0.000000	0.999995	Gorgonacea (order)	Gorgonian coral
405	Total	<0.001	100.0	0.000000	0.999995	*Leuroglossus stilbius*	California smoothtongue
406	Total	<0.001	66.6	0.000000	0.999996	*Idiacanthus antrostomus*	Pacific blackdragon
407	Total	<0.001	80.8	0.000000	0.999996	*Lycodapus mandibularis*	Pallid eelpout
408	Total	<0.001	70.7	0.000000	0.999996	*Urticina* sp.	
409	Total	<0.001	100.0	0.000000	0.999996	*Paricelinus hopliticus*	Thornback sculpin
410	Total	<0.001	100.0	0.000000	0.999996	*Bathylagus ochotensis*	Popeye blacksmelt
411	Total	<0.001	89.1	0.000000	0.999996	Brachiopoda (class)	Lampshells unident.
412	Total	<0.001	100.0	0.000000	0.999997	*Taonius pavo*	
413	Total	<0.001	74.5	0.000000	0.999997	*Anteliaster* sp.	
414	Total	<0.001	89.6	0.000000	0.999997	*Acanthephyra curtirostris*	Peaked shrimp
415	Total	<0.001	100.0	0.000000	0.999997	*Avocettina infans*	Blackline snipe eel
416	Total	<0.001	71.9	0.000000	0.999997	*Leuroglossus schmidti*	Northern smoothtongue
417	Total	<0.001	100.0	0.000000	0.999997	*Icosteus aenigmaticus*	Ragfish
418	Total	<0.001	100.0	0.000000	0.999997	*Plicifusus* sp.	
419	Total	<0.001	100.0	0.000000	0.999998	*Neotypaera giga*	
420	Total	<0.001	100.0	0.000000	0.999998	*Avocettina* sp.	
421	Total	<0.001	59.4	0.000000	0.999998	*Callianassa* sp.	
422	Total	<0.001	79.0	0.000000	0.999998	*Natica* sp.	
423	Total	<0.001	100.0	0.000000	0.999998	Virgularidae	Sea whip
424	Total	<0.001	100.0	0.000000	0.999998	*Cymatogaster aggregata*	Shiner perch
425	Total	<0.001	52.9	0.000000	0.999998	*Polinices* sp.	
426	Total	<0.001	100.0	0.000000	0.999998	*Neptunea ithia*	
427	Total	<0.001	100.0	0.000000	0.999998	*Parantipathes* sp.	
428	Total	<0.001	74.0	0.000000	0.999999	Sternoptychidae	Hatchetfish
429	Total	<0.001	69.1	0.000000	0.999999	*Argyropelecus* sp.	
430	Total	<0.001	100.0	0.000000	0.999999	*Sclerocrangon sculptus*	
431	Total	<0.001	100.0	0.000000	0.999999	*Diaphus theta*	California headlightfish
432	Total	<0.001	100.0	0.000000	0.999999	*Calcigorgia* sp.	
433	Total	<0.001	100.0	0.000000	0.999999	*Yoldia* sp.	
434	Total	<0.001	100.0	0.000000	0.999999	*Argyropelecus lychnus*	Tropical hatchetfish
435	Total	<0.001	100.0	0.000000	0.999999	*Hydrolagus colliei*	
436	Total	<0.001	66.0	0.000000	0.999999	*Solariella nuda*	Naked solarelle
437	Total	<0.001	71.2	0.000000	0.999999	Pandalidae	Pandalid shrimp
438	Total	<0.001	100.0	0.000000	0.999999	Decapoda (order)	Crab
439	Total	<0.001	100.0	0.000000	1.000000	*Pentamera* sp.	
440	Total	<0.001	100.0	0.000000	1.000000	*Acanthephyra* sp.	
441	Total	<0.001	74.3	0.000000	1.000000	*Polinices pallidus*	Pale moonsnail
442	Total	<0.001	100.0	0.000000	1.000000	*Henricia aspera*	
443	Total	<0.001	59.9	0.000000	1.000000	*Cyclothone* sp.	
444	Total	<0.001	100.0	0.000000	1.000000	*Bathophilus flemingi*	Highfin dragonfish
445	Total	<0.001	100.0	0.000000	1.000000	Ophidiidae	Cusk-eel
446	Total	<0.001	100.0	0.000000	1.000000	Pectinidae	Scallop
447	Total	<0.001	100.0	0.000000	1.000000	*Lycenchelys camchatica*	Kamchatka eelpout
448	Total	<0.001	100.0	0.000000	1.000000	*Melanostigma pammelas*	Midwater eelpout
449	Total	<0.001	74.6	0.000000	1.000000	*Sebastes* sp.	Rockfish unident.
450	Total	<0.001	100.0	0.000000	1.000000	Crustacea (phylum)	Crustacean unident.
451	Total	<0.001	100.0	0.000000	1.000000	Pycnogonida (class)	Sea spider unident.
452	Total	<0.001	100.0	0.000000	1.000000	*Psychrolutes sp.*	
453	Total	<0.001	100.0	0.000000	1.000000	Amphipod (order)	Amphipod unident.
454	Total	<0.001	100.0	0.000000	1.000000	*Paraphelliactis pabista*	
	Total	154.717					

Table B-2.--Rank order of relative abundance (kg/ha) of fishes and invertebrates by depth stratum for the International North Pacific Fisheries Commission Conception area from the 1999 West Coast upper continental slope bottom trawl survey. Stratum 1 =183-366 m, Stratum 2 = 367-549 m, Stratum 3 = 550-732 m, Stratum 4 = 733-914 m, Stratum 5 = 915-1,097 m, and Stratum 6 = 1,098-1,280 m.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
1	1	77.566	10.8	0.281267	0.281267	*Merluccius productus*	Pacific hake
2	1	53.012	39.2	0.192229	0.473496	*Allocentrotus fragilis*	Orange-pink sea urchin
3	1	23.795	41.5	0.086284	0.559780	*Sebastes diploproa*	Splitnose rockfish
4	1	19.043	32.2	0.069054	0.628834	*Raja rhina*	Longnose skate
5	1	16.120	94.1	0.058452	0.687287	*Brisaster* sp.	
6	1	12.945	58.4	0.046939	0.734226	*Brisaster latifrons*	
7	1	10.703	38.5	0.038812	0.773038	*Microstomus pacificus*	Dover sole
8	1	10.305	66.1	0.037368	0.810405	*Brisaster* sp.	
9	1	7.252	84.8	0.026298	0.836704	*Sebastes saxicola*	Stripetail rockfish
10	1	6.725	48.1	0.024388	0.861091	*Hydrolagus colliei*	Spotted ratfish
11	1	6.148	37.2	0.022292	0.883383	*Anoplopoma fimbria*	Sablefish
12	1	5.422	45.2	0.019662	0.903046	*Glyptocephalus zachirus*	Rex sole
13	1	3.399	64.4	0.012325	0.915370	*Bathyraja interrupta*	Bering skate
14	1	3.301	51.2	0.011972	0.927342	*Parmaturus xaniurus*	Filetail cat shark
15	1	1.960	100.0	0.007107	0.934449	*Sebastes goodei*	Chilipepper
16	1	1.944	43.1	0.007049	0.941499	*Lyopsetta exilis*	Slender sole
17	1	1.895	54.9	0.006870	0.948369	*Lycodes pacificus*	Blackbelly eelpout
18	1	1.778	30.4	0.006449	0.954817	*Lycodes cortezianus*	Bigfin eelpout
19	1	1.681	91.5	0.006097	0.960914	*Metridium* sp.	
20	1	1.562	68.1	0.005666	0.966580	*Apristurus brunneus*	Brown cat shark
21	1	1.255	92.4	0.004549	0.971129	*Parophrys vetulus*	English sole
22	1	1.044	100.0	0.003785	0.974914	*Sebastes paucispinis*	Bocaccio
23	1	0.891	57.8	0.003231	0.978145	*Torpedo californica*	Pacific electric ray
24	1	0.840	60.5	0.003045	0.981190	*Sebastolobus alascanus*	Shortspine thornyhead
25	1	0.728	61.2	0.002640	0.983830	*Lycodes diapterus*	Black eelpout
26	1	0.607	39.1	0.002203	0.986033	*Squalus acanthias*	Spiny dogfish
27	1	0.544	61.4	0.001971	0.988004	Cephalopoda (class)	Squid unident.
28	1	0.455	50.4	0.001650	0.989654	*Eopsetta jordani*	Petrale sole
29	1	0.443	87.4	0.001608	0.991262	*Sebastes babcocki*	Redbanded rockfish
30	1	0.398	28.6	0.001444	0.992706	*Pleurobranchaea californica*	California sea slug
31	1	0.341	100.0	0.001236	0.993942	*Octopus californicus*	N. Pacific bigeye octopus
32	1	0.303	52.9	0.001099	0.995042	*Sebastes aurora*	Aurora rockfish
33	1	0.217	92.5	0.000788	0.995829	*Ophiodon elongatus*	Lingcod
34	1	0.176	34.3	0.000637	0.996466	*Paractinostola faeculenta*	Rough purple sea anemone
35	1	0.142	57.7	0.000517	0.996983	*Paralithodes californiensis*	
36	1	0.106	45.3	0.000384	0.997367	*Thetys vagina*	Common salp
37	1	0.090	100.0	0.000325	0.997692	*Sebastes rufus*	Bank rockfish
38	1	0.072	67.5	0.000263	0.997955	*Pyrosoma atlanticum*	
39	1	0.071	100.0	0.000257	0.998212	*Pandalus platyceros*	Spot shrimp
40	1	0.059	58.5	0.000214	0.998426	*Paralithodes rathbuni*	
41	1	0.044	100.0	0.000159	0.998585	*Sebastes levis*	Cowcod
42	1	0.043	100.0	0.000155	0.998741	*Metridium giganteum*	Gigantic anemone
43	1	0.039	100.0	0.000142	0.998883	*Sebastes melanostomus*	Blackgill rockfish
44	1	0.032	100.0	0.000114	0.998997	*Pandalus jordani*	Ocean shrimp
45	1	0.026	100.0	0.000094	0.999091	Porifera (phylum)	Sponge unident.
46	1	0.025	100.0	0.000091	0.999181	*Calinaticina oldroyi*	
47	1	0.022	63.8	0.000079	0.999261	*Loligo opalescens*	California market squid
48	1	0.021	40.3	0.000077	0.999338	*Careproctus melanurus*	Blacktail snailfish
49	1	0.017	58.0	0.000061	0.999399	*Chilara taylori*	Spotted cusk-eel
50	1	0.017	59.0	0.000061	0.999460	*Parastichopus leucothele*	
51	1	0.013	100.0	0.000049	0.999509	*Citharichthys sordidus*	Pacific sanddab
52	1	0.011	100.0	0.000041	0.999550	*Hippasteria spinosa*	
53	1	0.011	63.6	0.000039	0.999589	*Sebastes jordani*	Shortbelly rockfish
54	1	0.011	100.0	0.000039	0.999628	*Sebastes elongatus*	Greenstriped rockfish

Table B-2.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
55	1	0.010	100.0	0.000036	0.999664	*Octopus leioderma*	Smoothskin octopus
56	1	0.008	63.3	0.000031	0.999695	Aphroditidae	Sea mouse unident.
57	1	0.007	63.0	0.000026	0.999721	*Molpadia intermedia*	
58	1	0.007	100.0	0.000025	0.999746	Ascidiacea (class)	Tunicate unident.
59	1	0.005	64.3	0.000019	0.999765	*Argentina sialis*	Pacific argentine
60	1	0.005	100.0	0.000018	0.999784	*Mediaster* sp.	
61	1	0.004	100.0	0.000016	0.999800	*Lopholithodes foraminatus*	Box crab
62	1	0.004	62.9	0.000015	0.999815	*Rossia pacifica*	E. Pacific bobtail squid
63	1	0.004	100.0	0.000014	0.999829	*pineapple cucumber*	Pineapple sea cucumber
64	1	0.004	100.0	0.000013	0.999843	*Lampetra tridentata*	Pacific lamprey
65	1	0.004	100.0	0.000013	0.999856	*Lycodapus fierasfer*	Blackmouth eelpout
66	1	0.003	100.0	0.000012	0.999868	Holothuroidea (class)	Sea cucumber unident.
67	1	0.003	100.0	0.000012	0.999880	Gastropoda (class)	Snail unident.
68	1	0.003	100.0	0.000011	0.999892	*Sebastes chlorostictus*	Greenspotted rockfish
69	1	0.003	100.0	0.000011	0.999902	*Careproctus* sp.	
70	1	0.003	100.0	0.000010	0.999913	*Hippasteria* sp.	
71	1	0.003	100.0	0.000010	0.999923	*Stomphia* sp.	
72	1	0.003	78.9	0.000009	0.999932	*Xeneretmus latifrons*	Blacktip poacher
73	1	0.002	100.0	0.000009	0.999941	*Neptunea tabulata*	Tabled whelk
74	1	0.002	100.0	0.000008	0.999949	*Crangon* sp.	
75	1	0.002	100.0	0.000008	0.999958	*Stylasterias forreri*	
76	1	0.002	100.0	0.000007	0.999964	*Hippasteria californica*	
77	1	0.002	100.0	0.000006	0.999971	*Pagurus* sp.	
78	1	0.001	100.0	0.000005	0.999976	Nudibranchia (order)	Gastropod unident.
79	1	0.001	100.0	0.000004	0.999980	*Pseudarchaster dissonus*	
80	1	0.001	100.0	0.000004	0.999989	*Munida quadrispina*	
81	1	0.001	100.0	0.000004	0.999989	Thoracica (order)	Barnacle
82	1	0.001	100.0	0.000004	0.999992	Cephalopoda (class)	Squid unident.
83	1	0.001	100.0	0.000002	0.999994	Polychaeta (class)	Polychaete worm unident.
84	1	<0.001	100.0	0.000002	0.999996	*Pentamera* sp.	
85	1	<0.001	100.0	0.000002	0.999998	*Callianassa* sp.	
86	1	<0.001	100.0	0.000001	0.999999	*Ophiacantus* sp.	
87	1	<0.001	100.0	0.000001	0.999999	*Pasiphaea pacifica*	Pacific glass shrimp
88	1	<0.001	100.0	0.000001	1.000000	*Ophiopholis* sp.	
	Total	275.775					
1	2	93.106	61.5	0.390945	0.390945	*Brisaster latifrons*	
2	2	27.757	24.8	0.116550	0.507496	*Microstomus pacificus*	Dover sole
3	2	18.893	15.0	0.079330	0.586826	*Merluccius productus*	Pacific hake
4	2	13.308	80.2	0.055878	0.642704	*Brisaster* sp.	
5	2	10.201	34.7	0.042833	0.685537	*Sebastes aurora*	Aurora rockfish
6	2	10.089	30.7	0.042361	0.727898	*Raja rhina*	Longnose skate
7	2	8.903	22.3	0.037384	0.765282	*Sebastolobus alascanus*	Shortspine thornyhead
8	2	8.896	21.9	0.037353	0.802634	*Sebastolobus altivelis*	Longspine thornyhead
9	2	8.387	46.3	0.035216	0.837850	*Myoxoderma platyacanthum*	
10	2	6.743	28.4	0.028312	0.866162	*Anoplopoma fimbria*	Sablefish
11	2	4.694	97.5	0.019709	0.885872	*Allocentrotus fragilis*	Orange-pink sea urchin
12	2	4.481	33.3	0.018816	0.904688	*Glyptocephalus zachirus*	Rex sole
13	2	3.664	48.7	0.015385	0.920073	*Sebastes melanostomus*	Blackgill rockfish
14	2	2.669	99.6	0.011206	0.931279	*Sebastes diploproa*	Splitnose rockfish
15	2	2.546	30.6	0.010692	0.941971	*Paractinostola faeculenta*	Rough purple sea anemone
16	2	2.197	40.3	0.009227	0.951197	*Apristurus brunneus*	Brown cat shark
17	2	2.054	53.1	0.008625	0.959823	*Lycodes cortezianus*	Bigfin eelpout
18	2	1.955	37.5	0.008210	0.968033	*Parmaturus xaniurus*	Filetail cat shark
19	2	1.605	36.9	0.006739	0.974772	*Bathyraja interrupta*	Bering skate
20	2	1.056	91.3	0.004434	0.979207	*Aphrocallistes vastus*	Clay pipe sponge
21	2	0.948	63.3	0.003980	0.983186	*Lycodes diapterus*	Black eelpout
22	2	0.795	97.8	0.003336	0.986523	*Rathbunaster californicus*	
23	2	0.577	60.8	0.002423	0.988946	*Liponema brevicorne*	Tentacle-shedding anemone

Table B-2.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
24	2	0.275	63.9	0.001155	0.990101	*Hydrolagus colliei*	Spotted ratfish
25	2	0.267	93.6	0.001119	0.991220	*Molpadia intermedia*	
26	2	0.257	87.4	0.001080	0.992300	*Pseudostichopus mollis*	Sandy sea cucumber
27	2	0.242	55.5	0.001016	0.993317	*Octopus californicus*	N. Pacific bigeye octopus
28	2	0.215	69.3	0.000902	0.994219	Thaliacea (class)	Salps unident.
29	2	0.210	52.2	0.000883	0.995102	*Thetys vagina*	Common salp
30	2	0.180	97.3	0.000754	0.995856	*Asteronyx loveni*	
31	2	0.117	94.7	0.000493	0.996349	*Opisthoteuthis californiana*	Flapjack devilfish
32	2	0.081	100.0	0.000341	0.996690	*Heterozonias alternatus*	
33	2	0.081	100.0	0.000340	0.997030	*Chionoecetes tanneri*	True Tanner crab
34	2	0.072	46.4	0.000303	0.997333	*Thrissacanthias penicillatus*	
35	2	0.064	56.3	0.000270	0.997603	*Pyrosoma atlanticum*	
36	2	0.060	63.3	0.000253	0.997856	Porifera (phylum)	Sponge unident.
37	2	0.049	61.3	0.000207	0.998063	*Pannychia moseleyi*	
38	2	0.036	78.0	0.000153	0.998216	*Stylatula* sp.	Slender seawhips
39	2	0.030	68.5	0.000126	0.998342	*Histioteuthis* sp.	Jewel squids
40	2	0.028	50.6	0.000116	0.998458	*Histioteuthis hoylei*	
41	2	0.027	89.6	0.000114	0.998572	*Neptunea amianta*	
42	2	0.025	100.0	0.000103	0.998675	*Albatrossia pectoralis*	Giant grenadier
43	2	0.024	52.5	0.000102	0.998777	*Nezumia stelgidolepis*	California grenadier
44	2	0.021	100.0	0.000088	0.998865	*Eopsetta jordani*	Petrale sole
45	2	0.018	63.5	0.000078	0.998942	*Hippasteria californica*	
46	2	0.015	100.0	0.000065	0.999007	*Psolus* sp.	
47	2	0.015	96.7	0.000065	0.999072	*Lyopsetta exilis*	Slender sole
48	2	0.013	100.0	0.000055	0.999126	*Asteronyx* sp.	
49	2	0.012	100.0	0.000052	0.999179	*Berryteuthis magister*	Magistrate armhook squid
50	2	0.011	100.0	0.000048	0.999227	*Careproctus melanurus*	Blacktail snailfish
51	2	0.011	70.6	0.000047	0.999274	Myxinidae	Hagfish
52	2	0.011	50.7	0.000047	0.999321	Myctophidae	Lanternfish
53	2	0.011	100.0	0.000046	0.999366	*Benthoctopus* sp.	
54	2	0.011	79.9	0.000045	0.999412	*Anthomastus* sp.	
55	2	0.010	62.9	0.000043	0.999454	*pineapple cucumber*	Pineapple sea cucumber
56	2	0.010	61.0	0.000042	0.999496	*Loligo opalescens*	California market squid
57	2	0.009	83.4	0.000038	0.999535	Hormathiidae	
58	2	0.009	63.7	0.000038	0.999573	*Neomenia* sp.	
59	2	0.009	95.3	0.000038	0.999611	Gastropoda (class)	Snail eggs unident.
60	2	0.008	92.3	0.000033	0.999644	Pennatulacea (order)	Sea pen or sea whip
61	2	0.008	100.0	0.000033	0.999677	*Ascidiacea (class)*	Compound ascidian unident.
62	2	0.007	100.0	0.000029	0.999706	*Eptatretus deani*	Black hagfish
63	2	0.006	100.0	0.000026	0.999731	Cephalopoda (class)	Squid unident.
64	2	0.006	82.5	0.000024	0.999755	*Aristostomias scintillans*	Shining loosejaw
65	2	0.004	100.0	0.000018	0.999772	*Periphylla periphylla*	
66	2	0.004	89.3	0.000016	0.999789	*Tactostoma macropus*	Longfin dragonfish
67	2	0.004	100.0	0.000016	0.999805	*Cryptopeltaster lepidonotus*	
68	2	0.004	100.0	0.000016	0.999820	Zoarcidae	Eelpout
69	2	0.004	100.0	0.000016	0.999836	*Careproctus* sp.	
70	2	0.003	100.0	0.000014	0.999851	Nudibranchia (order)	Gastropod unident.
71	2	0.003	74.7	0.000012	0.999863	*Pasiphaea pacifica*	Pacific glass shrimp
72	2	0.002	100.0	0.000010	0.999873	*Stenobrachius* sp.	
73	2	0.002	52.2	0.000010	0.999884	Aphroditidae	Sea mouse unident.
74	2	0.002	100.0	0.000010	0.999894	Invertebrate	Invertebrate unident.
75	2	0.002	100.0	0.000010	0.999903	Cephalopoda (class)	Squid unident.
76	2	0.002	100.0	0.000009	0.999912	*Onychoteuthis borealijaponicus*	Boreal clubhook squid
77	2	0.002	100.0	0.000009	0.999921	*Lampanyctus* sp.	
78	2	0.002	100.0	0.000009	0.999929	*Bathylagus* sp.	Blacksmelt unident.
79	2	0.002	100.0	0.000007	0.999937	*Luidiaster dawsoni*	
80	2	0.002	100.0	0.000007	0.999943	*Alepocephalus tenebrosus*	California slickhead
81	2	0.002	100.0	0.000007	0.999950	Osteichthyes (class)	Fish unident.

Table B-2.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
82	2	0.002	79.3	0.000006	0.999956	Holothuroidea (class)	Sea cucumber unident.
83	2	0.001	100.0	0.000006	0.999962	*Chilara taylori*	Spotted cusk-eel
84	2	0.001	71.8	0.000005	0.999967	Asteroidea (class)	Starfish unident.
85	2	0.001	100.0	0.000005	0.999972	*Notolepsis risso*	Ribbon barracudina
86	2	0.001	100.0	0.000005	0.999977	Actiniaria (order)	Sea anemone unident.
87	2	0.001	100.0	0.000003	0.999980	*Neotypaera giga*	
88	2	0.001	100.0	0.000003	0.999985	*Gonatus onyx*	Clawed armhook squid
89	2	0.001	100.0	0.000003	0.999985	*Trachipterus altivelis*	King-of-the-salmon
90	2	0.001	100.0	0.000002	0.999989	*Actinauge verrillii*	Reticulate anemone
91	2	0.001	100.0	0.000002	0.999989	*Icichthys lockingtoni*	Medusafish
92	2	<0.001	100.0	0.000002	0.999991	*Actinernus* sp.	
93	2	<0.001	100.0	0.000001	0.999992	Elasmobranchi (subclass)	Shark egg case unident.
94	2	<0.001	100.0	0.000001	0.999994	*Periphylla* sp.	
95	2	<0.001	100.0	0.000001	0.999995	*Mediaster tenellus*	
96	2	<0.001	100.0	0.000001	0.999995	*Umbellula* sp.	
97	2	<0.001	100.0	0.000001	0.999996	*Dicrolene filamentosa*	Threadfin cusk-eel
98	2	<0.001	100.0	0.000001	0.999997	*Ophiopholis* sp.	
99	2	<0.001	100.0	0.000001	0.999997	*Leuroglossus* sp.	
100	2	<0.001	100.0	0.000000	0.999998	*Pseudarchaster parelii*	
101	2	<0.001	100.0	0.000000	0.999998	*Poraniopsis inflata*	
102	2	<0.001	100.0	0.000000	0.999999	*Ophiacantus* sp.	
103	2	<0.001	100.0	0.000000	0.999999	*Tarletonbeania* sp.	
104	2	<0.001	100.0	0.000000	0.999999	*Apristurus brunneus*	Cat shark egg case
105	2	<0.001	100.0	0.000000	1.000000	Ophiuroidea (class)	Brittlestarfish unident.
106	2	<0.001	100.0	0.000000	1.000000	Scaphopoda (class)	Scaphopod unident.
107	2	<0.001	100.0	0.000000	1.000000	*Hyas lyratus*	Pacific lyre crab
108	2	<0.001	100.0	0.000000	1.000000	*Gnathophausia ingens*	
109	2	<0.001	100.0	0.000000	1.000000	*Paraphelliactis pabista*	
Total		238.152					
1	3	28.713	32.1	0.233357	0.233357	*Microstomus pacificus*	Dover sole
2	3	26.620	39.2	0.216348	0.449705	*Sebastolobus altivelis*	Longspine thornyhead
3	3	20.980	46.6	0.170508	0.620213	*Brisaster latifrons*	
4	3	11.372	47.4	0.092421	0.712634	*Sebastolobus alascanus*	Shortspine thornyhead
5	3	7.777	29.0	0.063205	0.775839	*Anoplopoma fimbria*	Sablefish
6	3	5.682	52.4	0.046182	0.822021	*Myoxoderma platyacanthum*	
7	3	2.911	100.0	0.023659	0.845680	*Allocentrotus fragilis*	Orange-pink sea urchin
8	3	2.773	65.4	0.022533	0.868213	*Brisaster* sp.	
9	3	2.467	50.3	0.020048	0.888261	*Parmaturus xaniurus*	Filetail cat shark
10	3	2.032	76.3	0.016518	0.904779	*Alepocephalus tenebrosus*	California slickhead
11	3	1.660	29.7	0.013490	0.918269	*Apristurus brunneus*	Brown cat shark
12	3	1.590	56.4	0.012920	0.931189	*Merluccius productus*	Pacific hake
13	3	1.115	43.7	0.009062	0.940250	*Paractinostola faeculenta*	Rough purple sea anemone
14	3	1.067	89.8	0.008668	0.948919	*Bathybembix bairdii*	
15	3	0.923	53.6	0.007499	0.956417	*Raja rhina*	Longnose skate
16	3	0.778	91.7	0.006321	0.962738	*Chionoecetes tanneri*	True Tanner crab
17	3	0.739	69.6	0.006008	0.968746	*Thrissacanthias penicillatus*	
18	3	0.344	64.0	0.002798	0.971543	*Heterozonias alternatus*	
19	3	0.340	83.5	0.002762	0.974305	*Zoraster evermanni*	
20	3	0.281	76.8	0.002280	0.976585	*Molpadia intermedia*	
21	3	0.259	100.0	0.002102	0.978687	*Ophiacantus* sp.	
22	3	0.236	100.0	0.001918	0.980605	Asteroidea (class)	Starfish unident.
23	3	0.177	30.7	0.001440	0.982045	*Thetys vagina*	Common salp
24	3	0.162	100.0	0.001316	0.983361	*Sebastes diploproa*	Splitnose rockfish
25	3	0.132	100.0	0.001075	0.984436	*Embassichthys bathybius*	Deepsea sole
26	3	0.125	97.9	0.001019	0.985455	*Talismania bifurcata*	Threadfin slickhead
27	3	0.114	65.7	0.000923	0.986378	*Neptunea amianta*	
28	3	0.102	56.6	0.000832	0.987210	Thaliacea (class)	Salps unident.
29	3	0.102	100.0	0.000827	0.988037	*Sebastes aurora*	Aurora rockfish

Table B-2.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
30	3	0.101	42.1	0.000818	0.988856	Myxinidae	Hagfish
31	3	0.099	100.0	0.000806	0.989662	*Squalus acanthias*	Spiny dogfish
32	3	0.095	92.4	0.000773	0.990435	*Asteronyx loveni*	
33	3	0.075	100.0	0.000609	0.991044	*Trachipterus altivelis*	King-of-the-salmon
34	3	0.056	52.8	0.000456	0.991500	Aphroditidae	Sea mouse unident.
35	3	0.056	88.7	0.000452	0.991953	*Liponema brevicorne*	Tentacle-shedding anemone
36	3	0.056	100.0	0.000451	0.992404	Holothuroidea (class)	Sea cucumber unident.
37	3	0.055	100.0	0.000446	0.992850	*Ceramaster leptoceramus*	
38	3	0.048	41.1	0.000390	0.993240	*Pyrosoma atlanticum*	
39	3	0.045	75.5	0.000362	0.993602	*Pasiphaea pacifica*	Pacific glass shrimp
40	3	0.040	100.0	0.000328	0.993931	*Nezumia stelgidolepis*	California grenadier
41	3	0.039	92.1	0.000320	0.994251	*Bothrocara brunneum*	Twoline eelpout
42	3	0.039	100.0	0.000314	0.994565	*Albatrossia pectoralis*	Giant grenadier
43	3	0.036	95.2	0.000293	0.994858	Actinostolidae	
44	3	0.033	100.0	0.000271	0.995128	*Solaster* sp.	
45	3	0.030	60.7	0.000247	0.995375	*Careproctus melanurus*	Blacktail snailfish
46	3	0.030	61.3	0.000245	0.995620	*Taningia danae*	Rhomboid squid
47	3	0.029	66.2	0.000240	0.995860	*Lampanyctus* sp.	
48	3	0.029	100.0	0.000238	0.996099	*Lycodes cortezianus*	Bigfin eelpout
49	3	0.028	61.2	0.000226	0.996325	*Berryteuthis magister*	Magistrate armhook squid
50	3	0.028	88.7	0.000224	0.996548	*Bathylagus* sp.	Blacksmelt unident.
51	3	0.026	61.3	0.000213	0.996761	*Histioteuthis* sp.	Jewel squids
52	3	0.026	79.6	0.000208	0.996969	*pineapple cucumber*	Pineapple sea cucumber
53	3	0.025	21.1	0.000205	0.997174	Myctophidae	Lanternfish
54	3	0.022	93.0	0.000181	0.997355	*Lycodes diapterus*	Black eelpout
55	3	0.022	100.0	0.000180	0.997535	*Dipsacaster* sp.	
56	3	0.020	100.0	0.000159	0.997695	*Antimora microlepis*	Pacific flatnose
57	3	0.018	100.0	0.000145	0.997840	*Eptatretus deani*	Black hagfish
58	3	0.016	84.3	0.000134	0.997974	*Careproctus* sp.	
59	3	0.016	97.7	0.000132	0.998106	*Leuroglossus* sp.	
60	3	0.016	61.4	0.000129	0.998235	Bathylagidae	Deepsea smelt
61	3	0.016	100.0	0.000126	0.998362	*Icichthys lockingtoni*	Medusafish
62	3	0.015	100.0	0.000120	0.998482	*Crossaster borealis*	
63	3	0.013	61.4	0.000108	0.998590	*Pseudostichopus mollis*	Sandy sea cucumber
64	3	0.013	100.0	0.000104	0.998695	*Myoxoderma sacculatum*	
65	3	0.012	49.9	0.000101	0.998796	Heteropoda (suborder)	
66	3	0.012	59.6	0.000100	0.998896	*Stylatula* sp.	Slender seawhips
67	3	0.012	100.0	0.000098	0.998995	Ascidiacea (class)	Tunicate unident.
68	3	0.010	100.0	0.000080	0.999075	*Tritonia* sp.	
69	3	0.009	79.0	0.000072	0.999146	Cephalopoda (class)	Squid unident.
70	3	0.008	80.0	0.000068	0.999214	*Pasiphaea tarda*	Crimson pasiphaeid
71	3	0.008	57.0	0.000064	0.999278	Pennatulacea (order)	Sea pen or sea whip
72	3	0.008	100.0	0.000062	0.999340	Ophiuroidea (class)	Brittlestarfish unident.
73	3	0.006	100.0	0.000047	0.999387	*Pteraster* sp.	
74	3	0.005	100.0	0.000044	0.999431	Paguridae	Hermit crab unident.
75	3	0.005	100.0	0.000043	0.999474	*Opisthoteuthis californiana*	Flapjack devilfish
76	3	0.005	83.7	0.000041	0.999515	Cephalopoda (class)	Squid unident.
77	3	0.005	60.8	0.000040	0.999555	*Pannychia moseleyi*	
78	3	0.004	100.0	0.000036	0.999590	*Gonatus onyx*	Clawed armhook squid
79	3	0.004	100.0	0.000034	0.999625	*Loligo opalescens*	California market squid
80	3	0.004	98.2	0.000030	0.999655	Melamphaidae	Bigscale
81	3	0.003	89.2	0.000027	0.999682	*Aristostomias scintillans*	Shining loosejaw
82	3	0.003	100.0	0.000027	0.999709	*Actinernus* sp.	
83	3	0.003	100.0	0.000026	0.999735	*Ampheraster marianus*	
84	3	0.003	100.0	0.000026	0.999761	*Histioteuthis hoylei*	
85	3	0.003	100.0	0.000025	0.999786	Pasiphaeidae	Pasiphaeid shrimp
86	3	0.003	100.0	0.000024	0.999809	*Benthalbella* sp.	
87	3	0.003	100.0	0.000022	0.999831	*Pseudarchaster parelii*	

Table B-2.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
88	3	0.002	100.0	0.000018	0.999850	Nudibranchia (order)	Gastropod unident.
89	3	0.002	100.0	0.000018	0.999867	*Eualus* sp.	
90	3	0.002	100.0	0.000017	0.999884	*Chorilia longipes*	Longhorned decorator crab
91	3	0.002	100.0	0.000014	0.999898	Aplacophora (class)	
92	3	0.001	100.0	0.000011	0.999909	*Leuroglossus stilbius*	California smoothtongue
93	3	0.001	100.0	0.000011	0.999920	Zoarcidae	Eelpout
94	3	0.001	90.3	0.000010	0.999931	*Stenobrachius* sp.	
95	3	0.001	72.3	0.000009	0.999940	Hormathiidae	
96	3	0.001	100.0	0.000009	0.999949	*Chilara taylori*	Spotted cusk-eel
97	3	0.001	100.0	0.000008	0.999956	*Tactostoma macropus*	Longfin dragonfish
98	3	0.001	100.0	0.000007	0.999963	*Icosteus aenigmaticus*	Ragfish
99	3	0.001	100.0	0.000006	0.999970	*Hippasteria californica*	
100	3	0.001	100.0	0.000004	0.999974	*Calliostoma platinum*	Silvery topsnail
101	3	0.001	100.0	0.000004	0.999978	*Leuroglossus schmidti*	Northern smoothtongue
102	3	0.001	63.2	0.000004	0.999982	*Tarletonbeania* sp.	
103	3	<0.001	100.0	0.000003	0.999986	Actiniaria (order)	Sea anemone unident.
104	3	<0.001	100.0	0.000002	0.999988	*Pagurus* sp.	
105	3	<0.001	100.0	0.000002	0.999991	*Gnathophausia ingens*	
106	3	<0.001	100.0	0.000002	0.999994	*Bathophilus flemingi*	Highfin dragonfish
107	3	<0.001	100.0	0.000002	0.999994	Ophidiidae	Cusk-eel
108	3	<0.001	61.3	0.000002	0.999996	*Tarletonbeania crenularis*	Blue lanternfish
109	3	<0.001	100.0	0.000002	0.999997	*Notolepsis risso*	Ribbon barracudina
110	3	<0.001	100.0	0.000001	0.999999	*Solariella nuda*	Naked solarelle
111	3	<0.001	100.0	0.000001	0.999999	*Lycodapus* sp.	
112	3	<0.001	100.0	0.000001	1.000000	Pandalidae	Pandalid shrimp
	Total	123.044					
1	4	55.741	10.0	0.341812	0.341812	*Sebastolobus altivelis*	Longspine thornyhead
2	4	32.959	55.4	0.202111	0.543923	*Microstomus pacificus*	Dover sole
3	4	17.453	37.3	0.107023	0.650946	*Anoplopoma fimbria*	Sablefish
4	4	9.039	100.0	0.055429	0.706375	*Brisaster latifrons*	
5	4	8.212	12.5	0.050358	0.756733	*Sebastolobus alascanus*	Shortspine thornyhead
6	4	7.902	100.0	0.048456	0.805189	Echinoidea (class)	Sea urchin unident.
7	4	5.225	16.1	0.032038	0.837227	*Alepocephalus tenebrosus*	California slickhead
8	4	3.612	48.4	0.022150	0.859377	*Bothrocara brunneum*	Twoline eelpout
9	4	3.512	92.5	0.021537	0.880914	*Bathybembix bairdii*	
10	4	2.883	24.8	0.017678	0.898591	*Embassichthys bathybius*	Deepsea sole
11	4	1.851	22.4	0.011348	0.909939	*Albatrossia pectoralis*	Giant grenadier
12	4	1.421	77.2	0.008716	0.918656	*Neptunea amianta*	
13	4	1.408	98.5	0.008635	0.927291	*Amphiophiura ponderosa*	
14	4	1.380	93.8	0.008459	0.935751	*Myoxoderma platyacanthum*	
15	4	1.168	21.9	0.007161	0.942912	*Apristurus brunneus*	Brown cat shark
16	4	0.881	59.0	0.005403	0.948314	*Chionoecetes tanneri*	True Tanner crab
17	4	0.848	44.7	0.005201	0.953515	*Thrissacanthias penicillatus*	
18	4	0.775	43.5	0.004749	0.958264	*Talismania bifurcata*	Threadfin slickhead
19	4	0.692	62.3	0.004246	0.962510	*Paractinostola faeculenta*	Rough purple sea anemone
20	4	0.659	50.8	0.004041	0.966551	*Heterozonias alternatus*	
21	4	0.474	44.1	0.002905	0.969456	*Zoraster evermanni*	
22	4	0.430	100.0	0.002636	0.972093	*Bathyraja trachura*	Black skate
23	4	0.423	55.7	0.002595	0.974688	Thaliacea (class)	Salps unident.
24	4	0.385	100.0	0.002360	0.977048	Gastropoda (class)	Gastropod unident.
25	4	0.340	50.2	0.002083	0.979131	*Bathylagus* sp.	Blacksmelt unident.
26	4	0.308	41.1	0.001888	0.981019	Myxinidae	Hagfish
27	4	0.256	38.9	0.001570	0.982589	*Crossaster borealis*	
28	4	0.248	19.9	0.001518	0.984107	*Thetys vagina*	Common salp
29	4	0.238	100.0	0.001460	0.985566	*Neptunea* sp.	Neptunea sp. eggs
30	4	0.162	69.0	0.000992	0.986558	*Pannychia moseleyi*	
31	4	0.142	100.0	0.000870	0.987428	*Allocentrotus fragilis*	Orange-pink sea urchin
32	4	0.139	46.9	0.000854	0.988282	*Embryx crotalinus*	Snakehead eelpout

Table B-2.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
33	4	0.138	100.0	0.000847	0.989129	*Raja rhina*	Longnose skate
34	4	0.120	100.0	0.000738	0.989867	*Coryphaenoides acrolepis*	Pacific grenadier
35	4	0.119	52.8	0.000730	0.990597	*Antimora microlepis*	Pacific flatnose
36	4	0.118	100.0	0.000725	0.991321	*Eptatretus deani*	Black hagfish
37	4	0.114	58.4	0.000702	0.992023	*Merluccius productus*	Pacific hake
38	4	0.110	53.0	0.000674	0.992698	*Careproctus melanurus*	Blacktail snailfish
39	4	0.110	100.0	0.000673	0.993371	*Hippasteria californica*	
40	4	0.107	32.6	0.000656	0.994027	*Vampyroteuthis infernalis*	
41	4	0.104	19.9	0.000639	0.994666	*Pasiphaea tarda*	Crimson pasiphaeid
42	4	0.095	100.0	0.000584	0.995249	*Ceramaster patagonicus*	Orange bat star
43	4	0.077	68.6	0.000471	0.995720	*Icichthys lockingtoni*	Medusafish
44	4	0.060	100.0	0.000368	0.996088	*Torpedo californica*	Pacific electric ray
45	4	0.044	85.6	0.000272	0.996361	*Careproctus* sp.	
46	4	0.043	48.2	0.000266	0.996627	*Myoxoderma sacculatum*	
47	4	0.037	100.0	0.000228	0.996855	*Actinernus* sp.	
48	4	0.037	89.5	0.000226	0.997080	Nudibranchia (order)	Gastropod unident.
49	4	0.035	100.0	0.000217	0.997297	*Nezumia liolepis*	Smooth grenadier
50	4	0.035	100.0	0.000213	0.997510	Bathylagidae	Deepsea smelt
51	4	0.034	100.0	0.000209	0.997719	*Ceramaster leptoceramus*	
52	4	0.030	72.1	0.000182	0.997901	*Dipsacaster* sp.	
53	4	0.030	39.3	0.000181	0.998082	Myctophidae	Lanternfish
54	4	0.028	43.3	0.000171	0.998252	*Taningia danae*	Rhomboid squid
55	4	0.024	58.9	0.000146	0.998398	Actinostolidae	
56	4	0.023	58.4	0.000139	0.998538	*Molpadia intermedia*	
57	4	0.022	83.2	0.000138	0.998675	*Stylatula* sp.	Slender seawhips
58	4	0.022	35.5	0.000133	0.998809	*Lampanyctus* sp.	
59	4	0.022	80.6	0.000133	0.998942	*Pyrosoma atlanticum*	
60	4	0.016	63.0	0.000101	0.999042	Heteropoda (suborder)	
61	4	0.016	77.5	0.000098	0.999140	*Stenobrachius* sp.	
62	4	0.014	100.0	0.000088	0.999228	*Parmaturus xaniurus*	Filetail cat shark
63	4	0.014	100.0	0.000086	0.999314	*Cranchia scabra*	Sandpaper squid
64	4	0.010	39.2	0.000059	0.999373	*Tactostoma macropus*	Longfin dragonfish
65	4	0.009	100.0	0.000054	0.999427	*Dipsacaster anoplus*	
66	4	0.008	67.7	0.000047	0.999475	Aphroditidae	Sea mouse unident.
67	4	0.005	73.9	0.000034	0.999508	Actiniaria (order)	Sea anemone unident.
68	4	0.005	100.0	0.000029	0.999538	Ascidiacea (class)	Tunicate unident.
69	4	0.005	100.0	0.000028	0.999566	*Gonatus onyx*	Clawed armhook squid
70	4	0.005	83.7	0.000028	0.999593	*Hyas lyratus*	Pacific lyre crab
71	4	0.005	100.0	0.000028	0.999621	*Aristostomias scintillans*	Shining loosejaw
72	4	0.004	100.0	0.000027	0.999648	Holothuroidea (class)	Sea cucumber unident.
73	4	0.004	100.0	0.000027	0.999674	*Solaster* sp.	
74	4	0.004	58.2	0.000027	0.999701	*Asteronyx loveni*	
75	4	0.004	100.0	0.000024	0.999725	*Onychoteuthis borealijaponicus*	Boreal clubhook squid
76	4	0.004	100.0	0.000024	0.999750	*Lophaster furcilliger*	
77	4	0.004	100.0	0.000023	0.999772	*Umbellula* sp.	
78	4	0.004	57.8	0.000022	0.999794	*Serrivomer sector*	Sawtooth eel
79	4	0.003	100.0	0.000021	0.999816	*Pseudostichopus mollis*	Sandy sea cucumber
80	4	0.003	100.0	0.000021	0.999836	*Anoplogaster cornuta*	Fangtooth
81	4	0.003	100.0	0.000019	0.999855	*Chauliodus macouni*	Pacific viperfish
82	4	0.003	100.0	0.000017	0.999872	*Benthoctopus* sp.	
83	4	0.003	100.0	0.000016	0.999888	Cephalopoda (class)	Squid unident.
84	4	0.002	100.0	0.000014	0.999901	Hormathiidae	
85	4	0.002	77.5	0.000013	0.999914	*Buccinum viridum*	Turban whelk
86	4	0.002	100.0	0.000010	0.999934	*Loligo opalescens*	California market squid
87	4	0.002	100.0	0.000010	0.999934	*Opisthoteuthis californiana*	Flapjack devilfish
88	4	0.001	100.0	0.000009	0.999943	*Pagurus* sp.	
89	4	0.001	100.0	0.000008	0.999951	*Lycodapus mandibularis*	Pallid eelpout
90	4	0.001	92.3	0.000008	0.999958	*Gnathophausia ingens*	

Table B-2.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
91	4	0.001	100.0	0.000005	0.999963	*Sagamichthys abei*	Shining tubeshoulder
92	4	0.001	100.0	0.000005	0.999968	Gastropoda (class)	Snail unident.
93	4	0.001	100.0	0.000004	0.999973	*Tarletonbeania* sp.	
94	4	0.001	100.0	0.000004	0.999977	*Nearchaster aciculosus*	
95	4	0.001	100.0	0.000004	0.999980	*Ophidion scrippsae*	Basketweave cusk-eel
96	4	<0.001	100.0	0.000003	0.999983	*Brisingella* sp.	
97	4	<0.001	100.0	0.000003	0.999990	*Delectopecten vancouverensis*	Vancouver scallop
98	4	<0.001	100.0	0.000003	0.999990	*Calliostoma platinum*	Silvery topsnail
99	4	<0.001	100.0	0.000003	0.999992	Ophiuroidea (class)	Brittlestarfish unident.
100	4	<0.001	100.0	0.000002	0.999995	*Chorilia longipes*	Longhorned decorator crab
101	4	<0.001	100.0	0.000002	0.999996	*Idiacanthus antrostomus*	Pacific blackdragon
102	4	<0.001	100.0	0.000002	0.999998	*Tarletonbeania crenularis*	Blue lanternfish
103	4	<0.001	100.0	0.000001	0.999999	Polychaeta (class)	Polychaete worm unident.
104	4	<0.001	100.0	0.000001	1.000000	Isopoda (order)	Isopod unident.
105	4	<0.001	100.0	0.000000	1.000000	*Eualus* sp.	
	Total	163.075					
1	5	18.310	18.0	0.198933	0.198933	*Sebastolobus altivelis*	Longspine thornyhead
2	5	13.267	26.7	0.144149	0.343082	*Anoplopoma fimbria*	Sablefish
3	5	10.735	29.3	0.116632	0.459714	*Sebastolobus alascanus*	Shortspine thornyhead
4	5	9.003	34.6	0.097821	0.557535	*Albatrossia pectoralis*	Giant grenadier
5	5	8.496	62.1	0.092310	0.649845	*Microstomus pacificus*	Dover sole
6	5	6.405	59.8	0.069594	0.719439	*Thrissacanthias penicillatus*	
7	5	5.748	34.0	0.062450	0.781889	*Alepocephalus tenebrosus*	California slickhead
8	5	4.489	38.8	0.048775	0.830664	*Coryphaenoides acrolepis*	Pacific grenadier
9	5	2.138	48.4	0.023228	0.853892	*Bothrocara brunneum*	Twoline eelpout
10	5	1.791	21.1	0.019459	0.873351	*Embassichthys bathybius*	Deepsea sole
11	5	1.373	38.3	0.014920	0.888271	*Paractinostola faeculenta*	Rough purple sea anemone
12	5	1.213	64.3	0.013182	0.901452	*Amphiophiura ponderosa*	
13	5	0.923	92.1	0.010025	0.911477	*Bathybembix bairdii*	
14	5	0.704	67.8	0.007651	0.919129	*Myoxoderma sacculatum*	
15	5	0.683	64.6	0.007423	0.926552	*Bathyraja trachura*	Black skate
16	5	0.591	34.8	0.006420	0.932972	*Neptunea amianta*	
17	5	0.553	46.4	0.006005	0.938977	*Antimora microlepis*	Pacific flatnose
18	5	0.522	49.5	0.005671	0.944648	*Chionoecetes tanneri*	True Tanner crab
19	5	0.475	54.4	0.005159	0.949806	*Talismania bifurcata*	Threadfin slickhead
20	5	0.419	100.0	0.004551	0.954357	*Bathyraja abyssicola*	Deepsea skate
21	5	0.377	72.3	0.004097	0.958454	*Scotoplanes theeli*	
22	5	0.328	23.0	0.003562	0.962016	*Thetys vagina*	Common salp
23	5	0.286	42.8	0.003112	0.965128	*Bathylagus* sp.	Blacksmelt unident.
24	5	0.265	31.2	0.002882	0.968011	Myxinidae	Hagfish
25	5	0.255	100.0	0.002775	0.970786	*Apristurus brunneus*	Brown cat shark
26	5	0.201	38.1	0.002179	0.972964	*Heterozonias alternatus*	
27	5	0.194	71.9	0.002108	0.975073	*Paralomis multispina*	
28	5	0.171	80.3	0.001858	0.976931	*Zoraster evermanni*	
29	5	0.163	95.5	0.001769	0.978700	*Actinauge verrillii*	Reticulate anemone
30	5	0.124	48.0	0.001350	0.980050	*Vampyroteuthis infernalis*	
31	5	0.123	100.0	0.001333	0.981383	*Opisthoteuthis californiana*	Flapjack devilfish
32	5	0.118	61.4	0.001286	0.982669	*Pannychia moseleyi*	
33	5	0.118	90.6	0.001284	0.983953	*Liponema brevicorne*	Tentacle-shedding anemone
34	5	0.112	39.7	0.001213	0.985166	*Pasiphaea tarda*	Crimson pasiphaeid
35	5	0.096	100.0	0.001046	0.986212	*Benthoctopus* sp.	
36	5	0.094	44.9	0.001023	0.987235	*Dipsacaster* sp.	
37	5	0.094	60.0	0.001019	0.988255	Thaliacea (class)	Salps unident.
38	5	0.093	43.0	0.001015	0.989269	*Crossaster borealis*	
39	5	0.066	66.0	0.000716	0.989985	*Merluccius productus*	Pacific hake
40	5	0.062	39.4	0.000677	0.990663	*Embryx crotalinus*	Snakehead eelpout
41	5	0.057	70.8	0.000617	0.991279	Actinostolidae	
42	5	0.044	85.8	0.000483	0.991763	*Pseudostichopus mollis*	Sandy sea cucumber

Table B-2.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
43	5	0.043	58.7	0.000467	0.992230	*Pandalopsis ampla*	
44	5	0.043	100.0	0.000467	0.992696	Bathylagidae	Deepsea smelt
45	5	0.042	41.6	0.000455	0.993151	*Taningia danae*	Rhomboid squid
46	5	0.039	90.8	0.000425	0.993577	*Molpadia intermedia*	
47	5	0.039	100.0	0.000420	0.993997	*Hippasteria californica*	
48	5	0.037	89.9	0.000403	0.994400	Actiniaria (order)	Sea anemone unident.
49	5	0.037	95.1	0.000402	0.994802	*Lophaster furcilliger*	
50	5	0.031	57.3	0.000342	0.995144	*Buccinum viridum*	Turban whelk
51	5	0.031	100.0	0.000338	0.995482	*Eptatretus deani*	Black hagfish
52	5	0.028	72.6	0.000301	0.995783	*Nearchaster* sp.	
53	5	0.026	100.0	0.000278	0.996061	*Icichthys lockingtoni*	Medusafish
54	5	0.024	100.0	0.000259	0.996320	*Periphylla periphylla*	
55	5	0.024	73.5	0.000258	0.996578	*Actinernus* sp.	
56	5	0.023	100.0	0.000245	0.996822	*Pteraster* sp.	
57	5	0.020	100.0	0.000222	0.997044	*Allocentrotus fragilis*	Orange-pink sea urchin
58	5	0.020	41.7	0.000219	0.997263	*Pyrosoma atlanticum*	
59	5	0.019	45.5	0.000207	0.997470	*Lampanyctus* sp.	
60	5	0.016	57.5	0.000175	0.997644	*Nezumia liolepis*	Smooth grenadier
61	5	0.016	73.2	0.000172	0.997817	Aphroditidae	Sea mouse unident.
62	5	0.016	99.2	0.000169	0.997986	Hormathiidae	
63	5	0.015	47.4	0.000167	0.998152	*Anoplogaster cornuta*	Fangtooth
64	5	0.013	52.5	0.000141	0.998293	*Pagurus* sp.	
65	5	0.013	97.9	0.000138	0.998431	*Stenobrachius* sp.	
66	5	0.013	71.0	0.000137	0.998568	Holothuroidea (class)	Sea cucumber unident.
67	5	0.011	61.5	0.000114	0.998682	*Solaster* sp.	
68	5	0.010	64.7	0.000114	0.998796	*Chauliodus macouni*	Pacific viperfish
69	5	0.010	56.6	0.000104	0.998900	*Tactostoma macropus*	Longfin dragonfish
70	5	0.010	75.5	0.000104	0.999004	*Neptunea* sp.	Neptunea sp. eggs
71	5	0.009	100.0	0.000093	0.999097	Pennatulacea (order)	Sea pen or sea whip
72	5	0.008	39.8	0.000090	0.999186	Myctophidae	Lanternfish
73	5	0.006	100.0	0.000064	0.999251	Scyphozoa (class)	Jellyfish unident.
74	5	0.005	100.0	0.000054	0.999305	*Careproctus melanurus*	Blacktail snailfish
75	5	0.005	69.8	0.000052	0.999357	*Stylatula* sp.	Slender seawhips
76	5	0.005	100.0	0.000052	0.999408	*Pseudarchaster parelii*	
77	5	0.005	54.9	0.000049	0.999458	*Gnathophausia ingens*	
78	5	0.005	61.6	0.000049	0.999507	Heteropoda (suborder)	
79	5	0.004	100.0	0.000045	0.999552	*Cranchia scabra*	Sandpaper squid
80	5	0.004	100.0	0.000041	0.999593	*Careproctus* sp.	
81	5	0.004	100.0	0.000040	0.999633	*Asteronyx loveni*	
82	5	0.003	100.0	0.000034	0.999666	Cephalopoda (class)	Squid unident.
83	5	0.003	62.4	0.000030	0.999697	Gastropoda (class)	Gastropod unident.
84	5	0.003	100.0	0.000030	0.999726	*Saccopharynx* sp.	
85	5	0.003	100.0	0.000028	0.999754	Chauliodontidae	Viperfish
86	5	0.002	76.6	0.000020	0.999775	*Stereomastus sculpta*	
88	5	0.002	100.0	0.000020	0.999815	Pseudarchaster parelii	
87	5	0.002	100.0	0.000020	0.999815	Ophiuroidea (class)	Brittlestarfish unident.
89	5	0.002	48.7	0.000016	0.999832	*Neomenia* sp.	
90	5	0.001	100.0	0.000015	0.999847	*Liparis* sp.	
91	5	0.001	100.0	0.000015	0.999862	*Lampanyctus jordani*	Brokenline lampfish
94	5	0.001	100.0	0.000013	0.999900	*Chiasmodon niger*	
93	5	0.001	100.0	0.000013	0.999900	*Serrivomer sector*	Sawtooth eel
92	5	0.001	100.0	0.000013	0.999900	*Gonatus onyx*	Clawed armhook squid
95	5	0.001	100.0	0.000013	0.999913	*Poraniopsis inflata*	
96	5	0.001	100.0	0.000009	0.999922	*Sagamichthys abei*	Shining tubeshoulder
97	5	0.001	100.0	0.000008	0.999929	*Brisaster latifrons*	
98	5	0.001	81.9	0.000007	0.999936	Isopoda (order)	Isopod unident.
99	5	0.001	100.0	0.000006	0.999942	*Chiroteuthis* sp.	
101	5	0.001	100.0	0.000006	0.999955	*Argyropelecus lychnus*	Tropical hatchetfish

Table B-2.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
100	5	0.001	100.0	0.000006	0.999955	*Paraliparis* sp.	
103	5	0.001	100.0	0.000006	0.999966	*Periphylla* sp.	
102	5	0.001	100.0	0.000006	0.999966	Gastropoda (class)	Snail unident.
104	5	<0.001	100.0	0.000005	0.999972	*Colus aphelus*	Oblique whelk
105	5	<0.001	100.0	0.000005	0.999976	Decapoda (order)	
107	5	<0.001	100.0	0.000004	0.999985	*Argyropelecus* sp.	
106	5	<0.001	100.0	0.000004	0.999985	*Sternoptyx* sp.	
108	5	<0.001	100.0	0.000003	0.999988	Gastropoda (class)	Snail eggs unident.
109	5	<0.001	100.0	0.000003	0.999991	Cephalopoda (class)	Squid unident.
110	5	<0.001	100.0	0.000002	0.999993	Pectinidae	Scallop
111	5	<0.001	100.0	0.000002	0.999996	*Delectopecten vancouverensis*	Vancouver scallop
112	5	<0.001	100.0	0.000001	0.999997	Bivalvia (class)	Bivalve unident.
115	5	<0.001	100.0	0.000001	1.000000	*Cyclothone* sp.	
114	5	<0.001	100.0	0.000001	1.000000	Pycnogonida (class)	Sea spider unident.
113	5	<0.001	100.0	0.000001	1.000000	Nudibranchia (order)	Gastropod unident.
	Total	92.039					
1	6	34.512	29.4	0.320450	0.320450	*Coryphaenoides acrolepis*	Pacific grenadier
2	6	27.303	100.0	0.253508	0.573959	*Neolithodes diomedeae*	
3	6	7.359	25.6	0.068334	0.642293	*Sebastolobus altivelis*	Longspine thornyhead
4	6	6.090	41.3	0.056542	0.698835	*Albatrossia pectoralis*	Giant grenadier
5	6	5.732	30.7	0.053219	0.752053	*Alepocephalus tenebrosus*	California slickhead
6	6	3.946	35.6	0.036637	0.788690	*Thrissacanthias penicillatus*	
7	6	3.547	32.3	0.032933	0.821624	*Anoplopoma fimbria*	Sablefish
8	6	3.315	26.4	0.030782	0.852406	*Antimora microlepis*	Pacific flatnose
9	6	2.562	37.3	0.023791	0.876197	*Sebastolobus alascanus*	Shortspine thornyhead
10	6	1.875	63.7	0.017412	0.893609	*Microstomus pacificus*	Dover sole
11	6	1.689	79.9	0.015679	0.909288	*Scotoplanes theeli*	
12	6	1.072	61.2	0.009957	0.919244	*Bathyraja abyssicola*	Deepsea skate
13	6	0.931	76.3	0.008641	0.927885	*Apristurus brunneus*	Brown cat shark
14	6	0.590	100.0	0.005477	0.933362	Holothuroidea (class)	Sea cucumber unident.
15	6	0.567	40.4	0.005268	0.938630	*Liponema brevicorne*	Tentacle-shedding anemone
16	6	0.469	39.4	0.004359	0.942989	*Myoxoderma sacculatum*	
17	6	0.446	68.4	0.004142	0.947132	*Paralomis multispina*	
18	6	0.400	60.6	0.003717	0.950848	*Bothrocara brunneum*	Twoline eelpout
19	6	0.343	100.0	0.003185	0.954034	*Psychrolutes phrictus*	Blob sculpin
20	6	0.342	87.3	0.003173	0.957207	Ophiuroidea (class)	Brittlestarfish unident.
21	6	0.309	49.6	0.002867	0.960073	*Paractinostola faeculenta*	Rough purple sea anemone
22	6	0.302	41.3	0.002808	0.962882	*Embassichthys bathybius*	Deepsea sole
23	6	0.262	58.9	0.002430	0.965311	Cephalopoda (class)	Squid unident.
24	6	0.254	46.6	0.002363	0.967674	*Chionoecetes tanneri*	True Tanner crab
25	6	0.225	61.3	0.002093	0.969767	Thaliacea (class)	Salps unident.
26	6	0.215	46.9	0.001999	0.971766	Bathylagidae	Deepsea smelt
27	6	0.212	84.7	0.001971	0.973737	*Pseudostichopus mollis*	Sandy sea cucumber
28	6	0.189	63.9	0.001756	0.975493	*Bathylagus* sp.	Blacksmelt unident.
29	6	0.189	29.6	0.001754	0.977247	*Crossaster borealis*	
30	6	0.187	100.0	0.001734	0.978981	*Bathyraja trachura*	Black skate
31	6	0.165	33.5	0.001536	0.980517	*Thetys vagina*	Common salp
32	6	0.120	83.6	0.001111	0.981628	*Pyrosoma atlanticum*	
33	6	0.119	82.5	0.001107	0.982735	*Chrysaora melanaster*	
34	6	0.117	91.3	0.001086	0.983821	*Bathybembix bairdii*	
35	6	0.108	75.8	0.001003	0.984824	*Pannychia moseleyi*	
36	6	0.101	31.3	0.000942	0.985766	*Pandalopsis ampla*	
37	6	0.096	54.6	0.000887	0.986653	*Vampyroteuthis infernalis*	
38	6	0.093	100.0	0.000868	0.987521	*Opisthoteuthis californiana*	Flapjack devilfish
39	6	0.093	68.9	0.000867	0.988388	*Merluccius productus*	Pacific hake
40	6	0.080	37.4	0.000744	0.989131	*Heterozonias alternatus*	
41	6	0.075	34.4	0.000695	0.989826	*Neptunea amianta*	
42	6	0.071	64.5	0.000656	0.990481	*Icichthys lockingtoni*	Medusafish

Table B-2.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
43	6	0.064	47.0	0.000592	0.991074	*Lophaster furcilliger*	
44	6	0.063	100.0	0.000585	0.991659	*Paralomis verrilli*	
45	6	0.060	100.0	0.000560	0.992218	Asteroidea (class)	Starfish unident.
46	6	0.054	89.4	0.000505	0.992723	*Pagurus* sp.	
47	6	0.047	82.2	0.000439	0.993162	*Zoraster evermanni*	
48	6	0.044	74.3	0.000407	0.993569	*Hippasteria californica*	
49	6	0.043	100.0	0.000395	0.993963	*Apristurus kampae*	Longnose cat shark
50	6	0.041	34.4	0.000383	0.994346	*Pasiphaea tarda*	Crimson pasiphaeid
51	6	0.040	100.0	0.000368	0.994714	*Histioteuthis hoylei*	
52	6	0.038	41.9	0.000357	0.995071	Myxinidae	Hagfish
53	6	0.037	100.0	0.000340	0.995412	Paguridae	Hermit crab unident.
54	6	0.033	100.0	0.000302	0.995714	*Amphiophiura* sp.	
55	6	0.032	75.2	0.000293	0.996006	*Nearchaster aciculosus*	
56	6	0.027	34.5	0.000254	0.996261	*Taningia danae*	Rhomboid squid
57	6	0.023	100.0	0.000213	0.996473	*Aphrocallistes vastus*	Clay pipe sponge
58	6	0.022	100.0	0.000207	0.996681	*Allocentrotus* sp.	
59	6	0.019	49.7	0.000177	0.996858	*Solaster* sp.	
60	6	0.019	51.9	0.000175	0.997033	*Lampanyctus* sp.	
61	6	0.018	58.8	0.000171	0.997203	*Serrivomer sector*	Sawtooth eel
62	6	0.018	50.0	0.000166	0.997369	*Stylatula* sp.	Slender seawhips
63	6	0.017	100.0	0.000158	0.997527	*Talismania bifurcata*	Threadfin slickhead
64	6	0.017	66.3	0.000157	0.997684	*Pteraster coscinopeplus*	Deepwater pteraster
65	6	0.017	48.6	0.000156	0.997840	Myctophidae	Lanternfish
66	6	0.017	100.0	0.000156	0.997996	Ctenophora (phylum)	Comb jelly unident.
67	6	0.016	65.5	0.000145	0.998141	*Dipsacaster* sp.	
68	6	0.016	100.0	0.000144	0.998285	*Embryx crotalinus*	Snakehead eelpout
69	6	0.015	100.0	0.000141	0.998425	*Hippasteria spinosa*	
70	6	0.014	82.9	0.000130	0.998555	*Benthoctopus sp.*	
71	6	0.014	93.5	0.000129	0.998684	*Asteronyx loveni*	
72	6	0.012	75.7	0.000114	0.998798	*Berryteuthis magister*	Magistrate armhook squid
73	6	0.012	100.0	0.000111	0.998910	*Periphylla periphylla*	
74	6	0.012	100.0	0.000107	0.999016	*Pteraster militaris*	
75	6	0.011	88.5	0.000101	0.999118	Actinostolidae	
76	6	0.008	100.0	0.000074	0.999192	Scyphozoa (class)	Jellyfish unident.
77	6	0.007	100.0	0.000067	0.999259	*Nearchaster* sp.	
78	6	0.007	62.4	0.000066	0.999325	*Stenobrachius* sp.	
79	6	0.007	63.4	0.000062	0.999387	*Aristostomias scintillans*	Shining loosejaw
80	6	0.006	91.9	0.000056	0.999443	*Scopelosaurus harryi*	Scaly paperbone
81	6	0.006	100.0	0.000055	0.999498	Ascidiacea (class)	Tunicate unident.
82	6	0.006	100.0	0.000054	0.999552	*Gonatus* sp.	
83	6	0.006	100.0	0.000051	0.999603	*Pseudarchaster pussillus*	
84	6	0.005	66.2	0.000050	0.999653	*Anoplogaster cornuta*	Fangtooth
85	6	0.004	100.0	0.000040	0.999694	*Cranchia scabra*	Sandpaper squid
86	6	0.004	68.0	0.000036	0.999730	Pennatulacea (order)	Sea pen or sea whip
87	6	0.003	46.6	0.000030	0.999759	Aphroditidae	Sea mouse unident.
88	6	0.003	62.4	0.000026	0.999786	*Tactostoma macropus*	Longfin dragonfish
89	6	0.002	66.2	0.000022	0.999808	*Pseudarchaster* sp.	
90	6	0.002	100.0	0.000018	0.999826	*Macropinna microstoma*	Barreleye
91	6	0.002	100.0	0.000017	0.999843	*Actinauge verrillii*	Reticulate anemone
92	6	0.002	79.2	0.000016	0.999859	*Stereomastus sculpta*	
93	6	0.002	100.0	0.000015	0.999874	Cyclopteridae	Snailfish unident.
94	6	0.001	61.4	0.000012	0.999886	*Gnathophausia ingens*	
95	6	0.001	57.2	0.000012	0.999898	*Loligo opalescens*	California market squid
96	6	0.001	100.0	0.000012	0.999910	Heteropoda (suborder)	
97	6	0.001	100.0	0.000011	0.999921	Isopoda (order)	Isopod unident.
98	6	0.001	80.0	0.000011	0.999931	Actiniaria (order)	Sea anemone unident.
99	6	0.001	100.0	0.000009	0.999940	Gastropoda (class)	Snail eggs unident.
100	6	0.001	100.0	0.000008	0.999948	Hormathiidae	

Table B-2.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
101	6	0.001	100.0	0.000007	0.999955	*Munida quadrispina*	
102	6	0.001	58.9	0.000006	0.999961	*Buccinum viridum*	Turban whelk
103	6	0.001	100.0	0.000006	0.999967	*Actinernus* sp.	
104	6	0.001	100.0	0.000005	0.999972	*Chiroteuthis calyx*	
105	6	0.001	100.0	0.000005	0.999976	*Chauliodus macouni*	Pacific viperfish
106	6	<0.001	100.0	0.000004	0.999980	Gastropoda (class)	Gastropod unident.
107	6	<0.001	72.2	0.000004	0.999984	Melamphaidae	Bigscale
108	6	<0.001	100.0	0.000004	0.999988	Sternoptychidae	Hatchetfish
109	6	<0.001	100.0	0.000003	0.999990	*Hyas lyratus*	Pacific lyre crab
110	6	<0.001	100.0	0.000002	0.999992	*Chiroteuthis* sp.	
111	6	<0.001	61.3	0.000002	0.999994	*Sternoptyx diaphana*	Longspine hatchetfish
112	6	<0.001	100.0	0.000002	0.999996	*Colus* sp.	
114	6	<0.001	100.0	0.000001	0.999998	*Tarletonbeania crenularis*	Blue lanternfish
113	6	<0.001	100.0	0.000001	0.999998	Crustacea (subphylum)	Crustacean unident.
115	6	<0.001	100.0	0.000001	0.999999	*Pseudarchaster dissonus*	
116	6	<0.001	100.0	0.000000	1.000000	*Neomenia* sp.	
117	6	<0.001	100.0	0.000000	1.000000	*Colus trophius*	
	Total	107.699					
1	Total	25.913	50.3	0.156615	0.156615	*Brisaster latifrons*	
2	Total	18.544	20.2	0.112080	0.268694	*Sebastolobus altivelis*	Longspine thornyhead
3	Total	18.504	20.7	0.111836	0.380530	*Microstomus pacificus*	Dover sole
4	Total	14.925	34.0	0.090205	0.470735	*Merluccius productus*	Pacific hake
5	Total	8.890	16.1	0.053731	0.524466	*Anoplopoma fimbria*	Sablefish
6	Total	8.808	49.0	0.053235	0.577702	*Allocentrotus fragilis*	Orange-pink sea urchin
7	Total	7.344	17.7	0.044385	0.622087	*Sebastolobus alascanus*	Shortspine thornyhead
8	Total	6.741	43.1	0.040742	0.662828	*Coryphaenoides acrolepis*	Pacific grenadier
9	Total	4.892	33.0	0.029567	0.692395	*Raja rhina*	Longnose skate
10	Total	4.707	100.0	0.028451	0.720846	*Neolithodes diomedeae*	
11	Total	4.653	53.0	0.028121	0.748966	*Brisaster* sp. Type A	
12	Total	3.862	51.9	0.023342	0.772309	*Sebastes diploproa*	Splitnose rockfish
13	Total	3.051	22.6	0.018437	0.790746	*Alepocephalus tenebrosus*	California slickhead
14	Total	2.905	38.1	0.017559	0.808305	*Myoxoderma platyacanthum*	
15	Total	2.869	32.1	0.017341	0.825646	*Albatrossia pectoralis*	Giant grenadier
16	Total	2.223	95.4	0.013438	0.839084	*Brisaster* sp. Type B	
17	Total	2.170	47.6	0.013115	0.852199	*Sebastes aurora*	Aurora rockfish
18	Total	2.044	38.7	0.012354	0.864553	*Thrissacanthias penicillatus*	
19	Total	1.675	36.0	0.010124	0.874676	*Glyptocephalus zachirus*	Rex sole
20	Total	1.322	21.6	0.007989	0.882665	*Apristurus brunneus*	Brown cat shark
21	Total	1.287	31.1	0.007780	0.890445	*Parmaturus xaniurus*	Filetail cat shark
22	Total	1.129	22.3	0.006822	0.897267	*Paractinostola faeculenta*	Rough purple sea anemone
23	Total	1.090	100.0	0.006587	0.903855	Echinoidea (class)	Sea urchin unident.
24	Total	1.000	88.4	0.006046	0.909901	*Sebastes saxicola*	Stripetail rockfish
25	Total	0.985	59.6	0.005951	0.915851	*Hydrolagus colliei*	Spotted ratfish
26	Total	0.943	38.9	0.005697	0.921548	*Bothrocara brunneum*	Twoline eelpout
27	Total	0.848	58.3	0.005123	0.926671	*Bathybembix bairdii*	
28	Total	0.801	46.2	0.004840	0.931511	*Bathyraja interrupta*	Bering skate
29	Total	0.781	29.0	0.004722	0.936234	*Embassichthys bathybius*	Deepsea sole
30	Total	0.763	58.0	0.004614	0.940848	*Sebastes melanostomus*	Blackgill rockfish
31	Total	0.687	39.4	0.004150	0.944998	*Antimora microlepis*	Pacific flatnose
32	Total	0.675	41.6	0.004082	0.949080	*Lycodes cortezianus*	Bigfin eelpout
33	Total	0.406	37.0	0.002455	0.951535	*Chionoecetes tanneri*	True Tanner crab
34	Total	0.403	58.9	0.002438	0.953973	*Amphiophiura ponderosa*	
35	Total	0.356	69.1	0.002153	0.956126	*Scotoplanes theeli*	
36	Total	0.336	49.1	0.002031	0.958157	*Neptunea amianta*	
37	Total	0.300	49.7	0.001815	0.959972	*Lycodes diapterus*	Black eelpout
38	Total	0.271	59.9	0.001640	0.961612	*Lyopsetta exilis*	Slender sole
39	Total	0.270	100.0	0.001634	0.963246	*Sebastes goodei*	Chilipepper
40	Total	0.261	67.7	0.001579	0.964826	*Lycodes pacificus*	Blackbelly eelpout

Table B-2.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
41	Total	0.257	56.0	0.001554	0.966379	*Bathyraja abyssicola*	Deepsea skate
42	Total	0.247	37.4	0.001494	0.967873	*Liponema brevicorne*	Tentacle-shedding anemone
43	Total	0.232	93.5	0.001402	0.969275	*Metridium* sp.	
44	Total	0.222	90.9	0.001344	0.970619	*Aphrocallistes vastus*	Clay pipe sponge
45	Total	0.215	32.2	0.001302	0.971922	*Heterozonias alternatus*	
46	Total	0.213	37.9	0.001289	0.973210	*Talismania bifurcata*	Threadfin slickhead
47	Total	0.211	45.8	0.001273	0.974483	*Myoxoderma sacculatum*	
48	Total	0.209	49.7	0.001265	0.975748	*Bathyraja trachura*	Black skate
49	Total	0.208	15.0	0.001256	0.977004	*Thetys vagina*	Common salp
50	Total	0.176	30.3	0.001061	0.978065	Thaliacea (class)	Salps unident.
51	Total	0.173	94.2	0.001046	0.979111	*Parophrys vetulus*	English sole
52	Total	0.164	98.1	0.000994	0.980105	*Rathbunaster californicus*	
53	Total	0.162	40.1	0.000976	0.981081	*Zoraster evermanni*	
54	Total	0.144	100.0	0.000870	0.981951	*Sebastes paucispinis*	Bocaccio
55	Total	0.134	31.9	0.000810	0.982761	*Bathylagus* sp.	Blacksmelt unident.
56	Total	0.131	65.1	0.000793	0.983554	*Torpedo californica*	Pacific electric ray
57	Total	0.123	48.4	0.000746	0.984300	Cephalopoda (class)	Squid unident.
58	Total	0.115	88.6	0.000694	0.984994	Holothuroidea (class)	Sea cucumber unident.
59	Total	0.115	27.1	0.000692	0.985686	Myxinidae	Hagfish
60	Total	0.114	55.5	0.000691	0.986377	*Molpadia intermedia*	
61	Total	0.110	55.8	0.000667	0.987044	*Paralomis multispina*	
62	Total	0.101	50.5	0.000610	0.987654	*Squalus acanthias*	Spiny dogfish
63	Total	0.100	55.7	0.000606	0.988260	*Pseudostichopus mollis*	Sandy sea cucumber
64	Total	0.097	56.9	0.000587	0.988847	*Octopus californicus*	N. Pacific bigeye octopus
65	Total	0.087	28.3	0.000523	0.989370	*Crossaster borealis*	
66	Total	0.072	34.7	0.000438	0.989807	*Pannychia moseleyi*	
67	Total	0.067	60.6	0.000406	0.990213	*Eopsetta jordani*	Petrale sole
68	Total	0.063	54.1	0.000379	0.990592	*Opisthoteuthis californiana*	Flapjack devilfish
69	Total	0.061	90.3	0.000370	0.990962	Sebastes babcocki	Redbanded rockfish
70	Total	0.061	87.0	0.000366	0.991328	Ophiuroidea (class)	Brittlestarfish unident.
71	Total	0.059	100.0	0.000357	0.991685	*Psychrolutes phrictus*	Blob sculpin
72	Total	0.059	33.5	0.000355	0.992040	*Pyrosoma atlanticum*	
73	Total	0.057	67.8	0.000346	0.992386	*Asteronyx loveni*	
74	Total	0.055	53.5	0.000332	0.992718	*Pleurobranchaea californica*	California sea slug
75	Total	0.054	98.9	0.000324	0.993042	Gastropoda (class)	Gastropod unident.
76	Total	0.053	31.9	0.000318	0.993360	*Vampyroteuthis infernalis*	
77	Total	0.052	44.0	0.000315	0.993675	Bathylagidae	Deepsea smelt
78	Total	0.051	81.1	0.000310	0.993985	Asteroidea (class)	Starfish unident.
79	Total	0.045	99.9	0.000270	0.994255	*Ophiacantus* sp.	
80	Total	0.042	27.9	0.000255	0.994510	*Pasiphaea tarda*	Crimson pasiphaeid
81	Total	0.034	95.1	0.000208	0.994718	*Neptunea* sp.	Neptunea sp. eggs
82	Total	0.034	50.6	0.000203	0.994921	*Hippasteria californica*	
83	Total	0.033	39.6	0.000197	0.995118	*Embryx crotalinus*	Snakehead eelpout
84	Total	0.030	40.5	0.000181	0.995299	*Icichthys lockingtoni*	Medusafish
85	Total	0.030	94.2	0.000181	0.995480	*Ophiodon elongatus*	Lingcod
86	Total	0.029	94.8	0.000172	0.995653	*Actinauge verrillii*	Reticulate anemone
87	Total	0.027	37.9	0.000162	0.995815	*Dipsacaster* sp.	
88	Total	0.027	39.2	0.000161	0.995976	*Careproctus melanurus*	Blacktail snailfish
89	Total	0.026	65.3	0.000158	0.996134	*Eptatretus deani*	Black hagfish
90	Total	0.025	38.7	0.000150	0.996284	*Pandalopsis ampla*	
91	Total	0.022	77.2	0.000131	0.996415	*Benthoctopus* sp.	
92	Total	0.021	44.7	0.000128	0.996543	Actinostolidae	
93	Total	0.021	25.8	0.000127	0.996670	*Taningia danae*	Rhomboid squid
94	Total	0.021	85.8	0.000124	0.996794	*Chrysaora melanaster*	
95	Total	0.020	69.4	0.000119	0.996913	*Paralithodes californiensis*	
96	Total	0.018	48.3	0.000108	0.997021	*Lophaster furcilliger*	
97	Total	0.017	39.8	0.000101	0.997122	*Stylatula* sp.	Slender seawhips
98	Total	0.016	57.3	0.000097	0.997219	Porifera (phylum)	Sponge unident.

Table B-2.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
99	Total	0.016	39.7	0.000095	0.997314	Aphroditidae	Sea mouse unident.
100	Total	0.015	19.9	0.000091	0.997405	Myctophidae	Lanternfish
101	Total	0.015	28.7	0.000091	0.997496	Lampanyctus sp.	
102	Total	0.014	73.5	0.000086	0.997581	*Ceramaster leptoceramus*	
103	Total	0.013	100.0	0.000079	0.997661	*Ceramaster patagonicus*	Orange bat star
104	Total	0.013	56.9	0.000079	0.997740	*Histioteuthis hoylei*	
105	Total	0.013	99.0	0.000079	0.997818	*Trachipterus altivelis*	King-of-the-salmon
106	Total	0.012	100.0	0.000075	0.997893	*Sebastes rufus*	Bank rockfish
107	Total	0.012	70.9	0.000073	0.997966	*Pagurus* sp.	
108	Total	0.012	62.2	0.000072	0.998038	*Nezumia stelgidolepis*	California grenadier
109	Total	0.011	52.4	0.000069	0.998108	*Solaster* sp.	
110	Total	0.011	100.0	0.000066	0.998173	*Paralomis verrilli*	
111	Total	0.011	54.4	0.000065	0.998239	*Careproctus* sp.	
112	Total	0.011	50.0	0.000065	0.998303	*Histioteuthis* sp.	Jewel squids
113	Total	0.010	59.3	0.000060	0.998364	*Actinernus* sp.	
114	Total	0.010	100.0	0.000059	0.998423	*Pandalus platyceros*	Spot shrimp
115	Total	0.009	45.5	0.000057	0.998480	*Berryteuthis magister*	Magistrate armhook squid
116	Total	0.008	74.1	0.000050	0.998530	*Pasiphaea pacifica*	Pacific glass shrimp
117	Total	0.008	69.9	0.000049	0.998580	*Paralithodes rathbuni*	
118	Total	0.008	76.5	0.000046	0.998626	Actiniaria (order)	Sea anemone unident.
119	Total	0.008	67.0	0.000046	0.998672	*Nezumia liolepis*	Smooth grenadier
120	Total	0.007	100.0	0.000044	0.998716	*Apristurus kampae*	Longnose cat shark
121	Total	0.007	87.6	0.000044	0.998760	Paguridae	Hermit crab unident.
122	Total	0.007	55.0	0.000043	0.998803	Holothuroidea (class)	Pineapple sea cucumber
123	Total	0.007	64.9	0.000043	0.998845	*Periphylla periphylla*	
124	Total	0.006	73.3	0.000039	0.998884	Nudibranchia (order)	Gastropod unident.
125	Total	0.006	44.5	0.000038	0.998923	*Stenobrachius* sp.	
126	Total	0.006	41.0	0.000038	0.998960	*Loligo opalescens*	California market squid
127	Total	0.006	100.0	0.000037	0.998997	*Sebastes levis*	Cowcod
128	Total	0.006	64.3	0.000036	0.999033	*Nearchaster* sp.	
129	Total	0.006	100.0	0.000036	0.999069	*Metridium giganteum*	Gigantic anemone
130	Total	0.006	61.8	0.000035	0.999104	*Buccinum viridum*	Turban whelk
131	Total	0.006	100.0	0.000034	0.999138	*Amphiophiura* sp.	
132	Total	0.006	78.6	0.000033	0.999171	*Nearchaster aciculosus*	
133	Total	0.005	37.6	0.000033	0.999204	Heteropoda (suborder)	
134	Total	0.005	58.3	0.000032	0.999236	Hormathiidae	
135	Total	0.005	43.1	0.000031	0.999267	Pennatulacea (order)	Sea pen or sea whip
136	Total	0.005	81.4	0.000029	0.999296	*Pteraster* sp.	
137	Total	0.005	52.7	0.000029	0.999325	Ascidiacea (class)	Tunicate unident.
138	Total	0.004	31.6	0.000027	0.999352	*Tactostoma macropus*	Longfin dragonfish
139	Total	0.004	100.0	0.000026	0.999378	*Pandalus jordani*	Ocean shrimp
140	Total	0.004	71.8	0.000025	0.999403	*Hippasteria spinosa*	
141	Total	0.004	42.1	0.000024	0.999427	*Anoplogaster cornuta*	Fangtooth
142	Total	0.004	55.4	0.000023	0.999451	*Serrivomer sector*	Sawtooth eel
143	Total	0.004	100.0	0.000023	0.999474	*Allocentrotus* sp.	
144	Total	0.003	40.2	0.000021	0.999495	*Aristostomias scintillans*	Shining loosejaw
145	Total	0.003	100.0	0.000021	0.999516	*Calinaticina oldroyi*	
146	Total	0.003	62.8	0.000021	0.999537	*Cranchia scabra*	Sandpaper squid
147	Total	0.003	100.0	0.000019	0.999556	*Psolus* sp.	
148	Total	0.003	73.2	0.000018	0.999573	*Pteraster coscinopeplus*	Deepwater pteraster
149	Total	0.003	100.0	0.000017	0.999591	Ctenophora (phylum)	Comb jelly unident.
150	Total	0.003	97.1	0.000017	0.999608	*Leuroglossus* sp.	
151	Total	0.003	58.2	0.000017	0.999625	*Chilara taylori*	Spotted cusk-eel
152	Total	0.003	100.0	0.000016	0.999641	*Asteronyx* sp.	
153	Total	0.002	70.3	0.000014	0.999656	Scyphozoa (class)	Jellyfish unident.
154	Total	0.002	58.0	0.000014	0.999670	*Chauliodus macouni*	Pacific viperfish
155	Total	0.002	70.3	0.000014	0.999684	*Parastichopus leucothele*	
156	Total	0.002	83.0	0.000014	0.999697	*Anthomastus* sp.	

Table B-2.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
157	Total	0.002	60.9	0.000013	0.999710	*Neomenia* sp.	
158	Total	0.002	85.9	0.000013	0.999723	Gastropoda (class)	Snail eggs unident.
159	Total	0.002	100.0	0.000012	0.999735	*Pteraster militaris*	
160	Total	0.002	49.1	0.000011	0.999746	Cephalopoda (class)	Squid unident.
161	Total	0.002	100.0	0.000011	0.999758	*Citharichthys sordidus*	Pacific sanddab
162	Total	0.002	57.0	0.000010	0.999768	*Gonatus onyx*	Clawed armhook squid
163	Total	0.002	100.0	0.000010	0.999778	*Tritonia* sp.	
164	Total	0.002	100.0	0.000010	0.999788	Ascidiacea (class)	Compound ascidian unident.
165	Total	0.001	73.3	0.000009	0.999797	*Sebastes jordani*	Shortbelly rockfish
166	Total	0.001	100.0	0.000009	0.999806	*Sebastes elongatus*	Greenstriped rockfish
167	Total	0.001	100.0	0.000008	0.999814	*Octopus leioderma*	Smoothskin octopus
168	Total	0.001	71.2	0.000008	0.999822	*Pseudarchaster parelii*	
169	Total	0.001	42.7	0.000007	0.999830	*Gnathophausia ingens*	
170	Total	0.001	100.0	0.000007	0.999837	*Dipsacaster anoplus*	
171	Total	0.001	93.4	0.000006	0.999843	*Scopelosaurus harryi*	Scaly paperbone
172	Total	0.001	79.8	0.000006	0.999849	Zoarcidae	Eelpout
173	Total	0.001	100.0	0.000006	0.999855	Gonatus *sp.*	
174	Total	0.001	69.8	0.000006	0.999862	*Onychoteuthis borealijaponicus*	Boreal clubhook squid
175	Total	0.001	100.0	0.000006	0.999867	*Pseudarchaster pussillus*	
176	Total	0.001	100.0	0.000005	0.999872	*Cryptopeltaster lepidonotus*	
177	Total	0.001	73.8	0.000004	0.999876	*Argentina sialis*	Pacific argentine
178	Total	0.001	88.8	0.000004	0.999881	Melamphaidae	Bigscale
179	Total	0.001	100.0	0.000004	0.999885	*Mediaster* sp.	
180	Total	0.001	79.8	0.000004	0.999889	*Hyas lyratus*	Pacific lyre crab
181	Total	0.001	72.1	0.000004	0.999893	Gastropoda (class)	Snail unident.
182	Total	0.001	56.5	0.000004	0.999897	*Stereomastus sculpta*	
183	Total	0.001	100.0	0.000004	0.999901	*Lopholithodes foraminatus*	Box crab
184	Total	0.001	72.8	0.000004	0.999904	*Rossia pacifica*	E. Pacific bobtail squid
185	Total	0.001	100.0	0.000003	0.999908	*Ampheraster marianus*	
186	Total	0.001	93.1	0.000003	0.999911	*Umbellula* sp.	
187	Total	0.001	100.0	0.000003	0.999914	Pasiphaeidae	Pasiphaeid shrimp
188	Total	0.001	100.0	0.000003	0.999917	*Lampetra tridentata*	Pacific lamprey
189	Total	0.001	100.0	0.000003	0.999920	*Lycodapus fierasfer*	Blackmouth eelpout
190	Total	0.001	100.0	0.000003	0.999923	*Benthalbella* sp.	
191	Total	<0.001	100.0	0.000003	0.999926	Invertebrate	Invertebrate unident.
192	Total	<0.001	100.0	0.000003	0.999929	*Saccopharynx* sp.	
193	Total	<0.001	100.0	0.000003	0.999932	Chauliodontidae	Viperfish
194	Total	<0.001	100.0	0.000003	0.999934	*Sebastes chlorostictus*	Greenspotted rockfish
195	Total	<0.001	73.1	0.000003	0.999937	*Pseudarchaster sp.*	
196	Total	<0.001	87.7	0.000003	0.999939	*Chorilia longipes*	Longhorned decorator crab
197	Total	<0.001	100.0	0.000002	0.999942	*Hippasteria* sp.	
198	Total	<0.001	100.0	0.000002	0.999944	*Stomphia* sp.	
199	Total	<0.001	97.3	0.000002	0.999946	*Eualus* sp.	
200	Total	<0.001	100.0	0.000002	0.999948	*Luidiaster dawsoni*	
201	Total	<0.001	84.1	0.000002	0.999951	*Xeneretmus latifrons*	Blacktip poacher
202	Total	<0.001	100.0	0.000002	0.999953	*Neptunea tabulata*	Tabled whelk
203	Total	<0.001	67.0	0.000002	0.999955	Isopoda (order)	Isopod unident.
204	Total	<0.001	100.0	0.000002	0.999957	*Macropinna microstoma*	Barreleye
205	Total	<0.001	100.0	0.000002	0.999959	*Pseudarchaster parelii*	
206	Total	<0.001	100.0	0.000002	0.999960	*Crangon* sp.	
207	Total	<0.001	100.0	0.000002	0.999962	Osteichthyes (class)	Fish unident.
208	Total	<0.001	100.0	0.000002	0.999964	*Stylasterias forreri*	
209	Total	<0.001	100.0	0.000002	0.999966	Aplacophora (class)	
210	Total	<0.001	70.0	0.000002	0.999968	*Munida quadrispina*	
211	Total	<0.001	100.0	0.000002	0.999970	Cyclopteridae	Snailfish unident.
212	Total	<0.001	87.2	0.000002	0.999971	*Notolepsis risso*	Ribbon barracudina
213	Total	<0.001	69.6	0.000002	0.999973	*Sagamichthys abei*	Shining tubeshoulder
214	Total	<0.001	100.0	0.000001	0.999974	*Liparis* sp.	

Table B-2.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
215	Total	<0.001	100.0	0.000001	0.999976	*Leuroglossus stilbius*	California smoothtongue
216	Total	<0.001	100.0	0.000001	0.999977	*Lampanyctus jordani*	Brokenline lampfish
217	Total	<0.001	91.6	0.000001	0.999978	*Poraniopsis inflata*	
218	Total	<0.001	55.9	0.000001	0.999980	*Tarletonbeania* sp.	
219	Total	<0.001	100.0	0.000001	0.999981	*Chiasmodon niger*	
220	Total	<0.001	90.8	0.000001	0.999982	*Pseudarchaster dissonus*	
221	Total	<0.001	100.0	0.000001	0.999983	*Lycodapus mandibularis*	Pallid eelpout
222	Total	<0.001	100.0	0.000001	0.999984	Thoracica (order)	Barnacle
223	Total	<0.001	70.3	0.000001	0.999985	*Calliostoma platinum*	Silvery topsnail
224	Total	<0.001	71.5	0.000001	0.999986	*Periphylla* sp.	
225	Total	<0.001	100.0	0.000001	0.999987	*Icosteus aenigmaticus*	Ragfish
226	Total	<0.001	100.0	0.000001	0.999988	*Neotypaera giga*	
227	Total	<0.001	77.4	0.000001	0.999988	*Chiroteuthis* sp.	
228	Total	<0.001	73.5	0.000001	0.999989	*Delectopecten vancouverensis*	Vancouver scallop
229	Total	<0.001	81.8	0.000001	0.999990	Polychaeta (class)	Polychaete worm unident.
231	Total	<0.001	100.0	0.000001	0.999991	*Argyropelecus lychnus*	Tropical hatchetfish
230	Total	<0.001	100.0	0.000001	0.999991	*Paraliparis* sp.	
232	Total	<0.001	100.0	0.000001	0.999991	*Leuroglossus schmidti*	Northern smoothtongue
233	Total	<0.001	50.4	0.000001	0.999992	*Tarletonbeania crenularis*	Blue lanternfish
234	Total	<0.001	100.0	0.000001	0.999992	*Chiroteuthis calyx*	
235	Total	<0.001	100.0	0.000001	0.999993	*Ophidion scrippsae*	Basketweave cusk-eel
236	Total	<0.001	100.0	0.000001	0.999994	*Colus aphelus*	Oblique whelk
237	Total	<0.001	100.0	0.000000	0.999994	Elasmobranchi (subclass)	Shark egg case unident.
238	Total	<0.001	100.0	0.000000	0.999994	Decapoda (order)	
239	Total	<0.001	100.0	0.000000	0.999995	Sternoptychidae	Hatchetfish
240	Total	<0.001	100.0	0.000000	0.999995	*Brisingella* sp.	
241	Total	<0.001	100.0	0.000000	0.999996	*Pentamera* sp.	
243	Total	<0.001	100.0	0.000000	0.999996	*Argyropelecus* sp.	
242	Total	<0.001	100.0	0.000000	0.999996	*Sternoptyx* sp.	
244	Total	<0.001	100.0	0.000000	0.999997	*Callianassa* sp.	
245	Total	<0.001	100.0	0.000000	0.999997	*Mediaster tenellus*	
246	Total	<0.001	70.5	0.000000	0.999997	*Ophiopholis* sp.	
247	Total	<0.001	100.0	0.000000	0.999998	*Idiacanthus antrostomus*	Pacific blackdragon
249	Total	<0.001	100.0	0.000000	0.999998	Ophidiidae	Cusk-eel
248	Total	<0.001	100.0	0.000000	0.999998	*Bathophilus flemingi*	Highfin dragonfish
250	Total	<0.001	100.0	0.000000	0.999998	Pectinidae	Scallop
251	Total	<0.001	100.0	0.000000	0.999999	*Dicrolene filamentosa*	Threadfin cusk-eel
252	Total	<0.001	69.5	0.000000	0.999999	*Sternoptyx diaphana*	Longspine hatchetfish
253	Total	<0.001	100.0	0.000000	0.999999	*Colus* sp.	
255	Total	<0.001	100.0	0.000000	0.999999	*Lycodapus* sp.	
254	Total	<0.001	100.0	0.000000	0.999999	*Solariella nuda*	Naked solarelle
256	Total	<0.001	100.0	0.000000	0.999999	Bivalvia (class)	Bivalve unident.
257	Total	<0.001	100.0	0.000000	0.999999	Pandalidae	Pandalid shrimp
258	Total	<0.001	100.0	0.000000	1.000000	Crustacea (subphylum)	Crustacean unident.
260	Total	<0.001	100.0	0.000000	1.000000	*Cyclothone* sp.	
259	Total	<0.001	100.0	0.000000	1.000000	Pycnogonida (class)	Sea spider unident.
261	Total	<0.001	100.0	0.000000	1.000000	*Apristurus brunneus*	Cat shark egg case
263	Total	<0.001	100.0	0.000000	1.000000	*Paraphelliactis pabista*	
262	Total	<0.001	100.0	0.000000	1.000000	Scaphopoda (class)	Scaphopod unident.
264	Total	<0.001	100.0	0.000000	1.000000	*Colus trophius*	
	Total	165.460					

Table B-3.--Rank order of relative abundance (kg/ha) of fishes and invertebrates by depth stratum for the International North Pacific Fisheries Commission Monterey area from the 1999 West Coast upper continental slope bottom trawl survey. Stratum 1 =183-366 m, Stratum 2 = 367-549 m, Stratum 3 = 550-732 m, Stratum 4 = 733-914 m, Stratum 5 = 915-1,097 m, and Stratum 6 = 1,098-1,280 m.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
1	1	114.556	65.3	0.297338	0.297338	*Sebastes jordani*	Shortbelly rockfish
2	1	37.278	100.0	0.096758	0.394096	*Squalus acanthias*	Spiny dogfish
3	1	36.681	31.7	0.095209	0.489304	*Merluccius productus*	Pacific hake
4	1	25.842	44.1	0.067074	0.556378	*Sebastes saxicola*	Stripetail rockfish
5	1	21.917	58.6	0.056886	0.613264	*Hydrolagus colliei*	Spotted ratfish
6	1	20.669	58.3	0.053649	0.666913	*Microstomus pacificus*	Dover sole
7	1	17.725	99.9	0.046008	0.712921	*Citharichthys sordidus*	Pacific sanddab
8	1	14.372	59.6	0.037303	0.750223	*Sebastes diploproa*	Splitnose rockfish
9	1	12.569	43.2	0.032624	0.782847	*Eopsetta jordani*	Petrale sole
10	1	11.086	33.8	0.028775	0.811622	*Glyptocephalus zachirus*	Rex sole
11	1	9.796	52.8	0.025427	0.837050	*Parophrys vetulus*	English sole
12	1	7.181	47.3	0.018639	0.855689	*Anoplopoma fimbria*	Sablefish
13	1	6.561	70.1	0.017028	0.872717	*Loligo opalescens*	California market squid
14	1	5.293	78.4	0.013738	0.886455	*Rathbunaster californicus*	
15	1	4.882	37.3	0.012673	0.899128	*Raja rhina*	Longnose skate
16	1	4.600	34.1	0.011941	0.911068	*Lyopsetta exilis*	Slender sole
17	1	3.780	45.9	0.009812	0.920880	*Sebastes goodei*	Chilipepper
18	1	3.701	60.2	0.009606	0.930486	*Allocentrotus fragilis*	Orange-pink sea urchin
19	1	3.578	80.4	0.009286	0.939772	*Lycodes cortezianus*	Bigfin eelpout
20	1	3.237	83.2	0.008402	0.948174	*Luidia foliolata*	
21	1	1.770	74.4	0.004594	0.952768	*Sebastolobus alascanus*	Shortspine thornyhead
22	1	1.670	75.2	0.004334	0.957102	*Parastichopus leucothele*	
23	1	1.381	100.0	0.003584	0.960686	*Sebastes proriger*	Redstripe rockfish
24	1	1.312	68.3	0.003405	0.964091	*Lopholithodes foraminatus*	Box crab
25	1	1.307	94.0	0.003392	0.967483	*Sebastes paucispinis*	Bocaccio
26	1	1.257	40.9	0.003261	0.970744	*Sebastes elongatus*	Greenstriped rockfish
27	1	1.234	94.1	0.003203	0.973947	*Sebastes levis*	Cowcod
28	1	0.986	72.4	0.002559	0.976506	*Thetys vagina*	Common salp
29	1	0.866	55.9	0.002247	0.978753	*Ophiodon elongatus*	Lingcod
30	1	0.794	40.6	0.002062	0.980815	*Bathyraja interrupta*	Bering skate
31	1	0.573	73.7	0.001486	0.982301	*Sebastes zacentrus*	Sharpchin rockfish
32	1	0.524	100.0	0.001359	0.983660	*Raja binoculata*	Big skate
33	1	0.489	96.2	0.001270	0.984931	*Sebastes rufus*	Bank rockfish
34	1	0.343	65.1	0.000891	0.985822	*Argentina sialis*	Pacific argentine
35	1	0.301	67.4	0.000782	0.986604	*Torpedo californica*	Pacific electric ray
36	1	0.279	100.0	0.000725	0.987329	*Zoraster evermanni*	
37	1	0.258	92.4	0.000670	0.987999	*Periphylla periphylla*	
38	1	0.254	53.0	0.000659	0.988658	*Thrissacanthias penicillatus*	
39	1	0.216	53.8	0.000561	0.989219	*Sebastes entomelas*	Widow rockfish
40	1	0.215	77.5	0.000557	0.989777	*Mursia gaudichaudii*	
41	1	0.211	95.9	0.000547	0.990324	*Parastichopus californicus*	
42	1	0.210	56.4	0.000545	0.990868	Thaliacea (class)	Salps unident.
43	1	0.209	74.7	0.000543	0.991412	*Hippasteria spinosa*	
44	1	0.178	67.9	0.000462	0.991874	*Sebastes pinniger*	Canary rockfish
45	1	0.176	76.1	0.000457	0.992331	*Heterozonias alternatus*	
46	1	0.173	49.8	0.000449	0.992780	*Pleurobranchaea californica*	California sea slug
47	1	0.159	96.3	0.000413	0.993193	*Sebastes helvomaculatus*	Rosethorn rockfish
48	1	0.156	62.1	0.000405	0.993598	*Apristurus brunneus*	Brown cat shark
49	1	0.156	100.0	0.000405	0.994003	*Sebastes melanostomus*	Blackgill rockfish
50	1	0.138	85.9	0.000359	0.994362	*Cancer productus*	Red rock crab
51	1	0.133	100.0	0.000346	0.994709	*Cancer magister*	Dungeness crab
52	1	0.131	93.2	0.000341	0.995050	*Liponema brevicorne*	Tentacle-shedding anemone
53	1	0.124	100.0	0.000322	0.995372	*Octopus californicus*	N. Pacific bigeye octopus
54	1	0.121	74.3	0.000313	0.995685	*Sebastes crameri*	Darkblotched rockfish
55	1	0.117	100.0	0.000303	0.995989	*Pagurus tanneri*	Longhand hermit

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
56	1	0.115	68.4	0.000299	0.996288	*Sebastes chlorostictus*	Greenspotted rockfish
57	1	0.098	100.0	0.000253	0.996541	*Oncorhynchus tshawytscha*	Chinook salmon
58	1	0.086	89.9	0.000224	0.996765	*Parastichopus* sp.	
59	1	0.082	67.2	0.000213	0.996978	*Hippasteria californica*	
60	1	0.069	100.0	0.000180	0.997159	*Opisthoteuthis californiana*	Flapjack devilfish
61	1	0.065	87.4	0.000168	0.997327	*Ophiura sarsi*	
62	1	0.063	100.0	0.000162	0.997489	*Alosa sapidissima*	American shad
63	1	0.062	66.9	0.000162	0.997651	*Icelinus filamentosus*	Threadfin sculpin
64	1	0.058	100.0	0.000149	0.997801	*Stylasterias forreri*	
65	1	0.057	100.0	0.000148	0.997949	*Sebastes flavidus*	Yellowtail rockfish
66	1	0.057	94.9	0.000148	0.998097	*Paralithodes rathbuni*	
67	1	0.051	100.0	0.000131	0.998228	Paguridae	Hermit crab unident.
68	1	0.049	83.4	0.000127	0.998354	*Pandalus platyceros*	Spot shrimp
69	1	0.048	70.8	0.000124	0.998478	*Metridium* sp.	
70	1	0.046	80.9	0.000119	0.998597	*Mediaster aequalis*	
71	1	0.038	100.0	0.000099	0.998697	*Gorgonocephalus eucnemis*	Basketstarfish
72	1	0.027	52.1	0.000069	0.998766	*Crossaster borealis*	
73	1	0.027	100.0	0.000069	0.998835	*Paralithodes californiensis*	
74	1	0.026	52.5	0.000068	0.998903	*Chilara taylori*	Spotted cusk-eel
75	1	0.024	100.0	0.000063	0.998966	*Porichthys notatus*	Plainfin midshipman
76	1	0.024	100.0	0.000063	0.999028	Porifera (phylum)	Sponge unident.
77	1	0.022	83.9	0.000056	0.999084	*Pyrosoma atlanticum*	
78	1	0.021	100.0	0.000054	0.999139	*Stomphia* sp.	
79	1	0.021	100.0	0.000054	0.999193	*Sebastes alutus*	Pacific ocean perch
80	1	0.020	66.2	0.000051	0.999244	*Pleuronichthys decurrens*	Curlfin sole
81	1	0.019	100.0	0.000049	0.999293	*Orthasterias koehleri*	
82	1	0.018	62.3	0.000046	0.999340	*Chionoecetes tanneri*	True Tanner crab
83	1	0.018	95.0	0.000046	0.999386	*Paractinostola faeculenta*	Rough purple sea anemone
84	1	0.017	100.0	0.000043	0.999429	*Paralomis multispina*	
85	1	0.015	54.7	0.000039	0.999468	*Pagurus* sp.	
86	1	0.014	90.7	0.000037	0.999505	*Beroe* sp.	
87	1	0.014	100.0	0.000036	0.999541	*Pannychia moseleyi*	
88	1	0.013	61.1	0.000034	0.999575	*Myoxoderma sacculatum*	
89	1	0.011	67.5	0.000029	0.999604	*Dipsacaster* sp.	
90	1	0.010	67.4	0.000026	0.999630	*Xeneretmus latifrons*	Blacktip poacher
91	1	0.009	69.1	0.000024	0.999654	*Vampyroteuthis infernalis*	
92	1	0.009	100.0	0.000023	0.999677	*Stomphia coccinea*	Swimming anemone
93	1	0.009	61.3	0.000023	0.999700	*Careproctus melanurus*	Blacktail snailfish
94	1	0.008	92.4	0.000021	0.999721	Pineapple sea cucumber	Pineapple sea cucumber
95	1	0.007	67.9	0.000018	0.999740	*Sebastes aurora*	Aurora rockfish
96	1	0.007	100.0	0.000017	0.999757	Cephalopoda (class)	Squid unident.
97	1	0.006	58.3	0.000015	0.999772	*Pseudarchaster parelii*	
98	1	0.006	100.0	0.000015	0.999787	*Chrysaora melanaster*	
99	1	0.006	79.8	0.000015	0.999802	Aphroditidae	Sea mouse unident.
100	1	0.005	100.0	0.000013	0.999815	*Onychoteuthis borealijaponicus*	Boreal clubhook squid
101	1	0.005	100.0	0.000013	0.999828	*Pycnopodia helianthoides*	
102	1	0.005	100.0	0.000013	0.999841	*Calinaticina oldroyi*	
103	1	0.005	100.0	0.000012	0.999853	*Pseudostichopus mollis*	Sandy sea cucumber
104	1	0.004	100.0	0.000011	0.999864	Gastropoda (class)	Gastropod unident.
105	1	0.004	100.0	0.000011	0.999875	*Cololabis saira*	Pacific saury
106	1	0.004	100.0	0.000010	0.999885	*Chiroteuthis* sp.	
107	1	0.004	100.0	0.000009	0.999895	*Ceramaster leptoceramus*	
108	1	0.003	100.0	0.000008	0.999903	Rajiidae	Skate unident.
109	1	0.003	100.0	0.000008	0.999911	Cephalopoda (class)	Squid unident.
110	1	0.003	100.0	0.000008	0.999919	*Astropecten californicus*	
111	1	0.003	100.0	0.000008	0.999927	*Berryteuthis magister*	Magistrate armhook squid
112	1	0.003	86.2	0.000007	0.999934	*Lophaster furcilliger*	
113	1	0.003	100.0	0.000007	0.999941	Heteropoda (suborder)	
114	1	0.003	100.0	0.000007	0.999948	*Crossaster papposus*	Rose sea star

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
115	1	0.003	67.9	0.000007	0.999955	*Stylatula* sp.	Slender seawhips
116	1	0.002	68.0	0.000006	0.999961	*Tritonia diomedea*	Rosy tritonia
117	1	0.002	100.0	0.000005	0.999966	*Rossia pacifica*	E. Pacific bobtail squid
118	1	0.002	100.0	0.000005	0.999971	*Ptilosarcus gurneyi*	Orange sea pen
119	1	0.002	100.0	0.000005	0.999976	*Aphrocallistes vastus*	Clay pipe sponge
120	1	0.002	100.0	0.000004	0.999980	*Icelinus oculatus*	Frogmouth sculpin
121	1	0.001	100.0	0.000004	0.999984	*Octopus leioderma*	Smoothskin octopus
122	1	0.001	100.0	0.000003	0.999987	*Sebastes babcocki*	Redbanded rockfish
123	1	0.001	100.0	0.000002	0.999990	Aplacophora (class)	
124	1	0.001	100.0	0.000002	0.999991	Myctophidae	Lanternfish
125	1	0.001	100.0	0.000002	0.999994	*Henricia leviuscula*	
126	1	0.001	100.0	0.000002	0.999994	*Paricelinus hopliticus*	Thornback sculpin
127	1	0.001	100.0	0.000001	0.999996	*Laqueus californianus*	
128	1	<0.001	100.0	0.000001	0.999997	*Buccinum strigillatum*	
129	1	<0.001	100.0	0.000001	0.999998	Hormathiidae	
130	1	<0.001	100.0	0.000001	0.999999	*Hydrolagus colliei*	
131	1	<0.001	100.0	0.000001	0.999999	*Asteronyx* sp.	
132	1	<0.001	70.3	0.000000	1.000000	*Tarletonbeania* sp.	
133	1	<0.001	100.0	0.000000	1.000000	Isopoda (order)	Isopod unident.
	Total	385.271					
1	2	53.122	36.7	0.284875	0.284875	*Microstomus pacificus*	Dover sole
2	2	37.262	38.1	0.199827	0.484702	*Merluccius productus*	Pacific hake
3	2	25.034	30.0	0.134248	0.618950	*Glyptocephalus zachirus*	Rex sole
4	2	7.501	63.6	0.040228	0.659178	*Sebastes diploproa*	Splitnose rockfish
5	2	7.462	64.9	0.040015	0.699193	*Allocentrotus fragilis*	Orange-pink sea urchin
6	2	6.943	31.8	0.037232	0.736425	*Raja rhina*	Longnose skate
7	2	6.445	25.0	0.034565	0.770990	*Lycodes cortezianus*	Bigfin eelpout
8	2	5.175	69.4	0.027749	0.798739	*Sebastes melanostomus*	Blackgill rockfish
9	2	4.147	46.1	0.022238	0.820977	*Anoplopoma fimbria*	Sablefish
10	2	3.848	23.6	0.020635	0.841612	*Apristurus brunneus*	Brown cat shark
11	2	3.685	20.6	0.019760	0.861372	*Bathyraja interrupta*	Bering skate
12	2	3.422	57.3	0.018350	0.879722	*Sebastolobus altivelis*	Longspine thornyhead
13	2	3.092	35.0	0.016580	0.896302	*Sebastes aurora*	Aurora rockfish
14	2	3.055	34.9	0.016382	0.912684	*Liponema brevicorne*	Tentacle-shedding anemone
15	2	2.698	78.3	0.014468	0.927152	*Moroteuthis robusta*	Robust clubhook squid
16	2	2.493	31.7	0.013370	0.940522	*Sebastolobus alascanus*	Shortspine thornyhead
17	2	1.535	63.7	0.008233	0.948755	*Hydrolagus colliei*	Spotted ratfish
18	2	1.420	51.1	0.007617	0.956372	*Paractinostola faeculenta*	Rough purple sea anemone
19	2	0.838	100.0	0.004493	0.960865	*Galeorhinus galeus*	Soupfin shark
20	2	0.665	68.4	0.003565	0.964430	*Squalus acanthias*	Spiny dogfish
21	2	0.498	65.6	0.002670	0.967100	*Aphrocallistes vastus*	Clay pipe sponge
22	2	0.461	65.6	0.002472	0.969572	*Eopsetta jordani*	Petrale sole
23	2	0.453	61.1	0.002429	0.972001	*Parmaturus xaniurus*	Filetail cat shark
24	2	0.438	67.0	0.002350	0.974352	*Rathbunaster californicus*	
25	2	0.289	58.5	0.001549	0.975900	*Sebastes crameri*	Darkblotched rockfish
26	2	0.221	55.3	0.001184	0.977084	*Heterozonias alternatus*	
27	2	0.214	70.1	0.001147	0.978231	*Neptunea amianta*	
28	2	0.209	93.3	0.001119	0.979350	*Embassichthys bathybius*	Deepsea sole
29	2	0.194	75.9	0.001038	0.980389	*Careproctus melanurus*	Blacktail snailfish
30	2	0.193	45.0	0.001036	0.981425	*Lyopsetta exilis*	Slender sole
31	2	0.186	67.2	0.000999	0.982424	*Opisthoteuthis californiana*	Flapjack devilfish
32	2	0.163	63.2	0.000876	0.983299	*Thetys vagina*	Common salp
33	2	0.157	75.9	0.000842	0.984141	*Albatrossia pectoralis*	Giant grenadier
34	2	0.154	37.8	0.000827	0.984968	Thaliacea (class)	Salps unident.
35	2	0.132	100.0	0.000710	0.985678	*Atheresthes stomias*	Arrowtooth flounder
36	2	0.128	88.1	0.000685	0.986362	Cephalopoda (class)	Squid unident.
37	2	0.110	80.2	0.000588	0.986950	*Antimora microlepis*	Pacific flatnose
38	2	0.106	45.9	0.000568	0.987518	*Berryteuthis magister*	Magistrate armhook squid

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
39	2	0.105	100.0	0.000563	0.988082	*Lopholithodes foraminatus*	Box crab
40	2	0.101	79.9	0.000540	0.988622	*Hippasteria californica*	
41	2	0.099	100.0	0.000534	0.989155	*Sebastes rufus*	Bank rockfish
42	2	0.094	100.0	0.000502	0.989657	*Periphylla periphylla*	
43	2	0.093	75.0	0.000499	0.990156	*Myoxoderma platyacanthum*	
44	2	0.086	65.4	0.000461	0.990617	*Thrissacanthias penicillatus*	
45	2	0.084	97.6	0.000449	0.991066	*Octopus dofleini*	Giant octopus
46	2	0.081	75.8	0.000434	0.991500	*Pagurus* sp.	
47	2	0.080	78.0	0.000430	0.991930	*Chrysaora melanaster*	
48	2	0.078	72.9	0.000417	0.992347	*Bothrocara brunneum*	Twoline eelpout
49	2	0.073	55.6	0.000391	0.992738	*Sebastes babcocki*	Redbanded rockfish
50	2	0.070	100.0	0.000377	0.993115	*Ophiodon elongatus*	Lingcod
51	2	0.064	93.4	0.000345	0.993461	*Chorilia longipes*	Longhorned decorator crab
52	2	0.064	99.5	0.000342	0.993803	*Neptunea* sp.	
53	2	0.064	100.0	0.000341	0.994144	*Anthomastus* sp.	
54	2	0.062	59.3	0.000330	0.994474	*Chionoecetes tanneri*	True Tanner crab
55	2	0.061	100.0	0.000329	0.994803	*Parophrys vetulus*	English sole
56	2	0.058	100.0	0.000312	0.995115	Scaphopoda (class)	Scaphopod unident.
57	2	0.057	88.5	0.000304	0.995418	*Lycodes diapterus*	Black eelpout
58	2	0.056	61.2	0.000299	0.995717	Actinostolidae	
59	2	0.054	69.8	0.000288	0.996005	*Neptunea pribiloffensis*	Pribilof whelk
60	2	0.054	100.0	0.000287	0.996292	*Sebastes brevispinis*	Silvergray rockfish
61	2	0.050	99.7	0.000270	0.996563	*Pasiphaea pacifica*	Pacific glass shrimp
62	2	0.049	100.0	0.000264	0.996827	*Neptunea lyrata*	Lyre whelk
63	2	0.048	96.6	0.000259	0.997086	*Luidia foliolata*	
64	2	0.042	100.0	0.000224	0.997309	Hexactinellida (class)	Glass sponge
65	2	0.038	100.0	0.000206	0.997515	*Coryphaenoides acrolepis*	Pacific grenadier
66	2	0.038	100.0	0.000202	0.997717	Porifera (phylum)	Sponge unident.
67	2	0.025	54.5	0.000136	0.997853	Myxinidae	Hagfish
68	2	0.024	76.3	0.000130	0.997983	*Pagurus tanneri*	Longhand hermit
69	2	0.024	100.0	0.000129	0.998112	Echinoidea (class)	Sea urchin unident.
70	2	0.022	49.4	0.000116	0.998227	*Nezumia stelgidolepis*	California grenadier
71	2	0.019	63.2	0.000102	0.998330	Hormathiidae	
72	2	0.016	53.9	0.000086	0.998415	*Pteraster coscinopeplus*	Deepwater pteraster
73	2	0.015	100.0	0.000082	0.998498	Scyphozoa (class)	Jellyfish unident.
74	2	0.015	100.0	0.000078	0.998576	*Sebastes alutus*	Pacific ocean perch
75	2	0.014	100.0	0.000077	0.998653	*Parastichopus leucothele*	
76	2	0.014	57.8	0.000076	0.998729	*Crossaster borealis*	
77	2	0.013	97.3	0.000070	0.998799	Rajiidae	Skate unident.
78	2	0.013	100.0	0.000069	0.998868	*Beroe* sp.	
79	2	0.013	100.0	0.000069	0.998937	*Dipsacaster* sp.	
80	2	0.013	97.8	0.000068	0.999005	Actiniaria (order)	Sea anemone unident.
81	2	0.013	100.0	0.000068	0.999072	*Stenobrachius nannochir*	Garnet lampfish
82	2	0.012	100.0	0.000064	0.999136	*Lamprogrammus niger*	Paperbone cusk-eel
83	2	0.010	47.6	0.000053	0.999189	Aphroditidae	Sea mouse unident.
84	2	0.009	57.5	0.000046	0.999235	*Neomenia* sp.	
85	2	0.008	100.0	0.000044	0.999278	*Pandalus platyceros*	Spot shrimp
86	2	0.007	57.8	0.000039	0.999317	*Pseudarchaster parelii*	
87	2	0.007	100.0	0.000039	0.999356	*Apristurus kampae*	Longnose cat shark
88	2	0.007	100.0	0.000038	0.999394	*Hippasteria spinosa*	
89	2	0.007	100.0	0.000036	0.999430	*Careproctus* sp.	
90	2	0.006	100.0	0.000033	0.999462	*Brisaster* sp.	
91	2	0.006	100.0	0.000031	0.999493	*Psolus* sp.	
92	2	0.005	51.6	0.000027	0.999520	*Brisaster latifrons*	
93	2	0.005	100.0	0.000027	0.999546	*Histioteuthis hoylei*	
94	2	0.005	100.0	0.000026	0.999572	*Metridium* sp.	
95	2	0.005	100.0	0.000026	0.999598	Ascidiacea (class)	Tunicate unident.
96	2	0.005	100.0	0.000024	0.999623	*Vampyroteuthis infernalis*	
97	2	0.004	61.0	0.000022	0.999645	Myctophidae	Lanternfish

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
98	2	0.004	87.8	0.000021	0.999666	Ophiuroidea (class)	Brittlestarfish unident.
99	2	0.004	89.8	0.000020	0.999686	*Pasiphaea tarda*	Crimson pasiphaeid
100	2	0.004	84.4	0.000020	0.999706	*Loligo opalescens*	California market squid
101	2	0.003	100.0	0.000017	0.999722	Nudibranchia (order)	Gastropod unident.
102	2	0.003	100.0	0.000016	0.999739	Bivalvia (class)	Bivalve unident.
103	2	0.003	84.0	0.000016	0.999754	*Zoraster evermanni*	
104	2	0.003	73.2	0.000014	0.999769	*Histioteuthis* sp.	Jewel squids
105	2	0.003	72.0	0.000014	0.999783	*Stylasterias forreri*	
106	2	0.002	97.1	0.000013	0.999796	*Ophiura sarsi*	
107	2	0.002	100.0	0.000012	0.999807	*Ampheraster marianus*	
108	2	0.002	100.0	0.000011	0.999819	*Lampanyctus ritteri*	Broadfin lanternfish
109	2	0.002	100.0	0.000011	0.999830	*Cryptopeltaster lepidonotus*	
110	2	0.002	100.0	0.000011	0.999841	*Neptunea* sp.	Neptunea sp. eggs
111	2	0.002	100.0	0.000011	0.999852	*Bathylagus* sp.	Blacksmelt unident.
112	2	0.002	100.0	0.000010	0.999861	*Myoxoderma sacculatum*	
113	2	0.002	100.0	0.000009	0.999870	*Tactostoma macropus*	Longfin dragonfish
114	2	0.002	66.7	0.000008	0.999878	*Pseudarchaster dissonus*	
115	2	0.002	100.0	0.000008	0.999886	*Pteraster tesselatus*	
116	2	0.002	66.4	0.000008	0.999895	*Buccinum strigillatum*	
117	2	0.001	66.4	0.000007	0.999902	Holothuroidea (class)	Sea cucumber unident.
118	2	0.001	100.0	0.000007	0.999910	*Taningia danae*	Rhomboid squid
119	2	0.001	100.0	0.000007	0.999917	*Xeneretmus latifrons*	Blacktip poacher
120	2	0.001	67.6	0.000006	0.999923	*Antiplanes* sp.	
121	2	0.001	100.0	0.000006	0.999928	*Chauliodus macouni*	Pacific viperfish
122	2	0.001	100.0	0.000005	0.999934	*Pleurobranchaea californica*	California sea slug
123	2	0.001	100.0	0.000005	0.999939	*Xeneretmus leiops*	Smootheye poacher
124	2	0.001	100.0	0.000004	0.999943	*Bathybembix bairdii*	
125	2	0.001	100.0	0.000004	0.999947	*Buccinum viridum*	Turban whelk
126	2	0.001	100.0	0.000004	0.999955	Pineapple sea cucumber	Pineapple sea cucumber
127	2	0.001	100.0	0.000004	0.999955	*Ampheraster* sp.	
128	2	0.001	72.1	0.000004	0.999959	Gastropoda (class)	Snail eggs unident.
129	2	0.001	100.0	0.000004	0.999962	*Crossaster papposus*	Rose sea star
130	2	0.001	89.5	0.000003	0.999966	*Eualus* sp.	
131	2	0.001	100.0	0.000003	0.999969	*Pyrosoma atlanticum*	
132	2	0.001	94.2	0.000003	0.999972	Actiniaria (order)	Purple striated sea anemone
133	2	0.001	100.0	0.000003	0.999976	Elasmobranchi (subclass)	Shark egg case unident.
134	2	0.001	100.0	0.000003	0.999979	*Colus* sp.	Shark egg case unident.
135	2	<0.001	100.0	0.000002	0.999983	Heteropoda (suborder)	
136	2	<0.001	100.0	0.000002	0.999983	Tube worm unident.	Tube worm unident.
137	2	<0.001	100.0	0.000002	0.999985	*Octopus leioderma*	Smoothskin octopus
138	2	<0.001	100.0	0.000002	0.999987	*Mediaster tenellus*	
139	2	<0.001	100.0	0.000002	0.999989	*Neptunea ithia*	
140	2	<0.001	100.0	0.000002	0.999991	*Pseudarchaster* sp.	
141	2	<0.001	100.0	0.000002	0.999993	*Parastichopus* sp.	
142	2	<0.001	100.0	0.000002	0.999994	*Calliostoma platinum*	Silvery topsnail
143	2	<0.001	100.0	0.000001	0.999997	Sipuncula (phylum)	Sipunculid worm
144	2	<0.001	100.0	0.000001	0.999997	*Apristurus brunneus*	Cat shark egg case
145	2	<0.001	100.0	0.000001	0.999998	*Asteronyx* sp.	
146	2	<0.001	100.0	0.000001	0.999998	*Polinices* sp.	
147	2	<0.001	100.0	0.000000	0.999999	*Colus tahwitanus*	
148	2	<0.001	100.0	0.000000	0.999999	Asteroidea (class)	Starfish unident.
149	2	<0.001	100.0	0.000000	0.999999	*Argyropelecus* sp.	
150	2	<0.001	100.0	0.000000	1.000000	*Hyas lyratus*	Pacific lyre crab
151	2	<0.001	100.0	0.000000	1.000000	*Tarletonbeania* sp.	
	Total	186.473					
1	3	27.747	43.3	0.371455	0.371455	*Microstomus pacificus*	Dover sole
2	3	17.555	42.2	0.235012	0.606467	*Sebastolobus altivelis*	Longspine thornyhead
3	3	4.594	19.2	0.061499	0.667966	*Anoplopoma fimbria*	Sablefish

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
4	3	3.994	26.2	0.053469	0.721435	*Sebastolobus alascanus*	Shortspine thornyhead
5	3	2.682	32.9	0.035901	0.757337	*Merluccius productus*	Pacific hake
6	3	2.482	15.7	0.033221	0.790558	*Apristurus brunneus*	Brown cat shark
7	3	2.153	28.6	0.028820	0.819377	*Chionoecetes tanneri*	True Tanner crab
8	3	1.386	61.7	0.018559	0.837936	*Allocentrotus fragilis*	Orange-pink sea urchin
9	3	1.308	32.4	0.017504	0.855440	*Alepocephalus tenebrosus*	California slickhead
10	3	0.866	71.3	0.011597	0.867037	*Antimora microlepis*	Pacific flatnose
11	3	0.849	38.8	0.011360	0.878397	*Bothrocara brunneum*	Twoline eelpout
12	3	0.771	43.2	0.010319	0.888716	*Albatrossia pectoralis*	Giant grenadier
13	3	0.764	29.2	0.010222	0.898938	*Raja rhina*	Longnose skate
14	3	0.707	47.7	0.009462	0.908400	*Opisthoteuthis californiana*	Flapjack devilfish
15	3	0.561	54.1	0.007511	0.915911	*Lycodes cortezianus*	Bigfin eelpout
16	3	0.560	40.2	0.007501	0.923411	*Paractinostola faeculenta*	Rough purple sea anemone
17	3	0.495	38.1	0.006628	0.930039	*Heterozonias alternatus*	
18	3	0.380	67.1	0.005087	0.935126	*Careproctus melanurus*	Blacktail snailfish
19	3	0.362	39.9	0.004841	0.939966	Myxinidae	Hagfish
20	3	0.352	97.6	0.004718	0.944684	*Glyptocephalus zachirus*	Rex sole
21	3	0.316	31.6	0.004227	0.948911	*Embassichthys bathybius*	Deepsea sole
22	3	0.296	43.1	0.003957	0.952868	*Bathybembix bairdii*	
23	3	0.268	62.3	0.003589	0.956457	*Myoxoderma platyacanthum*	
24	3	0.214	74.5	0.002861	0.959318	*Pagurus* sp.	
25	3	0.188	49.1	0.002516	0.961834	*Neptunea amianta*	
26	3	0.183	95.6	0.002449	0.964284	Ophiuroidea (class)	Brittlestarfish unident.
27	3	0.176	100.0	0.002361	0.966644	*Squalus acanthias*	Spiny dogfish
28	3	0.150	41.3	0.002014	0.968659	*Lycodes diapterus*	Black eelpout
29	3	0.138	96.0	0.001845	0.970504	*Bathyraja interrupta*	Bering skate
30	3	0.130	100.0	0.001741	0.972244	*Parmaturus xaniurus*	Filetail cat shark
31	3	0.124	74.9	0.001654	0.973898	*Chorilia longipes*	Longhorned decorator crab
32	3	0.120	38.7	0.001602	0.975500	*Chrysaora melanaster*	
33	3	0.119	40.2	0.001595	0.977095	Thaliacea (class)	Salps unident.
34	3	0.116	91.1	0.001553	0.978648	*Talismania bifurcata*	Threadfin slickhead
35	3	0.105	68.9	0.001403	0.980052	*Octopus dofleini*	Giant octopus
36	3	0.090	100.0	0.001200	0.981252	*Bathyraja trachura*	Black skate
37	3	0.086	41.6	0.001155	0.982407	*Thrissacanthias penicillatus*	
38	3	0.082	41.3	0.001101	0.983508	*Liponema brevicorne*	Tentacle-shedding anemone
39	3	0.076	57.2	0.001015	0.984523	*Coryphaenoides acrolepis*	Pacific grenadier
40	3	0.076	80.9	0.001015	0.985538	*Sebastes melanostomus*	Blackgill rockfish
41	3	0.075	50.2	0.001001	0.986539	*Sebastes aurora*	Aurora rockfish
42	3	0.072	100.0	0.000960	0.987499	Cephalopoda (class)	Squid unident.
43	3	0.071	39.6	0.000955	0.988453	*Thetys vagina*	Common salp
44	3	0.060	68.2	0.000798	0.989252	*Neptunea pribiloffensis*	Pribilof whelk
45	3	0.058	76.0	0.000777	0.990029	Paguridae	Hermit crab unident.
46	3	0.057	100.0	0.000767	0.990796	*Torpedo californica*	Pacific electric ray
47	3	0.053	74.9	0.000705	0.991501	Scyphozoa (class)	Jellyfish unident.
48	3	0.044	50.3	0.000586	0.992087	*Berryteuthis magister*	Magistrate armhook squid
49	3	0.042	52.0	0.000563	0.992651	*Crossaster borealis*	
50	3	0.034	100.0	0.000456	0.993107	*Benthoctopus* sp.	
51	3	0.033	30.2	0.000445	0.993551	*Hippasteria californica*	
52	3	0.030	44.6	0.000404	0.993955	*Taningia danae*	Rhomboid squid
53	3	0.025	68.6	0.000337	0.994292	Actinostolidae	
54	3	0.022	68.6	0.000299	0.994591	*Zoraster evermanni*	
55	3	0.022	100.0	0.000299	0.994890	*Neptunea* sp.	
56	3	0.021	53.9	0.000287	0.995177	Bathylagidae	Deepsea smelt
57	3	0.020	66.7	0.000267	0.995444	*Dipsacaster* sp.	
58	3	0.020	100.0	0.000262	0.995706	*Embryx crotalinus*	Snakehead eelpout
59	3	0.020	100.0	0.000262	0.995968	*Neptunea lyrata*	Lyre whelk
60	3	0.019	100.0	0.000256	0.996224	*Chiroteuthis* sp.	
61	3	0.018	100.0	0.000247	0.996471	*Lithodes couesi*	
62	3	0.018	31.9	0.000239	0.996710	*Tactostoma macropus*	Longfin dragonfish

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
63	3	0.015	100.0	0.000205	0.996915	*Brisaster* sp.	
64	3	0.012	100.0	0.000162	0.997077	*Dipsacaster anoplus*	
65	3	0.012	54.1	0.000155	0.997233	*Bathylagus* sp.	Blacksmelt unident.
66	3	0.011	71.5	0.000151	0.997384	*Histioteuthis* sp.	Jewel squids
67	3	0.011	70.3	0.000144	0.997528	*Brisaster latifrons*	
68	3	0.010	38.6	0.000140	0.997668	*Chauliodus macouni*	Pacific viperfish
69	3	0.010	72.1	0.000128	0.997796	*Ceramaster leptoceramus*	
70	3	0.010	82.1	0.000128	0.997923	Ctenophora (phylum)	Comb jelly unident.
71	3	0.009	100.0	0.000126	0.998049	*Apristurus kampae*	Longnose cat shark
72	3	0.009	60.6	0.000125	0.998174	*Histioteuthis hoylei*	
73	3	0.009	100.0	0.000117	0.998291	*Loligo opalescens*	California market squid
74	3	0.008	100.0	0.000112	0.998403	*Chilara taylori*	Spotted cusk-eel
75	3	0.008	34.8	0.000111	0.998514	*Pasiphaea tarda*	Crimson pasiphaeid
76	3	0.007	100.0	0.000097	0.998612	*Parastichopus californicus*	
77	3	0.007	46.8	0.000090	0.998702	*Careproctus* sp.	
78	3	0.007	43.7	0.000088	0.998791	Myctophidae	Lanternfish
79	3	0.005	100.0	0.000073	0.998864	*Lamprogrammus niger*	Paperbone cusk-eel
80	3	0.005	100.0	0.000067	0.998931	*Pseudostichopus mollis*	Sandy sea cucumber
81	3	0.005	100.0	0.000066	0.998997	*Neomenia* sp.	
82	3	0.005	85.6	0.000061	0.999058	Asteroidea (class)	Starfish unident.
83	3	0.004	58.7	0.000059	0.999117	*Lampanyctus* sp.	
84	3	0.004	100.0	0.000053	0.999170	*Pannychia moseleyi*	
85	3	0.004	69.9	0.000050	0.999220	Aphroditidae	Sea mouse unident.
86	3	0.003	100.0	0.000040	0.999259	*Octopus leioderma*	Smoothskin octopus
87	3	0.003	100.0	0.000040	0.999299	Hormathiidae	
88	3	0.003	76.5	0.000039	0.999338	*Pteraster coscinopeplus*	Deepwater pteraster
89	3	0.003	100.0	0.000038	0.999376	Gastropoda (class)	Gastropod unident.
90	3	0.003	63.4	0.000038	0.999414	*Pyrosoma atlanticum*	
91	3	0.003	100.0	0.000037	0.999451	Pineapple sea cucumber	Pineapple sea cucumber
92	3	0.003	88.3	0.000036	0.999487	*Brisingella* sp.	
93	3	0.003	82.1	0.000036	0.999523	*Pasiphaea pacifica*	Pacific glass shrimp
94	3	0.003	75.9	0.000035	0.999557	*Stenobrachius* sp.	
95	3	0.003	78.8	0.000034	0.999591	*Tritonia* sp.	
96	3	0.002	100.0	0.000032	0.999623	*Oneirodes* sp.	
97	3	0.002	72.8	0.000032	0.999655	*Pseudarchaster parelii*	
98	3	0.002	100.0	0.000026	0.999681	*Sagamichthys abei*	Shining tubeshoulder
99	3	0.002	100.0	0.000021	0.999702	Pennatulacea (order)	Sea pen or sea whip
100	3	0.001	100.0	0.000020	0.999722	*Macropinna microstoma*	Barreleye
101	3	0.001	100.0	0.000020	0.999742	*Anthomastus* sp.	
102	3	0.001	100.0	0.000019	0.999761	*Octopoteuthis deletron*	
103	3	0.001	100.0	0.000019	0.999780	*Aristostomias scintillans*	Shining loosejaw
104	3	0.001	100.0	0.000018	0.999798	Aplacophora (class)	
105	3	0.001	100.0	0.000018	0.999816	*Pteraster tesselatus*	
106	3	0.001	66.5	0.000018	0.999834	*Stylatula* sp.	Slender seawhips
107	3	0.001	100.0	0.000017	0.999851	*Asteronyx loveni*	
108	3	0.001	100.0	0.000015	0.999866	*Leuroglossus* sp.	
109	3	0.001	100.0	0.000013	0.999879	*Plicifusus* sp.	Gray whelk
110	3	0.001	100.0	0.000011	0.999891	*Mediaster aequalis*	
111	3	0.001	66.4	0.000010	0.999900	Actiniaria (order)	Sea anemone unident.
112	3	0.001	100.0	0.000009	0.999909	*Ampheraster* sp.	
113	3	0.001	100.0	0.000009	0.999918	*Actinauge verrillii*	Reticulate anemone
114	3	0.001	100.0	0.000009	0.999927	*Dicrolene filamentosa*	Threadfin cusk-eel
115	3	0.001	100.0	0.000008	0.999935	*Asteronyx* sp.	
116	3	0.001	100.0	0.000008	0.999943	Cephalopoda (class)	Squid unident.
117	3	0.001	100.0	0.000007	0.999949	*Buccinum strigillatum*	
118	3	<0.001	66.5	0.000006	0.999956	*Gonatus onyx*	Clawed armhook squid
119	3	<0.001	100.0	0.000006	0.999961	*Apristurus brunneus*	Cat shark egg case
120	3	<0.001	100.0	0.000006	0.999967	*Poraniopsis inflata*	
121	3	<0.001	100.0	0.000006	0.999973	*Ophiura sarsi*	

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
122	3	<0.001	100.0	0.000005	0.999978	*Pseudarchaster* sp.	
123	3	<0.001	100.0	0.000005	0.999982	*Lophaster furcilliger*	
124	3	<0.001	100.0	0.000003	0.999986	*Tarletonbeania* sp.	
125	3	<0.001	100.0	0.000002	0.999988	*Henricia aspera*	
126	3	<0.001	100.0	0.000002	0.999993	*Periphylla* sp.	
127	3	<0.001	100.0	0.000002	0.999993	*Nezumia stelgidolepis*	California grenadier
128	3	<0.001	100.0	0.000002	0.999995	Rajiidae	Skate unident.
129	3	<0.001	100.0	0.000002	0.999996	*Sternoptyx* sp.	
130	3	<0.001	100.0	0.000002	0.999998	*Colus* sp.	
131	3	<0.001	100.0	0.000001	0.999999	Pasiphaeidae	Pasiphaeid shrimp
132	3	<0.001	100.0	0.000001	1.000000	Malacostraca (class)	Malacostracan unident.
133	3	<0.001	100.0	0.000000	1.000000	Actiniaria (order)	Purple striated sea anemone
	Total	74.700					
1	4	53.264	20.0	0.360030	0.360030	*Sebastolobus altivelis*	Longspine thornyhead
2	4	39.210	19.2	0.265033	0.625063	*Microstomus pacificus*	Dover sole
3	4	12.434	48.3	0.084048	0.709111	*Chionoecetes tanneri*	True Tanner crab
4	4	11.279	45.3	0.076240	0.785351	*Anoplopoma fimbria*	Sablefish
5	4	6.158	34.8	0.041622	0.826973	*Sebastolobus alascanus*	Shortspine thornyhead
6	4	5.065	22.9	0.034233	0.861206	*Alepocephalus tenebrosus*	California slickhead
7	4	3.342	33.8	0.022591	0.883797	*Albatrossia pectoralis*	Giant grenadier
8	4	1.929	62.5	0.013041	0.896838	*Bathybembix bairdii*	
9	4	1.436	20.5	0.009708	0.906546	*Embassichthys bathybius*	Deepsea sole
10	4	1.425	97.4	0.009629	0.916175	*Allocentrotus fragilis*	Orange-pink sea urchin
11	4	1.358	42.2	0.009177	0.925352	*Bothrocara brunneum*	Twoline eelpout
12	4	1.281	100.0	0.008656	0.934008	*Brisaster latifrons*	
13	4	1.211	41.1	0.008183	0.942191	*Apristurus brunneus*	Brown cat shark
14	4	0.716	53.1	0.004838	0.947028	*Coryphaenoides acrolepis*	Pacific grenadier
15	4	0.608	50.5	0.004112	0.951140	*Bathyraja trachura*	Black skate
16	4	0.594	92.7	0.004013	0.955153	*Talismania bifurcata*	Threadfin slickhead
17	4	0.585	41.9	0.003953	0.959106	*Paractinostola faeculenta*	Rough purple sea anemone
18	4	0.572	100.0	0.003867	0.962973	*Lycodes diapterus*	Black eelpout
19	4	0.534	31.6	0.003612	0.966585	*Heterozonias alternatus*	
20	4	0.414	39.0	0.002796	0.969380	Myxinidae	Hagfish
21	4	0.386	27.9	0.002610	0.971990	*Antimora microlepis*	Pacific flatnose
22	4	0.371	38.1	0.002508	0.974498	*Opisthoteuthis californiana*	Flapjack devilfish
23	4	0.319	39.9	0.002157	0.976655	*Merluccius productus*	Pacific hake
24	4	0.315	51.6	0.002127	0.978781	Thaliacea (class)	Salps unident.
25	4	0.245	29.6	0.001654	0.980435	*Neptunea amianta*	
26	4	0.232	96.5	0.001567	0.982003	*Apristurus kampae*	Longnose cat shark
27	4	0.216	59.8	0.001461	0.983464	*Thetys vagina*	Common salp
28	4	0.205	31.0	0.001385	0.984850	*Thrissacanthias penicillatus*	
29	4	0.189	26.0	0.001275	0.986124	*Embryx crotalinus*	Snakehead eelpout
30	4	0.184	87.4	0.001243	0.987367	*Raja rhina*	Longnose skate
31	4	0.183	83.6	0.001238	0.988605	*Dipsacaster* sp.	
32	4	0.159	26.3	0.001074	0.989679	*Crossaster borealis*	
33	4	0.147	69.8	0.000992	0.990672	*Periphylla periphylla*	
34	4	0.119	42.4	0.000806	0.991477	*Hippasteria californica*	
35	4	0.097	62.1	0.000658	0.992136	*Nezumia liolepis*	Smooth grenadier
36	4	0.094	53.7	0.000638	0.992774	*Vampyroteuthis infernalis*	
37	4	0.092	98.0	0.000625	0.993398	*Chrysaora melanaster*	
38	4	0.084	33.8	0.000571	0.993969	*Bathylagus* sp.	Blacksmelt unident.
39	4	0.078	40.7	0.000524	0.994493	*Zoraster evermanni*	
40	4	0.074	48.9	0.000499	0.994992	*Berryteuthis magister*	Magistrate armhook squid
41	4	0.065	100.0	0.000442	0.995433	*Myoxoderma sacculatum*	
42	4	0.064	95.6	0.000433	0.995866	*Lophaster furcilliger*	
43	4	0.062	51.1	0.000416	0.996282	*Careproctus melanurus*	Blacktail snailfish
44	4	0.043	45.4	0.000293	0.996575	*Taningia danae*	Rhomboid squid
45	4	0.042	85.1	0.000285	0.996860	*Liponema brevicorne*	Tentacle-shedding anemone

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
46	4	0.041	66.1	0.000277	0.997137	*Icichthys lockingtoni*	Medusafish
47	4	0.035	39.1	0.000239	0.997376	Actinostolidae	
48	4	0.033	100.0	0.000225	0.997601	*Neptunea pribiloffensis*	Pribilof whelk
49	4	0.030	66.3	0.000204	0.997804	Bathylagidae	Deepsea smelt
50	4	0.025	43.5	0.000166	0.997970	*Tactostoma macropus*	Longfin dragonfish
51	4	0.021	100.0	0.000140	0.998110	*Octopoteuthis deletron*	
52	4	0.020	60.0	0.000134	0.998244	*Hippasteria spinosa*	
53	4	0.018	100.0	0.000123	0.998367	*Benthoctopus* sp.	
54	4	0.018	31.5	0.000123	0.998489	*Pasiphaea tarda*	Crimson pasiphaeid
55	4	0.016	100.0	0.000111	0.998601	*Sebastes entomelas*	Widow rockfish
56	4	0.016	59.1	0.000106	0.998707	*Ampheraster marianus*	
57	4	0.014	57.8	0.000092	0.998799	*Ceramaster leptoceramus*	
58	4	0.013	34.6	0.000090	0.998890	Myctophidae	Lanternfish
59	4	0.011	90.9	0.000076	0.998966	*Pyrosoma atlanticum*	
60	4	0.011	92.5	0.000073	0.999039	Actiniaria (order)	Purple striated sea anemone
61	4	0.010	63.3	0.000068	0.999107	*Nearchaster* sp.	
62	4	0.010	37.3	0.000065	0.999173	*Chauliodus macouni*	Pacific viperfish
63	4	0.009	88.6	0.000062	0.999234	*Chiroteuthis* sp.	
64	4	0.009	96.0	0.000060	0.999294	*Pannychia moseleyi*	
65	4	0.008	100.0	0.000057	0.999351	*Mediaster aequalis*	
66	4	0.007	36.8	0.000047	0.999398	*Lampanyctus* sp.	
67	4	0.007	100.0	0.000045	0.999443	*Careproctus cypselurus*	Blackfin snailfish
68	4	0.006	76.1	0.000039	0.999482	Aplacophora (class)	
69	4	0.005	75.0	0.000037	0.999518	Hormathiidae	
70	4	0.005	100.0	0.000034	0.999553	*Stomphia* sp.	
71	4	0.005	70.9	0.000034	0.999587	*Pteraster coscinopeplus*	Deepwater pteraster
72	4	0.005	62.2	0.000032	0.999619	Ophiuroidea (class)	Brittlestarfish unident.
73	4	0.004	49.0	0.000028	0.999647	*Anoplogaster cornuta*	Fangtooth
74	4	0.004	69.5	0.000027	0.999674	*Aristostomias scintillans*	Shining loosejaw
75	4	0.004	100.0	0.000027	0.999701	*Corallimorphus* sp.	
76	4	0.004	100.0	0.000026	0.999727	*Stylasterias forreri*	
77	4	0.004	60.9	0.000026	0.999753	*Asteronyx* sp.	
78	4	0.003	81.2	0.000023	0.999776	*Loligo opalescens*	California market squid
79	4	0.003	55.3	0.000023	0.999799	*Stylatula* sp.	Slender seawhips
80	4	0.003	100.0	0.000020	0.999819	*Cranchia scabra*	Sandpaper squid
81	4	0.003	67.2	0.000019	0.999838	*Neomenia* sp.	
82	4	0.003	80.3	0.000019	0.999857	Rajiidae	Skate unident.
83	4	0.002	56.9	0.000016	0.999873	*Pagurus* sp.	
84	4	0.002	100.0	0.000011	0.999884	Plicifusus sp.	Gray whelk
85	4	0.001	49.9	0.000010	0.999893	*Pagurus tanneri*	Longhand hermit
86	4	0.001	50.5	0.000008	0.999902	*Chorilia longipes*	Longhorned decorator crab
87	4	0.001	100.0	0.000008	0.999910	*Cololabis saira*	Pacific saury
88	4	0.001	67.0	0.000008	0.999918	*Myoxoderma platyacanthum*	
89	4	0.001	100.0	0.000007	0.999925	Scopelosaurus	
90	4	0.001	82.0	0.000007	0.999932	*Buccinum viridum*	Turban whelk
91	4	0.001	100.0	0.000007	0.999939	*Careproctus* sp.	
92	4	0.001	100.0	0.000006	0.999945	*Macropinna microstoma*	Barreleye
93	4	0.001	100.0	0.000006	0.999951	*Anthomastus* sp.	
94	4	0.001	100.0	0.000006	0.999957	*Hyas lyratus*	Pacific lyre crab
95	4	0.001	100.0	0.000005	0.999962	*Calliostoma platinum*	Silvery topsnail
96	4	0.001	100.0	0.000004	0.999966	*Neptunea* sp.	Neptunea sp. eggs
97	4	0.001	100.0	0.000004	0.999970	*Gonatus onyx*	Clawed armhook squid
98	4	0.001	100.0	0.000004	0.999974	Porifera (phylum)	Sponge unident.
99	4	0.001	100.0	0.000003	0.999977	*Stereomastus sculpta*	
100	4	0.001	100.0	0.000003	0.999981	*Notolepsis risso*	Ribbon barracudina
101	4	<0.001	100.0	0.000003	0.999984	Malacostraca (class)	Malacostracan unident.
102	4	<0.001	72.6	0.000003	0.999987	*Gnathophausia ingens*	
103	4	<0.001	100.0	0.000003	0.999990	*Mediaster tenellus*	
104	4	<0.001	75.8	0.000002	0.999991	*Sternoptyx diaphana*	Longspine hatchetfish

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
105	4	<0.001	100.0	0.000002	0.999993	Aphroditidae	Sea mouse unident.
106	4	<0.001	100.0	0.000001	0.999995	*Colus* sp.	
107	4	<0.001	100.0	0.000001	0.999996	*Tritonia diomedea*	Rosy tritonia
108	4	<0.001	100.0	0.000001	0.999997	*Idiacanthus antrostomus*	Pacific blackdragon
109	4	<0.001	100.0	0.000001	0.999998	*Actinauge verrillii*	Reticulate anemone
110	4	<0.001	100.0	0.000001	0.999999	Sternoptychidae	Hatchetfish
111	4	<0.001	100.0	0.000000	0.999999	*Pasiphaea pacifica*	Pacific glass shrimp
112	4	<0.001	100.0	0.000000	1.000000	*Tarletonbeania* sp.	
113	4	<0.001	100.0	0.000000	1.000000	Pandalidae	Pandalid shrimp
	Total	147.944					
1	5	37.416	38.2	0.233233	0.233233	*Microstomus pacificus*	Dover sole
2	5	31.415	11.0	0.195842	0.429075	*Sebastolobus altivelis*	Longspine thornyhead
3	5	18.067	19.2	0.112620	0.541695	*Coryphaenoides acrolepis*	Pacific grenadier
4	5	15.044	28.4	0.093779	0.635474	*Anoplopoma fimbria*	Sablefish
5	5	13.385	29.7	0.083440	0.718914	*Alepocephalus tenebrosus*	California slickhead
6	5	9.155	22.2	0.057066	0.775980	*Sebastolobus alascanus*	Shortspine thornyhead
7	5	7.190	47.1	0.044823	0.820803	*Albatrossia pectoralis*	Giant grenadier
8	5	5.272	24.9	0.032867	0.853670	*Chionoecetes tanneri*	True Tanner crab
9	5	4.614	20.1	0.028764	0.882434	*Embassichthys bathybius*	Deepsea sole
10	5	2.993	99.8	0.018660	0.901093	*Scotoplanes theeli*	
11	5	2.141	40.3	0.013344	0.914437	*Bathybembix bairdii*	
12	5	1.853	38.0	0.011550	0.925988	*Paractinostola faeculenta*	Rough purple sea anemone
13	5	1.716	21.3	0.010700	0.936688	*Antimora microlepis*	Pacific flatnose
14	5	1.238	33.2	0.007720	0.944408	*Bathyraja trachura*	Black skate
15	5	1.093	33.0	0.006817	0.951224	*Bothrocara brunneum*	Twoline eelpout
16	5	0.625	78.5	0.003898	0.955123	*Bathyraja abyssicola*	Deepsea skate
17	5	0.620	40.4	0.003863	0.958986	*Thrissacanthias penicillatus*	
18	5	0.569	59.8	0.003548	0.962534	*Neptunea amianta*	
19	5	0.457	27.5	0.002848	0.965383	*Heterozonias alternatus*	
20	5	0.433	18.7	0.002701	0.968084	*Apristurus brunneus*	Brown cat shark
21	5	0.425	30.9	0.002651	0.970735	*Embryx crotalinus*	Snakehead eelpout
22	5	0.424	68.0	0.002643	0.973377	Myxinidae	Hagfish
23	5	0.352	83.5	0.002196	0.975574	*Amphiophiura ponderosa*	
24	5	0.339	75.8	0.002110	0.977684	*Apristurus kampae*	Longnose cat shark
25	5	0.286	37.9	0.001782	0.979466	*Hippasteria californica*	
26	5	0.243	91.7	0.001517	0.980983	*Zoraster evermanni*	
27	5	0.243	68.6	0.001515	0.982498	Actinostolidae	
28	5	0.218	100.0	0.001358	0.983856	*Mola mola*	Ocean sunfish
29	5	0.210	96.2	0.001310	0.985166	*Dipsacaster* sp.	
30	5	0.205	33.6	0.001279	0.986445	*Crossaster borealis*	
31	5	0.178	28.0	0.001108	0.987553	*Thetys vagina*	Common salp
32	5	0.177	37.4	0.001102	0.988655	*Opisthoteuthis californiana*	Flapjack devilfish
33	5	0.153	59.2	0.000956	0.989611	*Paralomis multispina*	
34	5	0.143	54.7	0.000894	0.990505	*Merluccius productus*	Pacific hake
35	5	0.134	46.6	0.000834	0.991339	*Vampyroteuthis infernalis*	
36	5	0.126	51.3	0.000784	0.992123	*Histioteuthis hoylei*	
37	5	0.082	45.2	0.000512	0.992635	Bathylagidae	Deepsea smelt
38	5	0.073	100.0	0.000455	0.993091	*Lycodes diapterus*	Black eelpout
39	5	0.068	36.4	0.000421	0.993512	*Pasiphaea tarda*	Crimson pasiphaeid
40	5	0.067	58.8	0.000420	0.993932	Thaliacea (class)	Salps unident.
41	5	0.066	100.0	0.000412	0.994344	*Chrysaora melanaster*	
42	5	0.064	80.8	0.000400	0.994743	*Pannychia moseleyi*	
43	5	0.059	100.0	0.000368	0.995112	*Raja rhina*	Longnose skate
44	5	0.051	46.4	0.000320	0.995431	*Bathylagus* sp.	Blacksmelt unident.
45	5	0.048	52.7	0.000302	0.995733	*Talismania bifurcata*	Threadfin slickhead
46	5	0.045	32.9	0.000281	0.996014	*Myoxoderma sacculatum*	
47	5	0.043	73.7	0.000267	0.996281	*Careproctus melanurus*	Blacktail snailfish
48	5	0.043	82.0	0.000266	0.996547	*Periphylla periphylla*	

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
49	5	0.039	100.0	0.000244	0.996791	*Stylasterias forreri*	
50	5	0.036	100.0	0.000223	0.997014	*Lithodes couesi*	
51	5	0.032	72.8	0.000197	0.997211	*Careproctus* sp.	
52	5	0.027	74.7	0.000169	0.997380	*Buccinum viridum*	Turban whelk
53	5	0.025	100.0	0.000156	0.997535	*Taningia danae*	Rhomboid squid
54	5	0.022	100.0	0.000139	0.997675	*Rathbunaster californicus*	
55	5	0.022	73.8	0.000138	0.997813	*Octopoteuthis deletron*	
56	5	0.020	76.1	0.000123	0.997936	*Actinauge verrillii*	Reticulate anemone
57	5	0.020	100.0	0.000122	0.998058	*Tritonia* sp.	
58	5	0.018	73.4	0.000115	0.998173	*Lophaster furcilliger*	
59	5	0.016	100.0	0.000102	0.998275	*Lopholithodes foraminatus*	Box crab
60	5	0.016	100.0	0.000098	0.998373	*Aphrocallistes vastus*	Clay pipe sponge
61	5	0.015	79.6	0.000094	0.998468	*Hippasteria spinosa*	
62	5	0.015	100.0	0.000092	0.998560	Thoracica (order)	Barnacle
63	5	0.015	27.3	0.000091	0.998651	*Tactostoma macropus*	Longfin dragonfish
64	5	0.012	39.4	0.000077	0.998728	*Chauliodus macouni*	Pacific viperfish
65	5	0.012	100.0	0.000075	0.998803	*Lamprogrammus niger*	Paperbone cusk-eel
66	5	0.012	87.6	0.000073	0.998876	Actiniaria (order)	Sea anemone unident.
67	5	0.011	100.0	0.000067	0.998943	*Orthasterias koehleri*	
68	5	0.010	96.3	0.000059	0.999002	Holothuroidea (class)	Sea cucumber unident.
69	5	0.008	100.0	0.000051	0.999053	*Careproctus colletti*	Alaska snailfish
70	5	0.008	100.0	0.000051	0.999104	*Nearchaster aciculosus*	
71	5	0.008	46.5	0.000050	0.999154	*Anoplogaster cornuta*	Fangtooth
72	5	0.008	100.0	0.000050	0.999204	*Icichthys lockingtoni*	Medusafish
73	5	0.008	69.8	0.000048	0.999252	*Chiroteuthis calyx*	
74	5	0.007	90.3	0.000043	0.999295	*Pyrosoma atlanticum*	
75	5	0.007	100.0	0.000042	0.999336	*Colus* sp.	
76	5	0.007	100.0	0.000041	0.999377	*Corallimorphus* sp.	
77	5	0.006	90.1	0.000040	0.999417	*Gonatus onyx*	Clawed armhook squid
78	5	0.006	52.1	0.000036	0.999453	Myctophidae	Lanternfish
79	5	0.005	87.0	0.000029	0.999482	*Stylatula* sp.	Slender seawhips
80	5	0.005	54.8	0.000029	0.999510	*Lampanyctus* sp.	
81	5	0.004	73.0	0.000026	0.999536	*Parastichopus leucothele*	
82	5	0.004	70.9	0.000025	0.999561	*Serrivomer sector*	Sawtooth eel
83	5	0.004	93.1	0.000024	0.999585	Osteichthyes (class)	Fish unident.
84	5	0.004	100.0	0.000024	0.999609	*Asteronyx* sp.	
85	5	0.004	100.0	0.000023	0.999632	*Neomenia* sp.	
86	5	0.003	100.0	0.000022	0.999654	*Trachipterus altivelis*	King-of-the-salmon
87	5	0.003	83.4	0.000022	0.999675	*Brisaster latifrons*	
88	5	0.003	100.0	0.000021	0.999697	*Nearchaster* sp.	
89	5	0.003	100.0	0.000021	0.999717	*Pseudarchaster parelii*	
90	5	0.003	100.0	0.000021	0.999738	*Chiroteuthis* sp.	
91	5	0.003	80.9	0.000020	0.999758	Nemichthyidae	Snipe eel
92	5	0.003	68.5	0.000019	0.999777	*Berryteuthis magister*	Magistrate armhook squid
93	5	0.003	50.5	0.000018	0.999795	*Stereomastus sculpta*	
94	5	0.003	100.0	0.000017	0.999811	*Nezumia liolepis*	Smooth grenadier
95	5	0.002	100.0	0.000014	0.999825	*Pandalopsis ampla*	
96	5	0.002	69.3	0.000013	0.999839	*Pagurus* sp.	
97	5	0.002	81.6	0.000013	0.999852	Aphroditidae	Sea mouse unident.
98	5	0.002	70.4	0.000013	0.999865	*Aristostomias scintillans*	Shining loosejaw
99	5	0.002	98.2	0.000012	0.999877	*Gnathophausia ingens*	
100	5	0.002	85.8	0.000012	0.999889	*Neptunea* sp.	Neptunea sp. eggs
101	5	0.002	100.0	0.000012	0.999901	*Gorgonocephalus eucnemis*	Basketstarfish
102	5	0.002	65.6	0.000011	0.999912	*Stenobrachius* sp.	
103	5	0.002	74.4	0.000011	0.999922	*Allocentrotus fragilis*	Orange-pink sea urchin
104	5	0.001	100.0	0.000008	0.999930	*Careproctus cypselurus*	Blackfin snailfish
105	5	0.001	100.0	0.000007	0.999938	Nudibranchia (order)	Gastropod unident.
106	5	0.001	100.0	0.000006	0.999944	*Pteraster coscinopeplus*	Deepwater pteraster
107	5	0.001	86.6	0.000006	0.999950	Scyphozoa (class)	Jellyfish unident.

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
108	5	0.001	100.0	0.000005	0.999955	*Hyas lyratus*	Pacific lyre crab
109	5	0.001	100.0	0.000005	0.999960	Oneirodidae	Dreamer unident.
110	5	0.001	100.0	0.000005	0.999965	Ctenophora (phylum)	Comb jelly unident.
111	5	0.001	100.0	0.000004	0.999969	*Chiasmodon niger*	
112	5	0.001	100.0	0.000004	0.999973	*Henricia leviuscula*	
113	5	0.001	100.0	0.000004	0.999976	Pennatulacea (order)	Sea pen or sea whip
114	5	0.001	100.0	0.000003	0.999980	*Asteronyx loveni*	
115	5	0.001	100.0	0.000003	0.999983	*Euplexaura marki*	
116	5	0.001	100.0	0.000003	0.999986	*Idiacanthus antrostomus*	Pacific blackdragon
117	5	<0.001	100.0	0.000002	0.999989	*Sagamichthys abei*	Shining tubeshoulder
118	5	<0.001	100.0	0.000002	0.999991	*Buccinum strigillatum*	
119	5	<0.001	100.0	0.000002	0.999993	*Colus aphelus*	Oblique whelk
120	5	<0.001	100.0	0.000002	0.999995	*Nemichthys scolopaceus*	Slender snipe eel
121	5	<0.001	100.0	0.000001	0.999997	*Lycodapus* sp.	
122	5	<0.001	100.0	0.000001	0.999998	*Umbellula* sp.	
123	5	<0.001	100.0	0.000001	0.999998	*Periphylla* sp.	
124	5	<0.001	100.0	0.000001	0.999999	*Melanostigma pammelas*	Midwater eelpout
125	5	<0.001	65.8	0.000000	1.000000	Actiniaria (order)	
126	5	<0.001	100.0	0.000000	1.000000	*Argyropelecus* sp.	
	Total	160.423					
1	6	32.048	59.6	0.217716	0.217716	*Microstomus pacificus*	Dover sole
2	6	25.805	18.0	0.175306	0.393022	*Coryphaenoides acrolepis*	Pacific grenadier
3	6	15.899	23.5	0.108010	0.501031	*Albatrossia pectoralis*	Giant grenadier
4	6	13.111	23.9	0.089069	0.590100	*Sebastolobus altivelis*	Longspine thornyhead
5	6	10.541	30.8	0.071609	0.661710	*Anoplopoma fimbria*	Sablefish
6	6	9.286	28.9	0.063083	0.724793	*Sebastolobus alascanus*	Shortspine thornyhead
7	6	7.094	27.7	0.048194	0.772987	*Alepocephalus tenebrosus*	California slickhead
8	6	5.832	62.2	0.039620	0.812607	*Scotoplanes theeli*	
9	6	5.511	13.1	0.037439	0.850045	*Antimora microlepis*	Pacific flatnose
10	6	3.746	26.9	0.025450	0.875495	*Chionoecetes tanneri*	True Tanner crab
11	6	2.864	74.6	0.019453	0.894948	*Zoraster evermanni*	
12	6	2.383	35.4	0.016190	0.911139	*Embassichthys bathybius*	Deepsea sole
13	6	2.309	30.3	0.015689	0.926828	*Paractinostola faeculenta*	Rough purple sea anemone
14	6	1.446	40.5	0.009824	0.936652	*Bathyraja abyssicola*	Deepsea skate
15	6	1.420	36.5	0.009646	0.946298	*Thrissacanthias penicillatus*	
16	6	1.173	42.9	0.007966	0.954264	*Bathyraja trachura*	Black skate
17	6	0.765	38.2	0.005195	0.959459	*Paralomis multispina*	
18	6	0.728	45.6	0.004944	0.964402	*Lophaster furcilliger*	
19	6	0.699	70.2	0.004747	0.969149	*Bathybembix bairdii*	
20	6	0.588	32.6	0.003997	0.973146	*Bothrocara brunneum*	Twoline eelpout
21	6	0.305	31.9	0.002072	0.975218	*Heterozonias alternatus*	
22	6	0.231	35.1	0.001568	0.976787	*Apristurus kampae*	Longnose cat shark
23	6	0.197	100.0	0.001340	0.978127	*Molpadia intermedia*	
24	6	0.179	64.5	0.001214	0.979340	*Merluccius productus*	Pacific hake
25	6	0.175	81.8	0.001189	0.980529	*Actinauge verrillii*	Reticulate anemone
26	6	0.164	55.2	0.001116	0.981645	*Nearchaster aciculosus*	
27	6	0.163	36.5	0.001104	0.982749	*Hippasteria californica*	
28	6	0.154	75.9	0.001044	0.983793	*Embryx crotalinus*	Snakehead eelpout
29	6	0.144	23.1	0.000979	0.984772	*Neptunea amianta*	
30	6	0.141	43.2	0.000956	0.985728	*Apristurus brunneus*	Brown cat shark
31	6	0.140	28.2	0.000954	0.986683	*Liponema brevicorne*	Tentacle-shedding anemone
32	6	0.132	47.7	0.000895	0.987578	Actinostolidae	
33	6	0.123	66.9	0.000837	0.988415	*Paralomis verrilli*	
34	6	0.117	34.4	0.000795	0.989210	*Myoxoderma sacculatum*	
35	6	0.101	82.2	0.000687	0.989897	*Chrysaora melanaster*	
36	6	0.101	50.3	0.000687	0.990584	*Bathylagus* sp.	Blacksmelt unident.
37	6	0.098	39.2	0.000668	0.991251	*Vampyroteuthis infernalis*	
38	6	0.095	24.6	0.000644	0.991895	*Crossaster borealis*	

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
39	6	0.090	68.1	0.000609	0.992504	*Benthoctopus* sp.	
40	6	0.075	42.4	0.000512	0.993016	*Thetys vagina*	Common salp
41	6	0.072	51.3	0.000487	0.993503	Myxinidae	Hagfish
42	6	0.071	69.2	0.000480	0.993983	Scyphozoa (class)	Jellyfish unident.
43	6	0.068	46.7	0.000465	0.994448	Bathylagidae	Deepsea smelt
44	6	0.064	100.0	0.000433	0.994881	*Alepisaurus ferox*	Longnose lancetfish
45	6	0.063	52.0	0.000430	0.995311	Thaliacea (class)	Salps unident.
46	6	0.063	55.5	0.000427	0.995738	*Berryteuthis magister*	Magistrate armhook squid
47	6	0.060	28.4	0.000407	0.996145	*Pasiphaea tarda*	Crimson pasiphaeid
48	6	0.047	72.1	0.000317	0.996462	*Diplopteraster multipes*	
49	6	0.037	100.0	0.000252	0.996715	Actiniaria (order)	Purple striated sea anemone
50	6	0.037	43.6	0.000250	0.996965	*Pannychia moseleyi*	
51	6	0.035	76.0	0.000238	0.997203	*Dipsacaster* sp.	
52	6	0.035	100.0	0.000236	0.997439	*Opisthoteuthis californiana*	Flapjack devilfish
53	6	0.029	80.3	0.000200	0.997639	*Careproctus colletti*	Alaska snailfish
54	6	0.023	97.6	0.000153	0.997793	*Nearchaster* sp.	
55	6	0.020	100.0	0.000134	0.997927	Cephalopoda (class)	Squid unident.
56	6	0.018	63.2	0.000121	0.998048	*Stylatula* sp.	Slender seawhips
57	6	0.016	92.4	0.000107	0.998155	*Lithodes couesi*	
58	6	0.015	38.0	0.000100	0.998255	*Buccinum viridum*	Turban whelk
59	6	0.014	40.2	0.000095	0.998350	*Halagyreus johnsoni*	
60	6	0.014	100.0	0.000095	0.998446	*Chauliodus macouni*	Pacific viperfish
61	6	0.014	51.0	0.000092	0.998538	*Octopoteuthis deletron*	
62	6	0.014	37.1	0.000092	0.998630	*Lampanyctus* sp.	
63	6	0.013	91.2	0.000088	0.998718	*Pandalopsis ampla*	
64	6	0.012	75.3	0.000084	0.998802	*Asteronyx* sp.	
65	6	0.011	44.4	0.000072	0.998874	*Pagurus* sp.	
66	6	0.010	77.1	0.000066	0.998940	*Careproctus* sp.	
67	6	0.009	100.0	0.000061	0.999001	*Benthodesmus* sp.	
68	6	0.009	100.0	0.000059	0.999061	*Amphiophiura* sp.	
69	6	0.008	100.0	0.000057	0.999118	*Taningia danae*	Rhomboid squid
70	6	0.008	66.7	0.000054	0.999173	*Pteraster coscinopeplus*	Deepwater pteraster
71	6	0.008	38.0	0.000052	0.999225	*Tactostoma macropus*	Longfin dragonfish
72	6	0.007	93.3	0.000049	0.999274	*Careproctus melanurus*	Blacktail snailfish
73	6	0.006	40.7	0.000043	0.999317	Myctophidae	Lanternfish
74	6	0.006	96.5	0.000042	0.999359	*Amphiophiura ponderosa*	
75	6	0.006	62.1	0.000041	0.999399	*Chiroteuthis* sp.	
76	6	0.006	100.0	0.000039	0.999438	*Ophiura sarsi*	
77	6	0.006	64.1	0.000037	0.999475	*Serrivomer sector*	Sawtooth eel
78	6	0.005	80.1	0.000033	0.999509	*Pseudarchaster parelii*	
79	6	0.004	76.8	0.000029	0.999538	Rajiidae	Skate unident.
80	6	0.004	67.2	0.000029	0.999567	*Tritonia* sp.	
81	6	0.004	100.0	0.000028	0.999594	*Coryphaenoides cinereus*	Popeye grenadier
82	6	0.004	66.7	0.000027	0.999621	*Hippasteria spinosa*	
83	6	0.004	62.0	0.000024	0.999645	Pennatulacea (order)	Sea pen or sea whip
84	6	0.003	40.4	0.000021	0.999667	*Stereomastus sculpta*	
85	6	0.003	100.0	0.000021	0.999688	*Cryptopeltaster lepidonotus*	
86	6	0.003	90.9	0.000020	0.999707	Melamphaidae	Bigscale
87	6	0.003	70.0	0.000018	0.999725	*Ophidion scrippsae*	Basketweave cusk-eel
88	6	0.003	67.2	0.000018	0.999743	*Brisaster latifrons*	
89	6	0.002	94.6	0.000017	0.999760	Ophiuroidea (class)	Brittlestarfish unident.
90	6	0.002	80.1	0.000014	0.999774	*Gonatus onyx*	Clawed armhook squid
91	6	0.002	100.0	0.000014	0.999788	Nudibranchia (order)	Gastropod unident.
92	6	0.002	86.4	0.000012	0.999800	Holothuroidea (class)	Sea cucumber unident.
93	6	0.002	69.5	0.000012	0.999812	*Anoplogaster cornuta*	Fangtooth
94	6	0.002	100.0	0.000011	0.999823	Aphroditidae	Sea mouse unident.
95	6	0.002	100.0	0.000011	0.999834	Cephalopoda (class)	Squid unident.
96	6	0.002	100.0	0.000010	0.999845	*Cranchia scabra*	Sandpaper squid
97	6	0.001	100.0	0.000010	0.999855	Bivalvia (class)	Bivalve unident.

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
98	6	0.001	100.0	0.000010	0.999865	*Anthomastus* sp.	
99	6	0.001	100.0	0.000009	0.999874	*Asteronyx loveni*	
100	6	0.001	87.4	0.000008	0.999882	*Aristostomias scintillans*	Shining loosejaw
101	6	0.001	67.1	0.000008	0.999890	*Sagamichthys abei*	Shining tubeshoulder
102	6	0.001	100.0	0.000008	0.999898	*Loligo opalescens*	California market squid
103	6	0.001	100.0	0.000008	0.999906	Chiasmodontidae	Swallowers
104	6	0.001	89.0	0.000007	0.999913	*Hyas lyratus*	Pacific lyre crab
105	6	0.001	100.0	0.000007	0.999919	Gastropoda (class)	Snail eggs unident.
106	6	0.001	100.0	0.000006	0.999926	*Oneirodes* sp.	
107	6	0.001	100.0	0.000006	0.999932	*Beroe* sp.	
108	6	0.001	100.0	0.000006	0.999937	*Pyrosoma atlanticum*	
109	6	0.001	92.5	0.000005	0.999943	Gastropoda (class)	Gastropod unident.
111	6	0.001	100.0	0.000005	0.999952	*Colus aphelus*	Oblique whelk
110	6	0.001	100.0	0.000005	0.999952	*Antiplanes* sp.	
112	6	0.001	100.0	0.000004	0.999956	*Pagurus tanneri*	Longhand hermit
113	6	0.001	82.8	0.000004	0.999960	*Periphylla* sp.	
114	6	<0.001	100.0	0.000003	0.999963	Bivalvia (class)	Bivalve unident.
115	6	<0.001	100.0	0.000003	0.999966	*Eualus* sp.	
116	6	<0.001	100.0	0.000003	0.999969	Hormathiidae	
117	6	<0.001	100.0	0.000003	0.999971	*Chiroteuthis calyx*	
118	6	<0.001	100.0	0.000003	0.999974	*Paraliparis* sp.	
119	6	<0.001	74.6	0.000002	0.999976	Isopoda (order)	Isopod unident.
121	6	<0.001	100.0	0.000002	0.999981	*Stylasterias forreri*	
120	6	<0.001	100.0	0.000002	0.999981	*Myoxoderma platyacanthum*	
122	6	<0.001	100.0	0.000002	0.999983	*Natica* sp.	
123	6	<0.001	100.0	0.000002	0.999985	*Parastichopus leucothele*	
124	6	<0.001	65.5	0.000002	0.999987	Actiniaria (order)	Sea anemone unident.
125	6	<0.001	100.0	0.000002	0.999989	*Neolithodes diomedeae*	
126	6	<0.001	100.0	0.000001	0.999990	Nemichthyidae	Snipe eel
127	6	<0.001	100.0	0.000001	0.999992	Polychaeta (class)	Polychaete worm unident.
130	6	<0.001	100.0	0.000001	0.999995	*Leuroglossus* sp.	
129	6	<0.001	100.0	0.000001	0.999995	*Tarletonbeania* sp.	
128	6	<0.001	100.0	0.000001	0.999995	*Lycodapus fierasfer*	Blackmouth eelpout
132	6	<0.001	100.0	0.000001	0.999997	*Lycodapus mandibularis*	Pallid eelpout
131	6	<0.001	100.0	0.000001	0.999997	*Acharax johnsoni*	
135	6	<0.001	100.0	0.000001	0.999999	*Stenobrachius* sp.	
134	6	<0.001	100.0	0.000001	0.999999	*Gnathophausia ingens*	
133	6	<0.001	100.0	0.000001	0.999999	*Notostomus japonicus*	Spinyridge shrimp
136	6	<0.001	100.0	0.000000	0.999999	Malacostraca (class)	Malacostracan unident.
137	6	<0.001	100.0	0.000000	1.000000	*Chorilia longipes*	Longhorned decorator crab
138	6	<0.001	100.0	0.000000	1.000000	Amphipoda (order)	
	Total	147.247					
1	Total	34.855	17.4	0.189336	0.189336	*Microstomus pacificus*	Dover sole
2	Total	19.453	69.3	0.105669	0.295005	*Sebastes jordani*	Shortbelly rockfish
3	Total	18.818	17.1	0.102219	0.397223	*Sebastolobus altivelis*	Longspine thornyhead
4	Total	13.115	29.0	0.071243	0.468467	*Merluccius productus*	Pacific hake
5	Total	8.666	16.1	0.047074	0.515541	*Anoplopoma fimbria*	Sablefish
6	Total	7.723	23.1	0.041954	0.557495	*Coryphaenoides acrolepis*	Pacific grenadier
7	Total	6.473	97.8	0.035162	0.592656	*Squalus acanthias*	Spiny dogfish
8	Total	6.193	30.4	0.033643	0.626299	*Glyptocephalus zachirus*	Rex sole
9	Total	5.466	15.1	0.029689	0.655988	*Sebastolobus alascanus*	Shortspine thornyhead
10	Total	4.747	24.8	0.025787	0.681775	*Albatrossia pectoralis*	Giant grenadier
11	Total	4.388	52.0	0.023837	0.705612	*Sebastes saxicola*	Stripetail rockfish
12	Total	4.345	21.8	0.023605	0.729217	*Alepocephalus tenebrosus*	California slickhead
13	Total	3.982	59.5	0.021633	0.750850	*Hydrolagus colliei*	Spotted ratfish
14	Total	3.759	28.3	0.020417	0.771267	*Chionoecetes tanneri*	True Tanner crab
15	Total	3.714	47.5	0.020176	0.791443	*Sebastes diploproa*	Splitnose rockfish
16	Total	3.010	99.9	0.016350	0.807793	*Citharichthys sordidus*	Pacific sanddab

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
17	Total	2.346	41.2	0.012745	0.820538	*Allocentrotus fragilis*	Orange-pink sea urchin
18	Total	2.213	49.4	0.012019	0.832557	*Eopsetta jordani*	Petrale sole
19	Total	2.174	27.7	0.011811	0.844368	*Raja rhina*	Longnose skate
20	Total	1.797	35.3	0.009763	0.854131	*Lycodes cortezianus*	Bigfin eelpout
21	Total	1.674	58.5	0.009093	0.863224	*Parophrys vetulus*	English sole
22	Total	1.552	54.5	0.008432	0.871656	*Scotoplanes theeli*	
23	Total	1.523	21.5	0.008272	0.879929	*Antimora microlepis*	Pacific flatnose
24	Total	1.452	20.9	0.007887	0.887816	*Embassichthys bathybius*	Deepsea sole
25	Total	1.376	19.0	0.007475	0.895291	*Apristurus brunneus*	Brown cat shark
26	Total	1.143	20.6	0.006209	0.901500	*Paractinostola faeculenta*	Rough purple sea anemone
27	Total	1.117	73.3	0.006067	0.907567	*Loligo opalescens*	California market squid
28	Total	0.977	74.2	0.005305	0.912872	*Rathbunaster californicus*	
29	Total	0.918	69.7	0.004987	0.917859	*Sebastes melanostomus*	Blackgill rockfish
30	Total	0.814	42.7	0.004422	0.922280	*Lyopsetta exilis*	Slender sole
31	Total	0.797	32.5	0.004327	0.926607	*Bathybembix bairdii*	
32	Total	0.784	29.3	0.004259	0.930866	*Bathyraja interrupta*	Bering skate
33	Total	0.642	53.4	0.003487	0.934353	*Sebastes goodei*	Chilipepper
34	Total	0.640	65.2	0.003479	0.937832	*Zoraster evermanni*	
35	Total	0.638	21.1	0.003467	0.941299	*Bothrocara brunneum*	Twoline eelpout
36	Total	0.588	39.6	0.003193	0.944492	*Liponema brevicorne*	Tentacle-shedding anemone
37	Total	0.558	83.6	0.003031	0.947523	*Luidia foliolata*	
38	Total	0.539	44.0	0.002927	0.950450	*Sebastes aurora*	Aurora rockfish
39	Total	0.515	26.9	0.002799	0.953249	*Bathyraja trachura*	Black skate
40	Total	0.465	26.7	0.002525	0.955774	*Thrissacanthias penicillatus*	
41	Total	0.458	80.6	0.002489	0.958262	*Moroteuthis robusta*	Robust clubhook squid
42	Total	0.367	40.6	0.001995	0.960257	*Bathyraja abyssicola*	Deepsea skate
43	Total	0.359	16.2	0.001948	0.962205	*Heterozonias alternatus*	
44	Total	0.287	77.0	0.001557	0.963763	*Parastichopus leucothele*	
45	Total	0.281	45.1	0.001526	0.965289	*Thetys vagina*	Common salp
46	Total	0.253	28.2	0.001373	0.966661	*Opisthoteuthis californiana*	Flapjack devilfish
47	Total	0.243	66.1	0.001320	0.967982	*Lopholithodes foraminatus*	Box crab
48	Total	0.234	100.0	0.001274	0.969255	*Sebastes proriger*	Redstripe rockfish
49	Total	0.222	94.6	0.001205	0.970461	*Sebastes paucispinis*	Bocaccio
50	Total	0.218	28.4	0.001186	0.971646	*Neptunea amianta*	
51	Total	0.213	49.5	0.001159	0.972805	*Sebastes elongatus*	Greenstriped rockfish
52	Total	0.210	94.7	0.001138	0.973944	*Sebastes levis*	Cowcod
53	Total	0.206	28.6	0.001117	0.975061	Myxinidae	Hagfish
54	Total	0.197	98.1	0.001070	0.976131	*Brisaster latifrons*	
55	Total	0.170	39.8	0.000925	0.977056	*Paralomis multispina*	
56	Total	0.159	57.0	0.000863	0.977919	*Ophiodon elongatus*	Lingcod
57	Total	0.152	23.4	0.000824	0.978743	Thaliacea (class)	Salps unident.
58	Total	0.150	47.9	0.000816	0.979559	*Lophaster furcilliger*	
59	Total	0.142	100.0	0.000773	0.980332	*Galeorhinus galeus*	Soupfin shark
60	Total	0.133	65.9	0.000720	0.981052	*Lycodes diapterus*	Black eelpout
61	Total	0.132	40.8	0.000720	0.981772	*Apristurus kampae*	Longnose cat shark
62	Total	0.129	21.6	0.000698	0.982470	*Hippasteria californica*	
63	Total	0.125	28.5	0.000679	0.983149	*Embryx crotalinus*	Snakehead eelpout
64	Total	0.117	73.1	0.000633	0.983782	*Talismania bifurcata*	Threadfin slickhead
65	Total	0.116	44.4	0.000630	0.984412	*Careproctus melanurus*	Blacktail snailfish
66	Total	0.100	81.7	0.000543	0.984956	*Sebastes rufus*	Bank rockfish
67	Total	0.099	55.1	0.000538	0.985493	*Parmaturus xaniurus*	Filetail cat shark
68	Total	0.097	76.6	0.000528	0.986021	*Sebastes zacentrus*	Sharpchin rockfish
69	Total	0.089	100.0	0.000483	0.986505	*Raja binoculata*	Big skate
70	Total	0.088	52.1	0.000480	0.986984	*Periphylla periphylla*	
71	Total	0.087	67.4	0.000474	0.987458	*Aphrocallistes vastus*	Clay pipe sponge
72	Total	0.087	18.6	0.000472	0.987930	*Crossaster borealis*	
73	Total	0.081	36.4	0.000438	0.988368	Actinostolidae	
74	Total	0.078	33.1	0.000423	0.988792	*Chrysaora melanaster*	
75	Total	0.073	52.2	0.000399	0.989190	*Dipsacaster* sp.	

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
76	Total	0.070	49.4	0.000378	0.989568	*Sebastes crameri*	Darkblotched rockfish
77	Total	0.062	52.5	0.000334	0.989903	*Myoxoderma platyacanthum*	
78	Total	0.061	61.4	0.000331	0.990233	*Torpedo californica*	Pacific electric ray
79	Total	0.058	69.1	0.000317	0.990550	*Argentina sialis*	Pacific argentine
80	Total	0.055	27.7	0.000301	0.990851	*Vampyroteuthis infernalis*	
81	Total	0.055	53.6	0.000300	0.991151	*Pagurus* sp.	
82	Total	0.054	83.6	0.000295	0.991446	*Amphiophiura ponderosa*	
83	Total	0.049	26.2	0.000268	0.991714	*Berryteuthis magister*	Magistrate armhook squid
84	Total	0.043	64.3	0.000232	0.991947	*Hippasteria spinosa*	
85	Total	0.042	28.8	0.000227	0.992174	*Bathylagus* sp.	Blacksmelt unident.
86	Total	0.041	32.7	0.000224	0.992398	*Myoxoderma sacculatum*	
87	Total	0.039	56.0	0.000213	0.992611	*Sebastes entomelas*	Widow rockfish
88	Total	0.039	59.0	0.000210	0.992821	Cephalopoda (class)	Squid unident.
89	Total	0.037	100.0	0.000202	0.993024	*Molpadia intermedia*	
90	Total	0.037	93.1	0.000201	0.993225	*Parastichopus californicus*	
91	Total	0.036	79.9	0.000198	0.993423	*Mursia gaudichaudii*	
92	Total	0.036	76.4	0.000196	0.993619	*Actinauge verrillii*	Reticulate anemone
93	Total	0.033	28.6	0.000182	0.993801	Bathylagidae	Deepsea smelt
94	Total	0.033	90.6	0.000179	0.993980	Ophiuroidea (class)	Brittlestarfish unident.
95	Total	0.033	100.0	0.000179	0.994158	*Mola mola*	Ocean sunfish
96	Total	0.032	57.9	0.000175	0.994333	*Nearchaster aciculosus*	
97	Total	0.032	59.2	0.000174	0.994508	*Chorilia longipes*	Longhorned decorator crab
98	Total	0.032	58.4	0.000174	0.994682	*Octopus dofleini*	Giant octopus
99	Total	0.030	71.5	0.000164	0.994846	*Sebastes pinniger*	Canary rockfish
100	Total	0.030	56.1	0.000160	0.995007	*Pleurobranchaea californica*	California sea slug
101	Total	0.027	96.6	0.000147	0.995153	*Sebastes helvomaculatus*	Rosethorn rockfish
102	Total	0.026	23.2	0.000143	0.995296	*Pasiphaea tarda*	Crimson pasiphaeid
103	Total	0.025	47.4	0.000136	0.995432	Scyphozoa (class)	Jellyfish unident.
104	Total	0.024	82.4	0.000132	0.995564	*Pagurus tanneri*	Longhand hermit
105	Total	0.024	44.3	0.000132	0.995696	*Neptunea pribiloffensis*	Pribilof whelk
106	Total	0.023	87.3	0.000128	0.995823	*Cancer productus*	Red rock crab
107	Total	0.023	70.3	0.000126	0.995950	*Paralomis verrilli*	
108	Total	0.023	58.3	0.000123	0.996073	*Benthoctopus* sp.	
109	Total	0.023	100.0	0.000123	0.996196	*Cancer magister*	Dungeness crab
110	Total	0.022	100.0	0.000122	0.996318	*Atheresthes stomias*	Arrowtooth flounder
111	Total	0.021	51.9	0.000116	0.996434	*Histioteuthis hoylei*	
112	Total	0.021	100.0	0.000115	0.996549	*Octopus californicus*	N. Pacific bigeye octopus
113	Total	0.021	42.4	0.000114	0.996663	*Pannychia moseleyi*	
114	Total	0.020	72.0	0.000106	0.996769	*Sebastes chlorostictus*	Greenspotted rockfish
115	Total	0.018	61.9	0.000100	0.996870	Paguridae	Hermit crab unident.
116	Total	0.017	33.0	0.000094	0.996963	*Taningia danae*	Rhomboid squid
117	Total	0.017	67.4	0.000091	0.997054	*Stylasterias forreri*	
118	Total	0.017	100.0	0.000090	0.997144	*Oncorhynchus tshawytscha*	Chinook salmon
119	Total	0.015	65.4	0.000082	0.997226	*Nezumia liolepis*	Smooth grenadier
120	Total	0.015	90.5	0.000080	0.997306	*Parastichopus* sp.	
121	Total	0.015	77.7	0.000079	0.997386	*Neptunea* sp.	
122	Total	0.013	60.0	0.000068	0.997454	*Sebastes babcocki*	Redbanded rockfish
123	Total	0.013	77.9	0.000068	0.997522	*Ophiura sarsi*	
124	Total	0.012	100.0	0.000065	0.997588	*Alepisaurus ferox*	Longnose lancetfish
125	Total	0.012	76.5	0.000063	0.997651	*Neptunea lyrata*	Lyre whelk
126	Total	0.011	58.3	0.000062	0.997714	*Lithodes couesi*	
127	Total	0.011	94.2	0.000062	0.997776	*Anthomastus* sp.	
128	Total	0.011	21.6	0.000058	0.997834	*Tactostoma macropus*	Longfin dragonfish
129	Total	0.011	100.0	0.000058	0.997892	*Alosa sapidissima*	American shad
130	Total	0.011	70.7	0.000058	0.997949	*Icelinus filamentosus*	Threadfin sculpin
131	Total	0.011	71.2	0.000057	0.998007	Porifera (phylum)	Sponge unident.
132	Total	0.010	100.0	0.000054	0.998060	Scaphopoda (class)	Scaphopod unident.
133	Total	0.010	100.0	0.000053	0.998113	*Sebastes flavidus*	Yellowtail rockfish
134	Total	0.010	95.4	0.000053	0.998166	*Paralithodes rathbuni*	

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
135	Total	0.010	74.0	0.000053	0.998218	*Pandalus platyceros*	Spot shrimp
136	Total	0.009	45.0	0.000050	0.998268	*Octopoteuthis deletron*	
137	Total	0.009	71.2	0.000050	0.998318	*Mediaster aequalis*	
138	Total	0.009	100.0	0.000049	0.998368	*Sebastes brevispinis*	Silvergray rockfish
139	Total	0.009	44.3	0.000049	0.998417	*Careproctus* sp.	
140	Total	0.009	94.5	0.000049	0.998466	*Pasiphaea pacifica*	Pacific glass shrimp
141	Total	0.009	67.5	0.000048	0.998514	*Metridium* sp.	
142	Total	0.009	74.8	0.000048	0.998562	*Diplopteraster multipes*	
143	Total	0.009	81.5	0.000048	0.998610	Actiniaria (order)	
144	Total	0.008	21.2	0.000043	0.998653	*Chauliodus macouni*	Pacific viperfish
145	Total	0.007	60.8	0.000040	0.998693	*Icichthys lockingtoni*	Medusafish
146	Total	0.007	47.0	0.000039	0.998732	*Buccinum viridum*	Turban whelk
147	Total	0.007	49.9	0.000039	0.998771	*Pyrosoma atlanticum*	
148	Total	0.007	100.0	0.000038	0.998809	Hexactinellida (class)	Glass sponge
149	Total	0.007	51.5	0.000038	0.998847	*Chiroteuthis* sp.	
150	Total	0.007	69.1	0.000037	0.998884	*Careproctus colletti*	Alaska snailfish
151	Total	0.007	95.8	0.000037	0.998921	*Gorgonocephalus eucnemis*	Basketstarfish
152	Total	0.006	68.0	0.000034	0.998955	*Nearchaster* sp.	
153	Total	0.006	71.2	0.000033	0.998988	*Sebastes alutus*	Pacific ocean perch
154	Total	0.006	20.3	0.000033	0.999020	Myctophidae	Lanternfish
155	Total	0.006	49.9	0.000032	0.999052	*Chilara taylori*	Spotted cusk-eel
156	Total	0.006	34.8	0.000031	0.999083	*Pteraster coscinopeplus*	Deepwater pteraster
157	Total	0.005	44.3	0.000029	0.999111	*Stylatula* sp.	Slender seawhips
158	Total	0.005	25.8	0.000027	0.999138	*Lampanyctus* sp.	
159	Total	0.005	74.0	0.000026	0.999165	*Orthasterias koehleri*	
160	Total	0.005	64.5	0.000026	0.999191	*Beroe* sp.	
161	Total	0.005	59.2	0.000026	0.999217	*Lamprogrammus niger*	Paperbone cusk-eel
162	Total	0.005	48.8	0.000026	0.999242	Hormathiidae	
163	Total	0.005	100.0	0.000025	0.999267	*Paralithodes californiensis*	
164	Total	0.004	72.0	0.000024	0.999291	*Benthodesmus* sp.	
165	Total	0.004	83.8	0.000023	0.999314	*Stomphia* sp.	
166	Total	0.004	42.8	0.000023	0.999338	*Ceramaster leptoceramus*	
167	Total	0.004	71.6	0.000023	0.999360	*Tritonia* sp.	
168	Total	0.004	100.0	0.000022	0.999383	*Porichthys notatus*	Plainfin midshipman
169	Total	0.004	63.5	0.000022	0.999405	Actiniaria (order)	Sea anemone unident.
170	Total	0.004	100.0	0.000022	0.999427	Echinoidea (class)	Sea urchin unident.
171	Total	0.004	31.9	0.000022	0.999449	*Pseudarchaster parelii*	
172	Total	0.004	57.5	0.000022	0.999471	Rajiidae	Skate unident.
173	Total	0.004	32.5	0.000021	0.999492	Aphroditidae	Sea mouse unident.
174	Total	0.004	55.7	0.000020	0.999512	*Nezumia stelgidolepis*	California grenadier
175	Total	0.004	52.2	0.000020	0.999532	*Asteronyx* sp.	
176	Total	0.004	76.5	0.000020	0.999552	*Brisaster* sp.	
177	Total	0.003	70.1	0.000018	0.999570	*Pleuronichthys decurrens*	Curlfin sole
178	Total	0.003	40.9	0.000018	0.999588	*Neomenia* sp.	
179	Total	0.003	81.3	0.000015	0.999603	*Pandalopsis ampla*	
180	Total	0.003	57.3	0.000015	0.999618	*Ampheraster marianus*	
181	Total	0.003	100.0	0.000014	0.999632	*Halagyreus johnsoni*	
182	Total	0.002	61.7	0.000013	0.999645	*Histioteuthis sp.*	Jewel squids
183	Total	0.002	100.0	0.000012	0.999657	Thoracica (order)	Barnacle
184	Total	0.002	34.9	0.000012	0.999669	*Anoplogaster cornuta*	Fangtooth
185	Total	0.002	100.0	0.000012	0.999681	*Stenobrachius nannochir*	Garnet lampfish
186	Total	0.002	100.0	0.000011	0.999692	*Dipsacaster anoplus*	
187	Total	0.002	70.3	0.000011	0.999703	Holothuroidea (class)	Sea cucumber unident.
188	Total	0.002	68.9	0.000011	0.999714	Holothuroidea (class)	Pineapple sea cucumber
189	Total	0.002	63.7	0.000011	0.999724	*Xeneretmus latifrons*	Blacktip poacher
190	Total	0.002	78.5	0.000009	0.999734	Ctenophora (phylum)	Comb jelly unident.
191	Total	0.002	100.0	0.000009	0.999743	*Amphiophiura* sp.	
192	Total	0.002	50.0	0.000009	0.999751	*Serrivomer sector*	Sawtooth eel
193	Total	0.002	70.1	0.000009	0.999760	*Pseudostichopus mollis*	Sandy sea cucumber

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
194	Total	0.002	72.2	0.000009	0.999769	*Corallimorphus* sp.	
195	Total	0.002	61.0	0.000008	0.999777	*Gonatus onyx*	Clawed armhook squid
196	Total	0.002	100.0	0.000008	0.999785	*Stomphia coccinea*	Swimming anemone
197	Total	0.001	41.0	0.000008	0.999793	*Aristostomias scintillans*	Shining loosejaw
198	Total	0.001	64.3	0.000007	0.999800	Gastropoda (class)	Gastropod unident.
199	Total	0.001	58.3	0.000007	0.999807	Aplacophora (class)	
200	Total	0.001	69.3	0.000007	0.999814	*Chiroteuthis calyx*	
201	Total	0.001	84.7	0.000007	0.999820	*Careproctus cypselurus*	Blackfin snailfish
202	Total	0.001	87.4	0.000006	0.999827	*Colus* sp.	
203	Total	0.001	33.6	0.000006	0.999833	*Stereomastus sculpta*	
204	Total	0.001	61.2	0.000006	0.999839	Nudibranchia (order)	Gastropod unident.
205	Total	0.001	50.2	0.000006	0.999844	Pennatulacea (order)	Sea pen or sea whip
206	Total	0.001	100.0	0.000005	0.999849	*Psolus* sp.	
207	Total	0.001	72.1	0.000005	0.999854	*Cryptopeltaster lepidonotus*	
208	Total	0.001	65.7	0.000005	0.999860	Cephalopoda (class)	Squid unident.
209	Total	0.001	82.2	0.000005	0.999864	*Cololabis saira*	Pacific saury
210	Total	0.001	100.0	0.000005	0.999869	*Onychoteuthis borealijaponicus*	Boreal clubhook squid
211	Total	0.001	100.0	0.000005	0.999874	*Pycnopodia helianthoides*	
212	Total	0.001	100.0	0.000005	0.999878	*Calinaticina oldroyi*	
213	Total	0.001	100.0	0.000004	0.999883	Ascidiacea (class)	Tunicate unident.
214	Total	0.001	68.5	0.000004	0.999887	*Octopus leioderma*	Smoothskin octopus
215	Total	0.001	73.1	0.000004	0.999892	Bivalvia (class)	Bivalve unident.
216	Total	0.001	85.8	0.000004	0.999896	Asteroidea (class)	Starfish unident.
217	Total	0.001	100.0	0.000004	0.999900	*Coryphaenoides cinereus*	Popeye grenadier
218	Total	0.001	59.1	0.000004	0.999904	*Neptunea* sp.	Neptunea sp. eggs
219	Total	0.001	71.5	0.000004	0.999908	*Cranchia scabra*	Sandpaper squid
220	Total	0.001	53.1	0.000004	0.999912	*Stenobrachius* sp.	
221	Total	0.001	59.3	0.000003	0.999915	*Sagamichthys abei*	Shining tubeshoulder
222	Total	0.001	75.4	0.000003	0.999918	*Oneirodes* sp.	
223	Total	0.001	93.9	0.000003	0.999922	Osteichthyes (class)	Fish unident.
224	Total	0.001	81.9	0.000003	0.999925	*Crossaster papposus*	Rose sea star
225	Total	0.001	60.9	0.000003	0.999928	*Asteronyx loveni*	
226	Total	0.001	91.7	0.000003	0.999931	Melamphaidae	Bigscale
227	Total	0.001	87.3	0.000003	0.999934	Heteropoda (suborder)	
228	Total	0.001	100.0	0.000003	0.999937	*Astropecten californicus*	
229	Total	0.001	100.0	0.000003	0.999939	*Trachipterus altivelis*	King-of-the-salmon
230	Total	0.001	77.0	0.000003	0.999942	Nemichthyidae	Snipe eel
231	Total	<0.001	73.0	0.000003	0.999945	*Ophidion scrippsae*	Basketweave cusk-eel
232	Total	<0.001	70.2	0.000003	0.999948	*Pteraster tesselatus*	
233	Total	<0.001	45.7	0.000003	0.999950	*Buccinum strigillatum*	
234	Total	<0.001	89.5	0.000002	0.999953	*Brisingella* sp.	
235	Total	<0.001	53.5	0.000002	0.999955	*Hyas lyratus*	Pacific lyre crab
236	Total	<0.001	71.2	0.000002	0.999957	*Plicifusus* sp.	Gray whelk
237	Total	<0.001	66.5	0.000002	0.999959	*Tritonia diomedea*	Rosy tritonia
238	Total	<0.001	73.0	0.000002	0.999962	*Macropinna microstoma*	Barreleye
239	Total	<0.001	76.7	0.000002	0.999964	*Gnathophausia ingens*	
240	Total	<0.001	100.0	0.000002	0.999966	*Lampanyctus ritteri*	Broadfin lanternfish
241	Total	<0.001	100.0	0.000002	0.999968	*Rossia pacifica*	E. Pacific bobtail squid
242	Total	<0.001	100.0	0.000002	0.999969	*Ptilosarcus gurneyi*	Orange sea pen
243	Total	<0.001	57.9	0.000002	0.999971	*Antiplanes* sp.	
244	Total	<0.001	66.7	0.000002	0.999973	Gastropoda (class)	Snail eggs unident.
245	Total	<0.001	100.0	0.000002	0.999974	*Icelinus oculatus*	Frogmouth sculpin
246	Total	<0.001	70.5	0.000001	0.999976	*Pseudarchaster dissonus*	
247	Total	<0.001	70.1	0.000001	0.999977	*Ampheraster* sp.	
248	Total	<0.001	87.3	0.000001	0.999978	*Leuroglossus* sp.	
249	Total	<0.001	100.0	0.000001	0.999979	Chiasmodontidae	Swallowers
250	Total	<0.001	70.1	0.000001	0.999981	*Henricia leviuscula*	
251	Total	<0.001	66.5	0.000001	0.999982	*Eualus* sp.	
252	Total	<0.001	76.3	0.000001	0.999983	*Colus aphelus*	Oblique whelk

Table B-3.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
253	Total	<0.001	100.0	0.000001	0.999983	Scopelosaurus	
254	Total	<0.001	74.8	0.000001	0.999984	*Calliostoma platinum*	Silvery topsnail
255	Total	<0.001	61.9	0.000001	0.999985	*Periphylla* sp.	
256	Total	<0.001	100.0	0.000001	0.999986	*Xeneretmus leiops*	Smootheye poacher
257	Total	<0.001	70.1	0.000001	0.999987	*Mediaster tenellus*	
258	Total	<0.001	100.0	0.000001	0.999987	Oneirodidae	Dreamer unident.
259	Total	<0.001	45.9	0.000001	0.999988	*Tarletonbeania* sp.	
260	Total	<0.001	73.1	0.000001	0.999989	*Apristurus brunneus*	Cat shark egg case
261	Total	<0.001	70.1	0.000001	0.999989	*Pseudarchaster* sp.	
262	Total	<0.001	100.0	0.000001	0.999990	*Dicrolene filamentosa*	Threadfin cusk-eel
263	Total	<0.001	77.4	0.000001	0.999990	*Idiacanthus antrostomus*	Pacific blackdragon
264	Total	<0.001	100.0	0.000001	0.999991	*Chiasmodon niger*	
265	Total	<0.001	100.0	0.000001	0.999992	*Paricelinus hopliticus*	Thornback sculpin
266	Total	<0.001	100.0	0.000001	0.999992	Elasmobranchi (subclass)	Shark egg case unident.
267	Total	<0.001	100.0	0.000001	0.999993	*Laqueus californianus*	Shark egg case unident.
268	Total	<0.001	78.5	0.000000	0.999993	Malacostraca (class)	Malacostracan unident.
269	Total	<0.001	63.1	0.000000	0.999994	Isopoda (order)	Isopod unident.
270	Total	<0.001	100.0	0.000000	0.999994	Bivalvia (class)	Bivalve unident.
271	Total	<0.001	100.0	0.000000	0.999995	*Euplexaura marki*	
272	Total	<0.001	100.0	0.000000	0.999995	*Notolepsis risso*	Ribbon barracudina
273	Total	<0.001	100.0	0.000000	0.999995	Tube worm unident.	
274	Total	<0.001	100.0	0.000000	0.999996	Poraniopsis inflata	
275	Total	<0.001	100.0	0.000000	0.999996	*Paraliparis* sp.	
276	Total	<0.001	100.0	0.000000	0.999996	*Neptunea ithia*	
277	Total	<0.001	100.0	0.000000	0.999997	*Natica* sp.	
278	Total	<0.001	100.0	0.000000	0.999997	*Hydrolagus colliei*	
279	Total	<0.001	100.0	0.000000	0.999997	*Neolithodes diomedeae*	
280	Total	<0.001	100.0	0.000000	0.999998	*Nemichthys scolopaceus*	Slender snipe eel
281	Total	<0.001	100.0	0.000000	0.999998	Sipuncula (phylum)	Sipunculid worm
282	Total	<0.001	78.8	0.000000	0.999998	*Sternoptyx diaphana*	Longspine hatchetfish
283	Total	<0.001	100.0	0.000000	0.999998	Polychaeta (class)	Polychaete worm unident.
284	Total	<0.001	100.0	0.000000	0.999998	*Lycodapus* sp.	
285	Total	<0.001	100.0	0.000000	0.999999	*Henricia aspera*	
286	Total	<0.001	100.0	0.000000	0.999999	*Lycodapus fierasfer*	Blackmouth eelpout
288	Total	<0.001	100.0	0.000000	0.999999	*Lycodapus mandibularis*	Pallid eelpout
287	Total	<0.001	100.0	0.000000	0.999999	*Acharax johnsoni*	
289	Total	<0.001	100.0	0.000000	0.999999	*Umbellula* sp.	
290	Total	<0.001	100.0	0.000000	0.999999	*Sternoptyx* sp.	
291	Total	<0.001	100.0	0.000000	0.999999	*Polinices* sp.	
292	Total	<0.001	100.0	0.000000	1.000000	*Notostomus japonicus*	Spinyridge shrimp
293	Total	<0.001	70.2	0.000000	1.000000	*Argyropelecus sp.*	
294	Total	<0.001	100.0	0.000000	1.000000	Sternoptychidae	Hatchetfish
295	Total	<0.001	100.0	0.000000	1.000000	*Melanostigma pammelas*	Midwater eelpout
296	Total	<0.001	100.0	0.000000	1.000000	*Colus tahwitanus*	
297	Total	<0.001	100.0	0.000000	1.000000	Pasiphaeidae	Pasiphaeid shrimp
298	Total	<0.001	100.0	0.000000	1.000000	Amphipoda (order)	
299	Total	<0.001	100.0	0.000000	1.000000	Pandalidae	Pandalid shrimp
	Total	184.102					

Table B-4.--Rank order of relative abundance (kg/ha) of fishes and invertebrates by depth stratum for the International North Pacific Fisheries Commission Eureka area from the 1999 West Coast upper continental slope bottom trawl survey. Stratum 1 =183-366 m, Stratum 2 = 367-549 m, Stratum 3 = 550-732 m, Stratum 4 = 733-914 m, Stratum 5 = 915-1,097 m, and Stratum 6 = 1,098-1,280 m.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
1	1	30.246	34.8	0.190255	0.190255	*Glyptocephalus zachirus*	Rex sole
2	1	27.693	38.9	0.174196	0.364451	*Allocentrotus fragilis*	Orange-pink sea urchin
3	1	14.856	36.5	0.093449	0.457900	*Merluccius productus*	Pacific hake
4	1	14.757	31.0	0.092827	0.550727	*Sebastes saxicola*	Stripetail rockfish
5	1	9.676	24.0	0.060863	0.611591	*Lyopsetta exilis*	Slender sole
6	1	6.642	33.7	0.041784	0.653374	*Raja rhina*	Longnose skate
7	1	6.358	47.8	0.039993	0.693367	*Microstomus pacificus*	Dover sole
8	1	6.349	45.4	0.039938	0.733305	*Sebastes diploproa*	Splitnose rockfish
9	1	5.071	44.4	0.031896	0.765201	*Oncorhynchus tshawytscha*	Chinook salmon
10	1	4.253	68.1	0.026751	0.791952	*Brisaster latifrons*	
11	1	3.014	32.2	0.018959	0.810911	*Bathyraja interrupta*	Bering skate
12	1	2.974	84.9	0.018705	0.829617	*Parastichopus leucothele*	
13	1	2.823	65.7	0.017760	0.847377	*Metridium giganteum*	Gigantic anemone
14	1	2.151	88.6	0.013532	0.860909	*Sebastes paucispinis*	Bocaccio
15	1	1.781	32.6	0.011202	0.872111	*Lycodes cortezianus*	Bigfin eelpout
16	1	1.773	31.1	0.011152	0.883264	*Luidia foliolata*	
17	1	1.630	30.9	0.010253	0.893517	*Sebastes zacentrus*	Sharpchin rockfish
18	1	1.486	81.4	0.009348	0.902865	*Ophiodon elongatus*	Lingcod
19	1	1.469	53.1	0.009243	0.912108	*Parophrys vetulus*	English sole
20	1	1.393	37.6	0.008760	0.920867	*Sebastolobus alascanus*	Shortspine thornyhead
21	1	1.186	29.6	0.007462	0.928330	*Atheresthes stomias*	Arrowtooth flounder
22	1	1.130	44.4	0.007106	0.935435	*Apristurus brunneus*	Brown cat shark
23	1	1.093	72.7	0.006878	0.942314	*Squalus acanthias*	Spiny dogfish
24	1	1.035	32.9	0.006512	0.948826	*Anoplopoma fimbria*	Sablefish
25	1	1.021	16.2	0.006422	0.955248	*Eopsetta jordani*	Petrale sole
26	1	0.874	65.8	0.005498	0.960746	*Sebastes elongatus*	Greenstriped rockfish
27	1	0.851	37.0	0.005350	0.966096	*Hydrolagus colliei*	Spotted ratfish
28	1	0.811	90.7	0.005102	0.971199	*Pagurus* sp.	
29	1	0.635	64.2	0.003993	0.975192	*Sebastes crameri*	Darkblotched rockfish
30	1	0.595	65.3	0.003741	0.978933	*Myoxoderma platyacanthum*	
31	1	0.393	32.3	0.002472	0.981405	*Sebastes entomelas*	Widow rockfish
32	1	0.368	80.1	0.002318	0.983723	*Sebastes babcocki*	Redbanded rockfish
33	1	0.239	68.4	0.001502	0.985225	*Sebastes proriger*	Redstripe rockfish
34	1	0.159	65.9	0.001002	0.986227	*Paractinostola faeculenta*	Rough purple sea anemone
35	1	0.152	100.0	0.000957	0.987184	*Pycnopodia helianthoides*	
36	1	0.148	100.0	0.000934	0.988118	Onychoteuthidae	
37	1	0.139	77.7	0.000872	0.988990	*Thetys vagina*	Common salp
38	1	0.137	70.3	0.000861	0.989851	*Pleurobranchaea californica*	California sea slug
39	1	0.121	100.0	0.000762	0.990613	*Periphylla periphylla*	
40	1	0.112	66.2	0.000704	0.991316	Thaliacea (class)	Salps unident.
41	1	0.112	66.3	0.000704	0.992020	*Sebastes goodei*	Chilipepper
42	1	0.109	79.1	0.000687	0.992707	*Pagurus capillatus*	Hairy hermit crab
43	1	0.104	49.1	0.000657	0.993364	*Ophiura sarsi*	
44	1	0.099	62.4	0.000622	0.993986	*Octopus leioderma*	Smoothskin octopus
45	1	0.096	100.0	0.000605	0.994591	*Sebastes pinniger*	Canary rockfish
46	1	0.076	100.0	0.000481	0.995072	*Cancer magister*	Dungeness crab
47	1	0.068	66.0	0.000426	0.995498	Aphroditidae	Sea mouse unident.
48	1	0.066	71.7	0.000415	0.995913	*Sebastes jordani*	Shortbelly rockfish
49	1	0.057	67.6	0.000361	0.996275	*Radulinus asprellus*	Slim sculpin
50	1	0.050	100.0	0.000317	0.996592	Scyphozoa (class)	Jellyfish unident.
51	1	0.050	100.0	0.000316	0.996908	Platyhelminthes (phylum)	Flatworm
52	1	0.045	41.5	0.000284	0.997192	*Pandalus platyceros*	Spot shrimp
53	1	0.040	89.9	0.000251	0.997443	*Pandalus jordani*	Ocean shrimp
54	1	0.040	100.0	0.000249	0.997692	*Urtinca* sp.	Mottled anemone
55	1	0.033	61.3	0.000211	0.997902	*Rathbunaster californicus*	

Table B-4.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
56	1	0.030	100.0	0.000188	0.998090	*Thrissacanthias penicillatus*	
57	1	0.025	100.0	0.000155	0.998245	*Pandalus* sp.	
58	1	0.020	100.0	0.000128	0.998372	*Hippasteria spinosa*	
59	1	0.020	62.4	0.000126	0.998498	*Careproctus melanurus*	Blacktail snailfish
60	1	0.019	100.0	0.000117	0.998615	*Parastichopus californicus*	
61	1	0.016	72.5	0.000098	0.998713	*Citharichthys sordidus*	Pacific sanddab
62	1	0.015	63.3	0.000095	0.998808	*Pagurus tanneri*	Longhand hermit
63	1	0.014	100.0	0.000091	0.998899	*Sebastes melanostomus*	Blackgill rockfish
64	1	0.013	100.0	0.000079	0.998977	*Stylasterias forreri*	
65	1	0.011	88.7	0.000071	0.999049	Rajiidae	Skate unident.
66	1	0.010	100.0	0.000066	0.999115	*Stomphia coccinea*	Swimming anemone
67	1	0.010	100.0	0.000061	0.999176	*Apristurus kampae*	Longnose cat shark
68	1	0.010	100.0	0.000060	0.999236	*Rossia pacifica*	E. Pacific bobtail squid
69	1	0.010	100.0	0.000060	0.999296	*Sebastes wilsoni*	Pygmy rockfish
70	1	0.009	100.0	0.000054	0.999350	*Pseudarchaster parelii*	
71	1	0.009	79.2	0.000054	0.999404	*Crangon communis*	Twospine crangon
72	1	0.008	100.0	0.000050	0.999453	*Cololabis saira*	Pacific saury
73	1	0.007	100.0	0.000047	0.999500	Myxinidae	Hagfish
74	1	0.007	100.0	0.000044	0.999545	*Benthoctopus* sp.	
75	1	0.007	100.0	0.000042	0.999587	*Thaleichthys pacificus*	Eulachon
76	1	0.006	100.0	0.000038	0.999624	*Munida quadrispina*	
77	1	0.006	100.0	0.000037	0.999661	*Raja binoculata*	Big skate
78	1	0.005	100.0	0.000031	0.999692	*Lampetra tridentata*	Pacific lamprey
79	1	0.005	61.9	0.000030	0.999723	*Chauliodus macouni*	Pacific viperfish
80	1	0.005	63.9	0.000030	0.999752	*Calinaticina oldroyi*	
81	1	0.005	62.1	0.000029	0.999781	*Bathyagonus* sp.	Starsnout poacher
82	1	0.004	100.0	0.000026	0.999807	*Chilara taylori*	Spotted cusk-eel
83	1	0.004	100.0	0.000025	0.999832	*Hexagrammos decagrammus*	Kelp greenling
84	1	0.004	100.0	0.000024	0.999855	*Liponema brevicorne*	Tentacle-shedding anemone
85	1	0.004	100.0	0.000023	0.999878	*Microgadus proximus*	Pacific tomcod
86	1	0.003	100.0	0.000020	0.999899	*Neomenia* sp.	
87	1	0.003	100.0	0.000017	0.999916	*Neptunea* sp.	
88	1	0.002	100.0	0.000013	0.999929	*Ronquilus jordani*	Northern ronquil
89	1	0.002	100.0	0.000010	0.999939	*Pandalopsis dispar*	Sidestripe shrimp
90	1	0.001	53.6	0.000008	0.999947	Myctophidae	Lanternfish
91	1	0.001	61.5	0.000008	0.999955	*Urtinca* sp.	
92	1	0.001	100.0	0.000006	0.999961	*Bathyagonus pentacanthus*	Bigeye poacher
93	1	0.001	100.0	0.000005	0.999966	Hormathiidae	
94	1	0.001	100.0	0.000005	0.999971	*Neptunea tabulata*	Tabled whelk
95	1	0.001	100.0	0.000005	0.999976	*Buccinum* sp.	
96	1	0.001	100.0	0.000005	0.999981	*Xeneretmus latifrons*	Blacktip poacher
97	1	0.001	100.0	0.000004	0.999985	*Cymatogaster aggregata*	Shiner perch
98	1	0.001	100.0	0.000003	0.999988	*Buccinum strigillatum*	
99	1	<0.001	100.0	0.000003	0.999991	*Pyrosoma atlanticum*	
100	1	<0.001	100.0	0.000003	0.999994	*Chionoecetes tanneri*	True Tanner crab
101	1	<0.001	100.0	0.000002	0.999996	Nudibranchia (order)	Gastropod unident.
102	1	<0.001	100.0	0.000001	1.000000	Ophiuroidea (class)	Brittlestarfish unident.
103	1	<0.001	100.0	0.000001	1.000000	*Pasiphaea pacifica*	Pacific glass shrimp
104	1	<0.001	100.0	0.000001	1.000000	*Stylatula* sp.	Slender seawhips
	Total	158.974					
1	2	31.755	99.8	0.214050	0.214050	*Ophiura sarsi*	
2	2	22.876	81.1	0.154197	0.368247	*Myoxoderma platyacanthum*	
3	2	15.637	25.6	0.105400	0.473647	*Microstomus pacificus*	Dover sole
4	2	12.314	13.8	0.083005	0.556652	*Merluccius productus*	Pacific hake
5	2	12.265	28.2	0.082675	0.639326	*Glyptocephalus zachirus*	Rex sole
6	2	5.628	35.3	0.037934	0.677260	*Raja rhina*	Longnose skate
7	2	5.196	49.1	0.035025	0.712285	*Brisaster latifrons*	
8	2	4.430	91.0	0.029859	0.742144	*Liponema brevicorne*	Tentacle-shedding anemone

Table B-4.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
9	2	4.029	99.4	0.027161	0.769305	*Pagurus tanneri*	Longhand hermit
10	2	3.390	52.0	0.022847	0.792152	*Lycodes cortezianus*	Bigfin eelpout
11	2	3.263	42.8	0.021992	0.814144	*Neptunea* sp.	
12	2	3.079	44.1	0.020752	0.834896	*Sebastes aurora*	Aurora rockfish
13	2	3.012	27.0	0.020302	0.855198	*Anoplopoma fimbria*	Sablefish
14	2	2.953	95.3	0.019902	0.875100	*Pannychia moseleyi*	
15	2	2.649	20.9	0.017855	0.892955	*Apristurus brunneus*	Brown cat shark
16	2	2.462	42.0	0.016595	0.909550	*Sebastolobus alascanus*	Shortspine thornyhead
17	2	2.412	33.8	0.016255	0.925805	*Lycodes diapterus*	Black eelpout
18	2	1.824	36.9	0.012295	0.938100	*Paractinostola faeculenta*	Rough purple sea anemone
19	2	1.202	29.8	0.008100	0.946199	*Atheresthes stomias*	Arrowtooth flounder
20	2	1.008	62.2	0.006792	0.952991	*Allocentrotus fragilis*	Orange-pink sea urchin
21	2	0.963	58.9	0.006492	0.959483	*Bathyraja interrupta*	Bering skate
22	2	0.513	100.0	0.003459	0.962943	*Neptunea amianta*	
23	2	0.503	85.0	0.003388	0.966330	*Squalus acanthias*	Spiny dogfish
24	2	0.412	100.0	0.002778	0.969108	*Moroteuthis robusta*	Robust clubhook squid
25	2	0.342	76.7	0.002304	0.971412	*Luidia foliolata*	
26	2	0.335	63.9	0.002261	0.973673	*Octopus dofleini*	Giant octopus
27	2	0.330	44.7	0.002224	0.975897	Myxinidae	Hagfish
28	2	0.306	93.1	0.002063	0.977961	*Thrissacanthias penicillatus*	
29	2	0.300	100.0	0.002024	0.979985	*Bathyraja aleutica*	Aleutian skate
30	2	0.279	100.0	0.001884	0.981868	*Sebastolobus altivelis*	Longspine thornyhead
31	2	0.279	100.0	0.001880	0.983749	*Bothrocara brunneum*	Twoline eelpout
32	2	0.237	87.7	0.001599	0.985348	*Sebastes crameri*	Darkblotched rockfish
33	2	0.204	62.2	0.001374	0.986722	*Chionoecetes tanneri*	True Tanner crab
34	2	0.192	20.0	0.001295	0.988017	*Careproctus melanurus*	Blacktail snailfish
35	2	0.160	69.8	0.001077	0.989093	*Benthoctopus* sp.	
36	2	0.149	48.4	0.001007	0.990101	*Lyopsetta exilis*	Slender sole
37	2	0.148	71.2	0.000996	0.991097	*Heterozonias alternatus*	
38	2	0.121	100.0	0.000817	0.991913	*Opisthoteuthis californiana*	Flapjack devilfish
39	2	0.119	100.0	0.000805	0.992719	*Oncorhynchus tshawytscha*	Chinook salmon
40	2	0.109	99.9	0.000734	0.993452	*Neptunea pribiloffensis*	Pribilof whelk
41	2	0.097	97.5	0.000651	0.994104	Hormathiidae	
42	2	0.080	100.0	0.000536	0.994640	*Antimora microlepis*	Pacific flatnose
43	2	0.067	63.5	0.000452	0.995092	*Histioteuthis* sp.	Jewel squids
44	2	0.067	61.3	0.000448	0.995541	*Pagurus* sp.	
45	2	0.063	99.6	0.000427	0.995968	Polychaeta (class)	Polychaete worm unident.
46	2	0.062	95.9	0.000419	0.996387	Actinostolidae	
47	2	0.057	68.7	0.000381	0.996768	*Hippasteria californica*	
48	2	0.056	100.0	0.000375	0.997143	*Cancer magister*	Dungeness crab
49	2	0.047	100.0	0.000314	0.997457	*Actinauge verrillii*	Reticulate anemone
50	2	0.042	55.3	0.000285	0.997742	Aphroditidae	Sea mouse unident.
51	2	0.040	100.0	0.000268	0.998010	*Thetys vagina*	Common salp
52	2	0.035	100.0	0.000234	0.998244	*Sebastes alutus*	Pacific ocean perch
53	2	0.032	83.7	0.000216	0.998460	Actiniaria (order)	Purple striated sea anemone
54	2	0.030	100.0	0.000204	0.998665	*Sebastes entomelas*	Widow rockfish
55	2	0.030	100.0	0.000201	0.998866	*Metridium giganteum*	Gigantic anemone
56	2	0.028	99.1	0.000191	0.999057	*Pasiphaea pacifica*	Pacific glass shrimp
57	2	0.028	61.4	0.000188	0.999244	*Buccinum strigillatum*	
58	2	0.026	100.0	0.000173	0.999417	*Periphylla periphylla*	
59	2	0.019	80.3	0.000126	0.999543	*Nezumia stelgidolepis*	California grenadier
60	2	0.014	100.0	0.000095	0.999638	*Pagurus capillatus*	Hairy hermit crab
61	2	0.007	93.5	0.000047	0.999686	*Careproctus* sp.	
62	2	0.007	100.0	0.000045	0.999731	*Actinostola* sp.	
63	2	0.005	100.0	0.000033	0.999764	*Octopus leioderma*	Smoothskin octopus
64	2	0.004	100.0	0.000030	0.999794	*Pseudarchaster parelii*	
65	2	0.004	100.0	0.000027	0.999820	*Cololabis saira*	Pacific saury
66	2	0.004	100.0	0.000026	0.999846	*Fusitriton oregonensis*	Oregon triton
67	2	0.004	100.0	0.000025	0.999871	Thaliacea (class)	Salps unident.

Table B-4.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
68	2	0.003	100.0	0.000022	0.999893	Scyphozoa (class)	Jellyfish unident.
69	2	0.003	78.0	0.000020	0.999913	*Lampanyctus* sp.	
70	2	0.002	100.0	0.000015	0.999928	*Aphrocallistes vastus*	Clay pipe sponge
71	2	0.002	85.8	0.000012	0.999940	*Molpadia intermedia*	
72	2	0.001	100.0	0.000009	0.999949	Actiniaria (order)	Sea anemone unident.
73	2	0.001	100.0	0.000009	0.999957	*Pseudarchaster parelii*	
74	2	0.001	100.0	0.000009	0.999974	*Octopoteuthis deletron*	
75	2	0.001	100.0	0.000009	0.999974	*Chauliodus macouni*	Pacific viperfish
76	2	0.001	100.0	0.000008	0.999983	*Apristurus brunneus*	Cat shark egg case
77	2	<0.001	100.0	0.000003	0.999989	*Stylatula* sp.	Slender seawhips
78	2	<0.001	100.0	0.000003	0.999989	Myctophidae	Lanternfish
79	2	<0.001	100.0	0.000002	0.999993	*Asteronyx loveni*	
80	2	<0.001	100.0	0.000002	0.999993	Pennatulacea (order)	Sea pen or sea whip
81	2	<0.001	100.0	0.000001	0.999994	*Tarletonbeania crenularis*	Blue lanternfish
82	2	<0.001	100.0	0.000001	0.999995	*Coryphaenoides acrolepis*	Pacific grenadier
83	2	<0.001	100.0	0.000001	0.999997	*Ctenodiscus crispatus*	Common mud star
84	2	<0.001	100.0	0.000001	0.999997	*Polinices pallidus*	Pale moonsnail
85	2	<0.001	100.0	0.000001	0.999998	*Crangon communis*	Twospine crangon
86	2	<0.001	100.0	0.000001	0.999999	*Pandalus* sp.	
87	2	<0.001	100.0	0.000001	1.000000	*Pasiphaea tarda*	Crimson pasiphaeid
88	2	<0.001	100.0	0.000000	1.000000	Bivalvia (class)	Bivalve unident.
Total		148.355					
1	3	22.186	18.6	0.251585	0.251585	*Sebastolobus altivelis*	Longspine thornyhead
2	3	21.145	58.2	0.239785	0.491370	*Chionoecetes tanneri*	True Tanner crab
3	3	17.113	51.2	0.194066	0.685436	*Microstomus pacificus*	Dover sole
4	3	4.797	26.9	0.054401	0.739838	*Anoplopoma fimbria*	Sablefish
5	3	4.000	25.9	0.045364	0.785201	*Lycodes diapterus*	Black eelpout
6	3	3.125	77.9	0.035439	0.820640	*Albatrossia pectoralis*	Giant grenadier
7	3	2.015	24.6	0.022853	0.843493	*Sebastolobus alascanus*	Shortspine thornyhead
8	3	1.834	63.5	0.020801	0.864294	*Glyptocephalus zachirus*	Rex sole
9	3	1.578	18.4	0.017895	0.882189	*Neptunea amianta*	
10	3	1.494	75.0	0.016939	0.899128	*Coryphaenoides acrolepis*	Pacific grenadier
11	3	1.334	28.9	0.015122	0.914250	*Apristurus brunneus*	Brown cat shark
12	3	0.912	63.1	0.010337	0.924588	*Merluccius productus*	Pacific hake
13	3	0.897	60.1	0.010171	0.934759	*Alepocephalus tenebrosus*	California slickhead
14	3	0.703	40.3	0.007972	0.942731	*Paractinostola faeculenta*	Rough purple sea anemone
15	3	0.622	24.4	0.007056	0.949787	*Heterozonias alternatus*	
16	3	0.594	56.4	0.006738	0.956525	*Antimora microlepis*	Pacific flatnose
17	3	0.423	46.7	0.004802	0.961327	*Bothrocara brunneum*	Twoline eelpout
18	3	0.390	67.9	0.004419	0.965746	*Raja rhina*	Longnose skate
19	3	0.372	22.3	0.004215	0.969961	*Thrissacanthias penicillatus*	
20	3	0.295	24.2	0.003346	0.973307	*Embassichthys bathybius*	Deepsea sole
21	3	0.250	100.0	0.002829	0.976136	*Bathyraja trachura*	Black skate
22	3	0.203	95.5	0.002300	0.978436	*Myoxoderma platyacanthum*	
23	3	0.182	82.1	0.002063	0.980499	*Aphrocallistes vastus*	Clay pipe sponge
24	3	0.167	100.0	0.001897	0.982396	*Opisthoteuthis californiana*	Flapjack devilfish
25	3	0.150	59.4	0.001700	0.984096	*Brisaster latifrons*	
26	3	0.110	51.9	0.001245	0.985340	Myxinidae	Hagfish
27	3	0.104	59.0	0.001176	0.986516	*Grimpoteuthis albatrossi*	
28	3	0.099	59.7	0.001121	0.987637	*Hippasteria californica*	
29	3	0.096	35.4	0.001083	0.988720	*Careproctus melanurus*	Blacktail snailfish
30	3	0.089	65.7	0.001011	0.989732	*Benthoctopus* sp.	
31	3	0.089	90.4	0.001009	0.990741	*Pannychia moseleyi*	
32	3	0.083	100.0	0.000937	0.991678	*Talismania bifurcata*	Threadfin slickhead
33	3	0.076	80.3	0.000867	0.992545	*Embryx crotalinus*	Snakehead eelpout
34	3	0.070	78.4	0.000796	0.993341	Scyphozoa (class)	Jellyfish unident.
35	3	0.066	100.0	0.000749	0.994090	*Apristurus kampae*	Longnose cat shark
36	3	0.062	45.1	0.000700	0.994790	*Allocentrotus fragilis*	Orange-pink sea urchin

Table B-4.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
37	3	0.059	96.3	0.000670	0.995460	Actinostolidae	
38	3	0.050	73.2	0.000570	0.996030	*Lycodes cortezianus*	Bigfin eelpout
39	3	0.033	69.1	0.000369	0.996400	*Neptunea pribiloffensis*	Pribilof whelk
40	3	0.026	79.5	0.000296	0.996696	*Pasiphaea tarda*	Crimson pasiphaeid
41	3	0.025	49.8	0.000288	0.996984	*Thetys vagina*	Common salp
42	3	0.025	83.5	0.000285	0.997270	*Bathybembix bairdii*	
43	3	0.022	100.0	0.000255	0.997525	*Myoxoderma sacculatum*	
44	3	0.021	94.2	0.000239	0.997764	*Pagurus* sp.	
45	3	0.018	48.3	0.000208	0.997971	Bathylagidae	Deepsea smelt
46	3	0.017	63.8	0.000191	0.998163	Thaliacea (class)	Salps unident.
47	3	0.016	84.9	0.000177	0.998339	*Liponema brevicorne*	Tentacle-shedding anemone
48	3	0.012	100.0	0.000130	0.998470	*Brisingella* sp.	
49	3	0.011	36.7	0.000123	0.998593	*Tactostoma macropus*	Longfin dragonfish
50	3	0.010	47.2	0.000119	0.998712	*Chauliodus macouni*	Pacific viperfish
51	3	0.010	100.0	0.000112	0.998823	Actiniaria (order)	Purple striated sea anemone
52	3	0.010	100.0	0.000110	0.998933	*Tritonia* sp.	
53	3	0.009	100.0	0.000107	0.999041	*Zoraster evermanni*	
54	3	0.009	70.1	0.000106	0.999147	*Crossaster borealis*	
55	3	0.009	100.0	0.000097	0.999244	*Histioteuthis heteropsis*	
56	3	0.008	41.3	0.000096	0.999340	*Lampanyctus* sp.	
57	3	0.008	75.5	0.000092	0.999431	*Brisingella exilis*	
58	3	0.006	63.5	0.000063	0.999494	*Beroe* sp.	
59	3	0.005	69.8	0.000060	0.999553	*Aristostomias scintillans*	Shining loosejaw
60	3	0.005	100.0	0.000056	0.999609	*Pagurus tanneri*	Longhand hermit
61	3	0.004	100.0	0.000047	0.999656	*Galiteuthis phyllura*	
62	3	0.004	42.5	0.000046	0.999703	Myctophidae	Lanternfish
63	3	0.004	100.0	0.000041	0.999744	*Histioteuthis* sp.	Jewel squids
64	3	0.004	100.0	0.000040	0.999783	Aphroditidae	Sea mouse unident.
65	3	0.003	100.0	0.000034	0.999817	*Octopus leioderma*	Smoothskin octopus
66	3	0.003	100.0	0.000029	0.999846	*Pseudarchaster parelii*	
67	3	0.002	100.0	0.000028	0.999874	*Bathyagonus* sp.	Blacksmelt unident.
68	3	0.002	100.0	0.000021	0.999894	*Chorilia longipes*	Longhorned decorator crab
69	3	0.001	100.0	0.000017	0.999911	*Chiroteuthis calyx*	
70	3	0.001	62.4	0.000017	0.999928	*Gonatus onyx*	Clawed armhook squid
71	3	0.001	68.2	0.000016	0.999944	*Stylatula* sp.	Slender seawhips
72	3	0.001	100.0	0.000011	0.999955	*Eualus macrophthalmus*	
73	3	0.001	100.0	0.000011	0.999966	*Nearchaster aciculosus*	
74	3	0.001	100.0	0.000008	0.999974	*Lophaster furcilliger*	
75	3	0.001	100.0	0.000008	0.999982	*Stenobrachius* sp.	
76	3	0.001	67.4	0.000007	0.999989	*Pasiphaea pacifica*	Pacific glass shrimp
77	3	<0.001	100.0	0.000004	0.999992	*Umbellula* sp.	
78	3	<0.001	100.0	0.000002	0.999994	*Lycenchelys camchatica*	Kamchatka eelpout
79	3	<0.001	100.0	0.000002	0.999997	*Actinostola* sp.	
80	3	<0.001	100.0	0.000001	0.999998	*Pandalus* sp.	
81	3	<0.001	100.0	0.000001	0.999999	*Careproctus* sp.	
82	3	<0.001	100.0	0.000001	1.000000	*Tarletonbeania* sp.	
	Total	88.184					
1	4	41.847	9.2	0.441499	0.441499	*Sebastolobus altivelis*	Longspine thornyhead
2	4	18.988	30.4	0.200332	0.641832	*Microstomus pacificus*	Dover sole
3	4	13.456	25.9	0.141968	0.783799	*Chionoecetes tanneri*	True Tanner crab
4	4	5.378	13.7	0.056742	0.840541	*Anoplopoma fimbria*	Sablefish
5	4	3.293	30.2	0.034747	0.875288	*Albatrossia pectoralis*	Giant grenadier
6	4	1.704	41.5	0.017977	0.893265	*Sebastolobus alascanus*	Shortspine thornyhead
7	4	1.550	66.8	0.016350	0.909615	*Apristurus brunneus*	Brown cat shark
8	4	1.329	17.5	0.014018	0.923633	*Embassichthys bathybius*	Deepsea sole
9	4	1.143	32.1	0.012059	0.935691	*Alepocephalus tenebrosus*	California slickhead
10	4	0.885	48.1	0.009338	0.945030	*Coryphaenoides acrolepis*	Pacific grenadier
11	4	0.726	9.5	0.007664	0.952694	*Neptunea amianta*	

Table B-4.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
12	4	0.518	22.9	0.005464	0.958158	*Paractinostola faeculenta*	Rough purple sea anemone
13	4	0.468	33.3	0.004933	0.963091	*Heterozonias alternatus*	
14	4	0.406	28.7	0.004288	0.967379	*Antimora microlepis*	Pacific flatnose
15	4	0.376	90.0	0.003966	0.971345	*Chrysaora melanaster*	
16	4	0.355	100.0	0.003742	0.975087	*Myoxoderma platyacanthum*	
17	4	0.345	27.1	0.003638	0.978725	*Embryx crotalinus*	Snakehead eelpout
18	4	0.294	59.9	0.003099	0.981824	*Grimpoteuthis albatrossi*	
19	4	0.213	34.4	0.002251	0.984075	*Bothrocara brunneum*	Twoline eelpout
20	4	0.146	77.1	0.001542	0.985617	*Brisaster latifrons*	
21	4	0.135	81.5	0.001419	0.987036	*Hippasteria californica*	
22	4	0.122	26.6	0.001292	0.988328	Myxinidae	Hagfish
23	4	0.110	52.6	0.001158	0.989486	*Thrissacanthias penicillatus*	
24	4	0.108	100.0	0.001139	0.990624	*Squalus acanthias*	Spiny dogfish
25	4	0.083	37.2	0.000878	0.991503	*Talismania bifurcata*	Threadfin slickhead
26	4	0.077	76.1	0.000808	0.992311	*Merluccius productus*	Pacific hake
27	4	0.062	100.0	0.000653	0.992964	*Cancer magister*	Dungeness crab
28	4	0.058	91.2	0.000615	0.993578	Thaliacea (class)	Salps unident.
29	4	0.054	41.1	0.000572	0.994151	*Vampyroteuthis infernalis*	
30	4	0.040	29.4	0.000423	0.994573	Bathylagidae	Deepsea smelt
31	4	0.035	100.0	0.000367	0.994940	*Aphrocallistes vastus*	Clay pipe sponge
32	4	0.034	100.0	0.000360	0.995300	*Opisthoteuthis californiana*	Flapjack devilfish
33	4	0.034	31.7	0.000358	0.995658	*Careproctus melanurus*	Blacktail snailfish
34	4	0.029	100.0	0.000302	0.995960	*Bathyraja trachura*	Black skate
35	4	0.027	88.9	0.000288	0.996248	*Parastichopus leucothele*	
36	4	0.023	100.0	0.000240	0.996488	*Bathyraja interrupta*	Bering skate
37	4	0.020	100.0	0.000208	0.996696	*Benthodesmus* sp.	
38	4	0.020	100.0	0.000207	0.996903	*Glyptocephalus zachirus*	Rex sole
39	4	0.020	46.9	0.000207	0.997111	*Bathybembix bairdii*	
40	4	0.018	100.0	0.000194	0.997305	*Rathbunaster californicus*	
41	4	0.018	37.0	0.000190	0.997495	*Zoraster evermanni*	
42	4	0.018	64.5	0.000189	0.997684	Actinostolidae	
43	4	0.018	100.0	0.000185	0.997868	Rajiidae	Skate unident.
44	4	0.016	86.9	0.000168	0.998036	*Pagurus tanneri*	Longhand hermit
45	4	0.015	100.0	0.000162	0.998198	*Raja rhina*	Longnose skate
46	4	0.015	38.0	0.000153	0.998352	*Chauliodus macouni*	Pacific viperfish
47	4	0.014	78.2	0.000147	0.998498	*Octopoteuthis deletron*	
48	4	0.012	100.0	0.000131	0.998629	*Pycnopodia helianthoides*	
49	4	0.012	75.4	0.000130	0.998759	*Pannychia moseleyi*	
50	4	0.010	61.2	0.000107	0.998866	*Thetys vagina*	Common salp
51	4	0.008	65.8	0.000083	0.998949	*Pasiphaea tarda*	Crimson pasiphaeid
52	4	0.008	100.0	0.000081	0.999030	Porifera (phylum)	Sponge unident.
53	4	0.007	100.0	0.000073	0.999103	*Chiroteuthis calyx*	
54	4	0.007	100.0	0.000070	0.999173	*Bathyagonus* sp.	Blacksmelt unident.
55	4	0.006	95.8	0.000064	0.999237	*Crossaster borealis*	
56	4	0.006	61.9	0.000064	0.999300	*Lampanyctus* sp.	
57	4	0.006	61.3	0.000060	0.999360	*Sagamichthys abei*	Shining tubeshoulder
58	4	0.005	100.0	0.000056	0.999417	*Dolichopteryx* sp.	
59	4	0.005	100.0	0.000051	0.999468	*Tritonia diomedea*	Rosy tritonia
60	4	0.004	100.0	0.000047	0.999515	*Luidia foliolata*	
61	4	0.004	100.0	0.000044	0.999559	*Tritonia* sp.	
62	4	0.004	74.4	0.000040	0.999600	*Pseudarchaster parelii*	
63	4	0.004	56.4	0.000039	0.999639	*Tactostoma macropus*	Longfin dragonfish
64	4	0.003	100.0	0.000031	0.999670	*Acharax johnsoni*	
65	4	0.003	50.5	0.000027	0.999697	Myctophidae	Lanternfish
66	4	0.002	100.0	0.000026	0.999723	*Hippasteria spinosa*	
67	4	0.002	100.0	0.000022	0.999745	*Pseudoscopelus* sp.	
68	4	0.002	65.2	0.000022	0.999766	Pennatulacea (order)	Sea pen or sea whip
69	4	0.002	69.1	0.000021	0.999787	*Buccinum viridum*	Turban whelk
70	4	0.002	73.6	0.000020	0.999807	*Brisingella exilis*	

Table B-4.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
71	4	0.002	54.8	0.000019	0.999827	Plicifusus sp.	Gray whelk
72	4	0.002	100.0	0.000018	0.999844	*Careproctus* sp.	
73	4	0.002	100.0	0.000017	0.999861	*Pagurus* sp.	
74	4	0.001	100.0	0.000015	0.999876	*Actinostola* sp.	
75	4	0.001	100.0	0.000014	0.999890	Scyphozoa (class)	Jellyfish unident.
76	4	0.001	100.0	0.000013	0.999904	*Galiteuthis phyllura*	
77	4	0.001	61.7	0.000013	0.999917	*Liponema brevicorne*	Tentacle-shedding anemone
78	4	0.001	100.0	0.000011	0.999928	*Chorilia longipes*	Longhorned decorator crab
79	4	0.001	100.0	0.000011	0.999939	*Stereomastus sculpta*	
80	4	0.001	100.0	0.000010	0.999948	*Taonius pavo*	
81	4	0.001	100.0	0.000010	0.999958	Nemichthyidae	Snipe eel
82	4	0.001	100.0	0.000009	0.999967	*Asteronyx loveni*	
83	4	0.001	100.0	0.000008	0.999975	*Periphylla* sp.	
84	4	0.001	100.0	0.000007	0.999982	*Benthoctopus* sp.	
85	4	0.001	100.0	0.000007	0.999989	*Apristurus kampae*	Longnose cat shark
86	4	0.001	100.0	0.000006	0.999995	*Ophiura sarsi*	
87	4	<0.001	100.0	0.000002	0.999997	*Delectopecten vancouverensis*	Vancouver scallop
88	4	<0.001	100.0	0.000001	0.999998	*Colus* sp.	
89	4	<0.001	100.0	0.000001	0.999999	Melamphaidae	Bigscale
90	4	<0.001	100.0	0.000001	1.000000	*Pasiphaea pacifica*	Pacific glass shrimp
Total		94.783					
1	5	34.064	8.1	0.363858	0.363858	*Sebastolobus altivelis*	Longspine thornyhead
2	5	11.275	19.9	0.120440	0.484298	*Chionoecetes tanneri*	True Tanner crab
3	5	10.418	43.5	0.111279	0.595577	*Coryphaenoides acrolepis*	Pacific grenadier
4	5	7.424	68.8	0.079299	0.674876	*Microstomus pacificus*	Dover sole
5	5	6.979	38.3	0.074552	0.749428	*Anoplopoma fimbria*	Sablefish
6	5	5.266	23.0	0.056248	0.805676	*Albatrossia pectoralis*	Giant grenadier
7	5	1.894	35.3	0.020234	0.825910	*Sebastolobus alascanus*	Shortspine thornyhead
8	5	1.853	79.0	0.019797	0.845707	*Heterozonias alternatus*	
9	5	1.827	45.6	0.019518	0.865226	*Embassichthys bathybius*	Deepsea sole
10	5	1.818	16.6	0.019422	0.884648	*Antimora microlepis*	Pacific flatnose
11	5	1.768	35.6	0.018886	0.903534	*Alepocephalus tenebrosus*	California slickhead
12	5	1.749	46.2	0.018685	0.922219	*Paractinostola faeculenta*	Rough purple sea anemone
13	5	1.271	70.9	0.013578	0.935797	*Chrysaora melanaster*	
14	5	1.007	49.3	0.010758	0.946555	*Embryx crotalinus*	Snakehead eelpout
15	5	0.610	45.8	0.006517	0.953072	*Neptunea amianta*	
16	5	0.515	51.5	0.005501	0.958573	*Bathyraja trachura*	Black skate
17	5	0.477	97.9	0.005098	0.963671	*Bathybembix bairdii*	
18	5	0.336	59.6	0.003592	0.967263	*Pannychia moseleyi*	
19	5	0.313	49.2	0.003338	0.970602	*Hippasteria californica*	
20	5	0.307	33.2	0.003275	0.973877	*Thrissacanthias penicillatus*	
21	5	0.281	92.4	0.003001	0.976878	Actinostolidae	
22	5	0.262	30.5	0.002800	0.979678	*Apristurus brunneus*	Brown cat shark
23	5	0.247	43.9	0.002638	0.982316	*Bothrocara brunneum*	Twoline eelpout
24	5	0.240	62.3	0.002562	0.984878	*Scotoplanes theeli*	
25	5	0.203	99.6	0.002165	0.987043	*Aphrocallistes vastus*	Clay pipe sponge
26	5	0.108	62.3	0.001158	0.988201	*Paralomis multispina*	
27	5	0.107	38.1	0.001139	0.989340	Myxinidae	Hagfish
28	5	0.102	80.4	0.001088	0.990428	*Buccinum viridum*	Turban whelk
29	5	0.096	100.0	0.001021	0.991448	Scyphozoa (class)	Jellyfish unident.
30	5	0.079	56.0	0.000848	0.992297	*Crossaster borealis*	
31	5	0.071	51.0	0.000759	0.993056	*Vampyroteuthis infernalis*	
32	5	0.059	100.0	0.000635	0.993691	*Merluccius productus*	Pacific hake
33	5	0.050	50.4	0.000537	0.994228	*Bathylagus* sp.	Blacksmelt unident.
34	5	0.047	95.6	0.000507	0.994735	*Nearchaster aciculosus*	
35	5	0.045	64.0	0.000481	0.995215	*Myoxoderma sacculatum*	
36	5	0.043	100.0	0.000464	0.995680	*Opisthoteuthis californiana*	Flapjack devilfish
37	5	0.032	63.0	0.000340	0.996020	*Actinostola* sp.	

Table B-4.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
38	5	0.031	56.5	0.000335	0.996355	*Pasiphaea tarda*	Crimson pasiphaeid
39	5	0.027	80.3	0.000290	0.996645	*Talismania bifurcata*	Threadfin slickhead
40	5	0.024	61.4	0.000260	0.996904	Bathylagidae	Deepsea smelt
41	5	0.023	100.0	0.000244	0.997149	*Apristurus kampae*	Longnose cat shark
42	5	0.021	83.7	0.000219	0.997368	*Lophaster furcilliger*	
43	5	0.018	48.7	0.000197	0.997564	*Tactostoma macropus*	Longfin dragonfish
44	5	0.017	64.5	0.000179	0.997743	*Careproctus melanurus*	Blacktail snailfish
45	5	0.017	47.2	0.000179	0.997922	Thaliacea (class)	Salps unident.
46	5	0.016	61.5	0.000171	0.998093	*Chauliodus macouni*	Pacific viperfish
47	5	0.016	37.9	0.000170	0.998262	*Zoraster evermanni*	
48	5	0.015	100.0	0.000163	0.998426	*Careproctus colletti*	Alaska snailfish
49	5	0.011	100.0	0.000119	0.998545	*Pagurus* sp.	
50	5	0.011	50.2	0.000118	0.998663	*Lampanyctus* sp.	
51	5	0.010	80.1	0.000108	0.998771	*Pteraster coscinopeplus*	Deepwater pteraster
52	5	0.010	100.0	0.000105	0.998875	*Tritonia diomedea*	Rosy tritonia
53	5	0.009	74.2	0.000099	0.998974	*Stylatula* sp.	Slender seawhips
54	5	0.009	100.0	0.000092	0.999066	*Psolus* sp.	
55	5	0.008	55.8	0.000087	0.999152	*Brisaster latifrons*	
56	5	0.008	100.0	0.000086	0.999238	*Thetys vagina*	Common salp
57	5	0.008	100.0	0.000084	0.999322	*Melanocetus johnsonii*	Common blackdevil
58	5	0.006	100.0	0.000065	0.999388	Actiniaria (order)	Sea anemone unident.
59	5	0.006	76.8	0.000063	0.999451	*Tritonia* sp.	
60	5	0.006	61.3	0.000062	0.999513	*Careproctus sp.*	
61	5	0.005	100.0	0.000053	0.999566	*Berryteuthis magister*	Magistrate armhook squid
62	5	0.005	61.2	0.000051	0.999616	*Cololabis saira*	Pacific saury
63	5	0.004	100.0	0.000043	0.999659	*Benthalbella dentata*	Northern pearleye
64	5	0.003	100.0	0.000033	0.999693	*Colus aphelus*	Oblique whelk
65	5	0.003	100.0	0.000032	0.999725	Plicifusus sp.	Gray whelk
66	5	0.003	74.1	0.000030	0.999755	Nemichthyidae	Snipe eel
67	5	0.003	100.0	0.000027	0.999783	*Anoplogaster cornuta*	Fangtooth
68	5	0.002	46.2	0.000023	0.999806	Myctophidae	Lanternfish
69	5	0.002	71.2	0.000023	0.999829	Rajiidae	Skate unident.
70	5	0.002	100.0	0.000020	0.999849	*Buccinum* sp.	
71	5	0.002	66.6	0.000020	0.999868	*Myoxoderma platyacanthum*	
72	5	0.002	100.0	0.000016	0.999885	*Macropinna microstoma*	Barreleye
73	5	0.001	72.3	0.000013	0.999898	*Actinauge verrillii*	Reticulate anemone
74	5	0.001	100.0	0.000012	0.999910	*Loligo opalescens*	California market squid
75	5	0.001	100.0	0.000010	0.999920	Gastropoda (class)	Gastropod unident.
76	5	0.001	100.0	0.000009	0.999929	*Notostomus japonicus*	Spinyridge shrimp
77	5	0.001	100.0	0.000008	0.999938	*Colus tahwitanus*	
78	5	0.001	69.2	0.000008	0.999946	*Tarletonbeania* sp.	
79	5	0.001	100.0	0.000006	0.999952	*Liponema brevicorne*	Tentacle-shedding anemone
80	5	0.001	100.0	0.000006	0.999958	Actiniaria (order)	
81	5	<0.001	74.9	0.000005	0.999963	*Gnathophausia ingens*	
82	5	<0.001	100.0	0.000005	0.999969	*Argentina sialis*	Pacific argentine
83	5	<0.001	100.0	0.000005	0.999974	*Pagurus tanneri*	Longhand hermit
84	5	<0.001	100.0	0.000004	0.999978	Porifera (phylum)	Sponge unident.
86	5	<0.001	100.0	0.000004	0.999986	*Stenobrachius* sp.	
85	5	<0.001	100.0	0.000004	0.999986	*Acanthephyra* sp.	
87	5	<0.001	100.0	0.000004	0.999991	*Periphylla* sp.	
88	5	<0.001	100.0	0.000003	0.999994	Cyclopteridae	Snailfish unident.
89	5	<0.001	61.2	0.000002	0.999996	*Eualus* sp.	
90	5	<0.001	100.0	0.000002	0.999998	*Sternoptyx* sp.	
91	5	<0.001	100.0	0.000001	0.999999	*Acharax johnsoni*	
92	5	<0.001	100.0	0.000001	1.000000	*Umbellula* sp.	
Total		93.618					
1	6	34.489	15.7	0.249767	0.249767	*Sebastolobus altivelis*	Longspine thornyhead
2	6	28.774	40.2	0.208378	0.458145	*Anoplopoma fimbria*	Sablefish

Table B-4.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
3	6	16.185	18.9	0.117210	0.575356	*Coryphaenoides acrolepis*	Pacific grenadier
4	6	15.683	22.1	0.113574	0.688930	*Albatrossia pectoralis*	Giant grenadier
5	6	7.135	52.0	0.051670	0.740600	*Scotoplanes theeli*	
6	6	6.047	36.7	0.043795	0.784395	*Sebastolobus alascanus*	Shortspine thornyhead
7	6	5.827	48.0	0.042195	0.826590	*Chionoecetes tanneri*	True Tanner crab
8	6	3.952	38.4	0.028624	0.855213	*Paractinostola faeculenta*	Rough purple sea anemone
9	6	3.537	23.6	0.025614	0.880828	*Embassichthys bathybius*	Deepsea sole
10	6	2.977	11.5	0.021562	0.902390	*Antimora microlepis*	Pacific flatnose
11	6	2.340	27.4	0.016949	0.919339	*Bathyraja trachura*	Black skate
12	6	2.119	40.2	0.015343	0.934682	*Microstomus pacificus*	Dover sole
13	6	1.536	28.0	0.011127	0.945809	*Thrissacanthias penicillatus*	
14	6	1.252	72.9	0.009070	0.954879	*Alepocephalus tenebrosus*	California slickhead
15	6	1.028	40.1	0.007445	0.962325	*Paralomis multispina*	
16	6	0.637	45.0	0.004610	0.966934	*Psychrolutes phrictus*	Blob sculpin
17	6	0.559	41.1	0.004050	0.970985	*Myoxoderma sacculatum*	
18	6	0.473	66.0	0.003427	0.974412	*Hippasteria californica*	
19	6	0.454	34.2	0.003290	0.977702	*Neptunea amianta*	
20	6	0.447	19.6	0.003236	0.980938	*Heterozonias alternatus*	
21	6	0.360	75.3	0.002606	0.983544	*Nearchaster aciculosus*	
22	6	0.338	49.2	0.002450	0.985994	*Nearchaster* sp.	
23	6	0.271	58.8	0.001962	0.987956	*Bothrocara brunneum*	Twoline eelpout
24	6	0.183	61.0	0.001326	0.989282	*Lophaster furcilliger*	
25	6	0.144	99.0	0.001042	0.990324	*Pannychia moseleyi*	
26	6	0.132	34.4	0.000958	0.991282	*Crossaster borealis*	
27	6	0.104	72.6	0.000750	0.992032	*Stylatula* sp.	Slender seawhips
28	6	0.091	60.8	0.000657	0.992689	Actinostolidae	
29	6	0.090	77.1	0.000654	0.993343	Myxinidae	Hagfish
30	6	0.077	35.6	0.000554	0.993897	*Bathylagus* sp.	Blacksmelt unident.
31	6	0.056	100.0	0.000409	0.994306	*Octopus leioderma*	Smoothskin octopus
32	6	0.053	57.6	0.000385	0.994691	*Liponema brevicorne*	Tentacle-shedding anemone
33	6	0.052	89.6	0.000374	0.995065	*Chrysaora melanaster*	
34	6	0.050	65.2	0.000364	0.995429	*Bathybembix bairdii*	
35	6	0.046	41.2	0.000336	0.995765	*Vampyroteuthis infernalis*	
36	6	0.046	45.0	0.000332	0.996097	*Careproctus colletti*	Alaska snailfish
37	6	0.044	69.3	0.000322	0.996419	*Pteraster coscinopeplus*	Deepwater pteraster
38	6	0.039	66.7	0.000280	0.996699	Bathylagidae	Deepsea smelt
39	6	0.037	100.0	0.000269	0.996968	*Embryx crotalinus*	Snakehead eelpout
40	6	0.033	100.0	0.000237	0.997205	*Grimpoteuthis albatrossi*	
41	6	0.030	95.5	0.000220	0.997425	*Zoraster evermanni*	
42	6	0.029	90.2	0.000207	0.997633	*Berryteuthis magister*	Magistrate armhook squid
43	6	0.027	100.0	0.000193	0.997825	*Merluccius productus*	Pacific hake
44	6	0.025	24.6	0.000183	0.998009	*Pasiphaea tarda*	Crimson pasiphaeid
45	6	0.019	32.7	0.000138	0.998147	*Chauliodus macouni*	Pacific viperfish
46	6	0.019	32.0	0.000137	0.998284	*Tactostoma macropus*	Longfin dragonfish
47	6	0.018	68.6	0.000133	0.998417	*Actinostola* sp.	
48	6	0.017	63.0	0.000123	0.998539	*Buccinum viridum*	Turban whelk
49	6	0.016	100.0	0.000117	0.998656	*Periphylla periphylla*	
50	6	0.015	65.7	0.000111	0.998767	*Talismania bifurcata*	Threadfin slickhead
51	6	0.011	100.0	0.000082	0.998850	*Pseudarchaster parelii*	
52	6	0.011	53.5	0.000082	0.998931	*Thetys vagina*	Common salp
53	6	0.011	55.6	0.000080	0.999011	*Lampanyctus* sp.	
54	6	0.010	100.0	0.000075	0.999085	*Dicrolene filamentosa*	Threadfin cusk-eel
55	6	0.010	58.4	0.000074	0.999159	Thaliacea (class)	Salps unident.
56	6	0.009	61.6	0.000068	0.999227	Nemichthyidae	Snipe eel
57	6	0.009	75.6	0.000064	0.999292	*Asteronyx* sp.	
58	6	0.009	67.5	0.000062	0.999353	*Tritonia diomedea*	Rosy tritonia
59	6	0.006	100.0	0.000044	0.999398	Ophiuroidea (class)	Brittlestarfish unident.
60	6	0.005	100.0	0.000037	0.999435	Cephalopoda (class)	Squid unident.
61	6	0.005	100.0	0.000036	0.999471	*Taningia danae*	Rhomboid squid

Table B-4.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
62	6	0.005	100.0	0.000035	0.999506	*Anoplogaster cornuta*	Fangtooth
63	6	0.005	93.5	0.000033	0.999539	*Pandalopsis ampla*	
64	6	0.004	45.9	0.000032	0.999571	*Pagurus* sp.	
65	6	0.004	88.8	0.000031	0.999602	*Colus aphelus*	Oblique whelk
66	6	0.004	64.1	0.000027	0.999629	Gastropoda (class)	Gastropod unident.
67	6	0.004	100.0	0.000027	0.999656	Taoniinae	
68	6	0.004	63.7	0.000026	0.999683	*Sagamichthys abei*	Shining tubeshoulder
69	6	0.004	100.0	0.000026	0.999708	*Chiroteuthis* sp.	
70	6	0.004	62.7	0.000026	0.999734	Pennatulacea (order)	Sea pen or sea whip
71	6	0.003	100.0	0.000023	0.999757	*Octopus californicus*	N. Pacific bigeye octopus
72	6	0.003	100.0	0.000019	0.999777	*Pseudarchaster pussillus*	
73	6	0.003	76.1	0.000019	0.999796	*Pagurus tanneri*	Longhand hermit
74	6	0.003	100.0	0.000019	0.999814	*Tritonia* sp.	
75	6	0.003	100.0	0.000018	0.999832	Rajiidae	Skate unident.
76	6	0.002	100.0	0.000016	0.999849	*Colus tahwitanus*	
77	6	0.002	100.0	0.000015	0.999864	*Oneirodes* sp.	
78	6	0.002	100.0	0.000014	0.999878	*Aphrocallistes vastus*	Clay pipe sponge
79	6	0.002	100.0	0.000012	0.999891	Melamphaidae	Bigscale
80	6	0.002	100.0	0.000011	0.999902	*Poromitra crassiceps*	Crested bigscale
81	6	0.002	100.0	0.000011	0.999913	*Brisaster latifrons*	
82	6	0.001	100.0	0.000009	0.999922	Myctophidae	Lanternfish
83	6	0.001	100.0	0.000008	0.999931	Porifera (phylum)	Sponge unident.
84	6	0.001	100.0	0.000006	0.999937	*Euplexaura marki*	
85	6	0.001	100.0	0.000006	0.999943	*Asteronyx loveni*	
86	6	0.001	100.0	0.000006	0.999949	*Stenobrachius sp.*	
87	6	0.001	87.4	0.000005	0.999955	*Acanthephyra curtirostris*	Peaked shrimp
88	6	0.001	65.6	0.000005	0.999959	*Umbellula* sp.	
89	6	0.001	100.0	0.000005	0.999964	*Ctenodiscus crispatus*	Common mud star
90	6	0.001	100.0	0.000005	0.999969	Hormathiidae	
91	6	0.001	100.0	0.000005	0.999974	*Colus* sp.	
92	6	0.001	63.3	0.000004	0.999978	*Gnathophausia ingens*	
93	6	<0.001	100.0	0.000004	0.999981	*Loligo opalescens*	California market squid
94	6	<0.001	100.0	0.000003	0.999984	*Sternoptyx diaphana*	Longspine hatchetfish
95	6	<0.001	100.0	0.000002	0.999987	*Eualus* sp.	
96	6	<0.001	100.0	0.000002	0.999989	*Periphylla* sp.	
98	6	<0.001	100.0	0.000002	0.999993	Malacostraca (class)	Malacostracan unident.
97	6	<0.001	100.0	0.000002	0.999993	Pandalidae	Pandalid shrimp
99	6	<0.001	100.0	0.000001	0.999994	*Sternoptyx* sp.	
101	6	<0.001	100.0	0.000001	0.999996	*Aristostomias scintillans*	Shining loosejaw
100	6	<0.001	100.0	0.000001	0.999996	*Natica* sp.	
103	6	<0.001	100.0	0.000001	0.999999	*Careproctus* sp.	
102	6	<0.001	100.0	0.000001	0.999999	*Paraliparis* sp.	
105	6	<0.001	100.0	0.000001	1.000000	*Eualus macrophthalmus*	
104	6	<0.001	100.0	0.000001	1.000000	*Antiplanes* sp.	
	Total	138.133					
1	Total	22.542	14.6	0.186446	0.186446	*Sebastolobus altivelis*	Longspine thornyhead
2	Total	10.978	20.1	0.090796	0.277242	*Microstomus pacificus*	Dover sole
3	Total	8.989	31.0	0.074346	0.351588	*Anoplopoma fimbria*	Sablefish
4	Total	8.560	27.9	0.070800	0.422388	*Chionoecetes tanneri*	True Tanner crab
5	Total	7.156	36.2	0.059183	0.481571	*Glyptocephalus zachirus*	Rex sole
6	Total	5.197	28.3	0.042980	0.524551	*Coryphaenoides acrolepis*	Pacific grenadier
7	Total	5.139	99.5	0.042502	0.567054	*Ophiura sarsi*	
8	Total	4.920	25.8	0.040693	0.607746	*Albatrossia pectoralis*	Giant grenadier
9	Total	4.639	52.4	0.038369	0.646115	*Allocentrotus fragilis*	Orange-pink sea urchin
10	Total	4.556	31.2	0.037686	0.683801	*Merluccius productus*	Pacific hake
11	Total	3.876	80.5	0.032056	0.715857	*Myoxoderma platyacanthum*	
12	Total	2.698	20.5	0.022311	0.738168	*Sebastolobus alascanus*	Shortspine thornyhead
13	Total	2.380	50.3	0.019686	0.757855	*Sebastes saxicola*	Stripetail rockfish

Table B-4.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
14	Total	2.044	33.3	0.016909	0.774763	*Raja rhina*	Longnose skate
15	Total	1.585	46.2	0.013107	0.787870	*Lyopsetta exilis*	Slender sole
16	Total	1.573	44.1	0.013013	0.800883	*Brisaster latifrons*	
17	Total	1.564	25.4	0.012935	0.813819	*Paractinostola faeculenta*	Rough purple sea anemone
18	Total	1.420	59.2	0.011742	0.825560	*Scotoplanes theeli*	
19	Total	1.241	25.0	0.010266	0.835826	*Embassichthys bathybius*	Deepsea sole
20	Total	1.117	22.7	0.009237	0.845062	*Apristurus brunneus*	Brown cat shark
21	Total	1.044	21.4	0.008633	0.853695	*Antimora microlepis*	Pacific flatnose
22	Total	1.034	33.3	0.008554	0.862249	*Lycodes diapterus*	Black eelpout
23	Total	1.024	58.6	0.008470	0.870718	*Sebastes diploproa*	Splitnose rockfish
24	Total	0.857	28.2	0.007085	0.877803	*Alepocephalus tenebrosus*	California slickhead
25	Total	0.842	42.7	0.006964	0.884768	*Lycodes cortezianus*	Bigfin eelpout
26	Total	0.837	56.6	0.006924	0.891691	*Oncorhynchus tshawytscha*	Chinook salmon
27	Total	0.728	90.8	0.006023	0.897714	*Liponema brevicorne*	Tentacle-shedding anemone
28	Total	0.656	98.5	0.005428	0.903142	*Pagurus tanneri*	Longhand hermit
29	Total	0.645	40.2	0.005336	0.908478	*Bathyraja interrupta*	Bering skate
30	Total	0.641	20.5	0.005300	0.913778	*Neptunea amianta*	
31	Total	0.585	41.7	0.004839	0.918617	*Heterozonias alternatus*	
32	Total	0.581	35.3	0.004805	0.923421	*Bathyraja trachura*	Black skate
33	Total	0.575	79.5	0.004753	0.928174	*Pannychia moseleyi*	
34	Total	0.527	56.9	0.004356	0.932530	*Neptunea* sp.	
35	Total	0.497	57.8	0.004107	0.936637	*Sebastes aurora*	Aurora rockfish
36	Total	0.484	86.9	0.004003	0.940641	*Parastichopus leucothele*	
37	Total	0.479	27.7	0.003959	0.944600	*Thrissacanthias penicillatus*	
38	Total	0.460	72.0	0.003806	0.948406	*Metridium giganteum*	Gigantic anemone
39	Total	0.385	32.6	0.003186	0.951592	*Atheresthes stomias*	Arrowtooth flounder
40	Total	0.347	90.7	0.002870	0.954461	*Sebastes paucispinis*	Bocaccio
41	Total	0.342	43.1	0.002827	0.957288	*Luidia foliolata*	
42	Total	0.276	59.5	0.002280	0.959568	*Chrysaora melanaster*	
43	Total	0.275	55.3	0.002273	0.961841	*Squalus acanthias*	Spiny dogfish
44	Total	0.263	50.2	0.002174	0.964016	*Sebastes zacentrus*	Sharpchin rockfish
45	Total	0.240	27.0	0.001985	0.966001	*Bothrocara brunneum*	Twoline eelpout
46	Total	0.240	84.9	0.001982	0.967983	*Ophiodon elongatus*	Lingcod
47	Total	0.238	41.8	0.001965	0.969948	*Embryx crotalinus*	Snakehead eelpout
48	Total	0.237	63.8	0.001960	0.971908	*Parophrys vetulus*	English sole
49	Total	0.216	48.3	0.001790	0.973699	*Paralomis multispina*	
50	Total	0.189	37.3	0.001561	0.975260	*Hippasteria californica*	
51	Total	0.165	44.2	0.001362	0.976622	*Eopsetta jordani*	Petrale sole
52	Total	0.148	81.5	0.001223	0.977845	*Pagurus* sp.	
53	Total	0.141	72.9	0.001166	0.979011	*Sebastes elongatus*	Greenstriped rockfish
54	Total	0.141	56.5	0.001163	0.980174	*Sebastes crameri*	Darkblotched rockfish
55	Total	0.137	53.5	0.001135	0.981309	*Hydrolagus colliei*	Spotted ratfish
56	Total	0.127	25.8	0.001047	0.982356	Myxinidae	Hagfish
57	Total	0.123	55.9	0.001019	0.983375	*Psychrolutes phrictus*	Blob sculpin
58	Total	0.119	48.2	0.000985	0.984360	*Myoxoderma sacculatum*	
59	Total	0.094	80.4	0.000777	0.985137	*Bathybembix bairdii*	
60	Total	0.085	52.1	0.000706	0.985843	Actinostolidae	
61	Total	0.077	71.4	0.000641	0.986483	*Nearchaster aciculosus*	
62	Total	0.070	48.0	0.000582	0.987066	*Grimpoteuthis albatrossi*	
63	Total	0.068	59.1	0.000565	0.987631	*Aphrocallistes vastus*	Clay pipe sponge
64	Total	0.068	47.4	0.000565	0.988196	*Sebastes entomelas*	Widow rockfish
65	Total	0.066	100.0	0.000550	0.988746	*Moroteuthis robusta*	Robust clubhook squid
66	Total	0.065	58.9	0.000542	0.989287	*Nearchaster* sp.	
67	Total	0.059	83.9	0.000492	0.989779	*Sebastes babcocki*	Redbanded rockfish
68	Total	0.059	56.5	0.000488	0.990267	*Opisthoteuthis californiana*	Flapjack devilfish
69	Total	0.058	25.1	0.000478	0.990745	*Careproctus melanurus*	Blacktail snailfish
70	Total	0.054	71.5	0.000447	0.991192	*Octopus dofleini*	Giant octopus
71	Total	0.048	100.0	0.000401	0.991593	*Bathyraja aleutica*	Aleutian skate
72	Total	0.041	52.1	0.000342	0.991935	*Benthoctopus* sp.	

Table B-4.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
73	Total	0.041	34.8	0.000338	0.992274	*Crossaster borealis*	
74	Total	0.039	61.8	0.000321	0.992595	*Lophaster furcilliger*	
75	Total	0.039	74.8	0.000319	0.992914	*Sebastes proriger*	Redstripe rockfish
76	Total	0.038	49.9	0.000314	0.993228	*Thetys vagina*	Common salp
77	Total	0.036	53.5	0.000294	0.993522	Scyphozoa (class)	Jellyfish unident.
78	Total	0.035	42.9	0.000293	0.993815	Thaliacea (class)	Salps unident.
79	Total	0.034	43.7	0.000282	0.994097	*Talismania bifurcata*	Threadfin slickhead
80	Total	0.031	56.3	0.000259	0.994356	*Cancer magister*	Dungeness crab
81	Total	0.029	30.5	0.000241	0.994598	*Vampyroteuthis infernalis*	
82	Total	0.028	54.2	0.000233	0.994831	*Octopus leioderma*	Smoothskin octopus
83	Total	0.027	74.5	0.000221	0.995052	*Periphylla periphylla*	
84	Total	0.027	92.5	0.000220	0.995272	*Pycnopodia helianthoides*	
85	Total	0.024	34.5	0.000202	0.995473	*Bathylagus* sp.	Blacksmelt unident.
86	Total	0.024	100.0	0.000198	0.995671	Onychoteuthidae	
87	Total	0.023	78.1	0.000189	0.995860	*Neptunea pribiloffensis*	Pribilof whelk
88	Total	0.022	76.3	0.000183	0.996042	*Pleurobranchaea californica*	California sea slug
89	Total	0.022	70.5	0.000181	0.996223	*Stylatula* sp.	Slender seawhips
90	Total	0.021	30.3	0.000172	0.996395	Bathylagidae	Deepsea smelt
91	Total	0.020	69.2	0.000166	0.996561	*Buccinum viridum*	Turban whelk
92	Total	0.020	74.1	0.000164	0.996725	*Pagurus capillatus*	Hairy hermit crab
93	Total	0.018	48.3	0.000151	0.996877	Aphroditidae	Sea mouse unident.
94	Total	0.018	73.3	0.000149	0.997026	*Sebastes goodei*	Chilipepper
95	Total	0.016	69.9	0.000132	0.997158	*Apristurus kampae*	Longnose cat shark
96	Total	0.016	96.2	0.000131	0.997290	Hormathiidae	
97	Total	0.016	100.0	0.000128	0.997418	*Sebastes pinniger*	Canary rockfish
98	Total	0.015	31.2	0.000128	0.997546	*Pasiphaea tarda*	Crimson pasiphaeid
99	Total	0.013	45.9	0.000107	0.997652	*Zoraster evermanni*	
100	Total	0.011	67.5	0.000094	0.997747	*Histioteuthis* sp.	Jewel squids
101	Total	0.011	47.7	0.000094	0.997840	*Careproctus colletti*	Alaska snailfish
102	Total	0.011	21.9	0.000093	0.997934	*Chauliodus macouni*	Pacific viperfish
103	Total	0.011	77.4	0.000088	0.998022	*Sebastes jordani*	Shortbelly rockfish
104	Total	0.010	63.2	0.000085	0.998106	*Pteraster coscinopeplus*	Deepwater pteraster
105	Total	0.010	99.7	0.000085	0.998191	Polychaeta (class)	Polychaete worm unident.
106	Total	0.010	43.8	0.000083	0.998274	*Actinostola* sp.	
107	Total	0.009	74.2	0.000077	0.998351	*Radulinus asprellus*	Slim sculpin
108	Total	0.009	26.1	0.000074	0.998425	*Tactostoma macropus*	Longfin dragonfish
109	Total	0.008	55.9	0.000069	0.998494	*Rathbunaster californicus*	
110	Total	0.008	100.0	0.000067	0.998561	Platyhelminthes (phylum)	Flatworm
111	Total	0.008	97.4	0.000064	0.998625	*Actinauge verrillii*	Reticulate anemone
112	Total	0.007	56.2	0.000060	0.998685	*Pandalus platyceros*	Spot shrimp
113	Total	0.007	68.6	0.000057	0.998742	Actiniaria (order)	
114	Total	0.007	26.1	0.000056	0.998797	*Lampanyctus* sp.	
115	Total	0.006	91.8	0.000053	0.998851	*Pandalus jordani*	Ocean shrimp
116	Total	0.006	100.0	0.000053	0.998904	*Urtinca* sp.	Mottled anemone
117	Total	0.006	80.6	0.000052	0.998956	*Berryteuthis magister*	Magistrate armhook squid
118	Total	0.006	100.0	0.000046	0.999002	*Sebastes alutus*	Pacific ocean perch
119	Total	0.005	58.9	0.000045	0.999048	Rajiidae	Skate unident.
120	Total	0.005	96.1	0.000039	0.999087	*Pasiphaea pacifica*	Pacific glass shrimp
121	Total	0.005	68.3	0.000038	0.999124	*Buccinum strigillatum*	
122	Total	0.004	51.2	0.000033	0.999158	*Tritonia diomedea*	Rosy tritonia
123	Total	0.004	99.1	0.000033	0.999191	*Pandalus* sp.	
124	Total	0.004	50.2	0.000031	0.999221	*Tritonia* sp.	
125	Total	0.004	89.4	0.000030	0.999252	*Hippasteria spinosa*	
126	Total	0.003	69.4	0.000028	0.999279	*Pseudarchaster parelii*	
127	Total	0.003	100.0	0.000026	0.999305	*Benthodesmus* sp.	
128	Total	0.003	84.0	0.000025	0.999330	*Nezumia stelgidolepis*	California grenadier
129	Total	0.003	100.0	0.000025	0.999355	*Parastichopus californicus*	
130	Total	0.003	55.0	0.000022	0.999377	*Cololabis saira*	Pacific saury
131	Total	0.003	78.0	0.000021	0.999398	*Citharichthys sordidus*	Pacific sanddab

Table B-4.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
132	Total	0.002	75.6	0.000020	0.999418	*Octopoteuthis deletron*	
133	Total	0.002	52.4	0.000020	0.999438	Nemichthyidae	Snipe eel
134	Total	0.002	51.9	0.000020	0.999458	*Careproctus* sp.	
135	Total	0.002	100.0	0.000019	0.999477	*Sebastes melanostomus*	Blackgill rockfish
136	Total	0.002	65.8	0.000018	0.999496	*Pseudarchaster parelii*	
137	Total	0.002	100.0	0.000017	0.999512	*Stylasterias forreri*	
138	Total	0.002	100.0	0.000016	0.999529	*Dicrolene filamentosa*	Threadfin cusk-eel
139	Total	0.002	24.8	0.000016	0.999545	Myctophidae	Lanternfish
140	Total	0.002	100.0	0.000015	0.999560	*Brisingella* sp.	
141	Total	0.002	79.4	0.000014	0.999574	*Asteronyx* sp.	
142	Total	0.002	100.0	0.000014	0.999588	*Stomphia coccinea*	Swimming anemone
143	Total	0.002	48.0	0.000013	0.999602	*Sagamichthys abei*	Shining tubeshoulder
144	Total	0.002	65.8	0.000013	0.999615	*Brisingella exilis*	
145	Total	0.002	100.0	0.000013	0.999628	*Rossia pacifica*	E. Pacific bobtail squid
146	Total	0.002	100.0	0.000013	0.999641	*Sebastes wilsoni*	Pygmy rockfish
147	Total	0.002	81.8	0.000013	0.999653	Porifera (phylum)	Sponge unident.
148	Total	0.001	82.1	0.000012	0.999665	*Crangon communis*	Twospine crangon
149	Total	0.001	100.0	0.000011	0.999676	*Psolus* sp.	
150	Total	0.001	100.0	0.000011	0.999688	*Histioteuthis heteropsis*	
151	Total	0.001	83.6	0.000011	0.999699	*Chiroteuthis calyx*	
152	Total	0.001	74.8	0.000011	0.999710	*Anoplogaster cornuta*	Fangtooth
153	Total	0.001	66.6	0.000011	0.999721	*Colus aphelus*	Oblique whelk
154	Total	0.001	100.0	0.000011	0.999732	*Melanocetus johnsonii*	Common blackdevil
155	Total	0.001	97.1	0.000010	0.999742	Ophiuroidea (class)	Brittlestarfish unident.
156	Total	0.001	83.1	0.000010	0.999752	Actiniaria (order)	Sea anemone unident.
157	Total	0.001	100.0	0.000009	0.999761	*Thaleichthys pacificus*	Eulachon
158	Total	0.001	48.5	0.000009	0.999769	Pennatulacea (order)	Sea pen or sea whip
159	Total	0.001	100.0	0.000008	0.999778	Cephalopoda (class)	Squid unident.
160	Total	0.001	100.0	0.000008	0.999786	*Taningia danae*	Rhomboid squid
161	Total	0.001	100.0	0.000008	0.999794	*Munida quadrispina*	
162	Total	0.001	100.0	0.000008	0.999801	*Raja binoculata*	Big skate
163	Total	0.001	71.2	0.000007	0.999809	*Beroe* sp.	
164	Total	0.001	59.8	0.000007	0.999816	Gastropoda (class)	Gastropod unident.
165	Total	0.001	73.0	0.000007	0.999823	*Aristostomias scintillans*	Shining loosejaw
166	Total	0.001	79.6	0.000007	0.999831	*Galiteuthis phyllura*	
167	Total	0.001	94.5	0.000007	0.999838	*Pandalopsis ampla*	
168	Total	0.001	100.0	0.000007	0.999845	*Dolichopteryx* sp.	
169	Total	0.001	100.0	0.000007	0.999852	*Lampetra tridentata*	Pacific lamprey
170	Total	0.001	65.9	0.000006	0.999858	*Plicifusus sp.*	Gray whelk
171	Total	0.001	71.5	0.000006	0.999864	*Calinaticina oldroyi*	
172	Total	0.001	70.1	0.000006	0.999871	*Bathyagonus* sp.	Starsnout poacher
173	Total	0.001	100.0	0.000006	0.999877	Taoniinae	
174	Total	0.001	100.0	0.000006	0.999882	*Chiroteuthis* sp.	
175	Total	0.001	100.0	0.000005	0.999888	*Chilara taylori*	Spotted cusk-eel
176	Total	0.001	100.0	0.000005	0.999893	*Benthalbella dentata*	Northern pearleye
177	Total	0.001	100.0	0.000005	0.999898	*Hexagrammos decagrammus*	Kelp greenling
178	Total	0.001	100.0	0.000005	0.999903	*Octopus californicus*	N. Pacific bigeye octopus
179	Total	0.001	100.0	0.000005	0.999909	*Fusitriton oregonensis*	Oregon triton
180	Total	0.001	100.0	0.000005	0.999914	*Microgadus proximus*	Pacific tomcod
181	Total	0.001	80.0	0.000005	0.999918	*Colus tahwitanus*	
182	Total	0.001	100.0	0.000004	0.999922	*Pseudarchaster pussillus*	
183	Total	0.001	100.0	0.000004	0.999927	*Neomenia* sp.	
184	Total	<0.001	96.3	0.000004	0.999931	*Acharax johnsoni*	
185	Total	<0.001	72.2	0.000004	0.999935	*Chorilia longipes*	Longhorned decorator crab
186	Total	<0.001	100.0	0.000003	0.999938	*Oneirodes* sp.	
187	Total	<0.001	95.4	0.000003	0.999941	Melamphaidae	Bigscale
188	Total	<0.001	61.1	0.000003	0.999944	*Asteronyx loveni*	
189	Total	<0.001	100.0	0.000003	0.999946	*Pseudoscopelus* sp.	
190	Total	<0.001	59.5	0.000003	0.999949	*Stenobrachius* sp.	

Table B-4.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
191	Total	<0.001	100.0	0.000003	0.999952	*Ronquilus jordani*	Northern ronquil
192	Total	<0.001	100.0	0.000003	0.999954	*Poromitra crassiceps*	Crested bigscale
193	Total	<0.001	100.0	0.000003	0.999957	*Buccinum* sp.	
194	Total	<0.001	73.2	0.000002	0.999959	*Loligo opalescens*	California market squid
195	Total	<0.001	88.4	0.000002	0.999962	*Molpadia intermedia*	
196	Total	<0.001	100.0	0.000002	0.999964	*Pandalopsis dispar*	Sidestripe shrimp
197	Total	<0.001	100.0	0.000002	0.999966	*Macropinna microstoma*	Barreleye
198	Total	<0.001	58.7	0.000002	0.999968	*Periphylla* sp.	
199	Total	<0.001	70.4	0.000002	0.999970	*Gonatus onyx*	Clawed armhook squid
200	Total	<0.001	100.0	0.000002	0.999971	*Apristurus brunneus*	Cat shark egg case
201	Total	<0.001	52.7	0.000002	0.999973	*Umbellula* sp.	
202	Total	<0.001	69.7	0.000002	0.999975	*Urtinca* sp.	
203	Total	<0.001	50.9	0.000001	0.999976	*Gnathophausia ingens*	
204	Total	<0.001	91.1	0.000001	0.999978	*Eualus macrophthalmus*	
205	Total	<0.001	100.0	0.000001	0.999979	*Euplexaura marki*	
206	Total	<0.001	100.0	0.000001	0.999980	*Stereomastus sculpta*	
207	Total	<0.001	82.2	0.000001	0.999982	*Ctenodiscus crispatus*	Common mud star
208	Total	<0.001	100.0	0.000001	0.999983	*Bathyagonus pentacanthus*	Bigeye poacher
209	Total	<0.001	100.0	0.000001	0.999984	*Taonius pavo*	
210	Total	<0.001	89.3	0.000001	0.999985	*Acanthephyra curtirostris*	Peaked shrimp
211	Total	<0.001	88.7	0.000001	0.999987	*Colus* sp.	
212	Total	<0.001	67.6	0.000001	0.999988	*Tarletonbeania* sp.	
213	Total	<0.001	100.0	0.000001	0.999989	*Notostomus japonicus*	Spinyridge shrimp
214	Total	<0.001	100.0	0.000001	0.999990	*Neptunea tabulata*	Tabled whelk
215	Total	<0.001	100.0	0.000001	0.999991	*Buccinum* sp.	
216	Total	<0.001	100.0	0.000001	0.999992	*Xeneretmus latifrons*	Blacktip poacher
217	Total	<0.001	100.0	0.000001	0.999993	*Cymatogaster aggregata*	Shiner perch
218	Total	<0.001	70.2	0.000001	0.999994	*Eualus* sp.	
219	Total	<0.001	100.0	0.000001	0.999994	*Sternoptyx diaphana*	Longspine hatchetfish
220	Total	<0.001	100.0	0.000001	0.999995	*Argentina sialis*	Pacific argentine
221	Total	<0.001	100.0	0.000001	0.999996	*Pyrosoma atlanticum*	
222	Total	<0.001	100.0	0.000001	0.999996	*Acanthephyra* sp.	
223	Total	<0.001	69.5	0.000001	0.999997	*Sternoptyx* sp.	
224	Total	<0.001	100.0	0.000000	0.999997	Nudibranchia (order)	Gastropod unident.
226	Total	<0.001	100.0	0.000000	0.999998	Malacostraca (class)	Malacostracan unident.
225	Total	<0.001	100.0	0.000000	0.999998	Pandalidae	Pandalid shrimp
227	Total	<0.001	100.0	0.000000	0.999998	Cyclopteridae	Snailfish unident.
228	Total	<0.001	100.0	0.000000	0.999999	*Tarletonbeania crenularis*	Blue lanternfish
229	Total	<0.001	100.0	0.000000	0.999999	*Lycenchelys camchatica*	Kamchatka eelpout
230	Total	<0.001	100.0	0.000000	0.999999	*Natica* sp.	
231	Total	<0.001	100.0	0.000000	0.999999	*Paraliparis* sp.	
232	Total	<0.001	100.0	0.000000	1.000000	*Delectopecten vancouverensis*	Vancouver scallop
233	Total	<0.001	100.0	0.000000	1.000000	*Polinices pallidus*	Pale moonsnail
234	Total	<0.001	100.0	0.000000	1.000000	*Antiplanes* sp.	
235	Total	<0.001	100.0	0.000000	1.000000	Bivalvia (class)	Bivalve unident.
	Total	120.915					

Table B-5.--Rank order of relative abundance (kg/ha) of fishes and invertebrates by depth stratum for the International North Pacific Fisheries Commission Columbia area from the 1997 West Coast upper continental slope bottom trawl survey. Stratum 1 =183-366 m, Stratum 2 = 367-549 m, Stratum 3 = 550-732 m, Stratum 4 = 733-914 m, Stratum 5 = 915-1,097 m, and Stratum 6 = 1,098-1,280 m.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
1	1	138.379	57.6	0.435430	0.435430	*Squalus acanthias*	Spiny dogfish
2	1	27.007	27.7	0.084982	0.520411	*Merluccius productus*	Pacific hake
3	1	15.803	28.7	0.049727	0.570139	*Microstomus pacificus*	Dover sole
4	1	14.765	71.1	0.046460	0.616598	*Sebastes alutus*	Pacific ocean perch
5	1	12.897	47.9	0.040582	0.657180	*Glyptocephalus zachirus*	Rex sole
6	1	12.336	99.6	0.038818	0.695998	*Myoxoderma platyacanthum*	
7	1	10.401	100.0	0.032728	0.728726	*Sebastes flavidus*	Yellowtail rockfish
8	1	8.466	98.3	0.026641	0.755367	*Brisaster latifrons*	
9	1	8.359	82.8	0.026302	0.781669	*Sebastes diploproa*	Splitnose rockfish
10	1	8.004	47.2	0.025186	0.806856	*Allocentrotus fragilis*	Orange-pink sea urchin
11	1	6.334	23.7	0.019932	0.826788	*Raja rhina*	Longnose skate
12	1	6.306	81.1	0.019844	0.846632	*Sebastes zacentrus*	Sharpchin rockfish
13	1	5.792	14.6	0.018225	0.864856	*Anoplopoma fimbria*	Sablefish
14	1	5.006	24.5	0.015753	0.880609	*Lyopsetta exilis*	Slender sole
15	1	4.824	29.3	0.015178	0.895788	*Sebastolobus alascanus*	Shortspine thornyhead
16	1	4.523	91.3	0.014231	0.910019	*Sebastes crameri*	Darkblotched rockfish
17	1	2.923	29.0	0.009196	0.919215	*Hydrolagus colliei*	Spotted ratfish
18	1	2.677	76.7	0.008423	0.927638	*Parastichopus leucothele*	
19	1	2.580	37.7	0.008118	0.935755	*Bathyraja interrupta*	Bering skate
20	1	2.166	38.6	0.006817	0.942572	*Parophrys vetulus*	English sole
21	1	2.053	31.8	0.006461	0.949033	*Atheresthes stomias*	Arrowtooth flounder
22	1	1.736	22.8	0.005463	0.954496	*Lycodes cortezianus*	Bigfin eelpout
23	1	1.354	48.2	0.004260	0.958756	*Luidia foliolata*	
24	1	1.016	97.1	0.003198	0.961954	*Sebastes reedi*	Yellowmouth rockfish
25	1	0.910	93.7	0.002864	0.964818	*Oncorhynchus tshawytscha*	Chinook salmon
26	1	0.906	48.1	0.002851	0.967669	*Apristurus brunneus*	Brown cat shark
27	1	0.888	77.3	0.002795	0.970464	*Sebastes elongatus*	Greenstriped rockfish
28	1	0.854	100.0	0.002688	0.973152	*Alosa sapidissima*	American shad
29	1	0.769	73.9	0.002420	0.975571	*Hippoglossus stenolepis*	Pacific halibut
30	1	0.655	48.4	0.002061	0.977632	*Sebastes entomelas*	Widow rockfish
31	1	0.631	81.2	0.001985	0.979617	*Rathbunaster californicus*	
32	1	0.550	62.3	0.001730	0.981347	*Ophiodon elongatus*	Lingcod
33	1	0.453	28.9	0.001426	0.982774	*Eopsetta jordani*	Petrale sole
34	1	0.384	60.5	0.001207	0.983981	*Lopholithodes foraminatus*	Box crab
35	1	0.368	100.0	0.001159	0.985140	*Trachurus symmetricus*	Jack mackerel
36	1	0.339	100.0	0.001067	0.986206	*Sebastes borealis*	Shortraker rockfish
37	1	0.338	84.8	0.001065	0.987271	*Sebastes pinniger*	Canary rockfish
38	1	0.322	56.6	0.001014	0.988285	*Pseudostichopus mollis*	Sandy sea cucumber
39	1	0.321	86.5	0.001009	0.989293	*Sebastes saxicola*	Stripetail rockfish
40	1	0.301	49.5	0.000948	0.990241	*Cancer magister*	Dungeness crab
41	1	0.259	50.6	0.000815	0.991056	*Sebastes aleutianus*	Rougheye rockfish
42	1	0.233	61.6	0.000732	0.991788	*Sebastes helvomaculatus*	Rosethorn rockfish
43	1	0.197	92.2	0.000619	0.992407	Scyphozoa (class)	Jellyfish unident.
44	1	0.176	87.5	0.000553	0.992960	*Neptunea amianta*	
45	1	0.160	46.5	0.000504	0.993464	*Liponema brevicorne*	Tentacle-shedding anemone
46	1	0.155	68.9	0.000487	0.993952	*Sebastes proriger*	Redstripe rockfish
47	1	0.145	67.2	0.000457	0.994409	*Aphrocallistes vastus*	Clay pipe sponge
48	1	0.134	77.3	0.000420	0.994829	*Pagurus* sp.	
49	1	0.112	83.4	0.000352	0.995181	*Ophiura sarsi*	
50	1	0.106	35.2	0.000332	0.995513	*Sebastes babcocki*	Redbanded rockfish
51	1	0.104	72.3	0.000328	0.995841	*Pandalus platyceros*	Spot shrimp
52	1	0.082	100.0	0.000259	0.996100	*Lycodes diapterus*	Black eelpout
53	1	0.077	98.7	0.000243	0.996343	*Buccinum strigillatum*	
54	1	0.074	68.5	0.000232	0.996575	*Sebastes brevispinis*	Silvergray rockfish
55	1	0.063	43.0	0.000197	0.996772	*Paractinostola faeculenta*	Rough purple sea anemone

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
56	1	0.063	93.3	0.000197	0.996969	*Metridium giganteum*	Gigantic anemone
57	1	0.056	85.1	0.000177	0.997146	Hormathiidae	
58	1	0.055	93.0	0.000173	0.997319	*Neptunea* sp.	
59	1	0.053	43.5	0.000167	0.997487	*Careproctus melanurus*	Blacktail snailfish
60	1	0.052	100.0	0.000165	0.997651	Porifera (phylum)	Vase sponge unident.
61	1	0.049	100.0	0.000153	0.997805	*Gadus macrocephalus*	Pacific cod
62	1	0.048	100.0	0.000150	0.997954	*Sebastolobus altivelis*	Longspine thornyhead
63	1	0.042	99.5	0.000132	0.998086	*Molpadia intermedia*	
64	1	0.039	77.8	0.000121	0.998208	*Stylasterias forreri*	
65	1	0.035	98.5	0.000110	0.998318	*Thrissacanthias penicillatus*	
66	1	0.035	81.1	0.000109	0.998426	*Icelinus filamentosus*	Threadfin sculpin
67	1	0.033	74.4	0.000104	0.998530	*Pandalus jordani*	Ocean shrimp
68	1	0.028	89.6	0.000088	0.998618	*Crossaster borealis*	
69	1	0.024	63.9	0.000074	0.998692	*Heterozonias alternatus*	
70	1	0.023	100.0	0.000072	0.998765	*Pseudostichopus* sp.	
71	1	0.021	100.0	0.000067	0.998831	*Citharichthys sordidus*	Pacific sanddab
72	1	0.018	57.3	0.000058	0.998889	*Sebastes jordani*	Shortbelly rockfish
73	1	0.018	81.5	0.000057	0.998946	*Pseudarchaster parelii*	
74	1	0.018	95.3	0.000057	0.999003	*Actinostola* sp.	
75	1	0.017	99.3	0.000055	0.999058	*Actinauge verrillii*	Reticulate anemone
76	1	0.017	100.0	0.000052	0.999110	*Anteliaster* sp.	
77	1	0.017	66.0	0.000052	0.999162	*Sebastes aurora*	Aurora rockfish
78	1	0.016	83.8	0.000051	0.999213	Actinostolidae	
79	1	0.014	100.0	0.000045	0.999258	Actiniaria (order)	Sea anemone unident.
80	1	0.014	73.5	0.000043	0.999301	Myxinidae	Hagfish
81	1	0.013	100.0	0.000041	0.999342	*Stylatula* sp.	Slender seawhips
82	1	0.012	100.0	0.000039	0.999381	*Hippoglossoides elassodon*	Flathead sole
83	1	0.011	86.9	0.000035	0.999417	*Stomphia coccinea*	Swimming anemone
84	1	0.010	78.4	0.000030	0.999447	*Fusitriton oregonensis*	Oregon triton
85	1	0.009	100.0	0.000030	0.999476	*Diplopteraster multipes*	
86	1	0.009	44.3	0.000029	0.999505	Aphroditidae	Sea mouse unident.
87	1	0.009	65.4	0.000028	0.999533	*Xeneretmus latifrons*	Blacktip poacher
88	1	0.009	74.9	0.000027	0.999560	*Vampyroteuthis infernalis*	
89	1	0.009	45.9	0.000027	0.999587	*Bathyagonus pentacanthus*	Bigeye poacher
90	1	0.008	53.2	0.000026	0.999613	*Octopus leioderma*	Smoothskin octopus
91	1	0.008	85.7	0.000026	0.999639	*Chionoecetes tanneri*	True Tanner crab
92	1	0.008	85.1	0.000024	0.999663	*Pteraster tesselatus*	
93	1	0.007	76.0	0.000021	0.999684	*Pagurus tanneri*	Longhand hermit
94	1	0.007	70.7	0.000021	0.999705	*Tritonia diomedea*	Rosy tritonia
95	1	0.006	100.0	0.000020	0.999725	*Thaleichthys pacificus*	Eulachon
96	1	0.006	100.0	0.000018	0.999743	*Solaster paxillatus*	
97	1	0.005	78.1	0.000017	0.999760	Thaliacea (class)	Salps unident.
98	1	0.005	80.8	0.000016	0.999776	*Pseudarchaster parelii*	
99	1	0.005	82.0	0.000016	0.999791	*Buccinum viridum*	Turban whelk
100	1	0.005	85.2	0.000015	0.999806	*Pleurobranchaea californica*	California sea slug
101	1	0.004	100.0	0.000014	0.999820	*Neptunea pribiloffensis*	Pribilof whelk
102	1	0.004	100.0	0.000013	0.999833	*Histioteuthis hoylei*	
103	1	0.004	100.0	0.000013	0.999846	*Hippasteria californica*	
104	1	0.004	99.0	0.000013	0.999859	Gastropoda (class)	Snail eggs unident.
105	1	0.003	100.0	0.000010	0.999869	*Zoraster evermanni*	
106	1	0.003	100.0	0.000010	0.999879	*Benthoctopus* sp.	
107	1	0.003	66.4	0.000010	0.999889	*Careproctus* sp.	
108	1	0.003	100.0	0.000008	0.999897	*Sebastes wilsoni*	Pygmy rockfish
109	1	0.002	100.0	0.000007	0.999905	*Neomenia* sp.	
110	1	0.002	68.0	0.000007	0.999911	*Lycodes pacificus*	Blackbelly eelpout
111	1	0.002	100.0	0.000006	0.999917	*Beroe* sp.	
112	1	0.002	100.0	0.000006	0.999923	*Hippasteria spinosa*	
113	1	0.002	100.0	0.000006	0.999929	*Corallimorphus* sp.	
114	1	0.002	100.0	0.000006	0.999934	*Rossia pacifica*	E. Pacific bobtail squid

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
115	1	0.001	100.0	0.000004	0.999939	*Buccinum* sp.	
116	1	0.001	87.1	0.000004	0.999943	*Pasiphaea pacifica*	Pacific glass shrimp
117	1	0.001	86.0	0.000004	0.999946	*Crangon communis*	Twospine crangon
118	1	0.001	54.7	0.000004	0.999950	*Bathyagonus* sp.	Starsnout poacher
119	1	0.001	100.0	0.000004	0.999954	*Xeneretmus leiops*	Smootheye poacher
120	1	0.001	100.0	0.000003	0.999957	*Icelinus oculatus*	Frogmouth sculpin
121	1	0.001	100.0	0.000003	0.999960	*Pteraster coscinopeplus*	Deepwater pteraster
122	1	0.001	70.3	0.000002	0.999963	*Luidiaster dawsoni*	
123	1	0.001	100.0	0.000002	0.999965	*Laqueus californianus*	
124	1	0.001	58.2	0.000002	0.999967	Myctophidae	Lanternfish
125	1	0.001	100.0	0.000002	0.999970	*Pseudarchaster pussillus*	
126	1	0.001	64.4	0.000002	0.999972	*Nudibranchia (order)*	Gastropod unident.
127	1	0.001	100.0	0.000002	0.999974	*Malacocottus zonurus*	Darkfin sculpin
128	1	0.001	100.0	0.000002	0.999976	*Ophidion scrippsae*	Basketweave cusk-eel
129	1	0.001	100.0	0.000002	0.999978	*Mediaster aequalis*	
130	1	0.001	100.0	0.000002	0.999982	Cow-eye tunicate (new species a)	Cow-eye tunicate (new speci
131	1	0.001	100.0	0.000002	0.999982	*Careproctus gilberti*	Smalldisk snailfish
132	1	0.001	100.0	0.000002	0.999983	Ascidiacea (class)	Tunicate unident.
133	1	0.001	92.2	0.000002	0.999985	*Ctenodiscus crispatus*	Common mud star
134	1	<0.001	100.0	0.000001	0.999986	*Actinernus* sp.	
135	1	<0.001	100.0	0.000001	0.999988	*Crossaster papposus*	Rose sea star
136	1	<0.001	100.0	0.000001	0.999989	Sipuncula (phylum)	Sipunculid worm
137	1	<0.001	100.0	0.000001	0.999990	*Pandalus tridens*	Yellowleg pandalid
138	1	<0.001	100.0	0.000001	0.999992	*Chiroteuthis calyx*	
139	1	<0.001	100.0	0.000001	0.999993	*Pandalopsis dispar*	Sidestripe shrimp
140	1	<0.001	100.0	0.000001	0.999993	*Ophiopholis* sp.	
141	1	<0.001	100.0	0.000001	0.999994	*Tritonia* sp.	
142	1	<0.001	100.0	0.000001	0.999995	*Calinaticina oldroyi*	
143	1	<0.001	73.9	0.000001	0.999996	Polychaeta (class)	Polychaete worm unident.
144	1	<0.001	100.0	0.000001	0.999997	*Yoldia* sp.	
145	1	<0.001	100.0	0.000001	0.999997	*Nemichthys scolopaceus*	Slender snipe eel
146	1	<0.001	100.0	0.000001	0.999998	*Munida quadrispina*	
147	1	<0.001	100.0	0.000000	0.999998	Gastropoda (class)	Gastropod unident.
148	1	<0.001	100.0	0.000000	0.999999	*Apristurus brunneus*	Cat shark egg case
149	1	<0.001	100.0	0.000000	0.999999	Gastropoda (class)	Snail unident.
150	1	<0.001	100.0	0.000000	0.999999	*Eualus* sp.	
151	1	<0.001	100.0	0.000000	0.999999	Scaphopoda	Scaphopod unident.
152	1	<0.001	100.0	0.000000	1.000000	Elasmobranchi (subclass)	Shark egg case unident.
153	1	<0.001	100.0	0.000000	1.000000	*Sebastes* sp.	Rockfish unident.
154	1	<0.001	100.0	0.000000	1.000000	*Poraniopsis inflata*	
155	1	<0.001	100.0	0.000000	1.000000	*Polinices* sp.	
156	1	<0.001	100.0	0.000000	1.000000	*Chorilia longipes*	Longhorned decorator crab
	Total	317.799					
1	2	50.020	29.4	0.282683	0.282683	*Microstomus pacificus*	Dover sole
2	2	34.587	34.8	0.195463	0.478146	*Merluccius productus*	Pacific hake
3	2	21.920	31.1	0.123877	0.602024	*Squalus acanthias*	Spiny dogfish
4	2	14.107	44.0	0.079722	0.681746	*Glyptocephalus zachirus*	Rex sole
5	2	8.527	17.4	0.048188	0.729934	*Sebastolobus alascanus*	Shortspine thornyhead
6	2	6.688	23.6	0.037799	0.767733	*Anoplopoma fimbria*	Sablefish
7	2	5.889	92.4	0.033279	0.801012	*Myoxoderma platyacanthum*	
8	2	5.139	15.5	0.029042	0.830054	*Atheresthes stomias*	Arrowtooth flounder
9	2	3.551	41.3	0.020067	0.850121	*Raja rhina*	Longnose skate
10	2	3.325	41.4	0.018794	0.868915	*Lycodes cortezianus*	Bigfin eelpout
11	2	2.903	82.9	0.016404	0.885319	*Aphrocallistes vastus*	Clay pipe sponge
12	2	2.410	48.7	0.013621	0.898939	*Allocentrotus fragilis*	Orange-pink sea urchin
13	2	1.773	71.8	0.010019	0.908959	*Pseudostichopus mollis*	Sandy sea cucumber
14	2	1.614	100.0	0.009122	0.918080	*Hippoglossus stenolepis*	Pacific halibut
15	2	1.376	41.0	0.007774	0.925854	*Bathyraja interrupta*	Bering skate

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
16	2	1.346	45.0	0.007606	0.933460	*Lyopsetta exilis*	Slender sole
17	2	0.979	40.2	0.005535	0.938995	*Neptunea amianta*	
18	2	0.977	30.1	0.005519	0.944514	*Paractinostola faeculenta*	Rough purple sea anemone
19	2	0.939	86.3	0.005309	0.949823	*Brisaster latifrons*	
20	2	0.721	28.4	0.004076	0.953900	*Apristurus brunneus*	Brown cat shark
21	2	0.719	100.0	0.004066	0.957965	*Neptunea* sp.	
22	2	0.590	47.2	0.003336	0.961301	*Sebastes aurora*	Aurora rockfish
23	2	0.590	74.5	0.003335	0.964637	*Lycodes diapterus*	Black eelpout
24	2	0.579	79.4	0.003274	0.967911	*Parastichopus leucothele*	
25	2	0.499	53.1	0.002819	0.970730	*Sebastes alutus*	Pacific ocean perch
26	2	0.367	85.0	0.002076	0.972806	*Trachurus symmetricus*	Jack mackerel
27	2	0.332	51.7	0.001875	0.974681	*Hydrolagus colliei*	Spotted ratfish
28	2	0.311	27.9	0.001757	0.976438	*Liponema brevicorne*	Tentacle-shedding anemone
29	2	0.295	68.5	0.001669	0.978107	*Chionoecetes tanneri*	True Tanner crab
30	2	0.257	90.3	0.001452	0.979559	*Actinauge verrillii*	Reticulate anemone
31	2	0.249	72.7	0.001409	0.980968	*Luidia foliolata*	
32	2	0.241	37.2	0.001364	0.982332	*Sebastes crameri*	Darkblotched rockfish
33	2	0.230	37.3	0.001301	0.983633	*Ophiura sarsi*	
34	2	0.230	56.3	0.001299	0.984932	*Thrissacanthias penicillatus*	
35	2	0.195	67.8	0.001100	0.986032	*Neptunea pribiloffensis*	Pribilof whelk
36	2	0.173	77.2	0.000978	0.987010	*Sebastolobus altivelis*	Longspine thornyhead
37	2	0.139	57.3	0.000785	0.987795	*Heterozonias alternatus*	
38	2	0.137	68.8	0.000776	0.988572	*Bothrocara brunneum*	Twoline eelpout
39	2	0.129	58.1	0.000731	0.989302	*Sebastes diploproa*	Splitnose rockfish
40	2	0.128	65.7	0.000723	0.990025	*Octopus dofleini*	Giant octopus
41	2	0.118	84.5	0.000666	0.990690	*Antimora microlepis*	Pacific flatnose
42	2	0.115	100.0	0.000652	0.991342	*Opisthoteuthis californiana*	Flapjack devilfish
43	2	0.112	100.0	0.000632	0.991974	*Sebastes borealis*	Shortraker rockfish
44	2	0.110	47.8	0.000620	0.992593	*Sebastes babcocki*	Redbanded rockfish
45	2	0.106	35.1	0.000598	0.993192	*Careproctus melanurus*	Blacktail snailfish
46	2	0.096	100.0	0.000544	0.993736	*Albatrossia pectoralis*	Giant grenadier
47	2	0.094	70.8	0.000531	0.994267	*Eopsetta jordani*	Petrale sole
48	2	0.084	65.2	0.000475	0.994742	Myxinidae	Hagfish
49	2	0.071	100.0	0.000402	0.995144	*Neptunea lyrata*	Lyre whelk
50	2	0.061	64.3	0.000342	0.995486	*Stylatula* sp.	Slender seawhips
51	2	0.059	76.2	0.000333	0.995819	*Rathbunaster californicus*	
52	2	0.053	100.0	0.000302	0.996121	*Berryteuthis magister*	Magistrate armhook squid
53	2	0.051	100.0	0.000289	0.996410	*Embassichthys bathybius*	Deepsea sole
54	2	0.043	76.7	0.000240	0.996651	*Ctenodiscus crispatus*	Common mud star
55	2	0.041	63.1	0.000231	0.996881	*Sebastes aleutianus*	Rougheye rockfish
56	2	0.040	76.0	0.000224	0.997105	*Octopus leioderma*	Smoothskin octopus
57	2	0.035	49.5	0.000196	0.997301	Porifera (phylum)	Sponge unident.
58	2	0.028	100.0	0.000156	0.997457	*Sebastes flavidus*	Yellowtail rockfish
59	2	0.027	63.1	0.000151	0.997609	*Pteraster coscinopeplus*	Deepwater pteraster
60	2	0.026	100.0	0.000144	0.997753	*Sebastes helvomaculatus*	Rosethorn rockfish
61	2	0.025	59.6	0.000140	0.997893	*Pagurus* sp.	
62	2	0.024	59.6	0.000136	0.998029	Hormathiidae	
63	2	0.024	57.5	0.000135	0.998165	*Eptatretus deani*	Black hagfish
64	2	0.020	100.0	0.000114	0.998278	*Benthoctopus* sp.	
65	2	0.019	94.0	0.000106	0.998384	*Crossaster borealis*	
66	2	0.018	100.0	0.000103	0.998487	*Diplopteraster multipes*	
67	2	0.018	62.4	0.000102	0.998589	*Hippasteria californica*	
68	2	0.017	71.0	0.000096	0.998685	*Luidiaster dawsoni*	
69	2	0.013	100.0	0.000075	0.998760	*Sebastes zacentrus*	Sharpchin rockfish
70	2	0.013	60.9	0.000071	0.998832	Aphroditidae	Sea mouse unident.
71	2	0.011	100.0	0.000063	0.998894	Scyphozoa (class)	Jellyfish unident.
72	2	0.010	71.3	0.000059	0.998954	*Fusitriton oregonensis*	Oregon triton
73	2	0.010	100.0	0.000058	0.999011	*Solaster paxillatus*	
74	2	0.009	100.0	0.000053	0.999064	*Parophrys vetulus*	English sole

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
75	2	0.009	89.0	0.000050	0.999114	*Ophiopholis* sp.	
76	2	0.008	38.2	0.000047	0.999161	*Pseudarchaster parelii*	
77	2	0.008	98.1	0.000045	0.999205	*Anteliaster* sp.	
78	2	0.008	77.4	0.000044	0.999250	*Pseudarchaster parelii*	
79	2	0.008	87.6	0.000043	0.999293	*Hippasteria spinosa*	
80	2	0.007	75.4	0.000042	0.999335	*Histioteuthis* sp.	Jewel squids
81	2	0.007	100.0	0.000037	0.999372	*Thetys vagina*	Common salp
82	2	0.006	53.1	0.000036	0.999407	*Pagurus tanneri*	Longhand hermit
83	2	0.006	100.0	0.000035	0.999442	*Metridium giganteum*	Gigantic anemone
84	2	0.006	67.6	0.000034	0.999476	Pennatulacea (order)	Sea pen or sea whip
85	2	0.005	100.0	0.000031	0.999507	*Sebastes jordani*	Shortbelly rockfish
86	2	0.005	100.0	0.000028	0.999535	*Bathyagonus pentacanthus*	Bigeye poacher
87	2	0.005	68.5	0.000028	0.999563	Thaliacea (class)	Salps unident.
88	2	0.005	100.0	0.000027	0.999590	*Mediaster aequalis*	
89	2	0.005	79.5	0.000026	0.999616	*Icelinus filamentosus*	Threadfin sculpin
90	2	0.004	100.0	0.000025	0.999641	*Myoxoderma sacculatum*	
91	2	0.004	100.0	0.000025	0.999666	*Stylasterias forreri*	
92	2	0.004	100.0	0.000022	0.999688	*Raja binoculata*	
93	2	0.004	58.7	0.000022	0.999710	*Gastropoda (class)*	Snail eggs unident.
94	2	0.003	100.0	0.000019	0.999729	*Taningia danae*	Rhomboid squid
95	2	0.003	91.0	0.000016	0.999745	*Eualus macrophthalmus*	
96	2	0.003	67.5	0.000015	0.999760	*Neomenia* sp.	
97	2	0.003	53.1	0.000015	0.999775	*Ampheraster marianus*	
98	2	0.003	100.0	0.000015	0.999790	*Henricia* sp.	
99	2	0.002	100.0	0.000013	0.999803	*Chiroteuthis* sp.	
100	2	0.002	70.5	0.000013	0.999815	*Tactostoma macropus*	Longfin dragonfish
101	2	0.002	100.0	0.000012	0.999828	*Beroe* sp.	
102	2	0.002	100.0	0.000012	0.999839	*Pagurus kennerlyi*	Bluespine hermit
103	2	0.002	52.5	0.000011	0.999850	*Pasiphaea pacifica*	Pacific glass shrimp
104	2	0.002	70.0	0.000010	0.999860	*Chauliodus macouni*	Pacific viperfish
105	2	0.002	91.0	0.000009	0.999869	*Actinostola* sp.	
106	2	0.001	46.7	0.000008	0.999877	Actinostolidae	
107	2	0.001	100.0	0.000008	0.999885	*Bathyraja trachura*	Black skate
108	2	0.001	100.0	0.000008	0.999893	*Pannychia moseleyi*	
109	2	0.001	74.9	0.000008	0.999901	Actiniaria (order)	Purple striated sea anemone
110	2	0.001	100.0	0.000007	0.999908	Holothuroidea (class)	Sea cucumber unident.
111	2	0.001	100.0	0.000007	0.999915	*Stomphia coccinea*	Swimming anemone
112	2	0.001	71.9	0.000007	0.999922	*Bathybembix bairdii*	
113	2	0.001	88.7	0.000007	0.999929	Actiniaria (order)	Sea anemone unident.
114	2	0.001	67.7	0.000007	0.999936	*Psolus* sp.	
115	2	0.001	100.0	0.000007	0.999942	*Chorilia longipes*	Longhorned decorator crab
116	2	0.001	100.0	0.000006	0.999948	Bathylagidae	Deepsea smelt
117	2	0.001	100.0	0.000005	0.999964	*Careproctus* sp.	
118	2	0.001	100.0	0.000005	0.999964	*Lampetra tridentata*	Pacific lamprey
119	2	0.001	100.0	0.000005	0.999964	fish larvae	Fish larvae unident.
120	2	0.001	67.4	0.000003	0.999967	Myctophidae	Lanternfish
121	2	0.001	100.0	0.000003	0.999970	*Swiftia* sp.	
122	2	<0.001	100.0	0.000003	0.999972	*Pagurus aleuticus*	Aleutian hermit
123	2	<0.001	100.0	0.000003	0.999975	*Nemichthys scolopaceus*	Slender snipe eel
124	2	<0.001	100.0	0.000002	0.999977	*Tritonia* sp.	
125	2	<0.001	100.0	0.000002	0.999980	*Asteronyx loveni*	
126	2	<0.001	100.0	0.000002	0.999982	*Corallimorphus* sp.	
127	2	<0.001	88.1	0.000002	0.999984	Brachiopoda (class)	Lampshells unident.
128	2	<0.001	100.0	0.000002	0.999986	Nudibranchia (order)	Gastropod unident.
129	2	<0.001	100.0	0.000002	0.999988	*Virgularia* sp.	Smoothstem seawhip
130	2	<0.001	76.1	0.000002	0.999990	*Apristurus brunneus*	Cat shark egg case
131	2	<0.001	100.0	0.000002	0.999992	*Laqueus californianus*	
132	2	<0.001	100.0	0.000001	0.999993	*Calcigorgia* sp.	
133	2	<0.001	100.0	0.000001	0.999994	*Buccinum strigillatum*	

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
134	2	<0.001	100.0	0.000001	0.999996	Ophiuroidea (class)	Brittlestarfish unident.
135	2	<0.001	100.0	0.000001	0.999996	*Calliostoma platinum*	Silvery topsnail
136	2	<0.001	100.0	0.000001	0.999997	*Amphiophiura ponderosa*	
137	2	<0.001	100.0	0.000001	0.999998	*Buccinum viridum*	Turban whelk
138	2	<0.001	100.0	0.000001	0.999999	*Lampanyctus* sp.	
139	2	<0.001	100.0	0.000000	0.999999	*Crangon communis*	Twospine crangon
140	2	<0.001	100.0	0.000000	0.999999	Polychaeta (class)	Polychaete worm unident.
141	2	<0.001	100.0	0.000000	0.999999	Rajiidae	Skate unident.
142	2	<0.001	100.0	0.000000	1.000000	*Delectopecten vancouverensis*	Vancouver scallop
143	2	<0.001	100.0	0.000000	1.000000	*Leuroglossus* sp.	
144	2	<0.001	100.0	0.000000	1.000000	Isopoda (order)	Isopod unident.
	Total	176.947					
1	3	17.036	20.1	0.206505	0.206505	*Sebastolobus altivelis*	Longspine thornyhead
2	3	14.669	39.8	0.177808	0.384314	*Microstomus pacificus*	Dover sole
3	3	13.908	27.1	0.168585	0.552899	*Chionoecetes tanneri*	True Tanner crab
4	3	12.965	25.5	0.157157	0.710056	*Anoplopoma fimbria*	Sablefish
5	3	5.078	28.9	0.061552	0.771608	*Albatrossia pectoralis*	Giant grenadier
6	3	4.537	20.4	0.054989	0.826597	*Sebastolobus alascanus*	Shortspine thornyhead
7	3	1.406	40.4	0.017042	0.843639	*Merluccius productus*	Pacific hake
8	3	1.270	55.7	0.015391	0.859031	*Aphrocallistes vastus*	Clay pipe sponge
9	3	1.217	14.4	0.014755	0.873786	*Antimora microlepis*	Pacific flatnose
10	3	0.877	32.9	0.010633	0.884419	*Bathyraja trachura*	Black skate
11	3	0.806	36.7	0.009766	0.894185	*Apristurus brunneus*	Brown cat shark
12	3	0.725	31.1	0.008790	0.902975	*Embassichthys bathybius*	Deepsea sole
13	3	0.689	30.0	0.008356	0.911331	*Heterozonias alternatus*	
14	3	0.621	23.8	0.007529	0.918860	*Coryphaenoides acrolepis*	Pacific grenadier
15	3	0.593	35.9	0.007187	0.926047	*Bothrocara brunneum*	Twoline eelpout
16	3	0.548	57.0	0.006645	0.932692	*Lycodes diapterus*	Black eelpout
17	3	0.527	30.2	0.006386	0.939078	*Paractinostola faeculenta*	Rough purple sea anemone
18	3	0.483	83.0	0.005851	0.944929	*Allocentrotus fragilis*	Orange-pink sea urchin
19	3	0.480	70.5	0.005824	0.950752	*Glyptocephalus zachirus*	Rex sole
20	3	0.375	28.2	0.004544	0.955296	*Thrissacanthias penicillatus*	
21	3	0.358	54.6	0.004341	0.959637	*Raja rhina*	Longnose skate
22	3	0.319	39.1	0.003862	0.963500	*Neptunea amianta*	
23	3	0.308	28.0	0.003733	0.967233	*Bathybembix bairdii*	
24	3	0.263	46.9	0.003188	0.970420	*Careproctus melanurus*	Blacktail snailfish
25	3	0.240	67.3	0.002908	0.973329	*Squalus acanthias*	Spiny dogfish
26	3	0.230	59.8	0.002787	0.976116	*Hippasteria californica*	
27	3	0.228	71.0	0.002762	0.978878	*Lycodes cortezianus*	Bigfin eelpout
28	3	0.226	48.8	0.002739	0.981617	*Talismania bifurcata*	Threadfin slickhead
29	3	0.107	51.2	0.001294	0.982911	*Alepocephalus tenebrosus*	California slickhead
30	3	0.106	75.9	0.001290	0.984200	*Bathyraja interrupta*	Bering skate
31	3	0.093	46.8	0.001122	0.985323	*Opisthoteuthis californiana*	Flapjack devilfish
32	3	0.080	30.5	0.000964	0.986286	*Crossaster borealis*	
33	3	0.077	67.3	0.000930	0.987216	*Octopus dofleini*	Giant octopus
34	3	0.070	39.2	0.000852	0.988068	*Neptunea pribiloffensis*	Pribilof whelk
35	3	0.063	57.2	0.000769	0.988837	Thaliacea (class)	Salps unident.
36	3	0.061	39.9	0.000741	0.989578	Myxinidae	Hagfish
37	3	0.054	61.9	0.000657	0.990235	*Zoraster evermanni*	
38	3	0.044	87.1	0.000539	0.990774	*Pteraster coscinopeplus*	Deepwater pteraster
39	3	0.043	100.0	0.000518	0.991292	*Phacellophora camtchatica*	
40	3	0.040	49.6	0.000484	0.991776	*Nearchaster aciculosus*	
41	3	0.038	53.5	0.000458	0.992234	*Bathylagus* sp.	Blacksmelt unident.
42	3	0.037	56.4	0.000452	0.992686	*Ampheraster marianus*	
43	3	0.037	68.3	0.000447	0.993133	*Lithodes couesi*	
44	3	0.035	79.3	0.000430	0.993563	*Myoxoderma sacculatum*	
45	3	0.033	55.9	0.000397	0.993960	*Taningia danae*	Rhomboid squid
46	3	0.032	100.0	0.000382	0.994342	*Trachurus symmetricus*	Jack mackerel

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
47	3	0.030	36.0	0.000368	0.994710	*Chauliodus macouni*	Pacific viperfish
48	3	0.029	62.7	0.000355	0.995065	*Embryx crotalinus*	Snakehead eelpout
49	3	0.025	100.0	0.000297	0.995363	*Pseudostichopus mollis*	Sandy sea cucumber
50	3	0.024	67.2	0.000295	0.995658	*Octopoteuthis deletron*	
51	3	0.024	100.0	0.000287	0.995945	*Berryteuthis magister*	Magistrate armhook squid
52	3	0.020	41.5	0.000247	0.996192	*Lampanyctus* sp.	
53	3	0.019	37.6	0.000230	0.996423	*Vampyroteuthis infernalis*	
54	3	0.018	100.0	0.000218	0.996640	*Parastichopus leucothele*	
55	3	0.017	62.8	0.000211	0.996851	Scyphozoa (class)	Jellyfish unident.
56	3	0.015	30.4	0.000184	0.997036	*Pasiphaea tarda*	Crimson pasiphaeid
57	3	0.013	100.0	0.000164	0.997199	*Periphylla periphylla*	
58	3	0.013	100.0	0.000159	0.997359	*Histioteuthis hoylei*	
59	3	0.013	42.7	0.000159	0.997518	*Sagamichthys abei*	Shining tubeshoulder
60	3	0.012	100.0	0.000144	0.997662	*Atheresthes stomias*	Arrowtooth flounder
61	3	0.012	77.9	0.000144	0.997806	Bathylagidae	Deepsea smelt
62	3	0.012	100.0	0.000141	0.997947	*Hylonema* sp.	Fiberoptic sponge
63	3	0.012	55.2	0.000140	0.998086	*Pagurus tanneri*	Longhand hermit
64	3	0.009	93.8	0.000105	0.998192	*Pannychia moseleyi*	
65	3	0.008	66.0	0.000100	0.998292	*Liponema brevicorne*	Tentacle-shedding anemone
66	3	0.008	91.7	0.000100	0.998392	*Actinostola* sp.	
67	3	0.008	35.7	0.000093	0.998485	*Tactostoma macropus*	Longfin dragonfish
68	3	0.008	84.4	0.000093	0.998578	*Octopus leioderma*	Smoothskin octopus
69	3	0.007	57.2	0.000090	0.998668	*Stylatula* sp.	Slender seawhips
70	3	0.007	82.8	0.000088	0.998756	*Myoxoderma platyacanthum*	
71	3	0.007	87.8	0.000082	0.998837	*Nezumia stelgidolepis*	California grenadier
72	3	0.007	87.5	0.000079	0.998916	*Amphiophiura ponderosa*	
73	3	0.006	79.7	0.000068	0.998985	*Brisaster latifrons*	
74	3	0.006	71.5	0.000068	0.999052	*Rathbunaster californicus*	
75	3	0.005	83.0	0.000060	0.999113	*Tritonia diomedea*	Rosy tritonia
76	3	0.005	100.0	0.000055	0.999168	*Eptatretus deani*	Black hagfish
77	3	0.004	56.8	0.000054	0.999222	Myctophidae	Lanternfish
78	3	0.004	95.3	0.000053	0.999275	*Brisingella* sp.	
79	3	0.004	100.0	0.000046	0.999321	*Apristurus kampae*	Longnose cat shark
80	3	0.004	76.2	0.000045	0.999366	Actiniaria (order)	Purple striated sea anemone
81	3	0.003	100.0	0.000037	0.999403	*Histioteuthis sp.*	Jewel squids
82	3	0.003	72.0	0.000037	0.999440	*Coryphaenoides cinereus*	Popeye grenadier
83	3	0.003	100.0	0.000035	0.999474	*Dipsacaster* sp.	
84	3	0.003	100.0	0.000033	0.999507	*Aristostomias scintillans*	Shining loosejaw
85	3	0.003	65.9	0.000031	0.999538	*Gonatus onyx*	Clawed armhook squid
87	3	0.002	100.0	0.000030	0.999598	*Neomenia* sp.	
86	3	0.002	100.0	0.000030	0.999598	*Pseudarchaster parelii*	
88	3	0.002	97.9	0.000030	0.999628	*Chorilia longipes*	Longhorned decorator crab
89	3	0.002	100.0	0.000028	0.999656	*Umbellula* sp.	
90	3	0.002	56.3	0.000027	0.999683	Actiniaria (order)	
91	3	0.002	100.0	0.000024	0.999707	*Tritonia* sp.	
92	3	0.002	100.0	0.000023	0.999731	*Lophaster furcilliger*	
93	3	0.002	100.0	0.000021	0.999752	*Hippasteria spinosa*	
94	3	0.001	51.2	0.000018	0.999770	*Eualus* sp.	
95	3	0.001	100.0	0.000017	0.999787	Cephalopoda (class)	Squid unident.
96	3	0.001	89.4	0.000016	0.999803	Rajiidae	Skate unident.
97	3	0.001	50.5	0.000015	0.999818	*Periphylla* sp.	
98	3	0.001	100.0	0.000014	0.999832	*Brisingella exilis*	
99	3	0.001	100.0	0.000013	0.999845	*Notolepsis risso*	Ribbon barracudina
100	3	0.001	100.0	0.000011	0.999857	Actiniaria (order)	Sea anemone unident.
101	3	0.001	100.0	0.000010	0.999867	*Anthomastus* sp.	
102	3	0.001	100.0	0.000009	0.999876	*Benthalbella dentata*	Northern pearleye
103	3	0.001	100.0	0.000009	0.999885	*Lampetra tridentata*	Pacific lamprey
104	3	0.001	100.0	0.000009	0.999894	Bivalvia (class)	Bivalve unident.
105	3	0.001	61.1	0.000009	0.999903	*Bathyagonus nigripinnis*	Blackfin poacher

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
106	3	0.001	100.0	0.000008	0.999911	*Careproctus* sp.	
107	3	0.001	100.0	0.000008	0.999920	*Actinauge verrillii*	Reticulate anemone
108	3	0.001	100.0	0.000008	0.999927	*Bathyagonus* sp.	Starsnout poacher
109	3	0.001	100.0	0.000008	0.999935	*Bathypathes* sp.	
110	3	0.001	54.2	0.000007	0.999942	Actinostolidae	
111	3	0.001	100.0	0.000007	0.999949	*Ophiura sarsi*	
112	3	<0.001	100.0	0.000005	0.999955	Aplacophora (class)	
114	3	<0.001	100.0	0.000005	0.999964	Aphroditidae	Sea mouse unident.
113	3	<0.001	100.0	0.000005	0.999964	*Ctenodiscus crispatus*	Common mud star
115	3	<0.001	100.0	0.000004	0.999968	*Scopelosaurus harryi*	Scaly paperbone
116	3	<0.001	100.0	0.000004	0.999972	Pennatulacea (order)	Sea pen or sea whip
117	3	<0.001	100.0	0.000004	0.999975	Virgularidae	Sea whip
118	3	<0.001	100.0	0.000003	0.999978	*Sternoptyx* sp.	
119	3	<0.001	100.0	0.000002	0.999981	Heteropoda (suborder)	
120	3	<0.001	100.0	0.000002	0.999983	*Virgularia* sp.	Smoothstem seawhip
121	3	<0.001	100.0	0.000002	0.999985	*Poraniopsis inflata*	
122	3	<0.001	100.0	0.000002	0.999987	*Tarletonbeania crenularis*	Blue lanternfish
123	3	<0.001	100.0	0.000002	0.999989	*Asteronyx loveni*	
124	3	<0.001	71.5	0.000002	0.999991	*Eualus macrophthalmus*	
125	3	<0.001	100.0	0.000002	0.999993	*Anteliaster* sp.	
126	3	<0.001	100.0	0.000001	0.999994	*Chrysaora melanaster*	
127	3	<0.001	100.0	0.000001	0.999995	Isopoda (order)	Isopod unident.
129	3	<0.001	100.0	0.000001	0.999997	*Beroe* sp.	
128	3	<0.001	100.0	0.000001	0.999997	*Polinices* sp.	
130	3	<0.001	100.0	0.000001	0.999998	*Ophiacantus* sp.	
132	3	<0.001	100.0	0.000001	0.999999	Polychaeta (class)	Polychaete worm unident.
131	3	<0.001	100.0	0.000001	0.999999	*Delectopecten vancouverensis*	Vancouver scallop
133	3	<0.001	100.0	0.000001	0.999999	*Ophiopholis* sp.	
134	3	<0.001	100.0	0.000001	1.000000	*Solariella nuda*	Naked solarelle
	Total	82.498					
1	4	26.789	8.2	0.395614	0.395614	*Sebastolobus altivelis*	Longspine thornyhead
2	4	9.262	22.9	0.136775	0.532390	*Anoplopoma fimbria*	Sablefish
3	4	8.716	28.8	0.128717	0.661107	*Chionoecetes tanneri*	True Tanner crab
4	4	6.691	58.2	0.098820	0.759926	*Microstomus pacificus*	Dover sole
5	4	4.617	32.2	0.068179	0.828105	*Albatrossia pectoralis*	Giant grenadier
6	4	1.539	37.0	0.022731	0.850836	*Alepocephalus tenebrosus*	California slickhead
7	4	1.294	29.4	0.019103	0.869939	*Sebastolobus alascanus*	Shortspine thornyhead
8	4	1.272	19.8	0.018789	0.888728	*Embassichthys bathybius*	Deepsea sole
9	4	0.781	36.0	0.011535	0.900262	*Heterozonias alternatus*	
10	4	0.757	24.6	0.011183	0.911445	*Apristurus brunneus*	Brown cat shark
11	4	0.751	36.6	0.011084	0.922530	*Talismania bifurcata*	Threadfin slickhead
12	4	0.674	23.2	0.009960	0.932489	*Bathybembix bairdii*	
13	4	0.621	42.4	0.009166	0.941655	*Paractinostola faeculenta*	Rough purple sea anemone
14	4	0.614	31.1	0.009075	0.950730	*Coryphaenoides acrolepis*	Pacific grenadier
15	4	0.315	100.0	0.004651	0.955381	*Chionoecetes angulatus*	Triangle tanner crab
16	4	0.247	31.8	0.003649	0.959030	*Bothrocara brunneum*	Twoline eelpout
17	4	0.211	22.0	0.003118	0.962147	*Antimora microlepis*	Pacific flatnose
18	4	0.205	90.0	0.003033	0.965181	*Merluccius productus*	Pacific hake
19	4	0.202	19.5	0.002988	0.968169	*Neptunea amianta*	
20	4	0.174	30.6	0.002574	0.970743	*Embryx crotalinus*	Snakehead eelpout
21	4	0.151	23.6	0.002233	0.972976	*Thrissacanthias penicillatus*	
22	4	0.139	41.0	0.002056	0.975033	*Crossaster borealis*	
23	4	0.135	80.8	0.001994	0.977027	Scyphozoa (class)	Jellyfish unident.
24	4	0.134	100.0	0.001981	0.979008	*Squalus acanthias*	Spiny dogfish
25	4	0.129	65.0	0.001900	0.980908	*Bathyraja trachura*	Black skate
26	4	0.128	67.5	0.001885	0.982793	*Opisthoteuthis californiana*	Flapjack devilfish
27	4	0.125	49.7	0.001840	0.984634	*Hippasteria californica*	
28	4	0.104	45.6	0.001538	0.986171	Myxinidae	Hagfish

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
29	4	0.072	35.0	0.001066	0.987237	*Bathylagus* sp.	Blacksmelt unident.
30	4	0.069	100.0	0.001025	0.988263	*Hylonema* sp.	Fiberoptic sponge
31	4	0.060	58.1	0.000884	0.989147	*Nearchaster aciculosus*	
32	4	0.055	26.2	0.000818	0.989965	*Chauliodus macouni*	Pacific viperfish
33	4	0.051	54.7	0.000748	0.990714	*Zoraster evermanni*	
34	4	0.049	70.4	0.000718	0.991432	*Eptatretus deani*	Black hagfish
35	4	0.047	55.5	0.000694	0.992126	*Vampyroteuthis infernalis*	
36	4	0.046	59.4	0.000684	0.992810	*Taningia danae*	Rhomboid squid
37	4	0.040	100.0	0.000591	0.993401	*Alepisaurus ferox*	Longnose lancetfish
38	4	0.040	43.1	0.000588	0.993989	*Lithodes couesi*	
39	4	0.038	19.0	0.000557	0.994546	*Lampanyctus* sp.	
40	4	0.034	42.1	0.000501	0.995046	Bathylagidae	Deepsea smelt
41	4	0.032	100.0	0.000478	0.995524	*Aphrocallistes vastus*	Clay pipe sponge
42	4	0.031	29.9	0.000462	0.995986	*Careproctus melanurus*	Blacktail snailfish
43	4	0.022	30.8	0.000323	0.996309	*Tactostoma macropus*	Longfin dragonfish
44	4	0.021	91.7	0.000313	0.996622	*Stylatula* sp.	Slender seawhips
45	4	0.018	89.9	0.000265	0.996886	*Tritonia diomedea*	Rosy tritonia
46	4	0.018	74.5	0.000263	0.997149	Thaliacea (class)	Salps unident.
47	4	0.013	93.5	0.000194	0.997343	*Lophaster furcilliger*	
48	4	0.013	68.7	0.000192	0.997535	*Octopoteuthis deletron*	
49	4	0.013	80.4	0.000191	0.997726	*Tritonia* sp.	
50	4	0.012	100.0	0.000177	0.997903	*Ophiura sarsi*	
51	4	0.010	100.0	0.000151	0.998054	*Eptatretus* sp.	
52	4	0.008	72.7	0.000123	0.998177	*Myoxoderma sacculatum*	
53	4	0.008	100.0	0.000113	0.998290	*Actinostola* sp.	
54	4	0.007	100.0	0.000108	0.998398	*Chiroteuthis calyx*	
55	4	0.007	45.2	0.000105	0.998503	*Ampheraster marianus*	
56	4	0.007	69.0	0.000102	0.998605	*Pseudostichopus mollis*	Sandy sea cucumber
57	4	0.007	67.5	0.000099	0.998705	*Hippasteria spinosa*	
58	4	0.007	85.1	0.000098	0.998803	*Umbellula* sp.	
59	4	0.007	66.3	0.000098	0.998900	Myctophidae	Lanternfish
60	4	0.006	100.0	0.000094	0.998994	*Paralomis multispina*	
61	4	0.006	36.1	0.000093	0.999088	*Buccinum viridum*	Turban whelk
62	4	0.005	56.6	0.000079	0.999166	*Sagamichthys abei*	Shining tubeshoulder
63	4	0.005	100.0	0.000072	0.999238	*Parastichopus leucothele*	
64	4	0.004	71.4	0.000064	0.999302	*Chiroteuthis* sp.	
65	4	0.004	100.0	0.000059	0.999361	Actiniaria (order)	Sea anemone unident.
66	4	0.003	31.1	0.000047	0.999408	*Pasiphaea tarda*	Crimson pasiphaeid
67	4	0.003	100.0	0.000044	0.999451	*Coryphaenoides cinereus*	Popeye grenadier
68	4	0.003	100.0	0.000042	0.999494	*Pseudarchaster parelii*	
69	4	0.003	77.4	0.000042	0.999536	*Pteraster coscinopeplus*	Deepwater pteraster
70	4	0.003	55.0	0.000040	0.999576	Pennatulacea (order)	Sea pen or sea whip
71	4	0.002	66.9	0.000034	0.999610	*Pagurus tanneri*	Longhand hermit
72	4	0.002	100.0	0.000031	0.999641	*Chorilia longipes*	Longhorned decorator crab
73	4	0.002	100.0	0.000027	0.999668	*Neomenia* sp.	
74	4	0.002	63.2	0.000026	0.999694	*Aristostomias scintillans*	Shining loosejaw
75	4	0.002	100.0	0.000025	0.999719	Actiniaria (order)	Red striated sea anemone
76	4	0.001	100.0	0.000020	0.999740	Nemichthyidae	Snipe eel
77	4	0.001	73.5	0.000016	0.999756	*Neptunea pribiloffensis*	Pribilof whelk
78	4	0.001	54.5	0.000015	0.999771	*Pagurus* sp.	
79	4	0.001	71.8	0.000015	0.999786	*Notostomus japonicus*	Spinyridge shrimp
80	4	0.001	100.0	0.000015	0.999800	*Buccinum* sp.	
81	4	0.001	100.0	0.000014	0.999815	*Henricia* sp.	
82	4	0.001	73.5	0.000013	0.999828	*Pannychia moseleyi*	
83	4	0.001	100.0	0.000012	0.999840	*Histioteuthis hoylei*	
84	4	0.001	55.6	0.000012	0.999852	*Periphylla* sp.	
85	4	0.001	67.2	0.000011	0.999863	Actinostolidae	
86	4	0.001	100.0	0.000011	0.999886	*Stylasterias forreri*	

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
87	4	0.001	100.0	0.000011	0.999886	*Bathyraja* sp.	
88	4	0.001	100.0	0.000011	0.999897	Cephalopoda (class)	Squid unident.
89	4	0.001	100.0	0.000011	0.999908	*Pteraster* sp.	
90	4	0.001	88.1	0.000010	0.999918	*Virgularia* sp.	Smoothstem seawhip
91	4	0.001	100.0	0.000008	0.999942	*Asteronyx* sp.	
92	4	0.001	100.0	0.000008	0.999942	*Dipsacaster* sp.	
93	4	0.001	100.0	0.000008	0.999942	*Antipathes* sp.	
94	4	<0.001	100.0	0.000007	0.999949	*Myoxoderma platyacanthum*	
95	4	<0.001	67.4	0.000007	0.999956	*Lycodapus fierasfer*	Blackmouth eelpout
96	4	<0.001	100.0	0.000005	0.999961	Cephalopoda (class)	Squid unident.
97	4	<0.001	100.0	0.000005	0.999966	*Anteliaster* sp.	
98	4	<0.001	100.0	0.000004	0.999970	*Liponema brevicorne*	Tentacle-shedding anemone
99	4	<0.001	100.0	0.000004	0.999974	*Gonatus onyx*	Clawed armhook squid
100	4	<0.001	69.0	0.000004	0.999977	*Eualus macrophthalmus*	
101	4	<0.001	100.0	0.000003	0.999981	Hormathiidae	
102	4	<0.001	100.0	0.000003	0.999984	*Brisaster latifrons*	
103	4	<0.001	100.0	0.000003	0.999987	*Asteronyx loveni*	
104	4	<0.001	100.0	0.000002	0.999989	*Periphylla periphylla*	
105	4	<0.001	100.0	0.000002	0.999994	*Gonatus* sp.	
106	4	<0.001	100.0	0.000002	0.999994	*Actinauge verrillii*	Reticulate anemone
107	4	<0.001	100.0	0.000002	0.999996	*Solariella nuda*	Naked solarelle
108	4	<0.001	100.0	0.000002	0.999998	*Nemichthys scolopaceus*	Slender snipe eel
109	4	<0.001	100.0	0.000001	0.999999	Cyclopteridae	Snailfish unident.
110	4	<0.001	100.0	0.000001	1.000000	Melamphaidae	Bigscale
111	4	<0.001	100.0	0.000000	1.000000	*Sebastes* sp.	Rockfish unident.
	Total	67.714					
1	5	33.786	8.2	0.455044	0.455044	*Sebastolobus altivelis*	Longspine thornyhead
2	5	6.906	17.5	0.093016	0.548060	*Albatrossia pectoralis*	Giant grenadier
3	5	6.033	14.9	0.081261	0.629320	*Chionoecetes tanneri*	True Tanner crab
4	5	5.240	19.1	0.070576	0.699897	*Coryphaenoides acrolepis*	Pacific grenadier
5	5	3.449	16.5	0.046448	0.746345	*Anoplopoma fimbria*	Sablefish
6	5	3.263	31.2	0.043948	0.790293	*Sebastolobus alascanus*	Shortspine thornyhead
7	5	2.520	32.0	0.033934	0.824227	*Paractinostola faeculenta*	Rough purple sea anemone
8	5	2.116	50.6	0.028506	0.852733	*Microstomus pacificus*	Dover sole
9	5	1.809	24.6	0.024358	0.877091	*Alepocephalus tenebrosus*	California slickhead
10	5	1.667	19.5	0.022450	0.899541	*Embassichthys bathybius*	Deepsea sole
11	5	1.172	16.2	0.015788	0.915329	*Antimora microlepis*	Pacific flatnose
12	5	0.742	27.9	0.009994	0.925323	*Bathyraja trachura*	Black skate
13	5	0.658	33.4	0.008860	0.934183	*Bothrocara brunneum*	Twoline eelpout
14	5	0.512	40.4	0.006902	0.941085	*Apristurus brunneus*	Brown cat shark
15	5	0.440	72.6	0.005921	0.947005	*Psychrolutes phrictus*	Blob sculpin
16	5	0.401	89.6	0.005396	0.952401	*Scotoplanes theeli*	
17	5	0.332	29.0	0.004478	0.956880	*Embryx crotalinus*	Snakehead eelpout
18	5	0.279	32.0	0.003761	0.960641	*Heterozonias alternatus*	
19	5	0.256	38.5	0.003444	0.964085	*Bathybembix bairdii*	
20	5	0.251	39.4	0.003375	0.967459	*Neptunea amianta*	
21	5	0.215	22.0	0.002897	0.970357	*Thrissacanthias penicillatus*	
22	5	0.213	60.6	0.002870	0.973227	*Nearchaster aciculosus*	
23	5	0.168	37.3	0.002269	0.975496	*Crossaster borealis*	
24	5	0.163	35.4	0.002189	0.977685	Myxinidae	Hagfish
25	5	0.161	44.0	0.002174	0.979858	*Talismania bifurcata*	Threadfin slickhead
26	5	0.152	88.5	0.002053	0.981911	*Hylonema* sp.	Fiberoptic sponge
27	5	0.110	26.2	0.001488	0.983399	*Bathylagus* sp.	Blacksmelt unident.
28	5	0.098	67.1	0.001317	0.984716	*Eptatretus deani*	Black hagfish
29	5	0.066	20.9	0.000888	0.985604	*Chauliodus macouni*	Pacific viperfish
30	5	0.065	84.4	0.000869	0.986473	*Squalus acanthias*	Spiny dogfish
31	5	0.063	29.6	0.000855	0.987328	*Vampyroteuthis infernalis*	
32	5	0.057	37.7	0.000762	0.988089	*Hippasteria californica*	

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
33	5	0.056	73.9	0.000758	0.988847	Thaliacea (class)	Salps unident.
34	5	0.055	72.2	0.000740	0.989587	Actinostolidae	
35	5	0.046	100.0	0.000626	0.990213	*Nearchaster* sp.	
36	5	0.046	100.0	0.000625	0.990838	*Hippasteria spinosa*	
37	5	0.045	64.3	0.000613	0.991450	Scyphozoa (class)	Jellyfish unident.
38	5	0.044	50.7	0.000587	0.992037	*Buccinum viridum*	Turban whelk
39	5	0.042	19.7	0.000564	0.992601	*Lampanyctus* sp.	
40	5	0.032	52.4	0.000426	0.993027	*Lithodes couesi*	
41	5	0.030	100.0	0.000404	0.993431	*Somniosus pacificus*	Pacific sleeper shark
42	5	0.029	27.3	0.000394	0.993825	*Stylatula* sp.	Slender seawhips
43	5	0.028	58.2	0.000380	0.994205	*Tritonia diomedea*	Rosy tritonia
44	5	0.026	69.6	0.000353	0.994558	*Merluccius productus*	Pacific hake
45	5	0.025	19.1	0.000343	0.994901	*Pasiphaea tarda*	Crimson pasiphaeid
46	5	0.024	92.8	0.000319	0.995220	*Aphrocallistes vastus*	Clay pipe sponge
47	5	0.023	29.7	0.000308	0.995528	*Tactostoma macropus*	Longfin dragonfish
48	5	0.022	100.0	0.000296	0.995825	*Eptatretus* sp.	
49	5	0.022	70.3	0.000292	0.996116	*Actinostola* sp.	
50	5	0.021	84.1	0.000289	0.996405	*Pannychia moseleyi*	
51	5	0.020	100.0	0.000272	0.996677	*Paralomis multispina*	
52	5	0.020	38.2	0.000268	0.996945	*Taningia danae*	Rhomboid squid
53	5	0.017	84.4	0.000222	0.997167	*Careproctus melanurus*	Blacktail snailfish
54	5	0.016	100.0	0.000222	0.997389	*Berryteuthis magister*	Magistrate armhook squid
55	5	0.015	73.9	0.000207	0.997596	Bathylagidae	Deepsea smelt
56	5	0.013	50.8	0.000173	0.997768	*Zoraster evermanni*	
57	5	0.009	62.6	0.000124	0.997893	*Pseudostichopus mollis*	Sandy sea cucumber
58	5	0.009	100.0	0.000115	0.998008	*Octopus leioderma*	Smoothskin octopus
59	5	0.008	46.2	0.000114	0.998122	*Myoxoderma sacculatum*	
60	5	0.008	48.2	0.000113	0.998235	Myctophidae	Lanternfish
61	5	0.008	61.9	0.000106	0.998341	*Ampheraster marianus*	
62	5	0.006	100.0	0.000084	0.998425	*Tritonia* sp.	
63	5	0.006	100.0	0.000084	0.998509	*Opisthoteuthis californiana*	Flapjack devilfish
64	5	0.005	73.5	0.000066	0.998575	*Careproctus colletti*	Alaska snailfish
65	5	0.005	53.5	0.000066	0.998641	*Aristostomias scintillans*	Shining loosejaw
66	5	0.005	100.0	0.000061	0.998702	*Sebastes babcocki*	Redbanded rockfish
67	5	0.004	97.1	0.000056	0.998759	*Swiftia* sp.	
68	5	0.004	100.0	0.000053	0.998812	*Octopoteuthis deletron*	
69	5	0.004	100.0	0.000052	0.998864	*Careproctus cypselurus*	Blackfin snailfish
70	5	0.004	64.9	0.000049	0.998912	Actiniaria (order)	
71	5	0.004	91.6	0.000048	0.998960	Actiniaria (order)	Sea anemone unident.
72	5	0.003	100.0	0.000046	0.999006	*Apristurus kampae*	Longnose cat shark
73	5	0.003	100.0	0.000046	0.999052	*Parastichopus leucothele*	
74	5	0.003	100.0	0.000046	0.999098	Cephalopoda (class)	Squid unident.
75	5	0.003	75.0	0.000044	0.999141	Pennatulacea (order)	Sea pen or sea whip
76	5	0.003	53.3	0.000042	0.999183	*Chrysaora melanaster*	
77	5	0.003	88.0	0.000039	0.999222	*Actinauge verrillii*	Reticulate anemone
78	5	0.003	82.2	0.000037	0.999259	*Sagamichthys abei*	Shining tubeshoulder
79	5	0.003	100.0	0.000036	0.999295	*Bathyraja* sp.	
80	5	0.003	71.8	0.000035	0.999330	*Pagurus* sp.	
81	5	0.002	75.1	0.000033	0.999364	*Careproctus* sp.	
82	5	0.002	100.0	0.000033	0.999397	Melanostomiidae	Scaleless dragonfish
83	5	0.002	100.0	0.000031	0.999428	*Buccinum oedematum*	Swollen whelk
84	5	0.002	100.0	0.000031	0.999459	*Benthoctopus* sp.	
85	5	0.002	78.5	0.000028	0.999488	*Umbellula* sp.	
86	5	0.002	100.0	0.000028	0.999516	*Periphylla periphylla*	
87	5	0.002	100.0	0.000027	0.999543	*Virgularia* sp.	Smoothstem seawhip
88	5	0.002	100.0	0.000026	0.999570	*Paraliparus rosaceus*	
89	5	0.002	100.0	0.000026	0.999596	*Thetys vagina*	Common salp
90	5	0.002	100.0	0.000025	0.999621	*Plicifusus sp.*	Gray whelk
91	5	0.002	54.7	0.000024	0.999645	*Poromitra crassiceps*	Crested bigscale

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
92	5	0.002	95.5	0.000022	0.999667	Polychaeta (class)	Polychaete worm unident.
93	5	0.001	80.5	0.000020	0.999686	Hormathiidae	
94	5	0.001	100.0	0.000016	0.999703	*Luidia foliolata*	
95	5	0.001	100.0	0.000016	0.999719	*Chiroteuthis* sp.	
96	5	0.001	81.6	0.000016	0.999735	*Liponema brevicorne*	Tentacle-shedding anemone
97	5	0.001	100.0	0.000015	0.999751	*Melanocetus johnsonii*	Common blackdevil
98	5	0.001	100.0	0.000015	0.999766	*Anoplogaster cornuta*	Fangtooth
99	5	0.001	100.0	0.000015	0.999781	*Pteraster coscinopeplus*	Deepwater pteraster
100	5	0.001	72.5	0.000015	0.999796	*Antipathes* sp.	
101	5	0.001	100.0	0.000015	0.999811	Oneirodidae	Dreamer unident.
102	5	0.001	72.0	0.000015	0.999825	Rajiidae	Skate unident.
103	5	0.001	78.9	0.000013	0.999839	*Stereomastus sculpta*	
104	5	0.001	100.0	0.000013	0.999852	*Benthalbella dentata*	Northern pearleye
105	5	0.001	100.0	0.000012	0.999864	Porifera (phylum)	Sponge unident.
106	5	0.001	100.0	0.000011	0.999875	*Symbolophorus californiensis*	California lanternfish
107	5	0.001	100.0	0.000011	0.999886	*Lampetra tridentata*	Pacific lamprey
108	5	0.001	73.9	0.000010	0.999896	*Asteronyx loveni*	
109	5	0.001	56.4	0.000010	0.999906	*Periphylla* sp.	
110	5	0.001	100.0	0.000009	0.999915	*Ptilosarcus gurneyi*	Orange sea pen
111	5	0.001	100.0	0.000008	0.999923	*Neptunea pribiloffensis*	Pribilof whelk
112	5	<0.001	81.8	0.000007	0.999929	*Buccinum strigillatum*	
113	5	<0.001	100.0	0.000006	0.999936	*Coryphaenoides cinereus*	Popeye grenadier
114	5	<0.001	100.0	0.000006	0.999942	*Buccinum* sp.	
115	5	<0.001	100.0	0.000005	0.999947	*Eualus macrophthalmus*	
116	5	<0.001	100.0	0.000005	0.999952	Gastropoda (class)	Snail eggs unident.
117	5	<0.001	100.0	0.000004	0.999956	*Stylasterias forreri*	
119	5	<0.001	100.0	0.000004	0.999964	*Sternoptyx diaphana*	Longspine hatchetfish
118	5	<0.001	100.0	0.000004	0.999964	*Macropinna microstoma*	Barreleye
120	5	<0.001	100.0	0.000004	0.999968	*Sclerocrangon sculptus*	
122	5	<0.001	100.0	0.000003	0.999974	*Lycodapus fierasfer*	Blackmouth eelpout
121	5	<0.001	100.0	0.000003	0.999974	*Molpadia intermedia*	
123	5	<0.001	67.3	0.000003	0.999976	*Colus aphelus*	Oblique whelk
124	5	<0.001	100.0	0.000003	0.999979	*Apristurus brunneus*	Cat shark egg case
125	5	<0.001	74.5	0.000003	0.999982	Thoracica (order)	Barnacle
126	5	<0.001	100.0	0.000002	0.999984	*Pseudarchaster parelii*	
127	5	<0.001	100.0	0.000002	0.999986	Ophiuroidea (class)	Brittlestarfish unident.
128	5	<0.001	100.0	0.000002	0.999988	*Tarletonbeania crenularis*	Blue lanternfish
129	5	<0.001	100.0	0.000002	0.999991	*Notostomus japonicus*	Spinyridge shrimp
130	5	<0.001	100.0	0.000002	0.999992	*Pagurus tanneri*	Longhand hermit
131	5	<0.001	100.0	0.000002	0.999994	*Polinices pallidus*	Pale moonsnail
132	5	<0.001	70.7	0.000001	0.999995	Actiniaria (order)	Purple striated sea anemone
133	5	<0.001	100.0	0.000001	0.999995	Crinoidea (class)	Crinoid unident.
135	5	<0.001	100.0	0.000001	0.999997	Tube worm unident.	
134	5	<0.001	100.0	0.000001	0.999997	*Asteronyx* sp.	
136	5	<0.001	100.0	0.000001	0.999998	Melamphaidae	Bigscale
137	5	<0.001	100.0	0.000001	0.999998	*Cyclothone* sp.	
138	5	<0.001	100.0	0.000001	0.999999	*Gnathophausia ingens*	
139	5	<0.001	100.0	0.000001	0.999999	*Tarletonbeania* sp.	
140	5	<0.001	100.0	0.000001	1.000000	*Polinices* sp.	
	Total	74.247					
1	6	24.622	32.3	0.253366	0.253366	*Albatrossia pectoralis*	Giant grenadier
2	6	20.103	14.4	0.206865	0.460231	*Sebastolobus altivelis*	Longspine thornyhead
3	6	13.595	13.6	0.139895	0.600126	*Coryphaenoides acrolepis*	Pacific grenadier
4	6	9.836	27.4	0.101219	0.701345	*Anoplopoma fimbria*	Sablefish
5	6	5.816	27.9	0.059851	0.761196	*Paractinostola faeculenta*	Rough purple sea anemone
6	6	3.777	24.3	0.038868	0.800064	*Chionoecetes tanneri*	True Tanner crab
7	6	3.542	21.5	0.036444	0.836508	*Antimora microlepis*	Pacific flatnose
8	6	2.087	22.0	0.021473	0.857981	*Sebastolobus alascanus*	Shortspine thornyhead

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
9	6	1.993	29.0	0.020509	0.878489	*Bathyraja trachura*	Black skate
10	6	1.671	53.3	0.017193	0.895683	*Scotoplanes theeli*	
11	6	1.622	39.1	0.016690	0.912372	*Alepocephalus tenebrosus*	California slickhead
12	6	1.350	49.9	0.013895	0.926268	*Bothrocara brunneum*	Twoline eelpout
13	6	0.841	66.7	0.008652	0.934920	*Bathyraja abyssicola*	Deepsea skate
14	6	0.735	38.8	0.007565	0.942485	*Thrissacanthias penicillatus*	
15	6	0.640	41.4	0.006588	0.949073	*Embassichthys bathybius*	Deepsea sole
16	6	0.637	40.3	0.006552	0.955625	*Paralomis multispina*	
17	6	0.469	87.3	0.004830	0.960454	*Neptunea amianta*	
18	6	0.425	100.0	0.004372	0.964826	Hexactinellida (class)	Glass sponge
19	6	0.419	48.7	0.004309	0.969135	*Heterozonias alternatus*	
20	6	0.321	53.7	0.003304	0.972439	*Psychrolutes phrictus*	Blob sculpin
21	6	0.268	100.0	0.002754	0.975193	*Benthoctopus* sp.	
22	6	0.172	56.8	0.001774	0.976967	*Nearchaster aciculosus*	
23	6	0.149	72.2	0.001529	0.978496	*Aphrocallistes vastus*	Clay pipe sponge
24	6	0.141	40.7	0.001452	0.979948	*Hippasteria californica*	
25	6	0.125	94.4	0.001289	0.981237	*Buccinum viridum*	Turban whelk
26	6	0.120	29.0	0.001234	0.982472	*Bathylagus* sp.	Blacksmelt unident.
27	6	0.113	66.5	0.001165	0.983636	*Hylonema* sp.	Fiberoptic sponge
28	6	0.090	97.8	0.000923	0.984559	*Pagurus* sp.	
29	6	0.089	14.4	0.000921	0.985480	*Crossaster borealis*	
30	6	0.083	59.7	0.000852	0.986332	*Nearchaster* sp.	
31	6	0.081	60.5	0.000836	0.987168	*Stylatula* sp.	Slender seawhips
32	6	0.080	94.5	0.000818	0.987986	Actinostolidae	
33	6	0.078	39.7	0.000799	0.988785	*Apristurus brunneus*	Brown cat shark
34	6	0.077	43.2	0.000789	0.989574	*Myoxoderma sacculatum*	
35	6	0.069	24.1	0.000710	0.990284	*Chauliodus macouni*	Pacific viperfish
36	6	0.068	99.2	0.000700	0.990984	*Lophaster furcilliger*	
37	6	0.060	45.3	0.000616	0.991600	Myxinidae	Hagfish
38	6	0.058	33.4	0.000592	0.992193	*Vampyroteuthis infernalis*	
39	6	0.054	45.1	0.000553	0.992746	*Bathybembix bairdii*	
40	6	0.043	76.9	0.000447	0.993193	Bathylagidae	Deepsea smelt
41	6	0.040	47.2	0.000412	0.993604	*Zoraster evermanni*	
42	6	0.038	63.9	0.000394	0.993999	*Apristurus kampae*	Longnose cat shark
43	6	0.037	62.7	0.000385	0.994383	*Actinostola* sp.	
44	6	0.032	16.5	0.000332	0.994715	*Lampanyctus* sp.	
45	6	0.031	66.8	0.000316	0.995031	*Merluccius productus*	Pacific hake
46	6	0.028	100.0	0.000286	0.995317	*Luidia foliolata*	
47	6	0.027	60.0	0.000282	0.995599	Scyphozoa (class)	Jellyfish unident.
48	6	0.027	38.9	0.000276	0.995875	*Embryx crotalinus*	Snakehead eelpout
49	6	0.025	10.8	0.000257	0.996132	*Pasiphaea tarda*	Crimson pasiphaeid
50	6	0.025	22.2	0.000255	0.996387	*Tactostoma macropus*	Longfin dragonfish
51	6	0.024	70.0	0.000246	0.996633	*Eptatretus deani*	Black hagfish
52	6	0.023	41.1	0.000238	0.996871	*Tritonia diomedea*	Rosy tritonia
53	6	0.022	100.0	0.000227	0.997098	*Octopus leioderma*	Smoothskin octopus
54	6	0.021	100.0	0.000217	0.997315	*Microstomus pacificus*	Dover sole
55	6	0.018	71.0	0.000186	0.997501	*Careproctus colletti*	Alaska snailfish
56	6	0.018	57.0	0.000186	0.997687	Thaliacea (class)	Salps unident.
57	6	0.018	90.7	0.000180	0.997867	*Actinauge verrillii*	Reticulate anemone
58	6	0.017	100.0	0.000171	0.998038	*Icichthys lockingtoni*	Medusafish
59	6	0.014	69.5	0.000142	0.998180	*Careproctus sp.*	
60	6	0.013	77.9	0.000138	0.998319	*Taningia danae*	Rhomboid squid
61	6	0.013	68.8	0.000131	0.998449	*Antipathes* sp.	
62	6	0.011	81.9	0.000109	0.998558	*Liponema brevicorne*	Tentacle-shedding anemone
63	6	0.010	77.1	0.000105	0.998663	Pennatulacea (order)	Sea pen or sea whip
64	6	0.009	100.0	0.000092	0.998755	*Lithodes couesi*	
65	6	0.008	91.9	0.000078	0.998833	Porifera (phylum)	Sponge unident.
66	6	0.007	91.6	0.000074	0.998907	Myctophidae	Lanternfish
67	6	0.007	100.0	0.000068	0.998975	*Phacellophora camtchatica*	

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
68	6	0.006	100.0	0.000061	0.999036	*Cyanea capillata*	Lion's mane
69	6	0.006	100.0	0.000057	0.999093	*Dipsacaster* sp.	
70	6	0.005	66.7	0.000055	0.999148	*Talismania bifurcata*	Threadfin slickhead
71	6	0.005	82.2	0.000052	0.999200	Cephalopoda (class)	Squid unident.
72	6	0.005	100.0	0.000050	0.999250	Actiniaria (order)	
73	6	0.005	100.0	0.000050	0.999300	Dicrolene filamentosa	Threadfin cusk-eel
74	6	0.005	78.8	0.000049	0.999349	*Pteraster* sp.	
75	6	0.005	92.8	0.000047	0.999396	Hormathiidae	
76	6	0.004	95.5	0.000039	0.999435	Rajiidae	Skate unident.
77	6	0.004	100.0	0.000036	0.999471	*Tritonia* sp.	
78	6	0.003	60.4	0.000033	0.999504	*Asteronyx loveni*	
79	6	0.003	100.0	0.000030	0.999533	*Octopoteuthis deletron*	
80	6	0.003	100.0	0.000030	0.999563	*Hippasteria spinosa*	
81	6	0.003	100.0	0.000027	0.999589	*Thetys vagina*	Common salp
82	6	0.002	100.0	0.000025	0.999615	*Chrysaora melanaster*	
83	6	0.002	100.0	0.000024	0.999639	Gastropoda (class)	Snail eggs unident.
84	6	0.002	100.0	0.000021	0.999660	*Anoplogaster cornuta*	Fangtooth
85	6	0.002	100.0	0.000019	0.999679	*Stenobrachius leucopsarus*	Northern lampfish
86	6	0.002	100.0	0.000018	0.999697	*Melamphaes lugubris*	Highsnout bigscale
87	6	0.002	74.6	0.000016	0.999713	*Acharax johnsoni*	
88	6	0.001	100.0	0.000014	0.999727	*Swiftia* sp.	
89	6	0.001	73.7	0.000014	0.999742	*Lampanyctus regalis*	Pinpoint lampfish
90	6	0.001	66.7	0.000014	0.999756	*Sagamichthys abei*	Shining tubeshoulder
91	6	0.001	100.0	0.000014	0.999769	*Bothrocara remigerum*	Longfin eelpout
92	6	0.001	72.4	0.000014	0.999783	*Aristostomias scintillans*	Shining loosejaw
93	6	0.001	100.0	0.000014	0.999797	Cyclopteridae	Snailfish unident.
94	6	0.001	100.0	0.000014	0.999810	*Oneirodes* sp.	
95	6	0.001	100.0	0.000013	0.999824	*Poromitra crassiceps*	Crested bigscale
96	6	0.001	100.0	0.000013	0.999837	Melanostomiidae	Scaleless dragonfish
97	6	0.001	100.0	0.000010	0.999847	*Antiplanes* sp.	
98	6	0.001	66.7	0.000009	0.999856	*Notostomus japonicus*	Spinyridge shrimp
99	6	0.001	100.0	0.000009	0.999865	*Virgularia* sp.	Smoothstem seawhip
100	6	0.001	100.0	0.000009	0.999873	*Ampheraster marianus*	
101	6	0.001	100.0	0.000009	0.999882	Tube worm unident.	
102	6	0.001	43.8	0.000008	0.999890	*Umbellula* sp.	
103	6	0.001	100.0	0.000008	0.999897	Bivalvia (class)	Bivalve unident.
104	6	0.001	100.0	0.000007	0.999904	Gorgonacea (order)	Gorgonian coral
105	6	0.001	100.0	0.000007	0.999911	*Gnathophausia ingens*	
106	6	0.001	100.0	0.000007	0.999918	*Pteraster coscinopeplus*	Deepwater pteraster
107	6	0.001	100.0	0.000006	0.999924	*Macropinna microstoma*	Barreleye
108	6	0.001	71.2	0.000005	0.999929	*Eualus macrophthalmus*	
109	6	0.001	100.0	0.000005	0.999935	Nudibranchia (order)	Gastropod unident.
110	6	<0.001	100.0	0.000005	0.999940	*Bathylagus ochotensis*	Popeye blacksmelt
111	6	<0.001	67.8	0.000005	0.999945	*Lycodapus fierasfer*	Blackmouth eelpout
112	6	<0.001	100.0	0.000005	0.999950	Nemichthyidae	Snipe eel
113	6	<0.001	71.3	0.000005	0.999955	*Periphylla* sp.	
114	6	<0.001	88.2	0.000005	0.999959	*Nemichthys scolopaceus*	Slender snipe eel
115	6	<0.001	100.0	0.000004	0.999963	*Henricia* sp.	
116	6	<0.001	100.0	0.000004	0.999967	*Pseudarchaster parelii*	
117	6	<0.001	68.3	0.000004	0.999971	*Bathypathes* sp.	
118	6	<0.001	72.4	0.000004	0.999975	*Eualus* sp.	
119	6	<0.001	100.0	0.000004	0.999979	*Molpadia intermedia*	
120	6	<0.001	100.0	0.000003	0.999982	*Parantipathes* sp.	
121	6	<0.001	100.0	0.000003	0.999985	*Asteronyx* sp.	
122	6	<0.001	66.7	0.000003	0.999988	*Delectopecten vancouverensis*	Vancouver scallop
123	6	<0.001	100.0	0.000003	0.999991	*Diaphus theta*	California headlightfish
124	6	<0.001	100.0	0.000002	0.999993	*Leuroglossus schmidti*	Northern smoothtongue
125	6	<0.001	100.0	0.000001	0.999994	*Callianassa* sp.	
126	6	<0.001	100.0	0.000001	0.999996	Malacostraca (class)	Malacostracan unident.

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
127	6	<0.001	100.0	0.000001	0.999997	*Ophiopholis* sp.	
128	6	<0.001	100.0	0.000001	0.999998	Melamphaidae	Bigscale
129	6	<0.001	100.0	0.000001	0.999998	*Colus aphelus*	Oblique whelk
130	6	<0.001	100.0	0.000001	0.999999	Ophiuroidea (class)	Brittlestarfish unident.
132	6	<0.001	100.0	0.000001	1.000000	*Psychrolutes* sp.	
131	6	<0.001	100.0	0.000001	1.000000	Polychaeta (class)	Polychaete worm unident.
133	6	<0.001	100.0	0.000000	1.000000	*Cyclothone* sp.	
	Total	97.179					
1	Total	30.846	53.2	0.214653	0.214653	*Squalus acanthias*	Spiny dogfish
2	Total	15.783	22.6	0.109832	0.324485	*Microstomus pacificus*	Dover sole
3	Total	15.383	11.7	0.107049	0.431534	*Sebastolobus altivelis*	Longspine thornyhead
4	Total	11.705	26.5	0.081456	0.512989	*Merluccius productus*	Pacific hake
5	Total	7.867	11.1	0.054746	0.567735	*Anoplopoma fimbria*	Sablefish
6	Total	6.349	24.5	0.044181	0.611916	*Albatrossia pectoralis*	Giant grenadier
7	Total	5.193	18.1	0.036138	0.648054	*Chionoecetes tanneri*	True Tanner crab
8	Total	5.108	34.7	0.035545	0.683599	*Glyptocephalus zachirus*	Rex sole
9	Total	4.248	12.3	0.029563	0.713162	*Sebastolobus alascanus*	Shortspine thornyhead
10	Total	3.450	74.3	0.024005	0.737167	*Myoxoderma platyacanthum*	
11	Total	3.083	21.5	0.021455	0.758622	*Coryphaenoides acrolepis*	Pacific grenadier
12	Total	2.954	71.0	0.020558	0.779180	*Sebastes alutus*	Pacific ocean perch
13	Total	2.064	40.2	0.014363	0.793543	*Allocentrotus fragilis*	Orange-pink sea urchin
14	Total	2.023	99.8	0.014078	0.807621	*Sebastes flavidus*	Yellowtail rockfish
15	Total	1.924	25.5	0.013388	0.821009	*Raja rhina*	Longnose skate
16	Total	1.812	89.5	0.012609	0.833619	*Brisaster latifrons*	
17	Total	1.648	21.9	0.011468	0.845086	*Paractinostola faeculenta*	Rough purple sea anemone
18	Total	1.645	82.8	0.011448	0.856534	*Sebastes diploproa*	Splitnose rockfish
19	Total	1.321	22.9	0.009191	0.865725	*Atheresthes stomias*	Arrowtooth flounder
20	Total	1.226	82.3	0.008532	0.874257	*Sebastes zacentrus*	Sharpchin rockfish
21	Total	1.212	28.6	0.008437	0.882694	*Lyopsetta exilis*	Slender sole
22	Total	0.973	19.2	0.006775	0.889468	*Antimora microlepis*	Pacific flatnose
23	Total	0.970	30.5	0.006749	0.896218	*Lycodes cortezianus*	Bigfin eelpout
24	Total	0.921	87.5	0.006407	0.902625	*Sebastes crameri*	Darkblotched rockfish
25	Total	0.787	57.3	0.005479	0.908105	*Aphrocallistes vastus*	Clay pipe sponge
26	Total	0.786	22.0	0.005471	0.913576	*Alepocephalus tenebrosus*	California slickhead
27	Total	0.764	31.7	0.005319	0.918895	*Bathyraja interrupta*	Bering skate
28	Total	0.687	16.2	0.004783	0.923679	*Embassichthys bathybius*	Deepsea sole
29	Total	0.646	17.6	0.004496	0.928174	*Apristurus brunneus*	Brown cat shark
30	Total	0.627	65.9	0.004366	0.932540	*Parastichopus leucothele*	
31	Total	0.626	34.1	0.004360	0.936900	*Hydrolagus colliei*	Spotted ratfish
32	Total	0.583	22.5	0.004055	0.940955	*Bathyraja trachura*	Black skate
33	Total	0.468	26.1	0.003259	0.944215	*Bothrocara brunneum*	Twoline eelpout
34	Total	0.438	70.3	0.003050	0.947265	*Hippoglossus stenolepis*	Pacific halibut
35	Total	0.422	44.8	0.002937	0.950201	*Parophrys vetulus*	English sole
36	Total	0.403	25.7	0.002806	0.953007	*Neptunea amianta*	
37	Total	0.387	61.3	0.002690	0.955698	*Pseudostichopus mollis*	Sandy sea cucumber
38	Total	0.368	19.4	0.002558	0.958256	*Heterozonias alternatus*	
39	Total	0.315	49.7	0.002193	0.960449	*Scotoplanes theeli*	
40	Total	0.312	45.5	0.002169	0.962618	*Luidia foliolata*	
41	Total	0.277	20.7	0.001928	0.964546	*Thrissacanthias penicillatus*	
42	Total	0.212	46.0	0.001473	0.966019	*Lycodes diapterus*	Black eelpout
43	Total	0.201	20.8	0.001402	0.967421	*Bathybembix bairdii*	
44	Total	0.197	97.3	0.001372	0.968793	*Sebastes reedi*	Yellowmouth rockfish
45	Total	0.177	94.1	0.001229	0.970022	*Oncorhynchus tshawytscha*	Chinook salmon
46	Total	0.176	30.9	0.001228	0.971250	*Talismania bifurcata*	Threadfin slickhead
47	Total	0.172	78.9	0.001199	0.972449	*Sebastes elongatus*	Greenstriped rockfish
48	Total	0.166	100.0	0.001153	0.973603	*Alosa sapidissima*	American shad
49	Total	0.142	63.5	0.000991	0.974594	*Trachurus symmetricus*	Jack mackerel
50	Total	0.140	92.5	0.000971	0.975565	*Neptunea* sp.	

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
51	Total	0.134	75.5	0.000932	0.976496	*Rathbunaster californicus*	
52	Total	0.127	53.1	0.000884	0.977380	*Sebastes entomelas*	Widow rockfish
53	Total	0.125	70.2	0.000873	0.978254	*Bathyraja abyssicola*	Deepsea skate
54	Total	0.120	50.2	0.000836	0.979089	*Psychrolutes phrictus*	Blob sculpin
55	Total	0.109	51.0	0.000758	0.979848	*Sebastes aurora*	Aurora rockfish
56	Total	0.107	65.3	0.000743	0.980590	*Ophiodon elongatus*	Lingcod
57	Total	0.105	33.0	0.000729	0.981319	*Eopsetta jordani*	Petrale sole
58	Total	0.099	46.4	0.000691	0.982010	*Paralomis multispina*	
59	Total	0.091	29.7	0.000631	0.982642	*Hippasteria californica*	
60	Total	0.090	28.1	0.000626	0.983268	*Liponema brevicorne*	Tentacle-shedding anemone
61	Total	0.089	25.6	0.000622	0.983890	*Embryx crotalinus*	Snakehead eelpout
62	Total	0.086	79.8	0.000597	0.984487	*Sebastes borealis*	Shortraker rockfish
63	Total	0.084	19.3	0.000582	0.985069	*Crossaster borealis*	
64	Total	0.080	29.7	0.000556	0.985625	*Careproctus melanurus*	Blacktail snailfish
65	Total	0.079	21.4	0.000549	0.986173	Myxinidae	Hagfish
66	Total	0.076	35.9	0.000530	0.986704	*Nearchaster aciculosus*	
67	Total	0.075	52.1	0.000520	0.987224	Scyphozoa (class)	Jellyfish unident.
68	Total	0.074	63.7	0.000518	0.987742	*Lopholithodes foraminatus*	Box crab
69	Total	0.066	85.8	0.000457	0.988199	*Sebastes pinniger*	Canary rockfish
70	Total	0.065	39.2	0.000451	0.988650	*Ophiura sarsi*	
71	Total	0.063	100.0	0.000441	0.989091	Hexactinellida (class)	Glass sponge
72	Total	0.062	87.4	0.000433	0.989524	*Sebastes saxicola*	Stripetail rockfish
73	Total	0.058	54.1	0.000407	0.989931	*Cancer magister*	Dungeness crab
74	Total	0.058	48.4	0.000401	0.990331	*Sebastes aleutianus*	Rougheye rockfish
75	Total	0.056	45.3	0.000389	0.990720	*Opisthoteuthis californiana*	Flapjack devilfish
76	Total	0.054	49.6	0.000377	0.991098	*Hylonema* sp.	Fiberoptic sponge
77	Total	0.053	19.3	0.000369	0.991466	*Bathylagus* sp.	Blacksmelt unident.
78	Total	0.053	79.7	0.000366	0.991833	*Actinauge verrillii*	Reticulate anemone
79	Total	0.050	59.2	0.000346	0.992179	*Sebastes helvomaculatus*	Rosethorn rockfish
80	Total	0.048	52.4	0.000331	0.992509	*Neptunea pribiloffensis*	Pribilof whelk
81	Total	0.047	100.0	0.000327	0.992836	*Chionoecetes angulatus*	Triangle tanner crab
82	Total	0.045	89.9	0.000310	0.993146	*Benthoctopus* sp.	
83	Total	0.044	54.4	0.000308	0.993455	*Pagurus* sp.	
84	Total	0.041	32.0	0.000284	0.993739	*Sebastes babcocki*	Redbanded rockfish
85	Total	0.035	50.1	0.000247	0.993986	*Octopus dofleini*	Giant octopus
86	Total	0.035	15.8	0.000241	0.994228	*Chauliodus macouni*	Pacific viperfish
87	Total	0.035	31.6	0.000241	0.994469	*Stylatula* sp.	Slender seawhips
88	Total	0.032	39.6	0.000222	0.994691	*Eptatretus deani*	Black hagfish
89	Total	0.031	21.1	0.000214	0.994905	*Vampyroteuthis infernalis*	
90	Total	0.030	71.3	0.000209	0.995115	*Sebastes proriger*	Redstripe rockfish
91	Total	0.028	65.0	0.000193	0.995308	*Buccinum viridum*	Turban whelk
92	Total	0.027	35.4	0.000187	0.995495	Thaliacea (class)	Salps unident.
93	Total	0.025	30.7	0.000175	0.995670	*Zoraster evermanni*	
94	Total	0.025	53.8	0.000171	0.995841	Actinostolidae	
95	Total	0.021	35.5	0.000144	0.995985	*Myoxoderma sacculatum*	
96	Total	0.021	15.0	0.000144	0.996129	*Lampanyctus* sp.	
97	Total	0.020	74.4	0.000141	0.996270	*Pandalus platyceros*	Spot shrimp
98	Total	0.020	54.4	0.000139	0.996409	*Nearchaster* sp.	
99	Total	0.019	31.8	0.000129	0.996538	*Lithodes couesi*	
100	Total	0.018	31.0	0.000126	0.996664	*Taningia danae*	Rhomboid squid
101	Total	0.016	60.0	0.000113	0.996777	Hormathiidae	
102	Total	0.016	37.1	0.000113	0.996890	Bathylagidae	Deepsea smelt
103	Total	0.016	65.4	0.000113	0.997002	*Berryteuthis magister*	Magistrate armhook squid
104	Total	0.015	36.7	0.000107	0.997110	*Actinostola* sp.	
105	Total	0.015	98.0	0.000105	0.997215	*Buccinum strigillatum*	
106	Total	0.015	44.7	0.000102	0.997317	*Octopus leioderma*	Smoothskin octopus
107	Total	0.014	70.9	0.000099	0.997417	*Sebastes brevispinis*	Silvergray rockfish
108	Total	0.013	86.2	0.000092	0.997509	*Metridium giganteum*	Gigantic anemone
109	Total	0.013	54.6	0.000090	0.997599	*Pteraster coscinopeplus*	Deepwater pteraster

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
110	Total	0.013	31.7	0.000090	0.997689	*Tritonia diomedea*	Rosy tritonia
111	Total	0.013	100.0	0.000089	0.997777	*Neptunea lyrata*	Lyre whelk
112	Total	0.012	82.2	0.000087	0.997864	*Lophaster furcilliger*	
113	Total	0.012	17.2	0.000086	0.997950	*Tactostoma macropus*	Longfin dragonfish
114	Total	0.011	69.7	0.000077	0.998027	*Hippasteria spinosa*	
115	Total	0.011	16.2	0.000076	0.998103	*Pasiphaea tarda*	Crimson pasiphaeid
116	Total	0.010	100.0	0.000071	0.998173	Porifera (phylum)	
117	Total	0.009	100.0	0.000066	0.998239	*Gadus macrocephalus*	Pacific cod
118	Total	0.009	41.8	0.000063	0.998302	*Ampheraster marianus*	
119	Total	0.008	70.9	0.000059	0.998361	*Stylasterias forreri*	
120	Total	0.008	98.4	0.000057	0.998418	*Molpadia intermedia*	
121	Total	0.008	88.3	0.000056	0.998474	*Phacellophora camtchatica*	
122	Total	0.008	76.8	0.000054	0.998528	*Ctenodiscus crispatus*	Common mud star
123	Total	0.008	73.6	0.000052	0.998581	*Icelinus filamentosus*	Threadfin sculpin
124	Total	0.007	46.9	0.000052	0.998633	Porifera (phylum)	Sponge unident.
125	Total	0.007	45.1	0.000049	0.998681	*Octopoteuthis deletron*	
126	Total	0.007	57.0	0.000048	0.998730	*Apristurus kampae*	Longnose cat shark
127	Total	0.006	76.3	0.000045	0.998774	*Pandalus jordani*	Ocean shrimp
128	Total	0.006	100.0	0.000042	0.998816	*Alepisaurus ferox*	Longnose lancetfish
129	Total	0.005	55.2	0.000038	0.998853	*Pseudarchaster parelii*	
130	Total	0.005	61.5	0.000037	0.998890	*Pannychia moseleyi*	
131	Total	0.005	75.9	0.000036	0.998926	*Eptatretus* sp.	
132	Total	0.005	73.0	0.000035	0.998962	*Diplopteraster multipes*	
133	Total	0.005	100.0	0.000034	0.998996	*Somniosus pacificus*	Pacific sleeper shark
134	Total	0.005	73.2	0.000033	0.999029	*Anthomastus* sp.	
135	Total	0.005	34.2	0.000033	0.999062	*Pagurus tanneri*	Longhand hermit
136	Total	0.005	51.9	0.000031	0.999093	*Sebastes jordani*	Shortbelly rockfish
137	Total	0.004	100.0	0.000031	0.999124	*Pseudostichopus* sp.	
138	Total	0.004	32.0	0.000031	0.999155	Myctophidae	Lanternfish
139	Total	0.004	66.4	0.000030	0.999185	Actiniaria (order)	Sea anemone unident.
140	Total	0.004	100.0	0.000029	0.999214	*Citharichthys sordidus*	Pacific sanddab
141	Total	0.004	40.7	0.000028	0.999242	Aphroditidae	Sea mouse unident.
142	Total	0.004	49.6	0.000027	0.999269	*Tritonia* sp.	
143	Total	0.004	53.6	0.000026	0.999295	*Fusitriton oregonensis*	Oregon triton
144	Total	0.004	33.2	0.000025	0.999320	*Sagamichthys abei*	Shining tubeshoulder
145	Total	0.004	40.7	0.000025	0.999345	Pennatulacea (order)	Sea pen or sea whip
146	Total	0.004	59.1	0.000024	0.999370	*Careproctus colletti*	Alaska snailfish
147	Total	0.003	46.7	0.000023	0.999393	*Careproctus* sp.	
148	Total	0.003	69.9	0.000022	0.999415	*Luidiaster dawsoni*	
149	Total	0.003	74.1	0.000022	0.999437	*Histioteuthis hoylei*	
150	Total	0.003	72.3	0.000021	0.999457	*Solaster paxillatus*	
151	Total	0.003	48.7	0.000020	0.999478	*Pseudarchaster parelii*	
152	Total	0.003	86.7	0.000018	0.999496	*Periphylla periphylla*	
153	Total	0.003	47.5	0.000018	0.999513	*Bathyagonus pentacanthus*	Bigeye poacher
154	Total	0.002	100.0	0.000017	0.999531	*Icichthys lockingtoni*	Medusafish
155	Total	0.002	100.0	0.000017	0.999547	*Hippoglossoides elassodon*	Flathead sole
156	Total	0.002	79.9	0.000017	0.999564	*Stomphia coccinea*	Swimming anemone
157	Total	0.002	63.5	0.000015	0.999579	*Antipathes* sp.	
158	Total	0.002	45.1	0.000014	0.999593	Actiniaria (order)	
159	Total	0.002	50.0	0.000013	0.999606	Gastropoda (class)	Snail eggs unident.
160	Total	0.002	67.3	0.000013	0.999619	*Thetys vagina*	Common salp
161	Total	0.002	52.6	0.000013	0.999632	*Umbellula* sp.	
162	Total	0.002	61.9	0.000013	0.999644	*Histioteuthis* sp.	Jewel squids
163	Total	0.002	68.1	0.000012	0.999656	*Xeneretmus latifrons*	Blacktip poacher
164	Total	0.002	38.9	0.000012	0.999668	*Aristostomias scintillans*	Shining loosejaw
165	Total	0.002	85.6	0.000012	0.999680	*Ophiopholis* sp.	
166	Total	0.002	45.0	0.000011	0.999691	*Neomenia* sp.	
167	Total	0.001	86.1	0.000010	0.999701	*Pteraster tesselatus*	
168	Total	0.001	68.7	0.000010	0.999711	*Dipsacaster* sp.	

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
169	Total	0.001	51.8	0.000009	0.999720	*Chiroteuthis* sp.	
170	Total	0.001	100.0	0.000008	0.999728	*Thaleichthys pacificus*	Eulachon
171	Total	0.001	93.9	0.000008	0.999736	*Chiroteuthis calyx*	
172	Total	0.001	88.8	0.000008	0.999744	*Nezumia stelgidolepis*	California grenadier
173	Total	0.001	86.6	0.000008	0.999751	*Amphiophiura ponderosa*	
174	Total	0.001	64.5	0.000007	0.999759	Cephalopoda (class)	Squid unident.
175	Total	0.001	56.5	0.000007	0.999766	*Coryphaenoides cinereus*	Popeye grenadier
176	Total	0.001	71.2	0.000007	0.999773	*Swiftia* sp.	
177	Total	0.001	60.1	0.000007	0.999779	Rajiidae	Skate unident.
178	Total	0.001	88.6	0.000007	0.999786	*Mediaster aequalis*	
179	Total	0.001	58.0	0.000006	0.999792	*Chorilia longipes*	Longhorned decorator crab
180	Total	0.001	86.2	0.000006	0.999799	*Pleurobranchaea californica*	California sea slug
181	Total	0.001	52.3	0.000006	0.999805	*Chrysaora melanaster*	
182	Total	0.001	100.0	0.000006	0.999811	*Cyanea capillata*	Lion's mane
183	Total	0.001	58.4	0.000006	0.999817	Actiniaria (order)	Purple striated sea anemone
184	Total	0.001	71.0	0.000006	0.999823	*Pteraster* sp.	
185	Total	0.001	68.8	0.000005	0.999828	*Beroe* sp.	
186	Total	0.001	44.7	0.000005	0.999833	*Asteronyx loveni*	
187	Total	0.001	100.0	0.000005	0.999838	*Dicrolene filamentosa*	Threadfin cusk-eel
188	Total	0.001	95.7	0.000005	0.999843	*Brisingella* sp.	
189	Total	0.001	66.4	0.000005	0.999848	*Eualus macrophthalmus*	
190	Total	0.001	100.0	0.000005	0.999853	*Raja binoculata*	
191	Total	0.001	84.4	0.000005	0.999858	Cephalopoda (class)	Squid unident.
192	Total	0.001	72.7	0.000005	0.999862	*Henricia* sp.	
193	Total	0.001	56.1	0.000005	0.999867	*Virgularia* sp.	Smoothstem seawhip
194	Total	0.001	100.0	0.000004	0.999871	*Careproctus cypselurus*	Blackfin snailfish
195	Total	0.001	49.2	0.000004	0.999876	*Pasiphaea pacifica*	Pacific glass shrimp
196	Total	0.001	74.7	0.000004	0.999880	Melanostomiidae	Scaleless dragonfish
197	Total	0.001	81.7	0.000004	0.999884	*Bathyraja* sp.	
198	Total	0.001	29.8	0.000004	0.999887	*Periphylla* sp.	
199	Total	<0.001	100.0	0.000003	0.999891	*Sebastes wilsoni*	Pygmy rockfish
200	Total	<0.001	72.5	0.000003	0.999894	*Anoplogaster cornuta*	Fangtooth
201	Total	<0.001	52.8	0.000003	0.999898	*Poromitra crassiceps*	Crested bigscale
202	Total	<0.001	63.6	0.000003	0.999901	*Gonatus onyx*	Clawed armhook squid
203	Total	<0.001	70.4	0.000003	0.999904	*Lycodes pacificus*	Blackbelly eelpout
204	Total	<0.001	84.4	0.000003	0.999907	*Corallimorphus* sp.	
205	Total	<0.001	57.2	0.000003	0.999909	*Lampetra tridentata*	Pacific lamprey
206	Total	<0.001	100.0	0.000003	0.999912	*Buccinum oedematum*	Swollen whelk
207	Total	<0.001	100.0	0.000003	0.999915	*Pagurus kennerlyi*	Bluespine hermit
208	Total	<0.001	100.0	0.000002	0.999917	*Rossia pacifica*	E. Pacific bobtail squid
209	Total	<0.001	76.6	0.000002	0.999919	Polychaeta (class)	Polychaete worm unident.
210	Total	<0.001	50.4	0.000002	0.999922	*Bathyagonus* sp.	Starsnout poacher
211	Total	<0.001	100.0	0.000002	0.999924	*Paraliparus rosaceus*	
212	Total	<0.001	45.4	0.000002	0.999926	*Eualus* sp.	
213	Total	<0.001	47.0	0.000002	0.999928	*Notostomus japonicus*	Spinyridge shrimp
214	Total	<0.001	100.0	0.000002	0.999930	*Plicifusus sp.*	Gray whelk
215	Total	<0.001	70.6	0.000002	0.999932	*Benthalbella dentata*	Northern pearleye
216	Total	<0.001	78.0	0.000002	0.999934	Nemichthyidae	Snipe eel
217	Total	<0.001	47.9	0.000002	0.999936	Nudibranchia (order)	Gastropod unident.
218	Total	<0.001	100.0	0.000002	0.999938	*Stenobrachius leucopsarus*	Northern lampfish
219	Total	<0.001	100.0	0.000002	0.999940	*Buccinum* sp.	
220	Total	<0.001	100.0	0.000002	0.999942	*Melamphaes lugubris*	Highsnout bigscale
221	Total	<0.001	77.1	0.000002	0.999944	*Acharax johnsoni*	
222	Total	<0.001	84.1	0.000002	0.999945	*Crangon communis*	Twospine crangon
223	Total	<0.001	100.0	0.000002	0.999947	Holothuroidea (class)	Sea cucumber unident.
224	Total	<0.001	100.0	0.000002	0.999948	*Xeneretmus leiops*	Smootheye poacher
225	Total	<0.001	74.2	0.000002	0.999950	*Buccinum* sp.	
226	Total	<0.001	70.4	0.000001	0.999951	*Psolus* sp.	
227	Total	<0.001	52.2	0.000001	0.999953	*Nemichthys scolopaceus*	Slender snipe eel

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
228	Total	<0.001	76.3	0.000001	0.999954	*Lampanyctus regalis*	Pinpoint lampfish
229	Total	<0.001	100.0	0.000001	0.999956	*Icelinus oculatus*	Frogmouth sculpin
230	Total	<0.001	96.1	0.000001	0.999957	Cyclopteridae	Snailfish unident.
231	Total	<0.001	100.0	0.000001	0.999958	*Bothrocara remigerum*	Longfin eelpout
232	Total	<0.001	100.0	0.000001	0.999960	*Oneirodes* sp.	
233	Total	<0.001	78.3	0.000001	0.999961	*Laqueus californianus*	
234	Total	<0.001	100.0	0.000001	0.999963	*Brisingella exilis*	
235	Total	<0.001	100.0	0.000001	0.999964	*Melanocetus johnsonii*	Common blackdevil
236	Total	<0.001	100.0	0.000001	0.999965	Oneirodidae	Dreamer unident.
237	Total	<0.001	100.0	0.000001	0.999966	*Notolepsis risso*	Ribbon barracudina
238	Total	<0.001	43.8	0.000001	0.999968	*Lycodapus fierasfer*	Blackmouth eelpout
239	Total	<0.001	80.7	0.000001	0.999969	*Stereomastus sculpta*	
240	Total	<0.001	68.6	0.000001	0.999970	*Bathypathes* sp.	
241	Total	<0.001	100.0	0.000001	0.999971	Osteichthyes (class)	
242	Total	<0.001	100.0	0.000001	0.999972	*Antiplanes* sp.	
243	Total	<0.001	100.0	0.000001	0.999973	*Symbolophorus californiensis*	California lanternfish
244	Total	<0.001	74.6	0.000001	0.999974	*Macropinna microstoma*	Barreleye
245	Total	<0.001	100.0	0.000001	0.999975	*Pseudarchaster pussillus*	
246	Total	<0.001	68.1	0.000001	0.999976	*Asteronyx* sp.	
247	Total	<0.001	100.0	0.000001	0.999977	*Malacocottus zonurus*	Darkfin sculpin
248	Total	<0.001	93.6	0.000001	0.999978	Tube worm unident.	
249	Total	<0.001	100.0	0.000001	0.999979	*Ophidion scrippsae*	Basketweave cusk-eel
250	Total	<0.001	100.0	0.000001	0.999979	Bivalvia (class)	Bivalve unident.
251	Total	<0.001	64.9	0.000001	0.999980	*Bathyagonus nigripinnis*	Blackfin poacher
253	Total	<0.001	100.0	0.000001	0.999982	*Careproctus gilberti*	Smalldisk snailfish
252	Total	<0.001	100.0	0.000001	0.999982	Cow-eye tunicate (new species a)	
254	Total	<0.001	53.8	0.000001	0.999983	*Apristurus brunneus*	Cat shark egg case
255	Total	<0.001	100.0	0.000001	0.999983	Bivalvia (class)	Bivalve unident.
256	Total	<0.001	100.0	0.000001	0.999984	Ascidiacea (class)	Tunicate unident.
257	Total	<0.001	100.0	0.000001	0.999985	*Ptilosarcus gurneyi*	Orange sea pen
258	Total	<0.001	100.0	0.000001	0.999986	Gorgonacea (order)	Gorgonian coral
259	Total	<0.001	92.9	0.000001	0.999986	*Gnathophausia ingens*	
260	Total	<0.001	100.0	0.000001	0.999987	*Actinernus* sp.	
261	Total	<0.001	100.0	0.000001	0.999988	*Pagurus aleuticus*	Aleutian hermit
262	Total	<0.001	100.0	0.000001	0.999988	*Crossaster papposus*	Rose sea star
263	Total	<0.001	100.0	0.000001	0.999989	Sipuncula (phylum)	Sipunculid worm
264	Total	<0.001	100.0	0.000001	0.999989	*Pandalus tridens*	Yellowleg pandalid
265	Total	<0.001	100.0	0.000001	0.999990	*Bathylagus ochotensis*	Popeye blacksmelt
266	Total	<0.001	89.0	0.000000	0.999990	Brachiopoda (class)	Lampshells unident.
267	Total	<0.001	74.2	0.000000	0.999991	*Anteliaster* sp.	
268	Total	<0.001	63.2	0.000000	0.999991	Ophiuroidea (class)	Brittlestarfish unident.
269	Total	<0.001	100.0	0.000000	0.999992	Aplacophora (class)	
270	Total	<0.001	100.0	0.000000	0.999992	*Pandalopsis dispar*	Sidestripe shrimp
271	Total	<0.001	54.9	0.000000	0.999992	*Delectopecten vancouverensis*	Vancouver scallop
272	Total	<0.001	70.3	0.000000	0.999993	*Tarletonbeania crenularis*	Blue lanternfish
273	Total	<0.001	100.0	0.000000	0.999993	*Scopelosaurus harryi*	Scaly paperbone
274	Total	<0.001	100.0	0.000000	0.999994	*Calinaticina oldroyi*	
275	Total	<0.001	100.0	0.000000	0.999994	Virgularidae	Sea whip
276	Total	<0.001	100.0	0.000000	0.999994	*Parantipathes* sp.	
277	Total	<0.001	100.0	0.000000	0.999995	*Sternoptyx diaphana*	Longspine hatchetfish
278	Total	<0.001	100.0	0.000000	0.999995	*Sclerocrangon sculptus*	
279	Total	<0.001	100.0	0.000000	0.999995	*Diaphus theta*	California headlightfish
280	Total	<0.001	59.8	0.000000	0.999996	*Colus aphelus*	Oblique whelk
281	Total	<0.001	100.0	0.000000	0.999996	*Calcigorgia* sp.	
282	Total	<0.001	100.0	0.000000	0.999996	*Yoldia* sp.	
283	Total	<0.001	100.0	0.000000	0.999996	*Munida quadrispina*	
284	Total	<0.001	100.0	0.000000	0.999997	*Sternoptyx* sp.	
285	Total	<0.001	81.1	0.000000	0.999997	*Poraniopsis inflata*	
286	Total	<0.001	100.0	0.000000	0.999997	*Calliostoma platinum*	Silvery topsnail

Table B-5.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
287	Total	<0.001	100.0	0.000000	0.999997	Heteropoda (suborder)	
288	Total	<0.001	76.7	0.000000	0.999998	Thoracica (order)	Barnacle
289	Total	<0.001	60.5	0.000000	0.999998	*Polinices* sp.	
290	Total	<0.001	79.0	0.000000	0.999998	*Solariella nuda*	Naked solarelle
291	Total	<0.001	59.9	0.000000	0.999998	Melamphaidae	Bigscale
292	Total	<0.001	100.0	0.000000	0.999998	Gastropoda (class)	Gastropod unident.
293	Total	<0.001	100.0	0.000000	0.999999	*Leuroglossus schmidti*	Northern smoothtongue
294	Total	<0.001	100.0	0.000000	0.999999	*Gonatus* sp.	
295	Total	<0.001	82.2	0.000000	0.999999	Isopoda (order)	Isopod unident.
296	Total	<0.001	100.0	0.000000	0.999999	*Polinices pallidus*	Pale moonsnail
297	Total	<0.001	100.0	0.000000	0.999999	*Callianassa* sp.	
298	Total	<0.001	100.0	0.000000	0.999999	Malacostraca (class)	Malacostracan unident.
299	Total	<0.001	100.0	0.000000	0.999999	Gastropoda (class)	Snail unident.
300	Total	<0.001	100.0	0.000000	0.999999	Scaphopoda	Scaphopod unident.
301	Total	<0.001	74.3	0.000000	1.000000	*Sebastes* sp.	Rockfish unident.
302	Total	<0.001	74.7	0.000000	1.000000	*Cyclothone* sp.	
303	Total	<0.001	100.0	0.000000	1.000000	Elasmobranchi (subclass)	Shark egg case unident.
304	Total	<0.001	100.0	0.000000	1.000000	Crinoidea (class)	Crinoid unident.
305	Total	<0.001	100.0	0.000000	1.000000	*Ophiacantus* sp.	
306	Total	<0.001	100.0	0.000000	1.000000	*Leuroglossus* sp.	
307	Total	<0.001	100.0	0.000000	1.000000	*Tarletonbeania* sp.	
308	Total	<0.001	100.0	0.000000	1.000000	*Psychrolutes* sp.	
	Total	143.6997					

Table B-6.--Rank order of relative abundance (kg/ha) of fishes and invertebrates by depth stratum for the International North Pacific Fisheries Commission U.S. Vancouver area from the 1999 West Coast uppe continental slope bottom trawl survey. Stratum 1 =183-366 m, Stratum 2 = 367-549 m, Stratum 3 = 550-732 m, Stratum 4 = 733-914 m, Stratum 5 = 915-1,097 m, and Stratum 6 = 1,098-1,280 m.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	*Scientific Name*	Common Name
1	1	243.850	71.0	0.493740	0.493740	*Squalus acanthias*	Spiny dogfish
2	1	96.662	93.4	0.195718	0.689458	*Merluccius productus*	Pacific hake
3	1	15.723	71.0	0.031835	0.721293	*Sebastes alutus*	Pacific ocean perch
4	1	15.434	34.4	0.031251	0.752545	*Microstomus pacificus*	Dover sole
5	1	15.106	87.8	0.030586	0.783130	*Hydrolagus colliei*	Spotted ratfish
6	1	13.205	33.8	0.026737	0.809868	*Raja rhina*	Longnose skate
7	1	11.020	53.8	0.022314	0.832182	*Lyopsetta exilis*	Slender sole
8	1	10.517	55.0	0.021294	0.853476	*Allocentrotus fragilis*	Orange-pink sea urchin
9	1	8.361	65.9	0.016929	0.870405	*Glyptocephalus zachirus*	Rex sole
10	1	8.157	93.8	0.016517	0.886922	*Sebastes crameri*	Darkblotched rockfish
11	1	7.189	96.5	0.014555	0.901477	*Luidia foliolata*	
12	1	7.098	28.9	0.014372	0.915848	*Atheresthes stomias*	Arrowtooth flounder
13	1	6.306	100.0	0.012767	0.928616	*Brisaster latifrons*	
14	1	4.657	62.8	0.009429	0.938044	*Anoplopoma fimbria*	Sablefish
15	1	4.649	63.3	0.009413	0.947458	*Parophrys vetulus*	English sole
16	1	2.838	31.9	0.005746	0.953204	*Eopsetta jordani*	Petrale sole
17	1	2.721	90.4	0.005508	0.958712	*Sebastes entomelas*	Widow rockfish
18	1	2.589	67.1	0.005241	0.963953	*Trachurus symmetricus*	Jack mackerel
19	1	2.254	88.3	0.004564	0.968517	*Sebastes elongatus*	Greenstriped rockfish
20	1	2.062	45.4	0.004176	0.972693	*Sebastolobus alascanus*	Shortspine thornyhead
21	1	1.952	43.9	0.003953	0.976646	*Sebastes diploproa*	Splitnose rockfish
22	1	1.600	15.4	0.003240	0.979886	*Bathyraja interrupta*	Bering skate
23	1	1.212	98.6	0.002454	0.982340	*Paractinostola faeculenta*	Rough purple sea anemone
24	1	1.113	100.0	0.002254	0.984594	*Ophiodon elongatus*	Lingcod
25	1	0.837	100.0	0.001696	0.986290	*Ophiura sarsi*	
26	1	0.810	91.3	0.001640	0.987930	*Sebastes babcocki*	Redbanded rockfish
27	1	0.680	50.8	0.001376	0.989306	*Gadus macrocephalus*	Pacific cod
28	1	0.615	100.0	0.001245	0.990551	*Cancer magister*	Dungeness crab
29	1	0.559	75.6	0.001132	0.991683	*Rathbunaster californicus*	
30	1	0.351	100.0	0.000710	0.992394	*Sebastes proriger*	Redstripe rockfish
31	1	0.305	100.0	0.000618	0.993011	*Sebastes brevispinis*	Silvergray rockfish
32	1	0.302	100.0	0.000612	0.993624	*Hippasteria spinosa*	
33	1	0.300	31.5	0.000607	0.994230	*Lycodes cortezianus*	Bigfin eelpout
34	1	0.281	100.0	0.000569	0.994799	*Bathyraja trachura*	Black skate
35	1	0.246	50.0	0.000498	0.995297	*Sebastes zacentrus*	Sharpchin rockfish
36	1	0.217	100.0	0.000440	0.995737	*Sebastes aleutianus*	Rougheye rockfish
37	1	0.214	56.4	0.000434	0.996171	*Liponema brevicorne*	Tentacle-shedding anemone
38	1	0.198	86.5	0.000400	0.996571	*Pseudostichopus mollis*	Sandy sea cucumber
39	1	0.160	100.0	0.000325	0.996896	*Antimora microlepis*	Pacific flatnose
40	1	0.157	86.5	0.000318	0.997214	*Sebastes helvomaculatus*	Rosethorn rockfish
41	1	0.152	93.7	0.000307	0.997521	*Pandalus platyceros*	Spot shrimp
42	1	0.133	100.0	0.000270	0.997791	*Theragra chalcogramma*	Walleye pollock
43	1	0.109	100.0	0.000221	0.998012	*Sebastolobus altivelis*	Longspine thornyhead
44	1	0.099	100.0	0.000200	0.998212	*Alosa sapidissima*	American shad
45	1	0.091	54.7	0.000184	0.998396	*Careproctus melanurus*	Blacktail snailfish
46	1	0.075	100.0	0.000152	0.998548	*Icelinus filamentosus*	Threadfin sculpin
47	1	0.074	47.9	0.000150	0.998698	*Apristurus brunneus*	Brown cat shark
48	1	0.065	100.0	0.000131	0.998829	*Diplopteraster multipes*	
49	1	0.062	100.0	0.000126	0.998956	*Tritonia* sp.	
50	1	0.055	100.0	0.000111	0.999067	*Heterozonias alternatus*	
51	1	0.055	95.2	0.000111	0.999178	*Pandalus jordani*	Ocean shrimp
52	1	0.043	100.0	0.000087	0.999264	*Chionoecetes tanneri*	True Tanner crab
53	1	0.042	100.0	0.000086	0.999350	*Lopholithodes foraminatus*	Box crab
54	1	0.041	100.0	0.000083	0.999433	*Stylatula* sp.	Slender seawhips
55	1	0.033	100.0	0.000066	0.999499	*Eptatretus deani*	Black hagfish

Table B-6.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	*Scientific Name*	Common Name
56	1	0.030	100.0	0.000062	0.999561	*Pagurus aleuticus*	Aleutian hermit
57	1	0.021	100.0	0.000043	0.999603	*Zoraster evermanni*	
58	1	0.021	100.0	0.000042	0.999646	*Lycodes diapterus*	Black eelpout
59	1	0.021	100.0	0.000042	0.999687	Actiniaria (order)	Sea anemone unident.
60	1	0.019	100.0	0.000038	0.999726	*Molpadia intermedia*	
61	1	0.016	100.0	0.000032	0.999757	*Hippasteria californica*	
62	1	0.014	100.0	0.000028	0.999786	*Lycodes pacificus*	Blackbelly eelpout
63	1	0.011	100.0	0.000022	0.999807	*Pseudarchaster parelii*	
64	1	0.010	100.0	0.000021	0.999828	*Stylasterias forreri*	
65	1	0.010	100.0	0.000021	0.999849	*Ctenodiscus crispatus*	Common mud star
66	1	0.009	100.0	0.000018	0.999867	*Paguristes turgidus*	
67	1	0.008	100.0	0.000016	0.999883	*Pagurus* sp.	
68	1	0.007	50.8	0.000015	0.999898	*Crossaster borealis*	
69	1	0.006	51.8	0.000013	0.999912	*Bathyagonus pentacanthus*	Bigeye poacher
70	1	0.005	100.0	0.000010	0.999921	*Crossaster papposus*	Rose sea star
71	1	0.005	100.0	0.000010	0.999931	*Pannychia moseleyi*	
72	1	0.005	100.0	0.000009	0.999940	Holothuroidea (class)	Sea cucumber unident.
73	1	0.004	100.0	0.000009	0.999949	*Thrissacanthias penicillatus*	
74	1	0.004	100.0	0.000008	0.999957	*Pteraster tesselatus*	
75	1	0.004	100.0	0.000008	0.999965	*Octopus leioderma*	Smoothskin octopus
76	1	0.003	100.0	0.000007	0.999979	*Colus trophius*	
77	1	0.003	100.0	0.000007	0.999979	*Lycodapus* sp.	
78	1	0.003	100.0	0.000006	0.999985	*Ronquilus jordani*	Northern ronquil
79	1	0.002	100.0	0.000004	0.999990	*Ceramaster patagonicus*	Orange bat star
80	1	0.002	100.0	0.000004	0.999994	*Aphrodita* sp.	
81	1	0.001	100.0	0.000002	0.999996	*Radulinus asprellus*	Slim sculpin
82	1	0.001	100.0	0.000002	0.999997	*Crangon communis*	Twospine crangon
83	1	0.001	100.0	0.000001	0.999998	*Actinauge verrillii*	Reticulate anemone
84	1	<0.001	100.0	0.000001	1.000000	*Bathypathes* sp.	
85	1	<0.001	100.0	0.000001	1.000000	Elasmobranchi (subclass)	*Shark egg case unident.*
Total		493.882					Shark egg case unident.
1	2	26.428	36.2	0.207604	0.207604	Microstomus pacificus	Dover sole
2	2	21.044	99.6	0.165315	0.372919	*Sebastes alutus*	Pacific ocean perch
3	2	12.052	67.0	0.094673	0.467591	*Atheresthes stomias*	Arrowtooth flounder
4	2	10.491	45.6	0.082409	0.550001	*Merluccius productus*	Pacific hake
5	2	7.484	18.4	0.058792	0.608793	*Sebastolobus alascanus*	Shortspine thornyhead
6	2	6.331	64.5	0.049733	0.658526	*Anoplopoma fimbria*	Sablefish
7	2	5.304	85.8	0.041662	0.700188	*Squalus acanthias*	Spiny dogfish
8	2	4.171	25.4	0.032763	0.732951	*Hippoglossus stenolepis*	Pacific halibut
9	2	4.084	50.9	0.032081	0.765032	*Lyopsetta exilis*	Slender sole
10	2	3.956	18.7	0.031078	0.796110	*Raja rhina*	Longnose skate
11	2	2.894	53.8	0.022733	0.818843	*Albatrossia pectoralis*	Giant grenadier
12	2	2.734	66.1	0.021473	0.840316	*Paractinostola faeculenta*	Rough purple sea anemone
13	2	1.990	51.0	0.015632	0.855948	*Apristurus brunneus*	Brown cat shark
14	2	1.777	41.9	0.013958	0.869906	*Lycodes cortezianus*	Bigfin eelpout
15	2	1.733	96.6	0.013611	0.883517	*Allocentrotus fragilis*	Orange-pink sea urchin
16	2	1.686	27.5	0.013245	0.896762	*Sebastes borealis*	Shortraker rockfish
17	2	1.359	100.0	0.010679	0.907441	*Pseudostichopus mollis*	Sandy sea cucumber
18	2	1.359	50.0	0.010675	0.918116	*Chionoecetes tanneri*	True Tanner crab
19	2	1.207	76.7	0.009479	0.927594	*Sebastes aleutianus*	Rougheye rockfish
20	2	1.066	50.9	0.008375	0.935970	*Bothrocara brunneum*	Twoline eelpout
21	2	1.010	35.7	0.007934	0.943903	*Glyptocephalus zachirus*	Rex sole
22	2	0.754	60.7	0.005920	0.949823	*Actinauge verrillii*	Reticulate anemone
23	2	0.674	83.1	0.005293	0.955117	*Parastichopus leucothele*	
24	2	0.555	54.8	0.004358	0.959475	*Pannychia moseleyi*	
25	2	0.531	42.5	0.004169	0.963644	*Bathyraja interrupta*	Bering skate
26	2	0.506	49.0	0.003971	0.967615	*Thrissacanthias penicillatus*	
27	2	0.413	62.5	0.003243	0.970858	*Antimora microlepis*	Pacific flatnose

Table B-6.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	*Scientific Name*	Common Name
28	2	0.374	61.0	0.002939	0.973797	*Lycodes diapterus*	Black eelpout
29	2	0.361	100.0	0.002835	0.976633	*Opisthoteuthis californiana*	Flapjack devilfish
30	2	0.254	50.2	0.001995	0.978627	*Liponema brevicorne*	Tentacle-shedding anemone
31	2	0.242	100.0	0.001905	0.980532	*Sebastes crameri*	Darkblotched rockfish
32	2	0.240	55.4	0.001885	0.982417	*Neptunea pribiloffensis*	Pribilof whelk
33	2	0.204	100.0	0.001601	0.984018	*Octopus dofleini*	Giant octopus
34	2	0.203	100.0	0.001594	0.985612	*Sebastes aurora*	Aurora rockfish
35	2	0.185	100.0	0.001451	0.987062	*Brisaster latifrons*	
36	2	0.163	100.0	0.001279	0.988342	*Rathbunaster californicus*	
37	2	0.161	65.6	0.001265	0.989607	*Fusitriton oregonensis*	Oregon triton
38	2	0.145	55.5	0.001138	0.990745	*Neptunea amianta*	
39	2	0.130	90.8	0.001018	0.991763	*Crossaster borealis*	
40	2	0.112	100.0	0.000881	0.992644	*Sebastes helvomaculatus*	Rosethorn rockfish
41	2	0.093	50.0	0.000731	0.993375	*Careproctus melanurus*	Blacktail snailfish
42	2	0.075	100.0	0.000589	0.993964	*Aphrocallistes vastus*	Clay pipe sponge
43	2	0.063	100.0	0.000498	0.994462	*Sebastes diploproa*	Splitnose rockfish
44	2	0.059	100.0	0.000463	0.994925	*Nearchaster* sp.	
45	2	0.058	60.5	0.000459	0.995384	*Pteraster coscinopeplus*	Deepwater pteraster
46	2	0.055	100.0	0.000433	0.995817	*Eptatretus stouti*	Pacific hagfish
47	2	0.053	100.0	0.000418	0.996235	Cephalopoda (class)	Squid unident.
48	2	0.045	87.9	0.000357	0.996593	*Amphiophiura ponderosa*	
49	2	0.045	100.0	0.000356	0.996948	Porifera (phylum)	Sponge unident.
50	2	0.040	100.0	0.000314	0.997263	*Diplopteraster multipes*	
51	2	0.036	100.0	0.000284	0.997547	Scyphozoa (class)	Jellyfish unident.
52	2	0.035	100.0	0.000275	0.997822	Thaliacea (class)	Salps unident.
53	2	0.033	100.0	0.000262	0.998084	*Hippasteria spinosa*	
54	2	0.031	73.5	0.000241	0.998325	*Heterozonias alternatus*	
55	2	0.030	45.3	0.000237	0.998562	*Neomenia* sp.	
56	2	0.025	100.0	0.000194	0.998755	*Sebastes zacentrus*	Sharpchin rockfish
57	2	0.023	100.0	0.000181	0.998936	Actiniaria (order)	Sea anemone unident.
58	2	0.016	100.0	0.000129	0.999065	*Bathyagonus pentacanthus*	Bigeye poacher
59	2	0.016	100.0	0.000127	0.999192	*Embassichthys bathybius*	Deepsea sole
60	2	0.010	56.9	0.000076	0.999267	*Pasiphaea pacifica*	Pacific glass shrimp
61	2	0.010	67.8	0.000075	0.999343	*Actinostola* sp.	
62	2	0.010	100.0	0.000075	0.999418	*Pagurus tanneri*	Longhand hermit
63	2	0.009	59.3	0.000068	0.999486	*Zoraster evermanni*	
64	2	0.008	100.0	0.000062	0.999610	*Lophaster furcilliger*	
65	2	0.008	100.0	0.000062	0.999610	*Chiroteuthis* sp.	
66	2	0.008	100.0	0.000059	0.999669	*Bathylagus* sp.	Blacksmelt unident.
67	2	0.006	52.7	0.000047	0.999716	Aphroditidae	Sea mouse unident.
68	2	0.006	84.2	0.000044	0.999760	*Pseudarchaster parelii*	
69	2	0.005	55.5	0.000037	0.999797	*Stylatula* sp.	Slender seawhips
70	2	0.004	100.0	0.000033	0.999830	*Pandalus tridens*	Yellowleg pandalid
71	2	0.003	100.0	0.000027	0.999857	*Stylasterias forreri*	
72	2	0.003	100.0	0.000023	0.999880	*Bathybembix bairdii*	
73	2	0.003	100.0	0.000020	0.999901	*Bathypathes* sp.	
74	2	0.002	100.0	0.000015	0.999916	*Molpadia intermedia*	
75	2	0.002	100.0	0.000015	0.999930	*Eualus* sp.	
76	2	0.002	100.0	0.000012	0.999942	*Pasiphaea tarda*	Crimson pasiphaeid
77	2	0.001	100.0	0.000011	0.999965	*Ampheraster marianus*	
78	2	0.001	100.0	0.000011	0.999965	Plicifusus sp.	
79	2	0.001	100.0	0.000010	0.999974	*Bathyagonus nigripinnis*	Blackfin poacher
80	2	0.001	100.0	0.000007	0.999981	*Ophiura sarsi*	
81	2	0.001	100.0	0.000005	0.999986	Rajiidae	Skate unident.
82	2	0.001	100.0	0.000005	0.999996	*Pteraster tesselatus*	
83	2	0.001	100.0	0.000005	0.999996	*Eualus macrophthalmus*	
84	2	0.001	100.0	0.000004	1.000000	Myctophidae	Lanternfish
Total		127.299					

Table B-6.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	*Scientific Name*	Common Name
1	3	42.187	81.6	0.448601	0.448601	*Anoplopoma fimbria*	Sablefish
2	3	14.846	27.5	0.157867	0.606468	*Sebastolobus altivelis*	Longspine thornyhead
3	3	9.545	14.1	0.101494	0.707962	*Chionoecetes tanneri*	True Tanner crab
4	3	7.880	71.7	0.083793	0.791755	*Microstomus pacificus*	Dover sole
5	3	5.479	15.5	0.058262	0.850017	*Sebastolobus alascanus*	Shortspine thornyhead
6	3	4.045	36.4	0.043009	0.893026	*Albatrossia pectoralis*	Giant grenadier
7	3	1.032	9.1	0.010974	0.904000	*Apristurus brunneus*	Brown cat shark
8	3	0.953	43.0	0.010132	0.914132	*Coryphaenoides acrolepis*	Pacific grenadier
9	3	0.817	34.8	0.008687	0.922818	*Embassichthys bathybius*	Deepsea sole
10	3	0.789	17.0	0.008386	0.931204	*Antimora microlepis*	Pacific flatnose
11	3	0.752	72.9	0.007998	0.939203	*Lycodes diapterus*	Black eelpout
12	3	0.549	18.3	0.005838	0.945041	*Bothrocara brunneum*	Twoline eelpout
13	3	0.514	87.9	0.005465	0.950506	*Bathyraja trachura*	Black skate
14	3	0.453	67.7	0.004813	0.955319	*Paractinostola faeculenta*	Rough purple sea anemone
15	3	0.450	100.0	0.004787	0.960106	*Merluccius productus*	Pacific hake
16	3	0.408	65.4	0.004334	0.964441	*Bathybembix bairdii*	
17	3	0.389	11.8	0.004138	0.968579	*Heterozonias alternatus*	
18	3	0.371	60.8	0.003949	0.972528	*Zoraster evermanni*	
19	3	0.333	75.7	0.003538	0.976066	*Hippasteria californica*	
20	3	0.289	100.0	0.003075	0.979141	Hexactinellida (class)	Glass sponge
21	3	0.240	23.4	0.002548	0.981689	*Crossaster borealis*	
22	3	0.158	14.5	0.001682	0.983371	*Thrissacanthias penicillatus*	
23	3	0.156	50.4	0.001664	0.985034	*Neptunea pribiloffensis*	Pribilof whelk
24	3	0.134	100.0	0.001429	0.986463	*Eptatretus deani*	Black hagfish
25	3	0.132	39.7	0.001402	0.987866	Thaliacea (class)	Salps unident.
26	3	0.131	100.0	0.001394	0.989259	*Berryteuthis magister*	Magistrate armhook squid
27	3	0.125	100.0	0.001325	0.990584	*Pseudostichopus mollis*	Sandy sea cucumber
28	3	0.108	50.2	0.001150	0.991734	*Nearchaster aciculosus*	
29	3	0.108	99.3	0.001143	0.992877	*Amphiophiura ponderosa*	
30	3	0.098	54.2	0.001043	0.993920	*Careproctus melanurus*	Blacktail snailfish
31	3	0.062	41.8	0.000660	0.994580	*Ampheraster marianus*	
32	3	0.050	100.0	0.000535	0.995115	*Opisthoteuthis californiana*	Flapjack devilfish
33	3	0.045	62.5	0.000483	0.995599	*Talismania bifurcata*	Threadfin slickhead
34	3	0.039	100.0	0.000418	0.996017	*Vampyroteuthis infernalis*	
35	3	0.034	100.0	0.000361	0.996377	*Hippasteria spinosa*	
36	3	0.033	100.0	0.000354	0.996731	*Taningia danae*	Rhomboid squid
37	3	0.033	25.0	0.000347	0.997078	*Bathylagus* sp.	Blacksmelt unident.
38	3	0.031	50.0	0.000327	0.997405	Myxinidae	Hagfish
39	3	0.027	60.5	0.000290	0.997694	*Tritonia diomedea*	Rosy tritonia
40	3	0.026	50.0	0.000278	0.997973	*Chauliodus macouni*	Pacific viperfish
41	3	0.024	85.6	0.000250	0.998223	*Pannychia moseleyi*	
42	3	0.018	59.4	0.000187	0.998410	*Neptunea amianta*	
43	3	0.016	68.2	0.000173	0.998583	*Lampanyctus* sp.	
44	3	0.013	100.0	0.000137	0.998721	*Alepocephalus tenebrosus*	California slickhead
45	3	0.012	100.0	0.000124	0.998844	*Psolus* sp.	
46	3	0.009	100.0	0.000097	0.998941	*Pteraster coscinopeplus*	Deepwater pteraster
47	3	0.009	100.0	0.000093	0.999035	*Chiroteuthis* sp.	
48	3	0.008	100.0	0.000090	0.999125	*Tactostoma macropus*	Longfin dragonfish
49	3	0.008	100.0	0.000080	0.999204	*Stylasterias forreri*	
50	3	0.006	100.0	0.000069	0.999273	*Antipathes* sp.	
51	3	0.006	50.8	0.000065	0.999338	*Stylatula* sp.	Slender seawhips
52	3	0.006	100.0	0.000061	0.999399	Actiniaria (order)	Red striated sea anemone
53	3	0.006	55.6	0.000060	0.999459	*Pasiphaea tarda*	Crimson pasiphaeid
54	3	0.006	61.9	0.000059	0.999518	*Ophiura sarsi*	
55	3	0.005	79.2	0.000057	0.999575	Myctophidae	Lanternfish
56	3	0.004	100.0	0.000042	0.999617	*Actinostola* sp.	
57	3	0.004	100.0	0.000042	0.999659	*Pagurus* sp.	
58	3	0.004	56.0	0.000041	0.999700	*Asteronyx loveni*	

Table B-6.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	*Scientific Name*	Common Name
59	3	0.004	78.9	0.000039	0.999739	*Henricia leviuscula*	
60	3	0.003	51.8	0.000036	0.999775	*Allocentrotus fragilis*	Orange-pink sea urchin
61	3	0.003	100.0	0.000034	0.999809	*Bathypathes* sp.	
62	3	0.003	57.9	0.000031	0.999840	*Neomenia* sp.	
63	3	0.002	60.9	0.000024	0.999865	*Umbellula* sp.	
64	3	0.002	100.0	0.000024	0.999889	*Actinauge verrillii*	Reticulate anemone
65	3	0.002	71.0	0.000018	0.999907	*Pasiphaea pacifica*	Pacific glass shrimp
66	3	0.002	100.0	0.000017	0.999941	*Lophaster furcilliger*	
67	3	0.002	100.0	0.000017	0.999941	Actiniaria (order)	Sea anemone unident.
68	3	0.001	100.0	0.000011	0.999953	*Liponema brevicorne*	Tentacle-shedding anemone
69	3	0.001	53.5	0.000009	0.999962	Actinostolidae	
70	3	0.001	71.0	0.000009	0.999971	*Periphylla* sp.	
71	3	0.001	100.0	0.000008	0.999986	Crinoidea (class)	Crinoid unident.
72	3	0.001	100.0	0.000008	0.999986	*Eualus* sp.	
73	3	<0.001	100.0	0.000004	0.999990	*Henricia* sp.	
74	3	<0.001	100.0	0.000004	0.999997	*Callianassa* sp.	
75	3	<0.001	100.0	0.000004	0.999997	*Bathyagonus nigripinnis*	Blackfin poacher
76	3	<0.001	100.0	0.000002	0.999999	*Chorilia longipes*	Longhorned decorator crab
77	3	<0.001	100.0	0.000001	1.000000	Asteroidea (class)	Starfish unident.
Total		94.042					
1	4	24.705	17.7	0.422798	0.422798	*Sebastolobus altivelis*	Longspine thornyhead
2	4	7.117	5.2	0.121792	0.544590	*Chionoecetes tanneri*	True Tanner crab
3	4	6.980	29.9	0.119458	0.664047	*Anoplopoma fimbria*	Sablefish
4	4	3.499	18.2	0.059885	0.723932	*Albatrossia pectoralis*	Giant grenadier
5	4	2.751	43.8	0.047075	0.771007	*Sebastolobus alascanus*	Shortspine thornyhead
6	4	1.850	28.6	0.031664	0.802671	*Embassichthys bathybius*	Deepsea sole
7	4	1.317	50.3	0.022534	0.825205	*Bothrocara brunneum*	Twoline eelpout
8	4	1.069	80.1	0.018289	0.843494	*Microstomus pacificus*	Dover sole
9	4	0.945	67.1	0.016173	0.859667	*Heterozonias alternatus*	
10	4	0.915	30.5	0.015656	0.875323	*Paractinostola faeculenta*	Rough purple sea anemone
11	4	0.875	61.7	0.014976	0.890299	*Alepocephalus tenebrosus*	California slickhead
12	4	0.803	14.8	0.013748	0.904047	*Coryphaenoides acrolepis*	Pacific grenadier
13	4	0.742	100.0	0.012701	0.916748	*Bathyraja trachura*	Black skate
14	4	0.695	28.7	0.011900	0.928648	*Apristurus brunneus*	Brown cat shark
15	4	0.535	55.2	0.009148	0.937796	*Crossaster borealis*	
16	4	0.467	44.4	0.008000	0.945796	*Talismania bifurcata*	Threadfin slickhead
17	4	0.440	100.0	0.007529	0.953325	*Aphrocallistes vastus*	Clay pipe sponge
18	4	0.336	29.4	0.005747	0.959072	Myxinidae	Hagfish
19	4	0.293	36.3	0.005010	0.964082	*Bathybembix bairdii*	
20	4	0.292	33.7	0.004990	0.969072	*Opisthoteuthis californiana*	Flapjack devilfish
21	4	0.220	59.8	0.003763	0.972835	*Neptunea amianta*	
22	4	0.198	20.2	0.003396	0.976230	*Embryx crotalinus*	Snakehead eelpout
23	4	0.191	53.1	0.003267	0.979497	*Nearchaster aciculosus*	
24	4	0.163	61.5	0.002785	0.982282	*Lithodes couesi*	
25	4	0.162	35.3	0.002765	0.985047	*Thrissacanthias penicillatus*	
26	4	0.133	39.3	0.002270	0.987317	*Antimora microlepis*	Pacific flatnose
27	4	0.071	40.4	0.001207	0.988524	*Zoraster evermanni*	
28	4	0.070	48.1	0.001200	0.989724	*Hippasteria californica*	
29	4	0.060	41.7	0.001019	0.990742	*Tritonia diomedea*	Rosy tritonia
30	4	0.051	100.0	0.000877	0.991619	*Merluccius productus*	Pacific hake
31	4	0.047	42.2	0.000805	0.992424	*Careproctus melanurus*	Blacktail snailfish
32	4	0.039	100.0	0.000672	0.993095	*Octopus dofleini*	Giant octopus
33	4	0.036	46.2	0.000623	0.993718	Thaliacea (class)	Salps unident.
34	4	0.033	38.3	0.000564	0.994282	*Pannychia moseleyi*	
35	4	0.033	47.7	0.000561	0.994843	*Bathylagus* sp.	Blacksmelt unident.
36	4	0.032	100.0	0.000547	0.995390	*Coryphaenoides cinereus*	Popeye grenadier
37	4	0.029	58.1	0.000491	0.995881	*Taningia danae*	Rhomboid squid
38	4	0.028	60.6	0.000475	0.996356	*Vampyroteuthis infernalis*	

Table B-6.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	*Scientific Name*	Common Name
39	4	0.023	100.0	0.000394	0.996749	Osteichthyes (class)	Fish unident.
40	4	0.022	58.6	0.000372	0.997121	*Neptunea pribiloffensis*	Pribilof whelk
41	4	0.015	38.2	0.000262	0.997383	*Stylatula* sp.	Slender seawhips
42	4	0.013	63.2	0.000217	0.997600	*Buccinum viridum*	Turban whelk
43	4	0.013	45.7	0.000214	0.997814	*Lampanyctus* sp.	
44	4	0.011	59.0	0.000194	0.998008	Actiniaria (order)	Red striated sea anemone
45	4	0.009	49.0	0.000151	0.998160	*Ampheraster marianus*	
46	4	0.008	100.0	0.000142	0.998302	*Lycodes diapterus*	Black eelpout
47	4	0.007	85.9	0.000126	0.998428	Actinostolidae	
48	4	0.007	58.3	0.000122	0.998550	*Tactostoma macropus*	Longfin dragonfish
49	4	0.007	51.7	0.000120	0.998670	*Actinostola* sp.	
50	4	0.007	100.0	0.000120	0.998790	Gastropoda (class)	Snail eggs unident.
51	4	0.006	46.9	0.000094	0.998884	*Pasiphaea tarda*	Crimson pasiphaeid
52	4	0.006	100.0	0.000094	0.998979	*Poraniopsis inflata*	
53	4	0.005	37.5	0.000084	0.999062	*Umbellula* sp.	
54	4	0.005	46.0	0.000079	0.999142	*Chauliodus macouni*	Pacific viperfish
55	4	0.005	100.0	0.000079	0.999221	*Parastichopus leucothele*	
56	4	0.005	59.7	0.000079	0.999300	*Neomenia* sp.	
57	4	0.004	58.1	0.000074	0.999374	*Melanocetus johnsonii*	Common blackdevil
58	4	0.004	100.0	0.000067	0.999441	*Pteraster coscinopeplus*	Deepwater pteraster
59	4	0.004	100.0	0.000061	0.999502	*Lampanyctus jordani*	Brokenline lampfish
60	4	0.003	100.0	0.000049	0.999551	*Chiroteuthis* sp.	
61	4	0.002	63.1	0.000041	0.999591	*Asteronyx loveni*	
62	4	0.002	100.0	0.000037	0.999628	*Careproctus colletti*	Alaska snailfish
63	4	0.002	100.0	0.000037	0.999665	Bivalvia (class)	Bivalve unident.
64	4	0.002	100.0	0.000030	0.999696	*Histioteuthis hoylei*	
65	4	0.002	100.0	0.000027	0.999722	Myctophidae	Lanternfish
66	4	0.001	100.0	0.000023	0.999746	*Pseudarchaster parelii*	
67	4	0.001	75.2	0.000022	0.999768	*Liponema brevicorne*	Tentacle-shedding anemone
68	4	0.001	100.0	0.000019	0.999787	*Notostomus japonicus*	Spinyridge shrimp
69	4	0.001	100.0	0.000019	0.999824	*Ophiura sarsi*	
70	4	0.001	100.0	0.000019	0.999824	*Chorilia longipes*	Longhorned decorator crab
71	4	0.001	100.0	0.000018	0.999842	*Avocettina* sp.	
72	4	0.001	100.0	0.000016	0.999859	*Bathyagonus nigripinnis*	Blackfin poacher
73	4	0.001	100.0	0.000016	0.999875	Aphroditidae	Sea mouse unident.
74	4	0.001	100.0	0.000014	0.999889	*Periphylla* sp.	
75	4	0.001	100.0	0.000013	0.999902	*Pteraster militaris*	
76	4	0.001	100.0	0.000012	0.999925	Holothuroidea (class)	Sea cucumber unident.
77	4	0.001	100.0	0.000012	0.999925	*Liparis* sp.	
78	4	0.001	100.0	0.000011	0.999937	*Benthalbella dentata*	Northern pearleye
79	4	0.001	100.0	0.000009	0.999946	*Florometra serratissima*	Featherstar crinoid
80	4	0.001	100.0	0.000009	0.999955	*Nemichthys scolopaceus*	Slender snipe eel
81	4	<0.001	100.0	0.000009	0.999963	Pennatulacea (order)	Sea pen or sea whip
82	4	<0.001	100.0	0.000007	0.999970	*Careproctus* sp.	
83	4	<0.001	100.0	0.000007	0.999984	*Bathypathes* sp.	
84	4	<0.001	100.0	0.000007	0.999984	*Periphylla periphylla*	
85	4	<0.001	100.0	0.000007	0.999991	*Lycodapus fierasfer*	Blackmouth eelpout
86	4	<0.001	100.0	0.000005	0.999995	*Henricia leviuscula*	
87	4	<0.001	100.0	0.000002	0.999998	*Tarletonbeania* sp.	
88	4	<0.001	100.0	0.000002	1.000000	*Munida quadrispina*	
Total		58.433					
1	5	24.725	23.6	0.411222	0.411222	*Sebastolobus altivelis*	Longspine thornyhead
2	5	6.141	11.9	0.102132	0.513353	*Anoplopoma fimbria*	Sablefish
3	5	5.052	35.3	0.084025	0.597379	*Coryphaenoides acrolepis*	Pacific grenadier
4	5	4.490	27.5	0.074679	0.672058	*Albatrossia pectoralis*	Giant grenadier
5	5	4.087	49.6	0.067981	0.740039	*Sebastolobus alascanus*	Shortspine thornyhead
6	5	4.082	51.5	0.067884	0.807923	*Chionoecetes tanneri*	True Tanner crab
7	5	2.505	45.7	0.041669	0.849592	*Embassichthys bathybius*	Deepsea sole

Table B-6.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	*Scientific Name*	Common Name
8	5	1.738	30.5	0.028906	0.878498	*Paractinostola faeculenta*	Rough purple sea anemone
9	5	1.425	100.0	0.023706	0.902204	*Squalus acanthias*	Spiny dogfish
10	5	1.049	69.2	0.017451	0.919654	*Bathyraja trachura*	Black skate
11	5	0.839	48.5	0.013958	0.933612	*Alepocephalus tenebrosus*	California slickhead
12	5	0.665	39.4	0.011058	0.944670	*Bothrocara brunneum*	Twoline eelpout
13	5	0.620	32.0	0.010308	0.954978	*Antimora microlepis*	Pacific flatnose
14	5	0.354	97.4	0.005881	0.960859	*Nearchaster aciculosus*	
15	5	0.329	81.5	0.005479	0.966338	*Octopus leioderma*	Smoothskin octopus
16	5	0.173	100.0	0.002879	0.969217	*Opisthoteuthis californiana*	Flapjack devilfish
17	5	0.151	100.0	0.002519	0.971735	Hexactinellida (class)	Glass sponge
18	5	0.136	100.0	0.002263	0.973998	Myxinidae	Hagfish
19	5	0.130	92.9	0.002162	0.976160	*Actinauge verrillii*	Reticulate anemone
20	5	0.126	74.6	0.002096	0.978256	*Eptatretus deani*	Black hagfish
21	5	0.115	58.9	0.001908	0.980164	*Lithodes couesi*	
22	5	0.115	70.5	0.001906	0.982070	*Vampyroteuthis infernalis*	
23	5	0.104	57.1	0.001727	0.983798	*Embryx crotalinus*	Snakehead eelpout
24	5	0.097	92.7	0.001608	0.985405	*Zoraster evermanni*	
25	5	0.079	77.9	0.001317	0.986722	*Crossaster borealis*	
26	5	0.072	13.1	0.001192	0.987915	*Neptunea amianta*	
27	5	0.064	83.4	0.001064	0.988979	*Bathybembix bairdii*	
28	5	0.061	53.3	0.001013	0.989992	*Hippasteria spinosa*	
29	5	0.054	100.0	0.000904	0.990896	*Chionoecetes angulatus*	Triangle tanner crab
30	5	0.044	100.0	0.000729	0.991625	*Nearchaster* sp.	
31	5	0.042	100.0	0.000705	0.992330	*Careproctus melanurus*	Blacktail snailfish
32	5	0.040	70.6	0.000672	0.993002	*Thrissacanthias penicillatus*	
33	5	0.034	53.8	0.000574	0.993576	*Chauliodus macouni*	Pacific viperfish
34	5	0.034	61.1	0.000570	0.994146	Thaliacea (class)	Salps unident.
35	5	0.034	22.1	0.000567	0.994713	*Bathylagus* sp.	Blacksmelt unident.
36	5	0.032	100.0	0.000525	0.995238	*Coryphaenoides cinereus*	Popeye grenadier
37	5	0.029	100.0	0.000484	0.995723	*Apristurus brunneus*	Brown cat shark
38	5	0.019	100.0	0.000319	0.996042	*Histioteuthis hoylei*	
39	5	0.018	100.0	0.000307	0.996349	*Tritonia diomedea*	Rosy tritonia
40	5	0.017	50.1	0.000280	0.996629	*Talismania bifurcata*	Threadfin slickhead
41	5	0.017	80.3	0.000276	0.996905	Actiniaria (order)	Sea anemone unident.
42	5	0.016	100.0	0.000261	0.997165	*Colus trophius*	
43	5	0.014	60.7	0.000227	0.997393	*Buccinum viridum*	Turban whelk
44	5	0.013	81.7	0.000216	0.997608	*Pannychia moseleyi*	
45	5	0.012	100.0	0.000192	0.997800	*Myoxoderma sacculatum*	
46	5	0.011	50.7	0.000182	0.997982	Myctophidae	Lanternfish
47	5	0.010	56.1	0.000171	0.998152	*Heterozonias alternatus*	
48	5	0.010	54.8	0.000163	0.998315	*Neomenia* sp.	
49	5	0.009	50.5	0.000158	0.998472	*Taningia danae*	Rhomboid squid
50	5	0.008	100.0	0.000126	0.998599	*Lampanyctus* sp.	
51	5	0.007	100.0	0.000124	0.998723	*Stylatula* sp.	Slender seawhips
52	5	0.007	100.0	0.000123	0.998846	*Chrysaora melanaster*	
53	5	0.007	54.2	0.000108	0.998954	*Pasiphaea tarda*	Crimson pasiphaeid
54	5	0.006	92.5	0.000108	0.999062	*Asteronyx loveni*	
55	5	0.006	100.0	0.000094	0.999156	Rajiidae	Skate unident.
56	5	0.006	100.0	0.000091	0.999248	*Florometra serratissima*	Featherstar crinoid
57	5	0.005	100.0	0.000076	0.999323	*Liponema brevicorne*	Tentacle-shedding anemone
58	5	0.005	100.0	0.000075	0.999399	*Poraniopsis inflata*	
59	5	0.004	100.0	0.000074	0.999473	*Hylonema* sp.	Fiberoptic sponge
60	5	0.004	100.0	0.000062	0.999535	Actinostolidae	
61	5	0.004	100.0	0.000060	0.999595	*Ampheraster marianus*	
62	5	0.004	100.0	0.000059	0.999654	*Scotoplanes theeli*	
63	5	0.003	100.0	0.000057	0.999710	Gastropoda (class)	Snail eggs unident.
64	5	0.003	100.0	0.000046	0.999756	*Melamphaes lugubris*	Highsnout bigscale
65	5	0.002	100.0	0.000038	0.999794	*Actinostola* sp.	
66	5	0.002	100.0	0.000036	0.999830	Nudibranchia (order)	Gastropod unident.

Table B-6.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	Scientific Name	Common Name
68	5	0.002	100.0	0.000030	0.999889	*Tactostoma macropus*	Longfin dragonfish
67	5	0.002	100.0	0.000030	0.999889	*Pteraster coscinopeplus*	Deepwater pteraster
69	5	0.002	71.3	0.000026	0.999915	*Aphrodita* sp.	
70	5	0.001	100.0	0.000019	0.999935	*Chorilia longipes*	Longhorned decorator crab
71	5	0.001	100.0	0.000016	0.999951	*Lophaster furcilliger*	
73	5	0.001	100.0	0.000011	0.999973	*Periphylla* sp.	
72	5	0.001	100.0	0.000011	0.999973	*Pagurus* sp.	
75	5	<0.001	100.0	0.000008	0.999989	*Lycodapus fierasfer*	Blackmouth eelpout
74	5	<0.001	100.0	0.000008	0.999989	*Umbellula* sp.	
76	5	<0.001	100.0	0.000005	0.999995	Crinoidea (class)	Crinoid unident.
77	5	<0.001	100.0	0.000005	1.000000	*Nemichthys scolopaceus*	Slender snipe eel
	Total	60.126					
1	6	29.827	18.8	0.302256	0.302256	*Sebastolobus altivelis*	Longspine thornyhead
2	6	20.241	11.8	0.205100	0.507356	*Albatrossia pectoralis*	Giant grenadier
3	6	13.808	42.5	0.139941	0.647296	*Coryphaenoides acrolepis*	Pacific grenadier
4	6	7.122	90.0	0.072202	0.719498	*Bothrocara brunneum*	Twoline eelpout
5	6	4.592	16.2	0.046523	0.766021	*Anoplopoma fimbria*	Sablefish
6	6	3.332	51.4	0.033757	0.799778	*Bathyraja trachura*	Black skate
7	6	3.117	19.9	0.031582	0.831360	*Paractinostola faeculenta*	Rough purple sea anemone
8	6	2.799	100.0	0.028380	0.859740	*Brisaster latifrons*	
9	6	2.786	20.1	0.028224	0.887964	*Sebastolobus alascanus*	Shortspine thornyhead
10	6	2.040	94.7	0.020682	0.908646	*Heterozonias alternatus*	
11	6	1.490	98.1	0.015092	0.923738	*Hylonema* sp.	Fiberoptic sponge
12	6	1.457	100.0	0.014771	0.938510	*Coryphaenoides cinereus*	Popeye grenadier
13	6	0.812	42.4	0.008234	0.946743	*Antimora microlepis*	Pacific flatnose
14	6	0.783	95.2	0.007941	0.954684	*Crossaster borealis*	
15	6	0.759	100.0	0.007693	0.962377	*Molpadia intermedia*	
16	6	0.746	42.6	0.007556	0.969933	*Embassichthys bathybius*	Deepsea sole
17	6	0.605	93.0	0.006138	0.976071	*Thrissacanthias penicillatus*	
18	6	0.458	52.3	0.004642	0.980713	*Chionoecetes tanneri*	True Tanner crab
19	6	0.234	56.4	0.002370	0.983082	*Alepocephalus tenebrosus*	California slickhead
20	6	0.214	38.3	0.002166	0.985249	*Zoraster evermanni*	
21	6	0.202	69.1	0.002050	0.987298	*Embryx crotalinus*	Snakehead eelpout
22	6	0.157	98.8	0.001595	0.988894	*Actinauge verrillii*	Reticulate anemone
23	6	0.123	79.1	0.001251	0.990145	*Nearchaster aciculosus*	
24	6	0.093	67.7	0.000939	0.991084	*Bathylagus* sp.	Blacksmelt unident.
25	6	0.089	100.0	0.000906	0.991990	*Apristurus brunneus*	Brown cat shark
26	6	0.073	100.0	0.000738	0.992727	*Myoxoderma sacculatum*	
27	6	0.070	100.0	0.000713	0.993440	*Moroteuthis robusta*	Robust clubhook squid
28	6	0.060	50.9	0.000608	0.994048	*Eptatretus deani*	Black hagfish
29	6	0.055	53.0	0.000553	0.994601	*Octopus leioderma*	Smoothskin octopus
30	6	0.053	60.8	0.000533	0.995134	*Neptunea amianta*	
31	6	0.038	16.9	0.000390	0.995524	*Chauliodus macouni*	Pacific viperfish
32	6	0.037	73.0	0.000380	0.995904	*Hippasteria spinosa*	
33	6	0.033	100.0	0.000339	0.996242	*Squalus acanthias*	Spiny dogfish
34	6	0.031	100.0	0.000313	0.996555	*Lithodes couesi*	
35	6	0.029	47.8	0.000296	0.996852	*Lampanyctus* sp.	
36	6	0.028	56.3	0.000279	0.997130	*Bathybembix bairdii*	
37	6	0.022	100.0	0.000219	0.997349	Ascidiacea (class)	Tunicate unident.
38	6	0.020	100.0	0.000204	0.997553	Actiniaria (order)	
39	6	0.020	96.4	0.000201	0.997754	*Asteronyx loveni*	
40	6	0.019	100.0	0.000195	0.997948	*Hippasteria californica*	
41	6	0.018	100.0	0.000181	0.998130	Ophiuroidea (class)	Brittlestarfish unident.
42	6	0.018	50.8	0.000180	0.998310	*Virgularia* sp.	Smoothstem seawhip
43	6	0.015	100.0	0.000148	0.998458	*Vampyroteuthis infernalis*	
44	6	0.013	100.0	0.000133	0.998590	*Pteraster* sp.	
45	6	0.013	100.0	0.000131	0.998722	*Bathyraja trachura*	
46	6	0.011	100.0	0.000116	0.998838	*Taningia danae*	Rhomboid squid

Table B-6.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	*Scientific Name*	Common Name
47	6	0.011	100.0	0.000112	0.998950	*Icelinus filamentosus*	Threadfin sculpin
48	6	0.009	100.0	0.000087	0.999038	*Chiroteuthis* sp.	
49	6	0.008	100.0	0.000083	0.999120	*Bathypathes sp.*	
50	6	0.007	53.4	0.000075	0.999195	Myctophidae	Lanternfish
51	6	0.006	100.0	0.000065	0.999260	*Talismania bifurcata*	Threadfin slickhead
52	6	0.006	100.0	0.000058	0.999318	*Tritonia* sp.	
53	6	0.006	100.0	0.000058	0.999376	*Actinostola* sp.	
54	6	0.005	100.0	0.000051	0.999428	Hormathiidae	
55	6	0.005	100.0	0.000047	0.999475	Crinoidea (class)	Crinoid unident.
57	6	0.004	100.0	0.000042	0.999560	*Paraliparus rosaceus*	
56	6	0.004	100.0	0.000042	0.999560	*Buccinum viridum*	Turban whelk
58	6	0.004	100.0	0.000040	0.999600	Rajiidae	Skate unident.
59	6	0.004	100.0	0.000038	0.999638	Aphroditidae	Sea mouse unident.
60	6	0.004	100.0	0.000036	0.999674	*Scotoplanes theeli*	
61	6	0.004	100.0	0.000036	0.999710	Bivalvia (class)	Bivalve unident.
62	6	0.003	66.2	0.000033	0.999742	Actiniaria (order)	Sea anemone unident.
64	6	0.003	100.0	0.000031	0.999805	*Lycodapus fierasfer*	Blackmouth eelpout
63	6	0.003	100.0	0.000031	0.999805	*Neptunea pribiloffensis*	Pribilof whelk
65	6	0.003	100.0	0.000031	0.999836	*Histioteuthis hoylei*	
66	6	0.003	100.0	0.000031	0.999867	*Stylatula* sp.	Slender seawhips
67	6	0.002	100.0	0.000023	0.999889	*Chrysaora melanaster*	
68	6	0.002	100.0	0.000022	0.999912	Cephalopoda (class)	Squid unident.
69	6	0.002	100.0	0.000021	0.999933	*Bathyraja* sp.	
70	6	0.002	57.6	0.000019	0.999952	*Buccinum* sp.	
71	6	0.002	64.4	0.000018	0.999971	*Tactostoma macropus*	Longfin dragonfish
72	6	0.001	100.0	0.000015	0.999985	*Avocettina infans*	Blackline snipe eel
73	6	0.001	100.0	0.000011	0.999997	*Paralomis multispina*	
74	6	<0.001	100.0	0.000002	0.999998	*Umbellula* sp.	
75	6	<0.001	100.0	0.000002	1.000000	*Delectopecten vancouverensis*	Vancouver scallop
	Total	98.717					
1	Total	39.570	78.4	0.263254	0.263254	*Squalus acanthias*	Spiny dogfish
2	Total	17.001	85.3	0.113102	0.376357	*Merluccius productus*	Pacific hake
3	Total	16.176	19.4	0.107627	0.483984	*Sebastolobus altivelis*	Longspine thornyhead
4	Total	11.560	48.3	0.076909	0.560892	*Anoplopoma fimbria*	Sablefish
5	Total	8.079	34.7	0.053748	0.614640	*Microstomus pacificus*	Dover sole
6	Total	5.805	64.6	0.038622	0.653262	*Sebastes alutus*	Pacific ocean perch
7	Total	5.737	27.7	0.038175	0.691437	*Albatrossia pectoralis*	Giant grenadier
8	Total	4.037	15.3	0.026857	0.718293	*Sebastolobus alascanus*	Shortspine thornyhead
9	Total	3.943	22.9	0.026235	0.744528	*Chionoecetes tanneri*	True Tanner crab
10	Total	3.297	42.6	0.021944	0.766473	*Coryphaenoides acrolepis*	Pacific grenadier
11	Total	3.024	51.5	0.020116	0.786588	*Atheresthes stomias*	Arrowtooth flounder
12	Total	2.710	46.9	0.018027	0.804615	*Raja rhina*	Longnose skate
13	Total	2.385	91.6	0.015868	0.820483	*Hydrolagus colliei*	Spotted ratfish
14	Total	2.385	52.9	0.015866	0.836350	*Lyopsetta exilis*	Slender sole
15	Total	1.935	61.7	0.012871	0.849221	*Allocentrotus fragilis*	Orange-pink sea urchin
16	Total	1.762	58.3	0.011727	0.860947	*Bothrocara brunneum*	Twoline eelpout
17	Total	1.654	23.3	0.011002	0.871949	*Paractinostola faeculenta*	Rough purple sea anemone
18	Total	1.480	68.8	0.009844	0.881793	*Glyptocephalus zachirus*	Rex sole
19	Total	1.467	72.6	0.009761	0.891553	*Brisaster latifrons*	
20	Total	1.326	92.8	0.008824	0.900377	*Sebastes crameri*	Darkblotched rockfish
21	Total	1.135	97.5	0.007551	0.907928	*Luidia foliolata*	
22	Total	1.034	27.8	0.006882	0.914810	*Embassichthys bathybius*	Deepsea sole
23	Total	0.974	39.6	0.006477	0.921287	*Bathyraja trachura*	Black skate
24	Total	0.734	76.1	0.004884	0.926171	*Parophrys vetulus*	English sole
25	Total	0.659	58.5	0.004381	0.930552	*Hippoglossus stenolepis*	Pacific halibut
26	Total	0.654	32.8	0.004351	0.934902	*Apristurus brunneus*	Brown cat shark
27	Total	0.598	55.0	0.003978	0.938880	*Heterozonias alternatus*	
28	Total	0.469	20.4	0.003121	0.942001	*Antimora microlepis*	Pacific flatnose

Table B-6.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	*Scientific Name*	Common Name
29	Total	0.448	60.7	0.002981	0.944982	*Eopsetta jordani*	Petrale sole
30	Total	0.430	93.4	0.002858	0.947840	*Sebastes entomelas*	Widow rockfish
31	Total	0.409	78.3	0.002719	0.950559	*Trachurus symmetricus*	Jack mackerel
32	Total	0.356	91.9	0.002368	0.952927	*Sebastes elongatus*	Greenstriped rockfish
33	Total	0.356	41.7	0.002366	0.955293	*Alepocephalus tenebrosus*	California slickhead
34	Total	0.336	42.7	0.002238	0.957532	*Bathyraja interrupta*	Bering skate
35	Total	0.328	54.9	0.002181	0.959713	*Lycodes cortezianus*	Bigfin eelpout
36	Total	0.318	63.5	0.002117	0.961830	*Sebastes diploproa*	Splitnose rockfish
37	Total	0.308	42.7	0.002051	0.963881	*Crossaster borealis*	
38	Total	0.266	59.1	0.001771	0.965653	*Sebastes borealis*	Shortraker rockfish
39	Total	0.266	80.7	0.001767	0.967419	*Pseudostichopus mollis*	Sandy sea cucumber
40	Total	0.242	94.9	0.001610	0.969029	*Coryphaenoides cinereus*	Popeye grenadier
41	Total	0.241	40.5	0.001607	0.970636	*Thrissacanthias penicillatus*	
42	Total	0.236	98.3	0.001570	0.972205	*Hylonema* sp.	Fiberoptic sponge
43	Total	0.225	72.0	0.001496	0.973701	*Sebastes aleutianus*	Rougheye rockfish
44	Total	0.183	56.1	0.001217	0.974918	*Lycodes diapterus*	Black eelpout
45	Total	0.176	100.0	0.001169	0.976087	*Ophiodon elongatus*	Lingcod
46	Total	0.165	54.9	0.001097	0.977183	*Actinauge verrillii*	Reticulate anemone
47	Total	0.154	42.7	0.001022	0.978206	*Opisthoteuthis californiana*	Flapjack devilfish
48	Total	0.141	39.5	0.000937	0.979143	*Bathybembix bairdii*	
49	Total	0.133	99.0	0.000888	0.980031	*Ophiura sarsi*	
50	Total	0.133	44.3	0.000882	0.980913	*Nearchaster aciculosus*	
51	Total	0.128	94.0	0.000851	0.981764	*Sebastes babcocki*	Redbanded rockfish
52	Total	0.127	35.6	0.000846	0.982610	*Zoraster evermanni*	
53	Total	0.123	97.2	0.000820	0.983430	*Molpadia intermedia*	
54	Total	0.114	67.1	0.000758	0.984188	*Rathbunaster californicus*	
55	Total	0.109	53.7	0.000727	0.984915	*Talismania bifurcata*	Threadfin slickhead
56	Total	0.107	87.6	0.000714	0.985630	*Parastichopus leucothele*	
57	Total	0.107	69.1	0.000714	0.986344	*Gadus macrocephalus*	Pacific cod
58	Total	0.104	88.8	0.000695	0.987039	*Aphrocallistes vastus*	Clay pipe sponge
59	Total	0.101	60.9	0.000672	0.987711	*Pannychia moseleyi*	
60	Total	0.097	100.0	0.000646	0.988357	*Cancer magister*	Dungeness crab
61	Total	0.097	41.7	0.000646	0.989002	Myxinidae	Hagfish
62	Total	0.092	36.2	0.000609	0.989611	*Neptunea amianta*	
63	Total	0.090	33.7	0.000600	0.990211	*Embryx crotalinus*	Snakehead eelpout
64	Total	0.075	46.1	0.000500	0.990711	*Liponema brevicorne*	Tentacle-shedding anemone
65	Total	0.074	64.0	0.000492	0.991202	*Hippasteria spinosa*	
66	Total	0.073	59.9	0.000484	0.991687	*Hippasteria californica*	
67	Total	0.070	72.4	0.000463	0.992149	Hexactinellida (class)	Glass sponge
68	Total	0.068	44.3	0.000450	0.992599	*Neptunea pribiloffensis*	Pribilof whelk
69	Total	0.061	73.9	0.000407	0.993007	*Octopus leioderma*	Smoothskin octopus
70	Total	0.061	25.5	0.000407	0.993414	*Careproctus melanurus*	Blacktail snailfish
71	Total	0.057	46.2	0.000381	0.993794	*Lithodes couesi*	
72	Total	0.056	46.5	0.000371	0.994165	*Eptatretus deani*	Black hagfish
73	Total	0.055	100.0	0.000368	0.994534	*Sebastes proriger*	Redstripe rockfish
74	Total	0.048	100.0	0.000321	0.994854	*Sebastes brevispinis*	Silvergray rockfish
75	Total	0.043	62.4	0.000284	0.995138	*Sebastes zacentrus*	Sharpchin rockfish
76	Total	0.042	65.3	0.000283	0.995421	*Sebastes helvomaculatus*	Rosethorn rockfish
77	Total	0.040	81.0	0.000269	0.995690	*Octopus dofleini*	Giant octopus
78	Total	0.039	35.0	0.000262	0.995952	Thaliacea (class)	Salps unident.
79	Total	0.033	33.9	0.000221	0.996174	*Bathylagus* sp.	Blacksmelt unident.
80	Total	0.032	47.4	0.000216	0.996389	*Vampyroteuthis infernalis*	
81	Total	0.032	100.0	0.000213	0.996603	*Sebastes aurora*	Aurora rockfish
82	Total	0.025	77.4	0.000169	0.996772	*Fusitriton oregonensis*	Oregon triton
83	Total	0.024	73.5	0.000161	0.996932	*Amphiophiura ponderosa*	
84	Total	0.024	95.6	0.000159	0.997092	*Pandalus platyceros*	Spot shrimp
85	Total	0.021	100.0	0.000140	0.997232	*Theragra chalcogramma*	Walleye pollock
86	Total	0.021	100.0	0.000138	0.997370	*Berryteuthis magister*	Magistrate armhook squid
87	Total	0.020	39.8	0.000131	0.997501	*Tritonia diomedea*	Rosy tritonia

Table B-6.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	*Scientific Name*	Common Name
88	Total	0.017	29.6	0.000111	0.997612	*Chauliodus macouni*	Pacific viperfish
89	Total	0.017	70.8	0.000110	0.997722	*Diplopteraster multipes*	
90	Total	0.016	69.5	0.000108	0.997830	*Nearchaster* sp.	
91	Total	0.016	100.0	0.000104	0.997933	*Alosa sapidissima*	American shad
92	Total	0.015	44.0	0.000097	0.998031	*Taningia danae*	Rhomboid squid
93	Total	0.014	87.4	0.000091	0.998121	*Icelinus filamentosus*	Threadfin sculpin
94	Total	0.013	86.7	0.000089	0.998210	*Myoxoderma sacculatum*	
95	Total	0.013	49.1	0.000087	0.998297	*Stylatula* sp.	Slender seawhips
96	Total	0.012	50.1	0.000083	0.998380	*Ampheraster marianus*	
97	Total	0.012	58.3	0.000078	0.998458	*Pteraster coscinopeplus*	Deepwater pteraster
98	Total	0.011	100.0	0.000074	0.998532	*Moroteuthis robusta*	Robust clubhook squid
99	Total	0.011	32.9	0.000073	0.998605	*Lampanyctus* sp.	
100	Total	0.011	91.5	0.000072	0.998677	*Tritonia* sp.	
101	Total	0.010	48.7	0.000068	0.998745	Actiniaria (order)	Sea anemone unident.
102	Total	0.009	95.9	0.000058	0.998803	Cephalopoda (class)	Squid unident.
103	Total	0.009	100.0	0.000058	0.998861	*Eptatretus stouti*	Pacific hagfish
104	Total	0.009	96.7	0.000057	0.998919	*Pandalus jordani*	Ocean shrimp
105	Total	0.009	100.0	0.000057	0.998976	*Chionoecetes angulatus*	Triangle tanner crab
106	Total	0.008	40.7	0.000051	0.999027	*Neomenia* sp.	
107	Total	0.007	100.0	0.000048	0.999075	Porifera (phylum)	Sponge unident.
108	Total	0.007	100.0	0.000045	0.999119	*Lopholithodes foraminatus*	Box crab
109	Total	0.006	54.1	0.000043	0.999162	Actiniaria (order)	Red striated sea anemone
110	Total	0.006	100.0	0.000038	0.999200	Scyphozoa (class)	Jellyfish unident.
111	Total	0.005	43.8	0.000037	0.999237	*Buccinum viridum*	Turban whelk
112	Total	0.005	59.1	0.000035	0.999272	*Asteronyx loveni*	
113	Total	0.005	33.6	0.000032	0.999304	*Actinostola* sp.	
114	Total	0.005	100.0	0.000032	0.999337	Osteichthyes (class)	Fish unident.
115	Total	0.005	100.0	0.000032	0.999369	*Pagurus aleuticus*	Aleutian hermit
116	Total	0.005	47.8	0.000031	0.999399	*Chiroteuthis* sp.	
117	Total	0.004	34.7	0.000028	0.999427	Myctophidae	Lanternfish
118	Total	0.004	78.3	0.000026	0.999453	*Histioteuthis hoylei*	
119	Total	0.004	72.8	0.000024	0.999477	*Bathyagonus pentacanthus*	Bigeye poacher
120	Total	0.003	100.0	0.000023	0.999499	Ascidiacea (class)	Tunicate unident.
121	Total	0.003	47.1	0.000023	0.999522	*Tactostoma macropus*	Longfin dragonfish
122	Total	0.003	59.3	0.000022	0.999544	*Stylasterias forreri*	
123	Total	0.003	31.3	0.000022	0.999566	*Pasiphaea tarda*	Crimson pasiphaeid
124	Total	0.003	82.8	0.000020	0.999587	*Colus trophius*	
125	Total	0.003	63.7	0.000019	0.999605	*Pseudarchaster parelii*	
126	Total	0.003	100.0	0.000019	0.999624	Ophiuroidea (class)	Brittlestarfish unident.
127	Total	0.003	69.1	0.000019	0.999643	*Virgularia* sp.	Smoothstem seawhip
128	Total	0.002	58.7	0.000016	0.999659	*Bathypathes* sp.	
129	Total	0.002	64.0	0.000015	0.999674	Actinostolidae	
130	Total	0.002	100.0	0.000015	0.999689	*Lycodes pacificus*	Blackbelly eelpout
131	Total	0.002	100.0	0.000014	0.999702	*Pteraster* sp.	
132	Total	0.002	100.0	0.000014	0.999716	*Bathyraja trachura*	
133	Total	0.002	76.6	0.000013	0.999729	Gastropoda (class)	Snail eggs unident.
134	Total	0.002	69.1	0.000013	0.999743	*Pagurus* sp.	
135	Total	0.002	70.8	0.000012	0.999755	*Poraniopsis inflata*	
136	Total	0.002	100.0	0.000012	0.999767	*Psolus* sp.	
137	Total	0.002	61.8	0.000012	0.999779	*Pasiphaea pacifica*	Pacific glass shrimp
138	Total	0.002	49.3	0.000012	0.999791	Aphroditidae	Sea mouse unident.
139	Total	0.002	75.8	0.000011	0.999802	*Lophaster furcilliger*	
140	Total	0.002	65.1	0.000011	0.999813	Rajiidae	Skate egg case unident.
141	Total	0.002	100.0	0.000011	0.999823	*Ctenodiscus crispatus*	Common mud star
142	Total	0.002	78.9	0.000010	0.999833	*Chrysaora melanaster*	
143	Total	0.002	100.0	0.000010	0.999843	*Pagurus tanneri*	Longhand hermit
144	Total	0.001	40.2	0.000010	0.999853	*Umbellula* sp.	
145	Total	0.001	100.0	0.000010	0.999863	*Paguristes turgidus*	
146	Total	0.001	68.7	0.000007	0.999870	*Scotoplanes theeli*	

Table B-6.--Continued.

Rank	Str.	Mean CPUE (kg/ha)	CV%	Prop.	Cumm. Prop.	*Scientific Name*	Common Name
147	Total	0.001	100.0	0.000007	0.999877	*Antipathes sp.*	
148	Total	0.001	69.1	0.000007	0.999884	Bivalvia (class)	Bivalve unident.
149	Total	0.001	88.6	0.000007	0.999890	*Florometra serratissima*	Featherstar crinoid
150	Total	0.001	68.9	0.000006	0.999896	*Melanocetus johnsonii*	Common blackdevil
151	Total	0.001	81.7	0.000006	0.999902	Crinoidea (class)	Crinoid unident.
152	Total	0.001	84.1	0.000006	0.999908	Holothuroidea (class)	Sea cucumber unident.
153	Total	0.001	100.0	0.000005	0.999913	Hormathiidae	
154	Total	0.001	100.0	0.000005	0.999919	*Crossaster papposus*	Rose sea star
155	Total	0.001	100.0	0.000005	0.999924	*Lampanyctus jordani*	Brokenline lampfish
156	Total	0.001	87.3	0.000005	0.999928	*Pteraster tesselatus*	
157	Total	0.001	100.0	0.000004	0.999933	*Pandalus tridens*	Yellowleg pandalid
158	Total	0.001	100.0	0.000004	0.999937	*Paraliparus rosaceus*	
159	Total	0.001	76.0	0.000004	0.999942	*Lycodapus fierasfer*	Blackmouth eelpout
160	Total	0.001	78.0	0.000004	0.999946	*Henricia leviuscula*	
161	Total	0.001	64.8	0.000004	0.999950	*Aphrodita* sp.	
162	Total	0.001	100.0	0.000004	0.999953	*Lycodapus* sp.	
163	Total	<0.001	100.0	0.000003	0.999957	*Ronquilus jordani*	Northern ronquil
164	Total	<0.001	100.0	0.000003	0.999960	*Careproctus colletti*	Alaska snailfish
165	Total	<0.001	60.6	0.000003	0.999963	*Bathyagonus nigripinnis*	Blackfin poacher
166	Total	<0.001	64.6	0.000003	0.999966	*Chorilia longipes*	Longhorned decorator crab
167	Total	<0.001	100.0	0.000003	0.999969	*Melamphaes lugubris*	Highsnout bigscale
168	Total	<0.001	76.0	0.000003	0.999971	*Eualus* sp.	
169	Total	<0.001	52.5	0.000003	0.999974	*Periphylla* sp.	
170	Total	<0.001	100.0	0.000002	0.999976	Nudibranchia (order)	Gastropod unident.
171	Total	<0.001	100.0	0.000002	0.999979	*Ceramaster patagonicus*	Orange bat star
172	Total	<0.001	100.0	0.000002	0.999981	*Bathyraja* sp.	
173	Total	<0.001	72.8	0.000002	0.999983	*Buccinum* sp.	
174	Total	<0.001	100.0	0.000002	0.999984	*Notostomus japonicus*	Spinyridge shrimp
175	Total	<0.001	100.0	0.000002	0.999986	*Avocettina infans*	Blackline snipe eel
176	Total	<0.001	100.0	0.000001	0.999987	*Plicifusus sp.*	
177	Total	<0.001	100.0	0.000001	0.999989	*Avocettina* sp.	
178	Total	<0.001	100.0	0.000001	0.999990	*Paralomis multispina*	
179	Total	<0.001	100.0	0.000001	0.999991	*Pteraster militaris*	
180	Total	<0.001	73.6	0.000001	0.999992	*Nemichthys scolopaceus*	Slender snipe eel
181	Total	<0.001	100.0	0.000001	0.999993	*Liparis* sp.	
182	Total	<0.001	100.0	0.000001	0.999994	*Benthalbella dentata*	Northern pearleye
183	Total	<0.001	100.0	0.000001	0.999995	*Radulinus asprellus*	Slim sculpin
184	Total	<0.001	100.0	0.000001	0.999996	*Crangon communis*	Twospine crangon
185	Total	<0.001	100.0	0.000001	0.999996	Pennatulacea (order)	Sea pen or sea whip
186	Total	<0.001	100.0	0.000001	0.999997	*Eualus macrophthalmus*	
187	Total	<0.001	100.0	0.000001	0.999998	*Careproctus* sp.	
188	Total	<0.001	100.0	0.000001	0.999998	*Periphylla periphylla*	
189	Total	<0.001	100.0	0.000000	0.999999	Elasmobranchi (subclass)	Shark egg case unident.
190	Total	<0.001	100.0	0.000000	0.999999	*Henricia* sp.	
191	Total	<0.001	100.0	0.000000	0.999999	*Callianassa* sp.	
192	Total	<0.001	100.0	0.000000	1.000000	*Tarletonbeania* sp.	
193	Total	<0.001	100.0	0.000000	1.000000	*Munida quadrispina*	
194	Total	<0.001	100.0	0.000000	1.000000	*Delectopecten vancouverensis*	Vancouver scallop
195	Total	<0.001	100.0	0.000000	1.000000	Asteroidea (class)	Starfish unident.
	Total	150.312					

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